

Sequence Kinetics SP9

Release Notes

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Introduction

Sequence Kinetics SP9 (Sequence v7.9) is an official product release incorporating new features and fixes. SP9 introduces powerful and practical new features such as Email Listener, Snippets Wizard and more.

For a complete list of Sequence Kinetics's major features, [click here](#). This document details the features added in the latest update, SP9. Sequence Kinetics SP9 was approved for release by PNMsoft QA on March 12th, 2015.

Installation

You can download the installation files from the [Download Centre](#).

New Sequence 7.9 Installation

1. Unzip the file *7.9.0\Installation\SequenceKinetics7.9_Setup.zip*.
2. Run *7.9.0_Setup.exe* as an administrator (it is in the zip file).
3. Job Service Execution features require installation steps. See the **Installation Note** under the New Features – Email Listener for details.

Follow the instructions in the [Sequence 7.x Installation Guide](#) in the [Knowledge Centre](#).

Upgrading from Sequence v7.0 or higher

1. Verify that the accounts have the required permissions:
 - Refer to the “Required Accounts” section in the [Sequence 7.x Installation Guide](#).
 - Use the “installation account” to run the upgrade.
 - **The database account should have sys_admin permissions for the duration of the upgrade. It can be downgraded to a minimum afterwards.**
2. Verify there are no constraint violations on your database data using the scripts attached in Appendix A.
3. Verify that version 7.0 or later is installed on your server:
 - In the Administration site, check the Assembly/Database version (under “Installation Details”, bottom-right section).
4. Backup the configuration files, meaning the PNMsoft folder (product), and the Sequence websites: Flowtime, Administration and Process^{TO GO}.
5. Backup your SharePoint site if relevant.
6. Backup your Database.
7. Download and unzip the file *7.9.0\Installation\SequenceKinetics7.9_Setup.zip*
8. Free up system resources:
 - i. Use the IISReset command-line utility to reset the IIS.

- ii. Stop the Windows Services: Active Directory Synchronization Service and Background Runtime Service.
9. Run 7.9.0_Setup.exe as an administrator (it is in the zip file).

Note: The original installation settings are automatically loaded in the upgrade wizard. If any of these settings have changed, please update the install shield.

10. Run IIS Reset and restart the Sequence services.
11. Please perform sanity checks according to the 'Installation Tests' that are in pages 44-45 of the [Sequence 7.x Installation Guide](#).
12. Job Service Execution features require installation steps. See **Installation Note** under the New Features – Email Listener for details.

Note: Installation of the v7.9 Job Execution Service requires installation of .NET 4.5.1. This prerequisite installation will force your computer to restart during the upgrade/installation.

Note: Sequence does not support removing specific features (such as Process^{TO GO}, CRM connector, etc.) which have already been installed.

New Features

Email Listener

The Email Listener activity enables you to listen to an email inbox and start/resume a workflow when a new email arrives. Afterwards, you can use the email object that is returned in other areas of the workflow. The JES (Job Execution Service) enables this activity to function. This service includes jobs that listen to a specific inbox.

Installation Note

When the user that is running the Job Execution Service is not a local administrator, perform the following step to enable correct functionality of this feature:

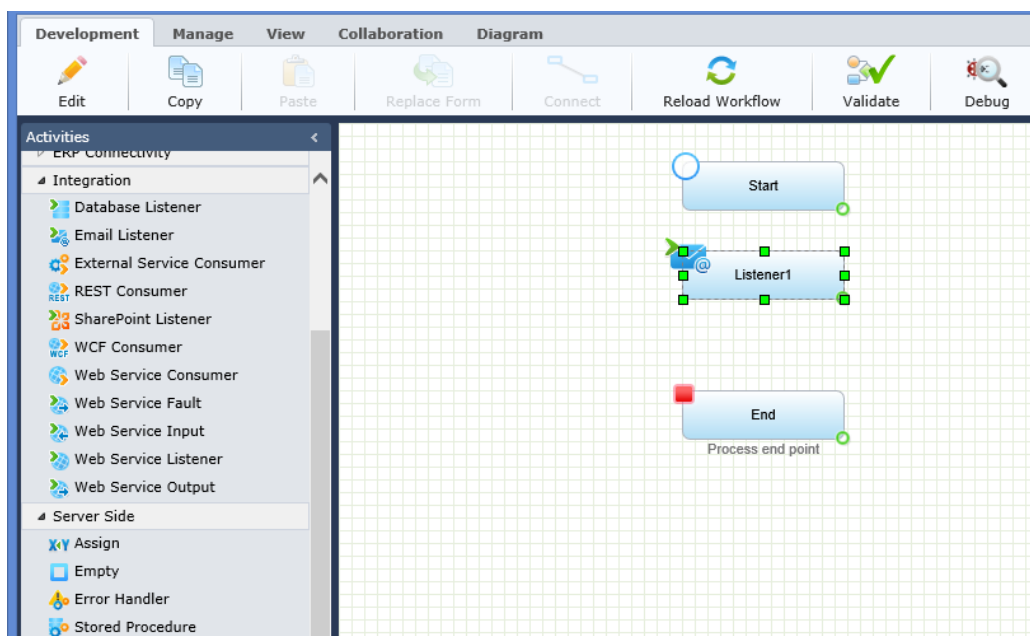
Open the command prompt as an administrator on the server where the Job Execution Service is installed, and run the following command:

```
netsh http add urlacl url=http://+:5432/Management/ user=[Domain\UserName]
```

