

Portrait Foundation



5.0 Update 4 Release Notes

21 August 2017



 **Pitney Bowes**
Software



Portrait Foundation 5.0 Update 4 Release Notes

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Portrait Software enables organizations to engage with each of their customers as individuals, resulting in improved customer profitability, increased retention, reduced risk, and outstanding customer experiences. This is achieved through a suite of innovative, insight-driven applications which empower organizations to create enduring one-to-one relationships with their customers.

Portrait Software was acquired in July 2010 by Pitney Bowes to build on the broad range of capabilities at Pitney Bowes Software for helping organizations acquire, serve and grow their customer relationships more effectively. The Portrait Customer Interaction Suite combines world leading customer analytics, powerful inbound and outbound campaign management, and best-in-class business process integration to deliver real-time customer interactions that communicate precisely the right message through the right channel, at the right time.

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About this document

Purpose of document

This document describes the contents of what has changed in this release compared with the previous release (version 4.4).

Intended audience

Anyone interested in using, installing or tracking the development progress of Portrait Foundation.

Portrait Foundation

Portrait Foundation is a set of tools and assets that are used to build Portrait applications. The tools include:

- Configuration suite – The configuration suite is an application that allows users to create, edit and deploy configuration. The configuration defines business entities, their relationships, the processes that affect them and the applications that manage them.
- Diagnostic tools – Diagnostic tools are provided to examine running processes and detect errors.

The assets include:

- Configuration – Foundation provides readymade configuration assets that define a broad range of functionality that includes: A Contact Centre application, Task management, Case management and a number of supporting processes.
- Web collateral – Foundation provides web pages, transforms and other web collateral required to deliver the application functionality defined in the configuration (e.g. Contact Centre).

Software release

Portrait Foundation 5.0 Update 4

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1 Release Overview

Foundation 5.0 introduces an all new Configuration Suite using the latest technologies. Providing users with some key productivity improvements and a new attractive, coherent, familiar look and feel; more like a Microsoft Office application than a development environment.

In addition to these all bug fixes released as updates to Foundation 4.4 (up to and including Update 5) have been rolled up into this release.

1.1 Highlights

1.1.1 Platform update

A platform update driven by the advancement of underlying Microsoft technologies.

- Support for SQL Server 2016.
- Support for Windows Server 2012 R2 and Windows 8.1.
- Foundation product built using Visual Studio 2012 and .NET v4.5.
- Configuration Suite support for Team Foundation Server 2012.

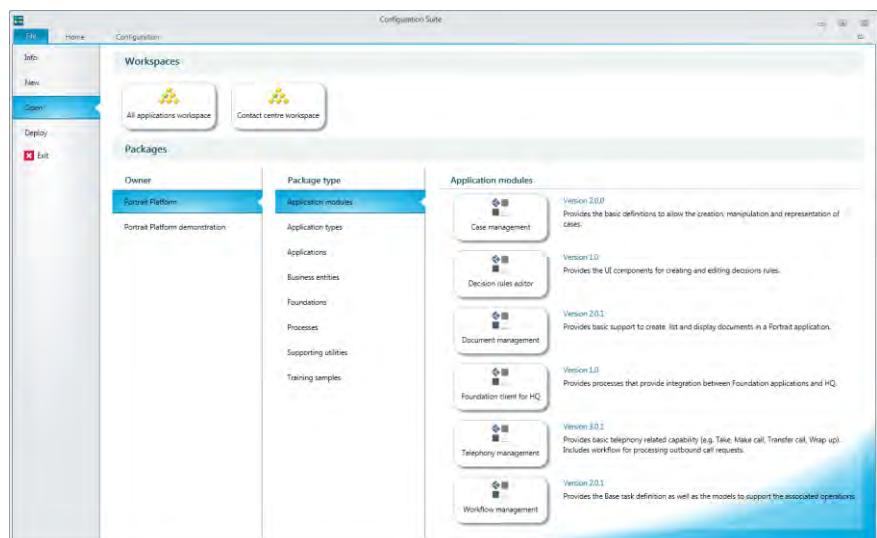
1.1.2 New Configuration Suite

The new Configuration Suite provides the following productivity improvements:

- Improved load times.
- Better package navigation; only one Configuration Suite needs to be open.
- New editors with in place editing.
- Consistent presentation of features and functionality using Microsoft Office style ribbons.
- Clearer view of package contents and hierarchy.

A new way to configure

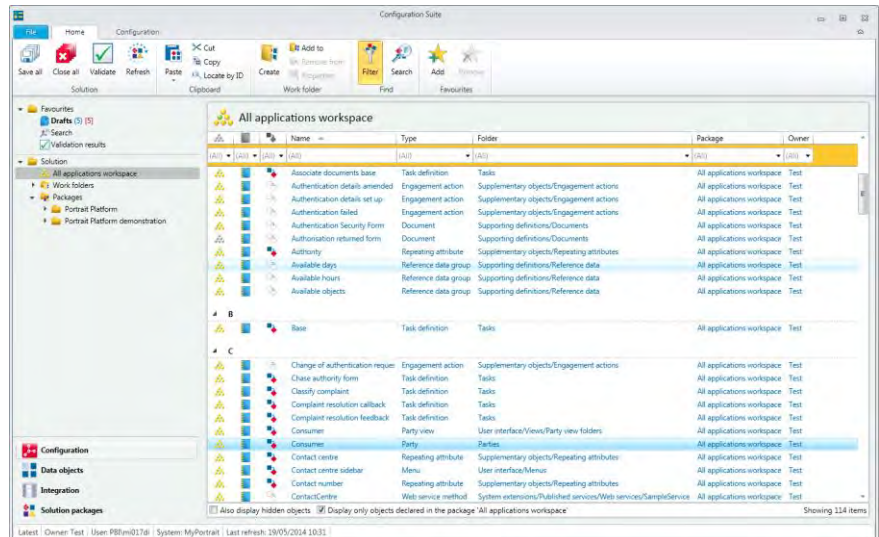
Open the workspace as the solution and have full access to edit any object in any package you own without the need to open another Configuration Suite.



