

Workflow Manager 2019 Update 2 Release Notes

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Introduction

Workflow Manager helps enterprises efficiently manage the Application Readiness and Software License Optimization processes to streamline the procurement, preparation, deployment, and ongoing management of applications. Workflow Manager maximizes productivity of the IT team by automating change management, asset management, and other ITIL processes as part of the enterprise application lifecycle.

When IT-wide processes such as preparing application for deployment, migrations, and license optimization are managed poorly, expensive errors can occur, resulting in costly delays, lost productivity, and overspending. Workflow Manager standardizes, coordinates, and streamlines the management of applications through the entire enterprise lifecycle, reducing costs and maximizing productivity.

Workflow Manager supports both AdminStudio Suite and FlexNet Manager Suite for Enterprises. IT teams of every size use Workflow Manager to coordinate software asset management—from application packaging and deployment, through software licensing and optimization after deployment. Workflow Manager can manage desktop management processes, such as preparing for Windows migrations and application virtualization, as well as procurement, auditing, and retirement of software assets.

New Features in Workflow Manager 2019 Update 2

In Workflow Manager 2019 Update 2, the following new features and enhancements are introduced:

- [Introducing New Data Elements](#)
- [Identifying Unique Record using Web Service Call](#)
- [Naming Workflow Folder Structure](#)



Note • In addition to these new features, several additional customer issues were addressed. For more information, see [Resolved Issues](#).

Introducing New Data Elements

In Workflow Manager 2019 Update 2, the below data types are introduced:

- [Upload Folder Content](#)
- [AdminStudio Package Content Upload](#)

Upload Folder Content

In previous releases of Workflow Manager, you can upload link in a workflow step which enables a user to upload application, documentation, or dependency files to a specific location on the Workflow Manager file server for the selected workflow request.

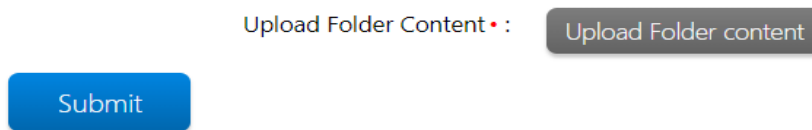
A new data element named **Upload Folder Content** is introduced in Workflow Manager 2019 Update 2. This new data element enables users to upload multiple files in a folder at once. This new data element provides the control to create a folder structure and upload multiple files into each of these folders all at once. All the files and folder structure defined in this data element will be uploaded to a specific location on the Workflow Manager file server for the selected workflow request.

If a data collection step contains a data element of type Upload Folder Content, the person completing the workflow request will be presented with an Upload button.

Data Entry

Enter or review the data that is submitted as part of this workflow step.

Current Page: DG1



Clicking this button will open the File Upload dialog box, where one or more files may be uploaded.



Tip • You can find the list of uploaded files in the **Uploaded Files** tab of the selected workflow request.

AdminStudio Package Content Upload

In previous releases of Workflow Manager, you can import a package into AdminStudio Application Catalog using the data elements **AdminStudio Package Upload** and **AdminStudio Package Upload** from the Import Path.

A new data element named **AdminStudio Package Content Upload** is introduced in Workflow Manager 2019 Update 2. This new data element provides the capability to import an uncompressed setup file (msi or exe), along with its supporting files and folders into AdminStudio Application Catalog. This new data element gives you the control to create the folder structure to match the folder structure of an uncompressed setup file. After the folder structure is created, you will be able to upload multiple files at once into each of these folders to match the folder content of the setup file. This new data element also provides control to specify the actual setup file (msi or exe) to be imported into the catalog and to specify the transform file, if any. All the package files and folder structure defined in this data element will be uploaded to a specific location on the Workflow Manager file server for the selected workflow request from which the package will be imported into AdminStudio.

When you click the **Upload Package Content** button, the **Upload** windows pane opens.


Data Entry


Enter or review the data that is submitted as part of this workflow step.

