Top Image Systems

Digital Business Starts Here.

eFLOW Control Module

User Guide

Version 5.2

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About Control

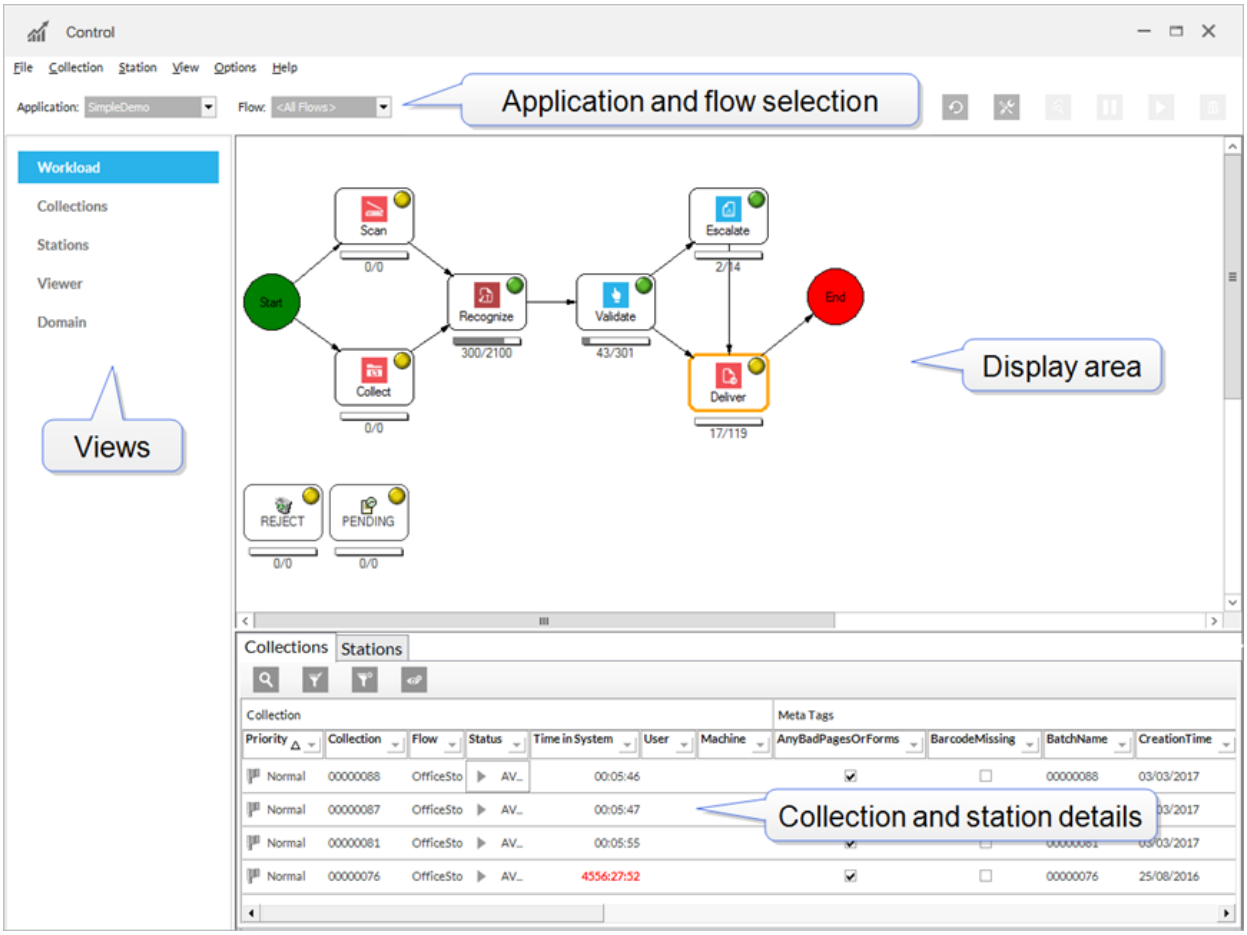
While collections of forms await each successive processing step in the eFLOW workflow, they are stored temporarily in collections composed of digital images and accompanying text data. The Control module enables you to monitor these collections, showing you their status at the different stations. It helps you to detect problems and bottlenecks in the processing workflow, and resolve them.