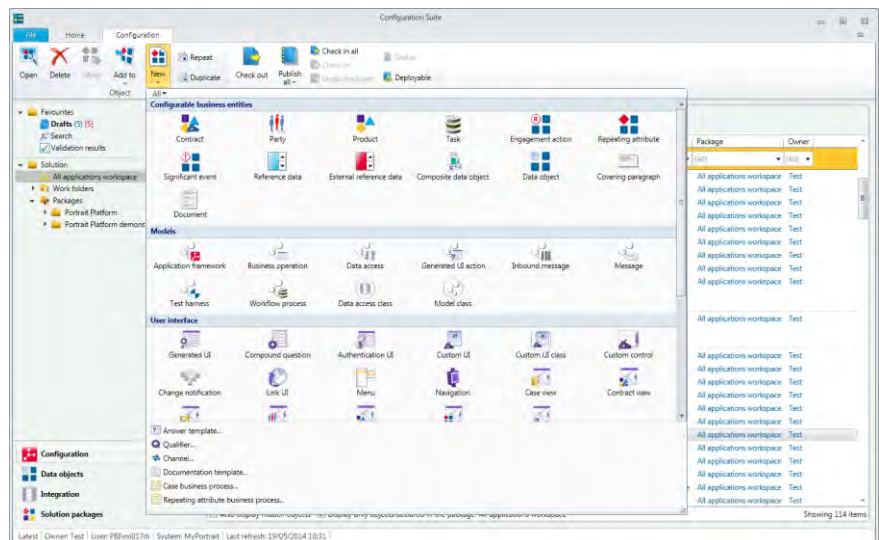
It is recommended that users always use the Workspace as the solution. This makes it a lot easier to navigate around the packages referenced by the workspace and also ensures referential integrity. So once you have opened a workspace, the same workspace will be automatically opened the next time you log on.

Configuration task view

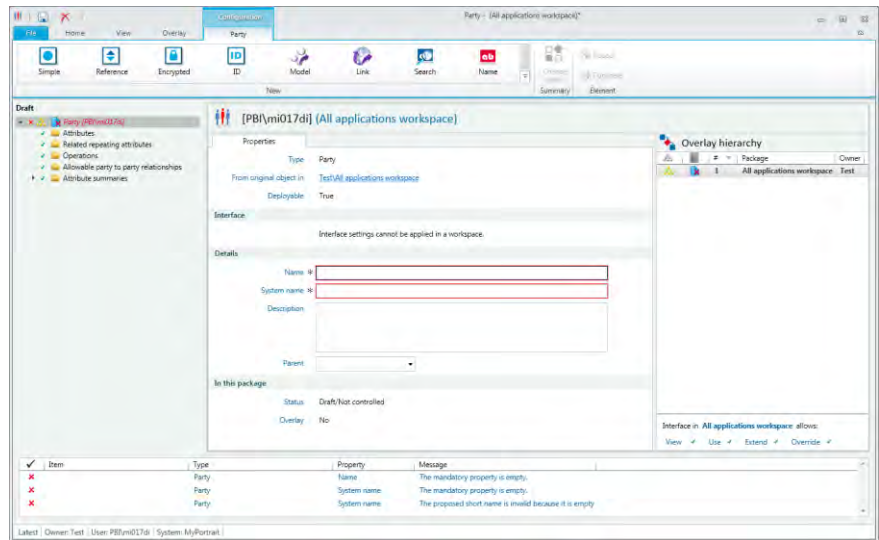
The navigation tree has been replaced with a flat view of all configuration objects within the selected solution package. Improved filtering options provide a simple way of finding the object you want to edit. The favourites view provides quick access to drafts, work folders and any other frequently used packages.



New objects can easily be created from one place.



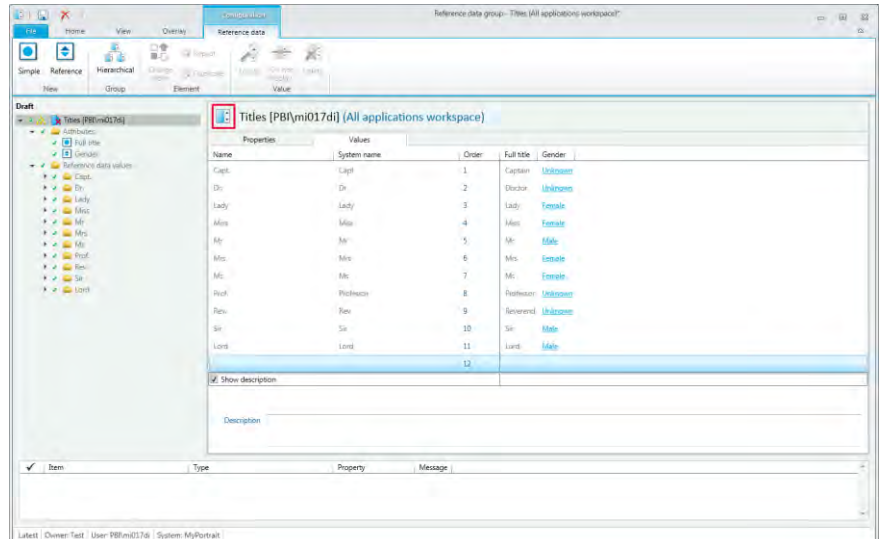
Every object has its own editor window, with in place editing. The ribbon uses context tabs to provide the relevant actions based on the node selected in the editor navigation tree. An overlay hierarchy view helps to visualise where the object originates from and where it has been overlaid. The validation message view provides real time feedback on the state of the object being edited.



