blueprism®

Software Robots - the Virtual Workforce

Blue Prism

RELEASE MANAGER GUIDE

Version: 0.1

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Contents

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1.   Introduction

This guide is aimed at those individuals within the Robotic Operations Team that are looking to utilise the Release Manager utility within Blue Prism. The guide will cover the following topics:

- How to navigate to the Release Manager area of Blue Prism
- Exaplins the modules and functioanlty within Release Manager
- Create, Edit and Import a new package using the Package Manager Wizard
- Create,Import and Verify a release using the Release Maanger Wizard

Blue Prism's Release Manager

Blue Prism contains a mechanism by which components making up the configuration of Blue Prism can be transferred between different Blue Prism environments.
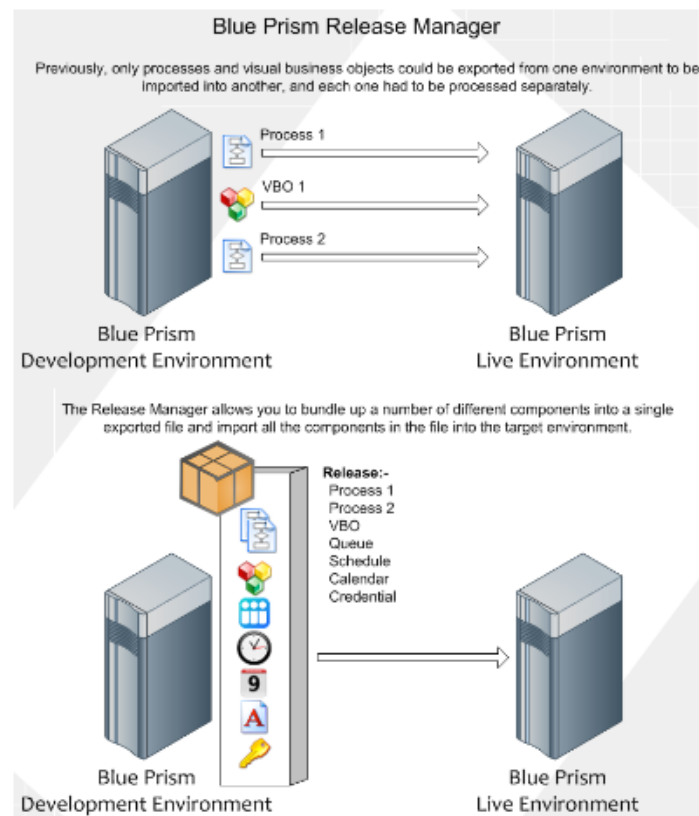

Figure 1: Components of Release Manager

The Release Manager functionality

- Provides a tool for managing the import and export of configuration packages (e.g. processes and instructions) between environments
- Provides visibility of the packages that have been created elsewhere and imported (versus created within this environment)
- Provides the capability to manage updates to either new or existing processes across the appropriate environment

The Release Manager interface is located directly off the welcome screen, and it can be reached at any time within the Blue Prism client by choosing Release Manager in the Go To list on the left of the client window.
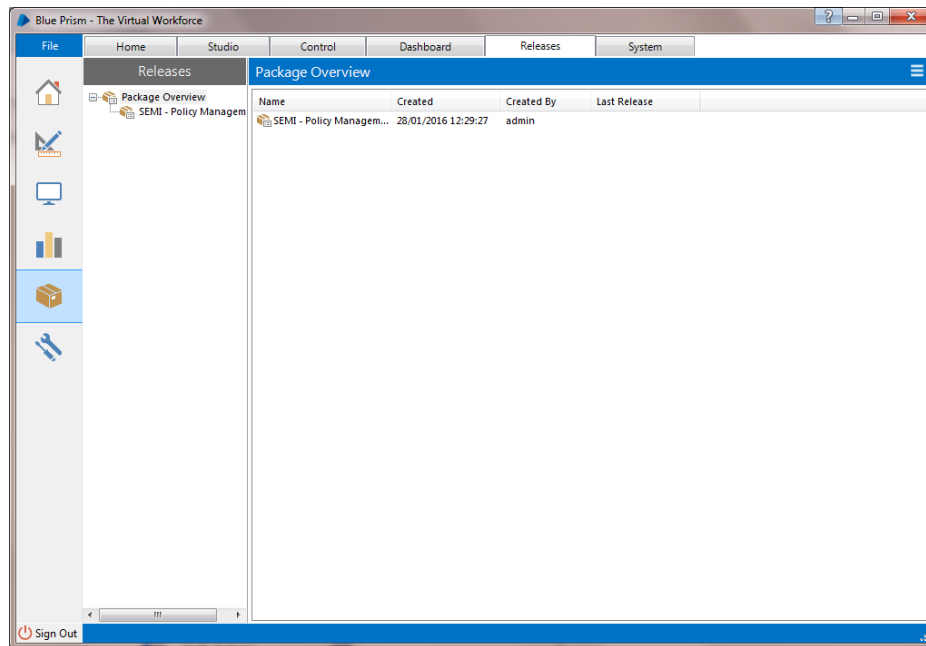

Figure 2: The Blue Prism Release Manager

From this interface, you can create, delete and modify packages, and create, import and verify releases, as well as view details of previously created and imported releases.

The Release Manager allows bundles of components to be defined as a 'package'. The created package can then be exported into a file as a 'release'.

Release Manager Tree

The tree on the left of the Release Manager panel is made up of all the packages registered in the current environment, and any releases related to those packages, whether they have been created within this environment or imported from a different environment.
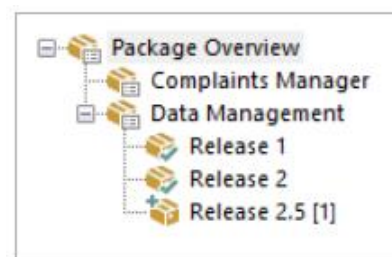

Figure 3: Release Manager Tree

The releases created from this environment are symbolized within their icons by a green arrow pointing from the closed parcel to the outside of the icon.

Figure 4: Releases Created

Releases imported into this environment instead contain a blue arrow pointing from outside the icon to the box.
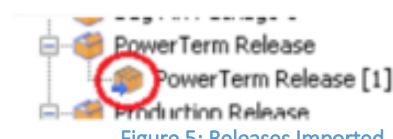

Figure 5: Releases Imported

On entry to the Release Manager, or if the root entry of the tree is selected, the Package Overview is displayed in the detail pane on the right of the client.
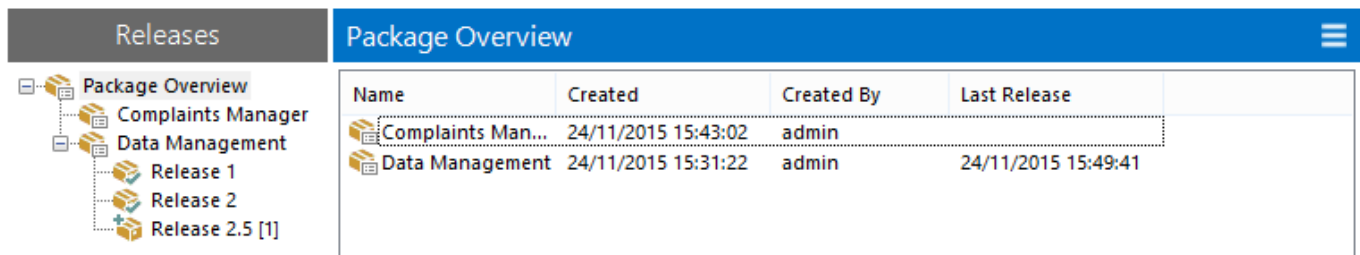

Figure 6: Package Overview

When a package is selected in the tree, or a package is double-clicked in the package overview, the Package Details panel is displayed in the detail pane.
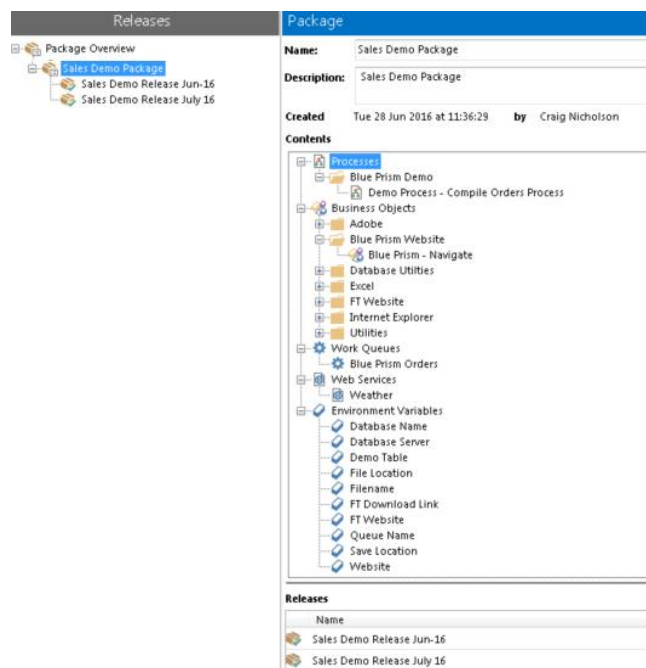

