EMCO Remote Installer
Professional 5

Copyright © 2001-2019 EMCO. All rights reserved.
Table of Contents

Chapter 1: Introduction ............................................................................................................. 4

Chapter 2: Getting Started ....................................................................................................... 6
  Performing the Required Pre-Start Checks .............................................................................. 6
  Getting to Know the Program Interface ................................................................................ 6
  Scanning the Network and Auditing the Installed Software .................................................. 6
  Overview of the Advanced Software Auditing Features ....................................................... 6
  Deploying Software Using the Quick Install Operation ...................................................... 6
  Overview of the Advanced Software Deployment Features ............................................. 6
  Uninstalling Software ........................................................................................................... 6

Chapter 3: Program Interface Overview .................................................................................. 29
  Welcome Screen ..................................................................................................................... 29
  Software Inventory View ....................................................................................................... 29
  Inventory Snapshots View .................................................................................................... 29
  Software Bundles View ......................................................................................................... 29
  Tasks and Schedule View ..................................................................................................... 29
  Network View ....................................................................................................................... 29
  Credentials View ................................................................................................................ 29
  Execution Results View ....................................................................................................... 29
  Application Log View .......................................................................................................... 29
  All Machines View .............................................................................................................. 29
  Operation Management View ............................................................................................. 29
  Graphical User Interface features ....................................................................................... 29

Chapter 4: Deployment .............................................................................................................. 93
  Remote Deployment Particularities ....................................................................................... 93
  Software Bundles ................................................................................................................. 93
  Deployment Packages ......................................................................................................... 93
  Deploying Software ............................................................................................................ 93
  Running Smart Uninstall and Repair .................................................................................. 93
  Deployment Operation Configuration ................................................................................... 93
  Service Management ......................................................................................................... 93

Chapter 5: Inventory ................................................................................................................ 164
  Scanning for Software ......................................................................................................... 164
  Software Inventory ............................................................................................................... 164
  Inventory Snapshots ........................................................................................................... 164
  Exporting Programs and Updates ...................................................................................... 164
  Snapshot Properties .......................................................................................................... 164

Chapter 6: Tasks and Schedule ............................................................................................... 177
  Creating Tasks ..................................................................................................................... 177
  Scheduling Tasks ................................................................................................................. 177
  Configuring Recurrence ...................................................................................................... 177
  Task Execution Confirmations ............................................................................................. 177
  Importing and Exporting Tasks ........................................................................................... 177
  Notification E-mails ............................................................................................................ 177

Chapter 7: Network Management ........................................................................................... 191
  Configuring Machines to allow remote access ..................................................................... 191
  Network Enumeration ....................................................................................................... 191
  Collections .......................................................................................................................... 191
  Credentials ........................................................................................................................ 191
  Defining Machines to Operate ............................................................................................ 191
  Remote Machine Statuses ................................................................................................. 191
  Network Objects Properties ............................................................................................... 191
  Importing and Exporting Network .................................................................................... 191

Chapter 8: Operations’ Execution Results ............................................................................... 239
  Analyzing Execution Results ............................................................................................... 239
  Exporting Execution Results ............................................................................................... 239
  Analyzing Application Log .................................................................................................. 239
  Exporting Application Log ................................................................................................. 239
  Detailed Log ........................................................................................................................ 239

Chapter 9: Program Preferences ............................................................................................... 252
  Installer Part ........................................................................................................................ 252
  Tasks and Schedule Part .................................................................................................... 252
  Miscellaneous Part ............................................................................................................. 252
Chapter 10: Evaluation of the Program ................................................................. 292
  Evaluation Wizard ............................................................................................. 292
  Where can I get my License Code? ..................................................................... 292
  How should I formulate the Extended License request? ................................. 292

Chapter 11: Program Updates ............................................................................. 298
  Live Update ....................................................................................................... 298
  Major Update ..................................................................................................... 298

Chapter 12: Main Application Actions ............................................................... 301
  Home Ribbon Page .......................................................................................... 301
  Deployment Ribbon Page ................................................................................ 301
  Software Ribbon Page ...................................................................................... 301
  View Ribbon Page ........................................................................................... 301
  Program Ribbon Page ....................................................................................... 301
  Network Tools Category .................................................................................. 301
  Inventory Tools Category ................................................................................ 301
  Software Bundles Tools Category .................................................................. 301
  Tasks and Schedule Tools Category ............................................................... 301
  Execution Results Tools Category .................................................................. 301

Chapter 13: Requirements .................................................................................. 319

Chapter 14: How can I leave my Feedback? ...................................................... 321

Chapter 15: About EMCO Software .................................................................. 323

Chapter 16: Contact Information ....................................................................... 325
Chapter 1: Introduction

Welcome to EMCO Remote Installer Professional. This product allows you to distribute Windows software across a computer network quickly and easily. Using EMCO Remote Installer Professional, you can audit software installed on remote Windows computers and deploy software remotely. You can install, uninstall and repair Windows software simultaneously on multiple computers across a network with just a few clicks.

EMCO Remote Installer Professional simplifies software deployment tasks by offering advanced features that enable you to deploy software to dynamic groups of computers, perform conditional deployment (for example, deploy software only if it isn't installed), configure the program to run deployment operations on schedule and use other features that may be helpful in advanced cases. All these features are explained in this manual, where you can find detailed information on how to use them and when they should be used.
Configuring Your Network to Satisfy the Requirements

EMCO Remote Installer Professional is an administrative program, so it should be used by network administrators who have administrative permissions on remote computers. The program uses the standard Windows networking services to operate remotely; therefore, you need to make sure that the corresponding services are started on remote PCs, the network ports aren't blocked by an antivirus/firewall, etc. You can find information on the technical requirements in the Requirements section of the document. In the Configuring Machines to allow remote access chapter, you can find instructions on how to configure your network and check that the applied settings are correct.

At the first start of the program, the program configuration wizard prompts you to use the administrative credentials. The entered credentials are stored securely and used to perform deployment operations that require administrative permissions on remote PCs. If you skip that step, the program cannot collect software inventory information and perform deployments remotely, so make sure to take the required actions.

Troubleshooting Problems and Getting Help

If a remote software audit or deployment operation doesn't function properly, you have to check the Execution Results view. Expand the execution entry in this view to see the statuses reported for every remote PC involved. In case of a problem, you can see an error message including the problem cause and troubleshooting instructions. In most cases, remote operations fail if the network isn't configured properly and the program requirements aren't satisfied. Follow the requirements from the previous chapter to configure your network. Make sure the program uses correct administrative credentials, which should be specified in the Credentials view.

In case of a problem with a specific installation, make sure you configured it correctly to run silently. Test the specified silent deployment options by running the installation manually to make sure it works without interacting with a user from start to end. If the installation requires a user to select deployment options interactively, it will hang if you deploy it remotely through a program. Find the correct silent deployment options for the installation in the Internet or contact the software vendor to get them.

To get help with any problems with EMCO Remote Installer Professional, you can contact the support team. Provide the support team with all the available information regarding the problem to speed up the problem reproduction and troubleshooting.
Chapter 2: Getting Started

EMCO Remote Installer Professional is a software deployment tool that can be used to distribute Windows software remotely to computers connected to a LAN/WAN. Using EMCO Remote Installer Professional, you can avoid managing software installations manually on every PC. Instead, you can install, uninstall and repair the required software remotely in the automatic mode. All deployment operations can be executed simultaneously on multiple remote computers, so distributing new software across a network takes just a few moments.

Using EMCO Remote Installer Professional, you can benefit from the following features that are demonstrated in the course of this tutorial.

- **Software inventory.** To plan software deployments, you need to know what software is installed in the network and what versions of the software are installed on remote PCs. The program automatically audits all software installed in your network, so you can see the software installed on every computer and the software inventory summary for the entire network. This simplifies uninstalling of unwanted software and updating of outdated software.

- **Flexible deployment targets.** You can manually select PCs where software should be deployed, but the program also supports advanced deployment scenarios. You can define conditions to select deployment targets dynamically, for example, to deploy software on all PCs where the previous version of the same software is installed, or deploy software to a specific organizational unit from Active Directory.

- **Multi-step deployments.** The program allows you to deploy multiple software in a single deployment operation. You can also perform custom pre- and post-install steps on remote PCs.
• **Reusable deployment packages.** If you need to repeat the same deployment operation multiple times, you can save the deployment configuration and use it to run on different remote PCs in the future.

• **Scheduled deployments.** You can schedule deployments for automatic execution on a defined date and time. If required, you can configure the program to repeat deployments on a regular basis.

In the following chapters, you will familiarize yourself with the user interface of the program and learn how to configure your network to satisfy the program requirements and how to configure deployment operations for them to run remotely. You will learn how to use various software audit and software deployment features of the program in practice.

The main features of the program are also demonstrated on the Video Tour page of the website. Every video there is focused on a specific feature of the program, so you can use the videos as a demonstration of the features described in this tutorial.

**What's Inside**

- Performing the Required Pre-Start Checks
- Getting to Know the Program Interface
- Scanning the Network and Auditing the Installed Software
- Overview of the Advanced Software Auditing Features
- Deploying Software Using the Quick Install Operation
- Overview of the Advanced Software Deployment Features
- Uninstalling Software
Performing the Required Pre-Start Checks

Before you start using the program and following the steps described in this tutorial you need to check a few points explained below. It’s really important to check and understand these points to be able to use EMCO Remote Installer Professional successfully, so don’t skip reading this chapter.

1. Check the edition of Remote Installer you use
EMCO Remote Installer Professional is available in two editions: Free (freeware edition) and Professional (commercial edition). The available functionality depends on the edition you install and the applied license if you use the Professional edition. The functionality differences between the Free and Professional editions are explained on the feature list page. Check the differences and install the edition that suits your needs best.

The Free edition offers only the basic deployment features and can be used in small networks. You can manage up to 5 remote PCs at a time and deploy up to 5 packages during one step. The Professional edition includes all features described in this tutorial. If you use a free trial version of the Professional edition, you can manage up to 25 remote PCs. If you use a licensed version, the number of remote PCs managed depends on the purchased license.

2. Check if your network environment is configured to meet the requirements
To deploy software remotely, you need to use a Windows account that has administrative rights on remote PCs. Also, the standard Windows networking services should be started on remote PCs and the corresponding network ports should be opened. It’s recommended to check the list of technical requirements for the local and remote PCs to ensure that your network environment is properly configured. If your network environment doesn't satisfy the requirements, remote operations will fail. In such cases, you need to check the Execution Results and the Application Log views for details and follow the provided instructions to configure your network environment properly.

3. Make sure a deployed package works silently
Remote Installer allows you to automatically deploy software packages on multiple remote PCs across a network. To make this possible, you need to have installation packages that can be deployed silently, i.e. without interaction with a user. Such packages should not require a user to enter any data or select installation options, so they need to be preconfigured after the installation scenario.

All MSI packages support silent deployment, but if you have an installation in the EXE format, you need to contact its vendor to find out how to install it silently. Different installations require different approaches to activate the silent installation mode: in some cases you need to specify the silent installation command-line switches, in other cases you need to record and specify an installation scenario. If an EXE installation doesn't support the silent installation mode, you can convert it into a silent MSI package using EMCO MSI Package Builder.

If you need to install, uninstall or repair an installation in the EXE format, you should test its silent deployment locally before deploying it using Remote Installer. Just run the installation manually in the silent mode and if the deployment is completed successfully, specify the same deployment options in Remote Installer.
Getting to Know the Program Interface

EMCO Remote Installer Professional can be used to automate software management across a local network. This task includes different types of operations, for example, selecting target PCs for deployment, reviewing installed software, scheduling remote operations, etc. For all of these operations Remote Installer provides specific views where you can examine and manage data. The default layout of the main screen is organized into four areas (Pic 1), and you can rearrange the views according to your taste if you prefer to do so.

Pic 1. The main program window
Remote Installer has a Ribbon UI where all main actions are represented in the **Ribbon** menu located at the top of the program's window. Using the actions available on the default Ribbon tab, you can perform the main actions provided by the program such as deploying software, scanning the installed software, scheduling remote operations, etc. You can access all available operations by switching to other Ribbon tabs.

Under the Ribbon menu, on the left side of the main screen, you can find the network management area. Using the **Network** view located in this area, you can select network PCs, for example, to deploy software or to review the installed programs and updates. The **Credentials** view also located in this area is used to configure administrative credentials required to access remote PCs.

On the right side of the network management area, you can see the main area, which includes a few tabs. The **Welcome** tab displays the main actions of the program. The **Software Inventory** and **Inventory Snapshots** views available on the corresponding tabs are used to audit the installed software on remote PCs. The **Software Bundles** view is used to manage the software packages to be deployed remotely. Finally, the **Tasks and Schedule** view can be used to manage software deployment and audit tasks, and to schedule their execution.

At the bottom of the program window, you can find other group views organized by tabs. The **Execution Results** view is used to display the results of all the executed remote operations, and you can use it to find out the execution status for every target PC. The **Application Log** view displays program errors and statuses of the network operations. The **All Machines** view is used to display detailed information about remote PCs, including their OS and platform info. Finally, the **Operation Management** view shows the currently executed operations and allows to cancel them.

Every program view is designed to display specific information and to help you perform a particular set of tasks. In the following chapters, you can see how the different views are used to complete the day-to-day software deployment and audit tasks. You can find more detailed information on all the program views in the **Program Interface Overview** chapter.
Scanning the Network and Auditing the Installed Software

To plan software deployments, you need to audit the installed software. Therefore, as the first step of this tutorial, we will scan the local network to detect available PCs and to collect software inventory information.

To start the network enumeration, you can press **Enumerate Machines** on the **Welcome** tab or click the **Enumerate Machines** button on the Ribbon. As a result, the **Enumerate Machine** wizard is displayed and you should press the **Next** button to choose the network enumeration type. To add PCs to the program, you can either enter an IP range or scan entire domains or workgroups. Depending on the approach chosen, you should enter an IP range or select the domains and workgroups to be scanned. Once you have specified the enumeration conditions, you can press the **Finish** button, after which the program will start scanning your network.

![Network enumeration options](image)

**Pic 1. Network enumeration options**
During the network enumeration, you can see that the detected remote PCs are displayed on the **Network** view. If your Windows account doesn't have permissions to extract network information from specific domains or workgroups, you will see requests for administrative credentials for the enumerated domains/workgroups, so you have to enter the credentials to scan a workgroup or a domain. When the network enumeration is finished, you can check the enumeration status on the **Application Log** view to ensure that all the domains and workgroups have been enumerated successfully. In case of enumeration errors, you can find the error details and suggestions in the **Application Log**. You should follow the recommendations provided and repeat enumeration once the problems are resolved.

**Reviewing Scan Results and Auditing the Installed Software**

When the network enumeration is completed, you can see the detected remote PCs displayed in the **Network** view. Your local PC is displayed at the top of this view, so you can quickly find it. All the enumerated network PCs, including your local PC, are available under the **Network** node. All the PCs are grouped by workgroups and domains, the domain PCs are also grouped to reflect the domain structure, so you can see organizational units in the network tree. Note that the program detects all computers available during the network enumeration, including Linux and MAC computers, but Remote Installer can only manage Windows desktops and servers, so such computers may be displayed in the tree with specific icons. If you hover a mouse pointer over a PC, you can see the **PC's status** in the text form, which is meant to help you to get familiar with different status icons.

![Pic 2. Network enumeration results](image-url)
During the network enumeration, Remote Installer automatically collects information about software installed on remote PCs, so you can easily audit software to plan your deployments. To review the software installed on a specific PC, you need to select it in the **Network** tree and open the **Software Inventory** tab (Pic 3). The displayed information is similar to the information provided by the Windows Programs and Features dialog, but Remote Installer allows you to receive centralized software inventory data for all remote PCs.

![Software Inventory](image)

Pic 3. Software inventory information for a remote PC

By default, the data is grouped by software publisher and application name, but you can use the buttons located on the **Software Inventory** view's toolbar to apply a different grouping. On the toolbar, you can find the buttons allowing you to switch between the displays showing the installed software and updates. Software inventory information is displayed in the smart grid, so you can use the data grouping, sorting, filtering and searching features to organize the data according to your needs and to find the required software entries.
Overview of the Advanced Software Auditing Features

You can use Remote Installer for centralized software auditing tasks to find specific software installations within a network, to audit software changes, to automate the software inventory. Below, you can find a quick overview of the software auditing features provided by the program.

Auditing Software Across Entire Network

In the previous chapter, you learned how to audit the installed software on a specific PC, but what if you need to find, for example, all copies of Adobe Reader installed within your network? To review software installed on more than one PC, you can select the required PCs in the Network view. For example, you can use the multi-select feature to pick a few PCs, or you can select an organizational unit node in the tree if you would like to inspect it. To audit software in a workgroup/domain, you should select the corresponding node in the tree, and to audit the entire network, you should select the root Network node. In our case, we need to audit the entire network, so select the Network node in the tree and you can see the full list of installed applications in the Software Inventory view [Pic 1].

Pic 1. Finding Adobe Reader installations
You need to expand the Adobe Systems Incorporated group to see the installations of different Adobe tools, including different versions of Adobe Reader. You can see the list of PCs where it is installed under every software item node.

If you would like to learn more about software auditing, you can read the Scanning for Software chapter, which explains how to use different network scanning methods, and the Software Inventory chapter, which explains how to audit the collected inventory data.

### Using Software Inventory Info for Reporting and Deployment

Collecting the software audit information is just the first step in the software management. If you like, you can export the software audit info to a CSV file and then open it in Excel to build a report, or you can use it to specify the deployment targets in Remote Installer, for example, to uninstall certain software from all PCs, or upgrade software to a new version, or deploy software on PCs where it is missing. Some of these cases will be demonstrated later in the course of the Getting Started tutorial.

You can learn more about the software data exporting feature in the Exporting Programs and Updates chapter.

### Tracking Software Changes

The software audit information collected by Remote Installer can be out-of-date after a few days if you or remote users install or uninstall software on/from remote PCs. To update software inventory information, you just need to scan the installed software. Select the PCs in the Network tree and choose software scanning options on the Ribbon or in the context menu. As a result, Remote Installer will extract new software inventory information from the selected remote PCs. To track the changes made, you can open the Inventory Snapshots view. It displays the scans history for the selected PCs, and you can choose two scans to compare and see the changes.

![Image of comparing software scans](image)

Pic 2. Comparing software scans to see the differences
You can learn more about inventory snapshots and how to use them for tracking software changes in the **Inventory Snapshots** chapter.

**Automated Software Audit**

If required, you can automate the updating of software inventory information by creating and scheduling a software scanning task. For this, open the **Tasks and Schedule** view and create a new recurrent software scanning task. When configuring the task, you can specify the target PCs to be scanned and configure the task recurrence options, for example, to execute the task automatically every work day at a defined time. As a result, Remote Installer will automatically update the software inventory information and you won't need to update it manually.

Creating and managing tasks is explained in the **Tasks and Schedule** chapter, so read it if you would like to learn more about this topic.
Deploying Software Using the Quick Install Operation

To deploy software remotely, you need to have an installation that supports silent deployment.

As explained in the Performing the Required Pre-Start Checks chapter, for EXE installations you need to find the command-line installation options or a scenario file to activate silent deployment and test the silent installation locally before deploying it via Remote Installer. MSI and MSP installation packages support silent deployment by default, so there are no specific requirements for these installation formats.

The simplest way to deploy software remotely is by using the Quick Install action. First, you need to select the target PCs where the software should be deployed. Select one or multiple PC nodes in the Network view. If your Network view is empty, you have to enumerate the network first as described in the Scanning the Network and Auditing the Installed Software chapter. In the Network view, you can select organization units, workgroup/domains or root Network nodes if you need to deploy software on all the PCs that belong to those groups.

Having selected the target, you need to press Deploy Software > Quick Install on the Ribbon or select the Quick Install option in the context menu. Then, you need to select the installation you want to deploy on the dialog that appears. If you have selected an MSI package, you can see the selected package summary on the dialog that appears, and you need to press the OK button to start the deployment. If you have selected an EXE package, you need to specify the silent deployment options. In the corresponding dialog fields, you can enter silent command-line parameters to be passed to the installation or an answer file that includes the installation process configuration. Contact the installation vendor to find out the silent options that you need to specify. Once the EXE package is configured, press the Finish button to start the deployment process.

Pic 1. Software Deployment configuration
Remote Installer performs software deployment concurrently on multiple target PCs that you specified. You can follow the deployment process in the **Operation Management** view. You can cancel the deployment in that view if required. Once the deployment is completed, you can see the results in the **Execution Results** view. The information on the **Execution Results** tab is grouped by remote tasks and workgroups/domains. You can expand the grouping rows to check the execution statuses for every PC. In case of errors, you can find detailed problems reports, and you should follow the provided suggestions to resolve the problems [Pic 2].

<table>
<thead>
<tr>
<th>Execution Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Execution Results screenshot" /></td>
</tr>
</tbody>
</table>

**Pic 2. Software deployment results**

If you would like to learn more about software deployment, you can find information on configuring different types of installations to run silently and troubleshooting installation configuration problems in the **Silent Deployment Particularities** chapter. Also, this chapter provides instructions on how to deploy software from network shares to save the network bandwidth.
Overview of the Advanced Software Deployment Features

The Quick Install operation demonstrated in previous chapter is just the simplest way to deploy software, but in many cases you need to use more advanced deployment features. In this chapter, you can find a brief overview of the available features. A more detailed description of every feature can be found in the corresponding chapter of this manual.

Grouping PCs Using Collections

When deploying software, you need to define the target PCs where the software will be deployed. When deploying software using the Quick Install operation, it’s possible to just select particular PCs on the Network view. In practice though you will face more complicated cases, for example, when it is needed to repeat different deployments in the same group of PCs multiple times, or when you need to upgrade software on all the PCs where the previous software version is installed. In such cases, it’s very difficult or practically impossible to select target PCs manually, so Remote Installer introduced the concept of collections, which allows you to group and select target PCs easily.

EMCO Remote Installer displays collections in the Network view under the corresponding node, so you can create collections to suit your needs and then use them in remote operations to target the required PCs. Every collection can include static machines, machine queries and filters.

For instance, if you need to repeat deployment operations multiple times on the same PCs, and it's hard to select the same PCs over and over again, you can create a collection and add the required PCs to the collection as static Machines Pic 1.

Pic 1. Creating a collection with a static Machines
Sometimes the set of PCs isn't fixed and can change over time. For example, if you manage a particular organizational unit (OU) in a domain and need to deploy software to all PCs in the OU, adding the required PCs to the collection statically makes little sense, because the set of PCs in the OU may change over time. In that case, you can add a machine query to a collection that returns the actual set of PCs based on the defined condition [Pic 2].

![Pic 2. Creating a collection with a Machine Query](image-url)
Finally, you can filter the PCs defined by the static Machines list and the Machine Queries using the required criteria defined in a Filter. For example, you can select only the PCs that have a particular OS and/or software installed [Pic 3].

Pic 3. Configuring a collection with a Filter
Getting Started

Just to summarize the above, a collection defines a group of target PCs that can be configured using the following objects:

- A set of static Machines that you can select in the UI.
- A set of Machine Queries (available in the Professional edition only). A query is a logical condition that allows selecting the required PCs in a workgroup/domain based on the PC names and names of organizational units where such PCs are located.
- A Filter (available in the Professional edition only) that is used to filter out the PCs reported by Machine Queries and static Machine definitions. In the Filter, you can use logical conditions that operate with the OS and software inventory information of remote PCs.

As you can see, you can combine configurations of static Machines, Machine Queries and Filters to create configurations of any complexity. If you define complex conditions to configure Machine Queries and Filters and then use the collection to target the required PCs in a deployment operation, Remote Installer executes Machine Queries and Filters first to get the up-to-date set of target PCs satisfying the defined conditions and then performs a remote operation on those PCs.

More detailed information on this topic is available in the Collections chapter. Read it to learn how to preview collection results, use collection snapshots and familiarize yourself with other advanced features.

Creating Reusable Software Bundles

When deploying software remotely, you need to configure its deployment options. For example, for an EXE installation, you need to specify silent deployment parameters or an answer file, as well as optional pre- and post-install actions. Different installations have different options, so if you need to repeat the same installations multiple times on different groups of PCs, it is convenient to configure all deployment options only once and then simply to reuse them.

EMCO Remote Installer Professional allows you to create software bundles to save the deployment configuration, reuse it and exchange it with your colleagues using the export and import features.

A bundle includes install, uninstall and repair packages that provide configurations of corresponding actions for specific software. For example, if you need to manage Adobe Reader, you can create a bundle for it and provide the configuration of install, uninstall and repair operations in its install, uninstall and repair packages. Later, when you, for instance, need to install Adobe Reader, you can merely select the bundle, and its install configuration will be used in the remote install operation automatically. Thus, you can just execute the operation without configuring the installation options.

To create a bundle, you don't need to configure all its install, uninstall and repair packages. For example, if you only plan to install software, you can configure just the install package. Other packages can be configured later, if required. Configuring a package in a bundle is identical to configuring the corresponding operation. For instance, if you need to create an install package that configures the deployment of an EXE installation, you should specify a path to the EXE installation file, its silent deployment options and optional pre- and post-install actions. In another case, if you need to create an uninstall package for an MSI, you should only specify its product GUID because this is the only parameter required to uninstall an MSI.
Pic 4. Configuring a software bundle
Bundles can describe complex software configurations. For example, you can configure a bundle to deploy different installation packages on x86 and x64 platforms. Also, if you need to deploy multiple software packages, you can create a bundle group that includes multiple bundles.

You can learn more about bundles in the Software Bundles chapter. It explains how to create and use bundles and provides information on exporting and importing bundles and bundle groups. The Deployment Packages chapter contains more information on configuring the deployment operations. You can read it to learn how to configure pre- and post-install actions, deploy different packages on different platforms, and use MSI transforms and other advanced features.

**Using the Advanced Deployment Operation**

When performing the Quick Install operation, you are limited to using only the basic deployment features and you can deploy only single software to a selected set of static PCs. If you need to use the advanced deployment features, you should perform the Deploy Software action, which is available on the Ribbon and in the context menu of different views.

After initiating the Deploy Software operation, you are prompted to specify the deployed software and the target PCs. The main difference from the Quick Install operation is that the Deploy Software configuration allows you to use software bundles as deployed software and collections as target PCs, so you have practically endless deployment options based on all the features provided by bundles and collections. It's important that the Deploy Software operation configuration consists of two simple steps only, so you can configure and execute the operation quickly and easily (Pic 5).

![Pic 5. Configuring of the Deploy Software operation]
In general, Deploy Software is meant to be used as the main software deployment operation. You can use Deploy Software to install, uninstall and repair software on remote PCs. Using this operation, you can deploy multiple software packages at once and deploy different installations on the Windows x86 and x64 platforms. You can re-use software bundles configured by your colleagues and deploy software on dynamic groups of PCs, for example, on PCs that run a particular Windows version and/or on PCs with specific software installed.

You can learn more about different deployment operations in the Deploying Software chapter. It explains the differences among the available operations and shows how to configure them.

**Scheduling Remote Operations and Re-Executing Failed Tasks**

If you need to repeat the same remote operation multiple times, you can create a task that can be executed either manually or automatically on schedule. For example, if you need to automate the software audit, you can create a recurrent software scanning task that will be automatically executed by Remote Installer on daily basis. If required, you can create tasks for any remote operations such as software scanning, software installation, uninstallation and repairing. Note that tasks can be created only in the Professional edition of Remote Installer.

Remote tasks are managed in the Tasks and Schedule view where you can see the list of existing tasks and create new and recurrent ones. The task configuration is similar to the configuration of a remote operation, so, for example, to create a software scan task, you need to configure a set of target PCs, and to configure a deployment task, you need to configure the deployed software package and the target PCs. Once a task is created, you can execute it with no additional configuration steps and then check its execution results.
If you need to automate a task execution, you can create a scheduled task or a recurrent task. To create a scheduled task in addition to the standard task settings, you should specify the task execution date and time. To create a recurrent task, you need to configure its execution time and recurrence options, for example, to execute a task daily, or monthly, or on the selected days of the week, etc. The scheduled and recurrent tasks are displayed in the schedule area, so you can see when the tasks will be executed.

Another important aspect of using tasks is that tasks can be executed again on the target PCs where the task execution previously failed. For example, if you execute a software deployment task and some of the target PCs are turned off, the task will fail on such PCs. You can easily repeat the task execution on the failed PCs by selecting the corresponding option in the task's context menu, so, eventually, the software will be deployed on all target PCs after a few iterations.

You can learn more about tasks in the **Taks and Schedule** chapter, which contains information on creating different types of tasks, scheduling them for automatic execution, configuring recurrence options, etc.
Uninstalling Software

Having completed a software scan, you can review the software installed on the selected PCs in the **Software Inventory** view. The **Software Inventory** view provides almost the same information that you can see in the Windows Programs and Features, so the same way you can uninstall software from the Windows Programs and Features, you can uninstall it remotely using Remote Installer.

If the software you need to uninstall was installed as an MSI package or an EXE package that supports silent uninstall by default, you can easily uninstall it by selecting the software entry in the **Software Inventory** view and performing the **Quick Uninstall** action, which is available on the **Deployment** tab of the Ribbon or in the context menu. If the selected software was installed as an EXE package that doesn't automatically provide silent uninstall options, use the **Smart Uninstall and Repair** action and specify silent command-line parameters or an answer file that should be passed to the uninstaller on remote PCs so as to uninstall the software in the silent mode [Pic 1].

![Pic 1. Configuring the EXE uninstallation options](image-url)
The target PCs where uninstallation should be performed are determined by your selection. For example, if you review software installed on a particular PC in the **Software Inventory** view, the selected item will be uninstalled from the selected PC only. If you review software installed across a network and select specific software, you can see all the PCs where this software is installed under the software node, and if you choose to uninstall it, the software will be uninstalled from all of the displayed PCs. Also, if needed, you can select multiple software items to uninstall in the scope of a single operation.

If you need to repeat the same uninstall operation multiple times on different PCs, you can create a bundle with preconfigured uninstall options. Later, you can specify the target PCs where the bundle should be executed. To perform uninstall operations of any complexity using software bundles and collections of target PCs, you can use the **Deploy Software** action, which is available on the Ribbon. This action can include multi-step deployment configurations, allowing to install a new version of software after the old one has been uninstalled.

You can learn more about software uninstallation in the **Running Smart Uninstall and Repair** chapter. In this chapter, you can learn how to configure uninstall and repair operations, how to execute them and how to create corresponding tasks if you wish to run the operations on a schedule.
Chapter 3: Program Interface Overview

The Remote Installer main window [Pic 1] can be divided into the following parts: the Welcome Screen view A, the Software Inventory view B, the Inventory Snapshots view C, the Software Bundles view D, the Tasks and Schedule view E, the Network view F, the Credentials view G, the Execution Results view H, the Application Log view I, the All Machines view J, the Operation Management view K and the Ribbon bar L.

Pic 1. The main program window

On the first start up, all the areas are empty, then the Software Inventory view displays the software inventory pertaining to the selection, the Inventory Snapshots view displays either all inventory snapshots or those pertaining to the selection, the Software Bundles view displays the repository of Bundles and Bundle Groups used for deployment, the Tasks and Schedule view displays the task for performing deployment and software scan in the future, the Network view is filled with information about your network structure and the Collections to be used for building Machine Queues, the Alternate Credentials view is designed to provide the credentials to be used to connect to remote Machines, the Execution Results view shows remote Machines operation results, and the Application Log window shows supplementary operations results and events.

What's Inside
Welcome Screen
Software Inventory View
Inventory Snapshots View
Software Bundles View
Tasks and Schedule View
Network View
Credentials View
Execution Results View
Application Log View
All Machines View
Operation Management View
Graphical User Interface features
Welcome Screen

The **Welcome Screen** is located right in the middle of the application main window and is intended to help you start working with Remote Installer [Pic 1].

In the middle of the **Welcome Screen**, there are shortcut buttons that enable you to execute most commonly used actions. The buttons sequence is set in such a way as to help you understand the sequence of the steps to be performed to solve the tasks Remote Installer is designed for.

In the top right corner of the **Welcome Screen**, you can find the information area used to show you the tips that may be useful for you while using Remote Installer. If you find the displayed tip interesting, you may click it to get more information on the subject.

Finally, if you want to know more about EMCO Software, you can visit our web-site by clicking the company logo in the bottom left corner of the **Welcome Screen**.
Software Inventory View

Remote Installer is designed to make it as easy as possible for you to get software inventory for remote Machines. The **Software Inventory** view always displays the most relevant list of programs and updates installed on remote Machines [Pic 1].

**Software Inventory**

The **Software Inventory** button from the **Inventory** Ribbon group on the **Software** page should be used to review the software inventory information for the selected Machines.

This view displays inventory pertaining to the selected Machines – this mode is activated using the **Link with Selection** button. In this mode, the view is updated automatically every time the scope of selected Machines is changed and when scans are completed or snapshots are deleted for the selected Machines, so you do not need to refresh the view to see the most recent information pertaining to the selected Machines.

The type of each item available in the software inventory view is represented with one of the following icons:

- a program that can be both repaired and uninstalled with Remote Installer;
- a program that can be either repaired or uninstalled with Remote Installer;
- a program that can be neither repaired nor uninstalled with Remote Installer;
- an update that can be uninstalled with Remote Installer;
- an update that cannot be uninstalled with Remote Installer.

To increase the program response time when changing the selection within the Network and the All Machines views in environments with a significant number of Machines, the Link with Selection mode can be disabled. In case you have disabled this mode for your purposes, you can review the inventory for a set of Machines by selecting them in the Network or All Machines view and choosing the Inventory > Software Inventory item from the pop-up menu or the Software Inventory button from the Inventory Ribbon group on the Software page.

Toolbar Overview

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs</td>
<td>The Programs button should be used to switch to the list of installed programs.</td>
</tr>
<tr>
<td>Updates</td>
<td>The Updates button should be used to switch to the list of installed updates.</td>
</tr>
<tr>
<td>Link with Selection</td>
<td>The Link with Selection button turns on and off the option of linking the Software Inventory view to the selection within the Network and All Machines views. When linkage is enabled, the view content is automatically refreshed to display the most relevant inventory for the selected Machines.</td>
</tr>
<tr>
<td>Smart Uninstall</td>
<td>With the help of the Smart Uninstall button, you can perform immediate uninstall of the selected products from the selected remote Machines, execute a smart deployment task to uninstall the products having provided additional uninstall options, create a scheduled smart deployment task to uninstall those products or add those products to an already existing smart deployment task for uninstall.</td>
</tr>
<tr>
<td>Smart Repair</td>
<td>With the help of the Smart Repair button, you can perform immediate repair of the selected products on the selected remote Machines using the repair options defined in the program preferences, execute a smart deployment task to repair those products having provided additional repair options, create a scheduled smart deployment task to repair those products or add those products to an already existing smart deployment task for repair.</td>
</tr>
<tr>
<td>Export</td>
<td>The Export button should be used to export the programs or updates inventory to a CSV file.</td>
</tr>
<tr>
<td>Group by Machine</td>
<td>The Group by Machine button should be used to group the view with programs or updates by Machine, whereas updates will also be grouped by the program each update is meant for. This grouping is one of the predefined ones, and you can always roll back to it using this button.</td>
</tr>
<tr>
<td>Group by Publisher and Name</td>
<td>The Group by Publisher and Name button should be used to group the view with programs or updates by programs/update publisher and name, whereas updates will also be grouped by the program each update is meant for. This grouping is one of the predefined ones, and you can always roll back to it using this button.</td>
</tr>
<tr>
<td>Button</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Custom Grouping</td>
<td>The <strong>Custom Grouping</strong> button should be used to reset the predefined grouping, after which you can group programs and updates any way you want.</td>
</tr>
<tr>
<td>Highlight Manageability</td>
<td>The <strong>Highlight Manageability</strong> button should be used to enable or disable the view mode when the programs and updates that cannot be repaired and/or uninstalled are highlighted.</td>
</tr>
<tr>
<td>Full Expand</td>
<td>The <strong>Full Expand</strong> button should be used to expand all the grouping rows in the table.</td>
</tr>
<tr>
<td>Full Collapse</td>
<td>The <strong>Full Collapse</strong> button should be used to collapse all the grouping rows in the table.</td>
</tr>
<tr>
<td>Group By Box</td>
<td>The <strong>Group By Box</strong> button should be used to configure the data grouping for the table.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The <strong>Choose Columns</strong> button should be used to choose the columns to be displayed in the table.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The <strong>Filter Editor</strong> button should be used to define the custom filter criteria to be applied to the data displayed within the table.</td>
</tr>
<tr>
<td>Configuration</td>
<td>The <strong>Configuration</strong> button provides access to the option of resetting the view layout.</td>
</tr>
</tbody>
</table>

The **Software Inventory** view is by default grouped by publisher and program name. This grouping belongs to the predefined ones. You can choose between either this grouping type, or grouping by Machine or custom grouping. Also, you can configure a set of properties displayed for each program and update using the **Column Chooser** item. It is possible to roll back to the default view state using the **Reset Layout** menu item from the **Configuration** menu.

You can switch to the **Inventory Snapshots** view to see the entire snapshot for the scan during which the specific program or update was retrieved by clicking the hyperlink in the **Snapshot** column. The hyperlink within the **Machine** column allows you to switch to the inventory of a single Machine.

Another useful feature available from of the **Software Inventory** view is the ability to uninstall and repair products installed on remote Machines. The products that can be managed by Remote Installer are marked with the pinion decorator in the bottom right corner of the program icon. You can immediately uninstall or repair those products using the **Smart Uninstall > Quick Uninstall** and **Smart Repair > Quick Repair** menu items, execute or create new smart deployment tasks pertaining to those products or add them to an already existing smart deployment task using the **Uninstall/Repair, New Scheduled Task** and **Add to Task** menu items.

The data displayed in the **Software Inventory** view can be easily exported to a CSV file using the **Export** button on the toolbar. The exported file can then be used as an inventory report. It is also possible to copy any number of programs or updates, with or without the column headers, to the clipboard and then paste them to any editor. These features are available from the toolbar and in the pop-up menu of the programs and updates table.
As you can see, with Remote Installer it is quite easy to review and export software inventory: just specify the set of remote Machines to view inventory for and Remote Installer will do the rest for you.
Inventory Snapshots View

The purpose of the **Inventory Snapshots** view is to display the snapshots for all scans ever performed and the list of programs and updates for each scan allowing you to compare snapshots. It can be used in two view modes, those are **Specific Snapshots** and **All Snapshots**. In the **Specific Snapshots** mode the view displays only the snapshots for specific Machines – for the view to be automatically refreshed pertaining to the selected Machines the **Link with Selection** mode should be enabled.

The view is automatically switched to the **Specific Snapshots** mode any time you are requesting the program to display inventory snapshots for the selected Machines or for the Machines from any Collection; and when the entire snapshot review is requested it is automatically switched to the **All Snapshots** mode.

The **Inventory Snapshots** view can also be used for the snapshots comparison. Using the comparison feature, you can review which products were installed, uninstalled and updated between specific scans.

To review the snapshots and the lists of programs and updates, select the Machines that were scanned in the **Network** or the **All Machines** view and switch to the **Specific Snapshots** view mode. If the **Link with Selection** mode is enabled, the snapshots list will be automatically refreshed, otherwise you should also choose the **Inventory > Inventory Snapshots** item from the pop-up menu or press the **Inventory Snapshots** button from the **Inventory** Ribbon group on the **Software** page.
Each snapshot along with the programs and updates lists can be easily deleted when it is no longer needed by using the **Delete** button on the toolbar. You are offered to choose if you would like to delete the results only for certain Machines or for all the Machines that were processed during the scan the snapshot stands for. You can also delete all snapshots for a certain scope of Machines by selecting them in the **Network** or the **All Machines** view and choosing the **Inventory > Delete All Snapshots** pop-up menu item.

**Toolbar Overview**

- **Specific Snapshots**
  The **Specific Snapshots** button should be used to switch the **Inventory Snapshots** view to the mode, where the software scan results are displayed only for a specific set of Machines.

- **All Snapshots**
  The **All Snapshots** button is used to switch the **Inventory Snapshots** view to the mode, where the snapshots for all scans ever performed on any Machine are displayed.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link with Selection</td>
<td>The Link with Selection button is available in the Specific Snapshots view mode and turns on and off the option of linking the Inventory Snapshots view to the selection within the Network and the All Machines views. When linkage is enabled, the view content is automatically refreshed to display the most relevant snapshots for the selected Machines.</td>
</tr>
<tr>
<td>Compare with</td>
<td>The Compare with button should be used to compare the selected snapshot with another one from those available.</td>
</tr>
<tr>
<td>Compare with Previous</td>
<td>The Compare with Previous button should be used to compare the selected snapshot with the previous one.</td>
</tr>
<tr>
<td>Export</td>
<td>The Export button allows you to export the programs or updates from the selected snapshot to a CSV file.</td>
</tr>
<tr>
<td>Delete</td>
<td>The Delete button should be used to delete the selected snapshot. It is possible to delete the results for a certain Machines or for all the Machines that were processed during the scan.</td>
</tr>
<tr>
<td>Full Expand</td>
<td>The Full Expand button should be used to expand all the grouping rows in the table.</td>
</tr>
<tr>
<td>Full Collapse</td>
<td>The Full Collapse button should be used to collapse all the grouping rows in the table.</td>
</tr>
<tr>
<td>Group By Box</td>
<td>The Group By Box button should be used to configure the data grouping for the table.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The Choose Columns button should be used to choose the columns to be displayed in the table.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the table.</td>
</tr>
<tr>
<td>Configuration</td>
<td>The Configuration button should be used to change or reset the view layout.</td>
</tr>
</tbody>
</table>

All the described features of the snapshots part can be reached from the toolbar and the pop-up menu at the top of the Inventory Snapshots view.

The layout of the Inventory Snapshots view is really flexible. You can use both horizontal and vertical orientation of the view parts and switch their places. These features are available from the Configuration menu within the Group Layout section. The Rotate item changes the orientation and the Flip button can be used for the view parts to switch places.
Displaying scan results

Choosing a specific snapshot leads to displaying the list of programs or updates retrieved during the scan the snapshot stands for Pic 2.

By default, the list of installed programs is displayed. To review the list of installed updates, press the Updates button on the bottom part toolbar Pic 3. You can then switch back to the list of programs using the Programs button.
The type of each item available in the scan results is represented with one of the following icons:

- a program that can be both repaired and uninstalled with Remote Installer;
- a program that can be either repaired or uninstalled with Remote Installer;
- a program that can be neither repaired nor uninstalled with Remote Installer;
- an update that can be uninstalled with Remote Installer;
- an update that cannot be uninstalled with Remote Installer.

By default, the programs and updates part of the **Inventory Snapshots** view is organized by Machine name, whereas the updates are also grouped by the program each update is meant for. Such grouping is one of the predefined groupings available. You can also regroup this view by publisher and program name or use custom grouping.

By default, the programs and updates tables initially display the same columns as the operating system in the **Programs and Features** section of the **Control Panel**, except for the columns displaying the Machine and Snapshot properties. You can use the **Choose Columns** button from the table toolbar to review the entire list of available columns and choose the ones you would like to see in the table.