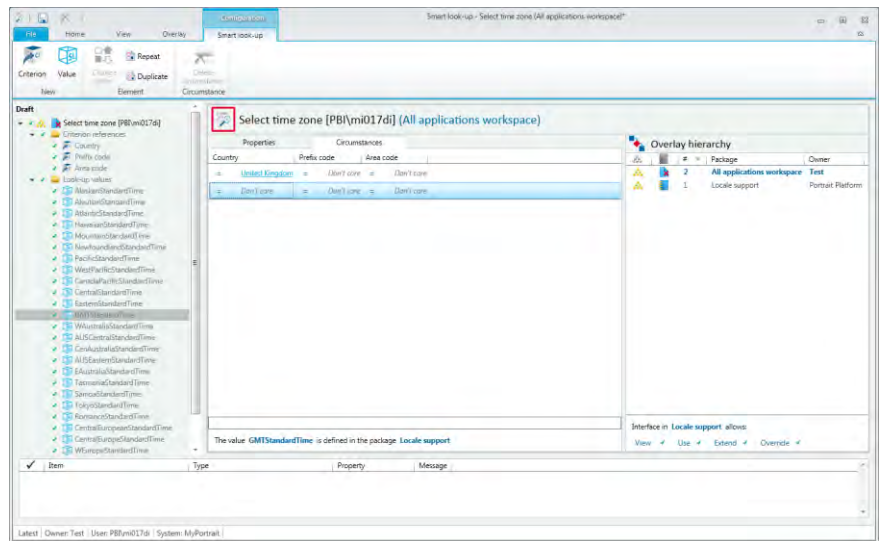
New editors

Some of the original editors (mappings, scripts, generic data access, generic web service access, batch load, view builder) are still utilised, but the following new editors have been introduced.

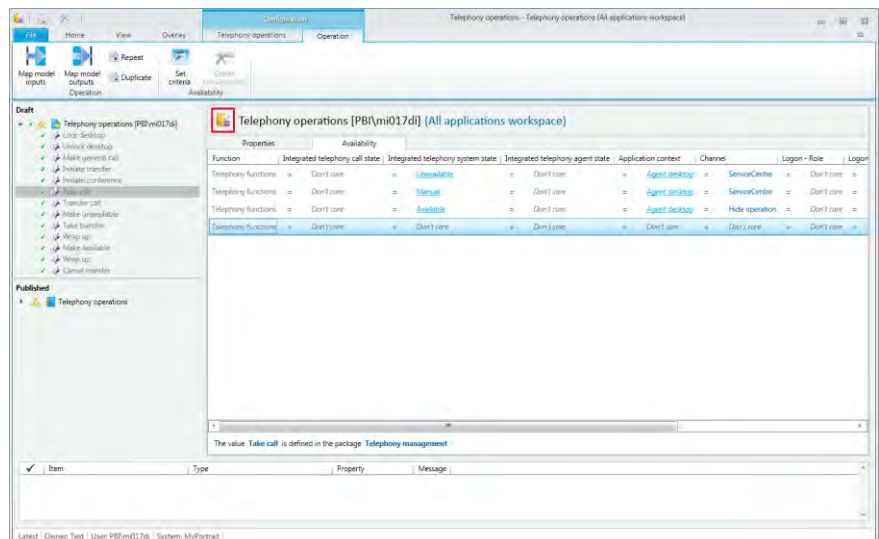
Reference data



Smart look-up

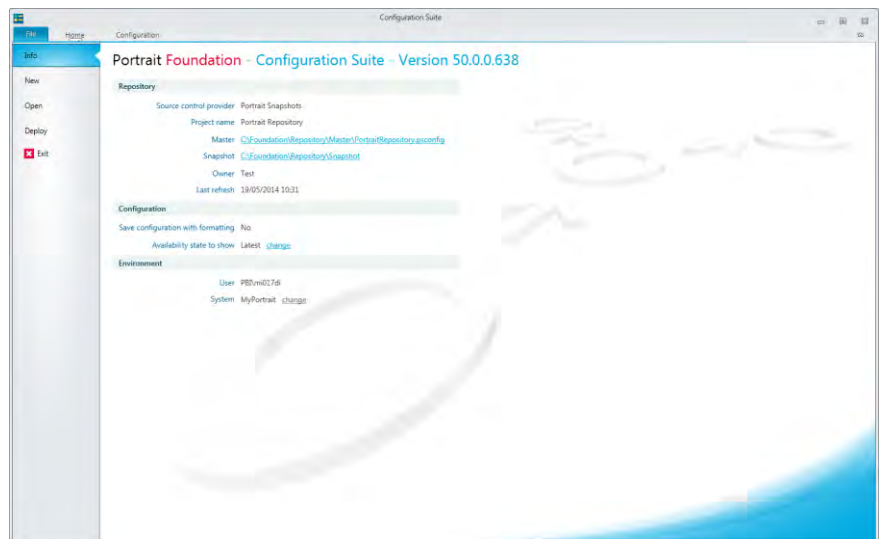


Availability criteria (including task allowability)



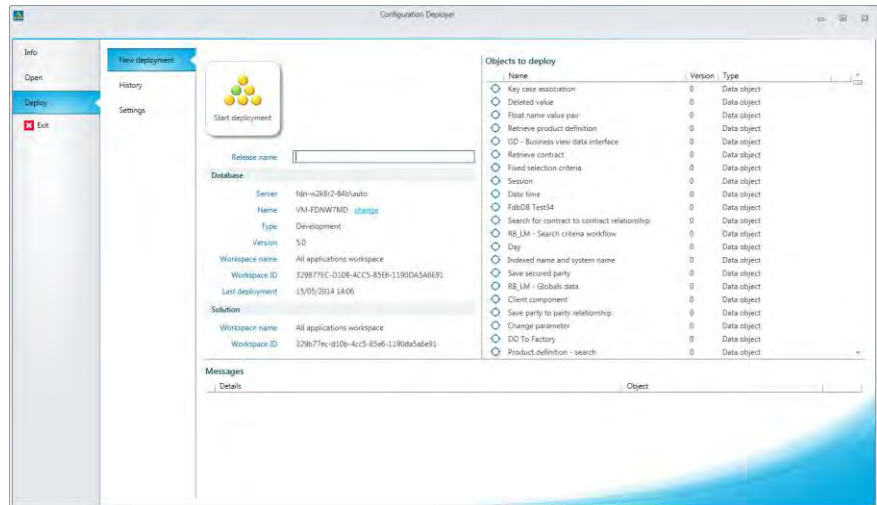
Info view

The information view provides details about the current configuration repository along with options to change the System and Availability state.



