RES PowerFuse 2010 RC2

Release Notes

1. Important Changes

Features renamed

The names of several existing features have changed in order to reflect more accurately the nature and use of these features. In addition, recent changes to the names of third party products have also been implemented throughout RES PowerFuse:

Old name	New name
Citrix	Citrix XenApp
CPUShield	CPU Optimization
External Task	Execute Command
Instant Datasources	Data Sources
Instant File Associations	File Types
Instant Mail	E-Mail Templates
MemoryShield	Memory Optimization
Partly Managed Workstations	User Installed Applications
PowerHours	Time Restrictions
PowerTrace	Usage Tracking
PowerPanel	Workspace Preferences
PowerPrint	Printing Preferences
PowerZone	Locations and Devices, Zones
RES PowerFuse Workspace Manager	RES PowerFuse Workspace Composer
Security Roles	Administrative Roles
SessionGuard	Sessions
SoftGrid	Microsoft App-V
User Preferences	User Settings
WebTop	Web Portal
Workspace Sessions	User Sessions

[IR3 and RC]

RES PowerFuse Management Console redesigned

To improve the usability of the RES PowerFuse Management Console and the RES PowerFuse features, the RES PowerFuse Management Console has been restructured and several features have been renamed.

The new structure of the Console reflects the logical grouping of features into their main area of effect. The Console is now divided into 5 main areas:

- **Context**, including Locations and Devices, Directory Services and Workspace Containers.
- **Composition**, including Managed Applications, User Installed Applications, Files and Folders, Data sources and User Settings.
- **Security**, containing Applications, Removable Disks, Files and Folders, Read-only Blanketing, Global Authorized Files and Network.
- **Diagnostics**, including Workspace Analysis, Agents and Usage Tracking.
- **Setup**, including Licensing, the Datastore node, Reliability and Integration.

The same structure is also reflected in the Workspace Analysis overview.

[IR3 and RC]

Overview: where to find what in the redesigned Management Console

Old location		New location
Application Management		
Application Management		Composition > Applications > Managed Applications
Desktop Management		
User Preferences		Composition > User Settings
Shell		Composition > Desktop > Shell
Lockdown:	Windows Explorer	Composition > Desktop > Lockdown and Behavior > Windows Explorer
	Start Menu and Taskbar	Composition > Desktop > Lockdown and Behavior > Start menu and Taskbar
	Workspace Manager	Composition > Desktop > Lockdown and Behavior > Workspace Composer
Appearance:	Desktop	Composition > Desktop > Background
	Start Menu and Taskbar	Composition > Desktop > Lockdown and Behavior > Start menu and Taskbar
	Screensaver	Composition > Desktop > Screensaver
	Webtop	Setup > Integration > Web Portal
Partly Managed Workstations		Composition > Applications > User Installed Applications
Configuration Management		
Workspace Containers		Context > Workspace Containers
PowerLaunch:	Environment Variables	Composition > Other > Environment Variables
	Drive & Port Mappings	Composition > Files and Folders > Drive and Port Mappings
	Drive Substitutes	Composition > Files and Folders > Drive Substitutes

Network Printers	Composition > Printers
User Registry	Composition > Other > User Registry
Home Directory Maintenance	Composition > Files and Folders > User Home Directory > Files
Home Directory Settings	Composition > Files and Folders > User Home Directory > Actions
Profile Directory Maintenance	Composition > Files and Folders > User Profile Directory > Files
Profile Directory Settings	Composition > Files and Folders > User Profile Directory > Actions
Folder Synchronization	Composition > Files and Folders > Folder Synchronization
External Tasks	Composition > Other > Execute Command
RES Wisdom Tasks	Composition > Other > RES Wisdom Tasks
PowerZones	Context > Locations and Devices
Instant Datasources	Composition > Applications > Data Sources
Instant File Associations	Composition > Applications > File Types
Instant Mail	Composition > Applications > E-mail templates
Security Management	
Applications	Security > Applications
Files and Folders	Security > Files and Folders
Read-Only Blanketing	Security > Read-Only Blanketing
Removable Disks	Security > Removable Disks
Global Authorized Files	Security > Global Authorized Files
Network	Security > Network
Performance Management	
Access Balancing	Setup > Reliability > Access Balancing
SessionGuard	Security > Sessions
CPUShield	Setup > Reliability > CPU Optimization
MemoryShield	Setup > Reliability > Memory Optimization
Instant LogOff	Setup > Reliability > Instant LogOff
Monitoring, Auditing and Alerting	
Workspace Sessions	Diagnostics > User Sessions
Workspace Analysis	Diagnostics > Workspace Analysis
Audit Trail	Diagnostics > Audit Trail
Alerting	Integration > Alerting
PowerTrace	Diagnostics > Usage Tracking

RES PowerFuse Setup		
Directory Services		Context > Directory Services
Security Roles		Context > Security Roles
Licensing		Setup > Licensing
Datastore:	Connection	Setup > Datastore > Connection
	RES PowerFuse Agents	Diagnostics > Agents
	Custom Resources	Setup > Datastore > Custom Resources
	Maintenance	Setup > Datastore > Maintenance
Integration:	RES Wisdom Integration	Setup > Integration > RES Wisdom
	Citrix Integration	Setup > Integration > Citrix XenApp Publishing
	Microsoft TS RemoteApp	Setup > Integration > Microsoft TS RemoteApp
	SoftGrid Integration	Setup > Integration > Microsoft App-V
Settings:	Connection State Settings	Context > Connection States
	Multi Language	Context > Languages
	Advanced Configuration	Setup > Datastore > Advanced Settings
	Error Log	Diagnostics > Errors
Configuration Overview		
Action menu > Configuration Menu		Diagnostics > Configuration Menu (read-only) Setup > Configuration Menu (editable)
Importing Building Blocks		
File menu > Import Building Blocks		Action menu > Import Building Blocks

Advanced Configuration settings moved to different registry location

The settings on the **Properties** tab at **Managed Applications** were originally located at **RES PowerFuse Setup > Settings > Advanced Configuration** in RES PowerFuse 2008. Because these settings have moved to a different location in the RES PowerFuse Management Console, they are also stored in a different location in the registry:

- Prior to RES PowerFuse 2008 IR3:
  `HKLM\Software\Policies\RES\Powerfuse\Settings\AdvancedConfig`
- From RES PowerFuse 2008 IR3 onwards:
  `HKLM\Software\Policies\RES\Powerfuse\Settings\ApplicationSettings`

Warning

If you use **User Registry** (or any other mechanism) to change values in `HKCU\Software\Policies\RES\Powerfuse\Settings\AdvancedConfig`, please ensure that it uses the new registry location after upgrading to RES PowerFuse 2010 RC2.

[IR3]

Override feature properties for Workspace Containers

You can now override the global settings of a specific feature by creating exceptions for specific Workspace Containers. This is useful if the global settings of the feature should not apply to all users in your environment. You can configure different settings for each Workspace Container in your environment.

If you create an exception to the global settings of a feature:

- an extra tab will be added with the name of the selected Workspace Container. If you create multiple exceptions, the order of the tabs specifies the priority of the settings. If necessary, you can change the priority of exceptions, (temporarily) disable exceptions, and delete exceptions.
- the nodes **Workspace Model** and **Workspace Model Overview** in the Management Console (at **Setup > Workspace Model** and **Diagnostics > Workspace Model Overview**) shows per Workspace Container which settings apply. From the **Workspace Model** node, you can change the mode of the feature directly or jump to the Workspace Container exception; from the **Workspace Model Overview**, you can view the mode of the feature directly or jump to the Workspace Container exception.

[IR3 and RC]

2. New Technologies

Directory Services: support for multiple Directory Services

RES PowerFuse Setup > Directory Services has been redesigned so that you can now use several Microsoft Windows Domains and Active Directory Services concurrently. This makes it possible to use a single RES PowerFuse environment to accommodate desktops in multiple domains.

It is now also possible to configure different mount points within an Active Directory Service as separate Directory Services. This makes it possible to use RES PowerFuse for specific parts of your environment only.

[IR1]

Remote Assistance

RES PowerFuse has been enhanced with integration for Microsoft Remote Assistance. **Remote Assistance** allows a helpdesk to quickly remote control a user's desktop and diagnose and repair problems remotely. This decreases resolution time for helpdesks, which in turn decreases their workload.

Remote assistance helpers can remote control workstations and laptops, but not Terminal Servers.

- At **Setup > Integration > Remote Assistance**, you can specify which group(s) are allowed to start Remote Assistance sessions and which permissions they have in these sessions.
- At **Diagnostics > User Sessions**, users who belong to a specified helper group can start a Remote Assistance session by right-clicking a user session.