You can then always roll back to the default view layout using the **Reset Layout** item from the view configuration menu.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs</td>
<td>The <strong>Programs</strong> button should be used to switch to the list of installed programs.</td>
</tr>
<tr>
<td>Updates</td>
<td>The <strong>Updates</strong> button should be used to switch to the list of installed updates.</td>
</tr>
<tr>
<td>Smart Uninstall</td>
<td>With the help of the <strong>Smart Uninstall</strong> button, you can perform immediate uninstall of the selected products from the selected remote Machines, execute a smart deployment operation to uninstall those products having provided additional uninstall options, create a scheduled smart deployment task to uninstall those products or add those products to an already existing smart deployment task for uninstall.</td>
</tr>
<tr>
<td>Smart Repair</td>
<td>With the help of the <strong>Smart Repair</strong> button, you can perform immediate repair of the selected products on the selected remote Machines using the repair options defined in the program preferences, execute a smart deployment operation to repair those products having provided additional repair options, create scheduled smart deployment task to repair those products or add those products to an already existing smart deployment task for repair.</td>
</tr>
<tr>
<td>Export</td>
<td>The <strong>Export</strong> button should be used to export the list of installed programs or updates to a CSV file.</td>
</tr>
<tr>
<td>Group by Machine</td>
<td>The <strong>Group by Machine</strong> button should be used to group programs or updates by Machine whereas the updates will also be grouped by the program each update is meant for. This grouping belongs to the predefined ones, and you can always roll back to it using this button.</td>
</tr>
</tbody>
</table>
Group by Publisher and Name
The **Group by Publisher and Name** button should be used to group programs or updates by program/update publisher and name; the updates will also be grouped by the program each update is meant for. This grouping belongs to the predefined ones, and you can always roll back to it using this button.

Custom Grouping
The **Custom Grouping** button should be used to reset the predefined grouping so that you can group programs or updates any way you want.

Highlight Manageability
The **Highlight Manageability** button should be used to enable or disable the view mode when the products that cannot be repaired and/or uninstalled are highlighted.

Full Expand
The **Full Expand** button should be used to expand all the grouping rows in the table.

Full Collapse
The **Full Collapse** button should be used to collapse all the grouping rows in the table.

Group By Box
The **Group By Box** button should be used to configure the data grouping for the table.

Choose Columns
The **Choose Columns** button should be used to choose the columns to be displayed in the table.

Filter Editor
The **Filter Editor** button should be used to define the custom filter criteria to be applied to the data displayed within the table.

Configuration
The **Configuration** button provides access to the option of configuring and resetting the view layout.

The **Inventory Snapshots** view allows you to uninstall and repair software from any snapshot. The products that can be managed by Remote Installer are marked with the pinion decorator in the bottom right corner of the program icon. You can immediately uninstall or repair those products using the **Smart Uninstall > Quick Uninstall** and **Smart Repair > Quick Repair** menu items, execute or create new smart uninstall or repair tasks pertaining to those products or add them to an already existing smart task using the **Uninstall/Repair, New Scheduled Task** and **Add to Task** menu items.

You can easily **export the lists of installed programs and updates** using the **Export** button from the bottom part toolbar. It is also possible to copy any number of programs or updates, with or without the column headers, to the clipboard and then paste them to any editor. These features are available in the pop-up menu of the programs and updates table.

As you can see, the snapshots review is quite simple and intuitive: just select the snapshot you would like to review the results for and switch between the programs and updates tables.

Displaying the snapshots comparison
Another important feature of Remote Installer is an ability to compare snapshots. Using this mode, you can see which programs and updates were installed, uninstalled or updated between two different scans. Remote Installer gives you several options for comparing snapshots, namely, a comparison of a selected snapshot with the latest one, a comparison of a selected snapshot with the previous one, and a comparison of a selected snapshot with another one from those available.

To perform a comparison of two snapshots, simply select two snapshots in the top part of the Inventory Snapshots view and choose the Compare with Each Other item from the pop-up menu. To compare a selected snapshot with the latest one, choose the Compare with Latest item from the pop-up menu in the top part of the Inventory Snapshots view. Finally, to compare a selected snapshot with the previous one, choose the Compare with Previous menu item. Using the Compare with menu item and the respective button on the toolbar of the Inventory Snapshots view, you can choose the snapshot to compare the selected one with. In such a case, a dialog is displayed on the screen to let you choose the snapshot to compare with.

The comparison results are displayed in the bottom part of the Inventory Snapshots view for any type of comparison. Like when reviewing the actual scan results, you can choose between the programs and updates view using the Programs and Updates buttons respectively. 

![Snapshots comparison results](image.png)
The type of each item available in the comparison results is represented with one of the following icons:

- a program that was installed between the scans;
- a program that was updated between the scans;
- a program that was uninstalled between the scans;
- a program that was not changed between the scans;
- a program on a Machine that was not processed during one of the scans;
- an update that was installed between the scans;
- an update that was updated between the scans;
- an update that was uninstalled between the scans;
- an update that was not changed between the scans;
- an update on a Machine that was not processed during one of the scans.

When comparing both programs and updates, you can specify if you would like to review all items or only the changed ones and if the changed items should be highlighted within the comparison results table.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs</td>
<td>The <strong>Programs</strong> button should be used to switch to the installed programs comparison results.</td>
</tr>
<tr>
<td>Updates</td>
<td>The <strong>Updates</strong> button should be used to switch to the installed updates comparison results.</td>
</tr>
<tr>
<td>Show Differences Only</td>
<td>The <strong>Show Differences Only</strong> button should be used for configuring the view to display only the programs and updates that were installed, uninstalled or updated between the scans.</td>
</tr>
<tr>
<td>Smart Uninstall</td>
<td>With the help of the <strong>Smart Uninstall</strong> button, you can perform immediate uninstall of the selected products from the selected remote Machines, execute a smart deployment operation to uninstall those products having provided additional uninstall options, create a scheduled smart deployment task to uninstall those products or add those products to an already existing smart deployment task for uninstall.</td>
</tr>
<tr>
<td>Smart Repair</td>
<td>With the help of the <strong>Smart Repair</strong> button, you can perform immediate repair of the selected products on the selected remote Machines using the repair options defined in the program preferences, execute a smart deployment operation to repair those products having provided additional repair options, create scheduled smart deployment task to repair those products or add those products to an already existing smart deployment task for repair.</td>
</tr>
<tr>
<td>Export</td>
<td>The <strong>Export</strong> button should be used to export the comparison results to a CSV file.</td>
</tr>
</tbody>
</table>
Group by Machine
The **Group by Machine** button should be used to group programs or updates comparison by Machine, whereas the updates will also be grouped by the program each update is meant for. This grouping belongs to the predefined ones, and you can always roll back to it using this button.

Group by Publisher and Name
The **Group by Publisher and Name** button should be used to group programs or updates comparison by program/update publisher and name, the updates will also be grouped by a program each update stands for. This grouping belongs to the predefined ones, and you can always roll back to it using this button.

Custom Grouping
The **Custom Grouping** button should be used to reset the predefined grouping so that you can group programs and updates comparison any way you want.

Highlight Differences
The **Highlight Differences** button should be used for configuring the view to highlight the programs and updates that were installed, uninstalled or updated between the scans.

Full Expand
The **Full Expand** button should be used to expand all the grouping rows in the table.

Full Collapse
The **Full Collapse** button should be used to collapse all the grouping rows in the table.

Group By Box
The **Group By Box** button should be used to configure the data grouping for the table.

Choose Columns
The **Choose Columns** button should be used to choose the columns to be displayed in the table.

Filter Editor
The **Filter Editor** button should be used to define the custom filter criteria to be applied to the data displayed within the table.

Configuration
The **Configuration** button provides access to the option of configuring and resetting the view layout.

Like when reviewing the scan results, you can choose the columns to be displayed within the programs and updates comparison tables using the **Choose Columns** button and apply a custom filter to the displayed data using the **Filter Editor** button. The **Highlight Differences** and **Show Differences Only** items, which are available on the toolbar and in the pop-up menu, should be used to configure the comparison results representation described above. You can export the comparison results to a CSV file using the **Export** button or copy certain entries to the clipboard, with or without the column headers, using the corresponding items from the pop-up menu.

With Remote Installer, you can get information on all software scans ever performed, review all Machines scanned on a specific date, find out which Machines were scanned and when, generate inventory reports for specific scan dates, etc. All these options are provided by the **Inventory Snapshots** view and should make your everyday work easier.
Software Bundles View

The **Software Bundles** view [Pic 1] is used to display and manage the set of available **Bundles and Bundle Groups**. Each Bundle represents a single product and describes the actions required to install, uninstall and/or repair that product. The Bundle Groups are used to group different bundles in a single deployment unit.

Pic 1. The Software Bundles view
The icon next to every item represented in the **Software Bundles** view is used to describe the item's type and state. The state icons are provided to help you understand what is happening in the program at a particular moment. Below is a list of the icons used and their meanings:

- a Bundle;
- a Bundle Group;
- a Bundle included into a Bundle Group;
- a Bundle Group included into a Bundle Group;
- a Bundle is being processed and not operable;
- a Bundle Group is being processed and not operable.

The **Software Bundles** view is the starting point for the Bundles and Bundle Groups management. From this view, it is also possible to install, uninstall or repair of software. You can execute a deployment operation for specific Bundles immediately, create a scheduled task for performing an operation in the future or add Bundles to be installed, uninstalled or repaired with an already created Deploy Software task.

**Toolbar Overview**

<p>| <strong>New</strong> | The <strong>New</strong> button from the <strong>Software Bundles</strong> view toolbar should be used to create a new Bundle or a new Bundle Group. |
| <strong>Install</strong> | The <strong>Install</strong> button from the <strong>Software Bundles</strong> view toolbar can be used to install the selected Bundles to remote Machines, schedule a new Deploy Software task for installing the selected Bundles, or add those Bundles to an existing Deploy Software task to be installed. |
| <strong>Uninstall</strong> | The <strong>Uninstall</strong> button from the <strong>Software Bundles</strong> view toolbar can be used to uninstall the selected Bundles from remote Machines, schedule a new Deploy Software task for uninstalling the selected Bundles, or add those Bundles to an existing Deploy Software task to be uninstalled. |
| <strong>Repair</strong> | The <strong>Repair</strong> button from the <strong>Software Bundles</strong> view toolbar can be used to repair the selected Bundles on remote Machines, schedule a new Deploy Software task for repairing the selected Bundles, or add those Bundles to an existing Deploy Software task to be repaired. |
| <strong>Edit</strong> | The <strong>Edit</strong> button from the <strong>Software Bundles</strong> view toolbar should be used to edit the selected Bundle or Bundle Group. |
| <strong>Delete</strong> | The <strong>Delete</strong> button from the <strong>Software Bundles</strong> view toolbar allows you to delete the selected Bundles and Bundle Groups from the software bundles repository. |
| <strong>Full Expand</strong> | The <strong>Full Expand</strong> button should be used to expand all nodes in the <strong>Software Bundles</strong> view. |</p>
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Collapse</td>
<td>The <strong>Full Collapse</strong> button should be used to collapse all nodes in the <strong>Software Bundles</strong> view.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The <strong>Choose Columns</strong> button should be used to choose the columns to be displayed in the <strong>Software Bundles</strong> view.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The <strong>Filter Editor</strong> button should be used to define the custom filter criteria to be applied to the data displayed within the <strong>Software Bundles</strong> view.</td>
</tr>
<tr>
<td>Configuration</td>
<td>By using the <strong>Configuration</strong> button, you can configure and reset the layout of the <strong>Software Bundles</strong> view.</td>
</tr>
</tbody>
</table>

Within the **Software Bundles** view, you can easily review the install, uninstall and repair packages defined in each Bundle. You can find a preview row under each Bundle. When expanded either by double-click or by using the arrow button on the right of the preview row, a summary for the defined deployment packages is displayed. If you are not interested in this information and would like to save some space, you can hide the preview by disabling the **Show Details** option from the **Configuration** menu. As for the Bundle Groups, they can include both Bundles and other Bundle Groups. To review the Bundle Group content, you can simply expand the row representing each Bundle Group.

The actions for software deployment, Bundles management and layout configuration are also available in the pop-up menu of the **Software Bundles** view.

You can customize the **Software Bundles** view by choosing other columns to be displayed and filter data to make it fit your needs best. See the **Grouping and Filtering Data** topic for details. It is always possible to roll back to the default view layout by using the **Reset Layout** item from the view configuration menu.

The **Software Bundles** view fully supports the drag-and-drop technique. Via drag-and-drop, you can move Bundles and Bundle Groups among different Bundle Groups, add Bundles to Bundle Groups, duplicate Bundles and Bundle Groups, etc. You may also use the copy/paste technique to reach the same goals. From this view, it is also possible to export Bundles and Bundle Groups and import them either to a software bundles repository or directly into specific Bundle Groups.
Tasks and Schedule View

The Tasks and Schedule view is located at the very middle of the Remote Installer main screen and consists of five parts: the Scheduling area A, the Tasks area B, the Machine Queue pane C and the Task Details pane D.

Pic 1. The Tasks and Schedule view

In this chapter, you will be introduced to all these parts, which will make it easier for you to understand the concept of the Tasks and Schedule view and to get to know the set of available features better.

What’s Inside

Tasks Area
Scheduling Area
Date Navigator
Machine Queue Pane
Task Details Pane
Tasks Area

The **Tasks area** displays all the tasks created and scheduled within Remote Installer in form of a table. Using this area, you can create new tasks, schedule already created tasks, run the selected tasks, review their execution results and delete them when they are no longer needed.

![Tasks area](Pic 1)

You can drag Collections from the **Network** view and drop them on the **Tasks** area. You are offered to create a new task if Collections are dropped on an empty space. Collections dropped on a task are added to its **Machine Queue**. The same result can be achieved by using the Copy/Paste technique. It is also possible to drag/drop and copy/paste standalone Machines and Queries, whereas the embedded Collections containing those Machines and Queries will be created automatically.

By default, the **Tasks area** shows you the name of every task, the comment specified for it, its scheduling properties, last execution time, and last results, as well as the task type and scheduling state, both represented by icons. You can also make it display the column that shows each task's description by using the **column chooser**. It is possible to sort this view both by the text fields and the fields that represent the task type and state. Thus, you can configure the view layout in the way that is most convenient for your everyday work with Remote Installer. Detailed information on every task is available in the tool tip shown when you are hovering the mouse pointer over the row representing this task. The tasks that require additional configuration before being executed are highlighted.

![Tasks area](Pic 1)

The state of every scheduled task can be seen in the **Tasks area** and is represented with a colored bell icon. This enables you to always see what is going to happen to each one of the scheduled tasks in future. Below you can see the meaning of each of the bell icons:

- 🕒 - The task has already been processed by the scheduling engine. It has either been executed or its execution has been skipped.
- 🕒 - The task is waiting for its execution time to come and will be executed as soon as the scheduled time comes.
- The task is either created in the past or moved to the past, and is processed according to the specified confirmations configuration.
- The task is the Past Task. It should have been executed on the schedule but the program was not running, so it is processed according to the specified confirmations configuration.
- The decision regarding the task execution was postponed by snooze when asked for the execution confirmation.

### Toolbar Overview

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Task</td>
<td>The New Task button from the Tasks area toolbar can be used to create a new task to be executed in the future.</td>
</tr>
<tr>
<td>Schedule Task</td>
<td>The Schedule Task button from the Tasks area toolbar should be used to put the selected task on schedule.</td>
</tr>
<tr>
<td>Run</td>
<td>The Run button from the Tasks area toolbar can be used to execute the selected tasks immediately. You can execute the task either for all Machines from the Machine Queue or only for those not processed during the latest execution due to errors.</td>
</tr>
<tr>
<td>Show Results</td>
<td>The Show Results button from the Tasks area toolbar allows you to display the execution results for the selected tasks in the Execution Results view.</td>
</tr>
<tr>
<td>Edit</td>
<td>The Edit button from the Tasks area toolbar allows you to edit the selected task.</td>
</tr>
<tr>
<td>Delete</td>
<td>The Delete button from the Tasks area toolbar allows you to delete the selected tasks.</td>
</tr>
<tr>
<td>Full Expand</td>
<td>The Full Expand button should be used to expand all the grouping rows in the Tasks area.</td>
</tr>
<tr>
<td>Full Collapse</td>
<td>The Full Collapse button should be used to collapse all the grouping rows in the Tasks area.</td>
</tr>
<tr>
<td>Group By Box</td>
<td>The Group By Box button is used to display Group By Box for configuring data grouping within the Tasks area.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The Choose Columns button should be used to choose the columns to be displayed in the Tasks area.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the Tasks area.</td>
</tr>
<tr>
<td>Configuration</td>
<td>By using the Configuration button, you can configure and reset the layout of the Tasks area.</td>
</tr>
</tbody>
</table>
You can create, edit, delete and execute tasks directly from the **Tasks** area using the buttons from the view toolbar. In addition to the options of creating a new task, opening an already existing task for edit, running a selected task, copying or deleting it, pasting a task from the clipboard or pasting Collections from the clipboard into the Machine Queue of an existing task is available in the pop-up menu of the **Tasks** area.

If you prefer to work with scheduled tasks only, you can collapse this area using a glyph on the area caption. You can also change the orientation between the **Tasks** area and the **Scheduling** area and switch their places using the **Rotate Layout** and **Flip Layout** items from the **Group Layout** pop-up of the **Configuration** menu.
Scheduling Area

The Scheduling area shows the scheduled Tasks on a timeline where the level of details depends on the chosen view and zoom factor. On the right of the Scheduling area you can find the Date Navigator pane that can be used for navigation within the Scheduling area. This chapter describes every view that can be chosen for the Scheduling area and their advantages, and provides you with an overview of the navigation features.

You can drag Collections from the Network view and drop them on the Scheduling area. You are offered to schedule a new task if Collections are dropped on an empty space. Collections dropped on a task are added to its Machine Queue. The same result can be achieved by using the Copy/Paste technique. It is also possible to drag/drop and copy/paste standalone Machines and Queries, whereas the embedded Collections containing those Machines and Queries will be created automatically.

Within the Scheduling area, you can see the name and state images for every task, and the task's location on the timeline shows its execution time. The state images allow you to see the type of each task, understand if the task is recurrent and if it should still be executed or has already been executed. Detailed information on every task is available in the tool tip shown when you are hovering the mouse pointer over this task in the Scheduling area.

The state of every task that is still unprocessed by the scheduling engine can be seen in the Scheduling area and is represented with a colored bell icon. Below, you can see the meaning of each of the bell icons:

🌟 - the task is waiting for its execution time to come and will be executed as soon as the scheduled time comes.
🌟 - the task is either created in the past or moved to the past and is processed according to the specified confirmations configuration.
🌟 - the task is a Past Task. It should have been executed on schedule but the program was not running, so it is processed according to the specified confirmations configuration.
- the decision regarding the task execution was postponed when asked for the execution confirmation.

ToolBar Overview

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Task</strong></td>
<td>The <strong>New Task</strong> button from the <strong>Scheduling</strong> area toolbar can be used to create a new task and put it on schedule.</td>
</tr>
<tr>
<td><strong>New Recurring Task</strong></td>
<td>The <strong>New Recurring Task</strong> button from the <strong>Scheduling</strong> area toolbar can be used to create a new task to be executed recurrently.</td>
</tr>
<tr>
<td><strong>Run</strong></td>
<td>The <strong>Run</strong> button from the <strong>Scheduling</strong> area toolbar can be used to execute the selected tasks immediately. You can either execute the task for all Machines from the Machine Queue or only for those not processed during the latest execution due to errors.</td>
</tr>
<tr>
<td><strong>Show Results</strong></td>
<td>The <strong>Show Results</strong> button from the <strong>Scheduling</strong> area toolbar allows you to display the execution results for the selected tasks in the <strong>Execution Results</strong> view.</td>
</tr>
<tr>
<td><strong>Edit</strong></td>
<td>The <strong>Edit</strong> button from the <strong>Scheduling</strong> area toolbar allows you to edit the selected task.</td>
</tr>
<tr>
<td><strong>Delete</strong></td>
<td>The <strong>Delete</strong> button from the <strong>Scheduling</strong> area toolbar allows you to delete the selected tasks either from schedule or permanently.</td>
</tr>
<tr>
<td><strong>Backward</strong></td>
<td>The <strong>Backward</strong> button from the toolbar should be used to navigate backward in the currently selected view within the <strong>Scheduling</strong> area.</td>
</tr>
<tr>
<td><strong>Forward</strong></td>
<td>The <strong>Forward</strong> button from the toolbar should be used to navigate forward in the currently selected view within the <strong>Scheduling</strong> area.</td>
</tr>
<tr>
<td><strong>Today</strong></td>
<td>The <strong>Today</strong> button from the toolbar enables you to quickly navigate to the today’s date within the <strong>Scheduling</strong> area.</td>
</tr>
<tr>
<td><strong>Go to Date</strong></td>
<td>The <strong>Go to Date</strong> button from the toolbar should be used to navigate to a specific date within the <strong>Scheduling</strong> area.</td>
</tr>
<tr>
<td><strong>Configuration</strong></td>
<td>By using the <strong>Configuration</strong> button, you can configure and reset the layout of the <strong>Scheduling</strong> area.</td>
</tr>
</tbody>
</table>

You can schedule new tasks, edit existing tasks, delete them from schedule, execute them and navigate within the **Scheduling** area using the toolbar. Besides, a quick access to the options of scheduling a new task, opening an already existing task for edit, running the selected task or deleting it from the schedule, pasting a task from the clipboard or pasting Collections from the clipboard into the Machine Queue of an existing task is available from the pop-up menu of the **Scheduling** area.
If you prefer to work with regular tasks only, you can collapse this area using a glyph on the area caption. You can also change the orientation between the Tasks area and the Scheduling area and switch their places using the Rotate Layout and Flip Layout items from the Group Layout pop-up of the Configuration menu.

Now that the Scheduling area is fully described, we will show you the range of the available views, and describe each view in details so that you can understand its concept and choose the views you feel comfortable with while using Remote Installer in your work.

### Scheduling area views

The Scheduling area can be displayed in different view modes giving you different levels of detail. You can choose among five views: Day View, Work Week View, Week View, Month View and Timeline View. The view chooser, along with the zooming editor, is located on the Tasks and Schedule contextual Ribbon page and in the main screen status bar next to the progress bar.

For the Day View and the Work Week View, it is possible to define additional time rulers showing the time for time zones that differ from the one set in the underlying operating system. To configure additional time rulers, you can either choose the Additional Time Rulers item from the Configuration menu on the toolbar or right-click the default time ruler and choose the Additional Time Rulers item from the pop-up menu. The Additional Time Rulers preference page will appear on the screen enabling you to configure the required time rulers.

Let us take a closer look at each view available for representation of the Scheduling area. Each view is designed to help you solve a specific problem without any difficulties.

#### Day

The Day button from the View Mode Ribbon group on the contextual Presentation page from the Tasks and Schedule Tools category and on the status bar should be used to switch the Scheduling area to the Day View. If the Day View is already chosen, this button is highlighted.

The Day View offers the most detailed picture of tasks during a single day or a couple of days. It displays tasks within vertical timelines where the task's topmost edge corresponds to its start time. The time ruler is displayed to the left of the Day View. If the day chosen in the Date Navigator pane is a part of a working week, the working hours are highlighted on the timeline. The timeline header is highlighted if the chosen day is the current date. The current time is marked with a stroke on the time ruler.
Scroll buttons displayed at the top or bottom of the time ruler indicate if additional tasks exist in any non-visible area of the Day View. Those buttons can be clicked to scroll to the next/previous tasks. If there are no tasks available on the current timeline, the Next Task and Previous Task buttons displayed on the timeline are used for navigation.

**Work Week**

The Work Week button from the View Mode Ribbon group on the contextual Presentation page from the Tasks and Schedule Tools category and on the status bar should be used to switch the Scheduling area to the Work Week View. If the Work Week View is already chosen, this button is highlighted.

The Work Week View is similar to the Day View and shows the days chosen as working days in the Calendar Options. The Calendar Options enables you to specify both the working days and the working hours; hence you can configure this view to fully fit your working schedule.
This view is specially designed for users who want to work with Remote Installer and see the same level of detail as for the Day View for the whole work week.

The Week button from the View Mode Ribbon group on the contextual Presentation page from the b category and on the status bar should be used to switch the Scheduling area to the Week View. If the Week View is already chosen, this button is highlighted.

The Week View displays tasks for any given weekly period. The start time is displayed using digits, and the current date is indicated by highlighting the corresponding date header.

Pic 4. The Scheduling area in the Week View
If there are any existing tasks that do not fit into the screen area, the down arrow button is displayed. Clicking this button switches the representation to the corresponding date in the Day View.

**Month**

The **Month** button from the **View Mode** Ribbon group on the contextual **Presentation** page from the **Tasks and Schedule Tools** category and on the status bar should be used to switch the Scheduling area to the Month View. If the Month View is already chosen, this button is highlighted.

The Month View is designed to allow you to browse and analyze long-term plans. This view positions days one after another horizontally so that they constitute weeks, while individual weeks are placed one under another. The dates belonging to different months are automatically colored and the weekends are compressed. The start time is displayed using digits, and the current date is indicated by highlighting the corresponding date header.

![Pic 5. The Scheduling area in the Month View](image-url)
If there are any existing tasks that do not fit into the screen area, the down arrow button is displayed. Clicking this button switches the representation to the corresponding date in the Day View.

**Timeline**
The Timeline button from the View Mode Ribbon group on the contextual Presentation page from the Tasks and Schedule Tools category and on the status bar should be used to switch the Scheduling area to the Timeline View. If the Timeline View is already chosen, this button is highlighted.

The Timeline View is the most customizable one. This view type arranges tasks on horizontal timelines representing the time scales chosen from the pop-up menu.

This view can be used to navigate throughout the Scheduling area without any limitations and change of the level of detail if needed.

**Navigation within the Scheduling area**
Remote Installer provides you with easy-to-use tools for navigating the Scheduling area. The Navigation group on the Ribbon bar contains actions that can help you to quickly navigate within the currently selected view. By using those actions, you can move forward, or backward, or jump to the today's date.

<table>
<thead>
<tr>
<th>Backward</th>
<th>Forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Backward button from the Navigation Ribbon group on the contextual Management page from the Tasks and Schedule Tools category should be used to navigate backward in the currently selected view within the Scheduling area.</td>
<td></td>
</tr>
<tr>
<td>The Forward button from the Navigation Ribbon group on the contextual Management page from the Tasks and Schedule Tools category should be used to navigate forward in the currently selected view within the Scheduling area.</td>
<td></td>
</tr>
</tbody>
</table>
Today
The **Today** button from the **Navigation** Ribbon group on the contextual **Management** page from the **Tasks and Schedule Tools** category enables you to quickly navigate to the today's date within the Scheduling area.

Go to Date
The **Go to Date** button from the **Navigation** Ribbon group on the contextual **Management** page from the **Tasks and Schedule Tools** category should be used to navigate to a specific date within the Scheduling area.

Another noteworthy feature ensures that any required date chosen within the **Date Navigator** is also shown within the Scheduling area. Besides, when a range of dates is chosen within the date navigator, the view is automatically switched to the appropriate one to cover the chosen range of days. Furthermore, in each view you can jump to any date using the **Go to Date** option from the pop-up menu.

**Grouping by Type and Date**

The tasks displayed in the **Scheduling** area can be grouped by type or by date enabling you to manage only the tasks of a certain type. You can increase or decrease the number of the visible task types and navigate through the visible task types using the navigator in the bottom right corner of the **Scheduling** area next to the scroll bar.

![Pic 7. The Scheduling area grouped by task type](image)

The grouping options should be configured on the **Scheduler Configuration** preference page.
Date Navigator

The Date Navigator pane is displayed in the right of the Scheduling area. It should be used to select the dates to be displayed within the Scheduling area. The view type used for the Scheduling area is automatically adjusted to accommodate to the dates selected in the Date Navigator pane.

![Date Navigator pane](image)

The Date Navigator can be configured to help you find scheduled tasks and perform weekly planning.

It is possible to drag a task from the Scheduling area and drop it on any date in the Date Navigator to schedule that task or its copy on that date.

You can configure the view to display the dates with tasks in bold font, and turn on the week numbering on the Calendar Options preference page.
Machine Queue Pane

The **Machine Queue** pane is displayed on the right of the **Tasks and Schedule** view. It displays the Collections from the **Machine Queue** of the task selected within the **Scheduling** area or the **Tasks** area. You can add Collections to the task's Machine Queue and remove them anytime you want.

![Machine Queue pane]

You can drag Collections from the **Network** view and drop them on the **Machine Queue** pane – the Collections dropped are added to the task's Machine Queue. The same result can be achieved using the Copy/Paste technique. Besides, you can drag/drop and copy/paste standalone Machines and Queries. In case Machines and Queries are dropped/pasted to a Collection, they are added to that collection, otherwise embedded Collections containing those entries are created within the Machine Queue.

The **Machine Queue** pane allows you to review and edit the Machine Queue for particular tasks quickly and easily while navigating between the tasks.
By default, the Machine Queue tree displays only a limited number of available properties for every item, but you can also add columns that display other properties using the column chooser. Do not hesitate to change the visible columns and the filtering principles the way you want. By the way, you can always reset the view layout to the default settings using the Reset Layout command from the view menu.

For Collections and Queries the Machine Queue pane allows to preview the filter conditions without editing those collections and queries. It can be done by enabling the Show Details option from the Configuration menu. When it is enabled, there is an additional preview row under each node representing a Collection or a Machine Query. From this preview, you can see if there is any condition defined, and if there is one, expand it to review the condition using the arrow on the right.

Toolbar Overview

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>The Link button from the Machine Queue pane toolbar can be used to add Collections from those defined in the program scope to the currently displayed Machine Queue.</td>
</tr>
<tr>
<td>Edit</td>
<td>The Edit button from the Machine Queue pane toolbar allows you to edit the selected object.</td>
</tr>
<tr>
<td>Delete</td>
<td>The Delete button from the Machine Queue pane toolbar can be used to delete the selected Collections from the currently displayed Machine Queue or the selected members from the parent Collection.</td>
</tr>
<tr>
<td>Full Expand</td>
<td>The Full Expand button should be used to expand all nodes in the Machine Queue pane.</td>
</tr>
<tr>
<td>Full Collapse</td>
<td>The Full Collapse button should be used to collapse all nodes in the Machine Queue pane.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The Choose Columns button should be used to choose the columns to be displayed in the Machine Queue pane.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the Machine Queue pane.</td>
</tr>
<tr>
<td>Configuration</td>
<td>By using the Configuration button, you can configure and reset the layout of the Machine Queue pane.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link Collection</td>
<td>The Link Collection button from the Machine Queue Ribbon group on the contextual Management page from the Tasks and Schedule Tools category allows you to add Collections from those defined in the program scope to the currently displayed Machine Queue.</td>
</tr>
</tbody>
</table>
Within the **Machine Queue** pane, it is possible to add the existing Collections defined in the program scope to the displayed Machine Queue, create embedded Collections within the Machine Queue, delete Collections from the Machine Queue, change the properties of any Collection, Query and Machine, etc. All those options are available on the **Machine Queue** pane toolbar. Those actions, together with collections copying and pasting, are also available in the pop-up menu of the **Machine Queue** pane. The action for adding Collections to Machine Queue is also available in the **Machine Queue** Ribbon group on the contextual **Management** page from the **Tasks and Schedule Tools** category. As for the actions for editing item properties and removing collections from the Machine Queue, you can find the **Edit** and **Delete** buttons in the **Organize** Ribbon group on the **Program** page.

In general, the **Machine Queue** pane is a viewer that allows previewing and editing the task's Machine Queue without editing the task itself. In case you are not interested in this pane and would rather save some space on the screen, you can hide the pane by clicking the arrow on the separator to the left of the **Machine Queue** pane.

**Task Details Pane**

The **Task Details** pane is located at the bottom of the **Tasks and Schedule** view. It displays information on the items selected in the **Scheduling** area or the **Tasks** area. The behavior of this pane is similar to that of the Windows Explorer information pane. When an item is selected, detailed information on it is displayed including its name, comment, type and execution statistics.

![Pic 1. The Task Details pane](image)

The **Task Details** pane is very useful if you want to review brief statistics on the task execution such as the results of the last execution, the number of stored execution results, etc. Thus, you can navigate among the tasks and review their executions statistics in real time.
Network View

The **Network** view is located by default on the left of the main program window. It displays the results of the automatic network scan, the Machines added manually, Collections and Collection Snapshots [Pic 1].

The icon next to every item is used to describe the item's type and state. The state icons are intended to help you understand what is happening in the program at the moment. You can always see if the item is currently being processed by some operation and if it can be removed.

Below is a list of the icons used for different items and the item processing states:

- the network root;
- the network root is being processed, e.g. a network enumeration process is running;
- a Group (may be both a domain and a workgroup);
- the Group is being processed;
- the Group is being processed and not operable from this view;
- an Active Directory Container (such as default Computers);
- the Active Directory Container is being processed;
- the Active Directory Container is being processed and not operable from this view;
- an Organization Unit;
- the Organization Unit is being processed;
- the Organization Unit is being processed and not operable from this view;
- a Machine;
- the Machine is being processed;
- the Machine is being processed and not operable from this view;
- the grouping node for the Collections defined in the program scope;
- the Collection that describes a set of Machines to operate;
- the Collection is being processed;
- the Machine Query used to retrieve a scope of Machines;
- the Machine Query is being processed;
- a grouping node for static Machines within a Collection;
- a grouping node for Machine Queries within a Collection;
- a grouping node for Collection Snapshots;
- a Collection Snapshot.

For Collections, a filter decorator is painted over the item icon if the Machines Filter is defined for such an item ( ). The same approach is used for Machine Queries ( ). On the Machine Queries node within each Collection, you can see if the Machines are retrieved from the entire network ( ) or from the program database ( ), and for the Groups, Machines and Containers within the Collection Snapshot, a snapshot decorator is painted ( ), so that you can see that this is a snapshot content.

Beside showing the item name, type and state icon, the Network view allows you to review the comment for every item retrieved during a network scan and the description defined in the object properties. The comment field value retrieved depends on the network scan method chosen in the enumeration options. If the Active Directory Only type is chosen, the comment value is the description for the object in the Active Directory data, whereas for the Computer Browser Only method the comment value is the Computer Description defined in every Machine’s OS settings. If the Both Active Directory and Computer Browser method is chosen, the comment is filled with the description defined in Active Directory only if it is available, otherwise the computer description defined in the Machine’s OS is displayed. When adding machines manually, you can provide a comment for the Machine being added in the Comment field. The view also contains other columns displaying additional Machine properties such as the IP address, the platform, the operating system, etc.

For each Machine in the Network view, the respective Machine's icon can be decorated with one of the machine status icons to show the latest access status:

- the Machine is accessible, i.e. it satisfies the requirements for remote Machines and can be operated;
- the Machine is accessible and the remote service is installed but is not running;
- the Machine is accessible, the remote service is installed and running;
- the Machine is accessible, the remote service is installed but is not up-to-date;
- the Machine is accessible, but the remote service is unreachable: either it is impossible to check the state of the remote service or it fails to start;
- the Machine is inaccessible, i.e. it is currently impossible to operate this Machine;
- the access to the remote Machine is denied; to operate this Machine, you should provide the administrative credentials in the Credentials view.
The number of Machines available in every container is displayed next to the container name in square brackets, so you can always get this information quickly and easily without having to do manual counting. For example, 3 of 5 means that there are 3 Machines in this container within the Network view but the program network structure includes 5 machines assigned to this container.

The Network node represents the network items found during enumeration. Machines that are not available during the automated network scan process may be removed from this node.

The network enumeration is not required if you are going to operate a local Machine. There is always an item named Computer within the Network view, which is a shortcut to the local Machine. This is a fully functional item introduced to make your work more comfortable. If you have performed enumeration, this item is also displayed in the network structure within the Network node.

The Collections node is used to permanently store information on preconfigured sets of Machines and Machine Queries to be used while configuring the Machine Queue for any operation. For detailed information on the Collections concept, refer the Collections section of the documentation. The Collections mostly consist of Machine Queries and an optional filter applied to Machines. You can also store query results in a special object called the Collection Snapshot. There can be only one snapshot for every Collection. It is identified by the Collection itself and the snapshot creation time. All snapshots are grouped within the Collections' Snapshots node.

Toolbar Overview

| **Enumeration** | The Enumeration button from the Network view toolbar should be used to scan the selected containers for Machines. If the Enumerate New option is used, only new Machines are added to the containers, otherwise, if the Enumerate option is used, the Machines from the selected containers that are not available during the scan are removed from the Network node. |
| **Collections** | The Collections button from the Network view toolbar is a multifunctional button that contains the actions for Collections management. It is possible to create new Collections, create snapshots for Collections and add the selected items to existing Collections. |
| **Check State** | The Check State button from the Network view toolbar should be used to check the access status for the selected Machines or the Machines from the selected Collections. |
| **Deploy Software** | The Deploy Software button from the Network view toolbar is a multifunctional button that allows you to perform software deployment and create a scheduled deployment task to perform deployment in the future. |
| **Smart Uninstall and Repair** | The Smart Uninstall and Repair button from the All Machines view toolbar is a multifunctional button that allows you to uninstall or repair software on remote Machines choosing the products to uninstall or repair from the inventory and to create a scheduled smart uninstall or repair task for future execution. |
| **Scan Software** | The Scan Software buttons from the Network view toolbar is a multifunctional button that allows you to perform a software scan and schedule a new software scan task. |
Edit

The **Edit** button from the **Network** view toolbar allows you to review and change the selected item's properties.

Delete

The **Delete** button from the **Network** view toolbar can be used to delete the selected items from the view.

Full Expand

The **Full Expand** button should be used to expand all nodes in the **Network** view.

Full Collapse

The **Full Collapse** button should be used to collapse all nodes in the **Network** view.

Choose Columns

The **Choose Columns** button should be used to choose the columns to be displayed in the Network view.

Filter Editor

The **Filter Editor** button should be used to define the custom filter criteria to be applied to the data displayed within the Network view.

Configuration

The **Configuration** button from the **Network** view toolbar enables you to configure the enumeration options, show/hide the filter conditions preview and reset the view layout.

The main goal of the **Network** view is displaying enumeration results and Collections; thus it allows you to perform all the actions for building the network structure and for managing Collections. You can scan either the entire network or selected containers for Machines, create Collections and add the selected items to existing Collections. Those actions are available on the toolbar and in the pop-up menu of the **Network** view.

From the **Network** view, it is also possible to execute operations on remote Machines. If you select Collections, they are automatically added to the operation's Machine Queue. For the selected standalone Machines and Queries, an appropriate embedded Collection containing the selected objects is added to the Machine Queue.

The **Network** view allows you to review the filter conditions defined by the Queries and Collections without opening the object properties. Simply enable the **Show Details** option in the **Configuration** menu and you will find a row under each Machine Query and Collection node that shows if any condition is defined. In case it is defined, you can double-click this row or use the arrow button on the right of the row to expand/collapse the filter condition preview.

Other useful features of this view are the options to copy/paste, drag/drop and import/export Machines, Queries and Collections. The corresponding actions are available in the pop-up menu, the **Organize** Ribbon group and the **Clipboard** Ribbon group on the **Program** page.
**Credentials View**

The **Credentials** view is by default located on the left of the main program window. Its purpose is to define the credentials to be used to connect to remote Machines intended for processing. The representation of the **Credentials** view is very similar to that of the **Network** view, but it also contains credentials associated with each network item. This tree is built and maintained automatically using the network structure.

The Credentials used to connect to remote Machines are stored until they are reset, i.e. even if the Machine referenced by the credentials is removed, the credentials will still exist but become inactive. Those credentials items are removed only if they are reset.

![Image of the Credentials view](image)

**Pic 1. The Credentials view**

**Item Icon** represents the item type and shows if the credentials defined for this item are currently active or not. The set of icons used to represent all types of the items and their states is described below:

- 🌐 - the root of the **Credentials**, that defines the default credentials to be used;
- 🌐 – the Group (may be either a domain or a workgroup) credentials;
- 🌐 - the Active Directory Container (an organization unit or another container in Active Directory) credentials;
- 🌐 - the Machine credentials;
- the Machine Group (may be either a domain or a workgroup) credentials that are currently inactive;
- the Active Directory Container (an organization unit or another container in Active Directory) credentials that are currently inactive;
- the Machine credentials that are currently inactive.

**Item Name** - the name of the item.

**Credentials Part** - shows the login name to use while connecting to remote Machines or a hint if the credentials are not set. The in-place edit shows the pop-up window to specify the credentials.

For the containers in the **Credentials** view, the number of Machines with active credentials is displayed in square brackets, so that you can always get this information quickly and easily without having to do manual counting. If the container includes both active and inactive Machines credentials, the number of active credentials and the total number of credentials are displayed, e.g. 3 of 5 means that there are 5 Machine credentials in this container and 3 of them are active.

You can review the credentials to be used to connect to the remote Machine from the tool-tip displayed for it. This may be very useful if the credentials you have provided do not explicitly specify the domain or if the network structure is quite complex. You can review the **Credentials** section to get a closer look at the concept used for specifying credentials for connecting to remote Machines.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Edit</strong></td>
<td>The <strong>Edit</strong> button from the <strong>Credentials</strong> view toolbar should be used to specify the credentials for the selected network item.</td>
</tr>
<tr>
<td><strong>Delete</strong></td>
<td>The <strong>Delete</strong> button from the <strong>Credentials</strong> view toolbar should be used to delete the credentials from the selected network item.</td>
</tr>
<tr>
<td><strong>Delete All</strong></td>
<td>The <strong>Delete All</strong> button from the <strong>Credentials</strong> view toolbar allows you to delete all credentials stored for network items.</td>
</tr>
<tr>
<td><strong>Show Active</strong></td>
<td>The <strong>Show Active</strong> button from the <strong>Credentials</strong> view toolbar switches the view to the mode that displays only the credentials for the items currently referenced by the program business data.</td>
</tr>
<tr>
<td><strong>Show Inactive</strong></td>
<td>The <strong>Show Inactive</strong> button from the <strong>Credentials</strong> view toolbar switches the view to the mode that displays only the credentials for the items that are currently not referenced by the program business data.</td>
</tr>
<tr>
<td><strong>Show All</strong></td>
<td>The <strong>Show All</strong> button from the <strong>Credentials</strong> view toolbar switches the view to the mode that displays all the available credentials items.</td>
</tr>
<tr>
<td><strong>Full Expand</strong></td>
<td>The <strong>Full Expand</strong> button should be used to expand all nodes in the <strong>Credentials</strong> view.</td>
</tr>
<tr>
<td><strong>Full Collapse</strong></td>
<td>The <strong>Full Collapse</strong> button should be used to collapse all nodes in the <strong>Credentials</strong> view.</td>
</tr>
</tbody>
</table>
**Configuration**

The **Configuration** button provides access to the option of resetting the view layout.

Within the **Credentials** view, you can define the credentials to be used to access each network resource and reset those credentials when they are no longer needed. In addition, it is possible to switch between different view modes by changing the display filter condition.

To specify the credentials to be used for a network resource, you should select such a resource in the **Credentials** view and click the **Edit** button of the credentials part of the in-place edit. Alternatively, you can use the **Edit** button from the **Organize** Ribbon group on the **Program** page, the **Edit** button on the toolbar or the **Edit** item from the pop-up menu.

When setting the credentials' user name, pay attention to the domain it will be used for. This information is shown in the **Log on to** field: this field value should be the domain or the Machine name where the account with the respective user name is present. To access the other domain, see the **How do I access another domain?** section.

The pop-up window Pic 2 is opened for you to specify the credentials for the selected item. You are offered to provide the user name and password to be used for connection in the appropriate fields of the pop-up window. The password confirmation must exactly match the password input.
When you are ready with the credentials specification, press **OK** to proceed.

If the specified credentials are no longer needed, you can reset them. To reset the credentials for a network resource, select the required resource in the **Credentials** view and click the **Delete** button of the credentials part of the in-place edit. Alternatively, you can use the **Delete** button from the **Organize** Ribbon group on the **Program** page, the **Delete** button on the toolbar or the **Delete** item from the pop-up menu.