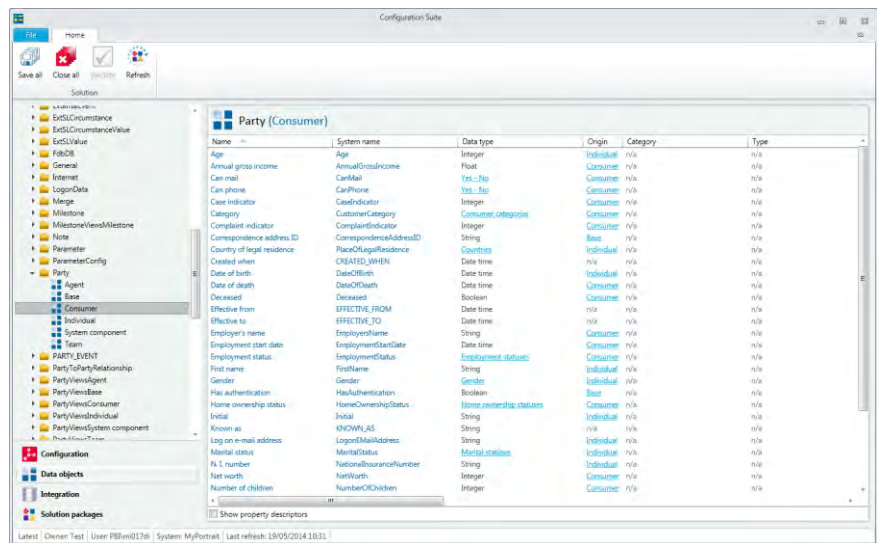
Deploy view

The deployment process has been simplified, with the four page wizard being replaced with one click deployment.



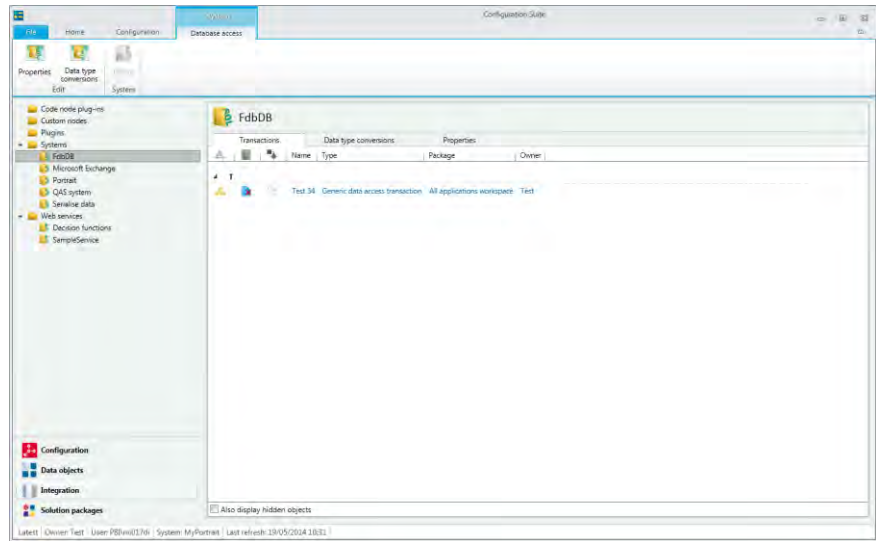
Data objects task view

New improved data object browser, which includes better visualisation of hierarchical data object properties. It also offers better navigation to directly access the object you want to edit.



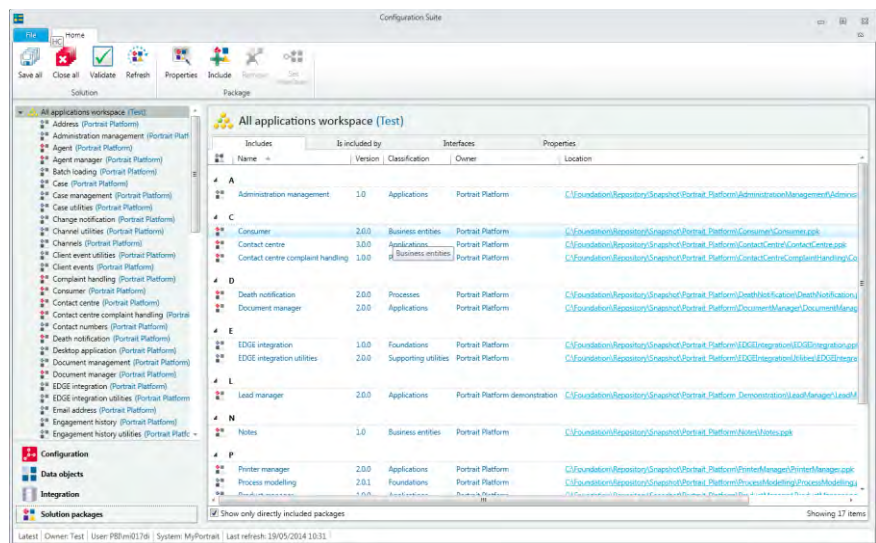
Integration task view

The integration task view provides access to objects that are not version controlled (e.g. folders, systems and web services). You can manage the objects you own and even delete them.



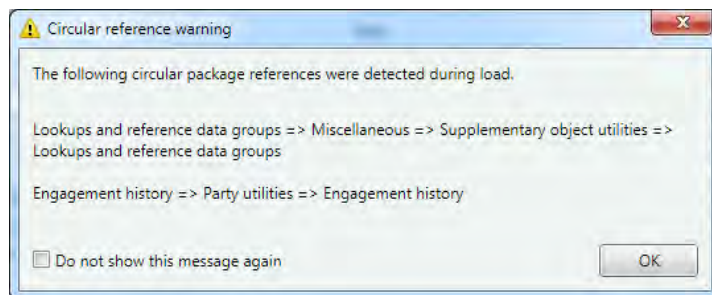
Solution package task view

This view provides the ability to manage the properties and includes of every package in the solution.