Microsoft SQL Azure database support

RES PowerFuse now fully supports Microsoft SQL Azure databases. Microsoft SQL Azure Database is a cloud-based relational database service built on SQL Server® technologies. It provides a highly available, scalable, multi-tenant database service hosted by Microsoft in the cloud. By using a database in the cloud IT administrators no longer need to install, setup, patch and manage a database platform. It also allows any desktop that is connected to the internet to be managed.
For more information about Microsoft SQL Azure, see:
http://www.microsoft.com/windowsazure/sqlazure/

Microsoft Windows 7 and Windows Server 2008 R2 support

RES PowerFuse now supports both x86 and x64 versions of Microsoft Windows 7 and Windows Server 2008 R2. The following changes have been implemented to achieve this support:

- New desktop lockdown options
- Support for Microsoft Windows 7 and Windows Server 2008 R2 in Zone rules
- Support for large icons
- Support for pin to taskbar functionality
- Support for Taskbar buttons
- Support for Jump Lists

New desktop lockdown options

At **Composition > Desktop > Lockdown and Behavior > Microsoft Windows Shell only**, a number of options have been added to control items specific to Microsoft Windows 7 and Windows Server 2008 R2:

- **Hide Action Center from the Taskbar**: The Action Center lists important messages about security and maintenance settings that need attention.
- **Remove Downloads from the Start Menu**: The Downloads folder is the default folder in which downloaded files are stored.
- **Remove Games from the Start Menu**: The Games folder is the central repository for games which also offers updates, statistics and news feeds for games.
- **Remove HomeGroup from the Start Menu**: HomeGroup makes it easy to share libraries and printers on a home network.
- **Remove Personal Folder from the Start Menu**: The Personal folder contains all the user's personal folders and libraries.
- **Remove Recorded TV from the Start Menu**: Recorded TV is the default public library where TV recordings are stored.
- **Remove Videos from the Start Menu**: The Videos library is used to organize and arrange videos.

Support for Microsoft Windows 7 and Windows Server 2008 R2 in Locations and Devices rules

You can now create zone rules based on the operating system versions **Windows 7** and **Server 2008 R2**.

Support for large icons

In Microsoft Windows 7, Windows Server 2008 R2 and Windows Vista, users can opt for large icons on the desktop and in the list of recently used applications. RES PowerFuse now fully supports this icon format for new and existing applications.

Support for pin to taskbar functionality

In Microsoft Windows 7 and Windows Server 2008 R2, you can pin applications to the taskbar instead of to the quick launch toolbar. To reflect this change and still support the quick launch toolbar for older versions of Microsoft Windows, the option to set automatic Quick Launch shortcuts for applications has been renamed to **Quick Launch / Pin to taskbar**.

You can find this option on the **Properties > General** tab of the application (at **Composition > Applications > Managed Applications**).

Support for Taskbar buttons

In Microsoft Windows 7 and Windows Server 2008 R2, you can customize how application buttons are shown in the Taskbar (for example, stacked when multiple windows for a

program are open, or only stacked if there is no more space on the taskbar). RES PowerFuse now fully supports this functionality (Microsoft Windows shell only).

Support for Jump Lists

In Microsoft Windows 7 and Windows Server 2008 R2, Jump Lists are lists of recently or frequently opened items that are organized by application, such as files, folders, tasks, or websites. RES PowerFuse now fully supports this functionality (Microsoft Windows shell only).

[IR2]

Folder Synchronization

Users often work from a variety of locations, and in each location they access, create, change and delete files and folders. This may lead to problems if users are unable to find the correct documents because they have different sets of documents, or different document versions, in different workspaces.

The new Action **Folder Synchronization** solves this by synchronizing the files in two designated folders, in order to ensure that the correct set of files and folders is available in the user's workspace.

Use Folder Synchronization to:

- **synchronize local and network folders**. Folder Synchronization will ensure that both folders have the same contents by adding new files and folders, removing deleted files and folders, and overwriting old file versions. This is particularly useful in cases where a user has a home directory on a share as well as a local home directory, for example on a laptop.
- **download files and folders from the network to local computers**. Folder Synchronization will add new files and folders from the source location to the target location, and will overwrite old file versions. This can be useful for a network folder that users also need to access when they are working locally, for example a folder containing standard forms or presentations.
- **upload local files and folders to the network**. Folder Synchronization will add new files and folders from the source location to the target location, and will overwrite old file versions. This can be useful if a user creates files locally that need to be made available on the network, for example as output of an authoring application that publishes to a local folder.

Folder Synchronization can be configured so that it synchronizes only what is necessary, and only when it is necessary.

- You can filter a Folder Synchronization action to include only specific files or file types, and/or to exclude specific files, file types and subfolders.
- You can choose to include or exclude read-only files, hidden files and system files.
- There are several options to determine when the synchronization should take place. A global Folder Synchronization Action can be executed when a user's RES PowerFuse session starts, ends, reconnects and/or refreshes. An application Folder Synchronization Action can be executed when the application starts up and/or ends.
- Access Control and Workspace Control allow you to determine when, where and for which users the synchronization should take place.

Configuration

Global Folder Synchronization Actions are configured at **Composition > Files and Folders > Folder Synchronization**.

Application Folder Synchronization Actions are configured by opening the application at **Composition > Applications > Managed Applications > Configuration > Actions > Folder Synchronization**.

By default, files that are overwritten or deleted during the synchronization process are moved to the user's Recycle Bin, so that they remain available for recovery. This safety measure can be turned off if necessary.

Prerequisites

- Microsoft .NET Framework 2.0 and Microsoft Sync Framework 1.0 must be installed on all Agents running user sessions in which folders are to be synchronized. Microsoft .NET Framework 2.0 must be installed separately; Microsoft Sync Framework 1.0 is automatically installed during installation of RES PowerFuse.
- Both folders must be accessible in the user's workspace.
- For one-way synchronization, the user must have write permissions on the local folder. For two-way synchronization, the user must have write permissions on both folders.

Note

With Folder Synchronization, actions are synchronized. For example, if synchronization is set to **Download**:

- a file that is deleted in the remote folder will be deleted locally as well.
- a file that is deleted in the local folder will not be downloaded again, since no action was performed in the remote folder.

[IR2]

Desktop Sampler

RES PowerFuse has been enhanced with the **Desktop Sampler** technology. When launching the Desktop Sampler it will sample which applications, printers and data are used by which users at which locations, irrespective of the way in which these settings are managed (manually, scripting, RES PowerFuse, etc.). It stores this information as a RES PowerFuse sample file (.DTS). The Workspace Designer (on page 10) uses these files to analyze the sampled information.

The Desktop Sampler needs to be installed on each computer that you want to sample. It consists of a single .MSI file, which is located in the RES PowerFuse program folder.

You can install the Desktop Sampler by double-clicking the .MSI file or by using a

command line. If you use a command line, you can apply the following parameters to the .MSI file:

Parameter	Description
/SAMPLEPATH	Specifies the location of the sampled data. This location can also be set in the registry at HKEY_LOCAL_MACHINE\SOFTWARE\RES\Desktop Sampler. If you do not supply a location, the sampled data will be stored in the installation folder of the Desktop Sampler.
/EXPIREDAYS	Specifies the number of days the Desktop Sampler needs to remain installed. After the specified number of days, the Desktop Sampler will uninstall itself.
/DELAY=	Specifies the number in seconds the desktop sampler should wait after a user logs on before it starts sampling data. This is useful when logon procedures take a long time. Specify a number in seconds (e.g. /DELAY=120). By default, the desktop sampler waits for 30 seconds.
/NOW	Specifies that the desktop sampler should start sampling data immediately when a user logs on. By default, the desktop sampler waits for 30 seconds.

For more information about the Desktop Sampler and the Workspace Designer, please refer to the RES PowerFuse Help at **General Functionality > Workspace Designer**.

[IR3 and RC]

Workspace Designer

RES PowerFuse has been enhanced with the **Workspace Designer** technology. With the Workspace Designer, you can see how existing (unmanaged) desktops are used. The Workspace Designer assists in designing user workspaces by analyzing sampled information taken from the Desktop Sampler (on page 9). This enables you to transform any existing desktop into a RES PowerFuse managed Workspace.

The Workspace Designer is available for the following technologies in RES PowerFuse:

- **Composition > Applications > Managed Applications**
- **Composition > Applications > Data Sources**
- **Composition > Files and Folders > Drive and Port mappings**
- **Composition > Files and Folders > Drive Substitutes**
- **Composition > Printers**
- **Context > Locations and Devices**
- **Context > Directory Services**

For more information about the Workspace Designer technology, please refer to the RES PowerFuse Help at **General Functionality > Workspace Designer**.

[IR3 and RC]

Zero Profile Technology for User Settings

User Settings enable you to store and apply user settings outside the user profile. This helps you ensure that users' settings are consistently available in their workspace.

With the new Zero Profile Technology, which is integrated into User Settings, can now create User Settings that preserve changes to a user's settings automatically and

immediately. The Zero Profile Mode of an application or global User Setting determines whether user settings should be preserved and applied using this new method, or using the existing User Settings method.

Preserving changes to user settings automatically and immediately

- On application level, use the Zero Profile mode **Track any setting changed by application immediately** to preserve all user profile changes made by the application automatically and immediately.
- On a global level, use the Zero Profile mode **Track any changed setting within scope immediately** to preserve all changes within a certain scope (a specific registry tree and/or folder tree, and optionally by one or more processes) automatically and immediately.

In these Zero Profile modes, only changes are preserved, rather than a whole section of the user profile; and changes are preserved immediately, rather than at the end of the session, at a session refresh, or at the end of the application.

Specific irrelevant files, folders and registry parts may be excluded (see "User Settings: exclusions" on page 34).

A sampling mode is provided to give the IT administrator feedback on what settings were stored and what settings may be irrelevant. The IT administrator can control the amount of logged data by setting the sampling ratio.

Preserving specific files, folders and parts of the registry

Besides the new modes for User Settings, you can still have User Settings that work like they did previously: you identify specific parts of the registry and profile directory to be preserved. These parts are always preserved in their entirety at the end of the user's session, whether any changes where made or not. This is achieved with User Settings with the Zero Profile modes **Track specified settings on session start/end** and **Track specified settings on application start/end** (at global and application level).