[DOMAIN\Username] = the user running the Job Execution Service

Email Listener Activity

The Email Listener activity can be found in the Integration section of the Activities Toolbox. The activity can be used once in a workflow. It should be connected to the Start activity.



Email Listener

Job Definition Tab

This tab enables you to define the Job that will execute the Email Listener command.

The screenshot shows a web browser window titled "Activity Wizard - Internet Explorer" with the URL <http://10.10.10.22:9090/Administration/Web/UI/Activities/ActivityWizard.aspx?workflowId=c98c2d42-f930-4059-942d-c9a47bc5a73b&activityId=CI>. The main content area is titled "Job Definition" and contains three tabs: "Job", "Command", and "Advanced options". The "Job" tab is active and displays the following form elements:

- Name:** A text input field containing "SupportCalls".
- Job Host:** A dropdown menu with the text "Select the server where the job will be executed" above it. The selected value is "WIN-R9L1705LDHF".
- Description:** A large, empty text area with vertical scrollbars.
- Job is enabled:** A checkbox that is currently unchecked.

At the bottom right of the form, there are three buttons: "Back", "Next", and "Cancel".

Job Definition Tab

Command Tab

This tab enables you to define the Email Listener details. You can listen to POP3 or IMAP protocols.

The screenshot shows a web browser window titled "Activity Wizard - Internet Explorer" with the URL <http://10.10.10.22:9090/Administration/Web/UI/Activities/ActivityWizard.aspx?workflowId=c98c2d42-f930-4059-942d-c9a47bc5a73b&activityId=CI>. The page is titled "Job Definition" and has three tabs: "Job", "Command", and "Advanced options". The "Command" tab is selected. The form contains the following fields and options:

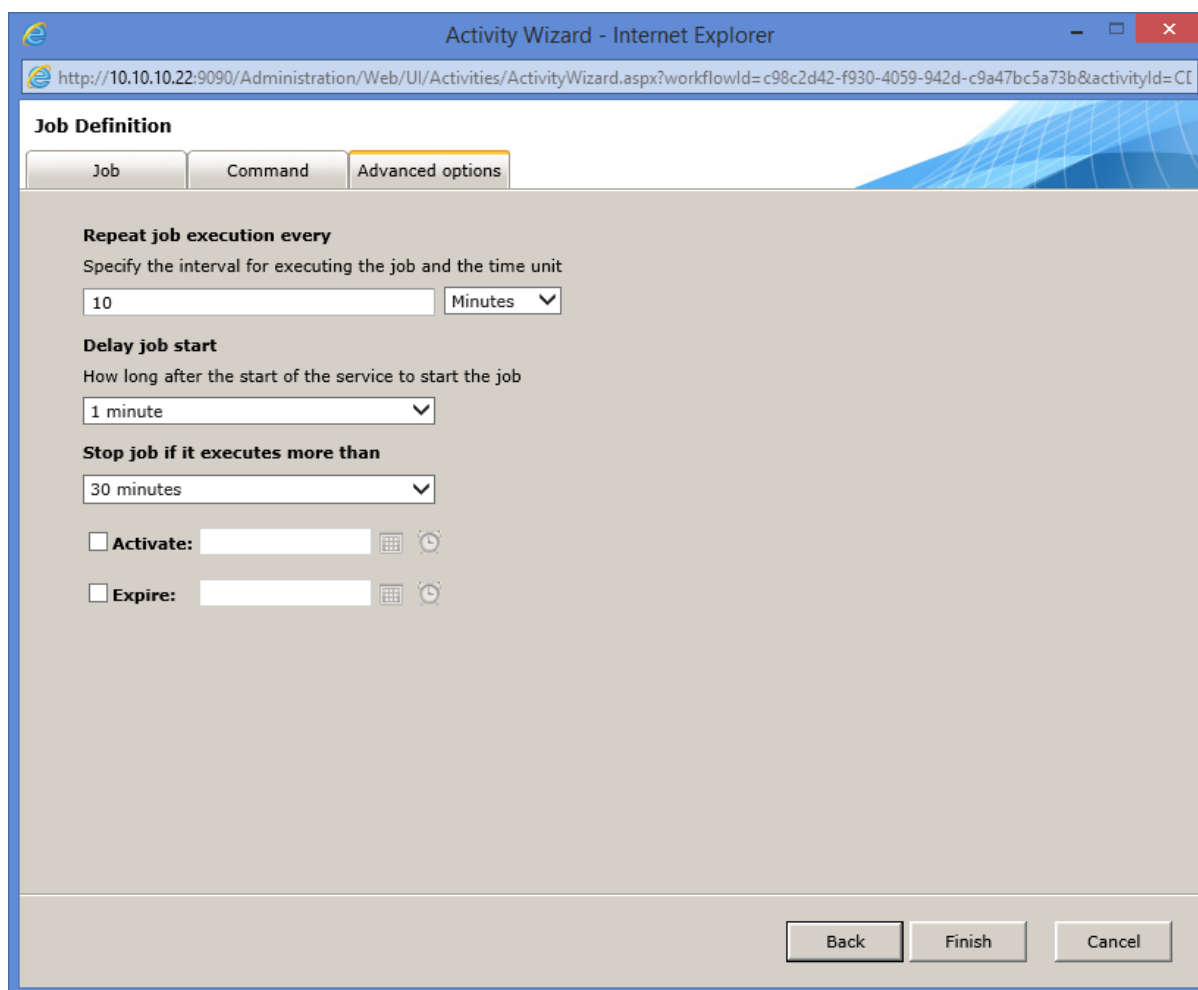
- Email Server:** smtp.gmail.com
- Port:** 993
- SSL:** Implicit (dropdown menu)
- Mailbox and Credentials:** Set the mailbox and password which allow access to the environment. Field: 365 imap (with a browse button "...")
- Protocol:** IMAP (dropdown menu)
- Folder:** Support
- Upon message processing perform this action:** Select the action that will happen after the message was processed. Field: Move to Folder (dropdown menu)
- Processed messages will be moved to this folder:** Archive (with a clear button "X")
- Include message attachments and linked resources**
-