Validation

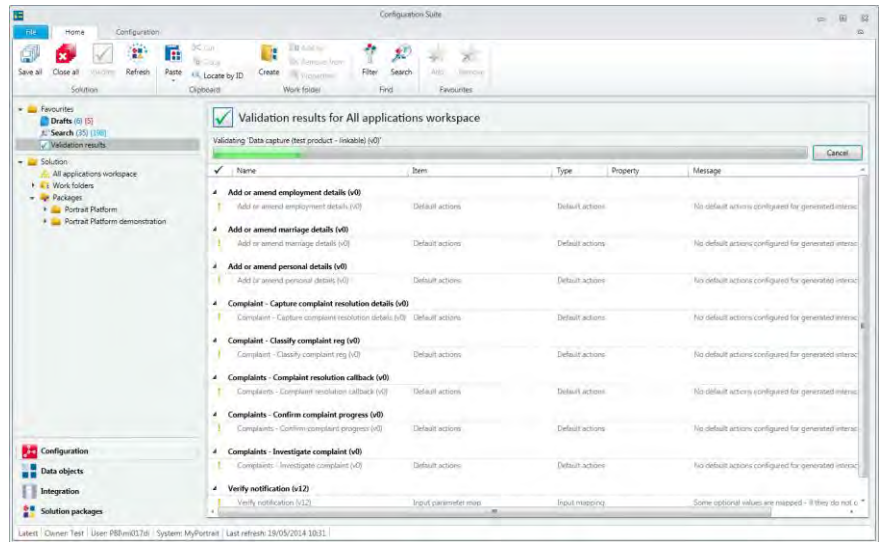
A circular reference warning has been introduced when the solution is first loaded.



This message can be suppressed, but these warnings will always be added to the Application event log. The following registry key value can be changed to reinstate the warnings at any time.

[HKEY_CURRENT_USER\Software\PST\Portrait\ConfigSuite]
 "SuppressCircularRefsMsg"=dword:00000000

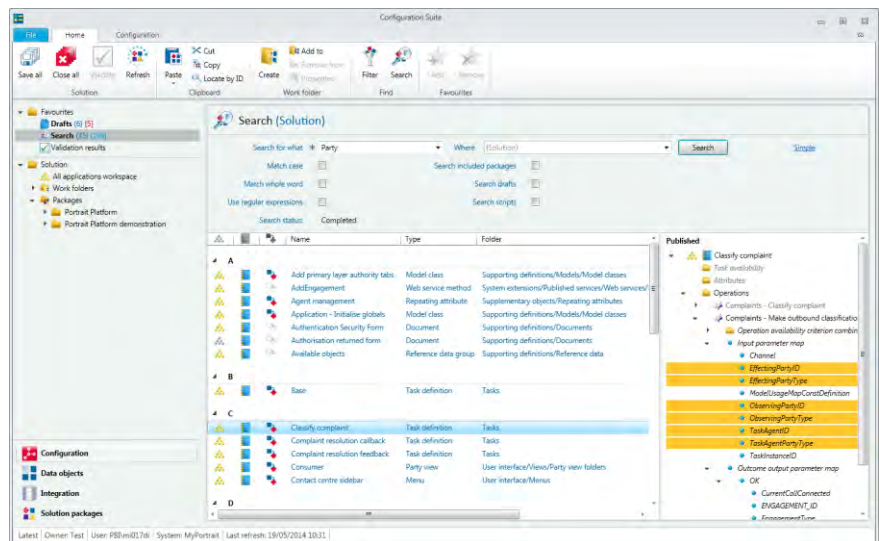
Package validation has improved performance and better user feedback. Users can also choose to validate the contents of drafts and individual work folders.



The uniqueness constraint validation is now correctly applied across all objects and items. All "Portrait Platform" packages have been updated to fix the circular references shown above and a handful of non-unique system names. Customers will be required to resolve any similar issues.

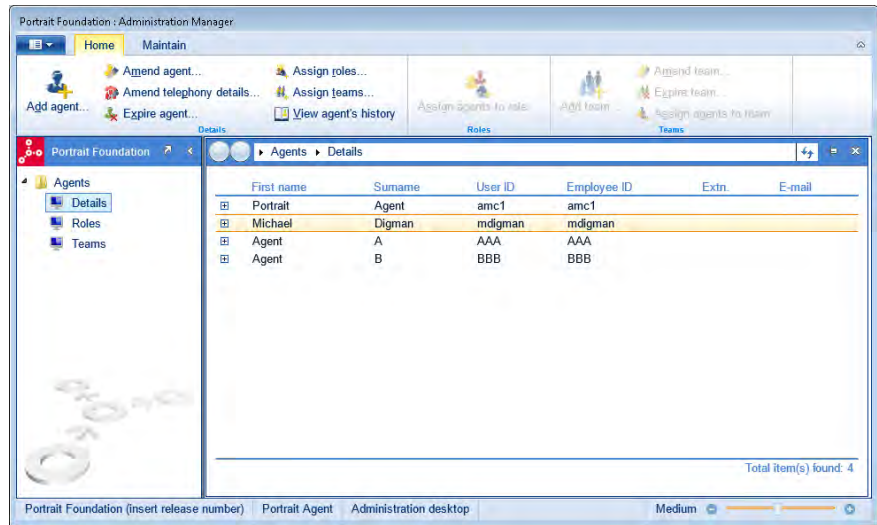
Search

The search feature has been enhanced to provide better search results and drill down capability. It is now even possible to search the content of scripts.



1.1.3 New Administration Manager

A new Administration Manager application has been introduced that makes use of the new Generic Desktop 2 layout. This replaces the old style Agent Manager.