Figure 7: Package Details

When a release is selected in the tree, or a release is double-clicked in the package details panel, the Release Details panel is displayed in the detail pane.
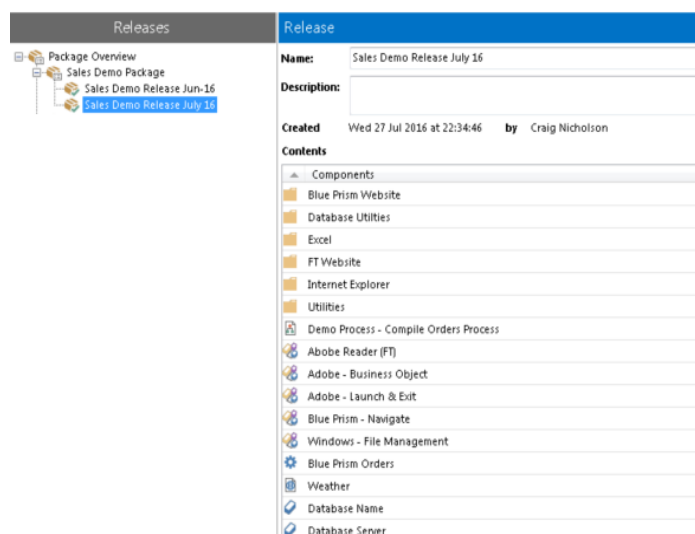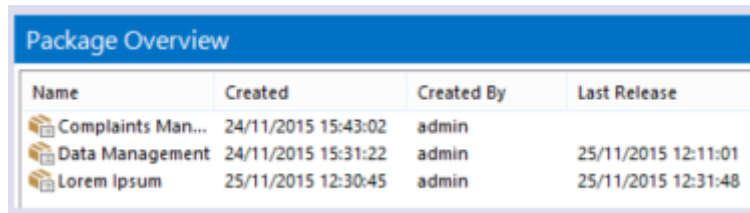

Figure 8: Release Details
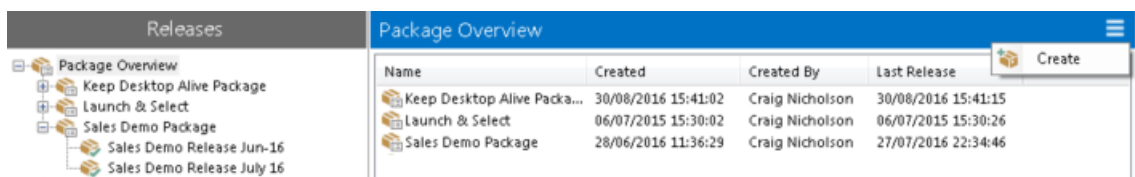
Package Overview

The Package Overview displays a list of the packages with some basic details about the packages - their names, dates of creation, which user created the package, and the date of the last release from the package, whether created or imported.
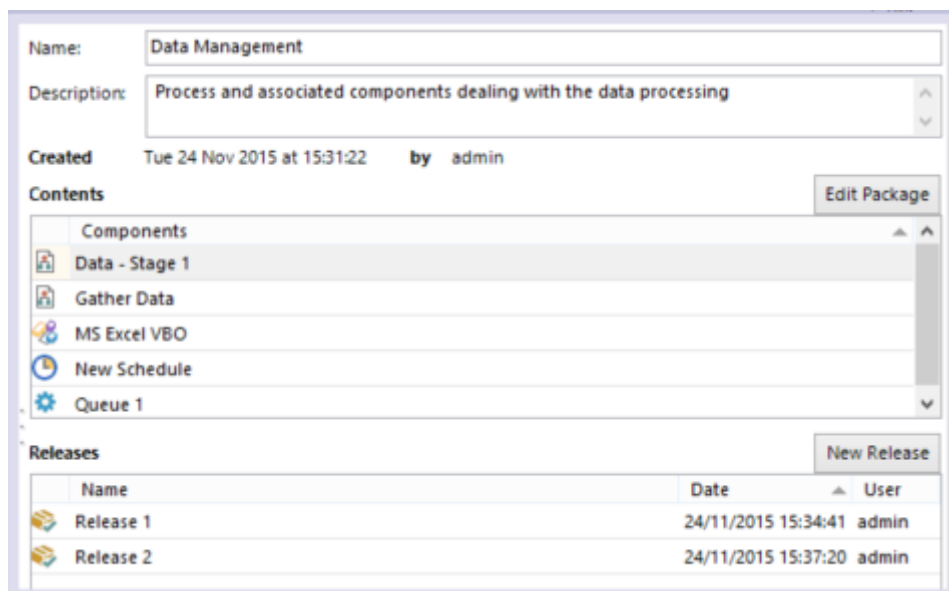

Figure 9: Package Overview

A drop down option on the package overview panel initiates the New Package wizard to create and configure a new package.

Figure 10: Create Package

Double clicking a package in this overview will open the package into a package details screen, and selecting a package enables the package-specific tasks, allowing, for example, the package to be modified or deleted.

Figure 11: Package Contents

Package Details

The Package Details panel displays full details about the package, including its name, description, creation date and the user who created it and a list of the package contents along with a basic release log for the package.

From the package detail screen, buttons are available to initiate wizards which can edit the package or create a new release based on the package.

Double clicking a release in the Releases list will open the release into the Release Details panel, replacing this package details panel.
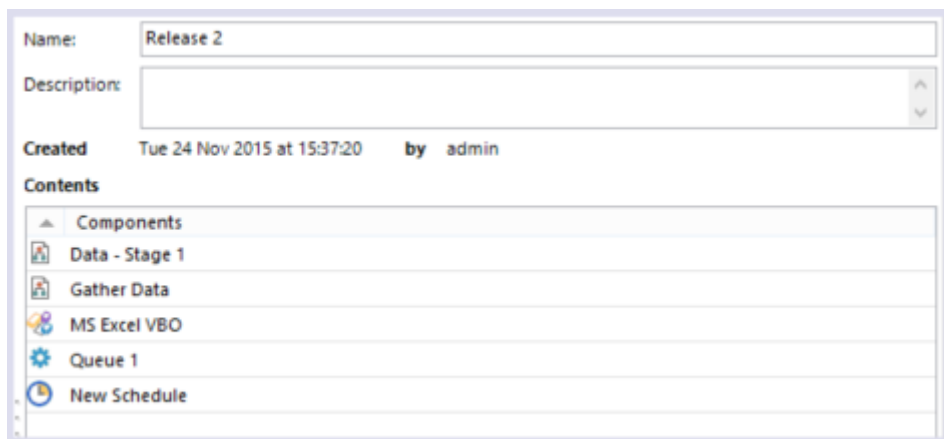

Figure 12: Package Details

Release Details

The Release Details panel displays the full details for the release - its name, release notes, creation or import date and the user who created or imported it, and the contents of the release (which may differ from the package if, for example, the package has been modified since the release was created or if some of the package contents have been deleted or renamed).

Figure 13: Release Details

Release Manager Tasks

Release Manager Tasks can be performed by clicking on the task links in the far left of the Blue Prism client.

If no package or release is selected, only those tasks which do not perform on a particular package can be performed. By selecting a package or release, either in the tree or in the package overview, the package-specific tasks become enabled.

The tasks allow you to initiate wizards for all of the release manager functions:

- New Package
- Modify Package
- Delete Package
- New Release
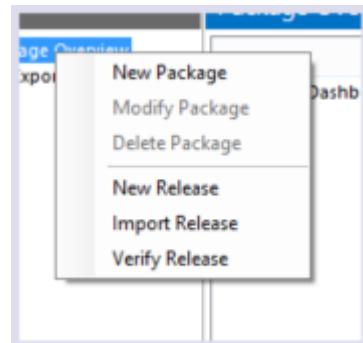- Import Release
- Verify Release

Figure 14: Tasks

2.   Creating and Modifying a Package

A package provides a mechanism for collecting a list of elements which should make up a release. It is created within the Release Manager in the Blue Prism client.

A package consists of a name and description, and its contents. The contents of a package can be made up of any or all of the following components:

- Processes
- Visual Business Objects
- Web Service Definitions
- Process Groups
- Environment Variables
- Credentials
- Work Queues
- Schedules
- Fonts

Once a package has been created, you can create a release from it.

Packages can be modified or deleted from within Release Manager.

If a package contains a component which is deleted, the reference to that component is removed from the release

New Package Wizard

The New Package wizard is used to create a new package, detailing its name, description and contents. The aim of the wizard is not to produce a release or an exported file, but to create the list of components which should be used in releases / files when a release is generated from the package.