Current Page: Group

Upload • :


Upload Package Content

Package File: 

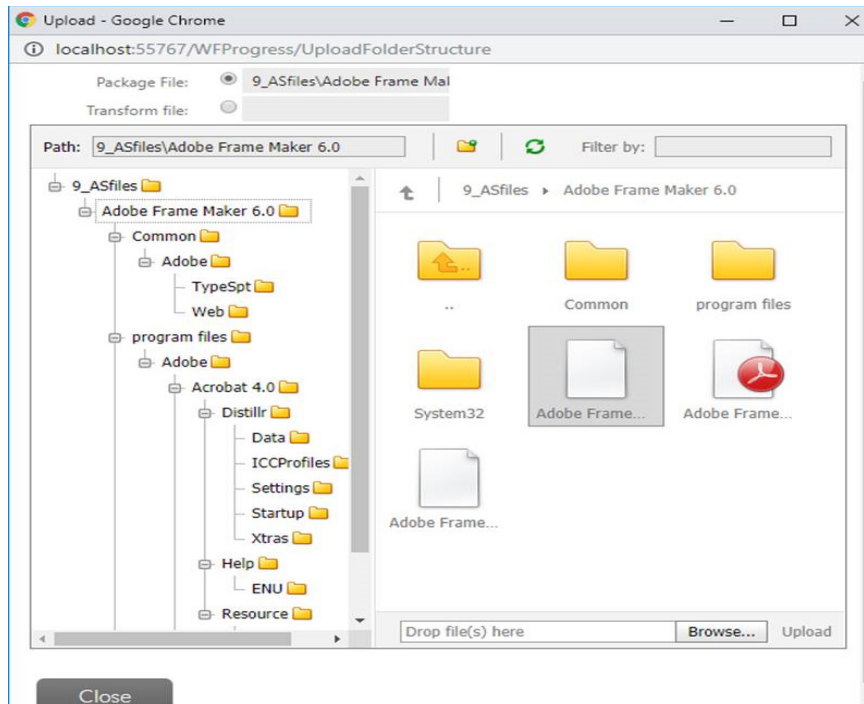
Transform file: 

Group name • :



Tip • You can use clear button  to clear the selected Package File and Transform File.

On the **Upload** windows pane, you can select multiple files using **Browse** option.



When you have finished selecting files, click **Upload**. Progress messages will be listed.

All uploaded files will be moved to the selected folder structure. Select the **Package File** radio button, and select an application file which you want to import into the AdminStudio catalog.

Select the **Transform File** radio button, and select the relevant supporting file which has to be imported along with a selected application file into the AdminStudio catalog.

Click **Close** to return to the workflow step.

You can see the uploaded **Package File** and **Transform File**, then click **Submit** to complete the step.

At that point, a subsequent workflow step begins processing the import, as described in [Creating a Workflow Step to Process the Import](#).

Identifying Unique Record using Web Service Call

In Workflow Manager 2019 Update 2, a new property named **Persisted column** is added for the data element Web Service call. This new property is applicable when the value of the property **UI Type** is **Grid**.

This new property helps user to define columns to fetch a unique record from the output returned from a web service call.

The screenshot displays the 'Data Element Details' configuration interface. The sidebar on the left shows a tree view with 'Test Data Group' expanded to show 'Test Data Element'. The main configuration area includes the following fields:

- Description:** Text area containing 'Test Data Element'.
- *Required:** Radio buttons for 'Yes' (selected) and 'No'.
- *Sort order:** Text input field with '10'.
- Help text:** Text input field.
- *Internal Name:** Text input field with 'E1'.
- *Data type:** Dropdown menu set to 'Web Service Call'.
- Web service name:** Dropdown menu set to 'FNMP Compliance API Service'.
- Web method:** Dropdown menu set to 'GetData'.
- *UI Type:** Dropdown menu set to 'Grid'.
- Persisted column:** Text input field with 'Country;Order No'.
- Web method details:** Section containing a 'URL:' text input field.

A note below the 'Persisted column' field reads: 'Please enter Key field Name(s) with \';' separated'.






Persisted Column—Enter a column name or names, separated by semicolon, which identifies and returns a unique row item or record.

For instance, in the below figure, the column name Country has multiple entries with the same value (USA). In this case, this column alone cannot be used as primary key to identify an unique record.

You may have to either specify name of a single column which has unique values or multiple column names whose values combine to identify and fetch an unique record. Specify single or multiple column names in this new property **Persisted column** like this: **Country ; Order No** or **Sales Rep ; Order No** or only **Order No**.