Open Control

To open the Control module, in eFLOW Launch Pro, in the **Reports** list, select **Control**.

Control desktop

After you open Control, the main window is displayed.



The Control main window provides access to five different views. Click on a view name to open that view.

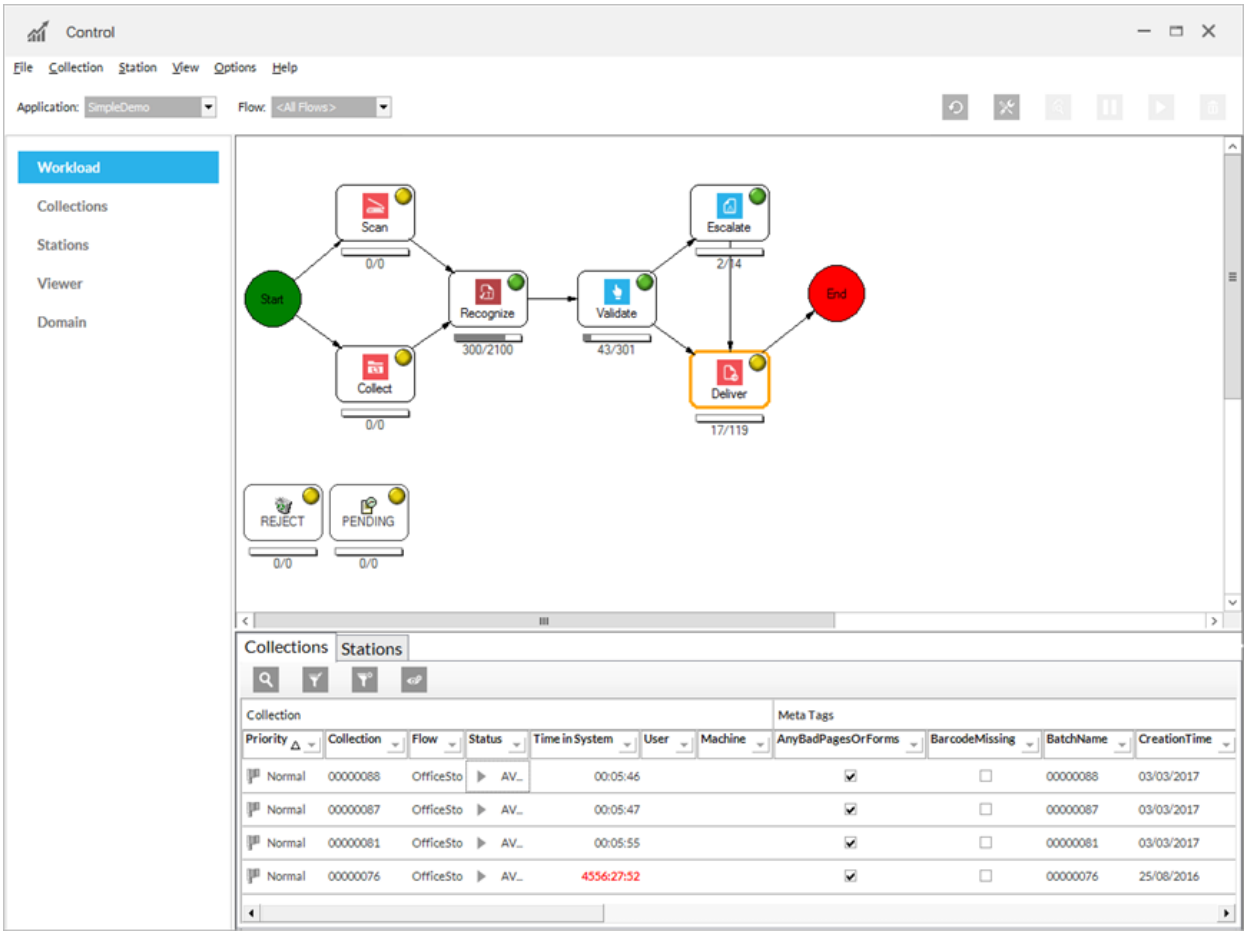
In the **Application** list, select the application you are interested in. You can also select an application flow to view only information for that flow. These settings apply for all views, with the exception of the **Domain** view, which lists all applications.