If you want to display either the active or inactive credentials only or both kinds of the credentials, you can choose the **Credentials** view mode by using the **Choose View** drop-down item from the **Credentials** view pop-up menu or the view switching buttons on the toolbar.

From the **Credentials** view, it is possible to import and export the credentials, as well as copy and paste them. You can use either the pop-up menu or the **Organize and Clipboard** Ribbon groups on the **Program** page to reach the goal. It is also possible to reset all the credentials available in the program by using the **Delete All** item and to expand or collapse all the nodes in the **Credentials** view by using the **Full Expand** or **Full Collapse** items on the toolbar and in the pop-up menu.
Execution Results View

The **Execution Results** view (Pic 1) shows the results of business operations on remote Machines. If any problems have been detected during the operation execution, troubleshooting advice is displayed next to the result message in the **Execution Results** view to help you solve those problems.

Within the **Execution Results** view, each row contains the result for a remote Machine: such information consists of the event type represented by an icon, the Machine name, the Group name, the event title, the completion date and the event description itself, with or without a troubleshooting hint. The description and the hint for any event are by default wrapped so that you can easily read it. If you would like to have more events visible at the same time, you can configure the Execution Results view to display only one line per event by disabling the Wrap Description option from the Configuration menu, after which a detailed description will only be shown in the event details pane. You can also remove the hint column from the view and review the troubleshooting advice only within the event details pane. It is possible to add the **Error Code** column to the view using the **Column Chooser** if required.

![Pic 1. The Execution Results view](image)

The icons used to display the event type enable you to understand if the operation has succeeded without actually reading the message. The following icons are used to display the event types:

- the blue icon with the 'i' character means that everything is OK.
- the brown circle icon with a cross-cut line is used to identify that the operation was canceled by user or due to shutdown of the underlying system.

- the yellow icon with an exclamation mark is the warning icon. It means that some errors took place, but they are not critical. In such case, it is not guaranteed that the operation has actually succeeded.

- the red icon with a white cross is the error sign: it means that the operation execution has failed.

The results displayed within the view are grouped by Runs, by Groups the processed Machines are located in, and by the Machines. On each grouping row, you can see the time spent for processing either a single Machine or all Machines from a single Group, or all the Machines. The Run and Group rows also display brief execution statistics in form of numbers of the Machines the operation of which has completed with a specific severity level.

The event details pane is located by default at the bottom of the Execution Results view. It shows detailed information pertaining to the result selected in the table so that you can always see the entire event description and troubleshooting advice, if any. If you are not interested in this pane and do not want it to be displayed at all times, you can hide it by disabling the Show Event Details Pane option from the Configuration menu.

Each Run shows the execution type represented by one of the following icons:

- the run is a result of a scheduled task execution, and the schedule element is still in the scheduling area.

- the run is a result of a scheduled task execution, but there is no schedule element in the scheduling area this run refers to.

- the run is a result of a manual task execution using the Run command.

- the run is a result of an individual operation execution.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Last 7 Days" /></td>
<td><strong>Results Range</strong>&lt;br&gt;The Results Range button allows you to choose the date range to display the execution results for.</td>
</tr>
<tr>
<td><img src="image" alt="All Runs" /></td>
<td><strong>All Runs</strong>&lt;br&gt;The All Runs button switches the Execution Results view to the mode in which runs for both the tasks and the individual operations for the specified date range are displayed.</td>
</tr>
<tr>
<td><img src="image" alt="Task Runs" /></td>
<td><strong>Task Runs</strong>&lt;br&gt;The Task Runs button switches the Execution Results view to the mode in which only runs of the tasks for the specified date range are displayed.</td>
</tr>
<tr>
<td><img src="image" alt="Individual Runs" /></td>
<td><strong>Individual Runs</strong>&lt;br&gt;The Individual Runs button switches the Execution Results view to the mode in which only the execution results of individual operations for the specified date range are displayed.</td>
</tr>
<tr>
<td><img src="image" alt="Link with Selection" /></td>
<td><strong>Link with Selection</strong>&lt;br&gt;The Link with Selection button should be used to turn on and off the option of synchronizing the results displayed in the Task Runs mode of the Execution Results view with the tasks selected within the Task and Schedule view.</td>
</tr>
</tbody>
</table>
Export
The Export button is intended to export the displayed execution results to a CSV file.

Delete
The Delete button allows you to permanently delete the results for the selected runs.

Full Expand
The Full Expand button should be used to expand all the grouping rows in the Execution Results table.

Full Collapse
The Full Collapse button should be used to collapse all the grouping rows in the Execution Results table.

Group By Box
The Group By Box button is used to display the Group By Box for configuring data grouping within the Execution Results table.

Choose Columns
The Choose Columns button should be used to choose the columns to be displayed in the Execution Results table.

Filter Editor
The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the Execution Results table.

Configuration
By using the Configuration button, you can hide the message details pane, reset the view layout or open the Execution Results preference page.

The execution results set is selected only for the specified date range. This approach is used to optimize the memory usage and performance as there may be many execution results in the entire database. The display range for execution results is set by default to the Past Week value and can be changed with the range drop-down button on the view toolbar. The text on the button shows the currently applied range. You can choose among the predefined ranges or provide a custom one.

To prevent continuous growing of the results database, the execution results can be deleted by runs either manually or automatically. You can also delete the results manually whenever you wish taking into account your own conditions. To delete the results manually, select the runs to delete in the Execution Results view and press the Delete button on the toolbar or choose the Delete item from the pop-up menu. An automatic deletion of the execution results is configured on the Execution Results preference page.

The layout of the Execution Results view, including all the grouping and sorting settings and the details pane visibility, can be easily reset to factory settings by choosing the Reset Layout option from the Configuration menu.

The Execution Results view can be used in three modes, namely All Runs, Task Runs and Individual Runs. Let us take a closer look at each of these modes.

All Runs
The All Runs button from the View Mode group on the Execution Results contextual page from the Execution Results Tools category switches the Execution Results view to the mode in which runs for both tasks and individual operations from the specified date range are displayed.
The **All Runs** mode is used by default. In this mode, the **Execution Results** view displays the execution results both for preconfigured tasks from the **Tasks and Schedule** view and for individual operations launched at any time.

### Task Runs

The **Task Runs** button from the **View Mode** group on the **Execution Results** contextual page from the **Execution Results Tools** category switches the **Execution Results** view to the mode that only shows the runs of tasks for the specified date range.

### Link with Selection

The **Link with Selection** button from the **View Mode** group on the **Execution Results** contextual page from the **Execution Results Tools** category should be used to turn on and off the option of synchronizing the results displayed in the **Task Runs** mode of the **Execution Results** view with the tasks selected within the **Task and Schedule** view.

The **Execution Results** view in the **Task Runs** mode shows the execution results for the tasks available in the **Tasks and Schedule** view. Linking the **Execution Results** view with the **Tasks and Schedule** view makes the results displayed in the **Execution Results** reflect the results of the tasks selected in the **Tasks and Schedule** view. If the **Execution Results** view is not linked to the **Tasks and Schedule** view, to review the results for the task you are interested in, you should select it in the **Tasks and Schedule** view and choose the **Show Results** menu item from the task's pop-up menu, otherwise results for all the tasks are displayed. In the **Task Execution Results** mode, results are also grouped by the task they belong to.

### Individual Runs

The **Individual Runs** button from the **View Mode** group on the **Execution Results** contextual page from the **Execution Results Tools** category switches the **Execution Results** view to the mode that only shows the execution results of individual operations for the specified date range.

The **Individual Runs** mode should be used if you would like to review only the execution results for the standalone operations launched manually. For example, when operating Machines directly from the **All Machines** view.
Application Log View

The Application Log is designed to store information on the events taking place during the program execution. The larger part of this information consists of events generated by the operations. The purpose of this chapter is to help you understand the log.

![The Application Log view](image)

The Application Log view is located by default at the bottom of the Remote Installer main window and displays the log in form of a tree and a pane that shows details of a selected event. The description for any logged event is by default wrapped, so that you can easily read it. If you would like to have more events visible at the same time, you can configure the Application Log view to display only one line per event by disabling the Wrap Description option from the Configuration menu, after which a detailed description will only be shown in the event details pane. If you do not need the event details pane and would like to review the events only within the tree, you can hide the event details pane by disabling the Show Event Details Pane option from the Configuration menu. Also, it is possible to enable the automatic scrolling feature to always see new log events as soon as they arrive, using the Autoscroll item from the Configuration menu.

Every event in the Application Log is assigned a severity level represented by a certain icon. The icon allows you to see if any problem has occurred without reading the description. The following icons are available:

- **i** - the blue icon with an 'i' character means that everything is OK;
- the brown circle icon with a cross-cut line is used to identify that the operation was canceled by user or due to shutdown of the underlying system;
- the yellow icon with an exclamation mark is the warning sign: it tells you that some errors have occurred, but they are not critical. In such a case, there is no guarantee that the operation has actually succeeded;
- the red icon with a white cross is the error sign: it means that the operation execution has failed.

Analyzing the **Application Log** can help you a lot in your everyday work with Remote Installer, because this log contains all the information on the executed tasks and provides you with troubleshooting recommendations in case any problems are detected.

### Toolbar Overview

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Export" /></td>
<td>The <strong>Export</strong> button should be used to export the log to a CSV file.</td>
</tr>
<tr>
<td><img src="image" alt="Clear" /></td>
<td>The <strong>Clear</strong> button should be used to delete all the logged events from the program database.</td>
</tr>
<tr>
<td><img src="image" alt="Full Expand" /></td>
<td>The <strong>Full Expand</strong> button from the <strong>Application Log</strong> view toolbar should be used to expand all nodes in the table of logged events.</td>
</tr>
<tr>
<td><img src="image" alt="Full Collapse" /></td>
<td>The <strong>Full Collapse</strong> button from the <strong>Application Log</strong> view toolbar should be used to collapse all nodes in the table of logged events.</td>
</tr>
<tr>
<td><img src="image" alt="Choose Columns" /></td>
<td>The <strong>Choose Columns</strong> button should be used to choose the columns to be displayed in the table of logged events.</td>
</tr>
<tr>
<td><img src="image" alt="Filter Editor" /></td>
<td>The <strong>Filter Editor</strong> button should be used to define the custom filter criteria to be applied to the data displayed within the table of logged events.</td>
</tr>
<tr>
<td><img src="image" alt="Configuration" /></td>
<td>The <strong>Configuration</strong> button enables you to configure the <strong>Application Log</strong> view, manage the visibility of the event details pane and reset the view layout.</td>
</tr>
</tbody>
</table>

The options of clearing the log, expanding nodes in the tree of logged events and collapsing them are also available from the pop-up menu of the **Application Log** tree.

The layout of the **Application Log** view, including the visible columns, the column widths, the sorting settings, the descriptions wrapping and the details pane visibility, can be easily reset to the initial defaults by choosing the **Reset Layout** option from the view menu.
All Machines View

The All Machines view [Pic 1] is by default located at the bottom of the program main window. This view displays information on all Machines available in the program. Using this view, you can review the available Machines, install, uninstall and repair software to/from/on them and scan them for information on installed programs and updates.

![Image of All Machines view]

Pic 1. The Machines view

Toolbar Overview

- **Check State**
  The Check State button from the All Machines view toolbar should be used to check the access status for the selected Machines.

- **Deploy Software**
  The Deploy Software button from the All Machines view toolbar is a multifunctional button that allows you to perform a software deployment and create a scheduled deployment task to perform deployment in future.

- **Smart Uninstall and Repair**
  The Smart Uninstall and Repair button from the All Machines view toolbar is a multifunctional button that allows you to uninstall or repair software on remote Machines, choosing the products to uninstall or repair from inventory, and create a scheduled smart uninstall or repair task for future execution.
Scan Software
The Scan Software button from the All Machines view toolbar is a multifunctional button that allows you to perform a software scan and schedule a new scan software task.

Edit
The Edit button from the All Machines view toolbar allows you to review and change the selected item's properties.

Delete
The Delete button from the All Machines view toolbar can be used to delete the selected Machines together with the all data referenced by those Machines.

Add to Collection
The Add to Collection button from the All Machines view toolbar should be used to add the selected Machines to a new or an already existing Collection.

Full Expand
The Full Expand button should be used to expand all the grouping rows in the table.

Full Collapse
The Full Collapse button should be used to collapse all the grouping rows in the table.

Group By Box
The Group By Box button should be used to configure the data grouping for the table.

Choose Columns
The Choose Columns button should be used to choose the columns to be displayed in the table.

Filter Editor
The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the table.

Configuration
The Configuration button provides access to the option of resetting the view layout.

The option of scanning remote Machines for installed programs and updates, as well as the ability to export Machines and other useful options are available on the toolbar and from the All Machines view pop-up menu.

By default, the Machines in the All Machines view are grouped by the Group they are located in, but you can easily reset this grouping or customize it to fit your needs by choosing other columns and filter data – see the Grouping and Filtering Data topic for details. You can then always roll back to the default pane layout using the Reset Layout item from the view configuration menu.
Operation Management View

The **Operation Management** view [Pic 1] shows the detailed progress of each operation being performed at the moment and allows canceling a particular operation or all running operations. By default, it is located at the bottom of the Remote Installer main window.

![Operation Management View](image)

**Pic 1. The Operation Management view**

Progress information for every operation is shown in the pane with the progress bar, the operation information text and the **Cancel** button. The **Cancel** button is used to cancel individual running operations, whereas if the grouping operation is canceled, all the sub-operations are also canceled.

**Cancel All**

The **Cancel All** button from the **Operation Management** view toolbar can be used to cancel all the operations running in the application.

You can cancel all the running operations by clicking the **Cancel All** button on the toolbar of the **Operation Management** view.
**Graphical User interface features**

EMCO Software provides you with a modern and intuitive graphical user interface, because we appreciate the users of our products and would like them to feel glad that they have EMCO programs installed on their PCs. Lots of resources were involved in creating this kind of an interface for you, and now we are proud we have done it. Custom DPI settings are fully supported, so that you can use EMCO programs on any monitor with any resolution you like. The 'Microsoft User Interface Guidelines on Layout, Icons and Sizing' have been a powerful base for this work, and we are glad to tell you that they are fully complied with and supported. With the help of the skinning support and the Ribbon UI interface, every customer can configure the program UI to feel comfortable during each working day. EMCO also provides you with the **High Contrast** skin along with the bonus skins pack, which is an accessibility feature designed for people with vision impairment. The High Contrast color scheme can increase legibility for some users by heightening the screen contrast with alternative color combinations.

This chapter gives you a detailed description of how to fully enjoy the graphical user interface features, the skinning mechanism and the Ribbon bar features.

**What's Inside**

Skinning
Ribbon
UI Elements' main features
Skinning

Remote Installer provides you with a wide range of custom skins with unique look and feel, so that you can choose any skin you like most. If you are a fan of the Microsoft Office interface, you have no reason to complain either, since Remote Installer also gives you an option of choosing this type of skin. There are not only formal skins but also some informal ones.

All the skins can be divided into four groups: Office Skins, Custom Design Skins, Bonus Skins and Skins for Fun. The following skins are available:

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Skins for Fun:</td>
<td>&quot;Christmas&quot;, &quot;Valentine&quot;, &quot;Summer&quot;, &quot;Springtime&quot;.</td>
</tr>
</tbody>
</table>

Let us take a brief look at some of the skins:

Office 2010 Skin look and feel example
Custom Design Skin look and feel example
Skins for Fun look and feel example
High Contrast Skin look and feel
Ribbon

Ribbon is a tool that presents commands organized into a set of tabs. The tabs on the Ribbon represent commands that are most relevant for each of the task areas in the program. For example, in Office Word the tabs group commands by activities such as inserting objects like pictures and tables, doing page layout, working with preferences, doing mailings, and reviewing. The Home tab provides an easy access to the most frequently used commands. Office Excel has a similar set of tabs that make sense for spreadsheet work including tabs for working with formulas, managing data, and reviewing. Those tabs simplify access to the program features, because they organize the commands in a way that reflects the tasks people perform in those programs.

We are delighted to let you know that we fully conform with Microsoft® Ribbons Guidelines and would like to introduce some Ribbon features to you. To learn more about Ribbon, the story of its development and its usability features, you may visit 'The Story of the Ribbon' article from the MSDN blogs.

Application Menu

The Application Menu invoked using the Application button is somewhat similar to the File menu in most programs that use a classic user interface, but it gives you more.
It contains links to the most helpful actions located under different tabs but made available from one access point.

**Quick Access Toolbar**

The Quick Access Toolbar \[\text{Pic 3}\] is an end-user customizable bar located near the Application Menu or below the Ribbon bar depending on the configuration. It can contain links to both Ribbon items and Ribbon groups.

To add an action link to the quick access toolbar, right click this action and select Add to Quick Access Toolbar from the pop-up menu. The groups can be added in the same way, the only difference being that to add a group you should right click its caption.

**Representation and Navigation Features**

The representation of the Ribbon bar can also be configured to make your work more comfortable. You can minimize Ribbon so that the tab's content is only shown when the tab is clicked on, thus extending the program workspace. Also, if it is not convenient for you to have the Quick Access Toolbar next to the Application Menu, you may place it below the Ribbon bar, so that it will look just like a simple toolbar. This configuration can be accessed from the pop-up menu of the Ribbon bar \[\text{Pic 4}\].

Navigation between the Ribbon tabs can be performed not only with a mouse click on a tab but also with the help of the mouse wheel. Just place the cursor over any tab and scroll the wheel – scrolling up will switch the tabs from right to left, and scrolling down will switch the tabs in the opposite direction.
UI Elements' main features

The graphics shell used for Remote Installer is aimed at providing a high level of usability to everyone. This topic covers main features of the graphical elements used in this program, and here you can find what puts EMCO GUI a step ahead of the others.

Docking

The Remote Installer user interface is built using the ultimate docking technology which provides for the maximum use of the program working area. It allows docking the windows that are used less often than the main one to the sides, auto hide them or even close and then open again when required. The dock panels can be docked both to the main window and to each other, thus enabling you to build such a subsidiary window layout that makes you feel comfortable while working with Remote Installer [Pic 1].
To change the position of any dock window, you should click its header and move the mouse pointer while holding the left mouse button down. Hint windows are shown to help you understand where you can drop the window dragged. When you are dragging it over another dock window, it is possible to dock both windows to each other or display them in different tabs of the same dock window.

To enable the auto hide feature for a window attached to any side of a main window, click the pin button in the dock window header. Clicking the cross button results in closing of the dock window. Each view can also be closed and opened again using the checkboxes in the **Show** Ribbon group accessible from the **View** page.

### Grouping and Filtering Data

The Remote Installer user interface is designed so as to make its usage as flexible as possible. The tables available in every EMCO program provide you with an easy-to-use data filtration and grouping mechanism. To group data by one of the columns, you should drag its header to the grouping box displayed over the table or choose an appropriate item from the column header pop-up menu 📊. 📊

![Pic 2. The grouping box of a table grouped by two columns](image)

To group or ungroup data by any column when **Group By Box** 📊 is not visible, you can have it displayed by selecting the **Show Group By Box** item from the pop-up menu of any column header.

Data filtration can be performed in two ways: by using the quick filter or the filter editor. To use the quick filter feature, just click on the glyph in the right top corner of any column header. A drop-down list appears offering you to choose one of the predefined filters or select the custom one from the filtering dialog 📊. 📊

![Pic 3. Accessing the quick filter abilities](image)
The **Filter Editor** shipped with Remote Installer is easy to use and allows you to build your own complex filters quickly and easily [Pic 4]. To open the filter editor, choose the **Filter Editor** item from the column's pop-up menu.

![Filter Editor](image)

**Pic 4. Using the filter editor**

You can enable and disable the currently applied filter condition using the checkbox displayed next to the filter condition in the bottom of the view, inside the filter info pane [Pic 5].

![Filter Info Pane](image)

**Pic 5. The filter info pane**
To reset the currently applied filter use the button from the filter info pane, and to customize it use the **Edit Filter** button from this pane.

**Managing Columns in Trees and Tables**

You can customize almost every table and tree in EMCO programs by moving and removing columns to make the control most informative for you. To move a column, drag it over the control's header and drop between other columns to its new position [Pic 6].

![Pic 6. Moving a column](image)

To remove a column that is of no use for you, right click the control's header and select the **Remove This Column** item from the pop-up menu. Also, you can control columns availability using the column chooser [Pic 7].

![Pic 7. Using the column chooser](image)

To show the column chooser, right click the control's header and select the **Column Chooser** menu item. After that, you can drag and drop columns from the header to the column chooser and backwards.

**Automatic Saving and Restoring of Windows Layout**

One of the service functions of Remote Installer user interface is its ability to save and restore the windows layout. All the changeable parameters like the windows sizes and positions; the table columns order, sizes and positions; the grouping and filtering options; the dock windows configuration, etc. are saved between sessions. Thus, you do not need to configure the program's user interface layout every time you start this program.
Chapter 4: Deployment

The main goals of Remote Installer is to equip you with easy-to-use features of installing, uninstalling and repairing software all over your network. This chapter is aimed at introducing you to the main features of Remote Installer and helping you to use them. After reading this part, you will gain a better understanding of the concept of the program and be able to use it without any problems.

Remote Installer supports installing, uninstalling and repairing of the products deployed using the following installer types: **Executable Installer**, **Windows Installer Package** and **Microsoft Software Patch**. Using an executable installer, you can install programs, updates and patches. As Remote Installer allows you to operate multiple Machines at the same time, there is a possibility that one part of the operated Machines will be running the x86 operating system and the other part will be running the x64 system. The concept of a multi-platform deployment package allows you to define a single deployment package for both target platforms and provide different deployment options, if required. For example, you can use different installation files, apply different MSI transforms and run different pre and post actions for Machines running the x86 or x64 systems.

Another important thing you should always keep in mind is that with Remote Installer you perform a silent deployment, i.e. a deployment performed without any interaction with the user. Thus, the installer should be properly configured for unattended deployment.

In this chapter, we will show you how to configure installers for silent deployment and how to check if an installer is configured correctly.

**What's Inside**

Remote Deployment Particularities
Software Bundles
Deployment Packages
Deploying Software
Running Smart Uninstall and Repair
Deployment Operation Configuration
Service Management

**Remote Deployment Particularities**

Remote Installer is designed to perform remote deployment. The process of deploying software remotely differs from regular deployment. Mostly, remote deployment is performed in a silent manner and requires a correct configuration of the installers. By default, most of the installation setup programs guide the end user through the setup wizard, thus the interaction with the user is required to complete the setup. For mass deployment, it is very important that the deployment process be performed without any interaction with the user. Installation setup programs mostly support silent execution, but the execution parameters may vary depending on the installation vendor. Another important thing for remote deployment is the account used to perform it. In this chapter, we will show you how to choose the account to be used for deployments, how to configure installers for silent deployment and how to check if the installer is configured correctly before performing a mass deployment.

**What's Inside**
How should I choose the account to be used for deployment?
How to configure installers for silent deployment?
How can I check if the installer is configured correctly?
Deployment from Network Share
How should I choose the account to be used for deployment?

Remote Installer allows you to choose the account to be used for deployments, both by default and for particular deployments, and specify if the deployment should be performed interactively. The configuration is available via deployment account settings. Let us take a closer look at each of the available options and the cases they should be used in.

Pic 1. A sample deployment account settings configuration
Let us start with the **Network Administrator Account** option. When this option is active, Remote Installer executes deployments on target computers from the same user account as used to connect to a remote Machine. This option is suitable for the vast majority of deployments, thus is recommended for Preferences. You can perform a deployment using the network administrator account both in non-interactive and interactive sessions. Interactive deployment should be used if silent deployment is not supported, so the user input is required to complete the deployment. The same goal can be reached using the **Logged-On User Account** option. The only difference is that the network administrator mode allows you to run deployments that require administrative rights that logged-on users may not have. Since such types of deployment are more specialized and running a deployment in an interactive user session requires more operating system resources, it is recommended that you apply this option to a particular deployment operation or package only if needed. When running a deployment interactively as the deploying user, you should make sure that explicit network administrator credentials are specified. This ensures access to the desktop of the currently logged-on user starting from Windows Vista, as it is not possible to grant such an access to the account used for an implicit network logon. The administrative credentials for accessing remote Machines are provided in the **Credentials** view.

As for the **Local System Account** option, it should only be used if excessive permissions are required to perform a per-machine deployment. This type of deployment is very rare. It is recommended that you apply this option to a particular deployment operation or package only if needed. For this option, you can also enable interactive deployment to run the process in a session of the currently logged-on user, if an unattended setup is not supported.

The **Logged-On User Account** option commands Remote Installer to run a deployment interactively as the user currently logged on to a remote Machine. The deployment process will proceed in the same way as if the user had simply launched the installation setup program by himself. This option is used to deploy applications that are installed per user or when the logged-on user needs to provide information for the deployment to succeed. Such types of deployment are highly specialized. It is recommended that you apply this option to a particular deployment operation or package only if needed.

Now that you are familiar with the options available for running remote deployments as different types of users and the use cases for those options, you should be able to choose the best one for reaching your specific goals.
How to configure installers for silent deployment?

With Remote Installer, products are mostly deployed to remote Machines silently. This means that the install, uninstall and repair process is fully unattended, thus no interaction with the user is required. This concept allows using the program to perform a mass deployment. However, if the installer configuration is incorrect, the deployment process may hang, and although we have done our best to allow you to cancel the deployment process, it might be impossible to do so, and the remote Machines reboot might be required to proceed with further deployment or to try to perform the failed deployment again. In this chapter, we will describe how to configure the installers to avoid problems during a silent deployment.

Windows Installer Packages and Microsoft Software Patches are installed using the Windows Installer technology, and no additional configuration is required to perform a silent deployment, but the default silent installation scenario might differ from the required scenario. The installation scenario for Windows Installer Packages can be changed to fit your needs by using the Windows Installer Transforms or Additional Properties. Using these options, you can change the installation target directory, provide the license codes to be applied, etc. The transforms for different installation scenarios might be available together with the installation packages, and you can generate your own ones. You should contact the installation package vendor for the set of properties that can be passed to Windows Installer while deploying this or that product.

The situation with products deployed via executable installers is a little bit more complex. By default, the installation setup is performed through a wizard, and sometimes there is no default scenario. Besides, there is no common way to determine if the deployment process has actually succeeded or not, like it can be done with Windows Installer Packages. So how should you configure the installer for the deployment process to succeed? Let us try to answer this question using, for example, the installation of the product deployed via an executable installer.

![Pic 1. Configuring the executable installer](image-url)
The behavior of the installation setup is commonly configured with the help of command line parameters passed to the installer. Those parameters must be provided to the Parameters field while defining the common configuration. Such parameters may vary depending on the installation vendor, and you should contact the vendor for proper parameters to be used during a silent deployment.

While performing an uninstall of products installed via the known installer types, the program will fill the Parameters field with the required value. Nevertheless, it is still required to double-check the parameters.

The parameters can contain the %LOG_FILE% and %ANSWER_FILE% placeholders. The %LOG_FILE% placeholder should be used instead of the path to the log file to be passed to the installer. If you use this parameter properly, the installer log will be available in the detailed log. The %ANSWER_FILE% placeholder should be used instead of the path to the installation answer file. The answer file is a helper file for the installer that contains the answers to the questions the setup wizard asks on each step. You should contact the installation vendor to find out if an answer file is required and how to generate a proper answer file.

The last but not least important thing during the installer configuration is specifying the exit codes of the installer application to be interpreted as successful deployment completion. Contact the installation package vendor to find out if the installer setup supports checking for errors based on the exit code value and to get the list of exit codes.

Also, please take into account that if you would like to use the Pre & Post Actions to be executed before and/or after the deployment process, you must guarantee that those actions are executed without any interaction with a user, because if the action execution hangs, the whole deployment process also hangs.

**Why is it important to supply installer command line parameters and an answer file?**

As most executable installers are designed to run in a silent mode, when run using specific command line options only, a proper executable installer configuration is required for the deployment process to succeed. If the installer is configured incorrectly, the deployment process may pause to wait for user input, and as there is no user during the remote deployment process, it will hang indefinitely. Although we have done our best to let you cancel the deployment process that has hanged, there is no guarantee that it will be canceled properly and you will be able to redeploy the product or deploy other products.

Now let us look at the importance of an answer file. In some cases, the installer simply does not provide a default installation sequence without any user input, so a silent deployment without any additional configuration is impossible. Such installers commonly provide a technique for recoding an answer file to perform the deployment saving the user answers to that file. Another example is setups that use the same command for uninstall and repair and simply ask you what you would like to do on the first step of the installation wizard. If you launch an uninstall using this command with a default scenario, the installation setup may simply perform a repair and that is not what you are expecting.

As a conclusion, we should emphasize that it is always absolutely necessary to provide correct parameters to be passed to the installer setup and the answer file, if required. You should contact the installation package vendor or do Internet search to get the proper parameters to be passed to each executable installer setup.
How can I check if the installer is configured correctly?

Before performing a remote mass deployment, it is strongly recommended to check if the installer is configured correctly for silent deployment to avoid problems and to save your time. An incorrect configuration may lead to hanging of the deployment process, which might require a reboot for all Machines you are deploying the product to. In this section, we will show you how to check if the installer is configured correctly for silent deployment.

Remote Installer performs deployment with the help of a remote service, so it is not necessary for any user to be logged on a remote Machine to perform installation. To check the installer configuration, we should check if any user interaction is required during the deployment process. To perform such a check, we should use a test Machine: this may be a virtual PC running Microsoft Windows® Vista or a newer operating system. The service runs in a specific session called Session 0, and the operating system provides methods to access the desktops of this session.

To perform a check, we should install the remote service to this machine and enable interaction with the desktop. To enable interaction with the desktop, you should open the service properties in the computer management console and check the **Allow service to interact with desktop** option on the Log On tab [Pic 1].

![Pic 1. Configuring the remote service](image)
The next step is enabling the Interactive Service Detection Service. If the service is started, the users are notified when a dialog box or window (including a command window) appears in Session 0. If more information is shown, details of each of the last ten dialog boxes appear in turn.

Sessions on the glass — at the physical system — always receive notification as long as the feature is not disabled. In client SKUs of Windows Vista and later versions, the remote desktop session is notified when the user is remote instead of on the glass. In server SKUs of Windows Server 2008 and later versions, the remote administration sessions are notified if they are in use. When a Microsoft Terminal Services application server role is on the system, only the administrative sessions are notified and regular user sessions are never notified.

To enable this service, run the command prompt as administrator and type in the following commands:

```
sc config ui0detect start= demand
sc start ui0detect
```

If you prefer to configure the service via the user interface, you should open its properties in the computer management console and choose the Manual startup type on the General tab. After that, select this service and choose Start from the pop-up menu.

Now that the Interactive Service Detection Service is running, it will notify you each time a window appears in Session 0. Optionally, you can switch to Session 0 manually using the following command:

```
rundll32 winsta.dll,WinStationSwitchToServicesSession
```

In the next step, let us try to perform remote deployment to the test Machine. If any window is displayed, you will get the following notification box.

---

**Pic 2. Interactive Services Detection notification**
Choose the View the message option to switch to Session 0. As soon as you have switched to Session 0, you will be able to see the window displayed by the installer setup. This may be a simple progress window, which is not a problem, but if the window is waiting for user input, then the installer is configured incorrectly. If this is the case, you can cancel the deployment manually using the setup wizard and press the Return Now button in the Interactive Services Detection window on the Session 0 desktop. Next, you should make corrections to the installer configuration and try running the deployment process again until it is successful.

As soon as you are satisfied with the testing results, you can disable the Interactive Service Detection Service on the test Machine and deploy the correctly configured package to remote Machines.

We hope you will find this information useful and helpful for configuring of your deployment operations.
Deployment from Network Share

Remote Installer supports two deployment kinds, those are local and network. The deployment kind is detected automatically depending on path to the setup file. When a UNC path is used, the installer is launched from a network share, whereas it is copied to each remote Machine before performing the installation when an absolute local path is used. In any case, the user account used for deployment should have sufficient privileges to perform all deployment steps. The account used is configured within the deployment account settings. You can either configure Remote Installer to use the account that can access the network share and has administrative privileges on a remote Machine or configure the access to the network share so as to grant access to a Local System account if you choose to use it for deployment. Let us take a closer look at both approaches.

Using an administrative user account

Using an administrative user account is the preferred method for performing remote deployment. You can either use the domain administrator credentials or create a special user account that will be used only for performing remote deployment. The requirement to that account is that it should have administrative privileges on each target Machine and be able to access the network share with the installations repository.

In case you have not provided the network administrator credentials during the initial program configuration or within the Credentials view, the current user account is implicitly used for deployments. Even if the current user account is the administrative one, it is strongly recommended that the administrative credentials be defined explicitly since only the minimum necessary information on a connecting user is passed to a remote Machine by the operating system when performing network authentication. Otherwise, the following limitations arise: the process run as an implicitly retrieved user account won't be able to authenticate for accessing network shares unless a domain environment is used and both the user and computer accounts are trusted for Kerberos delegation.

The account used for deployment is the same as the one used for connecting to a remote Machine. It is provided in the Credentials view. You can provide a single account for the entire network or specific accounts for groups or individual Machines [Pic 1].

Pic 1. Providing credentials for a domain and a workgroup
Within a domain environment, it is sufficient to use any user account that is a member of the **Domain Administrators** group. Inside a workgroup environment, there are no user accounts shared between Machines, so it is required that each Machine should have an account that is a member of the local **Administrators** group with the same credentials as specified to be able to use the described approach.

In the provided example for the domain environment settings, it is supposed that the `installer@wintoolkit.local` is a domain administrator account within the `wintoolkit` domain, and for the workgroup environment settings, the `.\installer` notation means that for each Machine its local user is used. Thus, target Machines and the Machine containing a network share with the installations repository must have the local `installer` user that belongs to the **Administrators** group.

In case your configuration is meant to run deployments as the user currently logged on to a remote Machine, you should configure the network share to allow access for that user.

**Using the Local System account**

The approach of using the **Local System account** to perform deployments from network shares can be used only within a domain environment. Such an account has extensive privileges on the local computer and acts as a computer on the network, so the network share should be configured so as to allow access for each target computer.

![Pic 2. Configuring a network share to allow access for domain Machines](image)

To reach the goal, you should grant access for the **Domain Computers** group. Optionally, you can grant access to **Everyone**, if applicable. To configure the share permissions, you should open the share properties, switch to the **Sharing** tab and press the **Permissions** button.

As you can see, the ability to deploy from a network share depends on the environment configuration. Now that you have been introduced to the approaches used to enable this option under different environments, you should be able to use this feature without any difficulties.
Software Bundles

Bundles are used to configure and distribute software. A bundle consists of deployment packages that define how to install, uninstall and/or repair a specific piece of software. Each deployment package within a bundle consists of all the files, configuration settings, installation instructions, etc. required to deploy and manage an application on a remote Machine. Bundles can be grouped logically within Bundle Groups. Creating Bundle Groups supports administration efforts by letting you deploy group rather than each individual Bundle to remote Machines. For example, a Bundle Group may contain an application and a set of patches for it. Bundle Groups may contain both Bundles and other Bundle Groups, so you can, for example, create a Bundle Group defining a group of applications for graphical designers, including all application with their patches grouped within other Bundle Groups. All Bundles and Bundle Groups are displayed in the Software Bundles view and are used for software deployment.

What's Inside

Bundles Management
Importing and Exporting Bundles
Bundles Management

Bundles and Bundle Groups are managed in the Software Bundles view. In this section of the document, we will explain how to create Bundles and Bundle Groups, edit them and delete when they are no longer needed.

<table>
<thead>
<tr>
<th>Bundle</th>
<th>Bundle from Template</th>
</tr>
</thead>
</table>

**Bundle**
The Bundle button from the New Ribbon group on the Home page and on the Software Bundles contextual page from the Software Bundles Tools category should be used to create a new Bundle and add it to the Software Bundles repository.

**Bundle from Template**
The Bundle from Template button from the New Ribbon group on the Home page and on the Software Bundles contextual page from the Software Bundles Tools category allows you to create a Bundle from an already defined or new template.

You can create generic Bundles or create Bundles from templates. Bundle templates are configured in the program preferences and already contain a set of predefined preferences most commonly used by applications vendors. When creating a Bundle from a template, you are going through a simple wizard and configure only required settings for install, uninstall and repair packages within a bundle. Any additional configuration, such as pre and post actions, can be done in future when editing the created Bundle. To create a Bundle from a template, you can use the Bundle from Template button from the New Ribbon group on the Home page, the Bundle from Template item from the New button drop-down on the Software Bundles view toolbar or the corresponding item in the pop-up menu. You can either choose a template from those available or create a new one.

Creating a generic Bundle is a more complex task, but it allows you to configure each and every aspect of deployment packages during the Bundle creation process. To create a new Bundle, you can press the Bundle button from the New Ribbon group on the Home page or on the Software Bundles contextual page. Alternatively, you can use the New > Bundle item from the Software Bundles view pop-up menu or the Bundle item from the New button on the toolbar. The New Bundle dialog will appear on the screen for you to configure the Bundle being created.
Pic 1. Creating a Bundle
When creating a Bundle, you should define a name for the bundle, an optional comment, a publisher, a version and the install, uninstall and/or repair packages for managing the software represented by this Bundle, if applicable. The name, the publisher and the version can be filled with corresponding properties of the installation automatically while it is being added if they have not been changed manually. The install package should be defined if you are going to install this Bundle to remote Machines. The same requirement also applies to uninstall and repair packages. At least one of the deployment packages must be defined to create a Bundle. To define a deployment package, you should use the hyperlink on the appropriate tab page. When a deployment package is defined, the deployment package summary is displayed on the page, and you can either edit or reset it using the hyperlinks. Resetting is required if you would like to change either the type or the kind of the deployment package. After the Bundle has been configured, press Create to add it to the Software Bundles repository to be used in future deployments.

Bundle Group

The Bundle Group button from the New Ribbon group on the Home page and on the Software Bundles contextual page from the Software Bundles Tools category should be used to create a new Bundle Group and add it to the Software Bundles repository.

To create a new Bundle Group, you can press the Bundle Group button from the New Ribbon group on the Home page or on the Software Bundles contextual page from the Software Bundles Tools category. Alternatively, you can use the New > Bundle Group item from the Software Bundles view pop-up menu or the Bundle Group item from the New button on the toolbar. The New Bundle Group dialog will appear on the screen for you to configure the Bundle Group being created.

![Pic 2. Creating a Bundle Group](image-url)
When creating a Bundle Group, you are proposed to define the group name and comment as well as the set of Bundles and Bundle Groups to be included into the Group being created and their deployment order. The name and comment are used to make it easier for you to identify in the future the Bundle Group being created. The defined deployment order is used during install and repair operations, and it is reversed for uninstall operations. To add a Bundle or a Bundle Group to the Bundle Group being created, use the Add Bundles button from the bundles table toolbar or choose an appropriate item from the pop-up menu. The pop-up menu will be displayed to let you choose the Bundles to be added. The Bundles and Bundle Groups that are already in the Bundle Group being created are filtered from those available. It is also possible to create a new Bundle to be added to the Group. The Remove Bundles button and menu item are used to remove the selected Bundles and Bundle Groups from the Bundle Group being created. The deployment order is controlled using the Move Up and Move Down items from the toolbar and pop-up menu. After the Bundle Group is configured, press Create to add it to the Software Bundles repository to be used in future deployments.

To edit any Bundle or Bundle Group, select it in the Software Bundles view and either choose the Edit button from the Organize Ribbon group on the Program page or use the Edit items from the Software Bundles view toolbar and pop-up menu. The editing process is similar to that of creation. When some Bundles or Bundle Groups are no longer needed, you can delete them using either the Delete button from the Organize Ribbon group on the Program page or the Delete items from the Software Bundles view toolbar and pop-up menu. The Delete button can also be used to remove Bundles from Bundle Groups. When you delete Bundles and Bundle Groups, they are also deleted from all the deployment tasks they are currently included into. You can preview the affected references within the deletion confirmation dialog.

Within the Software Bundles view, it is also possible to copy and move Bundles and Bundle Groups among other Bundle Groups, as well as create their duplicates. This can be done either via the drag and drop technique or via the copy/paste method. The Cut, Copy, and Paste items from the Clipboard Ribbon group on the Program page can be used, as well as the appropriate items from the pop-up menu. It is also possible to copy Bundles and Bundle Groups from different editions of the program and use the export feature. For details on import and export, refer to the Importing and Exporting Bundles section of this document.

Now that you have been introduced to the Software Bundles management process, you should be ready to prepare Bundles and Bundle Groups for solving your remote deployment tasks.
Importing and Exporting Bundles

With Remote Installer, you can easily import and export Bundles and Bundle Groups any time you want. You can export one or all of the available Software Bundles to use the exported data as a backup, to share data with your colleagues or simply to import the objects to another instance of the program. The import feature can be used both to import Bundles and Bundle Groups into Remote Installer or to a Software Bundles repository or into specific Bundle Groups.

**Import**

The Import button from the Organize Ribbon group on the Program page can be used to import Bundles and Bundle Groups from an XML file with the help of the wizard.

If you want to import Bundles and Bundle Groups into Remote Installer, press the Import button from the Organize Ribbon group on the Program page when the Software Bundles view is focused on. Optionally, you can use the Import button from the pop-up menu of the Software Bundles view. If the Bundle Group is selected, the Bundles and Bundle Groups will be added to that group after being imported. The import wizard will appear on the screen to guide you through the import process [Pic 1].

[Pic 1. The Import Bundles wizard welcome page]
The first page of the **Import Bundles** wizard is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with import.

On the next page of the **Import Bundles** wizard, you are offered to choose the file you are going to import Bundles from [Pic 2](image). The file path should be provided to the **Import From** field. The encoding of the XML file with Bundles is detected automatically.

![Pic 2. Choosing the import source file](image)
After the path to the required file is provided, press Next. The program will check if the file contains valid Bundles data and will display the parsed Bundles to choose from Pic 3. In case the file contains the same bundles that are already present in the repository, they won't be checked for import automatically. If you still want to import those Bundles, you can check them manually and choose the conflicts resolution mode. If the Use existing items for conflicting entries is chosen, the existing Bundles are used. So if you import the Bundles into a repository, the conflicting entries are skipped, and if you import them into a Bundle Group, the Bundles that currently exist in the program are added. In case the Create new items for conflicting entries is chosen, the conflicting entries are imported as new items.

Pic 3. Choosing Software Bundles to import
After the Software Bundles to import and the conflicts resolution mode have been chosen, press the **Finish** button to proceed with import. As soon as the import is completed, the imported Bundles are added to the **Software Bundles** view.

To perform export, select the Bundles and/or Bundle Groups to export and press the **Export** button from the **Organize** Ribbon group on the **Program** page. Alternatively, you can use the **Export Selected** and **Export All** items from the **Software Bundles** view pop-up menu. The **Export Bundles** wizard appears on the screen [Pic 4].
The first page of the export wizard is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press Next to continue with export.

On the next page of the Export Bundles wizard, you are offered to choose the file you are going to save the Software Bundles to and the file format options [Pic 5]. The file path should be provided to the Export To field. You can choose the encoding to be used for saving the objects.

![Pic 5. Configuring the export options](image.png)

After the file path and the export format have been chosen, press Finish to proceed with export. A file containing the exported Software Bundles will be created in the specified path. The file created during export can be used in the future to import the Software Bundles back to the program.

Now that you have been fully introduced to the Software Bundles export and import options available in Remote Installer, you can use them in the future to solve your tasks.
Deployment Packages

The deployment process in Remote Installer is always described by deployment packages. Each deployment package defines the actions to be performed to install, uninstall or repair a single piece of software. The following deployment operations are available: Install, Uninstall, Repair, Smart Uninstall and Smart Repair. Although you can create new deployment packages for each deployment operation, install, uninstall and repair packages of a single instance of software can be grouped into a Bundle that is persisted to the program database. Using Bundles can significantly simplify the deployment operations configuration and the installed software management. Smart uninstall and smart repair packages are created based on the software inventory allowing you to uninstall/repair software only from/on specific Machines.

