Deployment Guide

PROVANCE PRODUCTS

for Microsoft® System Center

PROVANCE

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Provance IT AMP for Microsoft System Center Service Manager 2012 R2

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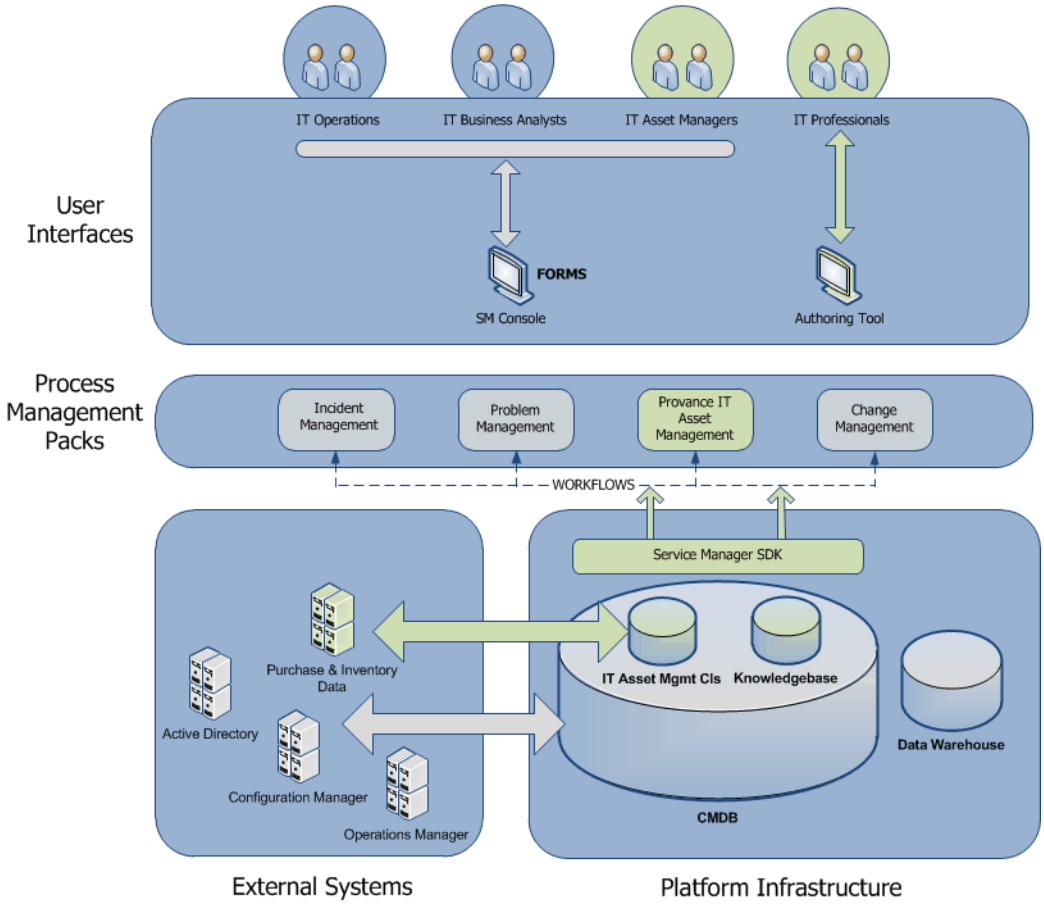
1 Preparing for a Deployment

Product overviews

The capabilities of the products provided by Provance are diverse, but they are complimentary to one another and to the advancement of IT Asset Management. Briefly discover what each can do for you in the following sections.

IT Asset Management Pack

The Provance™ IT Asset Management Pack is a Process Management Pack that runs within Microsoft® System Center 2012 - Service Manager. It supplements the Incident, Problem and Change Management capabilities of Service Manager with powerful IT Asset Life Cycle Management and Software Asset Management. Supporting ITIL® and the Microsoft Operations Framework, Provance strengthens the IT effectiveness of companies at every level of the Microsoft Core Infrastructure Optimization model. With the Provance IT Asset Management Pack for Microsoft System Center Service Manager, you can drive down IT costs, increase service management efficiency and reduce security and compliance risks.



