PNMsoft Knowledge Base

Sequence User Guides

Version Management

PNMsoft UK 38 Clarendon Road Watford Hertfordshire WD17 1JJ

Tel: +44(0)192 381 3420 • Email: info@pnmsoft.com • Website: www.pnmsoft.com

Microsoft Partner
Gold Application Development

TABLE OF CONTENTS

General Document Information

Purpose

This document is designed to instruct global administrators on how to:

- Create workflow packages for export
- Import/Restore workflow packages
- Create new versions of a workflow
- Create a copy of a workflow

Prerequisites

Basic knowledge of Sequence Administration.

Overview

The Manage Versions feature provides a convenient way of managing different versions of a Sequence workflow. You can package, restore and move workflow versions from one Sequence environment to another (deployment). You can also create new versions of a workflow and copy workflows.

Terminology

- **Workflow Space** – A workflow within Sequence Administration is contained within a workflow space. This space can contain several versions of the workflow.

- **Workflow Version** – A specific version of the workflow within a workflow space.

- **Package** - Creating a workflow package saves the current structure of the workflow. The packaged version is named and labeled with a date stamp, and can be restored at any time. The package consists of XML files that hold the data records of the User tables and Workflow Structure tables.

- **Restore** - When a workflow package is restored, it can overwrite the current active version or be created as a new version alongside the existing version(s). Restoring a version may influence the runtime data and existing processes, so it should be performed carefully.

Creating a Package

You can create a saved, portable version of a workflow using the Create Workflow Package feature. This stores the workflow in XML files that specify all the workflow element definitions.

The version is stored as a **.zip** file, which you can easily download and move to another environment.

Exported package content

The workflow package includes the following objects:

- All relevant records from the workflow definition tables
- The structure of the Workflow User tables (UTCMB**)**, used for Combo box and Option group fields
- The data of the Workflow User tables
- Stored Procedures, used for conditions and activities
- Other objects of the workflow – from tblWorkFlowExtraObjects
- Workflow permissions structure

The export process transfers all the following updates carried out on a workflow:

- Modifications in objects' properties, e.g. activities, connections.
- Additions of new workflow objects, including the relevant changes in the User Workflow tables.
- Deletion of objects.

    Note: Sequence packs all the dependent objects into the package as can be seen in the SQL Management studio.

Creating a Workflow Package

To create a workflow package:

1. Click the workflow version. The workflow version dashboard appears.
   Under **Common Tasks**, click **Export Workflow**.

Export Workflow

The following screen appears:

Add Name and Comments

2. Enter a **Name** for the package, and add any relevant **Comments** about it. Click **Create**.

   Once the package creation has succeeded, the following screen appears:

Creation of Workflow Package Status

3. To view the log file of the package creation, click **View Log**.
4. Click **Close**.

The *Manage Saved Packages* screen opens showing the new package and its details.

Manage saved packages for "Travel Request" workflow
Manage saved workflow packages. You can download a saved package as a zip file or restore it and overwrite the existing version.

Name	Comments	Date	Archived By			
Version B		10/03/2016	System Administrator	Download	Restore	✗

+ Create new package

Close

Manage Saved Packages Screen

5. Click **Download** to download the packaged .zip file to your local machine, if required.
   Click **Restore** to restore this package.

   Click ✗ to delete this package.

   Click **+ Create new package** to create a new package.
6. Click **Close** to exit the wizard.

Importing a Workflow

The *Import Workflow* option enables you to import a workflow package that was created in one Sequence environment, into another Sequence environment. Use this option if the workflow you are importing does not yet existing in the target environment.

To import a workflow:

1. In the Administration > Manage Applications box, click **Import Workflow**.
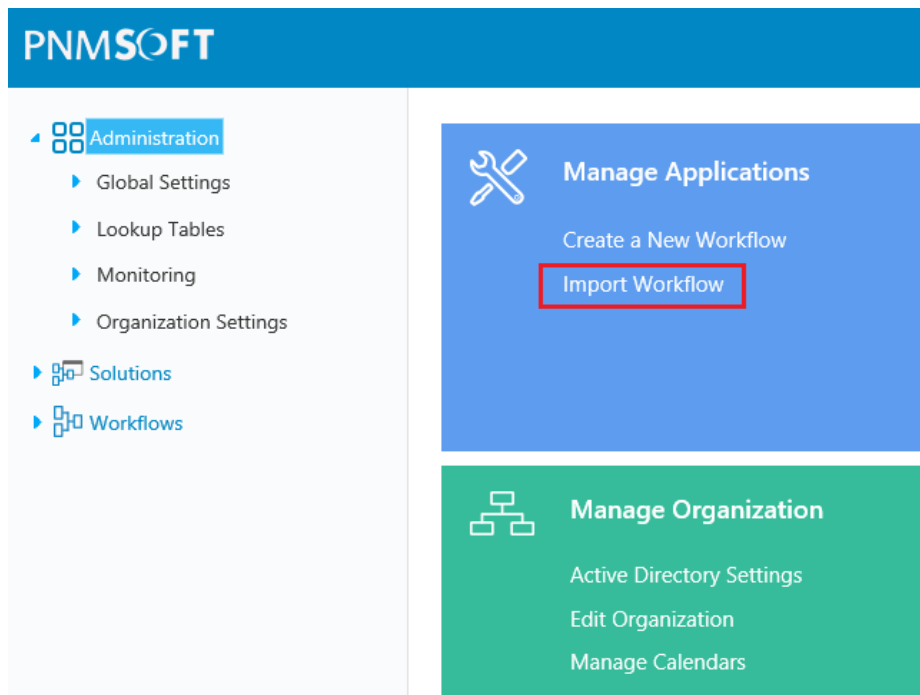
Workflows Menu

The *Import Workflow from Package* screen opens.