Sampling (see "User Settings: sampling" on page 36) is also available application-level User Settings with the Zero Profile mode **Track specified settings on application start/end**, but not for global User Settings in the mode **Track specified settings on session start/end**.

What happens to existing User Settings after an upgrade from RES PowerFuse 2008 to RES PowerFuse 2010

When you upgrade an existing RES PowerFuse 2008 environment to RES PowerFuse 2010, existing User Settings will continue to work as they did before. Global User Settings will have the Zero Profile mode **Track specified settings on session start/end**, and application-level User Settings will have the Zero Profile mode **Track specified settings on application start/end**.

You can gradually start using the new Zero Profile modes for new User Settings, for example for new applications or new versions of applications. Alternatively, you can migrate (see "User Settings: migrate User Settings" on page 35) existing User Settings to the new Zero Profile mode after the upgrade. When switching, user's existing settings can be preserved or discarded.

Note

When testing User Settings, please note that manually renaming registry keys may lead to unexpected results. To test User Settings, always use the proper application or Microsoft Windows feature to implement changes.

[IR2, IR3 and RC]

User Settings: allow users to restore previous settings

The new User Settings option **Allow users to restore their own settings** gives users increased control over the settings that they can change. Besides allowing users to store changes, you can now also allow them to undo changes for which a User Setting is configured.

To allow users to rollback a specific User Setting, select the option **Allow users to restore their own settings** on the **Properties** tab of the User Setting in the Management Console, or on the **Properties** tab of the application's **User Settings** section. As a result, the global User Setting or the application will be available for selection in the **Restore settings** interface.

In the **Restore settings** interface, users can choose an application or setting and then choose the point in time to which they want to revert the selected application or setting. The **Restore settings** interface is available to users through the button **Restore** on the **Other** tab of their Workspace Preferences tool.

[RC]

3. Enhancements

Access Control: choose whether all Identity rules should apply, or one of the rules

At **Access Control > Identity**, you can now choose whether **At least one rule must apply** or **All the rules must apply** when configuring settings. This makes Access Control more precise, especially when combining rules that exclude users from access to the setting. This choice is also available when configuring Access Control for applications based on users and groups.

[IR3]

Access Control: disable access for specific users

At **Access Control > Identity**, when configuring settings, you can now disable access to settings for specific users and groups with the option **NOT User/Group**. This option is also available when configuring Access Control for applications based on users and groups.

Access Control: option "exclude members of the selected group" made available in additional features

At **Access Control > Identity** when configuring the settings of a number of features, you could already exclude access on the basis of group membership with the option **Exclude members of the selected group**. This option is now also available for:

- Administrative Roles
- User Settings
- Shell
- Files and Folders
- Removable Disks
- Global Authorized Files
- Network

[IR2]

Actions: providing parameter values for RES Wisdom Tasks

When configuring a RES Wisdom Task as an Action, at **Composition > Other > RES Wisdom Tasks**, at **Setup > Integration > Alerting**, or at **Composition > Applications > Managed Applications**, you may need to provide parameter values. In RES Wisdom 2009, the input method for parameter values has been improved significantly. Instead of individual prompts for each parameter, all parameters are now shown in a single table. This makes it much easier to provide the correct parameter values. This improvement is now also reflected in RES PowerFuse.

[IR1]

Actions: run RES Wisdom Tasks before other Actions

When configuring a RES Wisdom Task as an Action, at **Composition > Other > RES Wisdom Tasks** or at **Composition > Applications > Managed Applications**, the new option **Run before other actions** makes it possible to specify that the RES Wisdom Task should be executed before other configuration Actions (except Environment Variable Actions).

- At global level, the column **Before other** specifies whether the RES Wisdom Task will be executed before other Actions.
- At application level, a RES Wisdom Task that is configured to **Run before other actions** will appear on top of the list of Actions on the **Actions** tab. The option **Run before other actions** will automatically be selected or cleared again when moving a RES Wisdom Task in the list by using the arrows.

[RC2]

Actions: support for User Shell Folder functions in Environment Variables

When configuring Environment Variable Actions, at **Composition > Other > RES Wisdom Tasks** or at **Composition > Applications > Managed Applications**, it is now possible to use User Shell Folder functions.

The User Shell Folder functions return the paths to specified Windows Explorer folders for the current user. This is particularly useful because the paths to these folders vary depending on the operating system used.

For example, Microsoft Windows favorites are stored at `C:\Documents and Settings\[USERNAME]\Favorites` on some operating systems, but at `C:\Users\[USERNAME]\Favorites` on others. This can be handled by using the function `$UserShellFolder(favorites)`.

The following User Shell Folder functions are available:

- $UserShellFolder(appdata)
- $UserShellFolder(desktop)
- $UserShellFolder(favorites)
- $UserShellFolder(nethood)
- $UserShellFolder(personal)
- $UserShellFolder(printhood)
- $UserShellFolder(programsmenu)
- $UserShellFolder(recentfiles)
- $UserShellFolder(sendto)
- $UserShellFolder(startmenu)
- $UserShellFolder(startupmenu)
- $UserShellFolder(cache)
- $UserShellFolder(cookies)
- $UserShellFolder(history)
- $UserShellFolder(localappdata)
- $UserShellFolder(mymusic)
- $UserShellFolder(mypictures)
- $UserShellFolder(myvideo)
- $UserShellFolder(templates)

[IR2]

Actions: User Registry tracing

The new functionality **Trace registry changes** (available from the menu **Action > Registry** when adding a new User Registry setting) makes it easier to configure registry settings for the User Registry. When tracing the registry changes that are made by an application's process, you can choose the relevant registry setting(s) from a list of logged registry changes and convert them to a User Registry setting.

You can use registry tracing to configure global settings and for application-level settings.

[IR2]

Advanced Settings: allow applications to start from the Run key and RunOnce key

At **Setup > Datastore > Advanced Settings**, the new option **Do not prevent applications in the Run key or RunOnce key from starting** allows you change the behavior of RES PowerFuse. This option is cleared by default.

In Microsoft Windows, applications set in `HKCU\...\Windows\CurrentVersion\Run` or `HKCU\...\Windows\CurrentVersion\RunOnce` will automatically run at start up. By default, RES PowerFuse disables the Run key and RunOnce key mechanisms so that applications set in these keys are NOT started automatically.

When the option **Do not prevent applications in the Run key or RunOnce key from starting** is selected, applications in the Run key and RunOnce key *will* start automatically when a user logs on. When the option cleared, RES PowerFuse continues to disable the Run key and RunOnce key mechanism.

Warning

Unmanaged applications started from the Run key or RunOnce key could pose a threat to your environment.

[RC]

Advanced Settings: verification of UNC path of authorized files and executables located on fileshare

At **Setup > Datastore > Advanced Settings**, the following options have been added to reduce the startup time of user sessions on offline computers:

- **Do not verify UNC path of security rules when offline**: if this option is selected, RES PowerFuse will not try to verify whether a server in a UNC path in a security rule can be reached if the computer is offline. Instead, it will assume that the server can be reached. This setting is selected by default when a new Datastore is created.
- **Ping file server to verify UNC path of security rules when online**: if this option is selected, RES PowerFuse pings the file server in an UNC path in a security rule, to determine whether the server can be reached, before it verifies the entire UNC path. By default, this setting is not selected when a new Datastore is created.

Agents: automatically run Workspace Composer at logon

During the installation of RES PowerFuse on a workstation it is now possible to specify whether the Workspace Composer should run automatically when users log on. At **Setup > Agents**, this option is also available for existing Agents running on a workstation. This option is only available for workstations (i.e. desktops and laptops) and applies to all users logging on to the workstation. For Agents on servers, it is still necessary to configure this setup manually.

- An additional step has been added to the RES PowerFuse Setup Wizard, when installing RES PowerFuse attended.
- When installing RES PowerFuse unattended using a command line, it is now possible to apply the public property `AUTORUNCOMPOSER` to the `.msi` package.
- The field **Run Workspace Composer** has been added to the **Settings** tab of the **Edit RES PowerFuse Agent** window, which is shown when editing the settings of an Agent.
- The column **Run Workspace Composer** has been added to the **Agent**s node, which shows the value of the related setting on each Agent.

Agents: configure Agent cache update and synchronization policy for specific Agents

At **Setup > Agents**, it is now possible to configure the settings **Update Agent cache** and **Synchronization policy** for specific Agents. Settings that are configured at Agent level override settings configured at a global level and any settings configured for Workspace Containers.

Agents: force logoff of disconnected sessions after timeout

It is now possible to force disconnected sessions to logoff after a specified timeout. This can be enabled by setting one of the following registry keys:

System key: `HKEY_CURRENT_USER\Software\RES\PowerFuse`

or

System key: `HKEY_LOCAL_MACHINE\Software\RES\PowerFuse`

Value name and data:

- `ForceLogoffEnabled`: `Yes` (to enable the mechanism)
- `ForceLogoffTimeout` or `ForceLogoffTimeoutOnDisconnect`: value in minutes
- `ForceLogoffOnDisconnect`: `Yes`

If you are already using the `ForceLogoffOnIdle` mechanism, the timeout in `ForceLogoffTimeout` can be used to use the same timeout for both mechanisms, or you can use a different timeout to disconnect by setting a value in `ForceLogoffTimeoutOnDisconnect`.