It can be initiated using the New Package task in the task list displayed within Release Manager or by pressing the New Package button in the Package Overview.
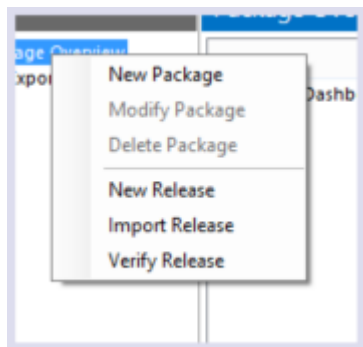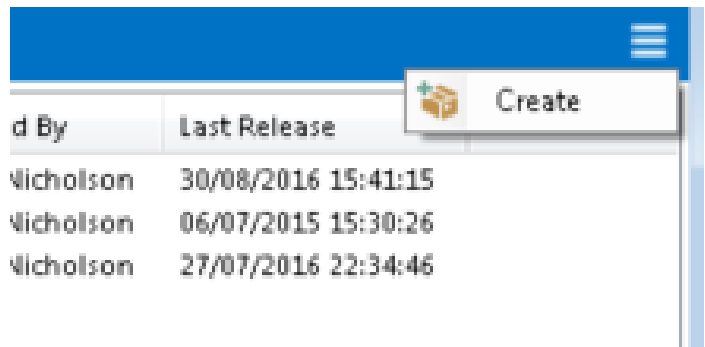
Figure 15: New Package

Figure 16: Create New Package

Creating a Package – Package Name

Name

Set the name of the package

- The prospective name of the package is entered here. The name must be unique amongst the packages.

- The name of the package is mandatory - i.e. it must be at least one character, and can contain up to a maximum of 255 characters

Description

Set the description of the package

- A description of the package can be entered here - it is purely documentary, and is displayed in the Package Details panel when the package is selected.

- It is not mandatory and has no practical length restrictions

Contents

Set the contents of the package

- This is where the components which make up the package are determined. It is split into two panes - the left pane shows all the components in the database and the right pane displays the contents of the package.

- Components can be added to the package by locating them in the left pane, and dragging them to the right pane.
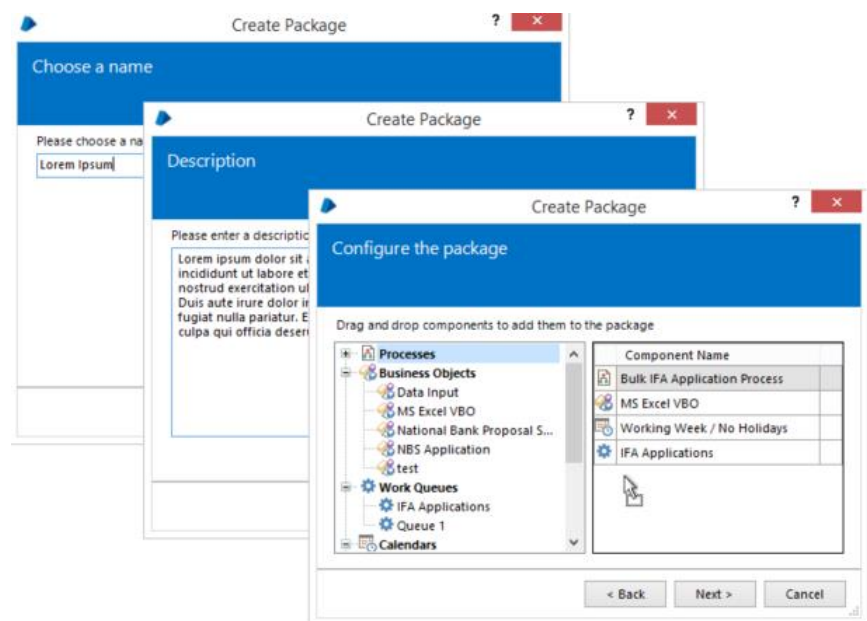

Figure 17: Creating a Package

- Components can be removed from a package by doing the converse - i.e. by dragging their entries from the right pane back into the left pane.

- Multiple components of the same type can be selected in either pane and dragged to the other pane.

- Components are removed from the pane that they are dragged from - e.g. if a process P1 is dragged from the environment to the package, it is removed from the environment pane and added to the package pane.

- If a process is dragged from a group in the environment into the package, the group is implicitly added to the package too.

- If a schedule is added to the package, any dependencies are determined and added at release creation time - e.g. if it requires the presence of a specific calendar, that calendar is determined and included at release time, not at package creation time.

Package Completion

Once all the required components have been dragged into the right hand panel, select the Next button
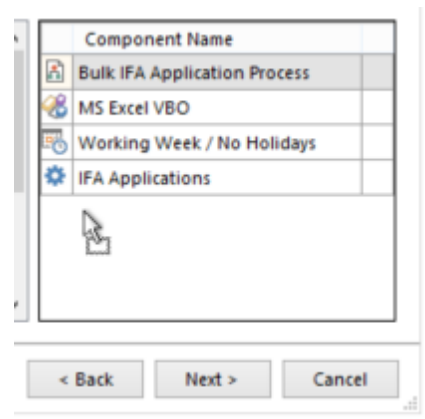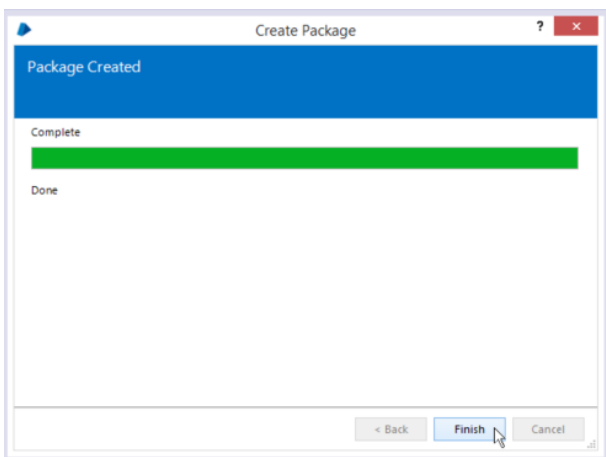

Figure 18: Completing the Package

Figure 19: Finalising the Package

After pressing Next > on the contents stage, the wizard creates the package on the database. Once this is done, the wizard can be closed.

If any error occurs, a message is displayed and the user can elect to return to a previous stage, change an aspect of the package and try again.

Modifying a Package

The Modify Package wizard is used to modify an existing package. Any customizable aspect of the package can be changed namely its name, description and contents.

Changing a package has no effect on any releases which have been created from the package previously.

In function and use, the Modify Package wizard is almost identical to the New Package Wizard with the only distinction being the title of the window and the fact that the stages are pre-populated with the package's current values.

It can be initiated using the Modify Package task in the task list displayed within Release Manager or by pressing the Edit Package button in the Package Details panel.
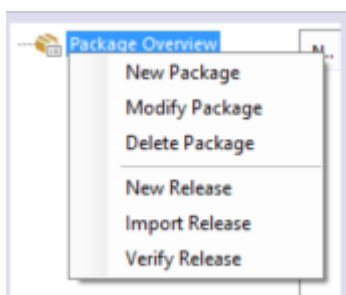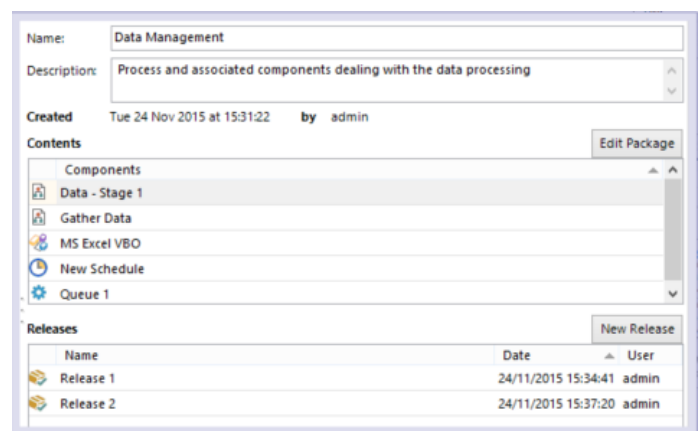

Figure 20: Modify Package

Figure 21: Edit Package

3.   Exporting a Release

A release represents a package at a particular point in time - in more practical terms, a release is a file with all the contents of a package saved into it.