When configuring a new deployment package, a special attention should be paid to its proper initialization to proceed with its configuration. That is why it is required to answer some simple questions before providing the action deployment options. The first thing to specify for the deployment package is the installer type. You can choose among the Executable Installer, Windows Installer Package and Microsoft Software Patch. The type can also be detected automatically based on the file extension, when an install is performed, or if you choose a product from the inventory when an uninstall or repair is performed. During the next steps, you will be offered to define only those settings that are available for the selected installer type. For example, to install a product using an executable installer you should possibly provide the scenario file to be used for the installation, and for Windows Installer Packages, you can define a set of properties to be used by the installation. Another important initialization parameter is the deployment package kind; it can be either Generic Package or the Multi-Platform Package. The Generic Package kind is used when you are going to use the same deployment parameters for Machines running both the x86 and x64 operating systems, and the Multi-Platform Package kind should be used to provide different deployment parameters for Machines running the x86 and x64 operating systems. As for the uninstall and repair packages, you can choose if you would like to select the software to uninstall or repair from the inventory, or provide the required information manually.

The smart uninstall and repair packages configuration process is slightly different. When you are creating a smart package, you are offered to choose the software you would like to uninstall or repair. Then the required number of packages is created. If the packages set already contains the same product to uninstall or repair, a new package is not created; instead, the selected Machines are added to the existing package, so that each package always represents a single piece of software. The installer type is determined automatically, and the package kind is always generic. While editing packages, you can change the scope of Machines for each package.

As it has already been mentioned, the installer type determines the deployment package configuration process, but the configuration concept is always the same: you can define a common package configuration, which is required, optionally define an advanced package configuration, and review the resulting package contents. The configuration process is performed with the help of a wizard. Let us take a closer look at this process using a generic executable installation package as an example.
Pic 1. Generic executable installation package configuration
To install a product to remote Machines, you should specify the deployment package name and provide the path to the installation file (or two installation files if you are configuring a multi-platform deployment package) and the installation parameters. The deployment type is detected automatically based on the path to the installation file. When a UNC path is used, the product is installed from a network share, whereas the installer is copied to each remote Machine before performing the installation when an absolute local path is used. As for the local deployment type, it is possible to copy the entire installation directory to a remote Machine. Other options to specify are the parameters to pass to the executable installer while performing the installation and the optional answer file to be used for a successful silent installation. You can always review the installation properties in the bottom of the common configuration page. This page is quite similar to that of other installer types and deployment modes.

The next step of the deployment package configuration is defining a set of advanced parameters. The advanced configuration is optional and should only be used if required, although this chapter describes each aspect in detail. The set of advanced package configuration options depends on the installer type. Those parameters are the Pre & Post Actions, Windows Installer Transforms, Additional Properties, and the overridden MSI Repair Options and Windows Installer Log settings.

At last, having configured the deployment package, you can review the entire package on the summary page. The features available on that page are described in the Package Summary section.

### Install Packages

The program enables you to create the install package for the following installer types:

**Executable Installer**: when configuring an executable installer package for installation, you should provide the path to the executable installation to be deployed to remote Machines, specify if you would like to check for failure using the exit code of the installer application, provide the parameters to be passed to the installer application for silent deployment and supply the answer file to be used by the installer application, if required.

**Executable Installer Configuration**
**Windows Installer Package**: while configuring a Windows Installer Package deployment package for installation, you should simply provide the path to the MSI installation to be deployed to remote Machines.

**Windows Installer Package Configuration**
**Microsoft Software Patch:** while configuring a Microsoft Software Patch package for installation, you should provide the path to the required MSP installation and choose the product to apply the patch to. You can leave the product field empty if you wish to apply the patch to all the products it pertains to.

Microsoft Software Patch Configuration
For all installer types, it is possible to perform both quick install and install, but an additional configuration is always required for executable installer deployment packages. For such deployment packages, you must always provide the command line parameters to be used for silent deployment or specify that no parameters are required. It is also possible to check if the software you are going to deploy is already installed before actually performing the deployment to optimize the process. To enable such checking, use the **Check for already installed** option. For Windows Installer Packages and Microsoft Software Patches, the Product ID is used for software identification. As for the products installed via executable installers, the program checks the Name, Publisher and Version values from the Programs and Features list in the Control Panel to match with those defined for the deployment package. By default, the program uses the installer properties as a reference for those values, but it is recommended to define them for each deployment package explicitly using the **Specify the check condition** hyperlink.

**Uninstall Packages**

The program enables you to create packages to uninstall software deployed via the following installers:

**Executable Installer**: when configuring an executable installer package for uninstall, you should either choose the product from the inventory or provide the uninstall command manually. In both cases, you should also specify if you would like to check for failure using the exit code of the uninstaller application, provide the parameters to be passed to the uninstall command for silent operation and supply the answer file to be used by the uninstaller application, if required.

**Executable Installer Configuration (Chosen from Inventory)**
Executable Installer Configuration (Manual Configuration)
Windows Installer Package: when configuring a Windows Installer Package deployment package for uninstall, you should either choose the program from the inventory or provide the Product ID for the product to uninstall. The Product ID can be either typed in manually or retrieved from an MSI file.

Windows Installer Package Configuration (Chosen from Inventory)
Windows Installer Package Configuration (Manual Configuration)
**Microsoft Software Patch**: while configuring a Microsoft Software Patch deployment package for uninstall, you should either choose the patch from the inventory, or provide the path to the MSP file to retrieve the installation properties used for uninstall from, and choose the product to uninstall the patch from.

Microsoft Software Patch Configuration (Chosen from Inventory)
Microsoft Software Patch Configuration (Manual Configuration)
Repair Packages

The program enables you to create deployment packages to repair programs deployed via the following installers:

**Executable Installer:** when configuring an executable installer package for repair, you should either choose the program from the inventory or provide the repair command manually.

For manual package configuration, you can provide a path to the original setup file, if it is required for a successful repair, to the **Setup** File field. You can then use the `%SETUP_FILE%` and `%SETUP_DIR%` placeholders in the **Command** field. The placeholders will be replaced by the corresponding paths during the deployment process. While providing a setup file from a local file system, it is also possible to copy the entire setup directory to a remote Machine.

In both cases, you should also specify if you would like to check for failure using the exit code of the installer application, provide the parameters to be passed to the repair command for silent operation and supply the answer file to be used by the installer application, if required.

Executable Installer Configuration (Chosen from Inventory)
Executable Installer Configuration (Manual Configuration)
Windows Installer Package: when configuring a Windows Installer Package deployment package for repair, you should either choose the program from the inventory or provide the data required for repair manually. For a manual configuration, you should choose if the setup file is available on a remote Machine. In case it is available, only the Product ID of the application to repair should be provided, otherwise you should provide a path to the MSI file used to install the application. While providing a path to the setup file from a local file system, it is possible to copy the entire setup directory to remote Machines during deployment.

Windows Installer Package Configuration (Chosen from Inventory)
Windows Installer Package Configuration (Manual Configuration)
Smart Uninstall Packages

The program enables you to perform smart uninstall for the products installed via the following installers:

**Executable Installer**: when configuring an executable installer smart uninstall package, you should specify if you would like to check for failure using the exit code of the uninstaller application, provide the parameters to be passed to the uninstall command for silent operation and supply the answer file to be used by the uninstaller application, if required.

Executable Installer Configuration

![Executable Installer Configuration](image-url)
**Windows Installer Package**: when configuring a Windows Installer Package smart uninstall package, you should only choose the program to be uninstalled.

Windows Installer Package Configuration
**Microsoft Software Patch**: when configuring a Microsoft Software Patch smart uninstall package, you should only choose the patch to be uninstalled, whereas the product to uninstall the patch from is selected automatically.

Microsoft Software Patch Configuration
If the type of the executable installer cannot be determined or an additional configuration is always required to uninstall the product, it is not allowed to perform a quick uninstall for such products. For other products, it is possible to perform both quick uninstall and uninstall.

**Smart Repair Packages**

The program enables you to perform smart repair for the products installed via the following installers:

**Executable Installer**: when configuring an executable installer smart repair package, you should specify if you would like to check for failure using the exit code of the installer application, provide the parameters to be passed to the repair command for silent operation and supply the answer file to be used by the installer application, if required.

**Executable Installer Configuration**

![Smart Repair Package Configuration](image)
**Windows Installer Package**: when configuring a Windows Installer Package smart repair package, you should only choose the program to be repaired.

**Windows Installer Package Configuration**

If the type of the executable installer cannot be determined or an additional configuration is always required to repair the product, it is not allowed to perform a quick repair for such products. For other products it is possible to perform both quick repair and repair.

**What's Inside**

Configuring Pre & Post Actions
Windows Installer Advanced Options
Package Summary

**Configuring Pre & Post Actions**

Remote Installer allows you to perform any kind of custom actions before and/or after install, uninstall or repair processes. Such actions are defined for each deployment package and may affect install, uninstall or repair processes and their output is also added to the detailed log.

You can choose among a wide range of action types to perform, which are the following:

- Import of a Registry File;
- Executable File;
- Script File;
- PowerShell Script;
- Shell Command;
- Message.
You can also define if the action should be executed on Machines running both x86 and x64 platforms or only one specific platform (x86 or x64) for multi-platform deployment packages.

The actions to be performed before and/or after install, uninstall or repair processes are defined during the deployment package configuration procedure on the **Pre & Post Actions** tab [Pic 1]. For each operating action, it is possible to choose if the operation should wait for the action to be completed before executing the next one and if the operation should be interrupted if the action has returned an exit code that is interpreted like a failure sign. For each message, you can also define if the deployment operation should wait for the message dialog to be closed.

![Pic 1. Configuring Pre & Post Actions](image)

The actions are grouped in the table by their execution type, which shows if it should run before or after install, uninstall or repair processes and sorted by their execution order. When a multi-platform package is being configured, the table items are also grouped by the target platform.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="New Action" /></td>
<td><strong>New Action</strong>&lt;br&gt;The <strong>New Action</strong> button should be used to add a new action to be performed before or after the installation setup.</td>
</tr>
<tr>
<td><img src="image" alt="Edit Action" /></td>
<td><strong>Edit Action</strong>&lt;br&gt;The <strong>Edit Action</strong> button enables you to change the selected action configuration.</td>
</tr>
<tr>
<td><img src="image" alt="Delete Actions" /></td>
<td><strong>Delete Actions</strong>&lt;br&gt;The <strong>Delete Actions</strong> button can be used to delete the selected actions from the deployment package being configured.</td>
</tr>
<tr>
<td><img src="image" alt="Move Up" /></td>
<td><strong>Move Up</strong>&lt;br&gt;The <strong>Move Up</strong> button should be used to move the selected actions up the execution order.</td>
</tr>
</tbody>
</table>
The Move Down button should be used to move the selected actions down the execution order.

The Configuration button opens the view configuration menu, which allows you to reset the view layout to the defaults, thus displaying the columns that are initially invisible and hiding those that are initially visible.

The options of adding, editing, deleting and moving actions up and down the execution order, as long as the configuration menu, are also available in the pop-up menu of the Pre & Post Actions table.

You can add as many actions as needed to every install, uninstall or repair package. Regardless of how the wait for completion configuration is set, it is guaranteed that all Pre-Install/Uninstall/Repair actions, except notification messages, will be completed before the actual install, uninstall or repair process is executed and that the operation will not be finished until all Post-Install/Uninstall/Repair actions are completed and all messages are displayed.

Adding Pre & Post Actions

To add a new action to the deployment package, you should press the New Action button on the Pre & Post Actions table toolbar or choose the New Action item from the pop-up menu. The New Action wizard will be displayed on the screen.

If a multi-platform package is being configured, the first page of the wizard will offer you to choose the target platform for the action being created.

It is possible to specify if the action should be performed with the x86 and x64 installations or with a particular installation. If the deployment package being configured is a generic one, this step is skipped. Please note that the target platform cannot be changed in future when editing the action. The next step of the New Action wizard is choosing the action type.
You can choose among the Import of a Registry File, Executable File, Script File, PowerShell Script, Shell Command and Message action types. The action type is also selected only during the action creation process and cannot be changed in future when editing the action. When the action type is chosen, click **Next** to start the actual action configuration.

Let us take a closer look at configuring each action type from those available, starting with the import of a registration entries (.reg) file.

**Import of Registry File Configuration**
While configuring the registration entries (.reg) file import action, you can define the action name, which can be used for easier identification in future, in the **Name** field, specify if the action should be executed before or after the install, uninstall or repair process by changing the **Run On** field value, provide the path to the registration entries (.reg) file to import to the **Path** field, and choose if the operation should wait for the action to complete before executing the next one. If you have chosen that the operation should wait for the action to be completed, it is possible to interrupt the operation if the action returns an exit code that does not belong to the successful ones, thus interpreted as a failure. The success codes should be provided to the **Success Codes** field as unsigned integers separated by semicolon, e.g. 0; 1; 10.

The configuration principle of the next three action types, namely Executable File, Script File and PowerShell Script, is the same. Using the Executable File action type, you can run executable console applications and batch files before and/or after the install, uninstall or repair process. The Script File type should be used to execute simple console scripts, e.g. those written on Visual Basic. The PowerShell Script type should be used to execute PowerShell scripts. Let us take a closer look at the configuration process using the Executable File action type as an example.

**Executable File Configuration**
Script File Configuration

PowerShell Script Configuration
When configuring an action, you can enter the action name, which can be used for easier identification in future, in the **Name** field and specify if the action should be executed before or after the install, uninstall or repair process by changing the **Run On** field value. The next thing to provide is the path to the executable file to be entered to the **Path** field. If you are using a local path, the action will be copied to each remote Machine before being executed, and it is possible to copy the entire action directory together with the executable file itself. This approach should be used if the action depends on external files. The required command line arguments to be passed to the executable file should be provided to the **Parameters** field. Just like for the Import of a Registry File action, you can choose if the operation should wait for the action to be completed before executing the next one. If you have chosen that the operation should wait for the action to be completed, it is possible to interrupt the operation if the action returns an exit code that does not belong to the successful ones, thus interpreted as a failure. The success codes should be provided to the **Success Codes** field as unsigned integers separated by semicolon, e.g. **0; 1; 10**.

The next action type is the Shell Command. This action type allows you to execute any shell command before and/or after the install, uninstall or repair process. Let us take a closer look at the action configuration process.

**Shell Command Configuration**
When configuring the Shell Command action, you can specify the action name, which can be used for easier identification in future, in the **Name** field and specify if the action should be executed before or after the install, uninstall and repair process by changing the **Run On** field value. The actual shell command to execute should be provided to the **Command** field. As for the other action types, it is possible to choose if the operation should wait for the action to be completed before executing the next one. If you have chosen that the operation should wait for the action to be completed, it is possible to interrupt the operation if the action returns an exit code that does not belong to the successful ones, thus interpreted as a failure. The success codes should be provided to the **Success Codes** field as unsigned integers separated by semicolon, e.g. **0; 1; 10**.

The last one of the available action types is the Message. This action type allows you to display simple notification messages to users currently logged on to remote Machines. Let us take a look at the message configuration process.

**Message Configuration**

When configuring the Message action, you can specify the action name, which can be used for easier identification in future, in the **Name** field and specify if the action should be executed before or after the install, uninstall and repair process by changing the **Run On** field value. The message dialog title is entered into the **Title** field, and the actual message to be displayed is typed into the **Message** field. The **Timeout** field allows you to define the time interval the message should be displayed for. By default, the deployment operation continues as soon as the message is displayed. If you want it to wait until the message dialog closes, check the **Wait until this action is completed before running the next one** option.

For the title and message definitions, you can use the following placeholders that will be replaced with actual values before displaying the message box on a remote Machine:

<table>
<thead>
<tr>
<th>Placeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%SENDER%</td>
<td>the name of the user that initiated a remote deployment procedure.</td>
</tr>
<tr>
<td>%TIME%</td>
<td>the current time.</td>
</tr>
<tr>
<td>%DATE%</td>
<td>the current date.</td>
</tr>
</tbody>
</table>
%DATETIME

the current date and time.

You can preview the dialog to be displayed to a remote user using the Message Dialog Preview link.

After you have configured the action to be added, press Create to proceed. The action you have configured will be added to the Pre & Post Actions table at the end of the execution order. To move it up and down the execution order, use the Move Up and Move Down items on the Pre & Post Actions table toolbar or in the pop-up menu.

Editing the Action

To edit an action, you should select it in the Pre & Post Actions table and choose the Edit Action menu item from the pop-up menu or press the Edit Action button on the toolbar. The Edit Action dialog will appear on the screen.

When editing the actions, it is possible to change the same configuration parameters as during the addition process, with the exception of the action type and the target platform. After you have completed configuring the action, press Apply to apply the changes made.

Deleting Pre & Post Actions

To delete pre and post actions from the deployment package being configured, you should select the unnecessary actions in the Pre & Post Actions table and press the Delete Actions button on the toolbar or choose the Delete Actions item from the pop-up menu. When selecting a multi-platform action, which is added to both x86 and x64 installations, in one of the Target Platform grouping rows, be aware that it will be deleted from both x86 and x64 installations.

Now you are fully introduced to the option of executing any type of actions before and/or after install, uninstall or repair processes and should be able to efficiently use this feature of Remote Installer for complex deployment packages.

Windows Installer Advanced Options

Remote Installer enables you to provide a set of advanced configuration parameters for each install, uninstall and repair package. The pre and post actions configuration is common for all installer types, but there is a set of properties that can be provided only while configuring the Windows Installer. Let us take a close look at those properties and see when they are applicable.

The Windows Installer Transforms can only be defined to perform an installation of a Windows Installer Package and are not applicable for uninstall and repair. Each transform contains a set of changes applied to an installation. By applying a transform to a base installation package, the installer can add or replace data in the installation database and change the installation scenario. The Additional Properties can be defined while configuring a Windows Installer Package to be installed or uninstalled, and are not applicable for repair. Using these properties, you can change the install and uninstall process scenario to fit your requirements by changing certain property values. With the Professional edition of Remote Installer, you can override the Windows Installer Log settings defined in the program preferences for install, uninstall or repair packages, as well as the MSI Repair Options for repair packages. This chapter will guide you through the configuration of advanced parameters for Windows Installer.

What's Inside
Windows Installer Transforms
Using Additional Properties
Overriding Common Settings
Windows Installer Transforms

Remote Installer enables you to apply Windows Installer Transforms to the installations being deployed to remote Machines. A transform is a collection of changes applied to an installation. By applying a transform to a base installation package, the installer can add or replace data in the installation database. You can get detailed technical information about transforms using the following link: Database Transforms.

With Remote Installer, you can provide a list of transforms to be applied to the installation while configuring the install package on the MSI Transforms tab [Pic 1].

![Pic 1. Providing a list of transforms](image_url)
Remote Installer enables you to add both embedded and external installation transforms. Embedded transforms are stored right inside the Windows Installer Package, which ensures that the users always have the transform available when the installation package is available.

To add a transform to the installation package, press the **New Transform** button on the toolbar or choose the **New Transform** item from the pop-up menu. The **New Transform** wizard will be displayed on the screen.

If the install package being created is a multi-platform package, the first page of the **New Transform** wizard enables you to choose the target platform. You can specify, if you would like to add a transform to both x86 and x64 installations or to a specific platform installation: either x86 or x64. **Pic 2.**

![Pic 2. Choosing the target platform](image)

The next page, that is the first one for a generic deployment package configuration, is used to provide a transform to apply to the installation. **Pic 3.**

![Pic 3. Providing a transform to apply to the installation](image)
While adding a transform, you can choose if you would like to provide an external transform file or use one of the available embedded transforms. To provide an external transform, you should select the **External Transform** radio button and provide the path to the Windows Installer transform file in the **Path** field. To select one of the embedded transforms, select the **Embedded Transform** radio button and choose the desired transform from the **Transform** field drop-down list. As soon as you have chosen the transform to add to the installation, press the **Create** button. The transform will be added to the transforms table.

To delete any transforms from the install package, select these transforms in the transforms table and choose the **Delete Transforms** button on the toolbar or select the **Delete Transforms** item from the pop-up menu.

Now you are fully introduced to the option of adding transforms to be applied to the MSI package during the installation process and should be able to use this feature of Remote Installer when required.
Using Additional Properties

Remote Installer enables you to customize the install and uninstall process by configuring additional properties. All properties that have initial values are stored in a table inside the installer database and you can change the scenario to fit your requirements by changing certain property values for the install and uninstall process. You can get detailed technical information about Windows Installer properties using the following link: About Properties.

With Remote Installer, you can provide a set of additional properties while configuring the install or uninstall package on the Additional Properties tab [Pic 1].

![Pic 1. Providing a set of additional properties](image)

The set of properties consists of the predefined ones and those you can add. We are using the predefined properties to help you reach proper deployment results with the default configuration.

The predefined properties are the ALLUSERS and REBOOT. The REBOOT property can be neither changed nor removed and has always the ReallySuppress value to allow Remote Installer to complete the deployment sequence. As for the ALLUSERS property, you can change its value to 0, if required, but you must make sure that the deployment is performed using the user account and not that of the local system. The account used for deployment is configured on the Deployment Account preference page.

The process of editing the set of additional properties is intuitive. You can add a new property by providing the property name and value to the Name and Value fields and pressing the Add button. To change the value for an existing property, you can either provide its name and a new value or select it in the grid, click the Edit item from the pop-up menu and provide a new value, then press the Change button. To remove a certain property, select it in the properties table and press the Remove button. After the property is removed, the Name and Value fields are automatically filled with the name and value of the removed property.
Overriding Common Settings

Remote Installer provides you with an option to configure the Windows Installer Log settings to be used by Windows Installer while deploying Windows Installer Packages and Microsoft Software Patches, as well as the MSI Repair Options to be used while repairing Windows Installer Packages. These options are available in the program preferences. But what if you would like to use different settings for deploying specific products? The fact is that you do not need to modify the program preferences to reach this goal; hence the behavior of the scheduled deployment tasks remains the same, you can just override the common settings for specific deployment packages. Let us take a closer look at the settings overriding process using the Windows Installer Log settings as an example.

The option of overriding the log settings is available on the Windows Installer Log tab while advanced deployment package configuration parameters are provided. To override the Windows Installer Log options, you should check the Override log options configuration option, then select the types of installer events to log. To reset the settings to common, you can use the Reset to common link. In addition to overriding the Windows Installer Log options, it is also possible to change the default settings using the Change common configuration link. The same concept is used to override the MSI Repair Options. As you can see, the approach is easy and can be used to reach maximum flexibility during the deployment packages configuration process.
Package Summary

When configuring install, uninstall and repair packages with Remote Installer it is important to have an option to review the package summary. This option is available on the last page of the package configuration wizard. 

The package overview page consists of two tabs: Package Summary and Effective Package Structure. The Effective Package Structure tab is displayed only if the package references one or more files. It means that if you are simply going to uninstall a product without initiating any pre and post actions, there are no files in the package and, as a result, you do not need to check if the package files are accessible, and there is no packages structure to build. Let us take a closer look at each tab using the Windows Installer Package deployment package as an example.

Package Summary

On the Package Summary tab, you can review the basic package structure, including all pre and post actions. At the bottom of the page, you can see brief package info, which can be hidden.

Toolbar Overview

<table>
<thead>
<tr>
<th>Check Entire Package</th>
<th>Full Expand</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Check Entire Package button should be used to build the entire package structure, check the package integrity, including the files copied in accordance with the Copy entire directory option, and calculate the cumulative size.</td>
<td>The Full Expand button should be used to expand all the grouping rows in the package tree.</td>
</tr>
<tr>
<td>Button</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Full Collapse</td>
<td>The Full Collapse button should be used to collapse all the grouping rows in the package tree.</td>
</tr>
<tr>
<td>Choose Columns</td>
<td>The Choose Columns button should be used to choose the columns displayed in the tree.</td>
</tr>
<tr>
<td>Filter Editor</td>
<td>The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the tree.</td>
</tr>
<tr>
<td>Configuration</td>
<td>The Configuration button provides access to the option of resetting the view layout and hiding the summary pane.</td>
</tr>
</tbody>
</table>

The installation structure can be found under the Installation node; other child nodes for the Package node are pre and post actions. Building the whole package structure might be complex as the package may be quite large and it can take much time to access all the files in the package, so the package summary consists only of the specified files. To build the entire package structure, to check its integrity, including the files copied in accordance with the Copy entire directory option, and to calculate the cumulative size, you can use the Check Entire Package button from the toolbar or the Check Entire Package item from the pop-up menu.

The Summary pane at the bottom of the page displays brief information about the package, such as its name, type, etc. You can hide this pane by disabling it using the Show Summary option from the Configuration menu. You can also customize the sorting and the visible columns any way you want, and it is always possible to roll back to the default view layout using the Reset Layout item from the Configuration menu.

**Effective Package Structure**

The Effective Package Structure option should be used to build and review the entire package structure, check the whole package integrity and calculate the entire size. Besides, the Package Log part of the Effective Package Structure page displays the check result and grouping errors, if any, by package files. [Pic 2]
The entire structure is not built automatically to save your time, because if the installation is located on a network share or the package is quite large it can take a lot of time to build the whole package structure. After building the entire package structure, you can see the whole structure in form of a tree. The installation structure can be found under the **Installation** node; other child nodes for the **Package** node are pre and post actions. If some files were inaccessible while the package summary was built, such files are marked with an error icon and the actual error can be found in the tool tip.

**Toolbar Overview**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Check Entire Package" /></td>
<td><strong>Check Entire Package</strong>&lt;br&gt;The <strong>Check Entire Package</strong> button should be used to build the entire package structure, check the package integrity, including the files copied in accordance with the Copy entire directory option, and calculate the cumulative size.</td>
</tr>
<tr>
<td><img src="image" alt="Full Expand" /></td>
<td><strong>Full Expand</strong>&lt;br&gt;The <strong>Full Expand</strong> button should be used to expand all the grouping rows in the package tree.</td>
</tr>
<tr>
<td><img src="image" alt="Full Collapse" /></td>
<td><strong>Full Collapse</strong>&lt;br&gt;The <strong>Full Collapse</strong> button should be used to collapse all the grouping rows in the package tree.</td>
</tr>
<tr>
<td><img src="image" alt="Choose Columns" /></td>
<td><strong>Choose Columns</strong>&lt;br&gt;The <strong>Choose Columns</strong> button should be used to choose the columns displayed in the tree.</td>
</tr>
</tbody>
</table>
Filter Editor
The Filter Editor button should be used to define the custom filter criteria to be applied to the data displayed within the tree.

Configuration
The Configuration button provides access to the option of resetting the view layout.

While reviewing the effective content for the package, you can collapse the Package Log part and then expand it again when required. To rebuild the entire package structure, you can use the Check Entire Package button on the toolbar or the Check Entire Package item from the pop-up menu. You can configure the sorting options, the filter conditions and the visible columns any way you wish. To restore the default view layout, simply click the Reset Layout item from the Configuration menu.

The package summary is designed to help you understand if you have configured the install, uninstall or repair package correctly and check access to all required files. We hope you will find this nice small feature helpful when deploying complex packages to remote Machines.

Deploying Software
The main goal of Remote Installer is equipping you with easy-to-use features of installing, uninstalling and repairing software all over your network. You can execute deployment operations immediately or create and schedule software deployment tasks. All you need to perform remote deployment is to define the scope of operated Machines and the set of deployment packages to be executed. In this chapter, we will show you all the possible methods of performing a remote deployment.

Performing Deployment
With Remote Installer, you can choose between deployment of Software Bundles and deployment packages defined for a particular operation. The bundles are stored in the Software Bundles repository and can be used for future deployments. The packages defined for a certain deployment operation exist as long as the operation itself and are called embedded.

Deploy Software
The Deploy Software button from the Software Ribbon group on the Home page can be used to perform either a quick installation or an advanced remote deployment of software to the selected remote Machines.

Quick Install
The Quick Install button from the Software Ribbon group on the Deployment page should be used to install software to the selected remote Machines by simply choosing the installation without providing additional deployment package configuration.

Deploy Software
The Deploy Software button from the Software Ribbon group on the Deployment page allows you to execute deployment of software.
### Install

The **Install** button from the **Bundles** Ribbon group on the **Deployment** page and from the **Deployment** group on the **Software Bundles** contextual page from the **Software Bundles Tools** category can be used to install the selected Software Bundles to remote Machines.

### Uninstall

The **Uninstall** button from the **Bundles** Ribbon group on the **Deployment** page and from the **Deployment** group on the **Software Bundles** contextual page from the **Software Bundles Tools** category can be used to uninstall the selected **Software Bundles** from remote Machines.

### Repair

The **Repair** button from the **Bundles** Ribbon group on the **Deployment** page and from the **Deployment** group on the **Software Bundles** contextual page from the **Software Bundles Tools** category can be used to repair the selected **Software Bundles** on remote Machines.

Remote Installer provides you with several options for performing a remote deployment of software and makes it easier for you to solve deployment tasks. You are proposed to choose among a quick install, a simplified deployment of Software Bundles and the most flexible option of generic software deployment.

Quick install is the simplest way to install software to a set of Machines. The difference between quick install and adding an install package to a generic deployment operation is that in the former case you do not have to configure the advanced parameters; instead, you just select a set of Machines, provide an installation file and define only the parameters that are required to install the product. This mode allows you to install a single software product at a time. To perform a quick install, you should select the Machines you would like to install software onto in the **Network** or the **All Machines** view and choose either the **Quick Install** item in the **Deploy Software** button drop-down from the **Software** Ribbon group on the **Home** page or the **Quick Install** button from the **Deployment** page. Alternatively, you can use the **Quick Install** item from the pop-up menu or from the **Deploy Software** button drop-down on the toolbar. A dialog will be displayed to let you choose the installation. After the installation is chosen, you are offered to review and possibly change the common configuration for the installation. To proceed with the installation, press **OK**. The installation will start, and as soon as it is completed, you will be able to see the execution results in the **Execution Results** view. A **detailed log** for the installation is also available in the **Execution Results** view.

Remote Installer allows you to quickly execute install, uninstall or repair of specific Software Bundles. For example, to perform install, you should select the required Bundles and Bundle Groups in the **Software Bundles** view and press the **Install** button either from the **Bundles** Ribbon group on the **Deployment** page or from the **Deployment** group on the **Software Bundles** contextual page from the **Software Bundles Tools** category. Alternatively, you can use the **Install** item from the view pop-up menu and the **Install** item from the **Install** button drop-down on the toolbar. The configuration dialog of the deployment operation will be displayed on the screen with the selected Software Bundles added to be installed. Uninstall and repair of Software Bundles is executed in the same manner using the **Uninstall** and **Repair** actions.
With Remote Installer, in addition to simple install, uninstall and repair, you can combine install, uninstall and repair of both Software Bundles and embedded deployment packages within a single operation. All these features are available when configuring a deployment operation. To execute generic deployment, you can use the Deploy item in the Deploy Software button drop-down from the Software group on the Home page or the Deploy Software button from the Software group on the Deployment page. If the currently active view is the Network view or the All Machines view, the selected Machines and Collections are added to the operation's Machine Queue. In case the Software Bundles view is active, you are proposed to choose if the selected Bundles and Bundle Groups should be installed, uninstalled or repaired. The Deploy Software wizard will appear on the screen [Pic 1].

![Deploy Software Wizard](image)

**Pic 1. Configuring software deployment**
When configuring a deployment process, you can provide Software Bundles and/or embedded deployment packages to be installed, uninstalled or repaired and define a set of Machines to be operated. To learn more about defining a set of deployment packages, refer to the Deployment Operation Configuration section. For information on configuring the scope of Machines, refer to the Defining Machines to Operate section of this document. Once you are done with configuring a deployment, press Finish to proceed. The deployment operation will start automatically, and as soon as it is completed, you will be able to see the execution results in the Execution Results view. A detailed log for the deployment operation is also available in the Execution Results view.

Creating a new Deploy Software Task

If you do not want to perform deployment of software right away, with Remote Installer you can create a preconfigured task to perform deployment in the future, at any time of your choice. When creating a new task, you can provide multiple bundles and embedded packages, if required. To create a new Deploy Software task for further execution, you should choose the New Task > Deploy Software item from the Tasks area pop-up menu. Alternatively, you may use the New Task button from the Tasks area toolbar or the Regular Task button from the New Ribbon group on the Management contextual page from the Tasks and Schedule Tools category. The New Task wizard will appear on the screen and guide you through the process of creating a new task. Once you are done with configuring the task, press Create to create it. The newly created task will be added to the Tasks area. A created task can be executed manually any time using the Run menu item from the Tasks area or scheduled for automatic execution. Remote Installer will store the results for all runs of this task, and you can review all of them in the Execution Results view.

Performing software deployment on schedule

As it has already been mentioned, with Remote Installer you can run a preconfigured Deploy Software task any time you want. However, manual task execution may not be convenient for you since in such a case you would always have to remember when you should perform this or that deployment. The scheduling engine integrated into Remote Installer can always keep this in mind for you so that you can concentrate on your other everyday tasks.

To schedule a new Deploy Software task, you should choose the Scheduled Task > Deploy Software item from the New Ribbon group on the Home page. This option is also available in the Scheduling area pop-up menu and on the toolbar. Alternatively, you can select the Machines you want to deploy the software to in the Network or the All Machines view and choose the New Scheduled Task > Deploy Software menu item from the pop-up menu to initialize the Machine Queue with the selected Machines. To schedule install, uninstall or repair of specific Bundles and/or Bundle Groups, you can select them in the Software Bundles view and choose either the required options from the New Scheduled Task pop-up menu item or the New Scheduled Task item from the Install, Uninstall and Repair buttons’ drop-down from the toolbar. The described options are also available on the Deployment Ribbon page and the Software Bundles contextual page from the Software Bundles Tools category. The New Scheduled Task wizard will appear on the screen and guide you through the process of scheduling a task.

When scheduling a task, you can specify the deployment packages to be deployed and the Machines to execute the specified deployment packages on. Once you are done with configuring a task, press Schedule for the task to be put on schedule. The scheduled task will be added to the Scheduling area. A scheduled task is executed automatically when its start time comes. Remote Installer stores the results for all runs of such a task, and you can review all of them in the Execution Results view.
Adding Software Bundles to Tasks

You can add Software Bundles to any of the install, uninstall and repair tasks that have been created and scheduled. To reach the goal, you should select the required Bundles and Bundle Groups in the Software Bundles view and use the Add to Task button from the Tasks Ribbon group on the Software Bundles contextual page from the Software Bundles Tools category. Alternatively, you can use the Add to Task item from the pop-up menu or the Add to Task items from the Install, Uninstall and Repair buttons from the view toolbar.

Now you are familiar with the features of executing, creating and scheduling deployment tasks and have a better understanding of the concept used in Remote Installer.
Running Smart Uninstall and Repair

Remote Installer comes with an innovative Smart Uninstall and Repair technology. In the smart mode, you can choose the products to uninstall or repair from the remote Machines' software inventory. Thus each product is uninstalled or repaired only from/on the Machine it is installed on. The Machine Queue for such tasks is maintained automatically and includes all the Machines that will be affected during the operation execution. You can execute smart uninstall and repair operations immediately or create and schedule smart uninstall and repair tasks. To perform smart uninstall and repair, all you need is to specify the set of products installed on remote Machines to operate. In this chapter, we will show you all the possible methods of performing a smart uninstall and repair.

Performing Uninstall and Repair

With Remote Installer, you can choose between a quick uninstall and/or repair of the products installed on remote Machines and an advanced uninstall/repair, which enables you to define an additional smart package configuration and a set of operated Machines for each smart package.

<table>
<thead>
<tr>
<th>Quick Uninstall</th>
<th>Quick Repair</th>
<th>Smart Uninstall And Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Quick Uninstall button from the Uninstall and Repair Ribbon group on the Deployment page and on the Inventory contextual page from the Inventory Tools category should be used to uninstall the products selected in the remote Machines' inventory from those Machines without any additional packages configuration.</td>
<td>The Quick Repair button from the Uninstall and Repair Ribbon group on the Deployment page and on the Inventory contextual page from the Inventory Tools category should be used to repair the products selected in the remote Machines' inventory on those Machines without additional packages configuration.</td>
<td>The Smart Uninstall And Repair button from the Uninstall and Repair Ribbon group on the Deployment page and on the Inventory contextual page and from the Inventory Tools category allows you to execute a smart uninstall or repair of software.</td>
</tr>
</tbody>
</table>

Remote Installer provides you with several options for performing a smart uninstall and repair of software to make it easier for you to solve deployment tasks. You can either use any inventory view as the source to perform a quick uninstall, quick repair, smart uninstall and smart repair, or execute a generic smart uninstall and repair providing the required packages while configuring a smart uninstall or repair operation.

Let us start from the smart uninstall and repair options available in the views displaying the remote Machines' inventory. For performing a smart uninstall, you are offered to choose from two options: quick uninstall and uninstall. Quick uninstall is the simplest way to uninstall software from a set of Machines. The difference between quick uninstall and uninstall is that in the former case you do not have to configure the properties of the smart uninstall packages; instead, you just select a set of installations to be uninstalled from the inventory. In the uninstall mode, you can configure a set of advanced properties for each uninstall packages and a set of Machines to uninstall the product from. If the installer type of a product cannot be determined or an additional configuration is always required to uninstall the product, it is not allowed to perform a quick uninstall for this product. For other products, it is possible to perform both a quick uninstall and an uninstall. Similar modes with the similar options and limitations are also available for performing a smart repair.
To perform a quick uninstall, all you need is to select the installations to be uninstalled in the Software Inventory or the Inventory Snapshots view and press the Quick Uninstall button from the Uninstall and Repair Ribbon group on the Deployment page and on the Inventory contextual page from the Inventory Tools category. The same result can be reached using the Smart Uninstall > Quick Uninstall item from the pop-up menu and the Quick Uninstall item from the Smart Uninstall button drop-down from the toolbar. A confirmation box will appear on the screen. If multiple installations are selected, you can review the summary for the products to be uninstalled and double-check the selection before proceeding with the uninstall process.

To perform a quick repair, you should select the installations to be repaired in the Software Inventory or the Inventory Snapshots view and press the Quick Repair button from the Uninstall and Repair Ribbon group on the Deployment page and on the Inventory contextual page from the Inventory Tools category. The same result can be reached using the Smart Repair > Quick Repair item from the pop-up menu and the Quick Repair item from the Smart Repair button drop-down from the toolbar. A confirmation box will appear on the screen. If multiple installations are selected, you can review the summary for the products to be repaired and double-check the selection before proceeding with the repair process.

In case you want to provide an additional configuration required to perform a smart deployment or if a quick deployment is not supported, you can use the Smart Uninstall > Uninstall and Smart Repair > Repair items from the pop-up menu and the corresponding buttons on the toolbar. The smart deployment configuration dialog will be displayed on the screen.

With Remote Installer, along with smart uninstall and smart repair from Machines' inventory views, you can initiate a generic smart uninstall and repair operation that can combine smart uninstall and smart repair of different products on different Machines within a single operation. All those features are available while configuring a deployment operation. To execute a generic uninstall and repair, you can use the Smart Uninstall and Repair button from the Uninstall and Repair group on the Deployment page and on the Inventory contextual page from the Inventory Tools group. The Smart Uninstall and Repair wizard will appear on the screen.

![Image of Smart Uninstall and Repair wizard]

**Pic 1.** Configuring smart uninstall and repair
When configuring a deployment process, you can provide the products to be uninstalled or repaired on remote Machines choosing them from the inventory. To learn more about defining a set of smart uninstall and repair packages, refer to the Deployment Operation Configuration section. Once you are done with configuring a deployment operation, press Finish to proceed. The deployment operation will start automatically, and as soon as it is completed, you will be able to see the execution results in the Execution Results view. A detailed log for the deployment operation is also available in the Execution Results view.

Creating a new Smart Uninstall and Repair Task

If you do not want to perform smart uninstall and repair right away, with Remote Installer you can create a preconfigured task to perform uninstall and repair in the future, at any time of your choice. When creating a new task, you can provide multiple uninstall and repair packages, if required. To create a new Smart Uninstall and Repair task for further execution, you should choose the New Task > Smart Uninstall and Repair item from the Tasks area pop-up menu. Alternatively, you may use the New Task button from the Tasks area toolbar or the Regular Task button from the New Ribbon group on the Management contextual page from the Tasks and Schedule Tools category. The New Task wizard will appear on the screen and guide you through the process of creating a new task. Once you are done with configuring the task, press Create to create it. The newly created task will be added to the Tasks area. A created task can be executed manually any time using the Run menu item from the Tasks area or scheduled for automatic execution. Remote Installer will store the results for all runs of this task, and you can review all of them in the Execution Results view.

Performing Uninstall and Repair on schedule

As it has already been mentioned, with Remote Installer you can run a preconfigured Smart Uninstall and Repair task any time you want. However, manual task execution may not be convenient for you since in such a case you would always have to remember when you should perform this or that task. The scheduling engine integrated into Remote Installer can always keep this in mind for you so that you can concentrate on your other everyday tasks.

To schedule a new Smart Uninstall and Repair task, you should choose the Scheduled Task > Smart Uninstall and Repair item from the New Ribbon group on the Home page. This option is also available in the Scheduling area pop-up menu and on the toolbar. Alternatively, you may choose the New Scheduled Task > Smart Uninstall and Repair menu item from the Network or the All Machines view pop-up men. To schedule a smart uninstall or a smart repair of specific products, you can select them in any view displaying the Machines' inventory and choose the New Scheduled Task item from the Smart Uninstall and Smart Repair item's drop-down on the toolbar or the pop-up menu. The described options are also available on the Deployment page and the Inventory contextual page from the Inventory Tools category. The New Scheduled Task wizard will appear on the screen and guide you through the process of scheduling a task.

When scheduling a task, you can specify the products to be uninstalled and repaired and define a set of Machines for each smart package. Once you are done with configuring a task, press Schedule for the task to be put on schedule. The scheduled task will be added to the Scheduling area. A scheduled task is executed automatically when its start time comes. Remote Installer stores the results for all runs of such a task, and you can review all of them in the Execution Results view.

Adding Software to Tasks
You can add software to be uninstalled or repaired from any inventory view to an already created or scheduled task. To reach this goal, you should select the necessary products and use the **Add to Task** button from the **Tasks** Ribbon group on the **Inventory** contextual page from the **Inventory Tools** category. Alternatively, you may use the **Add to Task** option from the **Smart Uninstall** and **Smart Repair** items in the pop-up menu and from the corresponding buttons on the toolbar.

Now you are familiar with the features of executing, creating and scheduling smart uninstall and repair tasks and have a better understanding of the concept used in Remote Installer.

### Deployment Operation Configuration

When configuring the Deploy Software and Smart Uninstall and Repair operations, you are offered to add one or more packages. For the Deploy Software operations, you can use embedded deployment packages, software bundles and bundle groups. The Smart Uninstall and Repair operation is configured only with smart packages. The deployment sequence is specified on the **Sequences** tab.

![Deployment packages management](pic1)

In the process of managing the deployment sequence, you can add and delete embedded deployment packages and bundles, edit both types of deployment packages and change the deployment order. All those options are available on the toolbar.

### Toolbar Overview

**Link**

The **Link** button is displayed if you are configuring a generic deployment operation. It should be used to add deployment packages to perform an install to, an uninstall from or a repair on remote Machines from those available in the Software Bundles repository.
The New button is displayed if you are configuring a smart uninstall and repair operation. It should be used to select the software to be uninstalled from and/or repaired on remote Machines.

The Edit button enables you to change the selected deployment package configuration.