[IR1]

Agents: force shutdown

It is now possible to force a shutdown on workstations when users log off. This can be enabled by setting the registry string `ForceShutdown` in one of the following system keys:

- `HKEY_CURRENT_USER\SOFTWARE\RES\PowerFuse`
- `HKEY_LOCAL_MACHINE\SOFTWARE\RES\Powerfuse`

The registry string `ForceShutdown` can have the following values (case insensitive):

`shutdown`: Initiates a normal shutdown

`poweroff`: Initiates a shutdown + poweroff

`restart`: Initiates a shutdown + restart

[IR1]

Agents: silent refresh of RES PowerFuse sessions

It is now possible to perform a "silent" refresh of RES PowerFuse sessions. A silent refresh does not show a splash screen during a refresh of the Workspace Composer, which in some cases is less intrusive for the user. A silent refresh is only used when the refresh is a result of a display change, a USB device change or when reconnecting to a disconnected session.

"Silent refresh" can be enabled by setting the following registry key:

System key: `HKEY_LOCAL_MACHINE\SOFTWARE\RES\PowerFuse`

Value Name: `SilentRefresh`

Value Data: `Yes`

or

System key: `HKEY_CURRENT_USER\Software\RES\PowerFuse`

Value Name: `SilentRefresh`

Value Data: `Yes`

[IR1]

Agents cache: Active Directory information cached on workstations

When a RES PowerFuse session starts on a laptop, RES PowerFuse caches Active Directory information such as group and OU memberships on the laptop. If a network connection is not available, RES PowerFuse uses this cached information to start a local session.

This feature is now also supported for workstations, so that Active Directory information is available from cache if no network connection is available.

[IR1]

Agents cache: configure cache timer interval

It is now possible to configure the cache timer interval. This interval determines how often the cache checks for changes in the database or for new transactions. The default for this interval is 5 seconds. This interval can be changed by setting the following registry key:

System key: `HKEY_LOCAL_MACHINE\Software\RES\PowerFuse`

Type: `string (REG_SZ)`

Value name: `CacheTimerInterval`

Value data: a value between 5 and 60 (seconds)

You should only change the cache timer interval in special cases, such as a heavy load on the database server.

[IR1]

Applications security: terminate running applications if no longer authorized

If the user shuts down the computer without logging off the RES PowerFuse session, running applications sometimes remain active. When the user reconnects again to the

session, they may still remain active, even if the user no longer meets the specified Access Control criteria for these applications (for example, because the user reconnects at a different location or because the group membership of the user has changed). To prevent such prevents such breaches of authorization **Security > Applications** has been enhanced with the new setting **Default behavior if running application is no longer authorized**.

- **Default behavior if running application is no longer authorized, Terminate application** terminates applications immediately (and abruptly) as soon as a change in circumstances or configuration causes the user's authorization to disappear. Any unsaved data will be lost as a consequence.
- **Default behavior if running application is no longer authorized, Take no action** can be used if unauthorized applications can remain running, for example because they must be closed down correctly in order to prevent data loss.

Different behavior for individual applications can be set by opening the application at **Composition > Applications > Managed Applications** and changing the setting at **Security**.

[IR1]

Building Blocks: performance improvement when importing large files

The time needed to import large Building Blocks (for example a complete environment) has been reduced.

[IR1]

Citrix XenApp Publishing: republish all applications in a Citrix Server Group

At **Setup > Integration > Citrix XenApp Publishing > Server Groups**, a **Republish** button has been added in order to republish all applications that reference a certain Server Group.

[IR1]

Citrix Integration: support for Citrix Application Streaming

On the **Properties** tab of **Setup > Integration > Citrix XenApp Streaming**, a new option **Enable Citrix Application Streaming Integration** is available. If you enable this option, you can directly select a `.profile` file when adding a Managed Application manually or by using the Wizard. If the `.profile` file contains multiple applications, a window is displayed listing all applications and you will be prompted to select one. You still need to prepare the streaming profile of the application using `pfgii.exe`.

Citrix Integration: support for Novell Directory Service

RES PowerFuse Citrix Integration, which was previously already supported in combination with Active Directory and NT Domains, is now also supported in RES PowerFuse environments that use Novell Directory Services. Citrix Integration makes it possible to use Citrix published applications and published content in your RES PowerFuse environment.

[IR1]

Datastore: connect to empty databases not created by RES PowerFuse

It is now possible to connect to a database that has not been created by RES PowerFuse. This is useful if an administrator does not have the correct permissions to create NEW databases, but is allowed to manage EXISTING ones. For example, an administrator with only DBO permissions is not allowed to create new databases, but can connect RES PowerFuse to a database created by someone else who does have sufficient permissions (DBA). This database can then be used as a RES PowerFuse Datastore.

When connecting to a database that has not been created by RES PowerFuse itself, RES PowerFuse will ask for confirmation first.

> **Warning**
>
> Do not connect RES PowerFuse to existing databases that already contain data. Use empty databases only.

[IR2]

Datastore: dynamic RES PowerFuse Datastore configuration

The RES PowerFuse Datastore connection settings of a RES PowerFuse Agent can now depend on its location, so that a RES PowerFuse Agent always connects to the RES PowerFuse Datastore that can best be reached at its current location. This makes it much easier to run RES PowerFuse sessions at different locations, using different RES PowerFuse Datastores.

[IR2]

Datastore: performance improvement

The performance of the RES PowerFuse Datastore has been optimized, which considerably reduces the number of database transactions performed by the RES PowerFuse cache.

[IR1]

Diagnostics: read-only overviews of Usage Tracking and of Agents

At **Diagnostics**, two new, read-only overviews have been added:

- At **Agents Overview**, you can see the list of **Agents** and their status, properties and Workspace Container memberships. You can also force one or more Agents to update their cache. The editable Agents list is located at **Setup > Agents**.
- At **Usage Tracking Overview**, you can see the Usage Tracking mode and open the Usage Tracking Viewer. The editable **Usage Tracking Properties** are located at **Setup > Usage Tracking**.

[IR3]

Directory Services: show users' Active Directory display names instead of their full names

By default, RES PowerFuse shows a user's full name whenever it refers to a user, for example in the RES PowerFuse Management Console in search windows, Access Control tabs, Workspace Analysis and User Sessions, but also in the Workspace Preferences tool. In RES PowerFuse Service Releases starting from SR5, the Registry Key `UseDisplaynameasFullname` made it possible to see display names instead of full names of users from Active Directory domains.

Now, the new option **Use display names instead of full names** allows you to make this choice from the RES PowerFuse Management Console interface instead of from the Registry.

The option is available for each Active Directory Service listed at **RES PowerFuse Setup > Directory Services**. Because the setting is available per Directory Service instead of for the entire environment, it has also become possible to see full names of users from

some Active Directory Services, and display names for users from other Active Directory Services.

[IR1]

Drive and Port Mappings: disconnect drive mappings

At **Composition > Files and Folders > Drive and Port Mappings** and at **Composition > Applications > Managed Applications > Configuration > Actions > Drive and Port Mappings**, the setting **Disconnect drive mapping** has been added to the **Action** field. This option makes it possible to unmap a drive mapping, which can be useful if a user has (non-RES PowerFuse) mappings that he should not receive. This new setting makes the previous method of unmapping a drive (by entering "UNMAP" in the **Share Name** field) obsolete.

[IR3]

E-mail Templates: Internet E-mail template extended with POP3 and SMTP configuration settings

At **Composition > Applications > E-Mail Templates**, the **Internet E-mail** template has been extended with a full set of POP3 and SMTP configuration settings, such as port numbers, SSL, Secure Password Authentication, SMTP authentication, server timeout settings and delivery settings.

These new settings are available for Microsoft Outlook XP and later.

[IR1]

Errors log: file version included in pwrcache errors

At **Diagnostics > Errors**, the file version of pwrcache.exe is now included in the error if pwrcache reports an error.

[IR1]

Files and Folders security: Access Control and Workspace Control on blocked file types and folders

At **Security > Files and Folders**, it is now possible to set Access Control and Workspace Control on blocked file types and folders. This makes it possible to fine tune when files and folders are blocked.

[IR1]

File Types: automatic association with Windows-defined file associations

The file associations technology featured in RES PowerFuse has been improved. Applications are now automatically associated with the file types as they are defined in the Microsoft Windows operating system.

- When importing application shortcuts using the wizard, all Windows-defined file associations are copied automatically.
- When adding applications manually (that is, without using the wizard) all Windows-defined file associations are automatically added.
- For applications that already exist in RES PowerFuse it is now possible to import all Windows-defined shortcuts by clicking the **Import** button when editing an application's File Types.
- When creating a new Datastore, all default applications (for example, Notepad) are automatically assigned their Windows-defined file associations.

[IR2]

File Types: support for DDE

RES PowerFuse now fully supports DDE (Dynamic Data Exchange) for File Types. Microsoft Office and a number of other applications use DDE to determine their behavior when handling file associations.

For example, if an application is already running when a user double-clicks a file that is associated with that application, DDE ensures that the file is opened in the application instance that is already running. Without DDE, a new instance of the application will be started to open the file. DDE also makes it possible to print documents by selecting them in Windows Explorer, right-clicking and then choosing Print.

Using DDE for new applications

When you create or import a new application in RES PowerFuse, RES PowerFuse automatically selects the new option **Use DDE** for the application's File Types that require DDE. The relevant DDE settings are also filled automatically.

The list of File Types on an application's **File Types** tab includes a new column that shows which file associations use DDE.

To disable the use of DDE for a particular file type, open it from the list and clear the option **Use DDE**.

Using DDE for existing applications

DDE is not automatically used for existing applications in RES PowerFuse. To start using DDE for an existing application, re-import the application's file types. (To do so, open the application, go to **Configuration > File Types** and click **Import**) This will replace any existing file types with the machine default file types, and all relevant File Types will be configured to use DDE with the relevant DDE settings.