Provance IT Asset Management Pack Integrated into the Service Manager Platform

Platform infrastructure

As a Service Manager Process Management Pack, the IT Asset Management Pack leverages the Configuration Management Database (CMDB) by adding Configuration Items (CIs) to store additional asset related organizational, financial and contractual information. The additional CIs provide visibility into

IT asset management data, as well as a single pillar of information and shared understanding across the organization.

Knowledge items can be created to provide additional information on internal processes, notes regarding specific assets and documentation which can be shared across all SCSM components. Knowledge items are linked to specific CIs and asset items to provide additional context.

The data warehouse is used by the IT Asset Management Pack for high performance reporting based on current and historical data. Dashboard and reports are provided out-of-the-box with the IT Asset Management Pack. Custom reports can also be created based on IT asset management data in the data warehouse.

External systems

The IT Asset Management Pack leverages the out-of-the-box connectors to CSV data, Active Directory and Configuration Manager provided by the Service Manager platform. IT Asset Management software and hardware asset information, contractual and financial data can be imported from an external source via the Service Manager CSV connector or via the Provance Data Management pack. Active Directory provides user and organizational information. Configuration Manager provides software and hardware configuration data that is leveraged by the IT Asset Management Pack.

Data Management Pack

Data Management is a data import management pack. Use it to migrate data into Service Manager and control how the data gets created. Any data that you export from other systems can be converted and imported into the Configuration Management Database (CMDB) as objects, e.g., configuration items (CIs). Depending on what it discovers during the import, Data Management may either update existing CIs with new data or create new objects. If the source data contains relationships, then they are maintained within the new objects. The related objects can also be created as part of the import.

System requirements

All Provance products require Microsoft® System Center 2012 - Service Manager SP1. Service Manager must be installed, configured and up and running prior to installing a Provance product. For more information on the system requirements for Service Manager, please see the Service Manager documentation.

User types and benefits

There are various types of users who will use the features and functionality within the IT Asset Management Pack, ranging from reading, editing, importing and managing asset related information, as well as customizing the solution:

- **IT Asset Managers**, or those with asset management responsibility, and users who have access to the Service Manager Console, will be able to leverage the functionality of the IT Asset Management Pack for software and hardware life cycle management and contract management.
- **Incident Resolvers** can access the IT Asset Management Pack data to obtain additional information on hardware and software assets to support change requests and incidents.
- **End users** will use forms in the IT Asset Management Pack to enter, edit, manage and view data within the Service Manager Console.
- **IT personnel**, or solution providers for the IT Asset Management solution, may use the Service Manager Authoring Console to customize the IT Asset Management Pack to suit the needs of their organization.

2 Installing and Configuring Provance Products

Installing Provance products

Provance products may be installed, upgraded or changed (i.e., products or features added or removed). If you have never installed the IT Asset Management Pack before on a given server, or you have had to uninstall it, then you will be performing a new install. If you already have the previous release of the IT Asset Management Pack, then you will be performing an upgrade. If you are adding a product to an existing installation, such as the Data Management Pack, then you will be performing a change.

Installation checklist

The following checklist summarizes the items required for installation of Provance products:

1. Install and configure Microsoft® System Center 2012 - Service Manager.
2. Install a data warehouse, which is required for reporting on IT Asset Management activities. You may optionally install a data warehouse after the management pack is installed. You must register the data warehouse within Service Manager. In the Administration workspace, click the **Register with Service Manager Data Warehouse** link.
3. (Optional) Back up the entire Service Manager database.
4. Ensure that the Service Manager Console is closed.
5. Perform the install using an Administrator account with associated administrator privileges on the system that is running the Service Manager workflow server.

   NOTE: *The Provance installation now provides non-administrative roles, such as Advanced Operator or Author, with permissions to Provance entities.*
6. Ensure that the Workflow Account (a Run As Account) has the same permissions as that of the Administrator. Provance workflows will not run properly unless the Workflow Account has the correct permissions.
7. Install the product on a workflow server (main or secondary). Do not install it on a data warehouse server.
8. Ensure both of the following services are running before the installation begins: System Center Data Access Service and SQL Server Service.

IT Asset Management Pack additional items

1. (Optional) Install the System Center Service Manager 2012 Authoring Tool, if you are going to extend or modify the IT Asset Management Pack with it.
2. (Optional) Install the IT Asset Management Pack components for use with the Authoring Tool.