PNMSOFT
Business Processes in Motion™

Import Workflow from Package
Import a workflow version from a saved package.

Choose the workflow zip file you would like to import

[Select]

[Import] [Cancel]

Import Workflow from Package

2. Select the .zip file of the package you wish to import.

   Note: If you attempt to import a workflow that already exists in your current Sequence environment, you will receive an error message instructing you to import into the existing workflow space (see the Restore Workflow section below).

3. Click **Import**. The following screen appears:

Import Workflow from Package

Select Objects

4. Select the objects to import from the list of all objects contained in the package. You can click **Validate** to validate the workflow package before import.

    Note: See the Deployment Best Practices guide for which objects to select depending on your project methodology and application topology.

    Note: All workflow activities must be imported - you cannot deselect activities from the tree.

5. (Optional) You can select general import settings for UTCMB tables and external files from the drop-down boxes. These settings will override any specific selections in the tree above:

    ▪ **Data import options for all UTCMB tables:** Incremental / Overwrite Existing Data

    ▪ **File import options for all external files:** Keep Existing Files / Overwrite Existing Files

6. Click **Next**. Several user mapping screens appear, enabling you to map between users and permissions relevant to this workflow from the source to the target environment.

Workflow Pre Import Actions - Map Recipients (Not Matched)

System could not find match for these items.

Source	Target		Type
Viki Kuznetsov - Sharoni (pnmsoft\vickik)		...	User
Helen White (SEQDEV\helen)	Alex Dyukin (PNMSOFT\alexd)	...	User
Peter Green (SEQDEV\peter)	Andrew Hart (PNMSOFT\Andrewh)	...	User
Jack Silver (SEQDEV\jack)	Andrew Murphy (PNMSOFT\andrewm)	...	User

Back   Next   Cancel

Map Recipients

After you have completed the user mappings, the following screen appears:

Ready to Import the Workflow

Click Import to begin the import.

If you want to review or change any of your import settings, click Back. Click Cancel to exit the wizard.

Back   Import   Cancel

Ready to Import

7. Click **Import**. The *Confirmation* screen appears, notifying you that the import was completed successfully. Click **View Log** to view the import log.

Workflow Import - Confirmation

✔ The workflow was imported successfully.   View Log
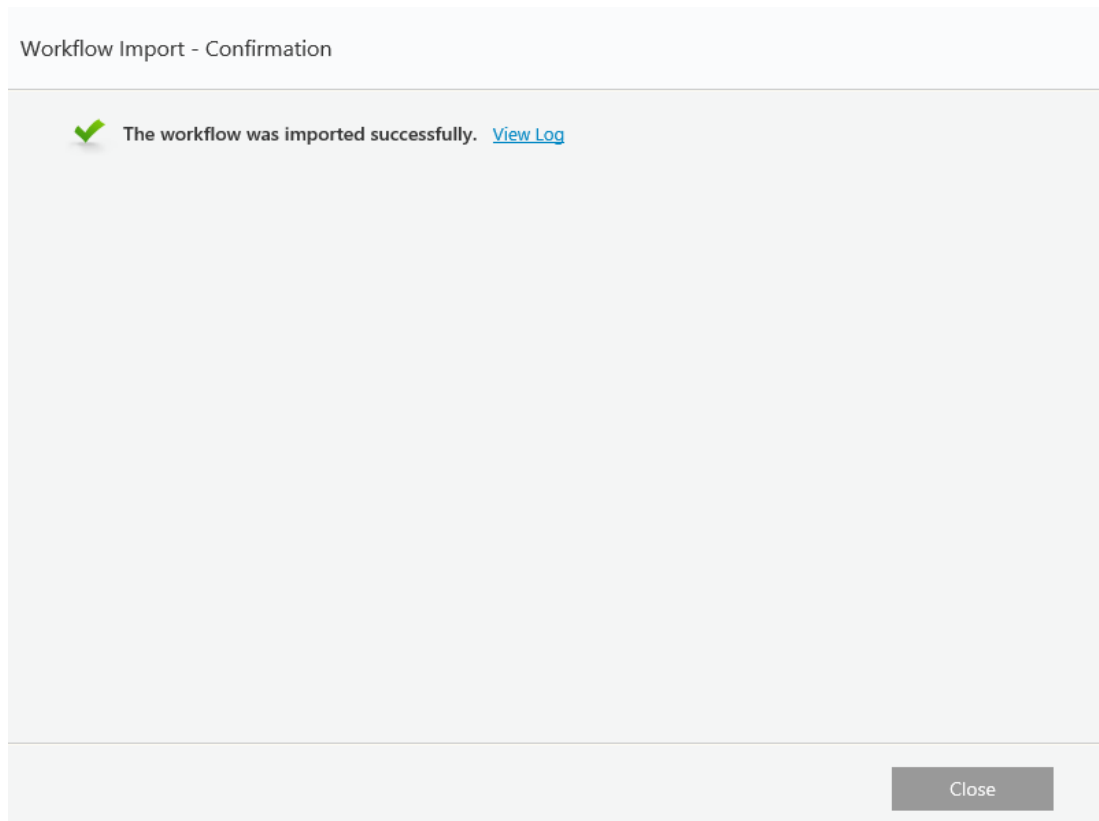
Close

Confirmation Screen

8. Click **Close**. The workflow is now listed in the Workflow tree and you can begin to edit it from there.

Note: At the end of the import process, define permissions according to the appropriate user's role, group membership, and position in the organization, if you have not fully mapped these during import.