If necessary, you can also manually enable DDE and configure the relevant settings, but re-importing the File Types is normally faster and safer.

Note

As a result of this functionality, the option **Set empty DDE keys** at **Composition > Applications > Managed Applications > Properties** tab has become obsolete and has been removed.

[IR2]

Installation: create shortcuts for Start menu and desktop

When installing RES PowerFuse 2010, the following shortcuts will now be created by default in the Start menu and on the desktop:

In the RES PowerFuse folder of the Start menu:

- Management Console
- Usage Tracking Viewer
- Access Wizard
- RES PowerFuse Help

On the desktop:

- RES PowerFuse Management Console

When installing RES PowerFuse 2010 using a command line, you can now apply the following parameters to the .MSI file:

Parameter	Description
/AI_DESKTOP_SH=0	Specifies that no desktop shortcuts should be created during installation of RES PowerFuse 2010.
/AI_STARTMENU_SH=0	Specifies that no Start menu shortcuts should be created during installation of RES PowerFuse 2010.
/AI_DESKTOP_SH=1	Specifies that the default desktop shortcuts should be created during installation of RES PowerFuse 2010.
/AI_STARTMENU_SH=1	Specifies that the default Start menu desktop shortcuts should be created during installation of RES PowerFuse 2010.

[RC2]

Instant LogOff: user profile cleanup no longer enabled for Microsoft Windows Vista and higher

Besides the ability to disconnect user sessions when log off is initiated, Instant LogOff also takes care of user profiles that fail to unload because an application does not close its registry handles.

Microsoft has solved this issue in Microsoft Windows Vista and higher. On computers running Windows Vista or higher, RES PowerFuse therefore no longer tries to find user profiles that fail to unload, nor does it force registry handles to close.

[IR2]

Licensing: performance improvement when verifying RES PowerFuse licenses

The license verification method that RES PowerFuse uses to check the authenticity of the product's license has been improved. As a result, the time to log on to a RES PowerFuse session or to start the RES PowerFuse Management Console has been reduced.

[IR2]

Locations and Devices: new rules

Context > Locations and Devices is enhanced with the following additions:

- the new rule **Active Directory Site** makes it possible to create zones based on the Active Directory site from which a user starts a RES PowerFuse session.
- the new rule **File version** makes it possible to create zones based on the version number of a file that is present on the computer from which a user starts a RES PowerFuse session.
- the new rule **Registry setting** makes it possible to create zones based on the presence of specific information in the Registry.
- **Microsoft Windows 7 and Microsoft Windows 2008 R2** have been added to the **Operating system** rules.
- **Vendor ID/Product ID** has been added to the **USB storage device** rules. This makes it possible to create zones based on a brand of USB storage device or a specific product type.

[IR1 and IR2]

Lockdown and Behavior: disable welcome message and always hide PowerHelp

At **Composition > Desktop > Lockdown and Behavior > RES PowerFuse Shell**, the option **Do not show welcome message after log on** has been added. This makes it possible to suppress the welcome message that is normally shown when users start a RES PowerFuse session. This option will be enabled by default for new Datastore installations of RES PowerFuse.

At **Composition > Desktop > Lockdown and Behavior > Start Menu and Taskbar**, the option **Always hide "PowerHelp" in menu** will now be enabled by default for new Datastore installations of RES PowerFuse.

Lockdown and Behavior: hide RES PowerFuse splash screen

At **Composition > Desktop > Lockdown and Behavior > Workspace Composer**, the option **Hide splash screen** has been added. This makes it possible to suppress the splash screen that is normally shown when users start a RES PowerFuse session, refresh it, log off or disconnect. This is useful if you do not want to make your users aware of the fact that they are using RES PowerFuse.

[IR1]

Lockdown and Behavior: option "Notify user about missing home drive" removed

At **Composition > Desktop > Lockdown and Behavior**, the option **Notify user about missing home drive** has been removed. Instead, if the user's home drive is missing, this will be logged in the Errors log at **Diagnostics > Errors**.

Lockdown and Behavior: redesigned selection method

The node **Composition > Desktop > Lockdown and Behavior** has been enhanced with an **Instant Search** field. The **Lockdown and Behavior** node integrates settings from what was known as the **Start Menu and Taskbar** node and the **Lockdown** node in previous versions of RES PowerFuse. As you type in the **Instant Search** field, the list is filtered to show only settings that contain the provided text. This allows you to quickly find the desired setting. [IR3]

Lockdown and Behavior:

At **Composition > Desktop > Lockdown and Behavior > Start Menu and Taskbar**, the option **Do not reload user information when refreshing Workspace** has been added.

When a Workspace is refreshed because the session's network connectivity changes from offline to online, it can take a long time before the group membership of the user can be retrieved. The option **Do not reload user information when refreshing Workspace** makes it possible to skip this information during a refresh, which significantly speeds up the refresh of the Workspace (a reduction from 10 minutes to 30-60 seconds).

When the option is selected, the option  (**Reload user information**) will be added to the **Diagnostics** tab of the user's **Workspace Preferences** tool. This enables the user to reload this information manually.

Lockdown and Behavior: suppress or show notification about missing home drive

If a user starts a RES PowerFuse session while no home directory is mapped for that user, a notification will appear: "RES PowerFuse Workspace Composer cannot save information into your home directory. Please contact your administrator or helpdesk.". Usually, an administrator will fix this by mapping a home directory for the user.

However, in some scenarios, such as a demo setup or a test environment, you may not wish to map home directories, and would prefer to suppress this message instead.

The new option **Notify user about missing home drive** makes this possible. This option is located at **Composition > Desktop > Lockdown and Behavior** under **Start Menu and Taskbar**. It is selected by default.

Note

If the node **Composition > Desktop > Lockdown and Behavior** is disabled, the message is always shown, whether the option **Notify user about missing home drive** is selected or cleared.

[IR1]

Managed Applications: administrative note

The **General** tab of the **Properties** section of a managed application has been enhanced with an **Administrative Note** field for additional comments, remarks or information that may be useful for administrators using the RES PowerFuse Management Console. Following this new field, the **Annotation** and **Description** fields throughout the RES PowerFuse Management Console have been renamed to **Administrative Note** too.

[IR3]

Managed Applications: AutoLaunch new applications on refresh of Start menu

A new option has been added to **Advanced Settings** in the Management Console: **AutoLaunch new applications on refresh if new application is configured to launch automatically**.

If access to applications is based on location, and a user starts a Terminal Server session at a certain location, he will have access to the applications that have been configured for that particular location. If the user disconnects from this session and reconnects at a

different location, RES PowerFuse will refresh the Start Menu to update this change. As a result, the user will then have access to the applications that have been configured for the new location.

If these applications have been configured for AutoLaunch by the user or in the RES PowerFuse Management Console, selecting the option **AutoLaunch new applications on refresh if new application is configured to launch automatically** will automatically launch these applications on a refresh of the Start Menu. If not selected, new applications will only be launched automatically at the start of a new RES PowerFuse session.

The option **AutoLaunch new applications on refresh if new application is configured to launch automatically** can be found in **Composition > Applications > Managed Application > Properties**.

[IR1]

Managed Applications: custom defaults for new applications

New applications are created with certain default settings. You can now edit these application defaults to reflect the configuration that is most commonly used in your own RES PowerFuse environment. For example, you can set the default Access Control Identity type of new applications at Organizational Unit Membership if that is the type most often used in your environment.

- Defaults for new applications are set at **Composition > Applications > Managed Applications > Properties**.
- Use the **Reset** button to revert to the original RES PowerFuse defaults for new applications.

[IR2]

Managed Applications: Data Source description shown instead of Data Source driver

The list of an application's Data Sources (in the application's **Configuration** section) now shows the descriptions of the Data Sources. Previously, it showed the names of the available Data Source drivers.

If the description is longer than the list box, hover the mouse over a specific data source: a tooltip will appear with the full description.

[IR1]

Managed Applications: enhanced icon handling

Managed Applications > Properties > General > Default icon has been enhanced to differentiate between Default icons and Custom icons. Whenever a default icon is used RES PowerFuse will now automatically use the high quality icons contained in the application executable on Windows Vista and higher. Applications configured with custom icons will keep their custom ("low quality") icons. Note that after an *upgrade* all icons will be treated as default icons. Custom icons therefore need to be redefined. The option **Composition > Desktop > Lockdown and behavior > Use high quality default icons instead of custom icons** forces RES PowerFuse to automatically use the high quality icons contained in the application executable for custom icons as well on Microsoft Windows Vista and higher.

Managed Applications: /hide and /launch for Microsoft App-V virtual applications

Compostition > Applications > Managed Applications > **Parameters** field on the **General** tab has been enhanced with the possibility to use the parameters `/HIDE` and `/LAUNCH` when configuring a Microsoft App-V virtual application.

- `/LAUNCH` starts a virtual application. Specify the name and version of an application or the path to an OSD file. Optionally, command-line arguments can be passed to the virtual application.
- `/HIDE` Hides the SFTTRAY icon in the Windows notification area when sfttray.exe starts up.

[IR1]

Managed Applications: manually add groups and users to Access Control

Access Control for applications based on Identity has been enhanced with the option **Add Manually**. This makes it possible to manually enter group and user names from Directory Services that are unavailable from the Management Console you are working on. It is also handy if you want to add users and groups without having to search for them.