It is made up of a name, some release notes, and the detailed contents of the packages - ie. Where the package contains the list of components, the release contains the components' data.
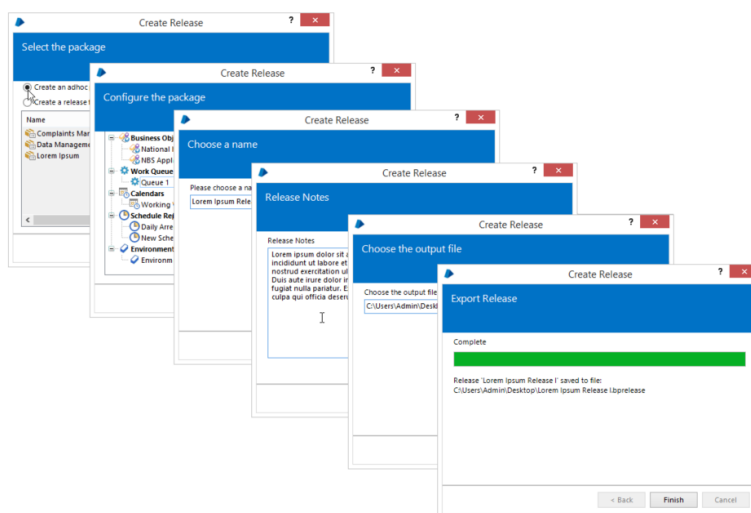

Figure 22: Exporting a Release

New Release Wizard

The New Release wizard is used to create a release - an output file containing all the components defined in a package in their current configured state.

When successfully executed, the wizard will generate a file which can be imported into another Blue Prism environment, transferring all the components and their states to the target.

It can be initiated from the main menu in the client - found by selecting File | Export | New Release, or by pressing the shortcut keys Ctrl-R. It can also be started by clicking on the New Release task within Release Manager or pressing the New Release button in the relevant Package Details panel.
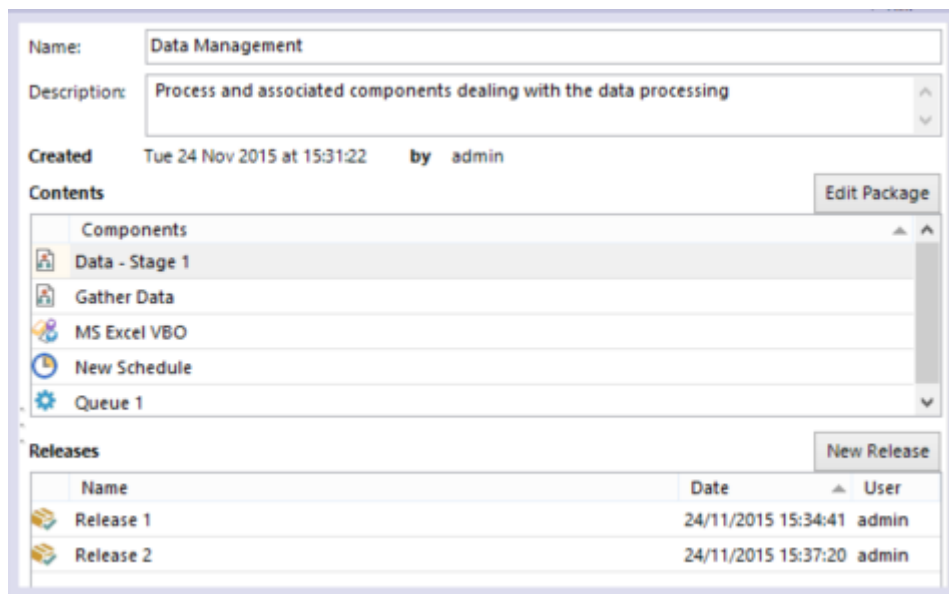

Figure 23: New Release

Select Package

Choose the package that you want to create a release from - either an existing package or an adhoc package just for this release.

The package from which the release should be created is chosen in this stage.

A pre-existing package can be selected, or an adhoc package can be created on the fly from which the release is created.

Note that the release contents is loaded from the database, not from what is currently open in the client - if the component in question hasn't yet been saved, then the release may not contain the latest version.

This stage is omitted if a package is selected in Release Manager and the wizard is initiated from there.
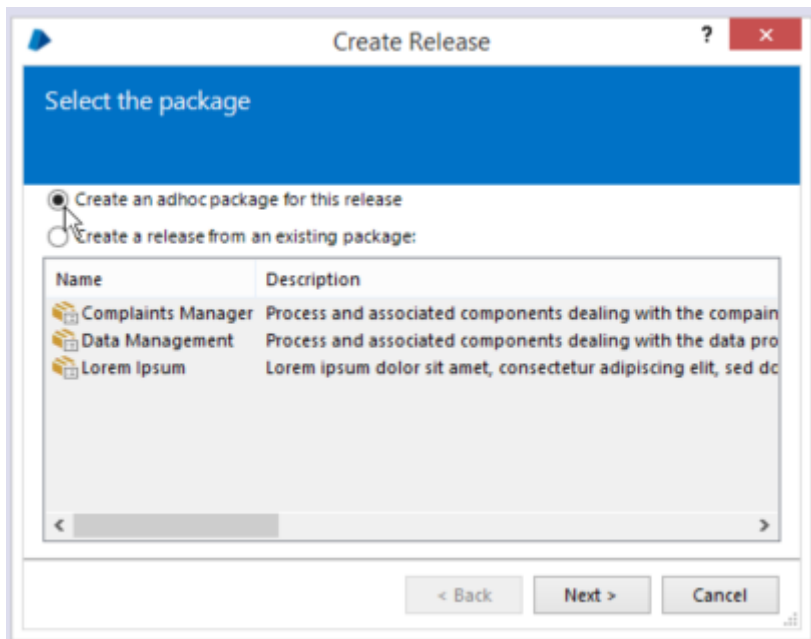
Adhoc Packages

Figure 24: Create Adhoc Package

An Adhoc Package can be initiated from the main menu in the client - found by selecting File | Export | New Release, or by pressing the shortcut keys Ctrl-R.

Decide the contents of the adhoc package from which the release should be drawn. Only shown if an adhoc package was chosen in the Package Stage.

The contents of the adhoc package whence to build the release is configured here.

This stage is omitted if the wizard is not set to build a release from an adhoc release, either because the wizard was launched from a chosen package in Release Manager or because a predefined package was selected in the Package stage

Release Name

Once a package has been selected, or an adhoc package has been created, the Choose a name window is displayed.

The name of the release is entered here. The name must be unique among releases within the same package.

The release name is mandatory - i.e. it must be at least one character, and can contain up to a maximum of 255 characters.

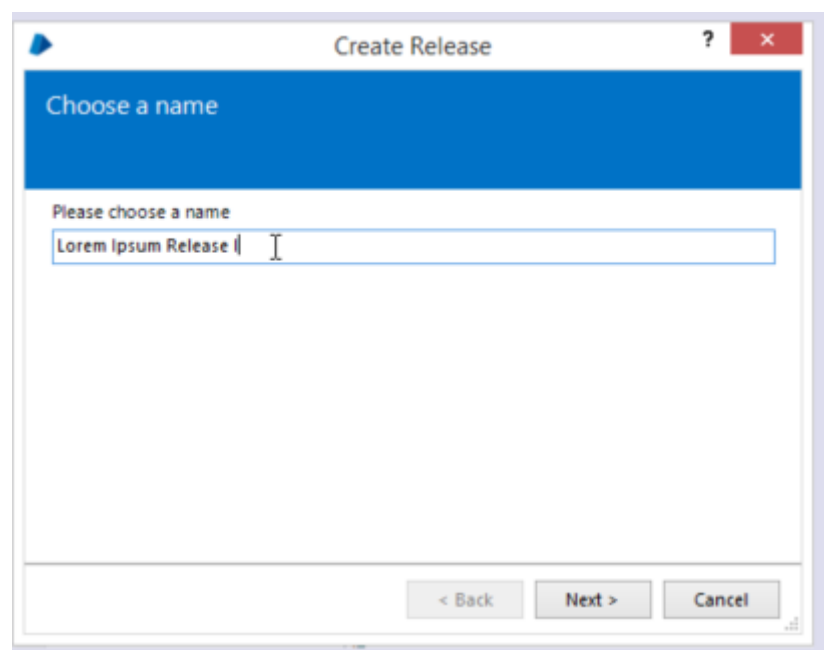Once the Release Name has been entered, select the Next button
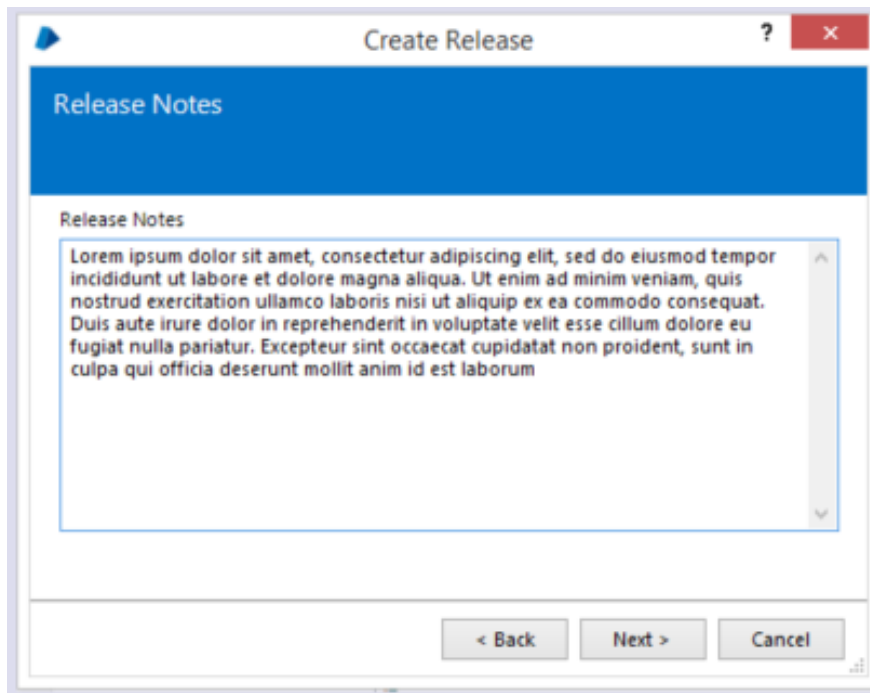

Figure 25: Release Name

Release Notes

Figure 26: Release Notes

Each release can contain a set of notes with release-specific instructions or documentary paragraphs. Such notes are entered on this stage.