Using the Delete button, you can delete the selected deployment packages from those being installed to, uninstalled from or repaired on the remote Machines.

The Move Up button should be used to move the selected packages up the deployment order.

The Move Down button should be used to move the selected packages down the deployment order.

The Choose Columns button should be used to choose the columns displayed in the deployment sequence editor.

The Configuration button opens the view configuration menu, which allows you to reset the view layout to defaults, thus displaying the columns that are initially visible and hiding those that are initially invisible.

The actions for creating embedded packages, adding bundles, editing packages, deleting packages and controlling the packages deployment order are also available in the packages table pop-up menu.

You can combine different deployment operations within a single operation. For example, you can uninstall one application, repair another one and install still another one within the scope of a single operation. When adding a Bundle or a Bundle Group to a Deploy Software task, you can choose if the product defined with this bundle should be installed, uninstalled or repaired. The Bundles that are already in the deployment sequence are filtered when selecting the Bundles to be added.

When creating a smart package, you are offered to choose the products you would like to uninstall or repair from the inventory. Then the required number of packages is created. If the deployment sequence already contains the same product to uninstall or repair, a new package is not created; instead, the selected Machines are added to the existing package so that each package always represents a single product.

When configuring a deployment operation, you can see on the Options tab if the deployment confirmations are enabled and if there is a chance that a remote Machine will be restarted to complete the deployment. You can also review the currently applied confirmation options, the timeout and notification options to be used when a remote Machine is rebooted, if required, and the deployment account settings. Remote Installer allows you to override the common options defined in the program preferences for a specific deployment operation. To reach this goal, use the Change Confirmation Options, Change Timeout and Notification Options and the Change Deployment Account links.
It is possible to provide as many packages as required and configure the deployment order as needed. It is guaranteed that processing of the next packages will start only after the processing of the previous one is completed. In case of a failure during the packages execution, the deployment operation is interrupted by default; hence the subsequent deployment packages are not executed. In such cases, if you wish to continue deployment anyway, you can change the deployment options in the program preferences.

**What's Inside**

Smart Uninstall and Repair Particularities

Remote Installer comes with innovative Smart Uninstall and Repair feature. In the smart mode, you can choose the products to uninstall or repair from the remote Machines software inventory, thus each product is uninstalled or repaired only from/on the Machine it is installed on. The Machine Queue for these tasks is maintained automatically and shows all the Machines that will be affected during the task execution. But how can you determine which product is going to be uninstalled from or repaired on which machine? The feature that comes to your help is the smart summary. You can find the summary info on the **Smart Summary** tab while configuring the smart operation. Let us take a closer look at this tab [Pic 1].

On the **Smart Summary** tab, you can review the products to uninstall or repair associated with the operated Machines. The view is quite similar to the **Software Inventory** one, so you can regroup the displayed data any way you wish and easily understand which products on which Machines will be affected during the smart operation execution.

We hope that the Smart Uninstall and Repair feature will be useful for you, and the smart summary will be very helpful when configuring deployment operations.
Service Management

Remote Installer installs the service on each remote Machine to be able to work with it in the future. This service is installed automatically when required, but you can also install it manually, control its state and uninstall it when you are sure it is no longer needed. All these options are available from the Remote Service menu in the Network and All Machines views.

The functions of installing, uninstalling and updating the remote service are only available when the Automatic Deployment type is used. Refer the Service Deployment section of this document for detailed information on different remote service deployment types.

If you want to ensure the remote service that is already installed on remote Machines is up-to-date, you can use the Update menu item from the Remote Service menu. An update is executed only for the Machines that have the remote service installed but it is not up-to-date. The service won't be updated by default on Machines that have clients connected to them, therefore if you definitely want to update it anyway, you should check the Force the remote service update option within the displayed confirmation dialog.

Another option available from the Remote Service menu is manual service installation. To install the remote service, you should select the Machines you want to install the service onto and choose the Install menu item from the Remote Service menu.

Just as you can install the remote service, you can also uninstall it when there is no need for it to be installed. To uninstall the remote service, you should select the Machines you want to uninstall the service from and choose the Uninstall menu item from the Remote Service menu. By default, the remote service will not be uninstalled from Machines that have clients connected to them, therefore, if you definitely want to uninstall it anyway, you should check the Force the remote service uninstall option within the displayed confirmation dialog.

Along with installing and uninstalling, it is possible to reinstall the remote service by choosing the Reinstall menu item from the Remote Service menu. By default, the remote service will not be reinstalled on Machines that have clients connected to them, therefore, if you definitely want to reinstall it anyway, you should check the Force the remote service reinstall option within the displayed confirmation dialog.

When working with remote Machines, Remote Installer always starts the remote service, but it is also possible to start it manually as well as stop it when there is no need for it to be running. To start the remote service manually, you should select the Machines you want to start the service on in the Network view or the All Machines view and choose the Start menu item from the Remote Service menu. To stop the remote service manually, you should choose the Stop menu item from the Remote Service menu. By default, the remote service will not be stopped if it is running on Machines that have clients connected to them, therefore, if you definitely want to stop it anyway, you should check the Force the remote service to stop option within the displayed confirmation dialog.

The last one of the available options is the ability to restart the remote service. To restart the remote service, select the Machines you would like to restart the remote service on and choose the Restart menu item from the Remote Service menu. By default, the remote service will not be restarted if it is running on Machines that have clients connected to them, therefore, if you definitely want to restart it anyway, you should check the Force the remote service to restart options.

Forcing the remote service to update, restart, stop, reinstall or uninstall will cause disconnection of all the clients working with the service.
We have done our best to cover all the aspects of the remote service management and hope that those options will help you solve the tasks you will face while using Remote Installer.
Chapter 5: Inventory

Along with the functions of installing, uninstalling and repairing software packages, Remote Installer provides you with an easy-to-use tool for retrieving information on programs and updates installed on remote Machines with an option to compare the scan results and export the gathered inventory. The software inventory is organized based on inventory snapshots: each snapshot contains all required information on the software packages, including programs and updates installed on the set of Machines scanned for software at a specific time.

In this chapter, we will guide you through the process of gathering, organizing and analyzing software inventory information and introduce you to the option of exporting the list of installed software.

What's Inside

Scanning for Software
Software Inventory
Inventory Snapshots
Exporting Programs and Updates
Snapshot Properties
Scanning for Software

To retrieve information on programs and updates installed on remote Machines, the Remote Installer program should first be introduced to the Machines that should be scanned, so let us start with filling the Network view with available Machines. To do this, click the Enumerate Machines button on the Ribbon bar or on the Welcome Screen.

Enumerate Machines

The Enumerate Machines button from the Network Ribbon group on the Home page and from the Enumeration Ribbon group on the Network contextual page should be used to display the Enumerate Machines wizard which can help you with adding Machines to the application for further processing.

The Enumerate Machines wizard appears on the screen and introduces itself to you. Having familiarized yourself with the brief help information provided on the welcome page, click Next to continue. In the next step, you are offered to choose the enumeration type Pic 1. Keep the Scan Network option checked and click Finish to scan our network for all available Machines automatically.

Pic 1. Choosing the enumeration type
Once the enumeration process is completed, the Machines found within the network environment will be added to the Network view. We have scanned the network for Machines and are now going to retrieve information on programs and updates installed on specific Machines.

**Scan Software**

The **Scan Software** button from the **Software** Ribbon group on the **Home** page and from the **Scan** group on the **Software** page should be used to retrieve information on programs and updates installed on remote Machines.

If you have the **Scan software automatically** option enabled (it is enabled by default) and no specific credentials are required to access the remote Machines, you may have already retrieved information on installed programs and updates during the network scan process.

Select the Machines for which you want to retrieve information on installed programs and updates in the Network view and choose **Scan Software** from the pop-up menu or **Scan Software > Scan** from the Ribbon bar. The **Scan Software Wizard** will appear on the screen [Pic 2].

![Pic 2. Specifying the snapshot properties](image-url)
On the first page of the **Scan Software Wizard**, you are offered to provide the comment and the description to apply to the snapshot that will be created as a result of this software scan. It is recommended, although not required, to provide a meaningful comment if you are going to work with this snapshot in the future to make it easier to distinguish this snapshot from others. During the next wizard steps, it is possible to change the scope of Machines to be scanned for software. The Machine Queue consists of **Collections** that define the Machines to process. As you can see, the Collection containing the Machines you have selected is created automatically. Once the required settings are provided, press **Finish** to proceed.

The progress bar in the bottom right part of the Remote Installer main screen will show you the progress of this operation, and, as soon as it is completed, the operation results will appear in the **Execution Results** view. From the **Execution Results**, you can learn if the list of installed programs and updates has been retrieved and if there were any problems while retrieving it.

With Remote Installer, you can also perform a software scan on schedule or simply create a preconfigured task to scan software in the future. Refer to the **Creating Task** and **Scheduling Task** sections for details.
Software Inventory

Having scanned Machines for installed software, we would like to review relevant information on programs and updates installed on any of the Machines, and the Software Inventory view is there to help us.

**Software Inventory**

The **Software Inventory** button from the **Inventory** Ribbon group on the **Software** page should be used to review the software inventory for the selected Machines.

This section assumes that the **Link with Selection** mode is enabled for the **Software Inventory** view; otherwise, the **Software Inventory** view is not updated after the selection changes and scans completes, and you have to use the **Software Inventory** button to update the view.

Let us scan any set of Machines we have not scanned yet, and after which select all Machines we have scanned and switch to the **Software Inventory** view.

The **Software Inventory** view now displays relevant information on programs and updates for the selected Machines. As you can see, it displays results for different scans, which include different scopes of remote Machines, merged in one view, where each program and update is taken from the most recent scan of every Machine. You can export the list of installed programs and updates to a CSV file to be used as a software inventory report. To get detailed information on the features available in this view refer to the **Software Inventory View** section.
Inventory Snapshots

In Remote Installer, software inventory is grouped by snapshots, and a new snapshot is created for each software scan. You can review the available snapshots pertaining to the selection in the Network view or the All Machines view, as well as all the snapshots ever created, within the Inventory Snapshots view.

This section assumes that the Link with Selection mode is enabled for the Inventory Snapshots view and the Specific Snapshots view mode is active; otherwise, the Inventory Snapshots view is not updated after the selection changes and scans completes, and you have to use the Inventory Snapshots button to update the view.

For each snapshot in the Inventory Snapshots view, it is possible to review the list of installed programs and updates retrieved during the scan this snapshot stands for [Pic 1].

Pic 1. The list of installed programs retrieved from remote Machines
You can switch between the lists of installed programs and updates using the **Programs** and **Updates** buttons on the toolbar. By default, the table with programs displays the same columns as the operating system in the **Programs and Features** section of the **Control Panel**, but you can choose more columns from those available using the **Choose Columns** button on the toolbar. In addition to choosing columns, you can filter the displayed data using the **Filter Editor** button. Feel free to configure the view any way you need – you can then always roll back to the default view layout using the **Reset Layout** item from the view configuration menu.

Remote Installer comes with a built-in snapshots comparison engine, which helps you to review changes made between the scans to the installed programs and updates on each remote Machine. Let us take a closer look at this feature.

Let’s assume we have installed new programs to the same Machines we scanned in the previous section and have scanned them again. The **Inventory Snapshots** view now displays two snapshots. To compare these snapshots, we simply select both of them in the **Inventory Snapshots** view and choose the **Compare with Each Other** item from the pop-up menu. Now, the table in the bottom part of the view displays the snapshots comparison result [Pic 2](#).

The programs we have installed are highlighted in green and are marked with a special icon that means the program was installed between the scans. The programs and updates that have been changed or removed are represented in a similar manner.

To compare programs from the selected snapshot with those from the previous snapshot, there is no need to select both snapshots – you can just select the newer snapshot and choose the **Compare with Previous** item from the pop-up menu.

For detailed information on the snapshots review and comparison features, address the **Inventory Snapshots View** section of the document.
Exporting Programs and Updates

With Remote Installer, you can easily export the list of installed programs and updates together with the comparison results to a CSV file for future analysis or processing by an automated tool. To execute such an export, click the **Export** button in the toolbar of either the **Software Inventory** view or the details part of the **Inventory Snapshots** view. Alternatively, you can use the **Export** button from the **Organize** Ribbon group on the **Program** page, as well as the items available in the pop-up menu. You are proposed to choose between exporting the selected entries and all the entries.

If you wish to export all programs or updates from a specific snapshot, you can select this snapshot in the **Inventory Snapshots** view and press the **Export** button.

The corresponding wizard will appear on the screen and guide you through the export process. Let us take a closer look at the export process on the example of the programs export.

![Pic 1. The Export Programs Wizard welcome page](Image)

The first page of the **Export Programs Wizard** is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with export.
On the next page of the **Export Programs Wizard**, you are offered to choose the file you are going to save the programs to and the CSV format options. The file path should be provided to the **Export To** field [Pic 2]. You can choose the encoding to be used for saving the data as well as the field delimiter and the text qualifier. While performing export, you may also define if you would like the column header to be present in the resulting file, which would make it easier for you to identify each column – this feature can be enabled using the **Include column header** option.

![Pic 2. Configuring the export options](image)

If any filter is applied to the programs view and you are exporting all the programs, you will be asked during the next step if you would like to export only the programs that match a certain filter condition or all available programs.
After you are ready with configuring the export options, press Finish to proceed with export. The file containing the exported programs will be created in the path specified.

The CSV file with exported programs or programs comparison results consists of twenty-two columns, which are the following:

<table>
<thead>
<tr>
<th>Column Index</th>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type</td>
<td>The entry type. It has the value of 'Program'. For comparison results export, the comparison status is also included.</td>
</tr>
<tr>
<td>2</td>
<td>Machine</td>
<td>The name of the Machine the program is installed on.</td>
</tr>
<tr>
<td>3</td>
<td>Name</td>
<td>The program name.</td>
</tr>
<tr>
<td>4</td>
<td>Publisher</td>
<td>The program publisher.</td>
</tr>
<tr>
<td>5</td>
<td>Installed On</td>
<td>The installation date.</td>
</tr>
<tr>
<td>6</td>
<td>Size</td>
<td>The program size.</td>
</tr>
<tr>
<td>7</td>
<td>Version</td>
<td>The program version.</td>
</tr>
<tr>
<td>8</td>
<td>Platform</td>
<td>The platform the program is targeted at: x64 or x86.</td>
</tr>
<tr>
<td>9</td>
<td>Installer</td>
<td>The installer used for deploying the program.</td>
</tr>
<tr>
<td>10</td>
<td>Comment</td>
<td>The program comment.</td>
</tr>
<tr>
<td>11</td>
<td>Contact</td>
<td>The program vendor contact.</td>
</tr>
<tr>
<td>12</td>
<td>Help Link</td>
<td>The help link for the program.</td>
</tr>
<tr>
<td>13</td>
<td>Readme</td>
<td>The location of the program readme file.</td>
</tr>
<tr>
<td>14</td>
<td>Registered Company</td>
<td>The company the program is registered to.</td>
</tr>
<tr>
<td>15</td>
<td>Registered Owner</td>
<td>The person the program is registered to.</td>
</tr>
<tr>
<td>Column Index</td>
<td>Header</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>16</td>
<td>Source</td>
<td>The location of the installation package used for deploying the program.</td>
</tr>
<tr>
<td>17</td>
<td>Support Link</td>
<td>The program support web-site link.</td>
</tr>
<tr>
<td>18</td>
<td>Support Telephone</td>
<td>The program support telephone.</td>
</tr>
<tr>
<td>19</td>
<td>Update Info Link</td>
<td>The location of the program update info.</td>
</tr>
<tr>
<td>20</td>
<td>Allow Modify</td>
<td>The sign showing that the program can be modified using the Programs and Features section of the Control Panel.</td>
</tr>
<tr>
<td>21</td>
<td>Allow Repair</td>
<td>The sign showing that the program can be repaired using the Programs and Features section of the Control Panel.</td>
</tr>
<tr>
<td>22</td>
<td>Allow Remove</td>
<td>The sign showing that the program can be removed using the Programs and Features section of the Control Panel.</td>
</tr>
</tbody>
</table>

Sample exported programs in the CSV format

<table>
<thead>
<tr>
<th>Type</th>
<th>Machine</th>
<th>Name</th>
<th>Publisher</th>
<th>Installed On</th>
<th>Size</th>
<th>Version</th>
<th>Bitness</th>
<th>Installer</th>
<th>Comment</th>
<th>Contact</th>
<th>Help Link</th>
<th>Readme</th>
<th>Registered Company</th>
<th>Registered Owner</th>
<th>Source</th>
<th>Location</th>
<th>Support Link</th>
<th>Support Telephone</th>
<th>Update Info Link</th>
<th>Allow Modify</th>
<th>Allow Repair</th>
<th>Allow Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Program&quot;</td>
<td>&quot;Avalon-PDC&quot;</td>
<td>&quot;Microsoft .NET Framework 2.0 Service Pack 2&quot;</td>
<td>&quot;Microsoft Corporation&quot;</td>
<td>&quot;2011-10-28 00:00:00&quot;</td>
<td>&quot;361.64 MB&quot;</td>
<td>&quot;2.2.30729&quot;</td>
<td>&quot;64-bit&quot;</td>
<td>&quot;MSI&quot;,&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=98073">http://go.microsoft.com/fwlink/?LinkId=98073</a>&quot;</td>
<td>&quot;d:\71a340210b69ab373465\dotnetfx20&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=98074">http://go.microsoft.com/fwlink/?LinkId=98074</a>&quot;</td>
<td>&quot;yes&quot;,&quot;yes&quot;,&quot;yes&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Program&quot;</td>
<td>&quot;Avalon-PDC&quot;</td>
<td>&quot;Microsoft .NET Framework 3.0 Service Pack 2&quot;</td>
<td>&quot;Microsoft Corporation&quot;</td>
<td>&quot;2010-10-05 00:00:00&quot;</td>
<td>&quot;388.54 MB&quot;</td>
<td>&quot;3.2.30729&quot;</td>
<td>&quot;64-bit&quot;</td>
<td>&quot;MSI&quot;,&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=98075">http://go.microsoft.com/fwlink/?LinkId=98075</a>&quot;</td>
<td>&quot;d:\71a340210b69ab373465\dotnetfx30&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=98076">http://go.microsoft.com/fwlink/?LinkId=98076</a>&quot;</td>
<td>&quot;yes&quot;,&quot;yes&quot;,&quot;yes&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Program&quot;</td>
<td>&quot;Avalon-PDC&quot;</td>
<td>&quot;Microsoft .NET Framework 4 Client Profile&quot;</td>
<td>&quot;Microsoft Corporation&quot;</td>
<td>&quot;2010-10-05 19:35:39&quot;</td>
<td>&quot;38.80 MB&quot;</td>
<td>&quot;4.0.30319&quot;</td>
<td>&quot;64-bit&quot;</td>
<td>&quot;EXE&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=164164">http://go.microsoft.com/fwlink/?LinkId=164164</a>&quot;</td>
<td>&quot;C:\WINDOWS\Microsoft.NET\Framework64\v4.0.30319\SetupCache\Client&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=164165">http://go.microsoft.com/fwlink/?LinkId=164165</a>&quot;</td>
<td>&quot;yes&quot;,&quot;yes&quot;,&quot;yes&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Program&quot;</td>
<td>&quot;Avalon-PDC&quot;</td>
<td>&quot;Microsoft .NET Framework 4 Extended&quot;</td>
<td>&quot;Microsoft Corporation&quot;</td>
<td>&quot;2010-10-05 19:43:24&quot;</td>
<td>&quot;51.99 MB&quot;</td>
<td>&quot;4.0.30319&quot;</td>
<td>&quot;64-bit&quot;</td>
<td>&quot;EXE&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=164164">http://go.microsoft.com/fwlink/?LinkId=164164</a>&quot;</td>
<td>&quot;C:\WINDOWS\Microsoft.NET\Framework64\v4.0.30319\SetupCache\Extended&quot;</td>
<td>&quot;<a href="http://go.microsoft.com/fwlink/?LinkId=164165">http://go.microsoft.com/fwlink/?LinkId=164165</a>&quot;</td>
<td>&quot;yes&quot;,&quot;yes&quot;,&quot;yes&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following twenty-five columns are available in the CSV file with the exported program updates:

<table>
<thead>
<tr>
<th>Column Index</th>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type</td>
<td>The entry type. It has the value of 'Update'. For comparison results export the comparison status is also included.</td>
</tr>
<tr>
<td>2</td>
<td>Machine</td>
<td>The name of the Machine the update is installed on.</td>
</tr>
<tr>
<td>3</td>
<td>Program</td>
<td>The program the update is for.</td>
</tr>
<tr>
<td>Column Index</td>
<td>Header</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>4</td>
<td>Name</td>
<td>The update name.</td>
</tr>
<tr>
<td>5</td>
<td>Publisher</td>
<td>The update publisher.</td>
</tr>
<tr>
<td>6</td>
<td>Installed On</td>
<td>The installation date.</td>
</tr>
<tr>
<td>7</td>
<td>Size</td>
<td>The update size.</td>
</tr>
<tr>
<td>8</td>
<td>Version</td>
<td>The update version.</td>
</tr>
<tr>
<td>9</td>
<td>Platform</td>
<td>The platform the update is targeted at: x64 or x86.</td>
</tr>
<tr>
<td>10</td>
<td>Installer</td>
<td>The installer used for deploying the update.</td>
</tr>
<tr>
<td>11</td>
<td>Comment</td>
<td>The update comment.</td>
</tr>
<tr>
<td>12</td>
<td>Contact</td>
<td>The update vendor contact.</td>
</tr>
<tr>
<td>13</td>
<td>Help Link</td>
<td>The help link for the update.</td>
</tr>
<tr>
<td>14</td>
<td>Readme</td>
<td>The location of the update readme file.</td>
</tr>
<tr>
<td>15</td>
<td>Registered Company</td>
<td>The company the update is registered to.</td>
</tr>
<tr>
<td>16</td>
<td>Registered Owner</td>
<td>The person the update is registered to.</td>
</tr>
<tr>
<td>17</td>
<td>Source</td>
<td>The location of the installation package used for deploying the update.</td>
</tr>
<tr>
<td>18</td>
<td>Support Link</td>
<td>The update support web-site link.</td>
</tr>
<tr>
<td>19</td>
<td>Support Telephone</td>
<td>The update support telephone.</td>
</tr>
<tr>
<td>20</td>
<td>Update Info Link</td>
<td>The location of the update info.</td>
</tr>
<tr>
<td>21</td>
<td>Allow Modify</td>
<td>The sign showing that the update can be modified using the Programs and Features section of the Control Panel.</td>
</tr>
<tr>
<td>22</td>
<td>Allow Repair</td>
<td>The sign showing that the update can be repaired using the Programs and Features section of the Control Panel.</td>
</tr>
<tr>
<td>23</td>
<td>Allow Remove</td>
<td>The sign showing that the update can be removed using the Programs and Features section of the Control Panel.</td>
</tr>
<tr>
<td>24</td>
<td>Update ID</td>
<td>The unique identifier for the update.</td>
</tr>
<tr>
<td>25</td>
<td>Release Notes</td>
<td>The release notes available for the update.</td>
</tr>
</tbody>
</table>

Sample exported program updates in the CSV format

"Type","Machine","Program","Name","Publisher","Installed On","Size","Version","Bitness","Installer","Comment","Contact","Help Link","Readme","Registered Company","Registered Owner","Source","Location","Support Link","Support Telephone","Update Info Link","Allow Modify","Allow Repair","Allow Remove","Update ID","Release Notes"

If you later install a more recent service pack, this hotfix will be uninstalled automatically.

"Update","Avalon-PDC","Microsoft .NET Framework 4 Client Profile","Security Update for Microsoft .NET Framework 4 Client Profile (KB2478663)","Microsoft Corporation","2011-10-28 11:42:06","","1","32-bit","EXE","This security update is for Microsoft .NET Framework 4 Client Profile.

If you later install a more recent service pack, this security update will be uninstalled automatically.

Now you are fully introduced to the function of exporting programs and updates to an external file and can use this feature in your everyday work, e.g. for generating software inventory reports.

**Snapshot Properties**

Remote Installer groups software inventory using a snapshot object. A new snapshot is created each time you scan remote Machines for programs and updates. A snapshot properties set consists of the scan time, comment and description. The scan time is maintained automatically and simply represents the date and time the scan was executed on, the other properties are user-defined and can be used for easier snapshot identification in future Pic 1.

You can provide a comment and a description to be applied to the snapshot to be created before executing the software scan. It can help you to identify the snapshots while performing software inventory.

To change properties of any snapshot, you should select it in the **Inventory Snapshots** view and choose the **Edit** item from the pop-up menu. The changes to the snapshot properties in any of these views are applied to this snapshot in another view automatically.
Chapter 6: Tasks and Schedule

With Remote Installer, you can easily create a prefigured task for future execution. Furthermore, the program is provided with a powerful engine for executing tasks and scheduling their execution using the mechanism similar to that of Microsoft® Office Outlook Calendar. This ensures the same scheduling functionality that you are used to work with. The set of features connected with scheduling includes the options of scheduling both one-time and recurrent tasks, switching between different views, zooming views, a convenient navigation and the possibility of reviewing a detailed report on every task execution regardless of whether the task is scheduled or not.

What's Inside

Creating Tasks
Scheduling Tasks
Configuring Recurrence
Task Execution Confirmations
Importing and Exporting Tasks
Notification E-mails

Creating Tasks

Along with a simple deployment and software scan, Remote Installer provides you with an option of creating preconfigured tasks to be used in the future. Such tasks are displayed within the **Tasks** area and can then be scheduled for an automatic execution or executed manually. The results of such tasks execution are displayed in the **Execution Results** view.

You can create the following tasks:

- **Deploy Software** – allows you to install, uninstall and repair any number of programs and updates on remote Machines;
- **Smart Uninstall and Repair** – should be used to uninstall or repair software on remote Machines choosing the products to be uninstalled or repaired from the inventory;
- **Scan Software** – should be used to perform a software inventory.
It is possible to create a task directly from the Tasks area using the New Task menu item from the pop-up menu or on the toolbar. The New Task Wizard will appear on the screen to guide you through the process

Pic 1. Creating a new Deploy Software task
For each task, you can provide the task name, comment and description. Providing the comment and description values can help you to mark the task as the one to be executed in the future. The other wizard steps are used to configure additional task properties, which vary depending on the task type, along with the scope of Machines to operate. For example, while creating a new Deploy Software task, you can provide a list of deployment packages to be executed on remote Machines, and for a new Scan Software task, you can define the properties to be applied to the snapshot created while executing the task.

You can proceed to creating a new task on any step of the **New Task Wizard** by pressing Create. Any aspect of the task configuration can be changed in future by editing the created task.

Detailed information on configuring deployment packages is available in the Deployment Operation Configuration section of this document; and for information on editing the Machine Queue, refer to the Defining Machines to Operate section.

Once you are done with configuring the task, press **Create** for the task to be created. The newly created task will be added to the **Tasks** area.

A created task can either be executed manually using the Run menu item from the **Tasks** area pop-up menu or scheduled for execution using the **Schedule Task** menu item. Both actions are also available from the Tasks area toolbar.

**Scheduling Tasks**

Along with the option of creating preconfigured tasks for performing installs, uninstalls, repairs or software scans, Remote Installer comes with a range of features targeted at automated execution of preconfigured tasks on schedule. The tasks can be scheduled to be executed either once or on a regular basis. The results of such tasks execution are displayed in the **Execution Results** view.

You can schedule the following tasks:

- **Deploy Software** – allows you to install, uninstall and repair any number of programs and updates on remote Machines;
- **Smart Uninstall and Repair** – should be used to uninstall or repair software on remote Machines choosing the products to be uninstalled or repaired from the inventory;
- **Scan Software** – should be used to perform a software inventory.
It is possible to schedule a task directly from the Scheduling area using the New Task or New Recurring Task menu item from the pop-up menu or on the toolbar. Another way of scheduling tasks is using the Scheduled Task buttons from the New Ribbon group on the Home page or on the Deployment and Software pages. For example, if you would like to schedule a Deploy Software task, you should use the Deploy Software item from the Scheduled Task button drop-down list. Also, it is possible to schedule a new task from any view that displays available Machines, i.e. the Network view or the All Machines view. The actions for scheduling tasks of specific types are available from the New Scheduled Task pop-up menu item; so to create a new Deploy Software task, you should choose the New Scheduled Task > Deploy Software menu item. If you would like to schedule a task to install, uninstall or repair a specific Bundle or Bundle Group, you can use the New Scheduled Task item from the Software Bundles view pop-up menu. For example, to schedule a task for installing a Bundle, you should select that bundle and choose the New Scheduled Task > Install menu item. Smart Uninstall and Smart Repair tasks can also be scheduled based on the scanned software using, for example, the Smart Uninstall/Repair > New Scheduled Task menu items from the Software Inventory view.

Along with scheduling a new task, you can also schedule any task from those already created but not scheduled yet. To schedule such a task, select it in the Tasks area and choose the Schedule Task menu item or press the corresponding button on the view toolbar.

In any case, the wizard will appear on the screen to guide you through the process. 

Pic 1. Scheduling a Deploy Software task
For each task, you can provide the task name, comment and description. Providing the comment and description values can help you to mark the task as the one to be executed in the future. You can schedule the task to run once or on a regular basis. The task recurrence is configured using the **Recurrence** button on the first page of the wizard. To get more information on the recurrence options, refer to the **Configuring Recurrence** section. The other wizard steps are used to configure additional task properties, which vary depending on the task type, along with the scope of Machines to operate. For example, while creating a new Deploy Software task, you can provide a list of deployment packages to be executed on remote Machines, and for a new Scan Software task, you can define the properties to be applied to the snapshot created while executing the task.

You can proceed to task scheduling on any step of the wizard by pressing **Schedule**. Any aspect of the task configuration can be changed in future by editing the scheduled task.

Detailed information on configuring deployment packages is available in the **Deployment Operation Configuration** section of this document; and for information on editing the Machine Queue, refer to the **Defining Machines to Operate** section.

Once you are done with configuring the task, press **Schedule** to proceed to its scheduling. The scheduled task will be added to the **Scheduling** area [Pic 2].

A scheduled task is executed when its start time comes. It can also be executed manually using the **Run** menu item from the **Scheduling** area pop-up menu.
Configuring Recurrence

The scheduling engine of Remote Installer allows you to schedule recurring tasks quickly and easily. The purpose of this chapter is to introduce you to the range of the recurrence types to be used and describe each of them. The recurrence options are available from the Edit Task Recurrence dialog while the task is being scheduled.

There are four recurrence types available: Daily, Weekly, Monthly and Yearly. Let us take a closer look on each one of them.

**Daily Recurrence Type**

The Daily recurrence type should be used if the recurrence condition is based on the number of days between the task execution instances. You can choose to execute the task every N days, where N is the number of days constituting the task execution interval, or every weekday.

**Example**
Weekly Recurrence Type

The Weekly recurrence type should be used if the recurrence condition is based on a particular day of the week and the interval in weeks. You can choose to execute the task, for example, on Mondays and Wednesdays every second week.

Example

Monthly Recurrence Type

The Monthly recurrence type should be used if the recurrence condition is based on a particular day of the month and the interval in months. You can choose to execute the task, for example, every second Friday of every month or every sixteenth day of every third month, etc.

Example

Yearly Recurrence Type

The Yearly recurrence type should be used if the recurrence condition is based on a yearly range. You can choose to execute the task, for example, every November the sixteenth, every third Wednesday in July, etc.

Example
Task Execution Confirmations

There are three types of tasks that require confirmation before execution. Those are Past Tasks, the tasks created in the past, or those moved to the past, or the ones that have already been postponed by snooze. The execution of the first three types of tasks should be confirmed because it might be unexpected. As for snoozing, it is the process initiated when you request the scheduling engine to remind you again of the need to confirm the task execution in a defined period of time. In all these cases the **Confirm Execution** dialog is displayed.

![Confirm Execution dialog](image)

Within the **Confirm Execution** dialog, you can choose which task to run, which task to skip and which task to snooze. Snoozing is the process that allows you to receive a reminder again in a defined period of time. The snoozed tasks are displayed with a red reminder icon over them.

The reason for the **Confirm Execution** dialog being displayed before the task execution is represented by one of the following icons:

- 🌌 - the task is either created in the past of moved to the past and is configured to ask for a confirmation before being executed.
- 🌌 - the task is a Past Task. It should have been executed on schedule but the program was not running, and it is configured to ask for a confirmation before being executed.
- 🌌 - the decision regarding the task execution was postponed by snooze and the snooze interval has elapsed.

It is possible to open each task for edit, run, skip or snooze by using the table pop-up menu in the **Confirm Execution** dialog.

You can change the **confirmations configuration** right from this dialog by choosing the **Configure Execution Confirmations** item from the **Configuration** menu. Also, it is possible to open each task for review or editing.
Importing and Exporting Tasks

With Remote Installer, you can easily import and export Tasks any time you want. Exported Tasks include the whole Task configuration except the scheduling data. You can export one or all of the available Tasks to use the exported data as a backup, to share data with your colleagues or simply to import the Tasks to another instance of the program.

**Import**

The **Import** button from the **Organize** Ribbon group on the **Program** page can be used to import Tasks from an XML file with the help of the wizard.

If you want to import Tasks into Remote Installer, press the **Import** button from the **Organize** Ribbon group on the **Program** page when the **Tasks** area is focused. Optionally, you can use the **Import** button from the pop-up menu of the **Tasks** area. The import wizard will appear on the screen to guide you through the import process [Pic 1].
The first page of the **Import Tasks** wizard is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with import.

On the next page of the **Import Tasks** wizard, you are offered to choose the file you are going to import Tasks from [Pic 2](#). The file path should be provided to the **Import From** field. The encoding of the XML file with Tasks is detected automatically.

![Import Tasks Wizard](#)

**Pic 2. Choosing import source file**
After the path to the required file is provided, press **Next**. The program will check if the file contains valid Tasks data and display the parsed Tasks to choose from [Pic 3]. In case the file contains the same Tasks that are already present in the program, they won't be checked for import automatically. However, if you still wish to import those Tasks, you can check them manually and choose the conflicts resolution mode. If **Use existing items for conflicting entries** is chosen, the existing Tasks are used. Thus, when you import Tasks into the program, conflicting entries are skipped. In case **Create new items for conflicting entries** is chosen, conflicting entries are imported as new items. The conflicts resolution mode is also taken into account when importing the Task's configuration data, e. g. the Collections included into the Task's Machine Queue.

![Pic 3. Choosing Tasks to import](image)
When the Tasks to import and the conflicts resolution mode have been chosen, press the Finish button to proceed with import. As soon as the import has been completed, the imported Tasks are added to the Tasks area.

Export

The Export button from the Organize Ribbon group on the Program page can be used to export the Tasks from the program to an XML file that can be used in the future for import.

To perform export, select the Tasks to export and press the Export > Export Selected button from the Organize Ribbon group on the Program page. Alternatively, you can use the Export item from the Tasks area pop-up menu. To export all tasks, you can use the Export All items. The Export Tasks wizard appears on the screen [Pic 4].
The first page of the export wizard is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with export.

On the next page of the **Export Tasks** wizard, you are offered to choose the file you are going to save the Tasks to and the file format options. The file path should be provided to the **Export To** field. You can choose the encoding to be used for saving the Tasks.

![Pic 5. Configuring the export options](image)

When the file path and the export format have been chosen, press **Finish** to proceed with export. A file containing the exported Tasks will be created in the specified path. The file created during export can be used in the future to import the Tasks back to the program.

Now you are fully introduced to the Tasks export and import options available in Remote Installer and can use them to solve your tasks.

### Notification E-mails

Remote Installer can send notification messages to a preset e-mail address on tasks start and/or finish. These messages are sent using the mailbox configuration defined on the **E-mail Options** preference page to the specified addresses. This part of the guide describes the placeholders that can be used in the templates for notification messages sent by e-mail on task start and finish, if defined on the **Notifications** preference page. The following placeholders can be used in notification e-mail messages templates defined on the **Notification Templates** preference page.

#### Notification On Task Start

The following placeholders can be used for notification messages sent on task start:

<table>
<thead>
<tr>
<th>Placeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%TASK_NAME%</td>
<td>the name of the started task.</td>
</tr>
<tr>
<td>%LOCAL_HOST%</td>
<td>the name of the machine hosting the program.</td>
</tr>
</tbody>
</table>
**Notification On Task Finish**

The following placeholders can be used for notification messages sent on task finish and containing brief information on the task execution results:

<table>
<thead>
<tr>
<th>Placeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%TASK_NAME%</td>
<td>the name of the started task.</td>
</tr>
<tr>
<td>%SUCCEEDED%</td>
<td>the number of machines processed successfully.</td>
</tr>
<tr>
<td>%WARNINGS%</td>
<td>the number of machines processed with warnings.</td>
</tr>
<tr>
<td>%ERRORS%</td>
<td>the number of machines not processed due to errors.</td>
</tr>
<tr>
<td>%CANCELED%</td>
<td>the number of machines with canceled processing.</td>
</tr>
<tr>
<td>%PROCESSED%</td>
<td>the number of machines that took part in the operation.</td>
</tr>
<tr>
<td>%SUCCEEDED_LIST%</td>
<td>the list of machines processed successfully.</td>
</tr>
<tr>
<td>%WARNINGS_LIST%</td>
<td>the list of machines processed with warnings.</td>
</tr>
<tr>
<td>%ERRORS_LIST%</td>
<td>the list of machines not processed due to errors.</td>
</tr>
<tr>
<td>%CANCELED_LIST%</td>
<td>the list of machines with canceled processing.</td>
</tr>
<tr>
<td>%PROCESSED_LIST%</td>
<td>the list of machines that took part in the operation.</td>
</tr>
<tr>
<td>%DURATION%</td>
<td>the time spent for performing the operation.</td>
</tr>
<tr>
<td>%RESULTS%</td>
<td>the per machine execution results table.</td>
</tr>
<tr>
<td>%LOCAL_HOST%</td>
<td>the name of the machine hosting the program.</td>
</tr>
<tr>
<td>%RUNNING_PRODUCTION%</td>
<td>the running program name.</td>
</tr>
<tr>
<td>%PRODUCT_VERSION%</td>
<td>the current version of the running program.</td>
</tr>
<tr>
<td>%TIME%</td>
<td>the current time.</td>
</tr>
<tr>
<td>%DATE%</td>
<td>the current date.</td>
</tr>
<tr>
<td>%DATETIME%</td>
<td>the current date and time.</td>
</tr>
</tbody>
</table>
Chapter 7: Network Management

Remote Installer interaction with the network is designed in a way that enables a fast and easy search for Machines all over the network and their subsequent processing. Remote Installer saves the network structure in its database and shows it in form of a tree. Automatic scan results are displayed within the Network node in the Network view and can be used to create Collections. The Collections group Machines and Queries used to fetch Machines to define the scopes of Machines to be operated. All available Machines are also displayed in the All Machines view as long as there is any data referenced by those Machines. If the current user account does not have sufficient rights to access the remote Machines, the ability to specify network credentials comes to your help. You are enabled to provide specific credentials for both domains and individual Machines.

The purpose of this chapter is letting you know how to manage the representation of your network structure in the program, how to provide credentials to access specific Machines and how to operate remote Machines.

What's Inside

Configuring Machines to allow remote access
Network Enumeration
Collections
Credentials
Defining Machines to Operate
Remote Machine Statuses
Network Objects Properties
Importing and Exporting Network
Configuring Machines to allow remote access

Remote Installer is used to manage Machines available in your network remotely, so it requires a remote access to the Machines to be enabled. The necessary requirements for the Machines to be accessed are described in the Requirements section of the document. Let us take a closer look at each one of them.

As mentioned in the requirements, NetBIOS over TCP/IP should be enabled on the network adapter. This option is configured in the WINS settings of the TCP/IP protocol configuration. In the NetBIOS settings group, you should either choose the Enable NetBIOS over TCP/IP value or leave the Default value if a static IP is used or the DHCP server in your domain is configured to enable NetBIOS.

The next requirement to check is that the File and Printer Sharing and ADMIN$ shares are enabled. In the domain environment, you can use the group policies to enable sharing (it is enabled for domain by default). As for workgroup environments, File and Printer Sharing should be enabled on each Machine separately either in the network and sharing center, for Microsoft Windows Vista and newer, or directly in the Windows Firewall for Windows XP. The ADMIN$ shares are not enabled on workgroup PCs even if you have enabled the file and printer sharing, so additional configuration steps are required. Let us take a closer look at those steps.