[IR2]

Managed Applications: merge shortcuts

Managed Applications have been enhanced with the option **Replace existing unmanaged shortcuts** on the **General** tab. Enabling this option will remove any unmanaged shortcuts and replace them with managed shortcuts for applications for which both kinds of shortcuts exist. This prevents both managed and unmanaged shortcuts pointing to the same application in an environment that contains both kinds. (typically if the **Windows Shell shortcut creation** option on the **Properties** tab of **Composition > Applications > Managed Applications** is set to **Merge with unmanaged application shortcuts**)

Managed Applications: option "Do not show Application Wizard next time"

When adding a managed application to RES PowerFuse, the Application Wizard always started automatically.

You can now disable the Application Wizard by selecting the option **Do not show wizard again next time** in the first window (Introduction) of the Application Wizard. After checking this option, the **Edit application** window will always be opened instead of the Wizard.

To undo this setting, select **Reset all "Do not show message/wizard again" check boxes** from the **Help** menu in the RES PowerFuse Management Console.

[IR3]

Managed Applications: refresh session when network connectivity changes

Access to an application or setting can depend on a specific network setting. For example, access to an application can depend on the online connection state, or a particular setting can depend on a zone based on a specific IP range. When a user disconnects from a network (or connects to a different network) in the midst of a RES PowerFuse session,

the applications and settings that depend on the network setting will remain available until the session is refreshed or restarted.

You can now configure RES PowerFuse to refresh sessions automatically when their network connectivity changes. This will ensure that network-dependent applications and settings will become available or will disappear correctly.

This behavior is determined using the new option **Do not refresh Start Menu when network connectivity changes**, which is available on the **Properties** tab of **Managed Applications**.

Note

In existing environments that are upgraded to RES PowerFuse 2010 RC2 from an earlier version, the option **Do not refresh Start Menu when network connectivity changes** is selected, and so sessions will *not* refresh automatically when network connectivity changes. If sessions should refresh, please clear the option manually.

[IR2]

Managed Applications: set groups as Application Manager

It is now possible to assign the Application Manager role to groups, as well as (or instead of) to individual users. This makes the process much more flexible, as changes in users' membership of groups automatically result in changes to their access to the Application Manager role.

[IR1]

Managed Applications: update available printers for passthrough applications on refresh of Start menu

If access to printers is based on location, users who start Terminal Server sessions at a certain location will have access to the printers that have been configured for that particular location. When a user disconnects from this session and reconnects at a different location, RES PowerFuse will refresh the Start Menu in order to update and reflect any changes. As a result, the user will then have access to the printers that have been configured for the new location.

Previously, this did not apply to printers that were available from passthrough applications located on remote servers. Support for this feature has now been extended, so that printers available from passthrough applications now also reflect the new location.

[IR1]

Microsoft App-V Integration: support for Microsoft App-V applications deployed with Microsoft SCCM

RES PowerFuse now supports Microsoft App-V (SoftGrid) applications that are deployed with Microsoft SCCM.

If necessary, you can use the application setting **Hide application if executable is not found** to hide these applications from the user until Microsoft SCCM has deployed them.

[IR2]

Microsoft Windows Shell: improved performance when starting RES PowerFuse sessions

The time required to set up the Start menu in sessions using the Microsoft Windows shell has been reduced. As a result, sessions using the Microsoft Windows shell now start up faster, which is especially noticeable if Start menus contain many items.

[IR2]

Move and Clone Actions, Authorized Files and Authorized Connections

The options **Move** and **Clone** have been added to Actions. (Environment Variables, Drive and Port Mappings, Drive Substitutes, Printers, User Registry, User Home and Profile Directory Folder Synchronization, Execute Command and RES Wisdom Tasks) The option **Move** is also available for Authorized Connections and Authorized Files. The new options allow you to:

- move and copy settings from one application to another
- move and copy global settings to an application
- move and copy application settings to a global level

To move a setting, right-click the setting and choose **Move**. In the resulting window, you can assign the setting to an application or to a global node.

[IR3]

Network Security: block connections

In previous versions of RES PowerFuse, Network Security was based on the principle of whitelisting: *no* network connections are allowed, except the ones listed as Authorized Connection.

This approach remains valid in RES PowerFuse 2010, but it has also become possible to work according to the opposite principle of blacklisting: *all* network connections are allowed, except the ones that are listed as Blocked Connection. You have to choose one approach or the other before you can configure any Network Security.

Base the choice between whitelisting or blacklisting on the desired level of control:

- Whitelisting gives you full control over the network connections authorized in your environment. Only authorized connections can be accessed. However, for this approach to work you do need to know exactly which network connections are required in your environment, so that you can authorize them. If you find out someone is trying to access a new network connection that should be allowed, you add that connection to the list of authorized connections.
- Blacklisting allows you to block network connections that you know are undesirable. Blocked connections cannot be accessed, all others can. If you find out someone is accessing a new network connection that is undesirable, you add that connection to the list of blocked connections. Optionally, you can create exceptions to Blocked Connections, using Authorized Connections.

Blocked and authorized connections can be fine tuned with Access Control and Workspace Control to specify where and for whom each connection is authorized or blocked.

[IR1]

Network Security: support for subnet masks

Many large network environments are divided into subnets to reflect an internal logic, to lower network traffic and to enhance security. RES PowerFuse Network Security has been

enhanced with support for subnets, so that these more precise sets of hosts can be targeted.

For example, if you have a group of Application servers in your network that are managed by a 3rd party, that group often exists in a separate subnet. You can now block (or authorize) connections specifically to that subnet. Previously, you had to create a rule for each individual IP address, or create a rule using a wild card (which would usually cover too broad a range). You can now combine a network (IP) address such as `172.16.0.0` with a subnet mask such as `255.255.255.248`, which narrows it down to 8 possible IP addresses. Previously, wildcards were the only way of targeting a range of IP addresses (for example: `172.16.0.*`).

Note

Because it is not possible to use wildcards and subnet masks alongside each other, subnet masks are disabled for existing Network Security rules that contain wildcards.

Registry: force disconnect of RES PowerFuse session after a certain amount of time

It is now possible to force a RES PowerFuse session to disconnect after "n" minutes, by setting the following registry key:

System key: `HKEY_LOCAL_MACHINE\Software\RES\PowerFuse or HKEY_CURRENT_USER\Software\RES\PowerFuse`

Type: `DWORD`

Value name: `ForceDisconnectOnIdle`

Value data: "n" (n in minutes, at least 1)

[IR3]

Removable Disks security: map removable disks to first available driver letter

When a removable disk is mapped to a drive, Microsoft Windows remembers this mapping. Next time the removable disk is used, it will be mapped to the same drive letter. However, if that driver letter is no longer available, the removable disk does not become visible.

The new option **Map Removable Disk to first available drive letter starting from ...** solves this. With this option enabled (at **Security Management > Removable Disks**), RES PowerFuse will find a free drive letter to which the removable disk can be mapped. When you enable the option, you can provide a driver letter of preference. RES PowerFuse will try that letter first, but if it is not available will proceed alphabetically until a free letter is found. After Z, it will start at A.

It can also be useful to have a fixed default letter to which removable disks are mapped. This makes it easier, for example, for a helpdesk to predict where a mapping can be found.

[IR1]

RES PowerFuse Management Console: applications shown with actual application icons

Composition > Applications > Managed Applications now shows the actual application icons instead of the Access Control method icons. Showing the actual

application icon increases the readability of the Management Console and makes it easier to find applications.

[IR3]

RES PowerFuse Management Console: disable parts of the RES PowerFuse Workspace Composer

Previously, all areas that RES PowerFuse can manage were affected as soon as RES PowerFuse was implemented.

With RES PowerFuse 2010, it is now possible to enable specific parts of RES PowerFuse, and to disable other parts. This makes it possible to implement RES PowerFuse gradually, which is much more practical if RES PowerFuse is going to be introduced into an existing environment.

For example, a small number of applications can now be configured in RES PowerFuse, and merged into the existing Start Menu presented to users. If this goes well, a couple more can be added. In this way, the number of applications managed by RES PowerFuse can be increased gradually over a period of time, in a controlled manner.

Disabling sections of the RES PowerFuse Management Console

Each section of the RES PowerFuse Management Console now has an option to enable or disable it. The settings and configurations of a disabled section are not implemented or executed.

Managed Applications

Instead of only **Enabled** or **Disabled**, the **Managed Applications** node has three choices on its **Properties** tab:

- **Do nothing** disables the Managed Applications feature. Users only get their existing applications, without any involvement from RES PowerFuse.
- **Add to existing shortcuts** merges the applications configured in this node into the existing Start Menu of your users. With this option, users get a mix of managed and unmanaged applications.
- **Replace all existing shortcuts** replaces the Start Menu of your users with the Start Menu and application shortcuts as configured in RES PowerFuse. Unmanaged applications are no longer available.

Tip

The new menu option **Configuration Overview** (available under **Action** in the menu bar) shows you at a glance which features are active/enabled, which are disabled, and which are set in learning mode.

[IR1]

RES PowerFuse Management Console: tooltips for settings

The readability of all settings has been improved with the addition of tooltips: when you hover the mouse over a setting, the full text of the setting appears in a small pop-up. This is particularly useful if a setting is too long for the list in which it is shown.

[IR1]

RES PowerFuse no longer depends on CAPICOM

Diagnostics > Errors will o longer display CAPICOM related errors, since RES PowerFuse is no longer dependent on CAPICOM. .

[IR3]

RES Wisdom Integration: Orchestration Pack

Setup > Integration > RES Wisdom has been enhanced with support for the Orchestration Pack for RES Wisdom.