At the bottom right of the form are three buttons: "Back", "Next", and "Cancel".

Command Tab

Advanced Options Tab

This tab provides advanced control over the execution scheduler.



Advanced Options Tab

Job Management Table

You can view and manage existing jobs in the Jobs Management table, from:

Administration > Global Settings > Jobs Management:

Name	Status	Last Run Result	Last Run Time	Next Run Time	Start / Stop	Enable / Disable	Delete	History
Consumer	Ready	Faulted	03/03/2015 15:16:35	03/03/2015 15:26:35		Disable		
Service	Ready	Succeeded	03/03/2015 15:15:52	03/03/2015 15:25:52		Disable		
Validation	Disabled	Faulted	02/03/2015 11:50:09			Enable		

Page size: 10 | 3 items in 1 pages

Jobs Management Table

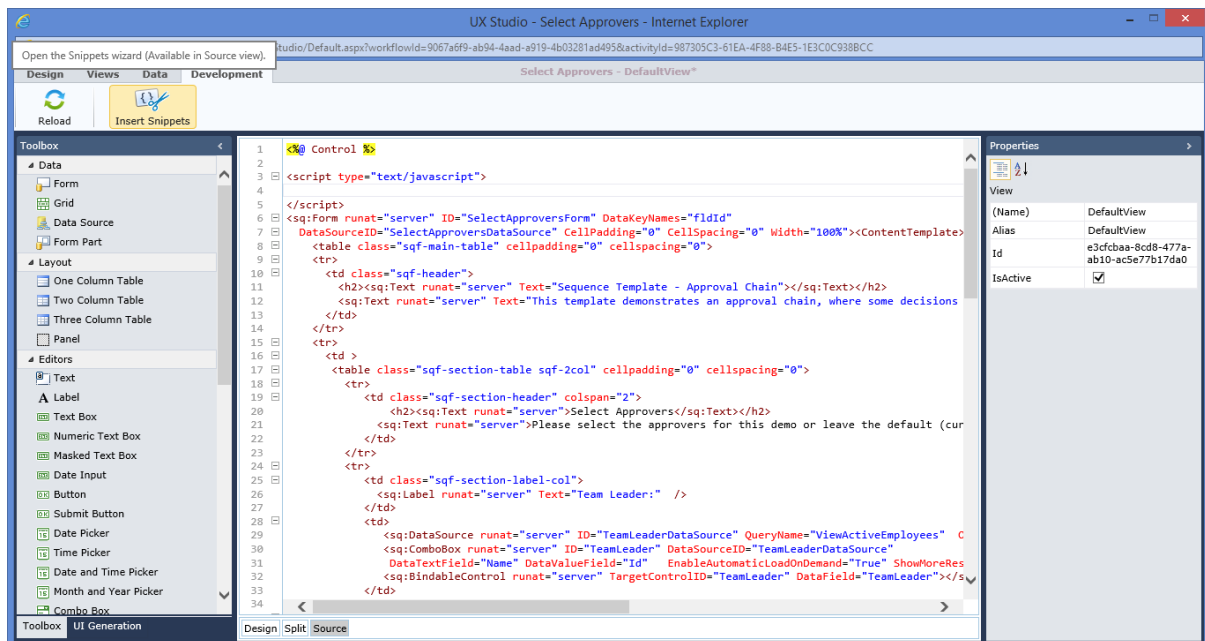
[Click here](#) to learn more about the Email Listener.