Select Row

Type keyword to search:

4 results returned 20 rows per page     

#	Country	Sales Rep	Order No
<input type="checkbox"/>	USA	Fuller	10392
<input type="checkbox"/>	USA	Fuller	10397
<input type="checkbox"/>	USA	Fuller	78136
<input type="checkbox"/>	UK	Coghill	784568

Naming Workflow Folder Structure

In previous releases, while submitting a workflow request, a folder with a name entered in the **Workflow request name** field will be created in the folder path

C:\AdminStudioWebComponents_2019\SHAREPATH\Workflow_Administrator\Workflow_Consumer.

In Workflow Manager 2019 Update 2, you can create the folder with a desired name, the folder will get created in the folder path C:\AdminStudioWebComponents_2019\SHAREPATH\.

A new check box **Specify Workflow Folder Name** is added in the **Settings > Company Preferences**.

If you select the check box **Specify Workflow Folder Name**, in the **Settings > Company Preferences**, You can see the **Workflow folder name** field in Submit Workflow Request page.

AdminStudio Import Formats :

Release AdminStudio Receipt :

Custom table pattern to search :

Sync Folder structure as per Workflow Manager :

Role That will be shown in Workflow Lists :

Specify Workflow Folder Name :

Select this option to instruct Workflow Manager to ask for a desired folder name while submitting a workflow request. The workflow folder will be created in a name which user enters in the **Workflow folder name** field.

Click Submit Workflow Requests on the **Workflows** menu of the navigation bar. The **Submit Workflow Request** page opens.

Submit Workflow Request

Enter a name to identify your request, select a project, and click Add.

* Workflow request name:

* Project:

Workflow folder name:

You can enter a descriptive name for your request in the **Workflow folder name** field.

A folder will be created in the folder path **C:\AdminStudioWebComponents_2019\SHAREPATH** with a name given in the **Workflow folder name** field.

New Features in Workflow Manager 2019 Update 1

In Workflow Manager 2019, the following new feature is included:

- [Editing a Template and Update the Changes to In-Progress workflows](#)



Note • In addition to these new features, several additional customer issues were addressed. For more information, see [Resolved Issues](#).

Editing a Template and Update the Changes to In-Progress workflows

In Workflow Manager 2019, you can now edit the Template which has been used to create a workflows and update the new changes to In-Progress workflows.



Note • For more information see [Update-Template changes to In-Progress Workflows](#)

In Workflow Manager 2019 the following changes can be made:

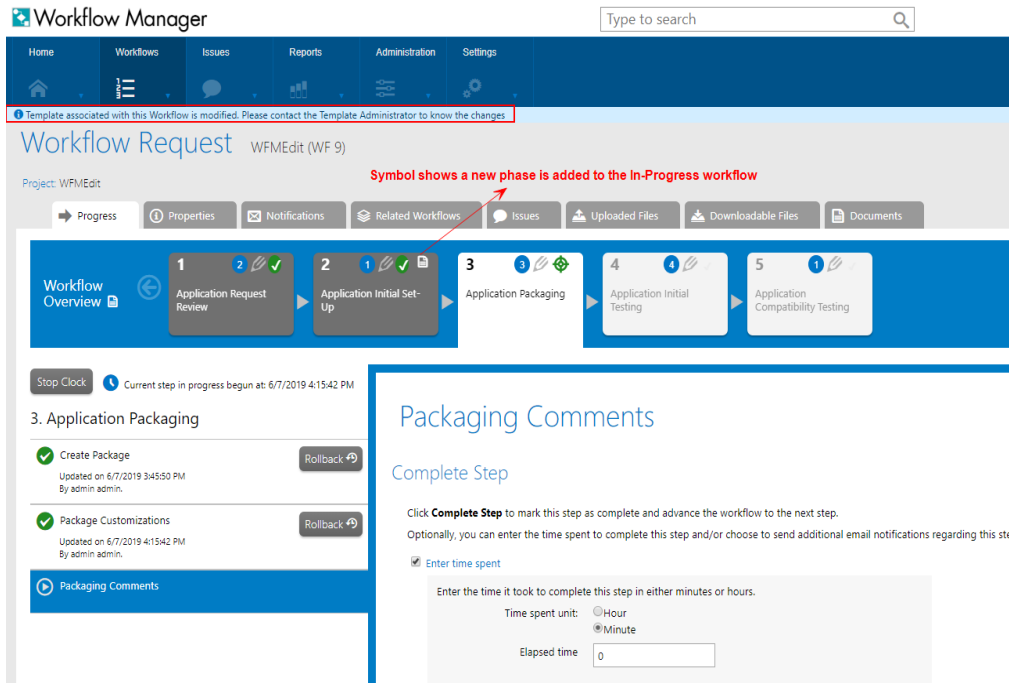
- You can now edit an existing Template which has In-Progress workflows, see [Editing a Template That is in Use](#).
- In the Workflow Phases:
 - You can **Add >> New Workflow Phases**
 - You can **Add >> New Workflow Steps**