Restoring a Workflow

You can restore an existing workflow from a package. Using this option you can rewrite the exiting version with the version in the package or create a new version alongside the existing version(s).

Here are some examples of why you might wish to overwrite an existing version:

- The packaged version is a newer version from a development or testing environment, and you now want to deploy that newer version to your production environment.

- You have made changes to a workflow that you wish to rollback. Therefore, you are restoring a saved package and overwriting these undesirable changes.

  Note: This action requires careful attention, since it may cause data loss in existing Flowtime processes.
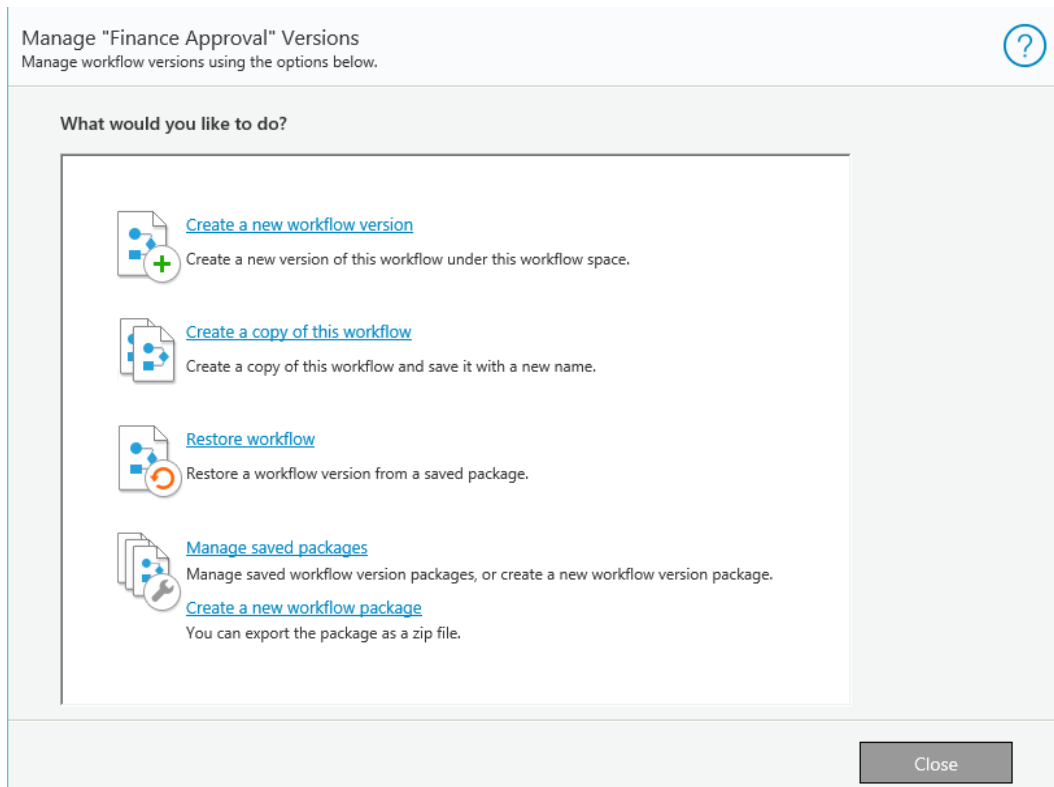
To restore a workflow from a package:

1. In the **Administration**, in the Workflows tree, find the workflow for which you want to restore a version. Right-click it and select **Manage Versions**.
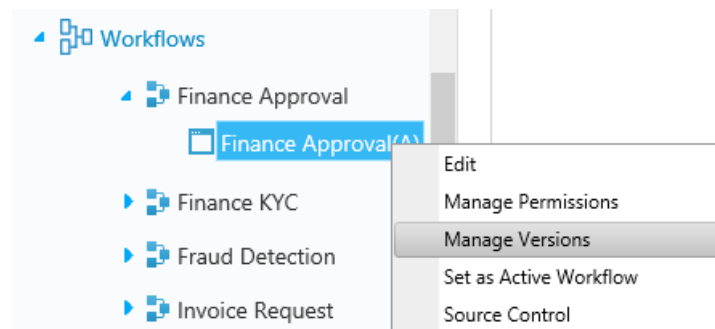
Workflows Tree

The *Manage Versions* wizard opens.

Manage Versions

2. Click **Restore Workflow**. The *Restore Workflow* screen appears.

![PNMSOFT logo — Business Processes in Motion™]

Restore "Finance Approval" workflow
Restore a workflow version from a saved package.