For Microsoft Windows Vista and newer operating systems, you should disable UAC remote restrictions. To achieve this, you should create the LocalAccountTokenFilterPolicy value and set it to 1 within the following registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System
```

You can use this Microsoft support article as a reference.

For Machines running Windows XP, you should set the Network access: Sharing and security model for local accounts policy within the Local Policies > Security Options to the Classic: Local users authenticate as themselves value. You can refer this article to learn more about this policy.

The next thing to check is that the network discovery is enabled for Machines and it is allowed to ping Machines. The ping functionality should be enabled either in Windows Firewall or in the firewall you are using on your Machines. You should also check that the firewall allows access to TCP ports 135, 139 and 445, as well as 137 and 138 UDP.

If your Machines are located in multiple subnets, you should ensure that the remote scope of outbound rules from the File and Printer Sharing and Network Discovery groups in the advanced firewall settings is set to Any for the currently applied network profile.

To check if the Machine is configured properly, you can use Windows Registry Editor and Windows Explorer. Within the registry editor, you should be able to connect to the remote registry and browse through any administrative section of the Local Machine hive, e.g. SYSTEM. Windows Explorer can be used to check access to administrative shares, such as \\MACHINE\C$. 
Network Enumeration

Network enumeration means adding Machines for their further processing by Remote Installer either via an automated scan process or manually. Automatic network enumeration can be performed using either Active Directory, Computer Browser or IP ranges enumeration. You can also add a single Machine manually, if required, or import a set of Machines from a file.

The current user credentials, just like the specified credentials, might not give access to the Active Directory data during an automatic network enumeration process. In such case, an authentication dialog is displayed to input the credentials for the domain being connected to. The Remember my credentials option allows saving the provided credentials as the credentials for this domain. If this option is not enabled, the provided credentials are cached for the current session only.

This chapter contains a detailed description of the network enumeration process and of all the options you can specify for this process.

What's Inside

Enumerate Machines Wizard
Network Scan
IP Range Enumeration
Adding Machines Manually
Enumerate Machines Wizard

The **Enumeration Wizard** [Pic 1] is designed to provide you with a single entry point for adding Machines to the program and is intended to make the process of building the network structure quick and easy. It allows performing an automatic network scan, enumerating an IP range and importing Machines to the program.

After Remote Installer has built the network structure, it can be used to operate remote Machines and create **Collections** for further processing. The **Enumerate Machines** wizard welcome page [Pic 1] displays built-in help information on when this wizard should be used and how it may help you, as well as a warning of possible situations that might be unexpected for you.

![Enumerate Machines Wizard](image)

**Enumerate Machines** button from the **Network** Ribbon group on the **Home** page and from the **Enumeration** Ribbon group on the contextual **Network** page should be used to display the **Enumerate Machines** wizard, which can help you with adding Machines to the program for further processing.
During the first step, you are offered to specify the method to be used for fetching Machines. You can choose among scanning the network automatically, enumerating an IP range and importing Machines from a file.

If you have chosen the **Scan Network** option, on the next page you are required to specify the scope of operation for the automatic enumeration process. You can scan the entire network or only particular Groups for available Machines. When scanning specific groups, it is possible to define a filter condition to constrict the scope of fetched Machines. See the Network Scan topic for details. Having selected the appropriate options, press **Finish** to proceed with enumeration.
If the **Enumerate IP** Range option is chosen, you are offered to specify the environment options, the Group to add Machines to and the IP range to scan [Pic 4]. See the **IP Range Enumeration** section for details. Having specified the required configuration options, press **Finish** to proceed.

[Pic 4. Configuring the IP range enumeration]
In case you have chosen the **Import** option, the routine to follow is the same as used for import with the help of the **Import Machines** wizard.

After you have passed all the steps of the **Network Enumeration** Wizard and pressed the **Finish** button, the process of adding Machines to the program is initiated. As soon as it is completed, you can see the result within the **Network** view (Pic 5).

![Network view](image)

**Pic 5. Network enumeration result**

The added Machines can be processed in the future with Remote Installer and used for creating Collections for further processing.
Network Scan

Network scan is an automated process of searching a network for available remote Machines to be later processed by Remote Installer. The scan is performed in accordance with the specified enumeration options. The network scan feature is available via the Enumerate Machines wizard, the Scan Network button within the Network Ribbon group on the Home page, and the Enumeration Ribbon group on the contextual Network page. These actions are available from the toolbar and the pop-up menu of the Network view.

Two modes of network scan are available; those are Enumerate New and Enumerate. In the Enumerate New mode, the program only performs a search for new Machines without removing those that were not found during the scan process. Also, the automatic software scan is executed only for new Machines and that found ones that have not been scanned for installed programs and their updates yet. The Enumerate mode means that the program performs a scan for Machines, removing those that were not found during the scan process from the Network node. All found Machines are scanned for installed programs and their updates.

The network scan available in the Enumerate Machines wizard and the Scan Network dialog is performed in the Enumerate mode, thus the Machines that are not found during the enumeration process are removed from the Network node.

---

Scan Network

The Scan Network button from the Network Ribbon group on the Home page and from the Enumeration Ribbon group on the contextual Network page should be used to scan the entire network or specific Groups for Machines and add them to the program for further processing.

Enumerate

The Enumerate button from the Enumeration Ribbon group on the contextual Network page should be used to scan the selected containers for Machines removing those not available during the enumeration process.

Enumerate New

The Enumerate New button from the Enumeration Ribbon group on the contextual Network page should be used to scan the selected containers for Machines leaving those not available during the enumeration process.

The pane for configuring network enumeration displayed within the Enumerate Machines wizard and the Scan Network dialog, allows you to specify the enumeration scope. Here you can specify if you wish to search for Machines available in the entire network or in particular Groups only.
Pic 1. Configuring the network scan process
As for the entire network enumeration, the program tries to detect all the Groups available in the network and fetch all Machines from those Groups. If you only want to scan specific Groups, they should be checked within the Group list. The **Refresh** button should be used to synchronize the Group list displayed with the current network state. If the Group you want to scan cannot be detected automatically, you can add it to the list of groups by typing its NetBIOS name to the **Add Group** field on the toolbar and pressing the **+** button.

When scanning specific Groups only, it is possible to define a filter condition used for constricting the scope of fetched Machines. If the query condition is left empty, all Machines from the checked Group will be queried. To specify the condition, you should either double-click the required Group or select it and press the **Edit Filter** button on the toolbar. The filter condition editor [Pic 2](#) is similar to the filter editor used for data filtering. The condition can be applied to the Machine name, the Container and the Last Logon timestamp. The Container condition should contain the Active Directory container path, where '\\' is used as a separation for path elements, e.g. `Computers\Office 203`. If the container name contains the '\\' character, it should be replaced with '\\'.

![Pic 2. Specifying the enumeration filter condition](#)
The specified condition, if any, can be reviewed without opening the filter editor by expanding the row displayed under each group. You can expand and collapse this preview by either double-clicking the preview row or using the arrow on the right of the row. If you are not interested in this preview, you can hide it by disabling the Show Details option in the Configuration menu.

As soon as you have configured the network scan process to fit your needs, press the Scan button and the scan will be initiated. As a result, the Network node is filled with Machines found during the scan [Pic 3].

When the program is already introduced to the network structure, you can enumerate any group or active directory container by selecting it and pressing the Enumerate or Enumerate New button from the Enumeration Ribbon group on the contextual Network page. Use the corresponding items in the pop-up menu or the Enumeration button on the toolbar. This approach can be used to enumerate specific containers with a single click.

The fetched Machines can be processed in the future with Remote Installer and used for creating Collections for further processing.
IP Range Enumeration

Remote Installer provides you with an option of adding Machines to the program by enumerating a specific range of IP addresses. Each IP address from the range is resolved to a host name and, in case of a successful reverse name resolution, the Machine is added to the Network node. The resolving method can be optimized for different environments. The Group for each Machine can also be detected automatically or defined manually.

To add Machines via an IP Range, you should either press the Add IP Range button from the Network Ribbon group on the Home page or from the Enumeration group on the Network page. Alternatively, you can choose an appropriate option within the Enumerate Machines wizard.

Pic 1. Configuring an IP range enumeration
When preparing for an IP range enumeration, you are proposed to choose the network environment type, define if the Group to add Machines to should be determined automatically, and provide the IP range to be enumerated. As soon as you have provided the required settings, press the **Add** button to proceed with the scan process.

**How should I configure the IP range enumeration?**

Remote Installer stores remote Machines by their host names, so when Machines are added via an IP range, a reverse name resolution is performed. To improve the performance of the reverse name resolution process and the ability to detect a Group for each Machine automatically, you should choose a proper environment configuration before performing an IP range enumeration. The environment is the first and the most important thing to specify for a successful enumeration.

The **Domain** environment type should be chosen, if the Machines from the specified range are part of an Active Directory domain infrastructure. It is supposed that a proper DNS server configuration is available in such a case, so the reverse name resolution process can be optimized by querying the DNS server only. Similarly, if you have chosen an automatic Group detection for each Machine, it is supposed that the group information is available in the Active Directory database and is accessible from the PC Remote Installer is running on.

The **Workgroup** environment type should be used if you are using a simple Windows network with Machines joint into a workgroup, so there is no Active Directory database available and no time should be spent on finding a domain controller for each Machine. For such environments, NetBIOS name resolution techniques are used and each Machine is connected to for detecting its Group automatically. The process can be optimized by enabling the remote Machines availability detection by using pings on the **Scan Settings** preference page. In case the remote Machines ping is not enabled in your environment, this option should be disabled.

The next thing to specify is the Group the remote Machines should be added to. It is strongly recommended to use the automatic groups detection by choosing the **Detect Group for each Machine automatically** option, because in such a case there should be no conflicts between the IP range and the network scan enumeration methods. Besides, this approach will secure a proper behavior when applying the network credentials. However, if you are sure that all Machines from the specified range belong to the same Group, you can switch to the **Add all Machines to the specified Group** option and fill in the **Group Name** field. In such a case, the automatic Group detection will be skipped, thus the overall range enumeration performance may be increased.

Finally, after you have specified the range to be scanned in the **Start IP** and **End IP** fields, you can proceed with the enumeration process.
Adding Machines Manually

Remote Installer provides you with an option of adding Machines to the program manually by using the Add Machine command. This action can be found in the Network Ribbon group on the Home page or in the Enumeration Ribbon group on the Network contextual page.

The Add Machine button from the Network Ribbon group on the Home page and from the Enumeration Ribbon group on the contextual Network page should be used to add a single Machine to a specific group for further processing.

The Add Machine dialog will be displayed on the screen for you to provide the required data for the Machine to be added [Pic 1]. The first thing to specify is the name of the group the new Machine(s) will be added to. You can specify it manually in the Group Name field or click [ ] and select one from those detected automatically as available in the network. The next step is specifying the name for the Machine to be added in the NetBIOS Name field. Optionally, you can also provide a comment and a description to be set for the Machine.

After the required fields have been filled, press the Add button to proceed with the addition process. The Machine with the defined name will be added to the specified group in the Network node.
Collections

A Collection either groups a set of static Machines or defines the method and conditions for fetching Machines to be operated dynamically. It is a component for building a Machine Queue that describes the scope of Machines to be processed by any operation in Remote Installer.

In this chapter, we will provide a detailed description of a Collection structure and review the Collections management process to help you understand the idea of Collections and benefit from using them in your everyday work.

What's Inside

Collections Overview
Collections Management
Machines Filter
Collections Overview

A Collection is a component for building a Machine Queue that describes a scope of Machines to be processed by any operation in Remote Installer. It consists of Machines and/or Queries that define a set of Machines to be retrieved dynamically.

Each Query in a Collection defines a condition to fetch Machines from a single Group. It is possible to check the Machine name and the Active Directory Container the Machine is from for satisfying any condition. The querying source defines if the Machines from a specific Group should be fetched from those available in the program database, or a network scan of the Group should be performed to fetch the Machines that match the specified condition.

The main advantage of using Queries in Collections instead of a set of static Machines is that such Collections can reflect the changes made to the network environment automatically. For instance, if you use a Collection to group Machines from a specific Organization Unit, you'll have to modify this Collection every time you add Machines to or remove Machines from this Organization Unit, whereas if Machines from that unit are fetched by a Query in the Collection, no changes to that Collection are required to reflect the changes in Active Directory.

Remote Installer allows you to set a Machines Filter on each Collection, which enables you to filter Machines by their data, e.g. the operating system, the platform, the installed software, etc. The Machine Filter is applied to both static Machines and those fetched via Machine Queries.

You can create Collections within a program scope or separately for a specific operation. The Collections defined within a program scope are displayed under the Collections node in the Network view and can be reused in multiple operations. Collections that are defined for specific operations are called embedded Collections and are available only in a specific Machine Queue. The advantage of using Collections defined within a program scope is obvious. You can include them to the Machine Queues of different tasks and then only change the Collection itself, if required. The task's Machine Queue will reflect the changes to the Collection automatically, so you do not need to reconfigure multiple tasks that should operate the same scope of Machines when the scope changes. You can also easily create new tasks for operating this scope of Machines.

When you start any operation with only standalone Machines and/or Queries selected, an embedded Collection is automatically created in the Machine Queue to group those Machines and/or Queries, so that you can combine those Machines with the Machines provided by other Collections.

For details on creating and editing Collections, refer to the Collections Management section of this document, and detailed information on possible Machines filters is available in the Machines Filter section.

Collections Management

A Collection is a component for building a Machine Queue that describes the scope of Machines to be processed by any operation in Remote Installer. It either groups a set of static Machines or defines a method and conditions for fetching Machines to be operated dynamically. In this section of the document, we will describe how to create and configure Collections within the program scope. Management of embedded Collections defined within the scope of a single Machine Queue is the same; the only difference is that they are stored locally within the Machine Queue.

| Collection | The Collection button from the New Ribbon group on the Home page should be used to create a new Collection to group static Machines and Queries to fetch Machines dynamically. |
The New button from the Collections Ribbon group on the contextual Network page should be used to create a new Collection to group static Machines and Queries to fetch Machines dynamically.

To create a new Collection, you can use the Collection button from the New Ribbon group on the Home page or the New button from the Collections group on the contextual Network page. Alternatively, you can use the New Collection menu item from the Network view pop-up menu and the Collections button drop-down from the toolbar. You can also use the New Collection option of the Add to Collection drop-down to create a Collection initializing it with the selected Machines and Queries. In any case, the New Collection dialog will appear on the screen to configure the Collection being created [Pic 1].

[Pic 1. Choosing the Collection members]
The Collection editor consists of four tabs. The **Properties**, **Members** and **Filter** tabs are used to configure the Collection being created. The **Machines Preview** tab allows previewing the set of Machines defined by the Collection.

On the **Properties** tab, you are supposed to specify the common Collection properties such as the Collection name, comment and description. It is recommended that the comment and description fields be filled in to easier distinguish this Collection from others in the future.

The **Members** tab is used to specify the set of Machines and Queries included into the Collection and to configure the querying options. It is divided in two parts: the tree of Machines and Queries available in the program and the tree of Machines and Queries from the Collection being edited. The available Machines are grouped, and you can choose from the Machines available in the **Network** view, the **All Machines** view and other Collections. In addition, if there are any Machines and/or Queries in the clipboard, they are displayed under the **Clipboard** group within the **Additional Sources** node. If you have expanded the available Machines scope to include imported Machines or those found during the enumeration, the **Additional Sources** node also contains the **Enumerated** node where you can find those Machines. The Machines that are already in the Collection being edited are automatically filtered out from those available and shown again when removed from the Collection. Within the **Collection Members** part, standalone Machines are grouped within the **Static Machines** node and Queries are grouped within the **Machine Queries** node.

To add Machines to the Collection, you should check them in the **Available Sources** part and press the button with a single right arrow. The checked Machines will appear in the **Collection Members** part and disappear from the **Available Sources** part. You can also add all available Machines to the Collection being edited by using the button with a double right arrow.

Queries can be copied from **Available Sources** to **Collection Members** the same way as Machines. It is also possible to create new Queries using the **New Machine Query** button and edit queries and query options using the **Edit** button on the **Collection Members** part toolbar. Each query retrieves Machines from a single Group depending on the specified query conditions. Those conditions should be defined within the Machine Query editor. 

[Link to next page]
Within the Machine Query editor, you can provide the query name, the group to query Machines from and the query conditions. Optionally, you can also specify a comment and a description for the query. The group is chosen from the drop-down list of available groups. It is also possible to add a new group and configure the credentials to be used for connecting to Active Directory using the button on the right of the groups list. After pressing this button, the Select Group dialog is displayed.
In the **Select Group** dialog, the tree of available groups is displayed along with the credentials to be used to connect to Active Directory. You can provide and reset the credentials the same way as for the **Credentials** view. It is also possible to add a new group by typing its name into the **Add Group** field and pressing the **+** button. You can check the provided credentials and build the network structure using the **Build Structure** button on the **Credentials** toolbar. After all the required groups have been added and the credentials have been specified, press the **OK** button to proceed.

After you provide the Machine Query name and the group to retrieve Machines from, you should define the query condition, if required. If the query condition is left empty, all Machines will be queried from this group. The query condition editor is similar to the **filter editor** used for data filtering. The condition can be applied to the Machine name, the Container and the Last Logon timestamp. The Container condition should contain the Active Directory container path, where '"' is used as a separation for path elements, e.g. `Computers\Office 203`. If the container unit name contains the '"' character, it should be replaced with '""'.

On the **Machines Preview** tab page, you can execute a query by pressing the **Preview** button. The Machines fetched by the query will be displayed within the **Machines** part, and the **Log** part will show if there have been any problems while executing the query.

Machine Queries can fetch Machines either from the network or from the program database. The default querying source is defined on the **Collections Settings** preference page, but you can override the behavior for specific collections using the querying options group at the bottom of the **Members** tab and ticking the **Override querying configuration** checkbox.

To remove Machines or Machine Queries from the Collection being edited, select them in the **Collection Members** part and press the **Delete** button from the toolbar. The selected Machines will disappear from the **Collection Members** part and appear in the **Available Sources** part. The Machine Queries will simply be removed.

All the Machines grouped within a Collection, both static and those fetched via Machine Queries, can be filtered by their properties such as the operating system version and type, the platform, installed software, etc. The condition to be used for filtering is defined on the **Filter** tab. Refer to the **Machines Filters** section of this document for details.
Pic 4. Configuring the Machines Filter
After a Collection has been configured, you can press the **Preview** button to execute all the queries and apply all the filters and review the effective set of Machines defined by this Collection on the **Machines Preview** page (Pic 5).

![Pic 5. Reviewing the effective set of Machines](image)
During the Collection editing process, you can expand the scope of available Machines by using the **Expand Scope** button on the toolbar and from the pop-up menu. The **Expand Scope** wizard is similar to the **Enumerate Machines** wizard, the only difference being that Machines are added to the **Available Sources** part.

Press the **Create** button to proceed with creating the Collection. After the Collection has been created, it can be found in the **Network** view under the **Collections** node. It can be added to a Machine Queue of any operation.

To edit a Collection, if required, you can select it and choose the **Edit** button from the **Organize** Ribbon group on the **Program** page, the **Edit** menu item or the **Edit** button on the toolbar. Alternatively, you can just double-click the Collection. When a Collection is edited, the configuration process is the same as during the Collection creation. When a Collection is no longer needed, you can delete it. To delete a Collection, select it and choose the **Delete** button from the **Organize** Ribbon group on the **Program** page, the **Delete** menu item or the **Delete** button on the toolbar. It is also possible to delete any item from an existing Collection. After a Collection has been deleted, it is also removed from all Machine Queues it was used in.

With Remote Installer it is really easy to transfer and back-up Collections. You can use the well-known drag/drop and copy/paste techniques, simply duplicate Collections and export/import them. You can also copy a Collection from this or another EMCO program and paste it into the **Collections** node. Export and import can also be used to share and back up Collections; refer to the **Importing and Exporting Network** section for details.

A Collection defines a set of Machines to operate using Queries. Each Query defines a group to fetch Machines from and the conditions to be used. Filtering may also be applied to a Machines scope. However, it may sometimes be useful to work with standalone Machines currently defined with the Collection. To resolve this issue, the Collection Snapshots are introduced. For each Collection, there can be only one snapshot representing its most relevant result. Snapshots are displayed under the **Collections' Snapshots** node in the **Network** view. To create a snapshot from a Collection, you should select this Collection and either click the **Create Snapshot** button from the **Collections** Ribbon group on the contextual **Network** page or choose the corresponding item from the pop-up menu or the **Collections** button drop-down on the toolbar. All the queries defined in the Collection will be executed, all the filter conditions will be applied, and the snapshot containing the currently effective set of Machines will be added to the **Collections' Snapshots** node. The query log becomes available on the process completion in the **Application Log** view.

As it has already been mentioned, you can preview the effective set of Machines while editing a Collection, but it is not required to open the Collection for editing to review it again. You can simply select the Collection and either click the **Preview** button from the **Collections** Ribbon group on the contextual **Network** page, or choose the corresponding item from the pop-up menu or the **Collections** button drop-down on the toolbar. The effective machines set preview will be opened in a new window and displayed in the same manner as when editing a Collection.
Add to Collection

The Add to Collection button from the Collections Ribbon group on the contextual Network page should be used to add the selected Machines and/or Machine Queries to a new or an already existing Collection.

The Collection editing process is not the only way to add Machines and Machine Queries to any Collection. Remote Installer allows you to add the items you have selected within the Network or the All Machines view to any Collection. Simply select those items and choose the required Collection from the Add to Collection pop-up menu. The pop-up menu displays only the first ten Collections. If the required Collection is not displayed and you have more Collections to display, you can click the Choose Collection item under the Collections list and choose the required Collection through the dialog where all the Collections are displayed. To create a new Collection based on the selection, choose the New Collection item under the Collections list. It is also possible to copy Machines and Queries from any view and paste them into any Collection, as well as cut them from any Collection and paste them into another one. The drag-and-drop feature is fully supported, too. You can even import items into a Collection by selecting this Collection and either pressing the Import button from the Organize Ribbon group on the Home page or choosing the corresponding menu item from the pop-up menu.

We've done our best to make the Collections management both easy-to-use and flexible, and we hope you'll be able to solve your management tasks without any difficulties and with full understanding of the process.
Machines Filter

Collections allow defining to define a set of static Machines and Queries for retrieving Machines from specific Groups with an ability to filter fetched Machines by their name and location in an Active Directory database. Remote Installer also enables you to filter the defined static Machines and the resulting set fetched by all the Queries defined in a Collection by applying conditions to remote Machines' properties. The Machines filter is defined on the Filter tab when editing a Collection.

Pic 1. Specifying the Machines filter
The Machines filter editor is similar to the filter editor used for filtering data in trees and tables. You can combine any number of conditions, as well as groups of conditions, with Or and And operators. You can filter by the following Machine properties: the operating system version, the operating system type, the service pack, the platform and the language. It is also possible to check if specific programs are installed on remote Machines.

By default, to get the most relevant filtering results, the program tries to connect to each remote Machine to refresh the properties used for filtering before checking the condition, but you can allow the program to use cached property values. The Machines filter options used by default for all Collections are defined on the Collections Settings preference page. It is also possible to override those options for a specific Collection, if required. To override the default options, expand the filtering options group on the Filter tab while configuring the Collection and tick the Override filtering configuration checkbox.

In case the filters preview is enabled in a view, the Machines filter, if defined, can be easily reviewed by expanding the preview row of the Collection node. Therefore, you do not need to edit the Collection to see if there is any condition defined and which condition is defined.

**Credentials**

The credentials to be used for connecting to remote Machines are provided in the Credentials view and stored between the program sessions. Thus, you can specify the credentials once for Machine, Group or Network, and they will be applied automatically when required.

> **Warning**
> Although the credentials are stored in a strongly encrypted state, it is still possible for an intruder to decrypt the credentials.

Credentials set on the Network item are used to set the same credentials for all the Machines in the network.

Credentials defined for an individual Group are used when several domains or workgroups with different administrative accounts are present in the network.

The function of specifying credentials for an individual Machine is mainly used to set credentials for separate Machines with unique accounts in the network.

**What's Inside**

Providing Credentials

How do I access another domain?

**Providing Credentials**

Remote Installer allows you to specify credentials both for groups of Machines and for individual Machines in the Credentials view using in-place editors. It is also possible to import credentials from a file or copy them from another EMCO program. Credentials can be provided with or without explicit specification of the domain. The domain may be specified by using the User Principle Name or Down-Level Logon Name.
User Principal Name

The User Principal Name (UPN) format is used to specify an Internet-style name, such as `UserName@Example.Emco.local`. The following table summarizes the UPN components.

<table>
<thead>
<tr>
<th>Component</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>User account name. Also known as the logon name.</td>
<td>UserName</td>
</tr>
<tr>
<td>Separator. A character literal, the at sign (@).</td>
<td>@</td>
</tr>
<tr>
<td>UPN suffix. Also known as the domain name.</td>
<td>Example.Emco.local</td>
</tr>
</tbody>
</table>

A UPN can be defined implicitly or explicitly. An implicit UPN has the following form: `UserName@FQDN`. An implicit UPN is always associated with the user’s account, even if an explicit UPN is not defined. An explicit UPN has the form `Name@Suffix`, where both the name and suffix strings are explicitly defined by the administrator.

Down-Level Logon Name

The down-level logon name format is used to specify a domain and a user account in that domain, for example, `DOMAIN\UserName`. The following table summarizes the components of a down-level logon name.

<table>
<thead>
<tr>
<th>Component</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetBIOS domain name.</td>
<td>DOMAIN</td>
</tr>
<tr>
<td>Separator. A character literal, the backslash ().</td>
<td>\</td>
</tr>
<tr>
<td>User account name. Also known as the logon name.</td>
<td>UserName</td>
</tr>
</tbody>
</table>

Beside an explicit domain specification, you can use an implicit one by providing the Down-Level Logon Name with the '.' character instead of the domain part (`\UserName`). In such case, the '.' character is replaced by the NetBIOS name of the Machine to connect to.

If the user name is provided without an explicit or implicit domain specification, the program generates one of the user name formats described above using the following rules:

- If credentials are specified on the Machine node, the following Down-Level Logon Name is generated for connection: `MACHINE\UserName`, where 'MACHINE' is the NetBIOS name of the Machine the program is connecting to and 'UserName' is the specified user name.
- If credentials are specified on the Network or Group node, than the group the Machine is located in is used to form the user name used for connection. If the group is an Active Directory domain, then the following UPN name is formed: `UserName@FQDN`, where 'UserName' is the specified user name and 'FQDN' is a fully qualified name of the domain the Machine is located in. In case the group is not an Active Directory domain, the following Down-Level Logon Name is generated for connection: `DOMAIN\UserName`, where 'DOMAIN' is the NetBIOS name of the group the Machine is located in and 'UserName' is the specified user name.
You can easily review the credentials that are going to be used for connecting to the remote Machine in the tool tip displayed for this Machine in the Credentials view.

**Examples for Credentials specification**

Specifying credentials for complex network environments may not be a trivial task, and this chapter is written to show you some examples that can help you with this task. Let's assume we have the following network structure:
Consider the following methods of setting the credentials:

1. The credentials are set for the *Network* item. Connection to remote Machines and Active Directory will take place using the credentials set for the Network.

Same Credentials for Entire Network
2. Two different credentials are set for the *Emco* and *DEV* groups. Connection to remote Machines from the *Dev* group will take place using the credentials set for the *Dev* group, Machines from the *Emco* group will be processed using the credentials set for the *Emco* group.

**Specific Credentials for Groups**
3. Three different credentials are set for the Network, the Dev group and the Dev-PDC Machine. Connection to remote Machines from the Emco group will take place using the credentials set for the Network, the Dev group will use the credentials specified for the Dev group and for Dev-PDC the credentials set for Dev-PDC will be used.

Specific Credentials for Groups and Machines
How do I access another domain?

By default, the credentials used for a Machine are applied as credentials for the domain where the remote Machine is located. It is displayed in the Log on to field of the credentials edit. In case you need to use the remote Machine's local account or the account from a domain that differs from the one provided by default, you should explicitly specify the Machine or the domain where the account is located in the user name. The Log on to field value is then changed to give you a clear understanding of which domain credentials are used.

To do the actions described above, you should input the value in the following format to the User Name field of the credentials pop-up edit:

<Username>@<FQDN> - for an explicit specification of an Active Directory domain account, where 'FQDN' is a fully qualified name of the domain.

<Domain name>\<User name> - for an explicit specification of a domain account, where 'Domain name' is a NetBIOS name of the domain to be used.

<Machine name>\<User name> - for an explicit specification of a remote Machine account.

Now you know how to provide the credentials to be used from a specific domain and can configure network credentials without any difficulties.
Defining Machines to Operate

Each operation in Remote Installer is represented with a Machine Queue, which describes the scope of Machines to be operated, and an operation-specific configuration, which defines what exactly should be made with those Machines. A Machine Queue consists of Collections. Each Collection either groups a set of static Machines or defines the method and conditions for fetching Machines to be operated dynamically.

You can either use the Collections defined in the program scope for filling in the Machine Queue or create embedded Collections for the Machine Queue, or combine both methods. When any operation for the selected standalone Machines and/or Queries is launched, the embedded Collection containing those items is created automatically and added to the Machine Queue. A Machine Queue is configured before executing an operation or while configuring a task [Pic 1].
The pane used for configuring a Machine Queue has the following tab pages: **Machine Queue** and **Machines Preview**. The **Machine Queue** page is used to define the Collections to be included into the Machine Queue being edited. You can add Collections defined in the program scope using the **Link** item from the pop-up menu or from the toolbar. To create a new embedded Collection, you can use the **New Embedded Collection** item from the pop-up menu. The embedded Collections created while editing the Machine Queue exist as long as the corresponding Machine Queue and cannot be used in other Machine Queues. You can edit Collections and Queries using the **Edit** button on the toolbar or the **Edit** item in the pop-up menu. To delete a Collection from a queue, select it and press the **Delete** button on the toolbar or choose the **Delete** item from the pop-up menu.

You can review the effective set of Machines defined with the Collections added to the Machine Queue using the **Preview** button and menu item. While preparing for a preview, all Queries are executed and filters are applied, the Collections are merged and the resulting set of Machines to be operated is formed and displayed on the **Machines Preview** tab.

Now that you have been introduced to the Machine Queue concept, you should be able to configure the scopes of Machines to be operated without any difficulties and benefit from reusing the Collections defined in the program scope.

### Remote Machine Statuses

Remote Installer is used to operate remote Machines, so the status of access to each remote Machine is important information. When activated, Remote Installer determines the access status for each remote Machine and stores it in the program database together with the last access time, so you can always see this information when required.

The status of each remote Machine is displayed in the **Access Status** column of the **All Machines** view.

![Remote Machine statuses displayed in the All Machines view](Image)

The remote Machine status can be represented by one of the following values:

- **[Indefinite]** - the access status of the Machine is indefinite – you can press the Check State button from the Machines Ribbon group on the contextual Network page or choose the Check State item from the pop-up menu to check the Machine's access status;
Accessible - the Machine is accessible, i.e. it satisfies the requirements for remote Machines and can be operated;

Service Not Running - the Machine is accessible and the remote service is installed, but it is not running;

Service Running - the Machine is accessible, the remote service is installed and running;

Service Update Required - the Machine is accessible, the remote service is installed, but it is not up-to-date;

Service Unreachable - the Machine is accessible, but the remote service is unreachable: either it is impossible to check state of the remote service, or it fails to start;

Inaccessible - the Machine is inaccessible, i.e. it is currently impossible to operate this Machine;

Access Denied - the access to the remote Machine is denied; to operate this Machine, you should provide the administrative credentials in the Credentials view.

The remote Machine status is also displayed in the right bottom part of the Machine icon in the Network view and in the Machine Queue pane, so you can easily see it from any view displaying remote Machines. The information on the access status and the last access time, if any, is also available in the tooltip for each remote Machine.
Network Objects Properties

Every network object contained within the network structure available in the Remote Installer has a number of properties. Most of the properties are detected during the network enumeration process and are overridden during every enumeration. Unlike this, the description property is used to enable the end user to provide some information that will be stored permanently for this object. To review and change the object properties, you should select this object in any view and press the Edit button from the Organize Ribbon group on the Home page. This action is also available in the pop-up menu of a view. Let us review the range of properties available for each type of objects.

Group Properties

The Group properties consist of the DNS Name, NetBIOS Name, Comment and Description. The NetBIOS Name and DNS Name fields are maintained automatically and cannot be changed manually.

![Group Properties](image)

Pic 1. Group Properties
The full DNS name and comment are filled automatically during every scan if the group is an Active Directory domain. The provided description is always specified manually and can be used as information for this Group to permanently store in the program database.

**Active Directory Container Properties**

The Active Directory container properties consist of the **Name**, **Comment** and **Description**. The **Name** field for the Active Directory container is maintained automatically and cannot be changed manually.

![Pic 2. Active Directory Container Properties](image-url)
The object name and the comment are retrieved from the Active Directory during an automated network enumeration process. The provided description is permanently stored in the program database. You can use it to save some additional information about this object.

**Machine Properties**

The Machine properties consist of the **NetBIOS Name, DNS Name, Comment** and **Description**. The **NetBIOS Name** and **DNS Name** fields are maintained automatically and cannot be changed manually.

The Machine name, full DNS name and comment are filled automatically during every scan. The provided description is always specified manually and can be used as information for this Machine to permanently store in the program database.
Importing and Exporting Network

With Remote Installer, you can easily import and export network objects any time you want. You can export one or all of the available Machines, Credentials and Collections to use the exported data as a backup, to share data with your colleagues or simply to import the objects to another instance of the program. The import feature can be used both to import Machines, Credentials, Collections and Collection Members from files created during export and those created manually. For example, you can create a CSV file manually to add Machines by specifying their data in Microsoft Office Excel. This chapter covers the process of importing and exporting network objects.

It is possible to import Machines, Credentials, Collections and Collection Members. Machines can be imported into Remote Installer from XML and CSV files. You can import Machines to the Network node or to any Collection, depending on the selection in the Network view. When running import from the All Machines view, Machines are imported into the Network node. Other network objects can be imported only from the XML format. To import Collections, you should select either the Collections node in the Network view or any Collection. The Credentials import can be launched when the Credentials view is active. The file formats are described in detail in the Export/Import Formats section. You can use the files created by the program during previous exports or create new files manually.

To perform import, press the Import button from the Organize Ribbon group on the Program page. The import wizard will appear on the screen. Let us take a closer look at the import process using the Machines import as an example.

![Import Machines Wizard welcome page](image)

Pic 1. The Import Machines Wizard welcome page
The first page of the **Import Machines Wizard** is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with import.

On the next page of the **Import Machines Wizard**, you are offered to choose the file you are going to import Machines from [Pic 2](image). The file path should be provided to the **Import From** field. The format of the provided file is detected automatically. The encoding of the XML file with Machines is also detected automatically. For the CSV format, a preview page is displayed where you can tune the parse options while immediately seeing the results.

![Pic 2. Choosing the import source file](image)
In case of a CSV file, the next page is a preview page. When you change the CSV format options, the preview is refreshed so that you can see if the format options are chosen properly [Pic 3].

After you have tuned the parse options, press **Next** to choose the Machines to import. The next page is the page for choosing Machines from those available in the file [Pic 4]. It is also displayed if you have chosen an XML file containing Machines. By default, all available Machines are chosen for import.
When the Machines to import have been chosen, press the Finish button to proceed with import. As soon as the import is complete, the imported Machines are added to the Network and the All Machines views. The same concept is used for importing Credentials and Collections, importing into Collections, etc.

**Export**

The Export button from the Organize Ribbon group on the Program page can be used to export the selected Machines, Queries, Collections or Credentials from the program to a file that can be used in the future for import.

Remote Installer allows you to export Machines, Machine Queries, Collections and Credentials. Machines can be exported to the XML or CSV file format. Other network objects can be exported to the XML file format only. To perform export, select the objects to export and press the Export button from the Organize Ribbon group on the Program page. Let us take a closer look at the network objects export using the Machines export as an example. When you choose to export some objects, the export wizard appears on the screen **Pic 5**.

**Pic 5. The Export Machines Wizard welcome page**

The first page of the export wizard is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with export.
On the next page of the export wizard, you are offered to choose the file you are going to save the Machines data to, the file format and the format options [Pic 6]. The file path should be provided to the Export To field. For the XML format, you can choose the encoding to be used for saving the objects, and for the CSV file, the text delimiter and the field delimiter should also be specified along with the encoding.

![Pic 6. Configuring the export options](image)

After the file path and the export form have been chosen, press Finish to proceed with export. A file containing the exported objects will be created in the specified path. The file created during export can be used in the future to import the objects back to the program.

Now you are fully introduced to the network objects export and import options available in Remote Installer and can use them in the future to solve your tasks. If you are interested in creating files to import manually, you can read the Export/Import Formats section that follows this section to get detailed information on the file formats.

### Export/Import Formats

This section describes the format of the files used by Remote Installer while importing and exporting network objects. The CSV export and import is only supported for Machines; other network objects can only be transferred via XML files. The CSV file format for exporting Machines in general consists of sixteen columns, namely:

<table>
<thead>
<tr>
<th>Index</th>
<th>Header</th>
<th>Description</th>
<th>Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GroupName</td>
<td>The NetBIOS name of the group the Machine is located in.</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Name</td>
<td>The NetBIOS name of the Machine.</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>GroupDNSName</td>
<td>The full DNS name of the domain the Machine is located in (can be empty for network environments with workgroups).</td>
<td>No</td>
</tr>
<tr>
<td>Index</td>
<td>Header</td>
<td>Description</td>
<td>Mandatory</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>4</td>
<td>DNSName</td>
<td>The full DNS name of the Machine. This column can be empty for network environments with workgroups.</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>OrganizationUnit</td>
<td>The path of the organization unit containing the Machine in the Active Directory database. The path elements should be separated with the \ character. If the organization unit name contains the \ character, it should be replaced with &quot;. If you would like to scan and rescans the imported units, you should define the container type for each path element: the organization unit should start with 'OU=' and the container, such as the default one named Computers, with 'CN='.</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Comment</td>
<td>The comment for the Machine.</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Description</td>
<td>The description for the Machine.</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>GUID</td>
<td>The unique Machine identifier in the Active Directory database. This column can be empty for network environments with workgroups.</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Username</td>
<td>The username used to connect to the Machine.</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Password</td>
<td>The password used to connect to the Machine in a strongly encrypted state. This column value cannot be provided manually.</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>IPAddress</td>
<td>The last retrieved IP address of the Machine.</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Platform</td>
<td>The platform of the Machine: x86 or x64.</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>OSVersion</td>
<td>The major and minor version of the remote Machine's operating system, e.g. '5.2' for Microsoft Windows XP/2003.</td>
<td>No</td>
</tr>
<tr>
<td>14</td>
<td>OSType</td>
<td>The remote Machine's operating system type: 'Workstation', 'Server' or 'Server R2'.</td>
<td>No</td>
</tr>
<tr>
<td>15</td>
<td>ServicePack</td>
<td>The service pack version of the remote Machine's operating system, e.g. '2' for Service Pack 2.</td>
<td>No</td>
</tr>
<tr>
<td>16</td>
<td>OSLanguage</td>
<td>The language code of the remote Machine's operating system, e.g. 'en-US' for English (United States).</td>
<td>No</td>
</tr>
</tbody>
</table>

If you are preparing a CSV file for import manually, you have two options: follow the indexes of columns or provide the column headers. If the headers are provided, the columns order is not taken into account. So, for example, if you want to provide the IP addresses for Machines you can create a file only with Name, GroupName and IPAddress columns – the program will determine the fields you are going to import using the header.

Sample CSV file with Machines

"DREAMLIGHT","W7-X86-SP-MKIII","Dreamlight.local","W7-X86-SP-MKIII.Dreamlight.local","CN=Computers",","2f780f0f-6530-43e0-b7b0-e90e3a3689fc","192.168.5.85","x86","6.1","Workstation","1","en-US"
"DREAMLIGHT","DREAMLIGHT-PDC","Dreamlight.local","Dreamlight-PDC.Dreamlight.local","OU=Domain Controllers",","3a9a9fb2-aa92-4768-b9f5-0883048ff999","192.168.5.74","x64","5.2","Server","2","en-US"
As for the XML files, each file containing exported data has the Data root node that defines the data format and the format version. The following formats are supported:

- **Machines**, used to represent the exported Machines, respecting the network structure;
- **Queries**, used to represent the exported standalone Queries and Machines;
- **Collections**, used to represent the exported Collections;
- **Network**, used to represent the mix of exported Collections, standalone Queries and standalone Machines and can be imported into the Network view or into a Collection;
- **Credentials**, used to represent the exported Credentials respecting the network structure.

All XML formats for exporting network objects contain the network structure. Each element in the structure is represented with the Entry node. The root node is always a network node that has its Type attribute set to 'Network'. For all the formats, except Machines and Credentials, there is also the Explorer root node available, which contains Collections, Queries and references to the nodes representing the network item. For example, if there is the same Machine in two Collections, the Machine is only stored once within the network structure, and both the Collections contain references to that Machine. Let us take a look at the available entry types for each data format.

<table>
<thead>
<tr>
<th>Type</th>
<th>Formats</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>All</td>
<td>This is the root node of the network structure, which can also contain the credentials to be used as default for connecting to remote Machines.</td>
</tr>
<tr>
<td>Group</td>
<td>All</td>
<td>This node represents a Group in the network structure.</td>
</tr>
<tr>
<td>OU</td>
<td>All</td>
<td>This node represents an Active Directory container (either Organization Unit or Container) in the network structure.</td>
</tr>
<tr>
<td>Machine</td>
<td>All</td>
<td>This node either represents a Machine in the network structure (when located within the Network node) or a reference to a Machine in the network structure.</td>
</tr>
<tr>
<td>Query</td>
<td>Queries, Collection s, Network</td>
<td>This node represents a query for fetching remote Machines and references a Group in the network structure.</td>
</tr>
<tr>
<td>Collection</td>
<td>Collection s, Network</td>
<td>This node represents a Collection and contains Queries and references to remote Machines grouped by this Collection.</td>
</tr>
</tbody>
</table>

Each node representing a network object has a set of properties used to describe the object. The table below contains a joint set of attributes and describes each attribute and its purpose in details.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following attributes are used in all formats for all entry types representing the network structure, Queries and Collections.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>The name of a network item. This attribute defines either the name for Active Directory Containers, Queries and Collections or the NetBIOS name for Groups and Machines.</td>
</tr>
<tr>
<td>Attribute</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Comment</td>
<td>The comment used for a network item.</td>
</tr>
<tr>
<td>Description</td>
<td>The description defined for a network item.</td>
</tr>
<tr>
<td>GUID</td>
<td>The unique item identifier in the database. This attribute is not applicable to Machines and Groups in workgroup environments.</td>
</tr>
</tbody>
</table>

The following attributes are used for the Group, OU and Machine entry types representing the network structure, in all formats.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNType</td>
<td>The type of a network item. It should be 'DC' for domains, 'OU' for organization units and 'CN' for other active directory containers, such as the default one named Computers, and Machines.</td>
</tr>
<tr>
<td>Username</td>
<td>The username used to connect to a network item.</td>
</tr>
<tr>
<td>Password</td>
<td>The password in a strongly encrypted from used to connect to a network item. This attribute cannot be provided manually.</td>
</tr>
</tbody>
</table>

The following attributes are used for the Group and Machine entry types representing the network structure, in all formats.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNSName</td>
<td>The DNS name of a Machine or the Fully Qualified Domain Name of a Group.</td>
</tr>
</tbody>
</table>

The following attributes are used for the Machine entries representing the network structure, in all formats, except Credentials.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPAddress</td>
<td>The last retrieved IP address of a Machine.</td>
</tr>
<tr>
<td>Platform</td>
<td>A Machine's platform: x86 or x64.</td>
</tr>
<tr>
<td>OSVersion</td>
<td>The major and minor version of a remote Machine's operating system, e.g. '5.2' for Microsoft Windows XP/2003.</td>
</tr>
<tr>
<td>OSType</td>
<td>A remote Machine's operating system type: 'Workstation', 'Server' or 'Server R2'.</td>
</tr>
<tr>
<td>ServicePack</td>
<td>The service pack version of a remote Machine's operating system, e.g. '2' for Service Pack 2.</td>
</tr>
<tr>
<td>OSLanguage</td>
<td>The language code of a remote Machine's operating system e.g. 'en-US' for English (United States).</td>
</tr>
</tbody>
</table>

The following attributes are used for Machine entries in the Collections and Network formats.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ref</td>
<td>A reference to the Machines that is included into a Collection or a Network node in the network structure definition.</td>
</tr>
</tbody>
</table>

The following attributes are used for Query entries in the Queries, Collections and Network formats.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>The Query condition to be used for fetching remote Machines.</td>
</tr>
<tr>
<td>ref</td>
<td>A reference to the Group that should be used to fetch Machines from in the network structure definition.</td>
</tr>
</tbody>
</table>

The following attributes are used for Collection entries in the Queries, Collections and Network formats.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>The condition to be used for the Machines Filter.</td>
</tr>
<tr>
<td>OverrideMode</td>
<td>The sign that the Machine querying options are overridden for this Collection. The value is either 'yes' or 'no'.</td>
</tr>
<tr>
<td>Mode</td>
<td>The overridden querying source: '0' to fetch Machines from the entire Network and '1' to select Machines from the program database.</td>
</tr>
<tr>
<td>OverrideCache</td>
<td>The sign that the filtering options pertaining to the property values cache are overridden for this Collection. The value is either 'yes' or 'no'.</td>
</tr>
<tr>
<td>UseCache</td>
<td>The overridden sign showing if it is allowed to use cached property values for filtering.</td>
</tr>
<tr>
<td>PropsMeasu rement</td>
<td>The overridden expiration measurement unit of the operating system properties cache: '0' for minutes, '1' for hours, '2' for days.</td>
</tr>
<tr>
<td>Attribute</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PropsExpire</td>
<td>The overridden number of measurement units (minutes/hours/days) for the time span defining the properties cache expiration interval.</td>
</tr>
<tr>
<td>InventoryMeasurement</td>
<td>The overridden expiration measurement unit of the software inventory cache: '0' for minutes, '1' for hours, '2' for days.</td>
</tr>
<tr>
<td>InventoryExpire</td>
<td>The overridden number of measurement units (minutes/hours/days) for the time span defining the software inventory cache expiration interval.</td>
</tr>
</tbody>
</table>

Sample XML file with network objects