- In the Data Groups:
 - You can **Add >> New Data Groups**
 - You can **Add >> New Data Element**
- The new tab **Validate** is added, click F5 after updating a changes in the Template. **Validate** tab opens.
- In the Validate Tab:
 - **Validate** Button - click this to validate the Template.
 - **Update In-Progress Requests** Button - Click this to update the changes to In-Progress workflows.



Note • You can update the changes to In-Progress workflows only after validating the Template.

- When a new changes in the validated Template successfully updated to an In-Progress workflows, you will receive the notification message.



Upgrading Workflow Manager Older Version to Workflow Manager 2019 Update 2

To upgrade an installation of Workflow Manager 2018 Update 2 or older to Workflow Manager 2019 Update 2, you must first uninstall the older version of Workflow Manager.

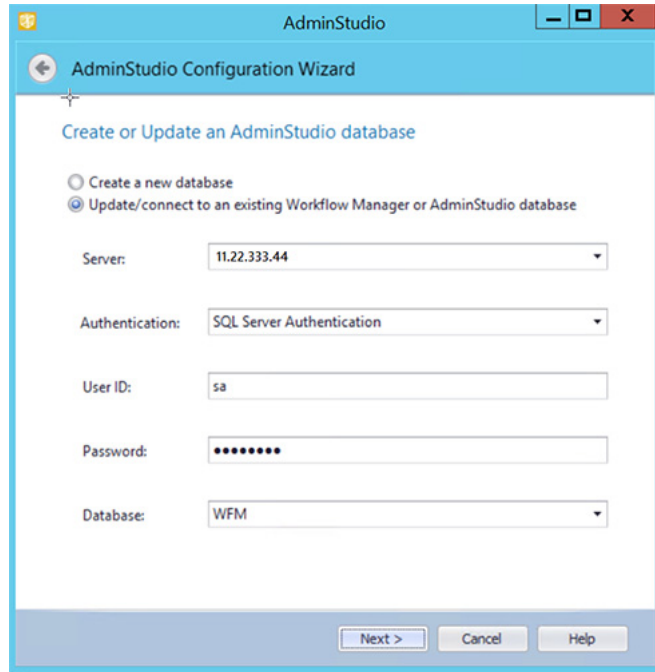
To upgrade an older version of Workflow Manager to Workflow Manager 2019 Update 2, perform the following steps.



Task

To upgrade an older version of Workflow Manager to Workflow Manager 2019 Update 2:

1. Download the installer for Workflow Manager 2019 Update 1 from the Flexera Product and License Center: <https://flexerasoftware.flexnetoperations.com>
2. If you have Workflow Manager 2018 or older is installed, open the Control Panel and uninstall it.
3. Launch the installer you downloaded in Step 1. Follow the instructions in the Installation Wizard until installation is completed.
4. After successful installation, AdminStudio Configuration Wizard will automatically launch.



5. On the **Create or Update an AdminStudio database** panel of the **AdminStudio Configuration Wizard**, provide the details and credentials of the SQL Server and database that was used in the older version of Workflow Manager.
 6. Follow the instructions in the Configuration Wizard until it is completed. The wizard will upgrade the database and make it compliant with the new version of Workflow Manager.
 7. Refresh/restart IIS on the Workflow Manager server.
- After performing these steps, you can launch the updated version of Workflow Manager.