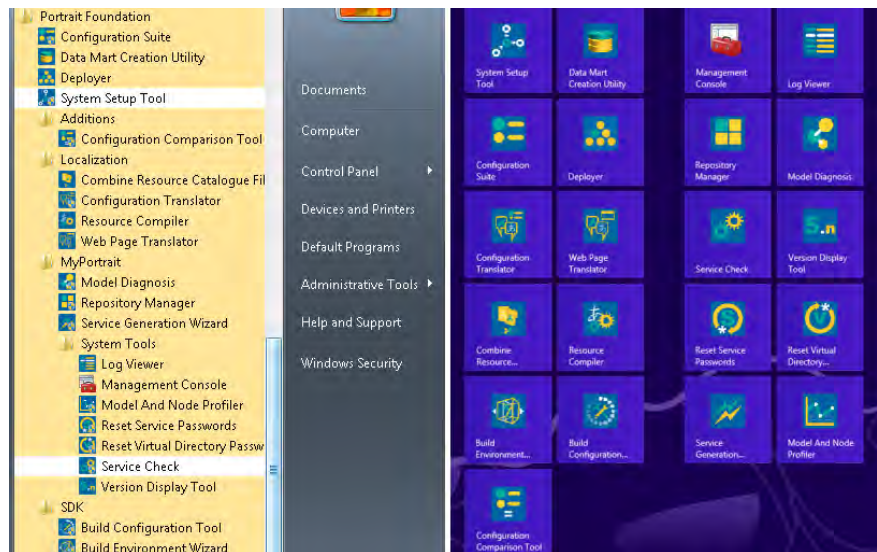


There is a new Portrait Platform package “Administration Manager” which provides the relevant ribbon menu items and web assets. This application is included in the “All Applications workspace” and implementation install. For details on how to set this up, please refer to *Portrait_Quick_Install_Guide.pdf*

1.1.4 Core Software install

The application shortcuts have been refreshed. All of the icons have been updated and the location of some of the applications has changed. The following applications are no longer tied to a Foundation System:

- Configuration Suite
- Deployer
- Data Mart Creation Utility



The Foundation SDK install has been moved into the Core Software installation. It is not included as part of the Typical install, so a Custom setup is required. The Portrait Foundation SDK Templates are now integrated into the Visual Studio Extensions and Updates.



For more details, please refer to *Portrait_Installation_Guide.pdf* and *Foundation_SDK_User_Guide.pdf*

1.1.5 Database

There have been a number of improvements to the Foundation database schema.

- To improve performance, some additional indexes have been introduced along with some enhancements to the purge jobs.
- By default, Foundation database stored procedures are no longer encrypted. This makes it easier to support customer implementations.
- It is now possible to disable the triggers used to populate the data mart. This is useful for small implementations that have no requirement for MIS reporting.
- The use of deprecated SQL Server data types have been replaced to use the updated data types:
 - IMAGE → varbinary(max)
 - TEXT → varchar(max)
 - NTEXT → nvarchar(max)

Support for BigInt's within the Foundation C# SDK has been reviewed and the following components have been enhanced.

- "Save large object" data access transaction
- "Retrieve large object" data access transaction
- AIT.Portrait.Data.DBEncryptedID

BigInt support has also been added to the Batch Load Framework.

1.1.6 Updates to jQuery

The jQuery libraries originally introduced in the 4.3 release have been upgraded. These plug-ins are used by Portrait Foundation ASP.NET applications to provide **an enhanced** "Rich Internet Application" experience. The latest versions provide bug fixes and better support to newer versions of Internet Explorer.

Plug-in	4.3 version	4.4 version	5.0 version
jQuery	1.5	1.6.2	1.9.1
jQuery-ui	1.8.9	1.8.14	1.10.3
jQuery-validate	1.7	1.8.1	1.11.1
jQuery-json	-	2.3	2.4
jQuery-maskmoney	0.2	1.3	2.1.2
jQuery-blockui	2.33	2.39	2.57

Customers making use of these libraries will have to update their implementation installs in line with these changes.

1.1.7 Documentation

A number of the Portrait Foundation documents have been updated including

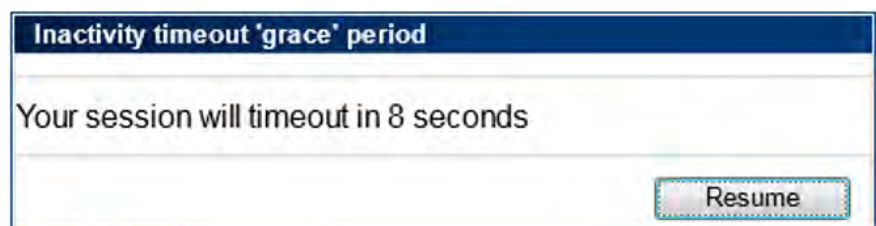
- *Database Administrators Guide*
- *Host Integration Framework User Guide (new)*
- *Installation Guide*
- *Operations Guide*
- *Software Development Kit User Guide*
- *Telephony Client Integration (new)*

Please refer to *Document_Index.pdf* for other updates.

1.1.8 Session timeout

A session timeout feature has been added as part of Update 4 that allows an administrator to turn on the ability for Portrait client applications to require re-identification after a configurable timeout period.

If the timeout functionality is enabled and the inactivity timeout period has elapsed, the user will see the following message and the seconds will countdown from the grace period to zero.



If the user has not selected to resume before the countdown reaches zero the application will be locked and the user will be presented with the logon screen.

Virtual directory Web.config settings

The functionality is administered in the *<AIT.Portrait.Web>* section of the Application Centre virtual directories Web.config file, where the following keys are now available:

- CheckForInactivityTimeout – **'true'** to turn on the timeout functionality, **'false'** to not have a timeout.
- InactivityTimeoutPeriodInSeconds – Period before timeout notification occurs.
- InactivityTimeoutGracePeriodInSeconds – Time allowed to respond to timeout warning.
- InactivityTimeoutProcessingOperation – Operation that is triggered after the timeout has expired.