```xml
<?xml version="1.0" encoding="utf-16"?>
<Data Version="3" Format="Machines">
  <Entry Type="Network">
    <Entry Type="Group" Name="DREAMLIGHT" DNSName="Dreamlight.local" CNType="DC"
      Comment="Main office of Dreamlight branch" GUID="fa2a57e1-36a2-41d4-84f6-a4783412d0b8"
      Username="admin"
      Password="Oj1pfppZgRecS+YRdh3XRX/u55YKZu8GTVXHVFlf1J0i89r4QxkPUBQQzIUU6ka">  
      <Entry Type="OU" Name="Computers" CNtype="CN" Comment="Default container for upgraded computer accounts" GUID="aef2b844-3ad7-4aa6-8307-7ae4f6476ed1" />
        <Entry Type="Machine" Name="W7-X86-SP-MKIII" DNSName="W7-X86-SP-MKIII.Dreamlight.local" CNType="CN" GUID="2f780f0f-6530-43e0-b7b0-e903a3689fc"
          IPAddress="192.168.5.85" Platform="x86" OSVersion="6.1" OSType="Workstation" ServicePack="1"
          OSLanguage="en-US" />
      </Entry>
    </Entry>
    <Entry Type="Group" Name="Domain Controllers" DNSName="Dreamlight-PDC.Dreamlight.local"
      CNType="CN" GUID="3a9a9f4b-2a92-47e6-b9f5-08830489f999"
      IPAddress="192.168.5.74" Platform="x64" OSVersion="5.2" OSType="Server" ServicePack="2"
      OSLanguage="en-US" />
    <Entry Type="OU" Name="Floor 2" CNType="OU" Comment="Building 5A - Floor 2"
      GUID="23e9055e-4883-4c52-9702-8c34ba4c12cd">
      <Entry Type="Machine" Name="W2003-X86-SP1" DNSName="W2003-x86-sp1.Dreamlight.local"
        CNType="CN" GUID="07649a86-36d9-409d-8caa-b200e4e832"
        IPAddress="192.168.5.94" Platform="x86" OSVersion="5.2" OSType="Server"
        ServicePack="1" OSLanguage="en-US" />
      </Entry>
    </Entry>
    <Entry Type="OU" Name="Office 203" CNType="OU" Comment="Accounts" GUID="cb63c680-249d-b523-a6c3129a23ef">
      <Entry Type="Machine" Name="W2003-x86-SP1" DNSName="W2003-x86-SP1.Dreamlight.local"
        CNType="CN" Comment="Windows Server 2003" GUID="07649a86-36d9-409d-8caa-b200e4e832"
        IPAddress="192.168.5.94" Platform="x86" OSVersion="5.2" OSType="Server"
        ServicePack="1" OSLanguage="en-US" />
      </Entry>
    </Entry>
    <Entry Type="OU" Name="Office 204" CNType="OU" Comment="Project Management"
      GUID="ed8a44b0-0d8e-48fe-8891-6c93c26ac0">  
      <Entry Type="Machine" Name="WXP-X86-SP1" DNSName="WXP-X86-SP1.Dreamlight.local"
        CNType="CN" Comment="Windows XP Professional x86 Edition" GUID="038badad-4af7-41a8-a199-cac381c48b60"
        IPAddress="192.168.5.93" Platform="x86" OSVersion="5.1" OSType="Workstation"
        ServicePack="1" OSLanguage="en-US" />
    </Entry>
  </Entry>
</Data>
```
Now you are introduced to the formats used for storing the network objects data and can prepare files for manual import or for editing data exported earlier to be used for future imports.
Chapter 8: Operations' Execution Results

The operation execution results are stored either within the execution results or in the application log depending on the operation type.

The execution results part of the program database stores all results of business operations performed on remote Machines grouping them by runs. You can review those results within the **Execution Results** view. For each run, you can see the operation name, the operation type, the execution type and brief execution statistics. Under each run, you can find detailed results info grouped by Machines and Groups those Machines belong to.

The application log is designed to store information on supplementary operations' results and other events taking place while the program is running. For example, the results of enumerating a network for Machines performed either for building the network structure or while executing machine queries is stored within the application log. The application log also contains events that are not directly connected to remote operations and merely provide you with details on the program lifecycle. Such events are displayed in the **Application Log** view.

Both the execution results and the application log are designed so as to help you to analyze the operation execution results and to troubleshoot problems taking place while the program is in use. The execution results and the application log databases may grow continually, thus slowing down the program loading and response time. To prevent this, you can either delete execution results and clear the application log manually or allow the program to perform the clean-up automatically on a regular basis. The options for deleting execution results and events automatically are available on the **Execution Results** and **Application Log** preference pages. On the **Application Log** page, it is also possible to change the **Application Log** view presentation options.

In this chapter, we will explain how to analyze execution results and the application log to ensure that operations have been completed successfully or to troubleshoot possible problems. We will also describe the option of exporting execution results and logged events into a simple format.

**What's Inside**

Analyzing Execution Results
Exporting Execution Results
Analyzing Application Log
Exporting Application Log
Detailed Log
Analyzing Execution Results

The main purpose of the **Execution Results** view is to help you understand if the business operation performed on remote Machines has succeeded and troubleshoot eventual problems. Each entry in the **Execution Results** view has a severity icon, a title, a description and possibly a hint on solving the problem, if any. From the title, you can understand which operation has been performed; the description contains the result message; the hint provides you with troubleshooting advice; and the severity icon helps you to quickly understand if the task has fully succeeded.

For example, let us take a closer look at the following result set in the **Execution Results** view.

![Pic 1. Sample execution results](image)

As we can see from the picture above, most of the Machines have been processed successfully, but some of them have not. We need to find out what caused the problem and what should be done to avoid it in future. Also, it may be interesting to go through the warnings to see if anything wrong is going on. So, let us take a closer look at each problem.

For **WVISTA-X86-SP1** we've got the following error message:

*Could not ping the 'WVISTA-X86-SP1.Dreamlight.local (192.168.5.84)' Machine using the following timeout: 1500 ms. Ping reply was not received within the allotted time.*

There are a few possible scenarios that may have caused such an error:

- The remote Machine is turned off. Hence that Machine should be turned on to be operated by Remote Installer.
- The remote Machine could not be contacted due to a hardware networking failure. In this case you need to check the network environment.
- The ping functionality is disabled on the remote Machine. You should enable the Ping functionality on the remote Machine. If it is not applicable, go to the **Scan Settings** preference...
page and disable the **Ping Machines using the following timeout (ms.)** option. Please note that this may significantly decrease the performance.

The **EMCO-PDC** Machine returned another error:

*Could not connect to the 'Emco-PDC.Emco.local (192.168.5.10)' Machine. The connection was performed using the current user credentials.*

This means that the currently active user account has no right to access to the remote Machine. To solve the problem, you must provide proper credentials to access this Machine in the **Credentials** view.

Finally, the operation over the **LAB-PDC** Machine did not succeed returning the following message:

*Could not connect to the 'Lab-PDC.Lab.Dev.Emco.local (192.168.5.14)' Machine. The connection was performed using the specified credentials: 'admin@Lab.Dev.Emco.local'.*

This means that the credentials provided in the **Credentials** view do not allow you to perform operations over the remote Machine. You must provide proper credentials to get rid of this error.

After the results have been reviewed and all problems have been solved, you can run the operation again and ensure that the problematic Machines are processed successfully this time.
Exporting Execution Results

With Remote Installer, you can easily export the execution results of a business operation to the CSV file format for future analysis or processing by an automated tool. To export the execution results, click the Export button from the Execution Results view toolbar. You are proposed to choose between exporting the selected results and all results. You can also press the Export button from the Organize Ribbon group on the Application page when the Execution Results view is in focus. It is also possible to use the pop-up menu of the Execution Results view to export the results. The Export Execution Results Wizard will appear on the screen.

Pic 1. The Export Execution Results Wizard welcome page
The first page of the **Export Execution Results Wizard** is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information, press **Next** to continue with export.

On the next page of the **Export Execution Results Wizard**, you are offered to choose the file you are going to save the execution results to and the CSV format options. The file path should be provided to the **Export To** field. You can choose the encoding to be used for saving the data, as well as the field delimiter and the text qualifier. While performing export, you may also define if you would like the column header to be present in the resulting file, which would make it easier for you to identify each column. This feature can be enabled using the **Include column header** option.

![Pic 2. Configuring the export options](image-url)
After you are ready with configuring the export options, press Finish to proceed with export. The file containing the task execution results will be created in the path specified.

The CSV file with the exported results consists of seven columns, which are the following:

<table>
<thead>
<tr>
<th>Column Index</th>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Run</td>
<td>Information about the run during which the result was generated.</td>
</tr>
<tr>
<td>2</td>
<td>Group</td>
<td>The group the operated Machine belongs to.</td>
</tr>
<tr>
<td>3</td>
<td>Machine</td>
<td>The operated Machine's name.</td>
</tr>
<tr>
<td>4</td>
<td>Container</td>
<td>The Active Directory container the operated Machine belongs to.</td>
</tr>
<tr>
<td>5</td>
<td>Title</td>
<td>The execution result title.</td>
</tr>
<tr>
<td>6</td>
<td>Severity</td>
<td>The execution result severity level.</td>
</tr>
<tr>
<td>7</td>
<td>Description</td>
<td>The execution result description.</td>
</tr>
<tr>
<td>8</td>
<td>Time</td>
<td>The time when the event occurred.</td>
</tr>
<tr>
<td>9</td>
<td>Error Code</td>
<td>The error code for the execution result, if any.</td>
</tr>
</tbody>
</table>

Sample exported data in the CSV format

"Run","Group","Machine","Container","Title","Severity","Description","Time","Error Code"
"Scan Software' - 1/10/2015 5:26:30 PM - Processed: 8 Machines (Successful: 5, Warnings: 0, Errors: 3, Cancel: 0) - Duration: 24 sec.","Dreamlight","WVISTA-X86-SP1","Floor 2\Office 203","Prepare Connection","Error","Could not ping the 'WVISTA-X86-SP1.Dreamlight.local (192.168.5.91)' Machine using the following timeout: 1500 ms. Ping reply was not received within the allotted time. IP status: 11010.","2015-01-10 17:26:36",

"Scan Software' - 1/10/2015 5:26:30 PM - Processed: 8 Machines (Successful: 5, Warnings: 0, Errors: 3, Cancel: 0) - Duration: 24 sec.","Emco","Emco-PDC","Domain Controllers","Connect","Error","Could not connect to the 'Emco-PDC.Emco.local (192.168.5.10)' Machine. The connection was performed using the current user credentials. Access is denied. Error code: 5.","2015-01-10 17:26:31","5"

"Scan Software' - 1/10/2015 5:26:30 PM - Processed: 8 Machines (Successful: 5, Warnings: 0, Errors: 3, Cancel: 0) - Duration: 24 sec.","Lab [LABORATORY]","Lab-PDC","Domain Controllers","Connect","Error","Could not connect to the 'Lab-PDC.Lab.Dev.Emco.local (192.168.5.14)' Machine. The connection was performed using the specified credentials: 'admin@lab.dev.emco.local'. Access is denied. Error code: 5.","2015-01-10 17:26:31","5"

"Scan Software' - 1/10/2015 5:26:30 PM - Processed: 8 Machines (Successful: 5, Warnings: 0, Errors: 3, Cancel: 0) - Duration: 24 sec.","Wintoolkit","w2003-x86-sp2","Computers","Scan Software","Information","Information on installed programs and updates for the 'w2003-x86-sp2.Wintoolkit.local (192.168.5.156)' Machine has been retrieved successfully.","2015-01-10 17:26:32"
Analyzing Application Log

The main purpose of the Application Log view is to help you understand if the enumeration, state checking and other service operations execution has succeeded and troubleshoot problems if any have occurred. Each entry in the application log has a severity icon, a title, and a description, and possibly a hint on solving the problem, if any. From the title, you can understand which operation has been performed and which resource has been operated; the description provides you with the result message, a hint is used to provide you with an advice on solving the problem, if any; and the severity icon can be used to quickly understand if the operation has fully succeeded.

For example, let us take a closer look at the following result set in the application log Pic 1.

![Application Log](image)

Pic 1. Sample logged events

The picture above displays the set of results we received after performing state check on a number of selected Machines. The results of checking the Machines are grouped by the Group the Machines are located in. In each group node, we can see how many Machines have been processed successfully, with warnings or not processed due to errors.

As we can see from the picture, most of the Machines have been processed successfully, but some of them have not. We need to find out what caused the problem and what should be done to avoid it in future. Also, it may be interesting to go through the warnings to see if anything wrong is going on. So, let us take a closer look at each problem.

For **WVISTA-X86-SP1** we’ve got the following error message:

*Could not ping the 'WVISTA-X86-SP1.Dreamlight.local (192.168.5.84)' Machine using the following timeout: 1500 ms. Ping reply was not received within the allotted time.*

There are a few possible scenarios that may have caused such an error:

- The remote Machine is turned off. Hence that Machine should be turned on to be operated by Remote Installer.
- The remote Machine could not be contacted due to a hardware networking failure. In this case, you need to check the network environment.

- The ping functionality is disabled on the remote Machine. You should enable the Ping functionality on the remote Machine. If this is not applicable, go to the Scan Settings preference page and disable the Ping Machines using the following timeout (ms.) option. Please note that this may significantly decrease the performance.

The EMCO-PDC Machine returned another error:

_Could not connect to the 'Emco-PDC.Emco.local (192.168.5.10)' Machine. The connection was performed using the current user credentials._

This means that the currently active user account has no right to access the remote Machine. To solve the problem, you must provide proper credentials to access this Machine in the Credentials view.

Finally, the operation on the LAB-PDC Machine did not succeed returning the following message:

_Could not connect to the 'Lab-PDC.Lab.Dev.Emco.local (192.168.5.14)' Machine. The connection was performed using the specified credentials: 'admin@Lab.Dev.Emco.local'. _

This means that the credentials provided in the Credentials view do not allow you to perform operations on the remote Machine. You must provide proper credentials to get rid of this error.

After the events have been reviewed and all the problems have been solved, you can run the operation again and ensure that it completes successfully.
Exporting Application Log

With Remote Installer, you can easily export the application log to the CSV file format for future analysis or processing by an automated tool. To export the logged events, click the Export button from the Application Log view toolbar. You are proposed to choose between exporting the selected events and all events. You can also press the Export button from the Organize Ribbon group on the Program page when the Application Log view is in focus. It is also possible to use the pop-up menu of the Application Log view to export logged events. The Export Log Wizard will appear on the screen.

Pic 1. The Export Log Wizard welcome page
The first page of the **Export Log Wizard** is the welcome page used to introduce you to the feature the wizard is supposed to help you with. After reading the welcome information press **Next** to continue with export.

On the next page of the **Export Log Wizard**, you are offered to choose a file you are going to save the application log data to and the CSV format options. The file path should be provided to the **Export To** field. You can choose the encoding to be used for saving the data as well as, the field delimiter and the text qualifier. While performing exporting, you may also define if you would like the column header to be present in the resulting file, which would make it easier for you to identify each column – this feature option can be enabled using the **Include column header** option.

After you are ready with configuring the export options, press **Finish** to proceed with export. The file containing the application log data will be created in the path specified.

The CSV file with the exported data consists of six columns, which are the following:

<table>
<thead>
<tr>
<th>Index</th>
<th>Header</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Path</td>
<td>The path to the logged event in the application log tree.</td>
</tr>
<tr>
<td>2</td>
<td>Title</td>
<td>The logged event title.</td>
</tr>
<tr>
<td>3</td>
<td>Severity</td>
<td>The logged event severity level.</td>
</tr>
<tr>
<td>4</td>
<td>Description</td>
<td>The logged event description.</td>
</tr>
<tr>
<td>5</td>
<td>Time</td>
<td>The time when the event occurred.</td>
</tr>
<tr>
<td>6</td>
<td>Error Code</td>
<td>The error code for the event, if any.</td>
</tr>
</tbody>
</table>

Sample exported application log data in the CSV format

"Path","Title","Severity","Description","Time","Error Code"
"Clear Application Log","Clear Application Log","Information","The operation was completed successfully.","2015-01-10 16:13:21"
"Check State","Check State","Warning","Processed: 8 Machines (Successful: 5, Warnings: 0, Errors: 3, Cancel: 0)","2015-01-10 16:13:33",

"Check State\Wintoolkit","Wintoolkit","Information","Processed: 5 Machines (Successful: 5, Warnings: 0, Errors: 0, Cancel: 0)","2015-01-10 16:13:31",

"Check State\Wintoolkit\Wintoolkit-PDC","Wintoolkit-PDC","Information","The remote service is installed on the 'Wintoolkit-PDC.Wintoolkit.local (192.168.5.138)' Machine.","2015-01-10 16:13:28",

"Check State\Wintoolkit\W2008-R2-SP1","W2008-R2-SP1","Information","The remote service is installed on the 'W2008-R2-SP1.Wintoolkit.local (192.168.5.158)' Machine.","2015-01-10 16:13:28",

Now you are introduced to the application log export and export data file format and can use the export feature for the application log analysis without any misunderstanding.
Detailed Log

Remote Installer maintains a detailed log while running an install, uninstall or repair process on a remote Machine. Such a log contains installer log and information on the execution and output of the custom actions. The Windows Installer Log settings used during install, uninstall and repair processes are configured on the **Windows Installer Log** preference page and can be overridden for each deployment package used to deploy a Windows Installer Package.

The generated log is retrieved from each remote Machine after the operation is completed and is stored in the program database. To review this log, you should first select the operation result row in the **Execution Results** view. The link to the detailed log, if there is any, is available in the **Event Details** pane, which is visible by default, and in the **Additional Info** column, which is hidden by default. 

![Execution Results screenshot](pic1.png)

**Pic 1. The link to the detailed log**
Next, you should simply click the **Detailed Log** link and the log will be displayed on the screen in a new window **Pic 2**.

![Detailed Log](image)

**Pic 2. The detailed log**

You can review the logged information right in the embedded editor, print it or save to file for future analysis and processing.

Now you are introduced to the detailed log feature of Remote Installer and will always be able to get all required information about the install, uninstall or repair processes.
Chapter 9: Program Preferences

Remote Installer comes with a wide range of settings available for changing by any user. Every preference page has a detailed description of its content and of the feature it is used to configure. You can configure almost anything: the Windows Installer Log settings, the applications repair options, the network scan process, the application behavior with regard to the System Tray, the database location, the proxy settings to be used to connect to the Internet, etc. To reach the application preferences, click the Preferences button available from the Application Menu. Also, the clickable Ribbon groups' glyphs open the preference pages that configure the functionality incorporated in the respective group.

What's Inside

Installer Part
Tasks and Schedule Part
Miscellaneous Part

Installer Part

The Installer part of the program preferences should be used to configure the main Remote Installer properties such as the Windows Installer Log settings, the applications repair options and the network enumeration options. To open the Preferences dialog, click the Preferences button available from the Application Menu. Feel free to configure the available settings to suit your needs best.

What's Inside

Scan Settings Page
Enumeration Options Page
Collections Settings Page
Software Bundles Page
Deployment Account Page
Deployment Options Page
Deployment Confirmation Page
Windows Installer Log Page
MSI Repair Options Page
Service Deployment Page
Remote Machines Restart Page
Execution Results Page
Notifications Page
E-mail Options Page
Notification Templates Page
Scan Settings Page

The scan settings are designed to enable you to configure the processing of remote Machines in the most optimal way depending on the network structure, thus increasing the overall scan performance. To configure the Scan Settings, click the Preferences button in the Application Menu and switch to the Scan Settings preference page using the corresponding link in the navigation bar on the left in the Preferences dialog within the Installer group.

You are offered to configure the Machines availability detection, administrative access assurance, hyper-threading technology options and Machines Filter.

Remote Installer provides an option of detecting the remote Machines’ availability by pinging them before processing. This can significantly speed up bulk operations on remote computers, but if your environment has any ping restrictions, you should disable this option, so that remote Machines that are not allowed to be pinged could also be processed. To detect remote Machines’ availability using the ping functionality, check the Ping Machines using the following timeout (ms.) option and provide the required timeout value. To enable the administrative access assurance, check the Assure administrative access option.
The ultimate Hyper-Threading technology provided by EMCO allows you to perform network operations in parallel to reach the highest performance available. You can set an optimal operation execution threads count depending on the network environment by using the Threads editor.

**Administrative access assurance**

The **Assure administrative access** option allows connecting only to the Machines that can be processed using administrative rights. It is convenient if you are targeting data modification and would like to retrieve data only from the Machines where it can then be changed by you.
Enumeration Options Page

Enumeration options are designed to make the network enumeration process clearer and more comfortable for you [Pic 1]. To configure the enumeration options, click the glyph of the Network Ribbon group. Also, you can click the Preferences button from the Application Menu and switch to the Enumeration Options preference page using the appropriate link in the navigation bar on the left in the Preferences dialog within the Installer group.

![Pic 1. Configuring the enumeration options]
The **Enumeration type** option specifies the way of performing a network scan for Machines.

The Active Directory scan runs significantly faster than the Computer Browser scan and allows you to get more information on your network structure. Also, there is no need for all network computers to be turned on, because information on the network is gathered directly from the domain controller. However, this type of enumeration requires access to the domain controller and won’t find Machines that are not registered in the Active Directory database.

For the Active Directory scan, the domain hierarchy and structure are respected. Respecting the domain hierarchy means that the same structure will be preserved for domains having a tree structure (registered domains and sub-domains) in the *Network* view as in your Active Directory. Respecting the domain structure means that the Machines in the *Network* view are grouped in the same way they are grouped in Active Directory with the help of containers.

Searching for computers by means of Computer Browser will result in finding all the Machines that are turned on and visible from yours during the Enumeration process.

In the combined mode, the program performs the Active Directory scan first, then adds the Machines found by means of Computer Browser.

Let us take a look at the results received using different options:

**Active Directory scan enabled:**

As a result, all the domains are displayed in a hierarchy where each sub-domain is located under its parent domain (in our case Dev is a sub-domain of Emco and Lab is a sub-domain for Dev) with Machines found in them grouped by the Active Directory containers they are located in.
Computer Browser scan enabled:

As a result, we've got only the Machines that are turned on, including those that are not registered in any domain, and all the workgroups and domains are displayed as children of the Network item.
Both Active Directory and Computer Browser scan enabled:

As a result, we've got both the Machines that are turned on and those that are registered in domains: workgroups, domains and Machines are grouped by the structure respect options.

![Network Browser Screenshot]

Remote Installer allows you to retrieve the information on installed programs and updates for a Machine just after it was added to the **Network Browser**. To make the program behave in such a way enable **Scan software automatically** option.
Collections Settings Page

**Collection** either groups a set of static Machines or defines the method and conditions for fetching Machines to be operated dynamically. The resulting set of Machines, including those retrieved via queries and defined as static entries, can be filtered using custom conditions based on Machine properties. The **Collections Settings** preference page allows you to configure the Machines querying and filtering options. To open the **Collections Settings** page, click the **Preferences** button in the **Application Menu** and press the corresponding link in the navigation bar on the left of the **Preferences** dialog within the **Installer** group.

Within the **Collection Members** group, you can define if you would like the Machine Queries to fetch a set of Machines to operate from the entire network or from those already available in the program database. Simply choose the required option in the **Source** field.

When configuring the Machine Filter behavior, you can specify if the program is allowed to use the property values cache, if any, for filtering or if the properties used in the filter condition should be refreshed during each operation before checking the condition. In case you are going to use the cached property values, you can define the time interval during which the properties are considered relevant. All these options can be configured within the **Machines Filter** group.

The **Collections Settings** page defines the querying and filtering configuration used by default by all the Collections, but it is still possible to use a different configuration of each aspect for particular Collections. Refer to the **Collections Management** section of this document for details on how to override the described options.
Software Bundles Page

Remote Installer allows you to create Bundles that fully describe a single product by defining the actions to be performed to install, uninstall and/or repair it. To simplify the bundles creation process, Bundle Templates were designed. Using templates makes it much easier to create common software bundles. The Software Bundles preference page is used to configure the set of available templates. To reach the Software Bundles page, you should open the program preferences using the Preferences button from the Application Menu and click the Software Bundles link in the navigation bar on the left of the Preferences dialog within the Installer group.

![Pic 1. Configuring bundle templates](image)
Each bundle template describes the type and kind of the install, uninstall and/or repair package for software deployment. So, when creating a bundle from a template, you do not need to choose these options again and again or provide any additional deployment package configuration. Remote Installer comes with a range of build-it templates describing the common software bundles. Those templates are grouped within the **Predefined** grouping node. You can review each of those templates by double-clicking them. You can add your own templates, and they will be grouped under the **User Defined** row. To add a new template, just press the **New Template** button on the **Templates** table toolbar. The dialog will appear on the screen to let you configure a template.

![Pic 2. Configuring a user-defined bundle template](image)

When creating a new template or editing an existing one, you can provide a name and a comment for the template. Both are used to identify the template and make it easier for you to select the required one. The next step is configuring the installation package template, and you are proposed to choose the install package type and kind. When configuring uninstall and repair packages, you can either specify that the template is not applicable, or choose that the template is the same as for the install package or define a required template that differs from that of the install package.

User-defined templates can be edited using the **Edit** button on the toolbar and deleted from those available when no longer required by using the **Delete** button. For every template, there is a summary displayed within the **Templates** table. You can find it under each row representing the template. You can expand and collapse the summary by either double-clicking the summary row or clicking the arrow on the right of the row. If you do not wish to display the summary, you can disable the **Show Details** option in the **Configuration** menu of the **Templates** table.

When the bundle templates are defined, you can use them for creating software bundles quickly and easily.
Deployment Account Page

Remote Installer can perform deployment on remote Machines either using a specific deployment account or an account representing the local system. When performed from a user account, both per-machine and per-user deployments are possible. From the local system account, only per-machine deployment can be performed. It is also possible to use Remote Installer to perform remote deployment interactively in a session of a currently logged-on user, if required. All these options are available for configuration on the Deployment Account preference page. To reach the Deployment Account page, you should open the program preferences using the Preferences button from the Application Menu and click the Deployment Account link in the navigation bar on the left of the Preferences dialog within the Installer group.

You can choose among the following options: Network Administrator Account, Local System Account and Logged-On User Account.

When the Network Administrator Account is chosen, Remote Installer launches the installer using the same account as used to connect to the remote Machine, either the local one or the one specified in the network credentials. For this option, you can enable the interactive deployment mode. In this mode, the installation setup wizard will be displayed in the session of the currently logged-on user. Using this option, you can execute both per-machine and per-user deployments.

To be able to run deployment interactively and to access network shares when using the Network Administrator Account option, it is required that the network credentials should be provided explicitly in the Credentials view.
The **Local System Account** option allows you to perform per-machine deployments with maximum available permissions on a remote Machine. It should be used only for installations that require such permissions, which are very rare. For this option, it is also possible to allow interactive deployment, if required.

The **Logged-On User Account** option should be used to deploy applications that are installed per user when the logged-on user needs to provide certain information for the deployment to succeed. In this mode, the deployment is always executed interactively.

For detailed information on the situations when each of these options can and should be used, refer to the **How should I choose the account to be used for deployment?** section of this document.

The **Deployment Account** preference page is used to configure the common settings, which are by default applied to all deployment operations, but you can override those for each operation within the deployment configuration wizard.
Deployment Options Page

Remote Installer can either interrupt or continue a deployment process after a deployment package fails when performing a group deployment. It is also possible to update the software inventory after a successful deployment. The required settings are defined on the Deployment Options preference page. To reach the Deployment Options page, you should open the program preferences using the Preferences button from the Application Menu and click the Deployment Options link in the navigation bar on the left of the Preferences dialog within the Installer group.

For deploying multiple products within a single operation, you can specify if the deployment should be interrupted upon the first failed package or if the program should proceed with deploying subsequent products anyway. The Interrupt the group deployment after the first failed package option is used to configure this aspect.

On this page, you can also choose if you would like the program to update the software inventory for the operated Machines after a successful software installation and/or uninstallation. In case the Update software inventory after successful deployment option is enabled, a new software inventory snapshot is created automatically for all affected Machines after deployment operations. You can always update the software inventory manually and on schedule irrespectively of whether this option is enabled or disabled.
Deployment Confirmation Page

Remote Installer may ask the user currently logged on to a remote Machine for confirmation before launching the actual deployment process. The confirmation is displayed for a specific period of time. It is also possible to allow the user to cancel all or any of the deployment operations.

You can configure the deployment confirmation settings on the Deployment Confirmation preference page [Pic 1]. To reach this page, you should open the program preferences using the Preferences button from the Application Menu and click the Deployment Confirmation link in the navigation bar on the left of the Preferences dialog within the Installer group.

![Deployment Confirmation preference page](image)

On the Deployment Confirmation preference page, you can specify if the deployment confirmation dialog should be displayed and choose the time span to display it for. In case it is displayed, you may also choose if you would like the user to be able to cancel the deployment, if you would like the list of deployment packages to be displayed to the user, and if it is allowed to skip specific deployment packages. It is also possible to change the confirmation dialog title and message and to provide a custom comment to be displayed to the user.

For the title, message and comment definitions, you can use the following placeholders that will be replaced with actual values before displaying the confirmation dialog on a remote Machine:

<table>
<thead>
<tr>
<th>Placeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%SENDER%</td>
<td>the name of the user that initiated the remote deployment procedure.</td>
</tr>
<tr>
<td>%TIME%</td>
<td>the current time.</td>
</tr>
<tr>
<td>%DATE%</td>
<td>the current date.</td>
</tr>
<tr>
<td>%DATETIME</td>
<td>the current date and time.</td>
</tr>
</tbody>
</table>

You can preview the dialog to be displayed to a remote user by following the Confirmation Dialog Preview link at the bottom of the preference page.

The Deployment Confirmation preference page is used to configure the common confirmation options that are applied to all deployment operations by default, but you can override those options for each operation within the deployment configuration wizard.
Windows Installer Log Page

Windows Installer can log events that occurred during the installation, uninstallation and repair process of the Windows Installer Packages and Microsoft Software Patches initiated by Remote Installer on remote Machines using the specified log level. Such a log is retrieved from each remote Machine after every operation and stored in the program database, so you can review it in future.

To reach the Windows Installer Log configuration, you should open the program preferences using the Preferences button from the Application Menu and click the Windows Installer Log link in the navigation bar on the left of the Preferences dialog within the Installer group (Pic 1).

On the Windows Installer Log preference page, you can choose from the available event types that can be logged by Windows Installer. You can see the Windows Installer command line equivalent in brackets for each option. If all the logging options are disabled, Windows Installer will not log information during the install, uninstall or repair process. The Windows Installer Log preference page is used to configure the common logging options, which are by default applied to all Windows Installer Package and Microsoft Software Patch packages, but you can override those options for each package within the package configuration wizard.
MSI Repair Options Page

Remote Installer makes it possible for you to repair Windows Installer Packages that are already installed on remote Machines having provided the required repair options. These options are configured on the **MSI Repair Options** preference page. To reach the **MSI Repair Options** page, you should open the program preferences using the **Preferences** button from the **Application Menu**, and to click the **MSI Repair Options** link in the navigation bar on the left of the **Preferences** dialog within the **Installer** group.  

![Pic 1. Configuring the MSI repair options](image)

On the **MSI Repair Options** preference page, you can choose from the available options that can be used while repairing a program installation on a remote Machine. You can see the Windows Installer command line equivalent in brackets for each option. If all the repair options are disabled, Windows Installer will use the default repair options.

The source MSI package used for the program installation should be reachable for some repair options like, for example, **Runs from source and reaches local package**. The repair process will fail if the source package is missing. In such a case, it is still possible to repair that program having enabled the **The setup file to be used for performing a repair should be provided** option and provided the required MSI package while configuring the repair package.

The **MSI Repair Options** preference page is used to configure the common repair options, which are by default applied to all Windows Installer repair packages, but you can override those options for each repair package within the package configuration wizard.
Service Deployment Page

Remote Installer uses a service to operate remote Machines. This service can be installed by the program on demand or by a system administrator at any time. The service deployment type is configured on the Service Deployment preference page [Pic 1]. To change the deployment type, click the Preferences button in the Application Menu and switch to the Service Deployment preference page using the appropriate link in the navigation bar on the left of the Preferences dialog within the Installer group.

On the Service Deployment page, you are offered to choose if the state of the remote service should be maintain automatically by the program or the remote service deployment should be overseen by the network administrator. The difference between these two modes is that when the Automatic Deployment mode is used, Remote Installer requires administrative access to the remote file system so the remote Machine should be configured to allow access to its file system. Access to the file system is required to perform the remote service installation and updates. When the Manual Deployment mode is used, the program does not need to access the remote Machines' file system to work with the service; however the remote operation will fail if the remote service installation or update is required.

In the Manual Deployment mode, the program adds an information to the Execution Results when it fails to operate the remote Machine because the required remote service installation or update cannot be performed.
For manual deployment, the network administrator should use one of the installation packages supplied with the program. Those packages are available in the **Setup** folder of the program installation – this folder can be reached using the **Remote Service Setup** link in the program sub-menu of the **Start** menu. The installations are shipped in form of both an executable file, which is platform-independent, and two different platform-dependent MSI files, which can be used, for example, for automatic deployment through GPO.

For both the manual and automatic deployment modes, you can choose the action to perform upon the task completion, if required. There is no action to perform by default, but it is possible to stop or uninstall the remote service after the task is completed.
Remote Machines Restart Page

Remote Installer can restart remote Machines to complete an install, uninstall or repair process, if required. You can configure the timeout and notification settings to be used when performing a restart on the Remote Machines Restart preference page [Pic 1]. To reach this page, you should open the program preferences using the Preferences button from the Application Menu and click the Remote Machines Restart link in the navigation bar on the left of the Preferences dialog within the Installer group.

On the Remote Machines Restart preference page, you can specify if you would like to wait for a specific period of time before performing a reboot if a notification dialog is displayed to a remote user and if it is allowed to cancel the reboot.

For the notification dialog, you are proposed to provide a custom title & message and an additional comment to be displayed to a remote user. For the title, message and comment definitions, you can use the following placeholders that will be replaced with actual values before displaying the notification dialog on a remote Machine:

<table>
<thead>
<tr>
<th>Placeholder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%SENDER%</td>
<td>the name of the user that initiated the remote deployment procedure.</td>
</tr>
<tr>
<td>%TIME%</td>
<td>the current time.</td>
</tr>
<tr>
<td>%DATE%</td>
<td>the current date.</td>
</tr>
<tr>
<td>%DATETIME%</td>
<td>the current date and time.</td>
</tr>
</tbody>
</table>
You can preview the dialog to be displayed to a remote user by following the Notification Dialog Preview link at the bottom of the preference page.

The Remote Machines Restart preference page is used to configure the common timeout and notification options that are applied to all deployment operations by default, but you can override those options for each operation within the deployment configuration wizard.
Execution Results Page

Remote Installer stores the results of each remote operation execution, so that you can review the execution statistics for each operation in future. Storing all operation execution results over a lengthy period of time can significantly increase the size of the program database and decrease the program performance. To avoid performance issues, it is recommended to optimize the program database by deleting the results that are no longer needed. Since it is not always easy for the user to remember all the tasks that have ever been executed and remove the results that are no longer needed, the program comes with a built-in option to automatically remove execution results based on their age.

To configure the conditions for automatic removal, open the program preferences using the Preferences button from the Application Menu and click the Execution Results link in the navigation bar on the left of the Preferences dialog within the Installer group. (Pic 1)

You can choose the condition to trigger automatic removal of the execution results within the Auto Remove Options group. It is possible to remove the results that are older than one day, one week, one month, one year, or choose Remote Installer not to remove the results automatically. In any case, you can always remove the results that are no longer needed directly from the Execution Results view.
Notifications Page

Another useful feature of Remote Installer is that it can send notification e-mails to a preset e-mail address and show balloon tips on occurrence of certain events. This feature can be configured on the Notifications preference page [Pic 1], and the messages are sent using the E-mail Options specified. The e-mail message subject and body used for creating notification messages can be configured on the Notification Templates preferences page. The placeholders that can be used in the templates are described in the Notification E-mails part of this guide.

[Pic 1. Configuring notifications]

To access the notifications configuration page, click the Preferences button in the Application Menu and switch to the Notifications preference page using the appropriate link in the navigation bar on the left of the Preferences dialog within the Installer group. On the page that opens, you can check the events you want to send notification messages, show balloon tips and play sounds for. It is possible to specify the number of iterations and interval between iterations for connection status notifications, so you can choose to loop the notification for a specific number of times or until the connection status changes again.

Events may occur during two types of task execution: scheduled task execution and manual task execution. Scheduled task execution means that the task execution is initiated by the Remote Installer scheduling engine. Task execution via the Run feature is considered to be manual task execution.
E-mail Options Page

Remote Installer can send notification e-mails only after your mailbox settings have been configured properly. To perform the mailbox configuration click the Preferences button from the Application Menu and select the E-mail Options link in the navigation bar on the left in the Preferences dialog within the Installer group.

![Pic 1. Configuring a mailbox](image)

You should specify the mail server host, the encryption type the port to be used for connection to the mail server, the e-mail address to send e-mail messages from, the e-mail message format and the credentials to be used to access the mail server. NTLM authentication can be used (i.e. connection to the mail server is established using the credentials of the currently logged on user) by enabling the Use NTLM authentication option. The Mail Server (SMTP) value can be provided both as an IP address and as a host name [Pic 1].

Remote Installer supports mail servers that run using SMTP. A mail server configuration may be quite complex. Contact your system administrator to get proper configuration details to be used for accessing your mailbox.
You can send a test e-mail to check the settings provided using an appropriate hyperlink. In the next section, it is described how the settings test works and how you can tell if the e-mail options are configured properly.

**How does the test work?**

After you have configured the e-mail options you can send a test e-mail to check the mail server settings. A test message is generated and sent to the specified recipients and the e-mail address specified in the **E-mail Address** field. If you and the other recipients receive the message, it is assumed that the mail options are configured properly, and there will be no problems with sending notification e-mail messages.

**Notification Templates Page**

Mail Templates are used to form e-mail messages sent by Remote Installer. They can be configured on the **Notification Templates** preference page. To access this page, click the **Preferences** button from the **Application Menu** and select the appropriate link in the navigation bar on the left of the **Preferences** dialog within the **Installer** group.

![Notification Templates Page](pic1.png)

**Pic 1. Configuring Mail Templates**

On this page, you are offered to choose a template that you want to review and edit. The template description shows you the use case of the chosen template, and if there are placeholders available for this template, a link to a detailed placeholders description is shown under the template description.
Tasks and Schedule Part

The Tasks and Schedule part of the program preferences should be used to configure the Remote Installer features targeted at executing tasks and scheduling their execution, as well as configuring the Tasks and Schedule view. To open the Preferences dialog, click the Preferences button available from the Application Menu. Feel free to configure the available settings to meet your needs best.

What's Inside

Calendar Options Page
Scheduler Configuration Page
Additional Time Rulers Page
Confirmations Page
Calendar Options Page

The Calendar Options are designed to make the process of interaction with the Tasks and Schedule functionality more convenient for you and enable you to use the whole range of the Tasks and Schedule features to solve your tasks in a more efficient way. To configure the Calendar Options, click the Preferences button from the Application Menu and switch to the Calendar Options preference page using the corresponding link in the navigation bar on the left in the Preferences dialog within the Tasks and Schedule group.

After you have chosen the working days, the other days in the Work Week view are filtered out, and the working hours are highlighted in the Scheduling area for the selected working days. Changing the first week of the year affects the Date Navigator week numbering rule.

On this page, it is also possible to define if the Task execution dates should be highlighted in bold in the Date Navigator and if the week numbers should be displayed on the left, next to each week.
Scheduler Configuration Page

The **Scheduler Configuration** preference page contains settings for representation of the **Scheduling** area. To change the **Scheduler Configuration**, click the Preferences button from the **Application Menu** and switch to the **Scheduler Configuration** preference page using the corresponding link in the navigation bar on the left in the **Preferences** dialog within the **Tasks and Schedule** group.  

The **Scheduling Area Presentation** group of the **Scheduler Configuration** preference page should be used to change the default color scheme used by the **Scheduling** area. Also, it is possible to change the **grouping** settings used for the **Scheduling** area. You can group tasks either by type or by date by choosing the required option from the **Grouping mode** drop-down list.
Additional Time Rulers Page

Additional time rulers can be displayed for the Scheduling area when it is in the Day View or Work Week View view modes allowing you to see the time of the time zones that differ from the one defined in the underlying operating system. The Additional Time Rulers preference page should be used to enable those rulers and configure the time zones to be used. To configure additional time rulers, click the Preferences button from the Application Menu and switch to the Additional Time Rulers preference page using the corresponding link in the navigation bar on the left in the Preferences dialog within the Tasks and Schedule group.  

![Additional Time Rulers preference page](image)

You can add up to two additional time rulers to the Scheduling area.

Example

![Example image](image)
To add a time ruler, you should first enable it by using the Show additional time zone in Scheduling area option, then specify the time zone to be used and if the daylight saving time adjustment should be applied to it. You can also provide a label for each additional time ruler to help you identify it.

The Current Time field displays the current time in the selected time zone.
Confirmations Page

In some cases, the user’s decision may be required for Remote Installer to perform further steps, so that the user could get an anticipated result. However, if your decision is always the same, you may not want to see the confirmation requests again and again. The Confirmations preference page was designed to help you set your preferences.

To access this page, click the Preferences button from the Application Menu and select the appropriate link in the navigation bar on the left of the Preferences dialog within the Tasks and Schedule group.

![Confiramations Preferences](image)

Pic 1. Configuring confirmations
The confirmations are divided into two groups: the **Task Execution** and **Occurrence Change** confirmations. Let us take a closer look at each group.

The **Task Execution** confirmations are required to let the scheduling engine know if it should execute the tasks that should have been executed when the program was not running (such tasks are called Past Tasks), and if it should execute the tasks moved to the past or created for the past. By default, the **Confirm Execution** dialog [Pic 2] is displayed on the screen to let you decide what to do with each task.

![Pic 2. Confirm Execution dialog](image)

However, if your decision is always the same, you can simply choose the **Skip task execution** or **Run Task** option on the **Confirmations** preference page to always perform the selected action with respect to Past Tasks. The same approach is used for the tasks created for the past and moved to the past.

The **Occurrence Change** confirmation [Pic 3] is displayed during a quick edit of a recurrent task (e.g. dropping Machines on some occurrence). For that confirmation, it should be defined if the changes should refer to the particular occurrence only or the whole series.

![Pic 3. Change Recurring Item confirmation dialog](image)

If you want to always change the occurrence, simply choose the **Change occurrence** option on this page.
Miscellaneous Part

The **Miscellaneous** part of the program preferences should be used to configure the common Remote Installer options, such as the program behavior in respect to the System Tray, the proxy settings to be used to connect to the Internet, etc. To open the **Preferences** dialog, click the **Preferences** button available from the **Application Menu**. Configure the available settings to best suit your needs.

**What's Inside**

- General Settings Page
- Program Database Page
- Proxy Settings Page
- Application Log Page
- System Tray Page
General Settings Page

Remote Installer can automatically check for updates for you to always have the latest version of the program and can be added to the Windows startup. You can configure this feature from the General Settings preference page. To open this page, click the Preferences button from the Application Menu and select the General Settings link in the navigation bar on the left in the Preferences dialog within the Miscellaneous group (Pic 1).

Pic 1. Configuring general settings

Remote Installer can check for updates automatically every day or once a week. To enable an automatic checking for updates, check the Automatically check for updates option and choose the checking frequency between Daily and Weekly. You can also define if the program should check for major updates by changing the Automatically check for major updates option value.