Snippets Wizard

It is now easier than ever to extend your form markup. Even if you are not a trained developer, you can use the new Snippets Wizard to get you started.

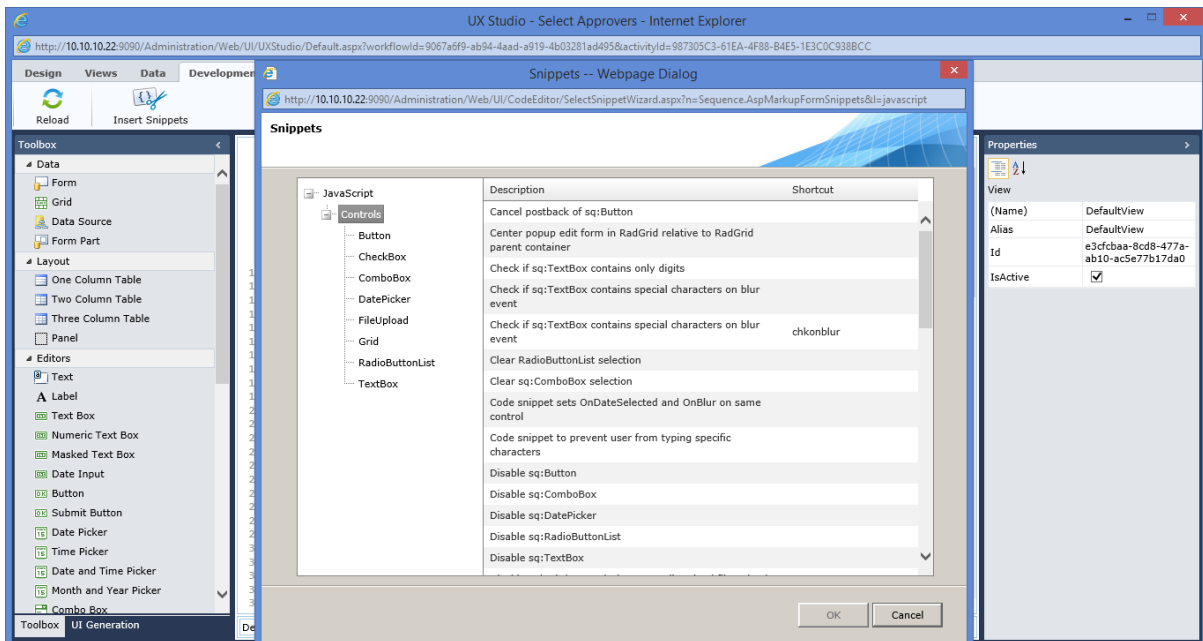
The Snippets Wizard is context sensitive – it opens the wizard options based on your cursor location in the code.

To access a broad set of useful JavaScript code functions, place the cursor inside the script tags and click **Insert Snippets** from the top ribbon.



Insert Snippets

Select the control to which you want to add the client-side code, then click the function of your choice. The code snippet is added to your markup.