Installation steps

To install a Provance product:

1. Save the Setup folder to a Service Manager management server and run the file **Setup.exe** to begin the installation process. The installation wizard launches and guides you through each step of the installation.
2. The first step in the installation wizard includes the following installation options:

OPTION	DESCRIPTION
Install/Upgrade Provance Management Packs for System Center Service Manager	Choose this option to install the management pack to a management server.
Install the IT Asset Management Pack components for the Authoring Tool	Choose this option to install the classes and forms required to extend or modify the management pack with the Authoring Tool.
View the IT Asset Management Pack Deployment Guide	Choose this option to open this Deployment Guide.

NOTES: *After you select an option, the installer checks that a management server or Authoring Tool is installed on the system, depending on the option chosen. When the installer cannot find a management server or Authoring Tool, it generates an error message and returns to the opening screen of the wizard.*

The installer also checks to see if an existing Service Manager Console is open. All Service Manager Consoles must be closed before the installation can continue.

If you choose the first option, the Select products and features to install page opens.

3. Select and expand **Provance Management Packs for System Center Service Manager**. Ensure that IT Asset Management Pack is also selected.
4. Select any additional products you wish to install, such as Data Management.
5. (Optional) If this is a new install, enter the **Activation key** provided for the product. A key is not required during an upgrade. The Activation key may also be entered later within the Service Manager console.
6. Click **Next**. The Review and Accept End User License Agreement page opens.
7. Select your country. Please read the end user license agreement. You may print and review the license agreement prior to accepting it. If you choose not to accept the license agreement, the installation will not continue.
8. To accept the license agreement, click the check box beside **I have read, understood and agree with the terms of the license agreement**.
9. To cancel the installation, click **Cancel**.
10. Once you accept the license agreement, click **Install** to continue the installation.

    A progress bar shows the status and progress of the installation.
11. Once the products are installed, a summary screen appears confirming that they have successfully installed, along with links to product documentation, the support community at http://community.provance.com, and to additional product information.
12. To exit the installation, click **Close**.
13. Install the online help onto your Service Manager Consoles, see "Install online help" on page 2-4.
14. Configure the IT Asset Management Pack, see "Configure the IT Asset Management Pack" on page 2-5.

Install online help

Users who have installed the Service Manager remote Console locally to their PC may not have access to the online help for the IT Asset Management Pack or the Data Management Pack. For users of the Service Manager remote Console to access the online help, the *.chm file needs to be copied locally onto their systems.

To install online help for use with a local Service Manager Console:

1. Find the Provance.chm file (IT Asset Management Pack) or the datamgt.chm file (Data Management), which should be in the following directory on the server:

   `X:\Program Files\Microsoft System Center 2012\Service Manager`

2. Copy the *.chm file(s) to the following local directory:

   `X:\Program Files\Microsoft System Center 2012\Service Manager`

   NOTE: *Both the management server path and the local Service Manager Console path to the help file must be identical.*

3. Restart the Service Manager Console.

Configure the IT Asset Management Pack

Table 2-1 describes the settings you should consider configuring after you install the IT Asset Management Pack. Refer to the User Guide for detailed instructions related to their configuration. When you perform an upgrade, the existing configuration values should remain unchanged.

TABLE 2-1. IT Asset Management Pack Configuration Settings

Setting	Description	Recommended
Base currency	A base currency is used as the currency displayed in all reports. The default is U.S. dollars.	Yes, if you plan to have more than one currency in use.
Exchange rates	Add an exchange rate for each additional currency so it can be converted to the base currency in reports.	Yes, if you plan to have more than one currency in use.
Enable duplicate asset tags and serial numbers		No
Product usage rights	The lists for **language** and **region** need to be configured before you can enter product usage rights.	Optional

TABLE 2-1. IT Asset Management Pack Configuration Settings

Setting	Description	Recommended
Software usage data	Configure a connector to collect software usage data and then map the data to one or more software versions.	Optional
Hardware workflow	Create a relationship between a hardware asset and its incidents. Incidents are visible from the Related Items tab of the asset.	Optional
User defined agreements	Add your own agreements to the existing agreement types.	Optional
Product specific settings	If you purchased an additional product, refer to its instructions for configuration settings.	
Run As Accounts	Give the Provance Run As Accounts Service Manager Administrator privileges. This allows non-Administrators to perform certain functions. See "Run As Accounts" on page 2-9.	