If you use a proxy server to connect to the Internet and the required proxy settings are not provided, an automatic check for updates will not take place.

If you want Remote Installer to be automatically started right after you are logged on to the underlying operating system, enable the Launch at Windows startup option.

The application may display warnings and hints, and you can choose if you would like each one to be shown again. On this page, you can reset all the remembered decisions to the defaults so that all the warnings and hints are shown. Use the Reset All Remembered Decisions button to this purpose.
**Program Database Page**

The program database is a storage used by Remote Installer to keep all business data and logged events. The business data is stored within the Objects Database, and the logged events, which are displayed in the Application Log view, are stored within the Log Database.

The program database configuration can be changed on the Program Database preference page. To access this page, click the Preferences button from the Application Menu and select the corresponding link in the navigation bar on the left of the Preferences dialog within the Miscellaneous group.

By default, Remote Installer uses the SQLite database management system to store the data within the user's application data folder. Using this concept as default, allows you to start using the program without performing additional data storage configuration. The program also supports the Microsoft SQL Server database management system. You can choose the database engine to be used within the Database Management System drop-down list.

![Pic 1. Configuring the SQLite database](image-url)
For the SQLite database, you can choose a new database location. Enable the Create New or Switch to Existing option to leave the current database at the current location. If this option is disabled, the current program database is moved to the location specified.

You can either choose the predefined database location or provide a path to the database files manually. The v5\Database folder is created within the provided location to store the database. This is done to let you use multiple major versions of the program back to back and support the database import when updating the program.

While choosing the program database location, be aware of the fact that the concurrent access to the database is not supported by Remote Installer. Please also take into account that full access to the database location folder should be granted to the program for it to operate correctly.

Although the SQLite database is preconfigured and set by default, it is recommended to use the Microsoft SQL Server database if you are going to operate a significant number of Machines in an enterprise environment, because it provides you with a much higher performance and reliability.

Pic 2. Configuring the Microsoft SQL Server database
While choosing the Microsoft SQL Server database to be used by Remote Installer, you should provide the database server name to the **Server Name** field and configure the authentication options. You can choose between **Windows Authentication** and **SQL Server Authentication**. It is strongly recommended by Microsoft that integrated security via **Windows Authentication** be preferred. As soon as you have completed this configuration step, you can press the **Test Connection Settings** hyperlink to check if the database server is accessible.

The next step is choosing the databases to store business data and logged events in. You can either use the default configuration or define the required databases manually. When defining databases manually, it is possible to use the same database for storing both business data and logged events. When choosing a database from those available on the server, it is also possible to create a new one with default settings having provided its name.

When you apply changes to the program database configuration, the program checks the provided settings for validity. If the specified database is empty, you are proposed to fill it with the data available in the database currently used by the program. This feature allows you to switch to the Microsoft SQL Server database from the SQLite database you are using easily and at any time. Besides, if the program restart is required for the applied changes to take effect, you are immediately prompted to restart.
Proxy Settings Page

Remote Installer requires an Internet connection to support the **Live Update** and **Feedback** features. Therefore, if a proxy server has to be used to connect to the Internet, it should be configured on the **Proxy Settings** preference page [Pic 1]. To access this page, click the **Preferences** button from the **Application Menu** and select the appropriate link in the navigation bar on the left in the **Preferences** dialog within the **Miscellaneous** group.

![Pic 1. Proxy Settings](image)

On this page [Pic 1], you may choose among three variants of the proxy configuration to be used by the program. If **Auto-detect proxy settings for this network** is chosen, the program uses the settings predefined in the **Internet Explorer**. If Remote Installer does not have to use a proxy server to connect to the Internet, the **Direct connection to the Internet** option should be chosen. The **Manual proxy configuration** option allows you to provide the proxy server address and port manually.

Both for the automatic detection and manual configuration, it is possible to specify if the proxy server requires authentication and what credentials should be used to connect to the proxy server. For the manual configuration, an NTLM authentication can be used (i.e. connection to the proxy server takes place using the credentials of the user currently logged on) by enabling the **Use NTLM authentication** option.

After the proxy settings have been configured, it is possible to test if the Internet connection is available by using the corresponding hyperlink on the bottom of this preferences page.
Application Log Page

To configure the Application Log behavior, click the Preferences button from the Application Menu and switch to the Application Log preference page using the appropriate link in the navigation bar on the left in the Preferences dialog within the Miscellaneous group. Here, you can specify both storing and viewing options to make your work with the Application Log as comfortable as possible [Pic 1].

Remote Installer gives you an option of an automatical removal of logged events from its database. The maximum event age can be specified by the Auto remove events option. Choose Do not remove events if you do not want any events to be removed automatically. Anyway, it is always possible to remove logged events by clearing log manually.

The Show Options are designed to help you configure the log representation to best fit your needs. These options specify the maximum age and types of the logged events to be shown.
**System Tray Page**

The Tray icon provides a quick access to some of the program functionality and serves to notify you of any significant changes taking place while the program is running when the main program window is minimized or hidden behind other windows. To configure the program behavior regarding the System Tray, click the **Preferences** button from the **Application Menu** and switch to the **System Tray** preference page using the corresponding link on the navigation bar to the left in the **Preferences** dialog within the **Miscellaneous** group (Pic 1).

![Preferences dialog](image)

*Pic 1. Configuring the System Tray behavior*

If you prefer the program main window to be minimized during the program start, you should check the **Minimize on startup** option.

The **Show program icon in System Tray** option allows you to choose if the program icon should be shown in the tray. If it is enabled, you may also specify if the program should be hidden from the Windows taskbar when it is minimized to System Tray, and if the main window should be restored from the tray with a single or double click.
Chapter 10: Evaluation of the Program

EMCO Remote Installer Professional is a shareware product but you can use it as long as the evaluation period does not expire to get a closer introduction to its main features. To activate the program you should enter the License Code EMCO Software provides you with after you have purchased the license for using EMCO Remote Installer Professional. This chapter will cover the particularities of the evaluation mode, tell you how and where you can get the license code and how you can request the extended evaluation. Read this chapter carefully to face no difficulties during the EMCO Remote Installer Professional evaluation.

What's Inside

Evaluation Wizard
Where can I get my License Code?
How should I formulate the Extended License request?
Evaluation Wizard

As long as the EMCO Remote Installer Professional is not activated on each program startup the Evaluation Wizard is displayed on the screen, showing you the information about the evaluation process and providing with quick links for the program activation, purchase and extended evaluation request.

![Evaluation Wizard welcome page](Image)

The welcome page of the Evaluation Wizard allows you to choose between four options to continue. Those are Evaluate, Enter License Code, Request extended evaluation and Buy now. Optionally you can press Exit button to close the program. In this section we will help you to choose the option that will best fit your needs.

The Evaluate option shows you the time left until the evaluation period expires. You should choose this option to continue the evaluation process – the wizard will be closed and you can start working with Remote Installer. You can use the program as long as the evaluation period does not expire to get a closer introduction to its main features.
It you have already purchased the license for using the EMCO Remote Installer Professional you should choose the **Enter License Code** option to activate the program. This options also should be chosen if the extended evaluation request has been approved by EMCO Software and you have been provided with the Extended License. If you are having problems with finding the License Code refer to the *Where can I get my License Code?* section of this document. After choosing the **Enter License Code** option the program activation page is displayed on the screen. 

![Pic 2. Activating EMCO Remote Installer Professional](image)

To activate EMCO Remote Installer Professional copy and paste the License Code to the input field on this page and press **Activate** - the program will be restarted to activate.
If the evaluation period has expired and you are not sure you have fully introduced yourself to EMCO Remote Installer Professional main features you can once request the extended evaluation. As soon as the request is processed by EMCO Software you are provided with the Extended License to prolong the evaluation period. To request the Extended License you should choose the Request extended evaluation option. After choosing this option the request form will appear on the screen.

To request the Extended License fill the fields on the request form regarding the recommendations and press the Send Request button.

The Evaluation Wizard also provides you with the short cut action that allows you to visit EMCO Software web store. To use this feature choose the Buy Now option. The on-line ordering process is fast, easy, and fully secure.
Where can I get my License Code?

After you have purchased the license for using EMCO Remote Installer Professional our experts will generate the License Code and send it to you via e-mail to the address you have specified during the purchasing process. You are supposed to receive two e-mail messages – one with the License Code written in the message body and one with the attached text file (license.txt), containing the license. It is your choice to use any message because both License Codes are identical.

To activate the program the License Code received via e-mail should be copied and pasted to the program activation form. This form can be reached using the Enter License Code button from the Information group on the Ribbon bar or by choosing the appropriate option in the Evaluation Wizard.

Pic 1. Activating EMCO Remote Installer Professional

To activate Remote Installer, copy and paste the License Code to the input field and press Activate - the program will be restarted to activate.
How should I formulate the Extended License request?

The Extended License is used to prolong the evaluation period to get a closer look at EMCO Remote Installer Professional. This feature can be reached by choosing the appropriate option in the Evaluation Wizard. Here we'll give you the recommendations on filling the Request extended evaluation form [Pic 1].

In the Request extended evaluation form you should obligatory specify your name in the Name field, company name in the Company field and your e-mail address in the E-mail field.

Though the Comment field is optional it is strongly recommended to use this field for providing EMCO Software with the reason of requesting the Extended License. Please notice that EMCO Software reserves the right to decline the request without providing a requester with any explanations.

If the extended license request is approved by EMCO Software experts you'll receive the License Code to the e-mail address specified.
Chapter 11: Program Updates

EMCO Software cares for versatile needs of the users of EMCO programs and fully understands their wish to have the most up-to-date software installed on their PCs. That is why we provide you with an easy update feature. You do not need to browse the Internet again and again to find out if any updates are available – Remote Installer will do this work for you. Checking for updates can be performed both manually and automatically. This chapter describes the Live Update process for the current major version of the program and the Major Update feature which allows you to get a brand new version of Remote Installer quickly and easily.

What's Inside

- Live Update
- Major Update
Live Update

Remote Installer can be easily updated with just a few clicks. The update process is performed via an Internet connection using preconfigured proxy settings.

Check for Updates

The Check for Updates button from the Update Ribbon group should be used to check for new versions of Remote Installer.

Remote Installer can check for updates automatically. You can configure the program behavior regarding the automatic check for updates on the General Settings preference page.

To check for updates, click the Check for Updates button from the Application Menu or from the Update group of the Program Ribbon page. Remote Installer will check if any updates are available and if so, the Live Update Wizard will appear on the screen.

Pic 1. The Live Update Wizard welcome page

The Live Update Wizard will introduce you to the changes made in the newer version and guide you through the whole updating process while showing the detailed download progress. When the download is finished, the program will be restarted to perform the actual update.
**Major Update**

Along with the **Live Update** feature, Remote Installer comes with a built-in function of automatic checking for Major Updates. The Major Update is an update to a brand-new version of Remote Installer that includes a number of significant changes.

You can install this version alongside the version you are using now. It will import the settings and data from your current version, so that you won't need to configure the new version in the same way you configured the one you are using at the moment. Such parallel installation allows you to inspect the new version and compare it with the previous one in your environment with your data and settings.

The Major Update is installed alongside the version you currently use. The existing version is not automatically uninstalled from your PC, and you can continue using the program version you are accustomed to while having a look at the brand new one.

If the program detects availability of a Major Update, the **Major Update Wizard** will appear on the screen.

![The Major Update Wizard welcome page](image)

The **Major Update Wizard** will introduce you to the features available in the brand new version of Remote Installer and guide you through the update process. The message displayed at the bottom of the welcome page will let you know if the current License allows you to install and use the Major Update for free. When the download is finished, the new version installation will be run automatically.
Chapter 12: Main Application Actions

The main application actions are all gathered on the Ribbon bar and are grouped by the functions performed into pages. There are static pages, that are always displayed, and categories, containing contextual pages, that are displayed only when a specific context is active. As for the static pages, they are the following: Home, Deployment, Software, View and Application. These static pages are filled up with the pages available in the Network Tools, Inventory Tools, Software Bundles Tools, Tasks and Schedule Tools and Execution Results Tools categories. This chapter is to describe the actions available on all the pages and can be used as a glossary while working with Remote Installer.

What's Inside

Home Ribbon Page
Deployment Ribbon Page
Software Ribbon Page
View Ribbon Page
Program Ribbon Page
Network Tools Category
Inventory Tools Category
Software Bundles Tools Category
Tasks and Schedule Tools Category
Execution Results Tools Category
Home Ribbon Page

The **Home** Ribbon page contains all main actions related to the primary features of Remote Installer. This chapter will describe each group and the actions available in it for the **Home** page.

Software Ribbon Group

The **Software** Ribbon group should be used for managing installations on remote Machines and scanning remote Machines for software.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deploy Software</strong></td>
<td>The <strong>Deploy Software</strong> button can be used to perform either quick installation or advanced remote deployment of software to the selected remote Machines.</td>
</tr>
<tr>
<td><strong>Scan Software</strong></td>
<td>The <strong>Scan Software</strong> button should be used to retrieve information on programs and updates installed on remote Machines.</td>
</tr>
</tbody>
</table>

Network Ribbon Group

The **Network** Ribbon group contains actions intended for filling the program network structure with Machines.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enumerate Machines</strong></td>
<td>The <strong>Enumerate Machines</strong> button should be used to display the <strong>Enumerate Machines</strong> wizard, which can help you with adding Machines to the program for further processing.</td>
</tr>
<tr>
<td><strong>Scan Network</strong></td>
<td>The <strong>Scan Network</strong> button should be used to scan the entire network or specific Groups for Machines and add them to the program for further processing.</td>
</tr>
<tr>
<td><strong>Add IP Range</strong></td>
<td>The <strong>Add IP Range</strong> button should be used to add Machines to the program by scanning a specific range of IP addresses.</td>
</tr>
<tr>
<td><strong>Add Machine</strong></td>
<td>The <strong>Add Machine</strong> button should be used to add a single Machine to a specific Group for further processing.</td>
</tr>
</tbody>
</table>

New Ribbon Group

The **New** Ribbon group contains the actions for creating new business objects within Remote Installer.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bundle</strong></td>
<td>The <strong>Bundle</strong> button should be used to create a new <strong>Bundle</strong> and add it to the <strong>Software Bundles</strong> repository.</td>
</tr>
</tbody>
</table>
**Main Application Actions**

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bundle from Template</strong></td>
<td>The <strong>Bundle from Template</strong> button allows you to create a <strong>Bundle</strong> from an already defined or new template.</td>
</tr>
<tr>
<td><strong>Bundle Group</strong></td>
<td>The <strong>Bundle Group</strong> button should be used to create a new <strong>Bundle Group</strong> and add it to the <strong>Software Bundles</strong> repository.</td>
</tr>
<tr>
<td><strong>Collection</strong></td>
<td>The <strong>Collection</strong> button should be used to create a new Collection to group static Machines and Queries to fetch Machines dynamically.</td>
</tr>
<tr>
<td><strong>Scheduled Task</strong></td>
<td>The <strong>Scheduled Task</strong> button should be used to create and schedule a new Task.</td>
</tr>
</tbody>
</table>

**Deployment Ribbon Page**

The **Deployment** Ribbon page contains actions for performing regular deployment and smart uninstall and repair.

**Software Ribbon Group**

The **Software** Ribbon group contains actions for executing generic remote deployment operations. The glyph of this group is used to open the **Deployment Options** preference page.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quick Install</strong></td>
<td>The <strong>Quick Install</strong> button should be used to install software to the selected remote Machines by simply choosing the installation without providing any additional package configuration.</td>
</tr>
<tr>
<td><strong>Deploy Software</strong></td>
<td>The <strong>Deploy Software</strong> button allows you to execute software deployment.</td>
</tr>
</tbody>
</table>

**Uninstall and Repair Ribbon Group**

The **Uninstall** and Repair Ribbon group contains actions for executing inventory-based uninstall and repair of software.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quick Uninstall</strong></td>
<td>The <strong>Quick Uninstall</strong> button should be used to uninstall the products selected in the remote Machines' inventory from the respective Machines without any additional package configuration.</td>
</tr>
<tr>
<td><strong>Quick Repair</strong></td>
<td>The <strong>Quick Repair</strong> button should be used to repair the products selected in the remote Machines' inventory on the respective Machines without any additional package configuration.</td>
</tr>
</tbody>
</table>
Main Application Actions

**Smart Uninstall and Repair**
The **Smart Uninstall and Repair** button allows you to execute a smart uninstall or repair of software.

**Bundles Ribbon Group**
The **Bundles** Ribbon group contains actions for executing install, uninstall and repair of Siftwar Bundles.

**Install**
The **Install** button can be used to install the selected **Software Bundles** to remote Machines.

**Uninstall**
The **Uninstall** button can be used to uninstall the selected **Software Bundles** from remote Machines.

**Repair**
The **Repair** button can be used to repair the selected **Software Bundles** on remote Machines.

**New Ribbon Group**
The **New** Ribbon group contains actions for creating and scheduling **Deploy Software** and **Smart Uninstall and Repair** tasks for performing remote deployment on schedule.

**Scheduled Task**
The **Scheduled Task** button should be used to create and schedule a new task for performing deployment to remote Machines. You can choose between the **Deploy Software** and **Smart Deployment** tasks.

**Software Ribbon Page**
The **Software** Ribbon page contains the actions for retrieving information on programs and updates installed on remote Machines, software inventory management and analysis. This topic will describe each group and the actions available in it for the **Inventory** page.

**Scan Ribbon Group**
The **Scan** Ribbon group contains the actions for retrieving information on programs and updates installed on remote Machines.

**Quick Scan**
The **Quick Scan** button allows you to execute software scan for the selected Machines and Collections. The inventory snapshot is created with an auto-generated comment.
Scan Software

The Scan Software button should be used to retrieve information on programs and updates installed on remote Machines with an ability to define snapshot properties and a scope of Machines to be inventoried.

Inventory Ribbon Group

The Inventory Ribbon group contains the action for reviewing and managing software inventory.

<table>
<thead>
<tr>
<th>Ribbon Group</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Inventory</td>
<td>The Software Inventory button should be used to review the software inventory for the selected Machines.</td>
</tr>
<tr>
<td>Inventory Snapshots</td>
<td>The Inventory Snapshots button should be used to review the available inventory snapshots for the selected Machines.</td>
</tr>
<tr>
<td>Delete All Snapshots</td>
<td>The Delete All Snapshots button should be used to delete all software inventory snapshots for the selected Machines.</td>
</tr>
</tbody>
</table>

New Ribbon Group

The New Ribbon group can be used to schedule new tasks for retrieving software inventory from remote Machines.

<table>
<thead>
<tr>
<th>Ribbon Group</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Task</td>
<td>The Scheduled Task button should be used to create and schedule a new task for retrieving information on installed programs and updates from remote Machines.</td>
</tr>
</tbody>
</table>

View Ribbon Page

The View Ribbon page is used to control the program representation, such as the currently applied skin, visible views and their layout.

Layout Ribbon Group

The Layout Ribbon group should be used for a workspace layout management.

<table>
<thead>
<tr>
<th>Ribbon Group</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset Workspace</td>
<td>The Reset Workspace action should be used to restore the default windows', views' and dock panels' layout.</td>
</tr>
</tbody>
</table>
Show Ribbon Group

The **Show** Ribbon group should be used for managing the currently visible Remote Installer views.

<table>
<thead>
<tr>
<th>Ribbon Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Shows or hides the <strong>Welcome Screen</strong>. The <strong>Welcome Screen</strong> is designed to help you start working with Remote Installer.</td>
</tr>
<tr>
<td>Software Inventory</td>
<td>Shows or hides the <strong>Software Inventory</strong> view. The <strong>Software Inventory</strong> view displays the most relevant list of programs and updates installed on remote Machines.</td>
</tr>
<tr>
<td>Inventory Snapshots</td>
<td>Shows or hides the <strong>Inventory Snapshots</strong> view. The <strong>Inventory Snapshots</strong> view displays all available snapshots for a specific set of Machines with an ability of snapshots comparison.</td>
</tr>
<tr>
<td>Software Bundles</td>
<td>Shows or hides the <strong>Software Bundles</strong> view. The <strong>Software Bundles</strong> view displays the bundles repository. Each bundle represents a product including the steps required to install, repair and uninstall it.</td>
</tr>
<tr>
<td>Tasks and Schedule</td>
<td>Shows or hides the <strong>Tasks and Schedule</strong> view. The <strong>Tasks and Schedule</strong> view allows you to create and schedule predefined tasks for operating remote Machines.</td>
</tr>
<tr>
<td>Network</td>
<td>Shows or hides the <strong>Network</strong> view. The <strong>Network</strong> view shows information on the entire pool of remote Machines introduced to Remote Installer. It consists of the Machines discovered during the network scan and Collections.</td>
</tr>
<tr>
<td>Credentials</td>
<td>Shows or hides the <strong>Credentials</strong> view. The <strong>Credentials</strong> view allows you to provide the credentials to be used by the program to access Machines (while performing remote operations) and Active Directory domains (while fetching Machines from the network environment).</td>
</tr>
<tr>
<td>Execution Results</td>
<td>Shows or hides the <strong>Execution Results</strong> view. The <strong>Execution Results</strong> view shows the results of business operations on remote Machines.</td>
</tr>
<tr>
<td>Application Log</td>
<td>Shows or hides the <strong>Application Log</strong> view. The <strong>Application Log</strong> view shows information on the events taking place during the program execution.</td>
</tr>
<tr>
<td>All Machines</td>
<td>Shows or hides the <strong>All Machines</strong> view. The <strong>All Machines</strong> view shows the Machines available all over the network.</td>
</tr>
<tr>
<td>Operation Management</td>
<td>Shows or hides the <strong>Operation Management</strong> view. The <strong>Operation Management</strong> view shows detailed progress of each operation currently performed and allows canceling some or all running operations.</td>
</tr>
</tbody>
</table>
Skins Ribbon Group

The **Skins** Ribbon group provides you with an option of quick changing of the program skins.

<table>
<thead>
<tr>
<th>Skin Chooser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skin Chooser</strong> is a drop-down button that should be used to select the skin from the available skins to be applied to the program. The currently active skin is the highlighted one.</td>
</tr>
</tbody>
</table>

Program Ribbon Page

The **Program** Ribbon page contains service actions that are not connected to the business area of the program.

Organize Ribbon Group

The **Organize** Ribbon group contains the actions to be used for managing objects.

<table>
<thead>
<tr>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Import</strong> button should be used to import objects to Remote Installer from a file.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Export</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Export</strong> button should be used to export objects from the currently focused view in Remote Installer to a file.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Edit</strong> button allows you to edit the object selected in the currently focused view.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delete</strong> button is used to delete the selected objects from the currently focused view in Remote Installer.</td>
</tr>
</tbody>
</table>

Clipboard Ribbon Group

The **Clipboard** Ribbon group contains the actions to copy/move objects to the clipboard and paste data from the clipboard.

<table>
<thead>
<tr>
<th>Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paste</strong> button should be used to add the objects that are currently available from the clipboard to a selected location in the currently focused view.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cut</strong> button should be used to put the selected objects from the currently focused view to the clipboard and remove them from the source after pasting them to the destination.</td>
</tr>
</tbody>
</table>
**Copy**

The **Copy** button allows you to put the selected objects from the currently focused view to the clipboard to be copied to the destination when pasting.

---

**Update Ribbon Group**

The **Update** Ribbon group is responsible for the **product updates** function. The glyph of this group opens the **General Settings** preference page enabling you to configure the auto-update options.

<table>
<thead>
<tr>
<th><strong>Check for Updates</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Check for Updates</strong> button should be used to check for new versions of Remote Installer.</td>
</tr>
</tbody>
</table>

---

**Feedback Ribbon Group**

You can use the **Feedback** Ribbon group to send EMCO Software a request for a new feature you are missing in Remote Installer or to report on problems you faced while working with the program.

<table>
<thead>
<tr>
<th><strong>Suggest a Feature</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Suggest a Feature</strong> button should be used to suggest a functionality you would like to see in the next versions of Remote Installer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Report a Problem</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Report a Problem</strong> button should be used for reporting the problem you faced while working with Remote Installer.</td>
</tr>
</tbody>
</table>

---

**Information Ribbon Group**

The **Information** Ribbon group has a range of useful actions to manage licensing issues, get help or information you may require.

<table>
<thead>
<tr>
<th><strong>Enter License Code</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Enter License Code</strong> action should be used to enter the license code you received from EMCO to activate Remote Installer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Buy Now</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Buy Now</strong> button is only visible if Remote Installer is not activated. It provides you with a quick access to the EMCO web store.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Contact Support</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <strong>Contact Support</strong> button should be used to get efficient technical assistance from EMCO Software support team.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EMCO on the Web</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The <code>&lt;%BRAND%&gt; on the Web</code> button provides you with a short-cut to the EMCO website.</td>
</tr>
</tbody>
</table>
About
It opens the About dialog to review the Remote Installer information, licensing information and the End-User License Agreement.

Network Tools Category

The Network Tools Ribbon category is displayed when the Network view or the All Machines view is active and contains the Network page with actions for filling the program network structure with Machines and for managing network objects.

What’s Inside

Network Contextual Ribbon Page
Network Contextual Ribbon Page

The **Network** contextual Ribbon page from the **Network Tools** category contains the actions for filling the program network structure with Machines and for managing network objects.

Enumeration Ribbon Group

The **Enumeration** Ribbon groups contains actions intended for filling the program network structure with Machines.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enumerate Machines</td>
<td>The <strong>Enumerate Machines</strong> button should be used to display the <strong>Enumerate Machines</strong> wizard, which can help you with adding Machines to the program for further processing.</td>
</tr>
<tr>
<td>Scan Network</td>
<td>The <strong>Scan Network</strong> button should be used to scan the entire network or specific Groups for Machines and to add them to the program for further processing.</td>
</tr>
<tr>
<td>Add IP Range</td>
<td>The <strong>Add IP Range</strong> button should be used to add Machines to the program by scanning a specific range of IP addresses.</td>
</tr>
<tr>
<td>Add Machine</td>
<td>The <strong>Add Machine</strong> button should be used to add a single Machine to a specific Group for further processing.</td>
</tr>
<tr>
<td>Enumerate New</td>
<td>The <strong>Enumerate New</strong> button should be used to scan the selected containers for Machines keeping those not available during the enumeration process.</td>
</tr>
<tr>
<td>Enumerate</td>
<td>The <strong>Enumerate</strong> button should be used to scan the selected containers for Machines removing those not available during the enumeration process.</td>
</tr>
</tbody>
</table>

Collections Ribbon Group

The **Collections** Ribbon group contains actions for creating Collections and Collections Snapshots and adding Machines or Queries to existing Collections.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>The <strong>New</strong> button should be used to create a new <strong>Collection</strong> to group static Machines and Queries to fetch Machines dynamically.</td>
</tr>
<tr>
<td>Create Snapshot</td>
<td>The <strong>Create Snapshot</strong> button should be used to create a snapshot from a Collection containing the currently effective set of Machines defined with this Collection.</td>
</tr>
<tr>
<td>Preview</td>
<td>The <strong>Preview</strong> button allows you to review the currently effective set of Machines defined with the selected Collection.</td>
</tr>
</tbody>
</table>
Add to Collection
The **Add to Collection** button should be used to add the selected Machines and/or Machine Queries to a new or an already existing Collection.

**Machines Ribbon Group**

The **Machines** Ribbon group contains actions for refreshing the remote Machines data and checking their access status.

**Check State**
The **Check State** button allows you to check the remote Machines state and to refresh the Machine data.

**Remote Service Ribbon Group**

The **Remote Service** Ribbon group contains actions for controlling the service installed to remote Machines to perform software deployment.

- **Update**
The **Update** button should be used to update the remote service on the selected Machines.

- **Install**
The **Install** button should be used to install the remote service to the selected Machines.

- **Uninstall**
The **Uninstall** button can be used to remove the remote service from the selected Machines.

- **Reinstall**
The **Reinstall** button allows you to reinstall the remote service on the selected Machines.

**Inventory Tools Category**

The **Inventory Tools** Ribbon category is displayed when the **Inventory** view or the **Inventory Snapshots** view is active and contains the **Inventory** page with actions for reviewing and managing software inventory or running smart uninstall and repair.

**What's Inside**

**Inventory Contextual Ribbon Page**
Inventory Contextual Ribbon Page

The Inventory contextual Ribbon page from the Inventory Tools category contains the actions for reviewing and managing software inventory or running smart uninstall and repair.

Uninstall and Repair Group

The Uninstall and Repair Ribbon group contains the actions for performing smart uninstall and/or repair of the software packages selected in the currently active view with software inventory.

- **Quick Uninstall**
  The Quick Uninstall button should be used to uninstall the products selected in the remote Machines' inventory from those Machines without additional packages configuration.

- **Quick Repair**
  The Quick Repair button should be used to repair the products selected in the remote Machines' inventory on those Machines without additional packages configuration.

- **Smart Uninstall and Repair**
  The Smart Uninstall and Repair button should be used to uninstall or repair the products selected in the remote Machines' inventory from those Machines with an ability to define additional configuration for each smart package.

Snapshots Ribbon Group

The Snapshots Ribbon group contains the actions for performing software inventory snapshots comparison.

- **Compare**
  The Compare button allows you to compare the lists of programs and updates retrieved during different scans for software.

View Mode Ribbon Group

The View Mode Ribbon group contains the actions for switching the view mode within the Software Inventory and the Inventory Snapshots views.

- **Specific Snapshots**
  The Specific Snapshots button should be used to switch the Inventory Snapshots view to the mode, where the software scan results are displayed only for a specific set of Machines.

- **All Snapshots**
  The All Snapshots button is used to switch the Inventory Snapshots view to the mode, where the snapshots for all scans ever performed on any Machine are displayed.
<table>
<thead>
<tr>
<th>Programs</th>
<th>The Programs button should be used to switch to the currently active view displaying software inventory to the mode where a list of installed programs is displayed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updates</td>
<td>The Updates button should be used to switch to the currently active view displaying software inventory to the mode where a list of installed updates is displayed.</td>
</tr>
</tbody>
</table>

**Tasks Ribbon Group**

The Tasks Ribbon group contains the actions for scheduling new tasks to uninstall or repair the selected software packages or add these packages to an already existing task for being uninstalled or repaired.

<table>
<thead>
<tr>
<th>New Scheduled Task</th>
<th>The New Scheduled Task button should be used to create a schedule a new task to uninstall or repair the selected software packages.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add to Task</td>
<td>The Add to Task button can be used to add the selected software packages to a Smart Uninstall and Repair task for being uninstalled or repaired.</td>
</tr>
</tbody>
</table>

**Software Bundles Tools Category**

The Software Bundles Tools Ribbon category is displayed when the Software Bundles view is active and contains the Software Bundles page with actions for bundles management and deployment.

**What's Inside**

Software Bundles Contextual Ribbon Page

**Software Bundles Contextual Ribbon Page**

The Software Bundles contextual Ribbon page from the Software Bundles Tools category contains actions for Software Bundles management and deployment.

**New Ribbon Group**

The New Ribbon group contains actions for creating new Bundles, Bundle Groups and scheduled tasks for bundles deployment.

| Bundle | The Bundle button should be used to create a new Bundle and add it to the Software Bundles repository. |
### Bundle from Template

The **Bundle from Template** button allows you to create a **Bundle** from an already defined or new template.

### Bundle Group

The **Bundle Group** button should be used to create a new **Bundle Group** and add it to the **Software Bundles** repository.

#### Deployment Ribbon Groups

The **Deployment** Ribbon group contains actions for installing, uninstalling or repairing **Software Bundles** on remote Machines.

- **Install**
  - The **Install** button can be used to install the selected **Software Bundles** to remote Machines.

- **Uninstall**
  - The **Uninstall** button can be used to uninstall the selected **Software Bundles** from remote Machines.

- **Repair**
  - The **Repair** button can be used to repair the selected **Software Bundles** on remote Machines.

#### Tasks Ribbon Group

The **Tasks** Ribbon group contains actions for scheduling a new deployment task based on the selected **Software Bundles** and for adding the selected **Software Bundles** to any existing Deploy Software task for install, uninstall or repair.

- **New Scheduled Task**
  - The **New Scheduled Task** button should be used to create and schedule a new task for performing install, uninstall or repair of the selected **Software Bundles** on remote Machines.

- **Add to Task**
  - The **Add to Task** button allows you to add the selected **Software Bundles** to Deploy Software tasks to install, uninstall or repair such bundles in the future.
Tasks and Schedule Tools Category

The **Tasks and Schedule Tools** Ribbon category is displayed when the **Tasks and Schedule** view is active. It consists of two pages: **Management** and **Presentation**. The **Management** page contains the actions for creating tasks, navigating the schedule and managing tasks’ Machine Queues. The **Presentation** page is used to configure the view modes and the scheduler zoom factor.

**What's Inside**

- Management Contextual Ribbon Page
- Presentation Contextual Ribbon Page
Management Contextual Ribbon Page

The Management contextual Ribbon page from the Tasks and Schedule Tools category contains actions for managing scheduled tasks and tasks' Machine Queues and navigating within the scheduler.

New Ribbon Group

The New Ribbon group contains actions for creating regular and scheduled Tasks.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Task</td>
<td>The Regular Task button should be used to create a new Task without scheduling it.</td>
</tr>
<tr>
<td>Scheduled Task</td>
<td>The Scheduled Task button should be used to create and schedule a new Task.</td>
</tr>
<tr>
<td>Recurring Task</td>
<td>The Recurring Task button should be used to create and schedule a new recurring Task.</td>
</tr>
</tbody>
</table>

Tasks Ribbon Group

The Tasks Ribbon group contains actions for running Tasks.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run</td>
<td>The Run button should be used to run the selected Tasks. You can either execute the task for all Machines from the Machine Queue or only for those not processed during the latest execution due to errors.</td>
</tr>
</tbody>
</table>

Navigation Ribbon Group

The Navigation Ribbon group contains actions for navigating within the Scheduling area. The glyph of the group opens the Calendar Options preference page.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backward</td>
<td>The Backward button should be used to navigate backward in the currently selected view within the Scheduling area.</td>
</tr>
<tr>
<td>Forward</td>
<td>The Forward button should be used to navigate forward in the currently selected view within the Scheduling area.</td>
</tr>
<tr>
<td>Today</td>
<td>The Today button enables you to quickly navigate to the today's date within the Scheduling area.</td>
</tr>
</tbody>
</table>
**Go to Date**
The *Go to Date* button should be used to navigate to a specific date within the **Scheduling** area.

**Machine Queue Ribbon Group**
The **Machine Queue** Ribbon group contains action for adding existing Collections to the current Machine Queue.

**Link Collection**
The *Link Collection* button allows you to add Collections from those defined in the program scope to the current Machine Queue.

**Presentation Contextual Ribbon Page**
The **Presentation** contextual Ribbon page from the **Tasks and Schedule Tools** category contains actions for switching between different view modes within the **Scheduling** area and for changing the level of details for the scheduler.

**View Mode Ribbon Group**
The **View Mode** Ribbon group contains actions for switching the view mode within the **Scheduling** area. The glyph of the group opens the **Scheduler Configuration** preference page.

**Day**
The *Day* button should be used to switch the **Scheduling** area to the Day View. If the Day View is already chosen, this button is highlighted.

**Work Week**
The *Work Week* button should be used to switch the **Scheduling** area to the Work Week View. If the Work Week View is already chosen, this button is highlighted.

**Week**
The *Week* button should be used to switch the **Scheduling** area to the Week View. If the Week View is already chosen, this button is highlighted.

**Month**
The *Month* button should be used to switch the **Scheduling** area to the Month View. If the Month View is already chosen, this button is highlighted.

**Timeline**
The *Timeline* button should be used to switch the **Scheduling** area to the Timeline View. If the Timeline View is already chosen, this button is highlighted.

**Scale Ribbon Group**
The **Scale** Ribbon group contains actions for configuring the level of details for the **Scheduling** area. The glyph of the group opens the **Additional Time Rulers** preference page.
**Zoom In**
The **Zoom In** button should be used to increase the level of details for the currently active view within the **Scheduling** area.

**Zoom Out**
The **Zoom Out** button should be used to decrease the level of details for the currently active view within the **Scheduling** area.

**Time Scales**
The **Time Scales** button allows you to choose the scales displayed within the Timeline View of the **Scheduling** area.

**Execution Results Tools Category**

The **Execution Results Tools** Ribbon category is displayed when the **Execution Results** view is active. It contains the **Execution Results** page that is used to configure the scope of data displayed within the **Execution Results** view.

**What's Inside**
**Execution Results Contextual Ribbon Page**

**Execution Results Contextual Ribbon Page**

The **Execution Results** contextual Ribbon page from the **Execution Results Tools** category contains actions for configuring the **Execution Results** view.

**View Mode Ribbon Group**

The **View Mode** Ribbon group contains action for switching the view mode within the **Execution Results** view.

**All Runs**
The **All Runs** button switches the **Execution Results** view to the mode in which runs for both tasks and individual operations from the specified date range are displayed.

**Task Runs**
The **Task Runs** button switches the **Execution Results** view to the mode in which only runs of tasks for the specified date range are displayed.

**Individual Runs**
The **Individual Runs** button switches the **Execution Results** view to the mode in which only execution results of individual operations for the specified date range are displayed.

**Link with Selection**
The **Link with Selection** button should be used to turn on and off the option of synchronizing the results displayed in the Task Runs mode of the **Execution Results** view with the tasks selected within the Task and Schedule view.
Chapter 13: Requirements

Please carefully read and follow all requirements, listed here, or you may not be able to successfully use the product. You can contact our support if you experience a problem during the product use.

System Requirements

Computer running Remote Installer must meet the following requirements:

Minimum Hardware Requirements

- 1 GHz Intel Pentium processor or equivalent
- 1 GB of RAM
- 250 MB of free disk space

Recommended Hardware Requirements

- 2 GHz Intel Pentium processor or equivalent
- 2 GB of RAM
- 500 MB of free disk space

Supported Platforms

Windows XP (with SP3 or later), Windows XP x64 (with SP2 or later), Windows 2003 (with SP2 or later), Windows 2003 x64 (with SP2 or later), Windows 2003 R2, Windows 2003 R2 x64, Windows Vista, Windows Vista x64, Windows 2008, Windows 2008 x64, Windows 2008 R2, Windows 7, Windows 7 x64, Windows 8, Windows 8 x64, Windows 2012, Windows 8.1, Windows 8.1 x64, Windows 2012 R2, Windows 10, Windows 10 x64, Windows 2016

Requirements

- Administrative rights on the local computer
- Microsoft .NET Framework 4.0 or above
- Ability to access ADMIN$ share on remote computers
- Enabled NetBIOS over TCP/IP

Requirements for Remote Computers

Remote computers, accessed by Remote Installer must meet following requirements.

- A remote access with a Local or Domain administrator rights
- Enabled NetBIOS over TCP/IP
- An ability to ping the computer within 1500 ms
• Started services: Computer Browser, Remote Registry
• File and Printer sharing enabled
• Enabled access to the ADMIN$ share
• Windows Installer 3.1
• TCP ports opened: 135, 139, 445
• UDP ports opened: 137, 138
Chapter 14: How can I leave my Feedback?

EMCO Software always takes care of its customers, and your opinion means a lot to us. For this reason, our programs have built-in features for your feedback. You can suggest a feature you want to see in new program versions or report a technical problem you have faced using the program. Specifying your contact information on the feedback forms ensures that you will be informed of any changes with regard to the reported issue, our plans for implementing the suggested feature or fixing the reported bug. Those actions can be found in the Feedback Ribbon group of the Program page.

Suggest a Feature

The Suggest a Feature button from the Feedback Ribbon group should be used to suggest a functionality you would like to see in the next versions of Remote Installer.

Remote Installer comes with a wide range of features, but if you feel some functionality is missing, you can always suggest a new feature to us that you want to see in the program. To suggest a new feature, you should press the Suggest a Feature button from the Feedback Ribbon group. After pressing this button, you will see the Feature Suggestion dialog [Pic 1] on the screen where you are offered to enter your contact information and describe your suggestion.

![Pic 1. The feature suggestion form](image)

Press Send when you are done with filling out the form to send your suggestion.

Report a Problem

The Report a Problem button should be used to report a problem you have faced while working with Remote Installer.
Remote Installer is easy to use and very stable. Nevertheless, if you have faced any difficulty or problem while working with it, you can send us a problem report. To send such a report, you should press the **Report a Problem** button from the **Feedback** Ribbon group. When this button is pressed, the **Problem Report** dialog will appear on the screen where you are offered to enter your contact information and describe your problem.

![Problem Report Form](image)

In the **Environment** field, you can provide us with a description of the specific environment used while working with the program. Press **Send** when you are done with filling out the form to send your report.

Do not hesitate to contact EMCO Software - we are always glad to receive your feedback and are doing our best to satisfy our customers’ preferences.
Chapter 15: About EMCO Software

EMCO Software is a leading innovator on the remote administration and management solutions market. Headquartered in Reykjavik, Iceland, we are an international company with offices and operations around the globe. Since the company’s founding in 2001, we have been dedicated to providing network administrators with feature-rich, easy-to-use and affordable software and improving productivity of IT departments. Focused on the real-world needs of network professionals, our products are simple to try, simple to use, and simple to maintain while providing the power, scalability and flexibility needed by companies and organizations of all sizes.

Our solutions portfolio includes award-winning products targeted at remote network inventory, remote software deployment, remote desktop access and administration, network protection from viruses and malware, network security and health analyzing, remote power management, and remote automation.

Our Innovations

For a long time, products for remote desktops management, administration and inventoring were positioned on the market as enterprise-level solutions with a prohibitive total cost of ownership. A high price and a significant complexity kept many companies and organizations away from those solutions despite their high demand for tools that can improve productivity of their IT departments. We came onto the market looking to change this situation focusing on real-world needs of network professionals by providing simple but effective products and making them affordable for companies and organizations of all sizes.

Our first releases in 2001 proved that our products - which can be up and running within minutes, with no learning and complex configuration required, to immediately provide remote desktop control over the network - were exactly the solution that network engineers need most. An intuitive interface, valuable highly demanded features and an affordable price were the key factors to our quick market acquiring. After the first big success, our solutions portfolio quickly grew to 35 products that cover various fields of network administration and help automate hundreds of administration tasks. Along with this, there is still a lot of space for improvement, and we plan to further extend our product range to provide best-of-breed solutions.

EMCO Worldwide

More than 20,000 customers in 85 countries around the world rely on our products every day to take the complex routine out of their network management tasks. Our solutions help them to remotely manage as many as 2,3 million desktops and 103,000 servers and save millions of hours of work and multi-million dollar costs in total every year. Our worldwide customer base includes dozens of Fortune 100 and hundreds of Fortune 500 companies, as well as numerous large and small businesses representing all industries, educational and healthcare organizations, charity and non-profit organizations, and government institutions.

As a global company, we have partners all around the world who contribute to our products development, international sales and technical support. We are proud to cooperate with leading distributors and more than 50 resellers from 20 countries who represent our products on local markets.

Company Facts

- Year founded: 2001
• Headquarters: Reykjavik, Iceland
• Status: International corporation
• Expertise: Software network solutions
• Number of products: 35+
• Technology awards: 100+
• Number of customers: 20,000+
• Customers in: 85 countries worldwide
• Fortune 100 customers: 37%
• Fortune 500 customers: 49%
• Operations in: 20 countries worldwide
• Number of sales partners: 50+
Chapter 16: Contact Information

We would be glad to help you with any questions and problems you might have. Here you can find all the information you will need to contact us. To get quick answers regarding support issues or any other services, use corresponding contact information.

Company Requisites

- Name: EMCO ehf.
- Address: 12, Bildshofda St.
- City: Reykjavik
- Country: Iceland
- Postal code: 110
- E-mail: emco@emcosoftware.com
- Site: emcosoftware.com

Sales Questions

For any pre-sales or sales questions, contact us at sales@emcosoftware.com or call us:

🇺🇸 +1 646 233-1163 Business days 9.00-18.00 GMT (8.00-13.00 EST; 8.00-12.00 CST; 8.00-10.00 PDT).
🇬🇧 +44 20 3287-7651 Business days 9.00-18.00 GMT.
   Other hours: please leave your phone number and message - we will recall you within one business day.

Technical Support

In case of any problems with our products or any technical question related to our products, please visit our Support area to receive FREE technical support.