With support for the Orchestration Pack enabled, the **Orchestration Service** is available for selection as an access principle in Access Control.

[IR2]

RES Wisdom Integration: verify connection to RES Wisdom environment

Setup > Integration > RES Wisdom integration has been enhanced with a **Test Now** button to verify whether the entered connection settings are correct.

[IR2]

Security: improved performance when checking logged security events

Each time RES PowerFuse checks for security events in RES PowerFuse sessions, it reads the file "`pwruser.ini`" in the user's home folder. This process has been optimized to reduce file activity on the user's home drive.

[IR2]

Support for VMware View 3.1

RES PowerFuse now fully supports VMware View 3.1.

[IR1]

User Home Directory Files: provide a custom list of printers for users to choose from

When users want to connect to a network printer using the Printing Preferences tool, they usually need to browse the network. However, it is also possible to provide an alternative user interface that makes it easier for users to find the desired network printer. This can be set up by creating a file called `printers.lst` and containing a list of available printers.

It was already possible to distribute a `printers.lst` file by adding it as a Custom Resource to RES PowerFuse. It is now also possible to distribute this file through User Home Directory Files by adding it as an object in **<HomeDir>\PwrMenu**. This makes it possible to distribute different printer lists based on Access Control settings and Workspace Control settings.

[IR3]

User Installed Applications: additional Wizard options for shortcut placement

When installing a User Installed Application, users could already place the application in the Start Menu. Additional options are now available in the Installation Wizard, so that users can:

- place shortcuts for User Installed Applications on the Desktop.
- place shortcuts for User Installed Applications in the Quick Launch bar.
- configure User Installed Applications to start at the startup of a RES PowerFuse session.

[IR3]

User Installed Applications: unmanaged applications optionally available to all users

User Installed Applications has been enhanced with the setting **Availability of User Installed Applications** (in the RES PowerFuse Management Console at **Composition > Applications > User Installed Applications**). This setting optionally broadens the group of users to whom the applications installed by users become available:

- With **Availability of User Installed Applications** set at **limit access to users who may install applications**, the behavior is the same as in previous versions of RES PowerFuse: unmanaged applications are never available to users who do not have the right to install unmanaged applications themselves on the same computer.
- With **Availability of User Installed Applications** set at **allow anyone access**, unmanaged applications can also become available to users who do not have the right to install unmanaged applications themselves on the same computer.

[IR3]

User Settings: additional special folders

In addition to the default Microsoft Windows environment variables and other environment variables that may exist on the user's local machine, you can now use the following special folders to specify the location of files, folders and folder trees that should be preserved as part of a User Setting:

Special folder	File System Directory
%appdata%	Contains application data for all users. This folder is used for application data that is not user specific.
%cache%	Common repository for temporary Internet files.
%cookies%	Common repository for Internet cookies.
%desktop%	Stores file objects on the desktop.
%favorites%	Common repository for the user's favorite items.
%history%	Common repository for Internet history items.
%localappdata%	Data repository for local (non roaming) applications.
%mymusic%	Common repository for music files.
%mypictures%	Common repository for image files.
%myvideo%	Common repository for video files.
%nethood%	Contains the link objects that may exist in the My Network Places folder.
%personal%	Stores a user's common repository of documents.
%printhood%	Contains the link objects that can exist in the Printers folder.

%programsmenu%	Contains the user's program groups (which are themselves file system directories).
%recentfiles%	Contains shortcuts to the user's most recently used documents.
%sendto%	Contains Send To menu items.
%startmenu%	Contains Start menu items.
%startupmenu%	Corresponds to the user's Startup program group.
%templates%	Common repository for document templates.
%userprofile%	Contains the user profile.

Besides resolving these special folders to their correct paths in user sessions, RES PowerFuse also translates the resolved paths back into special folder names when the User Setting data is stored. This ensures that User Settings with these special folders are truly independent of operating systems and languages used in different sessions.

[IR1]

User Settings: configurable storage location

At **Composition** > **User Settings**, you can now specify the location where User Settings should be stored. By default, this is the hidden folder \pwrmenu in the user's home directory, but you can configure a different drive and/or a different folder name.

[RC2]

User Settings: exclusions

User Settings now also allow specific exclusions. This makes it possible to refine what is stored and what is discarded.

For example, you can:

- create a specific User Setting to preserve the contents of a folder, except certain file types, such as temporary backup files.
- create a User Setting for a registry tree, but then exclude specific keys or values.
- create a User Setting to preserve all the changes that an application makes to the user profile, except a number of specific files and registry parts.

[IR1]

User Settings: import settings from Immidio Flex Profiles INI files

In Citrix and Terminal Server environments, Immidio Flex Profiles (formerly Flex Profile Kit INI files) are sometimes used to store user preferences in combination with mandatory, local or roaming profiles. There are, however, several advantages to managing such settings as User Settings in RES PowerFuse, where they can be managed centrally in a fully supported and enterprise-ready system.

You can now import Immidio Flex Profiles INI files directly into RES PowerFuse User Settings, so that you can start managing these settings in RES PowerFuse. RES PowerFuse now also fully supports the exclusions ("User Settings: exclusions" on page 34) and additional special folders ("User Settings: additional special folders" on page 33) that are used in Immidio Flex Profiles INI files.

To import an INI file into RES PowerFuse, create or open a User Setting and click the **Import** button.

> **Warning**
>
> Importing an INI file into an existing User Setting will overwrite its existing configuration.

[IR1]

User Settings: migrate User Settings

The different Zero Profile Modes store information in a different format. When you change the Zero Profile Mode of an existing User Setting, you are prompted to choose what should happen to stored user settings:

Option	Effect on user	Other consequences
Ignore	If this User Setting was previously active in the other Zero Profile Mode, users will get the settings that they had in that mode. If this User Setting was not previously active in the other Zero Profile Mode (for example if you have just upgraded from RES PowerFuse 2008 to 2010), users will initially get the default settings next time they log on. In this first session with the new mode, they will have to re-do any changes they want to preserve. These changes will then be stored according to the new Zero Profile Mode.	• The old information remains available in the old format. If you switch the User Setting back to the other mode, this old information will be used again. • Additional data remains in the system and will be transferred at various moments (session logon, logoff and, refresh; and application start and end). This could potentially impact performance.
Remove	Users will get the default settings and will have to re-do any changes they want in their profile. These changes will then be stored according to the new Zero Profile Mode.	All the old information is permanently deleted.
Apply/Convert and remove	Users will not notice any difference, as they will keep the customized settings that they already had.	• The old information is permanently deleted. • The new User Setting may store more information than would strictly be necessary. This additional data will be transferred at various moments (session logon, logoff and, refresh; and application start and end). This could potentially impact performance.

User Settings: preserve without applying

By default, changes that fall within the scope of an enabled User Setting are preserved and applied. However, it is now also possible to preserve the changes that users make without applying them yet.

You can select or clear the options **Preserve** and **Apply** on the **Properties** tab of an application's **User Settings** section, or on the **Properties** tab of a specific User Setting in the node **Composition > User Settings**.

- **Preserve** and **Apply** are both selected by default. With this combination, the changes that users make are stored and applied.
  - With only **Preserve** selected, users build up a set of changes which you can start to implement at a later date by enabling **Apply**. Preserved changes are included in any sampling if that is enabled.
  - With only **Apply** selected, users are locked into a set of changes that they previously created, but that they can no longer change.
- For linked applications, you can override the **Preserve** and **Apply** options of the master application with different settings for the linked application.

[RC]

User Settings: sampling

Optionally, you can use sampling to monitor what changes are preserved or lost as a result of User Settings.

- If an application's Zero Profile mode is **Track specified settings on session start/end**, its **Sampled Data** tab shows all the settings that the application changed, but that were *not* preserved.
- If an application's Zero Profile mode is **Track any setting changed by application immediately**, its **Sampled Data** tab shows all the settings that the application changed and that *were* preserved.
- If a global User Setting's Zero Profile mode is **Track any changed setting within scope immediately**, its **Sampled Data** tab shows all the settings that changed in the tracked tree and that *were* preserved.
- If a global User Setting's Zero Profile mode is **Track specified settings on session start/end**, sampling is not available.

Each user's Workspace Analysis Details shows the actual files, folders, registry settings and registry values that are preserved, and also shows whether sampling was active during a session.

Converting sampled changes

You can convert entries on the **Sampled Data** tab into a User Setting item or exclusion, or into an User Registry setting.

Sampling ratio

The **Sampling ratio** helps you restrict the amount of data presented on the **Sampled Data** tab. The sampling ratio determines how many user sessions should activate sampling in order to show sampled data. With a sampling ratio of 1:10, for example, an average of one session out of every ten will sample data.

[IR2, IR3 and RC]

User Settings: show details

At **Composition > User Settings**, and when configuring User Settings for an application at **Composition > Applications > Managed Applications**, it is now possible to view the actual contents of all User Settings with the new option **Show details**. This option shows all the registry settings, files and/or folders to be preserved for user sessions. In the detailed view, you can select User Setting items to disable, enable or delete them directly, without having to open the User Setting in which they are contained.

[IR2]

User Settings: view actually stored settings in user's Workspace Analysis

At **Diagnostics > Workspace Analysis**, a user's **Workspace Analysis** now includes the option to view the actual settings that a specific user has stored for a specific User Setting. For example, if there is a User Setting that stores the Favorites folder of your users, you can use the new option **View stored settings** to see the actual contents of this folder for a specific user.