Where to begin with the IT Asset Management Pack

When the installation completes successfully you are now ready to begin using the IT Asset Management Pack. Go to the Start menu and launch the Service Manager Console.

The navigation pane on the left hand side of the Service Manager Console contains a series of workspaces representing the various components installed with Service Manager. The Provance IT Asset Management workspace can be identified by the Provance logo and IT Asset Management Pack.

Table 2-2 describes the objects that you should import or create within the IT Asset Management Pack, in the order given, so that you may begin managing your assets.

TABLE 2-2. Objects Required for IT Asset Management

Object	Description	Recommended
Locations	Add locations based on your company's organization, such as cities, buildings, cubicles and racks.	Yes
Organizations	Add organizations based on your company's structure, such as business units, regions and departments.	Yes
Cost Centers	Add cost centers based on your company's financial organization.	Yes
Hardware contracts	Add contracts associated with hardware assets.	Yes
Software contracts	Add contracts associated with software assets.	Yes
Hardware assets	Add hardware assets. These are the items you will manage.	Yes
Software assets	Add software assets to manage SKUs, software titles and licenses.	Yes

Uninstalling management packs

As a product suite, Provance Management Packs can be uninstalled by using the Add/Remove programs feature in Windows XP and Vista, or the Programs, Uninstall a Program feature in Windows 7. Individual products, such as the IT Asset Management Pack, can be removed by running Setup.exe and unchecking them.

WARNING: Uninstalling a product also removes all of its data. Do not uninstall the IT Asset Management Pack before upgrading it or all of your existing data will be lost.

If you have created any new views or performed modifications, you will be required to remove any dependencies prior to uninstalling the software.

With the Software Usage feature, if you have created a connector to Configuration Manager, you should delete the connector before uninstalling Software Usage. The connector is not removed during an uninstall.

To uninstall a product:

1. Close any open Service Manager Console.
2. Run the Provance **Setup.exe** file.
3. Click **Change, Repair or Remove Features of Provance Management Packs for Service Manager**. The Select products to install page opens.
4. Deselect each product or feature that you wish to uninstall, such as IT Asset Management Pack. Do not deselect **Provance Management Packs for MS** Service Manager because it cannot be removed completely using the installer. Only individual products can be removed.
5. Click **Next**. The installer removes the deselected products.

Authoring tool notes

If you have modified any of the Provance forms with the Authoring Tool, your custom management packs are maintained separately. Uninstalling the IT Asset Management Pack Authoring Tool components does not remove any custom management pack files from your computer that you changed with the Authoring Tool.

If you need to uninstall the Authoring Tool itself, first uninstall the Authoring Tool components. This will prevent you from receiving an error when uninstalling the Authoring Tool components. The msi error message you can receive is "`A network error occurred while attempting to read from the file: C:\Windows\Installer\Provance.ITAM.AuthoringComponents.msi`".

If you receive the msi error message while uninstalling the components, because you have removed the Authoring Tool first, manually remove the components as follows:

1. Go to the folder where the Provance.ITAM.AuthoringComponents.msi file is located.
2. At the Start menu, type run and enter `msiexec /x Provance.ITAM.AuthoringComponents.msi /q`.

Run As Accounts

Provance products make use of several Run As Accounts. The Data Management pack uses the Data Management Administration Account, while the IT Asset Management Pack uses the Service Request Default Action Account. Run As Accounts allow non-administrative users to perform Data Management and service request management tasks. For example, a user requires a Service Manager Administrators role in order for the hardware or software Create Request Offering task to complete successfully. If the user does not have the proper role, then the task automatically substitutes a Run As Account. The Run As Account, when given the proper role, can successfully complete the task for the user. However, the Run As Account must be configured with a user who belongs to the Service Manager Administrators role beforehand; it is only preconfigured with the local system account.

To configure a Provance Run As Account with a user:

1. Go to the Administration workspace and select Security>Run As Accounts.
2. Select the Run As Account: Service Request Default Action Account or Data Management Administration Account.
3. In the Tasks pane click **Properties**. The account properties dialog opens.
4. In the Account field, select Windows Account.
5. Enter the Windows Account name, password and domain of a user who belongs to the Service Manager Administrators role. Typically this is the same account as used on the Workflow Run As Account.
6. Click **OK**. The Run As Account is now set up to substitute a user with the Administrators role when needed.