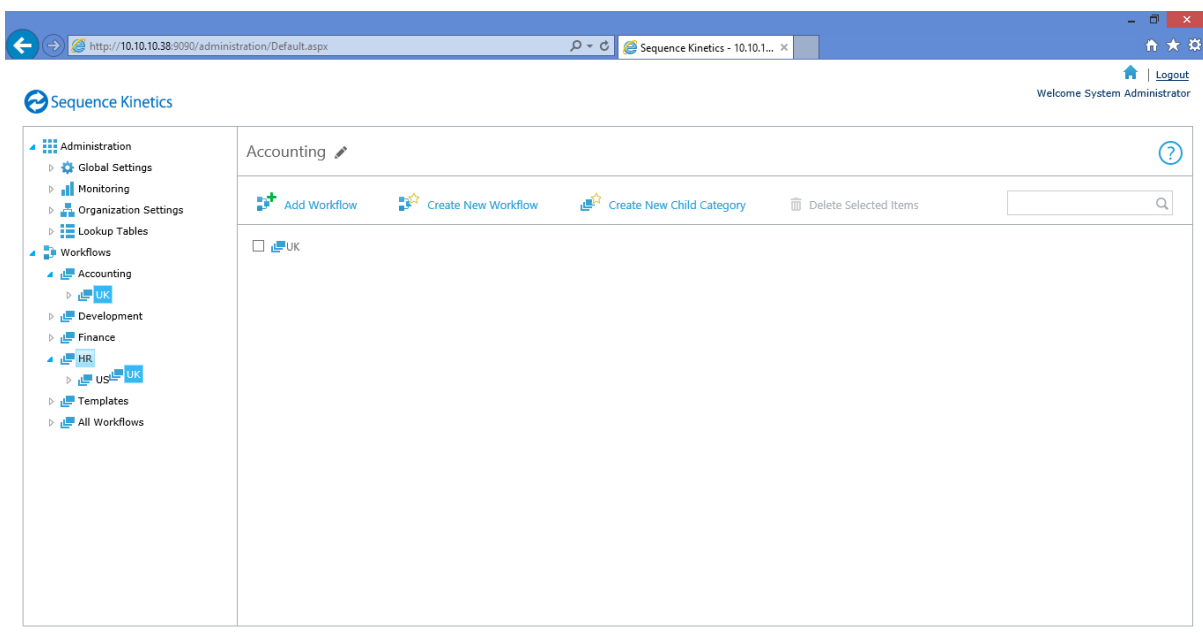
Snippets Wizard

Category Management

We are pleased to introduce an improved way of managing your categories and workflows in the Administration.

Drag and Drop from the Administration Tree

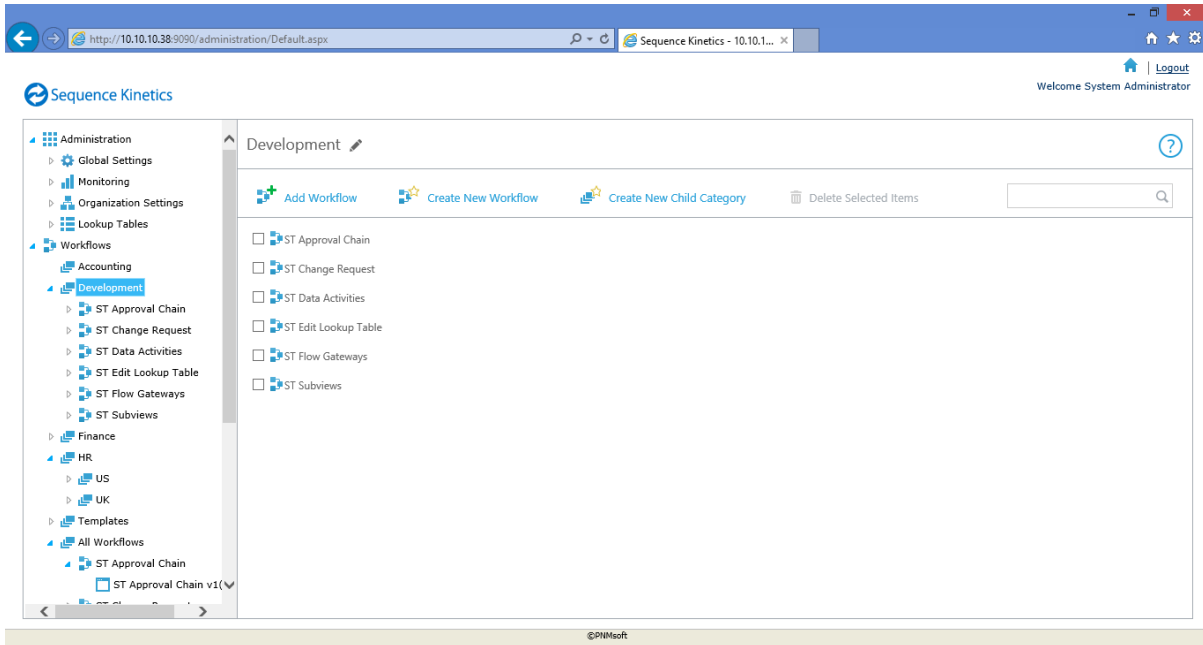
You can manage categories by dragging and dropping items in the left side tree. You can drag workflows or categories and control their display order.



Categories Management

Category Management Dashboard

You can search and manage workflows inside a category using the category management dashboard. Double-clicking a workflow opens the workflow for editing.