To view the settings that a specific user has set for a specific User Setting, open the user's **Workspace Analysis**, open the relevant User Setting at **User Settings** and click **View stored settings**.

[IR2]

User Settings for applications: Access Control

Previously, application-based User Settings were always available to all users who had access to the application. This can now be refined using Access Control (including Workspace Control) on application-level User Settings.

For example, some applications store log files in the user profile. You may not normally need to preserve these log files, except when a specific user reports issues that you need to troubleshoot. In such a situation, you can create a User Setting to preserve the log files, and set Access Control on the User Setting so that only the specific user gets it. As a result, the relevant user's log files are preserved, while other user's log files are discarded. Without Access Control on this User Setting, the log files would be preserved for all the users of this application.

[IR2]

User Settings for applications: improved loading during session start and after refresh

Application User Settings loaded in background after logon

In previous versions of RES PowerFuse, when a user started a session, RES PowerFuse loaded all User Settings as part of the logon process. Now, RES PowerFuse loads all global User Settings as part of the logon process, but starts a separate process for User Settings defined at application level. This makes the logon process of sessions much faster, particularly if many User Settings are configured for applications, or if these User Settings include large files.

Application User Settings preserved and loaded at session refresh

During a session, a users' access to applications may change for a variety of reasons, for example due to changes in the application's Access Control, or if a user disconnects an existing session and reconnects from a different location in a different zone. Changes in

application availability are reflected in the user session after a refresh, but User Settings were not previously preserved or loaded at refresh.

The preserving and loading of User Settings has now been improved so that:

- User Setting items that a user changes during a session are always preserved at the end of the user session, even if the application is no longer available after a mid-session refresh.
- Application User Setting are loaded after a session refresh, so that applications that become available after a refresh have the user's preferred settings as preserved from a previous setting.

[IR2]

User Settings for applications: linking

At **Composition > Applications > Managed Applications**, if several applications need the same set of User Settings, it is now possible to set an application to use the User Settings of another application. This allows you to create a set of User Settings once, after which you can use it for multiple applications. In addition, when you update these linked User Settings, all applications that are linked to the User Settings will automatically use the updated version.

Linked User Settings can be used for different versions of the same application (for example, two versions of Microsoft Internet Explorer with different access control criteria). They can also be used for different applications that use the same information (for example, two applications that use the same SQL database).

To set application A to use the User Settings of application B, open application A and go to **User Settings > Properties**. Here, select the new option **Use the User Settings from the following application**, and browse to application B. In this scenario:

- the information on the User Settings section of application A appears grayed out.
- the **User Settings** tab of application B shows a warning that other applications use its User Settings, and provides a link to open an overview of those applications.
- Additional applications can also use the User Settings of application B. However, other applications cannot use the User Settings of application A, because it does not have any.
- You cannot delete application B until you have unlinked application A's User Settings.
- If you want application A to have its own User Settings again, clear the option **Use the User Settings from the following application**. RES PowerFuse will ask whether the User Settings from application B should be copied to application A as new User Settings.

[IR2]

Web Portal: Building Block of Web Portal Integration application in Program Files folder

At **Setup > Integration > Web Portal** in the Management Console, Web Portal integration is no longer enabled by default after the installation of RES PowerFuse and the application **Web Portal Integration** is no longer created. Instead, the Program Files folder of RES PowerFuse now contains a Building Block file `web-portal-integration.xml`. By importing this Building Block file in the Management Console, you can add the application **Web Portal Integration** at **Composition > Applications > Managed Applications**, so you can offer the Workspace Composer through Microsoft Internet Explorer.

Workspace Analysis: general improvements

At **Diagnostics > Workspace Analysis**:

- the **Search in** field now shows the relative path instead of the full path.
- the search criteria and their results are now remembered when you switch to a different section in the Management Console, and will show them again when you return to **Workspace Analysis**.
- an **Analyze** button has been added to view a specific user's **Workspace Analysis**. The option **Details**, which offered the same functionality in previous versions of RES PowerFuse, has been renamed to **Analyze**.
- double-clicking a user in the list opens the user's **Workspace Analysis** instead of opening the user's **Properties**.
- the node **Diagnostics > Workspace Model Overview** has been added to the user's **Workspace Analysis**. This gives an overview of the mode in which each RES PowerFuse feature is running, including information about any Workspace Container exception that applies to the user.

[IR2]

Workspace Composer: include option Install Updates and Shutdown in user's Exit menu

On Microsoft Windows Vista workstations running the RES PowerFuse shell, the **Exit** menu now contains an additional **Install Updates and Shutdown** option, if there are updates pending.

Note

This option is only available if the option **Disable "Shutdown" for end users on workstations** is not selected in the Management Console at **Composition > Desktop > Lockdown and Behavior** under **Start Menu and Taskbar**.

[IR1]

Workspace Containers: users can choose a Workspace Container

Extra functionality has been made available to let users decide which accessible Workspace Container to use when starting a RES PowerFuse session or a specific application. Effectively, this allows the user to choose between pre-defined, differently configured versions of an application or of a RES PowerFuse session.

Choosing a Workspace Container when starting an application

- Specific Workspace Containers can be configured as a prerequisite for an application (in the application's **Access Control** section on the tab **Workspace Control**).
- RES PowerFuse can set specific configurations for an application, for example through specific User Registry settings, and these configurations can be restricted to specific Workspace Containers.

Combined with the new option to let a user choose a Workspace Container to apply to an application, users can now effectively choose the configuration with which an application should open, and they can switch between predefined application configurations.

For example, an application may be able to connect to different databases, such as database "Amsterdam" and database "Brussels". Information about the currently configured connection is stored in the Registry. When a user wants to connect the application to a different database, the information in the Registry needs to change.

However, you may not want to provide the user with the database credentials and other related information.

You can now set the application up with multiple database connections that are determined using User Registry actions that depend on Workspace Containers. You can let the user choose the Workspace Container when the application starts. To set this up, you need:

- Workspace Containers "Amsterdam" and "Brussels", with the same set of computers as members.
- Application X with access set to the Workspace Containers "Amsterdam" and "Brussels" (on the **Workspace Control** tab in **Access Control**), and the option **Let user decide which accessible workspace container to use**.
- A User Registry setting for the information that application X needs to connect to the "Amsterdam" database, with Workspace Control set to Workspace Container "Amsterdam".
- Another User Registry setting for the information that application X needs to connect to the "Brussels" database, with Workspace Control set to Workspace Container "Brussels".

Now, when the application is started, the user is asked to choose "Amsterdam" or "Brussels". Depending on this choice, RES PowerFuse sets the Registry key to point to the chosen database.

Choosing a Workspace Container when starting a RES PowerFuse session

Workspace Containers can also determine the configuration of an entire RES PowerFuse session when the session starts.

To allow the user to choose in which Workspace Container the session should start, use the command line:

```
pfwsmgr.exe /ew ?
```

Option: Hide this workspace container if user needs to select one

Some Workspace Containers are relevant for users when they are asked to choose a Workspace Container. Other Workspace Containers are not relevant in that situation. To hide irrelevant Workspace Containers from the list of choices, a new option has been added to each Workspace Container: **Hide this workspace container if user needs to select one**.

Note

If you start using Workspace Containers in the setup described above, any Workspace Containers that already existed in your environment will be included in the list of choices unless you open them (at **Context > Workspace Containers**) and select the option **Hide this workspace container if user needs to select one.**

Configuration

- For the setting **Let user decide which accessible workspace container to use**, an optional message can be configured to guide the user's choice.
- A default Workspace Container can be set, to be selected after a configured timeout.

[IR1]

Workspace Extender: force session screensaver

When a RES Subscriber or Workspace Extender session is started from a RES PowerFuse session, the screensaver of the client will be used by default. It is now possible to force the use of the RES PowerFuse session screensaver by setting the following registry key:

System key for x64 machines:
`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\RES\PowerFuse`

System key for x86 machines: `HKEY_LOCAL_MACHINE\Software\RES\PowerFuse` or `HKEY_CURRENT_USER\Software\RES\PowerFuse`

Type: string (REG_SZ)

Value name: `NoAgentScreensaver`

Value data: Yes

[IR1 and IR3]

Workspace Preferences tool: zones and connection state on Diagnostics tab, Change password option moved

The user tool **Workspace Preferences** has been enhanced with information about the user's **Zones** and **Connection state**, which can be useful for troubleshooting purposes. This information can be found on the **Diagnostics** tab.

- If the user is logged on to a workstation, the **Connection state** section will show network adapter information, including IP address and MAC address.
- The option **Change password** has been moved to the **Options** tab.

[IR3 and RC]

Workspace refresh: refresh drive mappings, drive substitutes and environment variables when network connectivity changes

It is now possible to configure RES PowerFuse to refresh Drive Mappings and Drive Substitutes automatically when the network connectivity of a session changes. This ensures that connection state-dependent Drive Mappings and Drive Substitutes become available or disappear correctly.

Similarly, it is now possible to configure RES PowerFuse to reset Environment Variables on a refresh of the user workspace. This ensures that connection state-dependent Environment Variables are resolved correctly.

- At **Composition > Files and Folders > Drive and Port Mappings**, this can be configured with the option **Refresh Drive and Port Mappings when network connectivity changes**.
- At **Composition > Files and Folders > Drive Substitutes**, this can be configured with the option **Refresh Drive Substitutes when network connectivity changes**.
- At **Composition > Other > Environment Variables**, this can be configured with the option **Reset Environment Variables on refresh of workspace**.