The notes are not mandatory and there is no practical limit to the amount of text which can be entered.

The release notes are displayed on the Release Details panel when the release is selected.

Once the Release Notes has been entered, select the Next button

Output File

The file into which the release should be saved can be set here. A warning is issued if the chosen filename already exists.

The output file stage will be prepopulated with a filename based on the chosen release name, saved in the last directory specified in a release manager wizard.

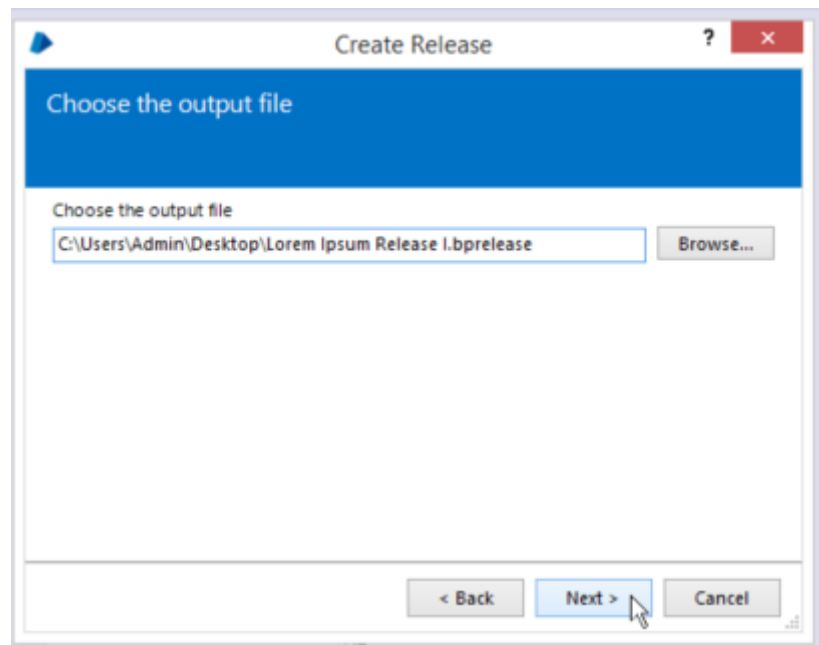Once the name of the output file has been entered, select the Next button

Figure 27: Output File

Export Release

After choosing the file and pressing Next >, the wizard will load all the components of the package and export them to the selected output file.

If any errors occur while exporting, they will be displayed and the user is given the option to return and alter any of the previous stages (e.g. choosing a different output file path or a different name).
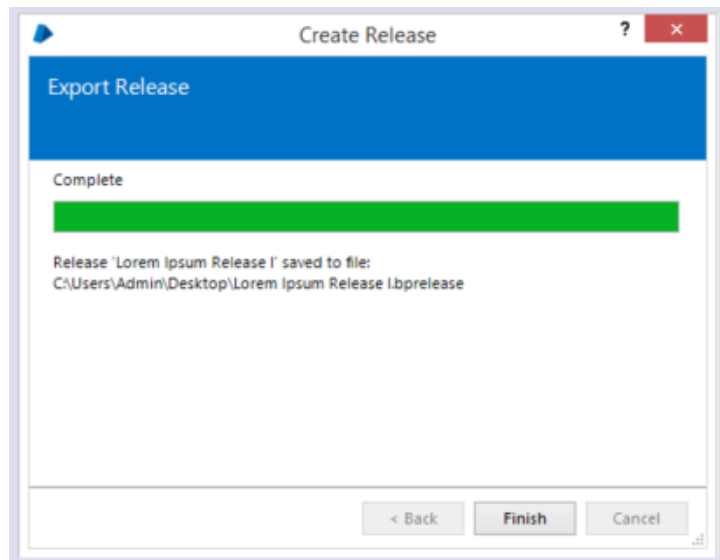

Figure 28: Export Release

IMPORTANT

- Note that the release contents is loaded from the database, not from what is currently open in the client
- If the component in question hasn't yet been saved, then the release may not contain the latest version.

4.   Importing a Release

A release can be imported into an environment by using the Import Release wizard.

This wizard can also handle legacy processes and objects - i.e. XML files containing a single exported process/VBO.

It can be completed by anyone who has the appropriate permissions to import / modify a release's components. e.g. if a release contains a process, a credential and a work queue, the user who is running the wizard must have the following permissions in order to successfully import the release:

- Import Process
- Security - Credentials
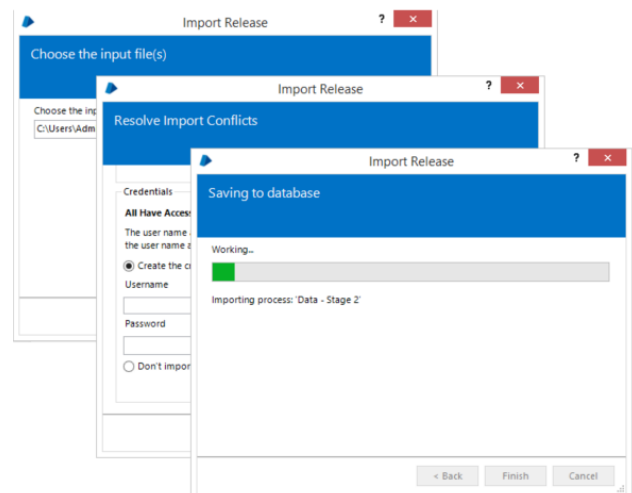- Workflow - Work Queue Configuration

Figure 28: Importing a Release

These permissions are the permissions required to create / modify the individual components directly within the product without the use of a release file.

The full list of permissions required to import all possible components in a release are as follows:-

Component Type	Required Permission
Process	Import Process
Visual Business Object	Import Business Object
Process Group	Processes - Grouping
Credential	Security - Credentials
Work Queue	Workflow - Work Queue Configuration
Environment Variable	Processes - Configure Environment Variables -or- Business Objects - Configure Environment Variables
Web Service	Business Objects - Web Services
Schedule	Edit Schedule
Calendar	System - Calendars
Font	System - Fonts

Import Release Wizard

This wizard can be initiated from the main menu in the client - found by selecting File | Import, or by pressing the shortcut keys Ctrl-I.

Input File

The release file which is to be imported is selected in this stage.

The selected file must be a Blue Prism Release file, created by the Release Manager or a single process / VBO exported as an XML file.

The input file can be typed directly into the Input File field or identified using the Browse button

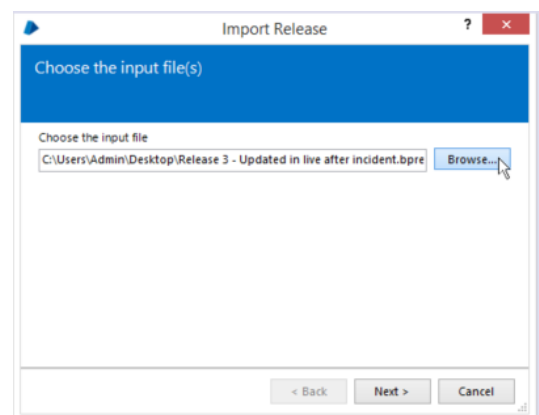Once the input file has been selected, select the Next button
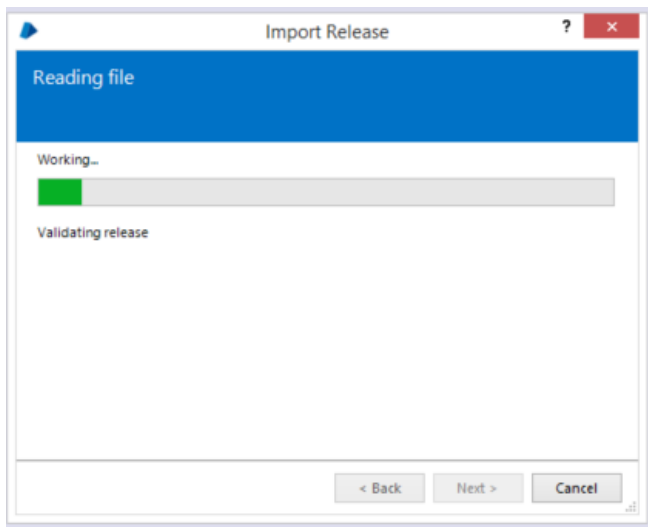

Figure 29: Input File

Reading File

Figure 30: Read File

Indicates progress in parsing the specified release. The file is parsed into memory in this stage.