Resolved Issues

This section lists the customer issues that were resolved in the following versions of Workflow Manager:

- [Workflow Manager 2019 Update 2](#)
- [Workflow Manager 2019 Update 1](#)
- [Workflow Manager 2019](#)

Workflow Manager 2019 Update 2

This section lists the customer issues that were resolved in Workflow Manager 2019 Update 1:

Issue	Description
IOJ-1996842	Last Phase in a template has branching and link to next phase options enabled

Issue	Description
IOJ-1991874	New Data Element required to Upload Folder structure.
IOJ-1920785	Consumer users should be able to see all the workflow requests in "All Workflow Requests" page.
IOJ-1897486	Data Element for File Share Directory Name.
IOJ-1886939	User is able to view assignments When the role doesn't have permissions.
IOJ-1870555	Incorrect permission and notifications behavior for Workflow.
IOJ-1778624	Web Service Call control chooses incorrect record if values in first column are not unique.

Workflow Manager 2019 Update 1

This section lists the customer issues that were resolved in Workflow Manager 2019 Update 1:

Issue	Description
IOJ-1990898	Workflow Manager url in FSG server should also support HTTPS protocol.
IOJ-1986751	Unable to Edit Templates After Upgrade To WFM 2018 Update 1
IOJ-1927509	Few visual issues are present on work assignment step after a search has been performed to assign the step to a user.
IOJ-1922444	The security token is invalid error message is returned when trying to call Create Workflow Request method when windows authentication is used.
IOJ-1920763	Write option should be renamed to Edit in Apply Permission to Templates drop down in Role Details page
IOJ-1920209	Days in Phase and Submitter Columns Not Populated Correctly
IOJ-1912054	Several references throughout the documentation in helpnet refers to Workflow manager 2016
IOJ-1912017	Help link on Dashboard page (possibly elsewhere) point to Workflow Manager 2017 documentation.
IOJ-1911913	Web page Formatting issues with 2018
IOJ-1908398	Unable to Save Approval Template Need to Add At Least One Approver

Issue	Description
IOJ-1908027	Update Data Appends Symbols to Data if Submitted With no Change.
IOJ-1907414	Will Changing the AMS_Condition Table ItemName Column Affect Things?
IOJ-1907123	Subsequent Saves Fail If the Internal Name is Left Blank When Saving a Single Selection Data Element on First Attempt
IOJ-1905536	What Can Cause SetWorkAssignments Exception?
IOJ-1876823	Cannot associate package with Workflows
IOJ-1867187	Modifying a Template in Use Breaks Existing Completed Workflows.
IOJ-1819679	Text Area data element is causing auto rollback to not work
IOJ-1990409	Unable To Update Workflow Phase Branching Correctly

Workflow Manager 2019

This section lists the customer issues that were resolved in Workflow Manager 2019:

Issue	Description
IOJ-1806780	Rollback does not undo assignment step.
IOJ-1894635	Folder location has extra backslash.
IOJ-1895723	PackageUploadDirectory does not appear to be used for AdminStudio Package Upload .
IOJ-1887310	Export ability of Custom Stored Procedure Report shows blank screen.
IOJ-1860637	Renaming a Data Group should also rename conditions connected to Data Elements in the group.
IOJ-1922494	Not all users are shown when searching from the Assignment Step.

System Requirements



This section lists the system requirements for Workflow Manager.

- [Workflow Manager Web Server](#)
- [Workflow Manager / AdminStudio Database Server](#)
- [File Share Server](#)

- [Workflow Manager End User Computers](#)
- [Portal Web Server for Intranet Clients](#)
- [Portal Web Server for Internet Clients](#)
- [Workflow Manager System Account Requirements](#)

Workflow Manager Web Server

The following table lists the system requirements for the Web server that hosts the Workflow Manager Data Web service and the actual Workflow Manager Web site.