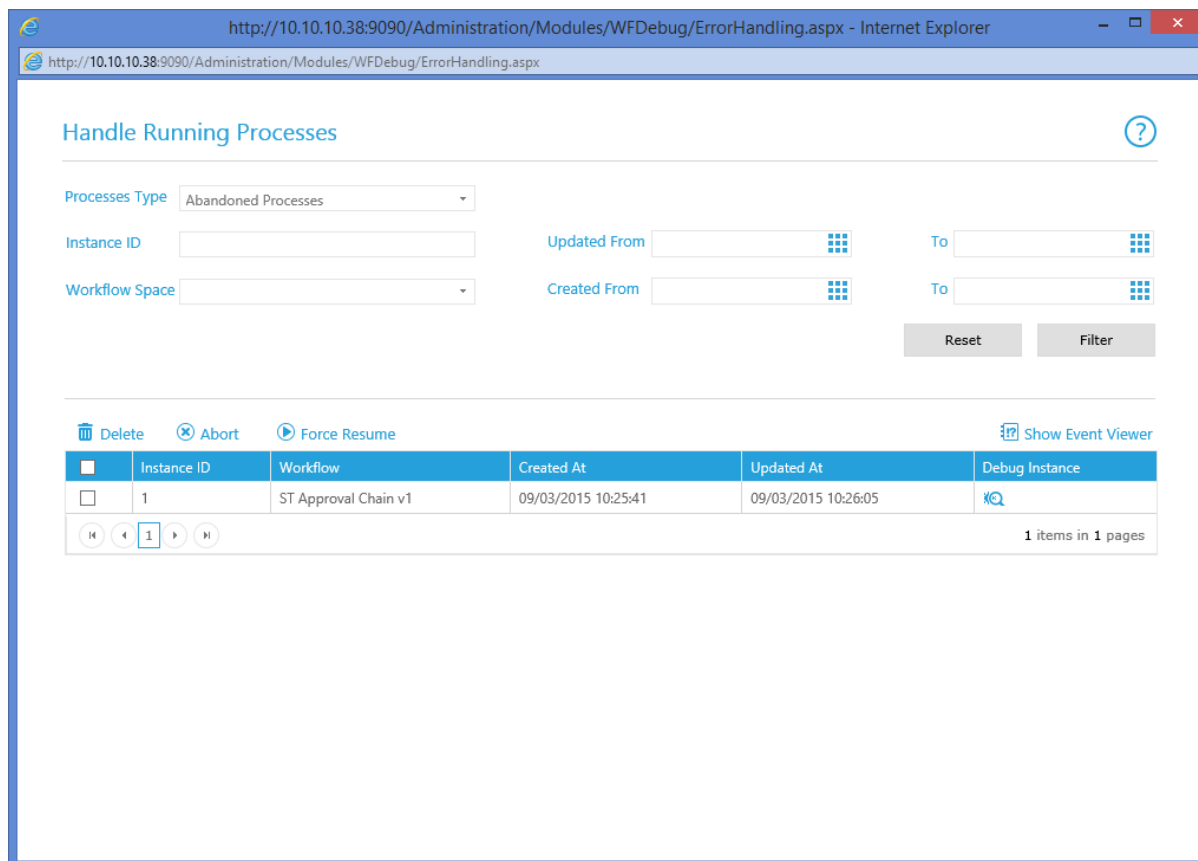


Category Management Dashboard

Enhanced Features

Handle Running Process UI

The look and feel of the popular Handle Running Processes screen (in the Administration) has been enhanced.