Choose the workflow zip file you would like to restore

[   ] [Select]

◉ Overwrite existing workflow version

○ Create new version and make this version active

☐ **Generate new data tables (UACT...) for the duplicated activities**

[Restore]   [Cancel]

Restore Workflow

3. Select the .zip file of the workflow package you wish to restore.

4. Select if to **overwrite the existing version with the package (and make this version active)**, or if to **create a new version** with the package. If you selected the latter option, you can also select whether or not to **Generate new data tables (UACT…) for duplicate activities**.

5. Click **Restore**. The following screen appears:

Restore "Finance Approval" workflow

☐ ■ ☑ ObjectsList
   ☐ ■ ☑ SystemTables
      □ ☑ SystemTable (tblConnectionString)
      □ ☑ SystemTable (tblCredentials)
      □ ☑ SystemTable (tblWorkFlowExtraObjects)
      □ ☑ SystemTable (tblWebServiceConsumers)
      □ ☑ SystemTable (tblWebServiceListeners)
      □ ☑ SystemTable (tblExternalAssemblies)
      □ ☑ SystemTable (tblMessageBehaviorTypes)
      □ ☑ SystemTable (tblWcfConsumers)
      □ ☑ SystemTable (tblSAPConsumers)
      □ ☑ SystemTable (tblSAPConnections)
      □ ☑ SystemTable (tblCrmConnections)
      □ ☑ SystemTable (tblCrm2011Connections)
      □ ☑ SystemTable (tblSharePointConnections)
      □ ☑ SystemTable (tblRestWcfConsumers)
      □ ☑ SystemTable (tblTemplateWorkflowStages)
      □ ☑ SystemTable (tblEmployeeTitle)

Data import options for all UTCMB tables
Incremental

File import options for all external files
Overwrite Existing File

Select general settings for UTCMB tables and external files (this will modify any specific selections in the tree above).

Validate   Back   Next   Cancel

Select Objects

6. Select the objects to restore from the list of all objects contained in the package. You can click **Validate** to validate the workflow package before import.

   Note: See the Deployment Best Practices guide for which objects to select depending on your project methodology and application topology.

7. (Optional) You can select general import settings for UTCMB tables and external files from the drop-down boxes. These settings will override any specific selections in the tree above.

   ▪ **Data import options for all UTCMB tables:** Incremental / Overwrite Existing Data
   ▪ **File import options for all external files:** Keep Existing Files / Overwrite Existing Files

8. Click **Next**. Several user mapping screens will appear enabling you to map between users and permissions relevant to this workflow from the source to the target environment.

Workflow Pre Import Actions - Map Recipients (Not Matched)

System could not find match for these items.

Source	Target		Type
Viki Kuznetsov - Sharoni (pnmsoft\vickik)		...	User
Helen White (SEQDEV\helen)	Alex Dyukin (PNMSOFT\alexd)	...	User
Peter Green (SEQDEV\peter)	Andrew Hart (PNMSOFT\Andrewh)	...	User
Jack Silver (SEQDEV\jack)	Andrew Murphy (PNMSOFT\andrewm)	...	User

[Back] [Next] [Cancel]

Map Recipients

After you have completed the user mappings, the following screen appears:

Ready to Import the Workflow

Click Import to begin the import.

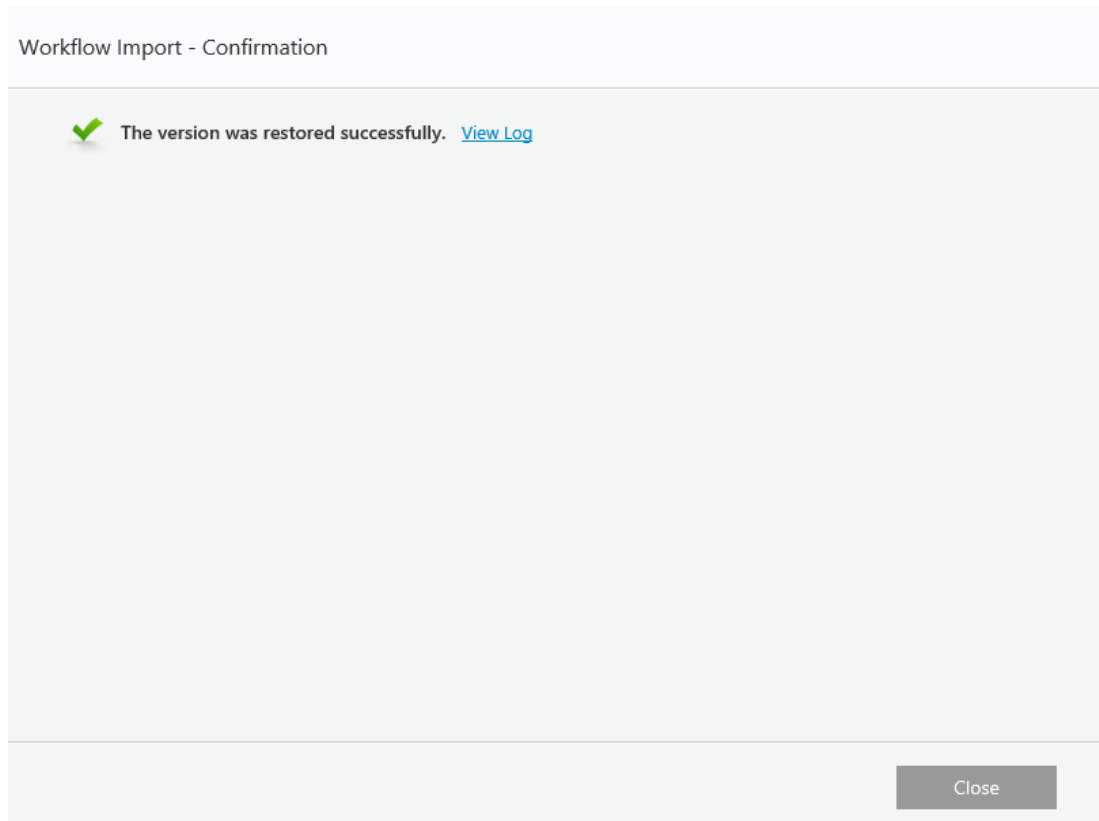If you want to review or change any of your import settings, click Back. Click Cancel to exit the wizard.