While the file is being loaded and parsed, the progress bar indicates the amount of work left to do.

Resolve Import Conflicts

Handles any conflicts which occur between the intended import and the current environment, and provide any further configuration required for the imported components.

If there are any conflicts between the components in the file and corresponding components in the current environment, they and their associated potential resolutions are displayed here.

Equally, if any of the incoming components require further configuration (e.g. a credential's username and password cannot be transferred in the file so they are required to be entered during the import process) they are configured in this stage.

There are a number of rules determining the choices offered to the user on import - see Release Manager - Importing for an exhaustive list of all rules and options.

Progress is not allowed from this stage if there remains any outstanding conflicts or invalid data has been entered for the configuration of the incoming components - e.g. if a process is set to be renamed to a name which already exists in the environment.
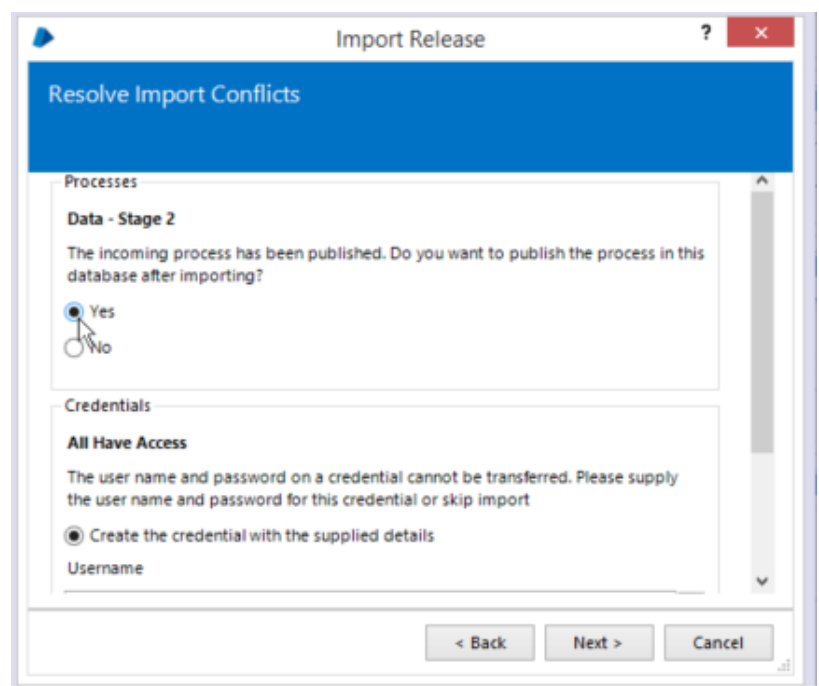

Figure 31: Resolve Conflicts

Import Release

Indicates progress in saving the release and its contents to the database

Once all the conflicts have valid resolutions and any required data has been successfully entered, the release is saved into the database.

While the components are being written to the database, the progress bar indicates the amount of work left to do.
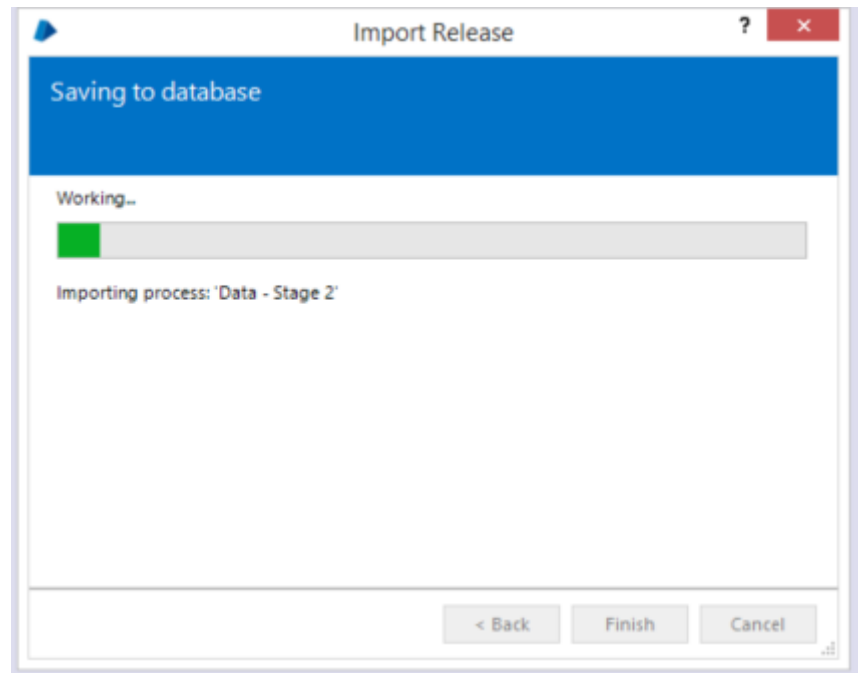

Figure 32: Import Release

5. Verifying a Release

Once a release has been created from a package, it cannot be recreated - only a new release can be produced from the current components in the environment.
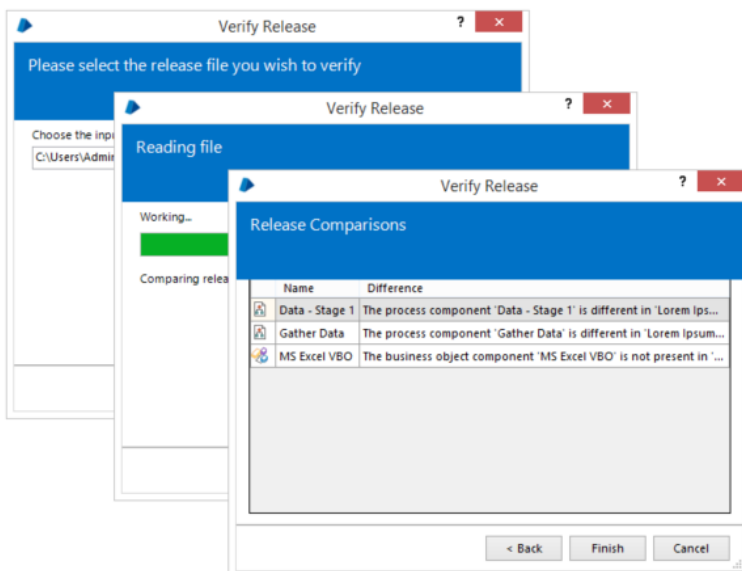

Figure 33: Verify a Release

This wizard can be used to test whether any of the components defined in a package have changed since a given release file was created.

It should be noted that just the act of saving a component can change it (arbitrarily ordered data may be differently ordered on a subsequent save, the component may include its last updated time, etc).

For the above reason and for simplicity, only releases created from packages which exist on the current machine can be verified.

Once a release file has been selected, this wizard will compare its contents against the current state of the components in the package defined in the current environment. Any discrepancies are then reported to the user.

Verify Release Wizard

It can be initiated by right clicking on the Release Name and select Verify Release from the options.
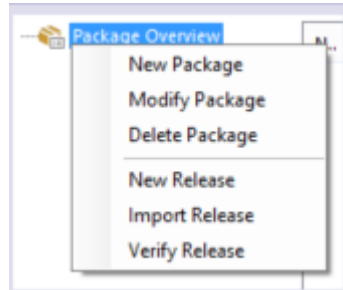

Figure 34: Modify Package

Input File

The release file which is to be verified is selected in this stage

Choose the release file that you want to verify against the current environment. The release file which is to be verified is selected in this stage.

The selected file must be a Blue Prism Release file, created by the Release Manager.

The input file van be typed directly into the Input File field or identified using the Browse button.