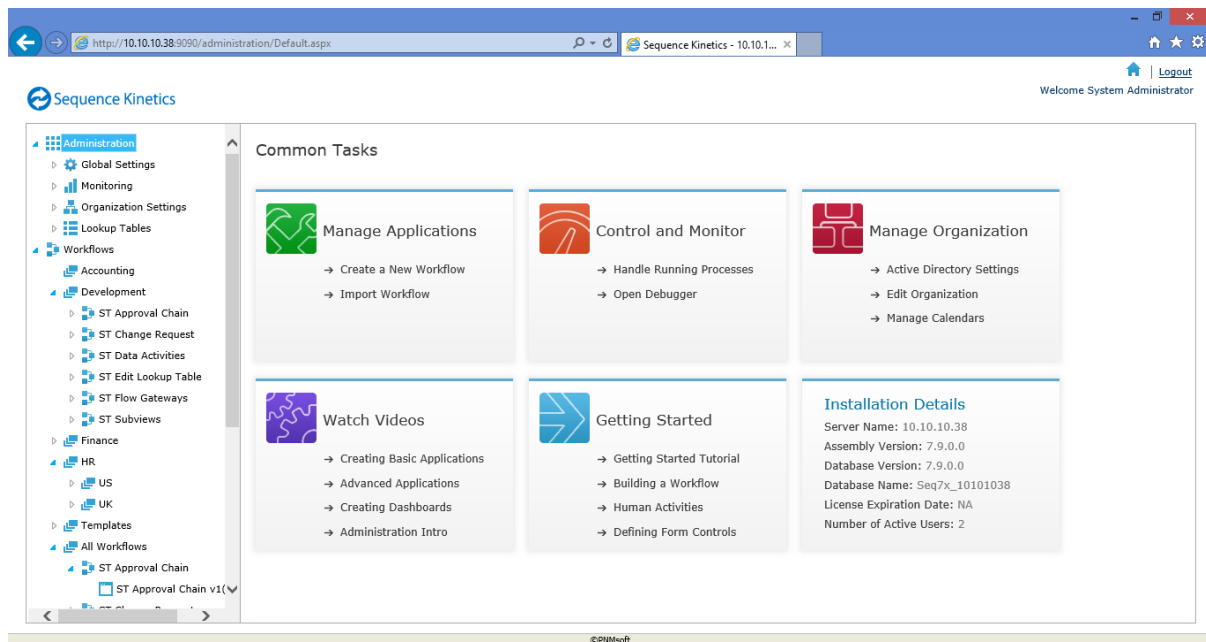


Handle Running Processes

Administration Main Page and Navigation

We have promoted useful commands such as Debugger and Handle Running Process to enhance your Administration experience.

We have also added quick links to useful videos which can help get you started with Sequence. We recommend watching them.

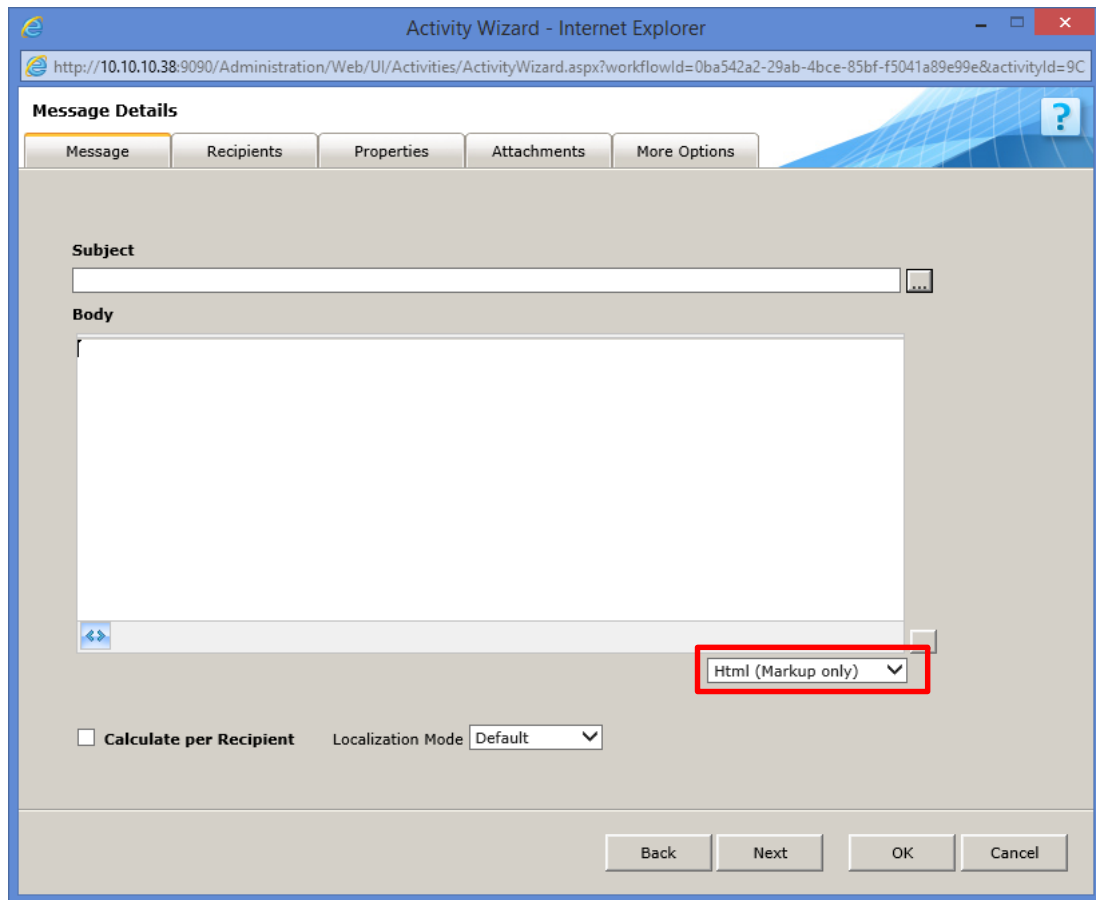


Administration Links

New Message Editing Mode

To allow complex message composition that includes expressions inside an HTML attribute or HTML inside an expression, we have added a new editing mode: *HTML (Markup only)*

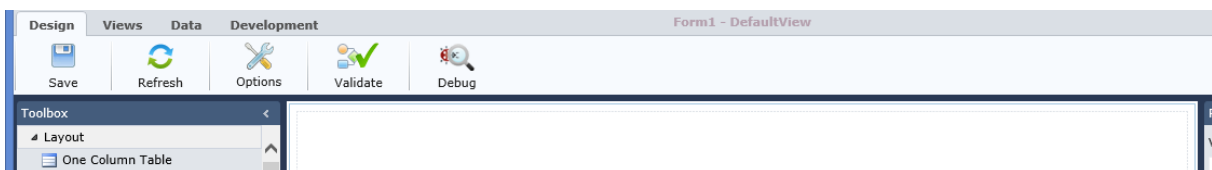
Using this mode, the message body is still composed in HTML format, but there is no design mode that might corrupt your text while encoding it.