There are further explanations of these keys within comments in the Web.config file itself.

```
<!--This setting determines whether we check for inactivity from the user -->
<add key="CheckForInactivityTimeout" value="false"></add>
<!--This defines the period in seconds before we will prompt the user to response
before we launch the InactivityTimeoutProcessingOperation -->
<add key="InactivityTimeoutPeriodInSeconds" value="300"></add>
<!--This defines the period in seconds we will wait for the user to respond to the
prompt reminding them they are about to have action taken for inactivity -->
<add key="InactivityTimeoutGracePeriodInSeconds" value="30"></add>
<!--This defines the operation that is started after
InactivityTimeoutPeriodInSeconds has expired. This model may use
InactivityTimeoutGracePeriodInSeconds as the period it will allow the user to resume
without penalty -->
<add key="InactivityTimeoutProcessingOperation" value="Timeout"></add>
```

Application specific settings

The session timeout functionality can also be enabled or disabled on a per application basis. This is achieved by setting the following parameter in your applications .HTA file to true or false depending on whether you require the ability for sessions to timeout or not.

```
frames["TimeoutFrame"].SetInactivityTimeoutSupported(true);
```

This overrides what you have set in the virtual directories Web.config file in that **even if the CheckForInactivityTimeout is set to "true"** in Web.config, the functionality will not appear in an application that has a **SetInactivityTimeoutSupported** flag set to false.

By default, the **SetInactivityTimeoutSupported** flag is set to true in the Contact centre applications:

- AIT_HRZ_ContactCentre.hta
- FDN_ContactCentre.hta

However it is set to false in all the other applications.

Configuration changes to support session timeout

An example of how this functionality is implemented in the configuration can be found in the Showcase Repository by looking at the following items:

- Agent (Party) – A new operation called 'Timeout' has been added.
- Timeout (BOM) – New BOM triggered from the 'Timeout' operation.
- Timeout Dialog (CI) – New CI contained in the 'Timeout' BOM.

1.2 Known Issues

The following issues have been identified during testing of this release. For information on other product related issues please contact Portrait Support.

1.2.1 MSI Implementation install "Error 1309.Error reading from file:" (KB: Q11747)

While running the Portrait Foundation SDK generated MSI Implementation install from a network drive it fails to copy some files, reporting "Error 1309.Error reading from file:". This is due to the maximum path length limitation of 260 characters that exists in Microsoft Windows and will occur if the path to the Foundation Release image is longer than 50 characters.

To resolve this problem simply map a drive to the network path to reduce the length and run the install from this mapped drive.

1.2.2 Telephony access denied exception (KB: Q11743)

Customers may experience Access denied exceptions when running telephony related operations if requests are passed to IIS from the same machine using different versions of IP address (IPv4 & IPv6). Customers are responsible for managing their network infrastructure to ensure that the same IP address is always used.

This problem can be resolved by turning off client IP address checking in the Security tab under Session Management Properties in the Portrait Foundation Management Console. However, changes to these settings will increase the potential risk of a Replay attack.

1.2.3 Installation problems with .NET 4.0 and IIS (KB: Q11745)

Unexpected errors were experienced when launching the Foundation .NET applications after upgrading the Web Servers to the .NET 4.0 Framework. If you encounter any such problems, try re-installing by running:

```
%SYSTEMROOT%\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -i
```

1.2.4 Foundation SDK web controls (KB: Q11746)

Certain Foundation web controls (e.g. Label) may not render correctly in Visual Studio Design Mode. For the Security Update introduced in 4.2 SP2 Update 1, the Foundation SDK Visual Studio project templates were updated to include the Microsoft Protection Library (v4.0). If you are having this problem, existing web project references should be updated to include "HtmlSanitizationLibrary.dll" **which can be found under** "\\Foundation SDK\Development Environment\dotNET\Portrait Framework". **You may also need to recompile** the project.

1.2.5 Portrait Foundation specific Process performance counters

It is difficult to locate the Portrait Foundation **specific 'Process' performance** counters as they have not been customised. They are currently installed under the 'Process' performance object. They do not have Portrait specific names, but **are listed as** "HostU#1, HostU#2....svchost#1, svchost#1".

1.2.6 Queued requests on single-core machines

Web server requests seem to get queued if a process takes a long time to complete. For example if it takes a long time for the Business View to populate in the Contact Centre application, any operation selected will not start until the long

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running process completes. This issue only occurs on machines with a single-core processor. The installation guide section 2.1 recommends that Portrait Foundation runs on machines with a dual-core processor at minimum.

2 Release Management

2.1 Supported platforms

Process, Web and Telephony servers

- Microsoft Windows Server
 - 2012 R2 Standard Edition or higher
 - 2012 Standard Edition or higher
 - 2008 R2 (SP1) Standard Edition or higher

Supported on either 32-bit or 64-bit versions.

- Microsoft .NET v4.5
- Microsoft Internet Information Services
 - IIS 8.5 on Microsoft Windows Server 2012 R2
 - IIS 8 on Microsoft Windows Server 2012
 - IIS 7.5 on Microsoft Windows Server 2008 R2

Database server

- Microsoft SQL Server
 - 2016 Standard or Enterprise Edition
 - 2014 Standard or Enterprise Edition
 - 2012 (SP1) Standard or Enterprise Edition
 - 2008 R2 (SP2) Standard or Enterprise Edition

Supported on both 32-bit or 64-bit versions and either case-sensitive or case-insensitive master databases. Note however, that the Portrait Foundation database must still be case-insensitive.

Client and Development machines

The following versions of Microsoft Windows operating systems are supported.

- Windows 8.1
- Windows 8
- Windows 7 SP1

Supported on either 32-bit or 64-bit versions.

The following versions of Microsoft Internet Explorer are supported by all Portrait Foundation applications.