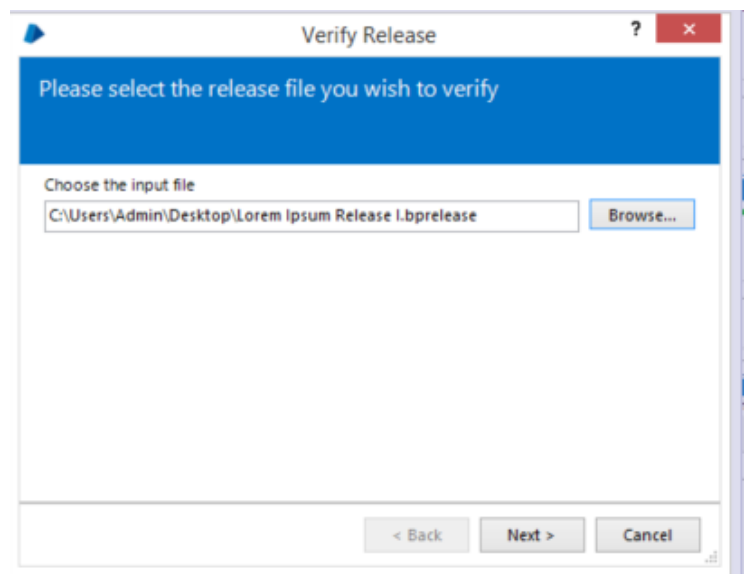Once the input file has been selected, se3lct the Next button

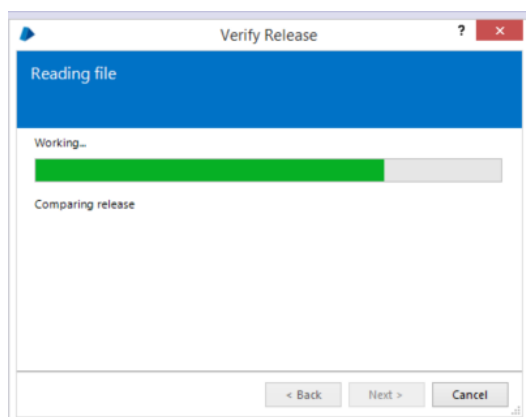Figure 35:Verify Release Input File

Parse and Compare

Figure 36: Parse and Compare

A progress stage displayed while the wizard parses and compares the release.

The file is read and the components within it are compared to the components in the corresponding package in the system.

Report

A list of the differences between the specified release file and the current state of the package in the environment.

Shows a label indicating that there are no differences if the release matches the current state of the package.
The differences between the specified release and the current environment are displayed here.

The file is referenced by its release name; the current environment is referenced by the name 'Current Environment'.

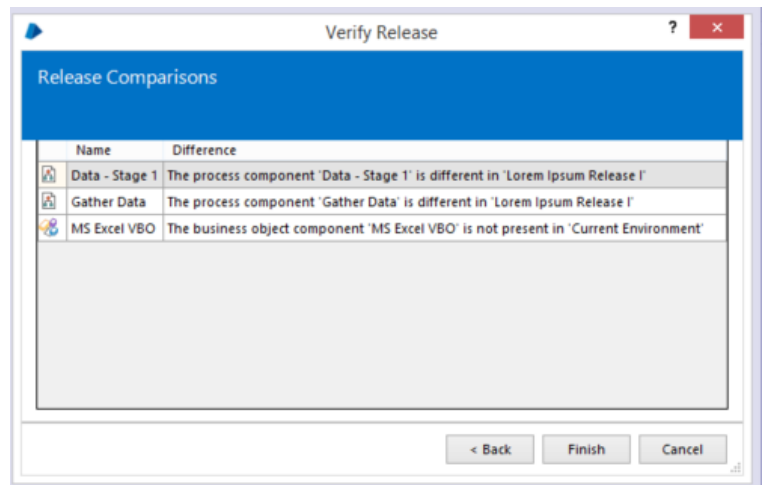If there are no differences, a label is displayed indicating that fact.
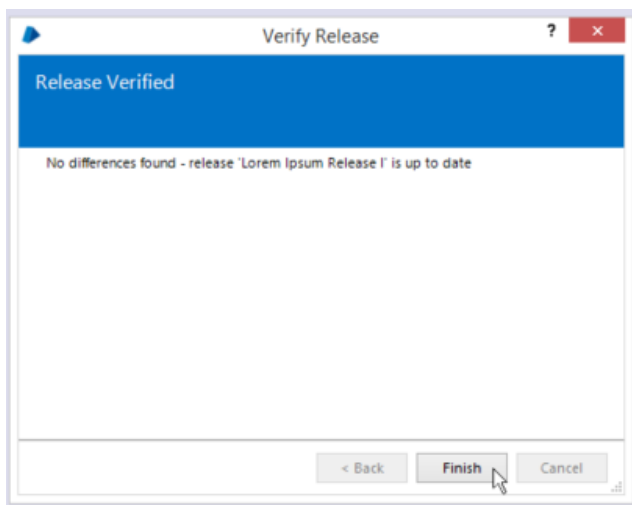

Figure 37: Report

Figure 38: Report No Results

If there are no differences, a label is displayed indicating that fact.

Key Points

- It is worth taking note of this key point
- When an import of a release for any processes is carried out that uses any of the objects that are part of the package, they will now use the incoming version.

6. Additional Features

Export / Import XML

A Process or Business Object can be exported as an XML file, and similarly an exported file can be imported into Blue Prism. This can be useful for backing up and moving work between databases.

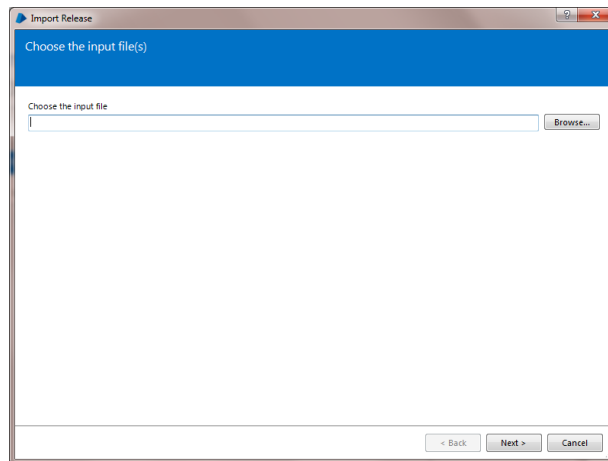A wizard is provided to guide the user through each step of the procedure.

Figure 39: Import Wizard

Release Manager – Packages and Releases

The above XML import/export is useful for one-off ad hoc migrations of specific Business Objects and Processes, but in the real world a Process might have several dependencies. For example, a Process might employ a range other Processes, Business Objects, and Work Queues.

To migrate all of these parts individually would be an error-prone task requiring careful attention to detail and conscientious use of checklists. For this reason, Blue Prism provides the ***Release Manager*** which allows users to create checklists known as ***Packages***.

At various stages during the development cycle, a ***Release*** can be exported using the checklist provided in the Package. Two different releases produced on two different occasions could contain different versions of the Processes/Business Objects/work queues, etc., but because they have come from the same Package (i.e., the same checklist) they will contain the same items.

Creating a Package

- Go to Release Manager and click **New Package**.
- Complete the wizard, choosing a combination of items to include in the package. For this exercise, it is not important what items you pick.
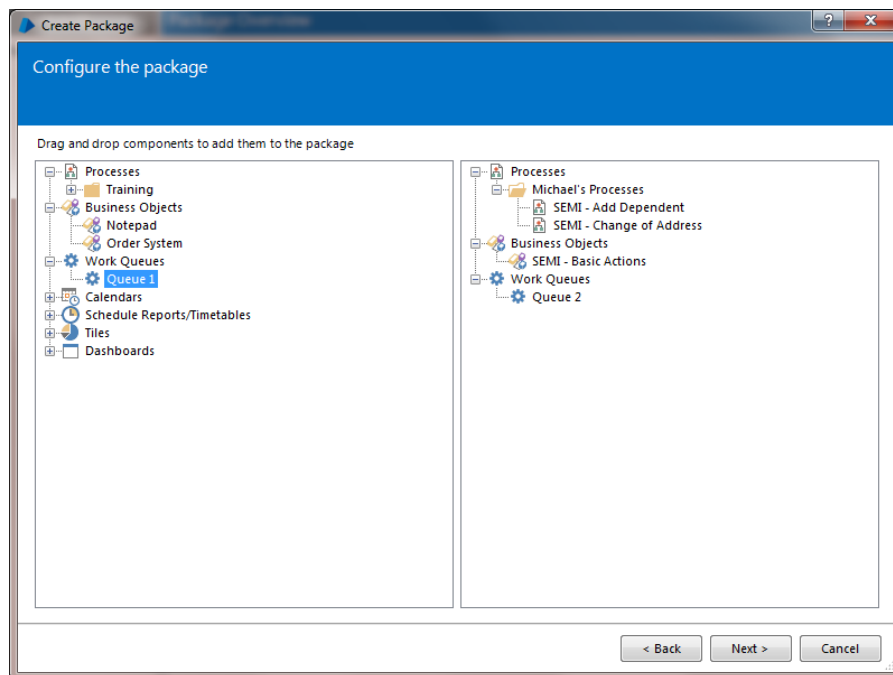
Figure 40: Create a Package Wizard

Exporting a Release

Now that a Package has been created, we can create a **_Release_**. The Release will be a snapshot of the state of each of the items in the Package at a particular moment in time.

- Select the Package you just created and click **New Release**.