[Back] [Import] [Cancel]

Ready to Import

9. Click **Import**. The *Confirmation* screen appears, notifying you that the import was completed successfully. Click **View Log** to view the import log.

Workflow Import - Confirmation

✔ The version was restored successfully. View Log

Close

Confirmation Screen

10. Click **Close**. The workflow is restored (either as a new version, or overwriting the existing version – depending on which option you selected in the wizard).

   Note: At the end of the restore process, define permissions according to the appropriate user's role, group membership, and position in the organization, if you have not fully mapped permissions during the restore.

A log file is generated and placed under the "Shared Resources" folder. The log file allows the user to detect incompatibilities that may have appeared during the import process, and to fix those problems before re-attempting a restore action.

Creating a New Version

You can create a new version of a workflow from the Manage Versions wizard.
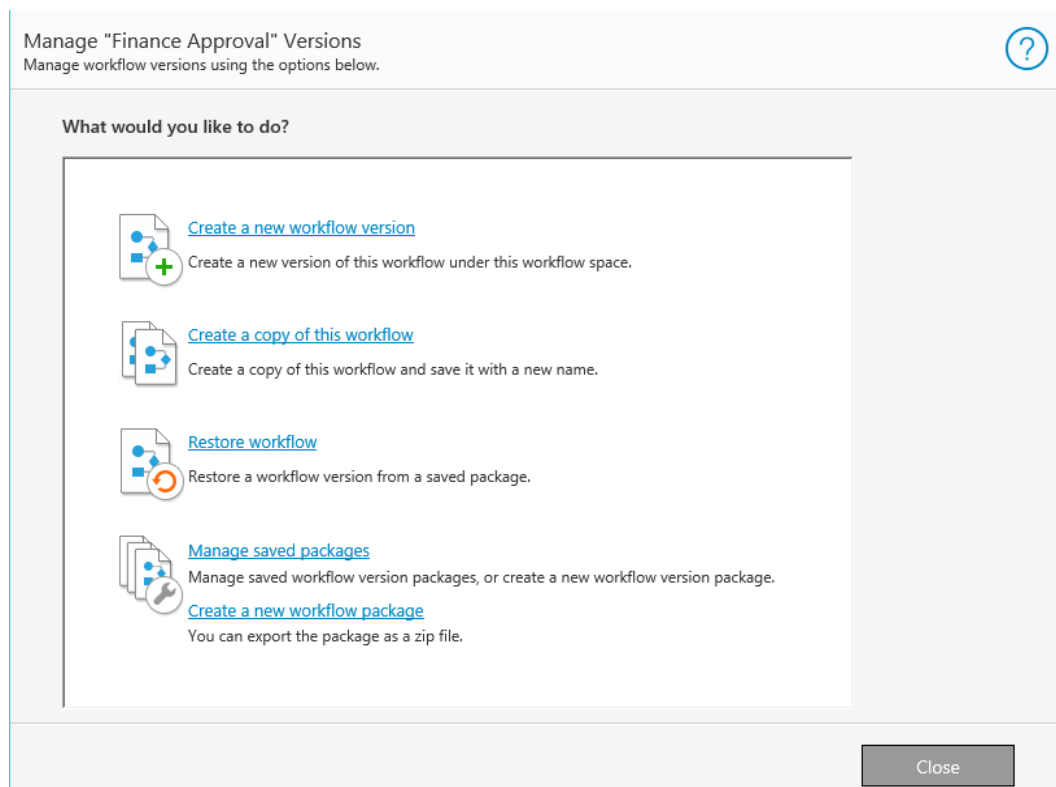
To create a new version:

1. In the **Administration**, in the Workflows tree, find the workflow for which you want to create a new version. Right-click it and select **Manage Versions**.
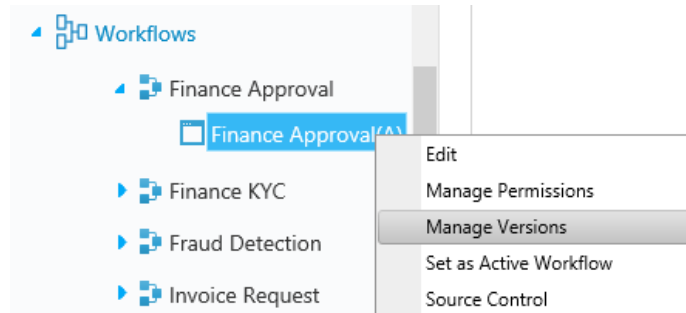
Workflows Tree

The *Manage Versions* wizard opens.