- 8, 9, 10 & 11

3rd Party integration

Telephony client integration

- Genesys 8 Server via Genesys v8 Voice Platform SDK

Telephony server integration

- Genesys 7.6 Server via Genesys v7.2 SDK

Address lookup integration

- QuickAddress Pro API v6.1

Development software

Configuration Suite integration to Microsoft TFS requires:

- Microsoft Team Foundation Server 2012 or 2010 (SP1)
- Microsoft Visual Studio Team Explorer 2012 (minimum)
- Microsoft Team Foundation Server 2012 MSSCCI Provider (32-bit)

Configuration Suite integration to ClearCase requires:

- IBM Rational ClearCase v7.1.2

The Foundation SDK requires:

- Microsoft Visual Studio 2012 Update 4 (Professional, Premium or Ultimate)

NB: Support for older versions may be removed in the next release. Please see Section 2.4.2 3rd Party Software Support for more details.

2.2 Upgrading to this release

Customers should first upgrade to Release 4.4 (or above). For more details, please refer to *Portrait_Upgrade_Guide.pdf*

Customers wishing to make use of Client Events may need to change the Firewall configuration on all Windows clients. For more details, please refer to section 3.2.3 in *Portrait_Installation_Guide.pdf*

2.3 End of Life Features

2.3.1 Previous Foundation versions

The Foundation end of life support policy requires support for two major releases. Currently supported are Foundation versions 4.x and 5.x. For the Foundation 5.0 release, releases prior to the 4.x releases are no longer supported.

2.3.2 Smart Client Applications

Support for Portrait Foundation Smart Client applications has been removed. The old Product Manager and Strategy Manager applications are no longer supported.

The following assemblies have also been removed from the SDK

- Removed AIT.Portrait.Windows.Forms.dll
- Removed AIT.Portrait.Windows.Forms.Resources.dll
- Removed AIT.Portrait.StoredProcedures.dll

2.3.3 Portrait Interaction Optimizer 2.x

With the withdrawal of support for Smart Client applications, previous versions of Portrait Interaction Optimizer 2.x are also no longer supported. Please contact Portrait Support for details on how to migrate to Portrait Interaction Optimizer 5.x.

2.3.4 SDK Build Environment Non-MSI installs

The Software Development Kit has now been incorporated into the Core Software install and the old style (Non-MSI) implementation installer has been removed. Customers can maintain their old (Non-MSI) implementation install, but it will no longer be supported by Pitney Bowes. It is therefore recommended that customers migrate to the new MSI Implementation installer.

2.3.5 Portrait Foundation Answer Files

With the introduction of the new Core and Implementation MSI installers, Answer Files are no longer supported. Automated installs are now supported using standard MSI command line parameters.

2.3.6 Configuration assets

In the release notes for 4.2 SP1 it was announced that the following configuration assets would be removed from the product and that this would be the last release they were shipped with.

- Printer manager (Portrait Platform: Applications)
- Death notification (Portrait Platform: Processes)
- Complaint handling (Portrait Platform: Processes)
- Contact centre complaint handling (Portrait Platform: Processes)
- Lead manager (Portrait Platform Demonstration: Applications)

They are still included in this release. If you make use of these assets, it is recommended that you transfer ownership of these packages into your own repository. As these assets are no longer supported they may be removed in any future release.

2.4 Deprecated Features

This release deprecates a number of components, which *are all still supported*, but will not be further developed and support for which *will be removed* from the product in a future release. These include:

2.4.1 Portrait Telephony Server

Customers should be aware that the Genesys 7.2 TLib has been 'End of Life'd.

The Portrait Telephony Server is still supported with the release, but will only support Genesys 7.6 Server. After the next major release of Portrait Foundation, support for the PTS will be removed. Customers wishing to use Genesys 8 should migrate to the new client-side telephony integration. For further details please refer to *Telephony_Client_Integration.pdf*.

2.4.2 3rd Party Software Support

To make our 3rd party software support strategy more transparent across all **Portrait products we have come up with some "Guiding Principles"**. These are the **basic "rules"** used for determining which 3rd party products should be supported by each new Portrait release. The following principles are used to determine which versions of 3rd party products are supported by Portrait products.

- A new Portrait **release will be supported on the most recent "full" version of a product.**
Exception: If a new 3rd party product version becomes available shortly before the Portrait product GA there may not be time to fully test it. In this case, the 3rd party product version will be supported from the next Portrait release.

- A new Portrait release will only be tested on the latest version of a 3rd party service pack or update. Customers are strongly advised to upgrade to the latest platform service packs when upgrading to a new Portrait release.
- Any new Portrait product release will not be supported on 3rd party products for which mainstream support is no longer available.
- Support for newer versions of 3rd party products will be introduced only in full releases of Portrait products, not in updates or patches.
- For older Portrait product releases where a 3rd party product version has gone out of support, we will continue to support a customer on a best-efforts basis should an issue arise. However, the customer will be encouraged to upgrade to a newer version of the Portrait product that can be used with an in-support version of the 3rd party product.
- If a customer on an older version of a Portrait product wishes to upgrade a 3rd party product not supported by that Portrait version, the customer must upgrade to a later Portrait version that supports that 3rd party version.
- There is a goal to support no more than two different versions of a 3rd party product, even if there are multiple versions concurrently supported by that 3rd party. When a new version of a 3rd party product is released and the Portrait products start supporting it, an older version will get dropped to maintain the level at two versions.

For specific details on Microsoft's support lifecycle please refer to <http://support.microsoft.com/lifecycle/search/default.aspx>.

SQL Server 2008 R2

This release supports 4 versions of SQL Server. So in line with the policy above, support for SQL Server 2008 R2 may be withdrawn in the next release.

Windows Server 2008 R2 and Windows 7

This release supports 3 Windows Server versions and 3 Windows client versions. In line with the policy above, support for Windows Server 2008 R2 and Windows 7 may be withdrawn in the next release.

Internet Explorer 8 and 9

This release supports 4 versions of Internet Explorer. In line with the policy above, support for Internet Explorer 8 and 9 may be withdrawn in the next release.