HTML (Markup Only) Mode

Tab Navigation in the UX Studio

We have moved the Debug button to the Design tab, as this makes more sense for users.



Tab Navigation

API Extended to Enable Update of Workflow Variables Programmatically

We have added the option to update Workflow Variables from external code and outside the workflow execution.

The following code sample demonstrates how to use it:

```
var workflowInstance = ; //add code to retrieve the workflow instance
var vars = new Dictionary<string, object>();
vars["Var1"] = Guid.NewGuid();
var executor = WorkflowExecutor.GetExecutor(workflowInstance);
executor.UpdateInstanceVariables(vars);
```

To execute the code, you will need a user with at least Read & Write permissions on the workflow.

Note: Use this option only in cases where the Assign activity is not suitable to your functional needs.

Added User Information and http Request URL Information to the Diagnostics Traces

We have extended the process logging by adding more information to the logs. You can now see user information and http request URLs in the SVC files.

Breaking Changes

The previous Category Management page has been removed.

Known Issues

See known issues online at:

<http://members.pnmsoft.com/Downloads/Lists/Known%20Issues/AllItems.aspx>

Administration Web.Config Modifications

```
<configSections>

    <section name="jobs.designtime"
type="PNMsoft.Sequence.Jobs.Design.Configuration.DesigntimeJobHostConfigurationSection
, PNMsoft.Sequence.Jobs.Design, Version=7.0.0.0, Culture=neutral,
PublicKeyToken=0a1a1b90c1c5dca1"/>

    <sequence.engine>

        <!--Jobs-->

        <add
type="PNMsoft.Sequence.Jobs.Design.Services.DesigntimeJobsHostManagementService,
PNMsoft.Sequence.Jobs.Design, Version=7.0.0.0, Culture=neutral,
PublicKeyToken=0a1a1b90c1c5dca1"></add>

    <sequence.engine>

        <persistence>

            <providers>

                <!--Jobs-->

                <add type="PNMsoft.Sequence.Jobs.Design.Data.Sql.SqlJobDefinitionDataProvider,
PNMsoft.Sequence.Jobs.Design.Data, Version=7.0.0.0, Culture=neutral,
PublicKeyToken=0a1a1b90c1c5dca1" />
```

Flowtime Web.Config Modifications

SharePoint 2013

```
<SharePoint>

    <SafeControls>

        <SafeControl Assembly="PNMsoft.Sequence.Flowtime.SharePoint.Remote,
Version=7.0.0.0, Culture=neutral, PublicKeyToken=0a1a1b90c1c5dca1"
Namespace="PNMsoft.Sequence.Flowtime.SharePoint.Remote" TypeName="*" Safe="True"
AllowRemoteDesigner="True" SafeAgainstScript="True" />
```

Resolved Cases

Ticket #	Description
16881	Issue with attachments after upgrading from Sequence 6
17287	Potential time out when opening the last instance in the debugger
19723	Assign Activity fails to execute if one of the branches gets to End activity
20328	Redundant error in the Event Viewer
20398	Issues when trying to deselect global variable display in Flowtime web part
21245	Old Forms display wrong name in the tabs section
21373	More than 50 characters in the workflow alias causes Flowtime corruption

21879	In re-assign window, SQL query is called more than once
21880	Query name in French (special characters) causes problem when trying to edit the Data Model from the new field option
22101	Trace display fetch/unfetched information where it should not have been displayed
22399	Date filter display issues in Form grids
20779, 21505	While upgrading, the Sequence Template feature cannot be checked for installation if part of the templates already exists in the environment.
22443	CRM connections are not imported

Resolved Change Requests

Ticket #	Description
3930	Add visibility to Switch and Split execution in the Debugger
5759	Add Domain property to the user object
7664	Enable Search for workflow in the Administration
6639	Enable variables setting from outside the workflow execution
6329	Enable Category management from the Administration tree

Appendix A

1. Run this script to find any record in the tblEmployeePreferences table:

```
SELECT fldEmployeeId
FROM tblEmployeePreferences
WHERE      fldEmployeeId NOT IN
          (
            SELECT fldEmployeeId
            FROM tblEmployees
          )
```

2. Run this script to delete the records in the tblEmployeePreferences table:

```
DELETE
FROM tblEmployeePreferences
WHERE      fldEmployeeId NOT IN
          (
            SELECT fldEmployeeId
            FROM tblEmployees
          )
```