Manage Versions

2. Click **Create a new workflow version**. The *New Version Wizard* screen appears.

Create new version for "Finance Approval" workflow
Create a new version of this workflow under the same workflow space.

Name

Finance Approval_13032016112916

☐ Generate new data tables (UACT..) for the duplicated activities
☑ Make new version active

[Create]   [Cancel]

Create New Version

3. Enter the **Name** of the new version**.**

4. If you select **Generate new data tables (UACT…)**, the UACT tables will be duplicated with an extension and used as the new workflow version's data source. If you do not select this option, the new version will use the same data storage as the existing active workflow version.

5. Select/deselect **Make new version active** depending on if you want the new version to be the active version or not.

6. Click **Create**. When completed, the *Version Creation Status* screen opens, informing you if operation was a success.

Version creation status for "Finance Approval" workflow

✔ New workflow version was created successfully.

Close

Version Creation Status

7. Click **Close**. The new workflow version is now in the workflow space alongside the existing version(s).

Creating a Copy of a Workflow

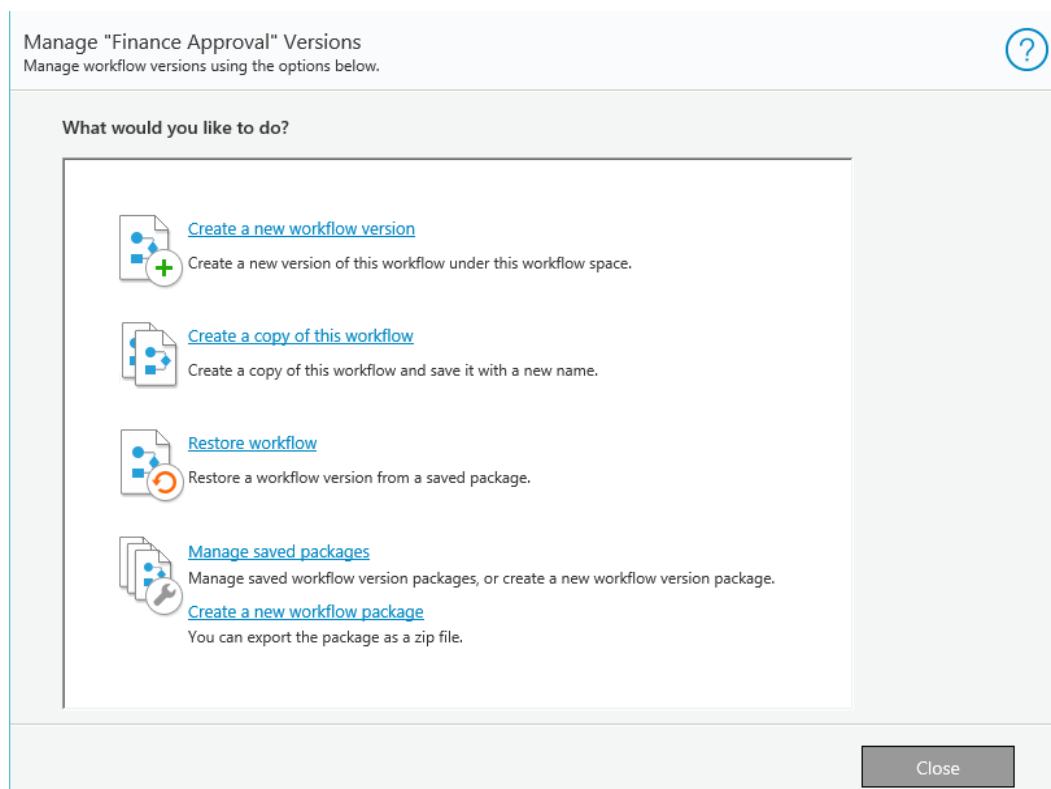You can create a copy of a workflow and have it placed in a new workflow space using the Manage Versions wizard.

To create a copy of a workflow:

1. In the **Administration**, in the Workflows tree, find the workflow for which you want to create a copy. Right-click it and select **Manage Versions**.
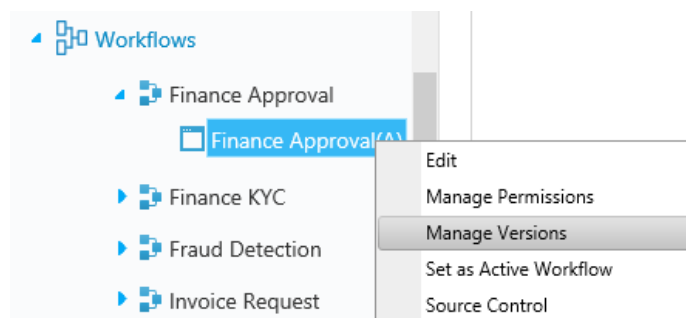
Workflows Tree

The *Manage Versions* wizard opens.