- Choose a name for the release and provide some release notes (e.g., "Development complete. Process now ready for UAT.").

- Choose a location to save the file; the file extension will be **.bprelease**

The Release file contains the details of all the items in the package and could be used to import the items into another database. Typically this would mean a new environment, e.g., exporting a Release from the Development environment and importing into a UAT environment.

Key Points

- Blue Prism creates different environments by using separate databases. Typically this would be three databases - Development, Test, and Live.
- Moving work from one database to another is done by exporting and importing.
- An exported file can also be attached to email and used as a basic back up.

Dependency tracking

Featured throughout the platform, dependency tracking provides an interactive view of how a given component is referenced within a designed process to accelerate development, promote re-use and support maintenance.

Applies to:

- Application models and elements
- Objects and actions
- Processes and pages
- Credentials
- Calendars
- Fonts
- Environment variables
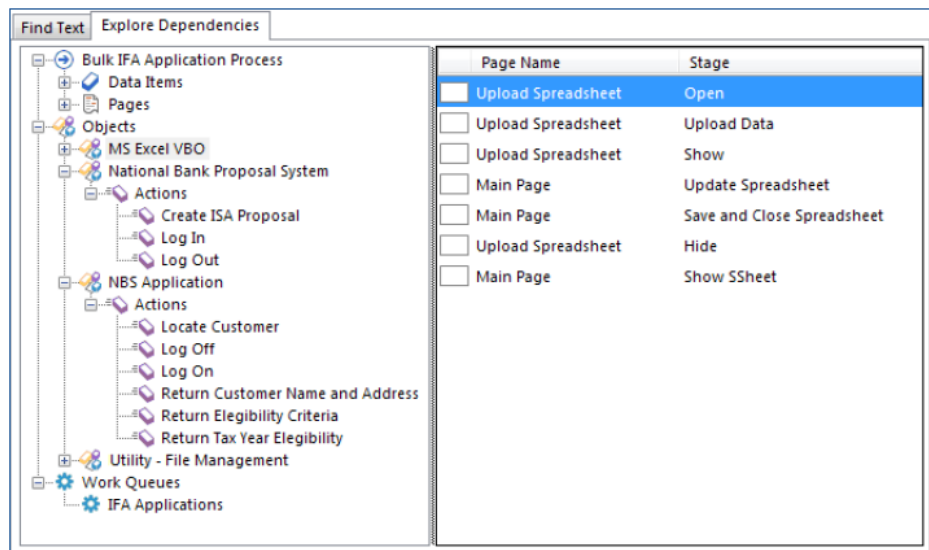- Web services
- Work queues

Figure 41: Find References

Version history prominence

The prominence of the version history for Business Objects and Processes has been increased within the user interface. It is now additionally presented within the Studio tab providing immediate visibility of the updates and modifications that have been applied.
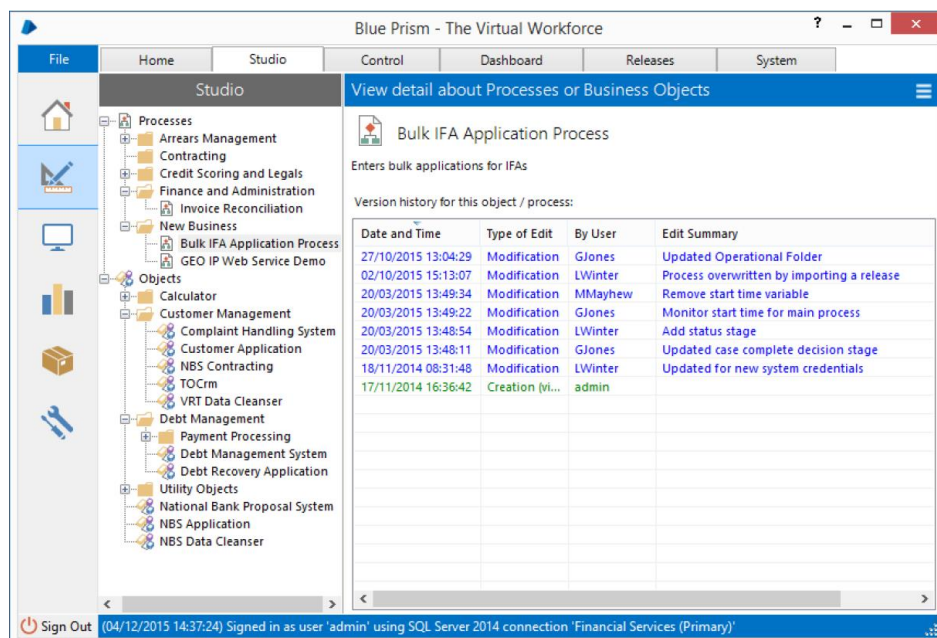

Figure 42: Version history of a process within Studio

Release Manager

Updates to Release Manager extend the items which can be ported between environments to include Groups, Dashboards and Tiles.

When including an item in the package, the facility to show dependencies and easily select the related items that should also be included. Additionally the tree will display any items that will be dynamically included when the release is created (shown in italics).
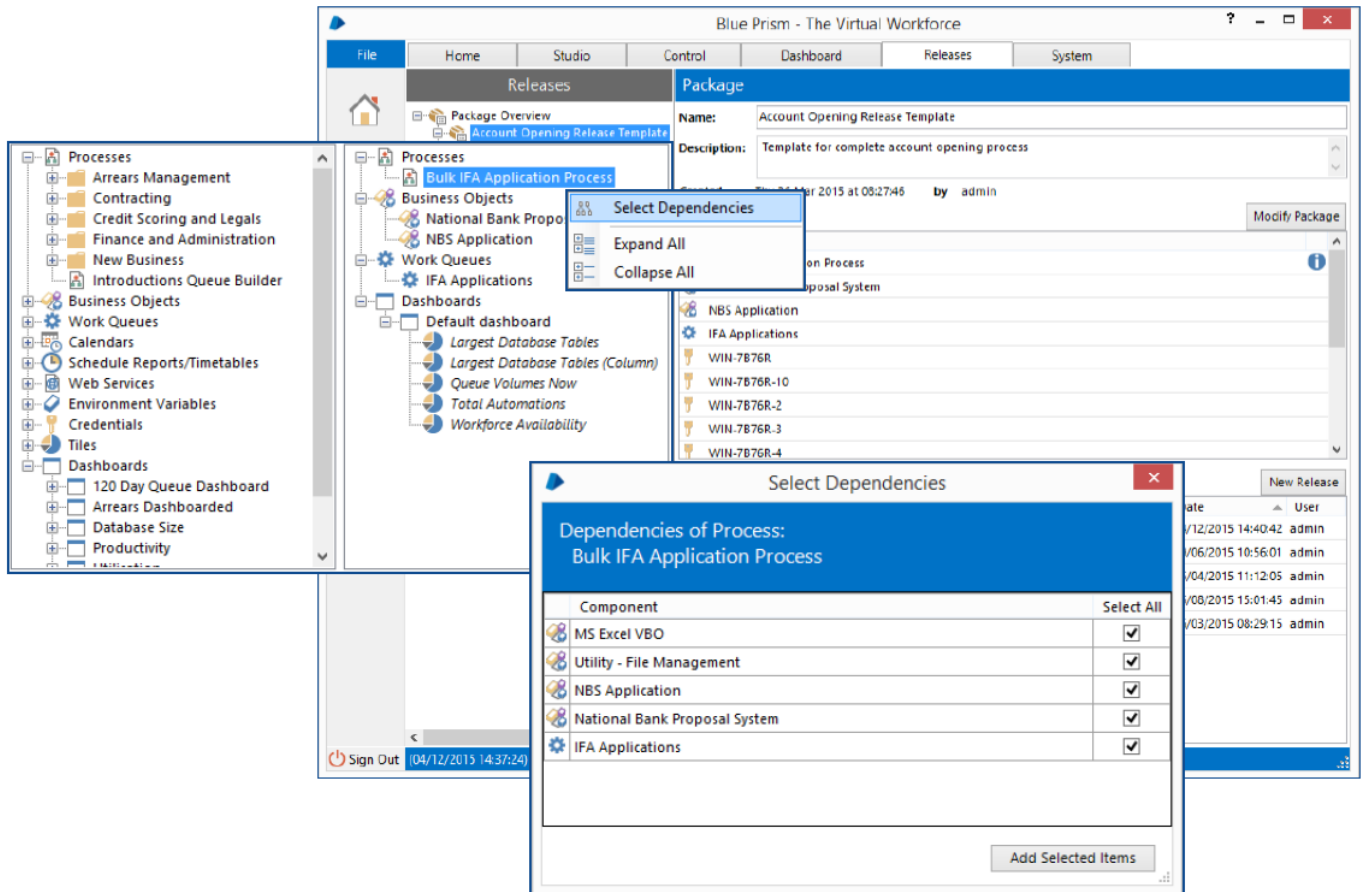

Figure 43: Release Manager