Upgrading the IT Asset Management Pack

To upgrade the IT Asset Management Pack:

Note: Refer to the Readme for the supported upgrade scenarios.

1. Close any open Service Manager Console.
2. Run the Provance **Setup.exe** file.
3. Click **Upgrade Provance Management Packs for System Center Service Manager**. The Select products to install page opens.
4. By default all installed products and features are selected. If you select one that was previously unchecked, it will be installed. You should upgrade every management pack at the same time, even if there is no change to it.

   NOTE: *Deselecting any product or feature on this page uninstalls it.*
5. Click **Next**. A progress bar shows the status and progress of the upgrade.
6. Once the management packs are upgraded, a summary screen appears confirming that the installation was successful, along with links to product documentation, the support community at http://community.provance.com and to additional product information.
7. To exit the installation, click **Close**.
8. After the upgrade, check that the three Service Manager services are running: System Center Data Access Service, System Center Management, and System Center Management Configuration. They may not restart automatically, hence preventing workflows from running.

Authoring Tool components

The IT Asset Management Pack components for the Authoring Tool are used to extend or modify the product with the Authoring Tool. Both classes and forms are included with the components. During installation the IT Asset Management Pack imports everything required for customization into the Authoring Tool. Please note that changing the classes and forms may affect the ability to upgrade the product to a newer version. All changes must be tested independently with each IT Asset Management Pack version. Customized forms and workflows may also impact problem determination and resolution. Any new changes or customizations you perform may only run on this release or higher of the IT Asset Management Pack.

When customizing management packs, copy them outside the Service Manager 2012 Authoring folder. This preserves them if you later uninstall the Authoring Tool.

In terms of reporting, any derived classes and properties will not be sent to the data warehouse unless the management pack is sealed (see Service Manager documentation for any exceptions). It should be noted that standard IT Asset Management Pack reporting will not show any custom fields.

Because the IT Asset Management Pack behaves like any Microsoft management pack under the Authoring Tool, no special processing needs to be performed. Modifying forms, classes and potentially adding additional workflows, may also modify the default behavior of the IT Asset Management Pack and its usage documented in the IT Asset Management Pack User Guide and online help.

The Authoring Tool use and best practices are documented in Microsoft's online help, User Guide and blogs.

License administration

Provance products can run in two modes: Evaluation and Commercial License. An evaluation license enables you to leverage a fully functioning copy of the software for a period of time. After the evaluation period, you can no longer access its functionality until you purchase a commercial license; however, the data remains in place. For more information on managing Provance IT Asset Management Pack licenses, please see the Licensing section of the IT Asset Management Pack User Guide. For information about purchasing a commercial license, please go to www.provance.com.

3 Importing Data from Third Party Systems

You may have asset data in one or more external systems in your organization and wish to import that data for use with the Provance IT Asset Management Pack. Information can be easily imported using CSV data files. Service Manager provides the ability to import data into the database through the **Import from CSV** file feature. Provance also provides the ability to import data from a variety of sources, such as csv and a SQL database, using the Data Management Pack. For more information on importing configuration item files using the Service Manager **Import from CSV** utility, refer to the Service Manager documentation.

NOTE: *Large data files may take more time to import.*

Sample data

Provance provides sample data to be used with the IT Asset Management Pack. You can use the sample data as is, or leverage the format of the sample files to create your own data.

Sample data can be downloaded from the Resources section of the Provance support community at http://community.provance.com.

4 Troubleshooting Tips

Installation log

If you encounter issues during the installation, view the installation log from the Install wizard or open the log in a text editor. The installation log file, ProvanceITAMSetupXX.log, can be found in the TEMP directory, as defined in your system variable. System administrators can easily locate the log file by typing CD %TEMP% at a command prompt, or by typing SET at a command prompt to view the TEMP variable directory setting.

Review the installation log for additional details that may have occurred during the installation process.

Missing data in reports

Some reports may appear to be missing data. This may occur if the Service Manager data warehouse has been synchronized prior to the installation of the IT Asset Management Pack. As data is updated, it will be updated in the data warehouse and appear in IT Asset Management reports.

Adding custom picklist or drop-down values

The IT Asset Management Pack has business and validation rules as well as workflows that depend on out-of-the-box values in drop-down picklists. These rules and workflows do not leverage any additional picklist values that may be added when customizing the solution.