Manage Versions

2. Click **Create a copy of this workflow**. The *Create a Copy of Workflow* screen appears.

Workflow Duplication Wizard

3. Enter the **Name** of the new workflow.
4. Click **Create**. When completed, the *Confirmation* screen opens.

Creation of "Finance Approval" workflow copy status

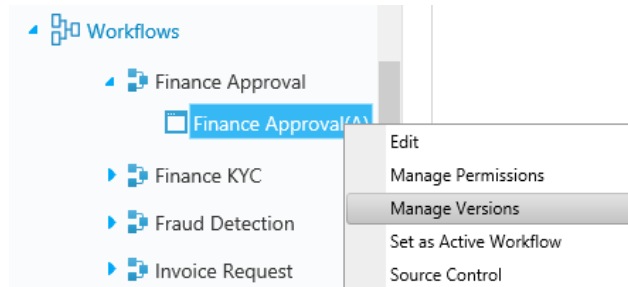✔ New workflow was created successfully.

Close

Confirmation Screen

5. Click **Close**. The new workflow now appears in the workflow tree in its own workflow space.

Managing Saved Packages
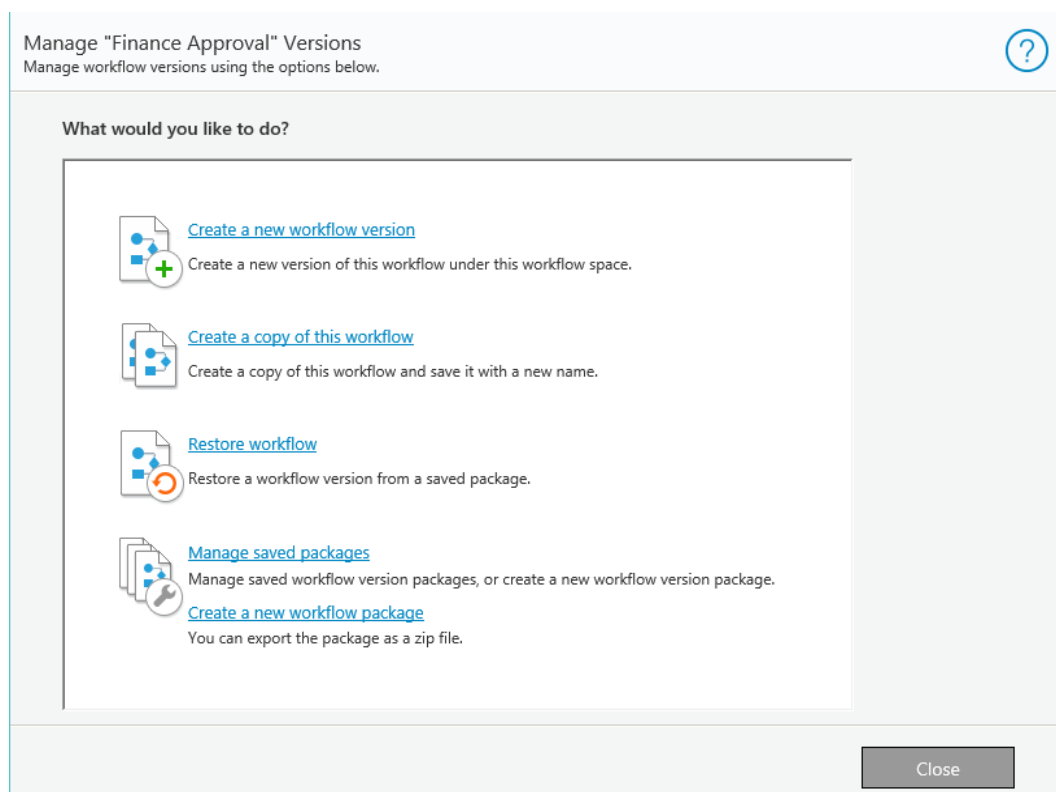
You can view and manage saved workflow packages from the Manage Versions wizard.

To manage saved packages:

1. In the **Administration**, in the Workflows tree, find the workflow which you want to manage. Right-click it and select **Manage Versions**.

Workflows Tree

The *Manage Versions* wizard opens.

Manage Versions

2. Click **Manage saved packages**. The *Manage Saved Packages* screen appears:

Manage Saved Packages

- Select a package and click **Download** to download the package .zip.
- Click **Restore** to restore the package.
- Click to delete the package.
- Click **+ Create new package** to create a new package.

Setting a Version as the Active Version

When you have several versions of a workflow in the same workflow space, one of these versions is the active version. New instances of the process run by default on the active version.