Item	Description
Processor	32-bit or 64-bit processor at 2 GHz or greater. 
	Note • <i>Workflow Manager runs in 32-bit mode on a 64-bit OS.</i>
RAM	4 GB or greater (8 GB preferred)
Hard Disk Space	100 GB or greater
Operating System	Windows Server 2008 R2 or later / English base language (Windows Server 2012 preferred)
IIS	IIS 7.0 or later
.NET Framework	.NET Framework 4.6.1 or later
ASP.NET	ASP.NET 4.0.30319 or later
MSXML	MSXML 6.0 
	Note • <i>MSXML is installed by the Workflow Manager installer.</i>

Workflow Manager / AdminStudio Database Server

This following table lists the recommended system configuration for a Workflow Manager/AdminStudio Application Catalog database server:



Note • While minimum requirements are listed below, the recommended system configuration for a database server is dependent upon the number of users and the number of packages that will be imported into the Application Catalog database

Item	Description
Processor	32-bit or 64-bit processor at 2 GHz or greater
RAM	4 GB or greater (8 GB preferred)
Hard Disk Space	80 GB or greater
Operating System	Windows Server 2008 R2 or later (Windows Server 2012 preferred)
Database Software	<p>SQL Server 2008 R2 or later databases, including SQL Server 2012 and SQL Server 2014 (latest version preferred)</p> <ul style="list-style-type: none">• Dictionary sort order—SQL Server must be installed with case-insensitive dictionary sort order 52 on Code Page 1252 for non-Unicode data. For more information, use the <code>sp_helpsort</code> T-SQL command, which returns the following: Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode data• Collation setting—SQL_Latin1_General_CP1_CI_AS is the required collation setting for AdminStudio database server. It is the only supported collation.



Note • Before attempting to connect to an existing Microsoft SQL Server, open SQL Server Configuration Manager and make sure that the following three protocols are enabled:

- Shared Memory
- Named Pipes
- TCP/IP

File Share Server

This following table lists the system requirements for the machine that stores Workflow Manager's uploaded source files and the repackaged output files:

Item	Description
Processor	2 GHz or greater

Item	Description
RAM	2 GB or greater
Hard Disk Space	1 TB or greater
Operating System	Windows Server 2008 R2 or later

Workflow Manager End User Computers

This following table lists the recommended system configuration for a Workflow Manager end user machine:

Item	Description
Browser	<ul style="list-style-type: none"> ● Microsoft Internet Explorer 9.0 or later ● Chrome for Windows 33.0 or later ● Firefox for Windows 25.0 or later ● Safari for Mac OS X and iOS
Monitor Resolution	1024 x 768 pixels or higher

Portal Web Server for Intranet Clients

A portal is not required to support Windows NT authentication. You can enable Windows NT authentication directly on the web site.

Single sign-on is only supported when the user that logs into IIS has been imported into the Workflow Manager database using Active Directory. The administrator can either import the complete group or only one user. If a complete group is imported, then all the members of the group can be logged into Workflow Manager using single sign-on.

The system requirements for this machine are the same as for the [Workflow Manager Web Server](#).

Portal Web Server for Internet Clients

For better security and to manage access to the Workflow Manager Web Server, it is recommend to also set up a portal Web server for Internet clients.

If Workflow Manager needs to be accessed over the Internet, it is recommended to set up a portal Web server, residing in a demilitarized zone (DMZ). This Web server:

- accepts the requests from the Internet clients,
- forwards them to the Workflow Manager,
- gets responses from the Workflow Manager, and
- forwards them to the clients

You can configure the Workflow Manager to entertain the request only if it is coming from the Portal Web server, and otherwise reject the request. The Portal Web server manages access to Workflow Manager and ensures that clients are not able to access any data or documents without logging in.

The system requirements for this machine are the same as for [Workflow Manager Web Server](#).

Workflow Manager System Account Requirements

The AMS_SYSTEM account on the Workflow Manager server requires the following privileges:

- **IIS_WPG group member**—Must be a member of the local IIS_WPG group (or IIS_USRS) on the web server.
- **Modify permissions on file share**—Must have “modify” permissions on the Workflow Manager file share.
- **Email permissions**—Must have permission to send e-mail through the SMTP server.
- **Active Directory query permission**—Must have permission to query Active Directory.
- **Local Administrators group member**—If Workflow Manager will be calling any of the AdminStudio Platform APIs in the iPlugin DLL, the AMS_SYSTEM account must be a member of the local Administrators group.

Legal Information

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