To set another version of a workflow as the active version:

1. In the **Administration**, in the Workflow tree, right click the version you want to set as the active version, and click **Set as Active Workflow**.
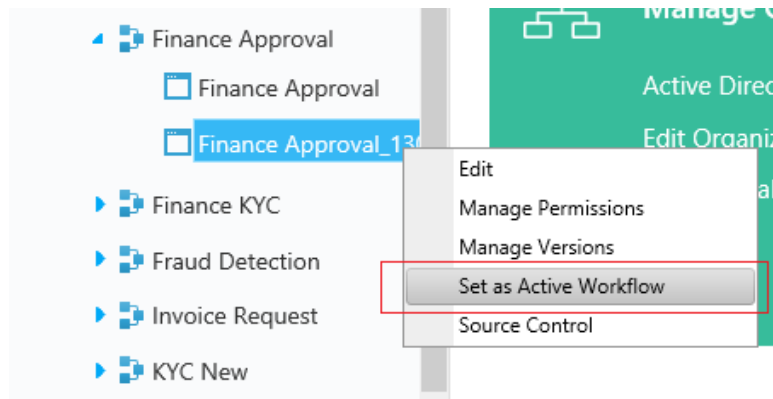
Set as Active Workflow

The version now shows an (A) appended to its name, indicating that it is now the active version.

![PNMSOFT - Business Processes in Motion™]

Solution Version Management

APPLIES TO: Sequence 8.x

Creating solution versions and importing them into another Sequence environment is very similar to performing the same actions on workflows (as described in the sections above). This section notes a few differences and issues to be aware for solution version management.

To manage solution versions, right-click the solution, and select **Manage Versions**.

The Solution Version Management wizard appears:
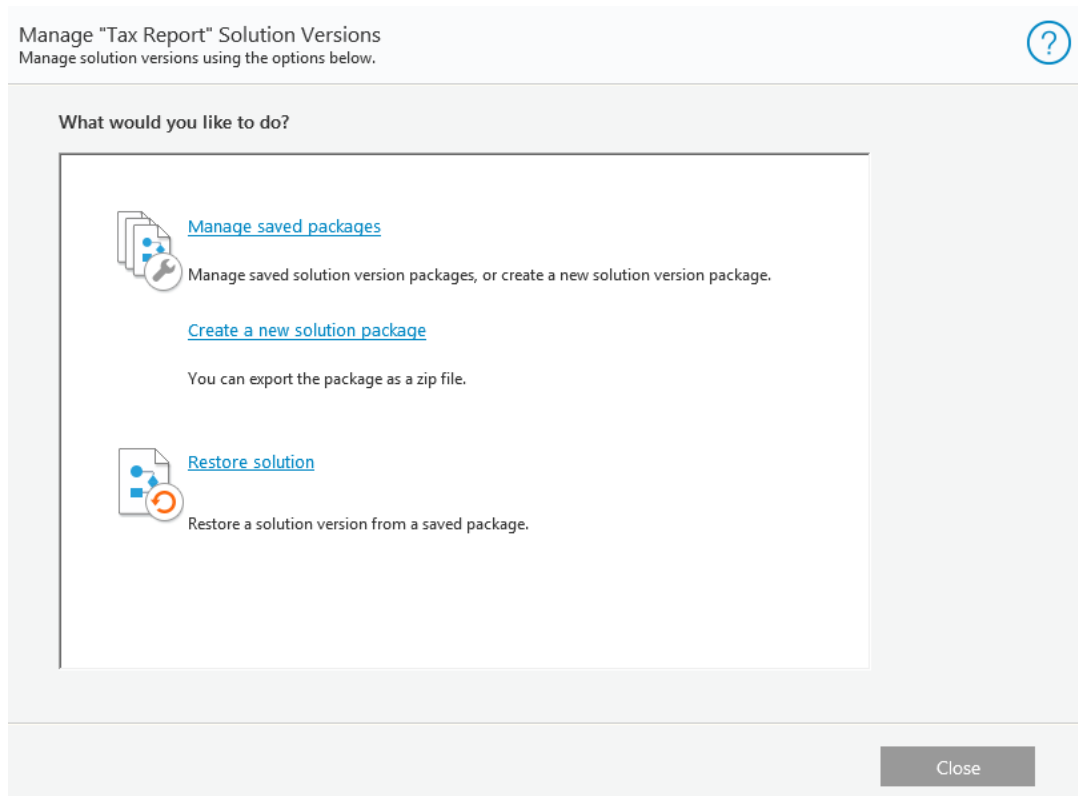
Solution Version Management Wizard

Here you can perform version management actions such as creating package for export, restoring (importing) a saved package, and managing saved packages.

Restoring a Version

If you restore a solution which already exists in your environment, you will overwrite the existing version with the restored version.

Solution Export/Import

Which elements are included?

When creating a solution package for export/import, it is important to note that only the Solution definition is included in the package, but not the solution's workflows. This definition includes elements such as Reference to the master workflow, Resources References, Plan (for HotOperations solutions), etc. You must export/import the solution's workflows separately.

Note: from version 8.2, during import, you can map the Plan Allocation resource groups from source to target environment.

Solution Pre Import Actions - Plan Allocation Resource

Source	Target	
East Operations Team	East Operations Team	...
West Operations Team	West Operations Team	...

<div style="text-align:center">Back   Next   Cancel</div>

Plan Allocation Resource Mapping

Import Validation

When you import a solution package, you can validate that the package includes all the necessary elements, by clicking **Validate**:

Import Validation

Sequence validates if the Solution package includes required elements such as Roles, Master Workflow, Resources (for HotOperations solutions).

If the validation succeeds, a success message appears. Otherwise, the missing elements are listed.

Best Practices

For information about Version Management and Deployment best practices, see the following resources:

- [Workflow Versioning Best Practices](#)
- [Deployment Best Practices](#)
- [Deployment Template](#)