- The Workload view provides a general overview of the status of all stations and collections in the selected application.
- The Collections view displays the status of all collections in the selected application.
- The Stations view displays the status of all active stations and users in the selected application.
- The Viewer view provides an overview of overall system usage and progress for the selected application.
- The Domain view provides for each active application an overview of the number of active stations, and the status of the server.

Which information appears in the display area depends on the selected view. Click the **Refresh** button to update the view with the latest information.

Workload view

The **Workload** view provides a general overview of the status of all stations and collections in the selected application.



Workflow diagram

The upper part of the screen provides a graphical overview of the stations in the application workflow.

Station icons

The icon in the upper right hand corner of each station indicates the station's status:

- Green - **Running**: The station is currently processing collections.
- Yellow - **Idle**: The station is currently not processing collections.

The number of collections and forms awaiting processing (the station 'queue') is displayed below the station: For example, 1/7 indicates one collection and seven forms.

Station load bar

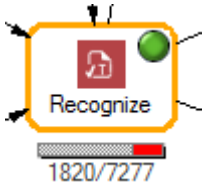
The load bar below the station indicates the number of collections in the station queue compared to the queue threshold. The queue threshold specifies the maximum number of forms allowed in the station queue at one time. See Queue thresholds for information on configuring queue thresholds.

The load bar can help you to quickly identify when stations are overloaded. If the load bar shows red, you should take action, for example, add more automatic station instances or manual operators to process the queue.

- When there are no collections in the queue, the load bar is white.
- As collections arrive and processing begins, the load bar changes from pure white to gray and white. The white part represents the difference between the number of forms in the queue and the queue threshold, and is an indication of how close to the threshold the number of forms is. The less white, the closer the threshold.

- When the number forms is very close to the threshold, the load bar takes on a gray pattern.

- As the threshold is exceeded, the load bar starts to turn red.



- The further the threshold is exceeded, the more red is shown in the load bar.

Reject and Pending

A collection may be moved to the **Reject** or **Pending** queue if there is a problem with the collection or its routing through the workflow.

Collections in the **Reject** queue are usually corrupted in some way. You must investigate and fix the problem. You may have to delete the collection and re-import it.

Collections are most often transferred to the **Pending** queue if routing to the next station fails. You must investigate and fix the problem, then send the collection into the workflow again. There may be an error in the workflow configuration.

Collections table

To view the collections currently in a specific station, click on the station in the workflow diagram.

The collections are displayed in the **Collections** table. Each line in the **Collections** table represents one collection waiting to be processed, or currently being processed, by the station. See Work with collections for information on using this table.

Column	Description
Priority	Collections may have one of the following priorities: **High**. You can raise the priority of a collection to ensure that it is processed before other collections in the queue. By default, collections are assigned the priority **Normal**. When you prioritize a collection, the priority changes to **High**. Collections with the priority **High** are processed before all other collections. **Normal**. This priority is assigned when a collection enters the system, or when you manually restore the priority. See Prioritize a collection for more information on prioritizing collections and restoring the priority.
Collection	Collection ID. This uniquely identifies the collection in the system. Collection IDs are usually assigned automatically by eFLOW, but you can override this by checking the **Keep Batch Name** option in the flow properties in the eFLOW Design module. See the *eFLOW Design User Guide* for more information.
Flow	The name of the flow to which the collection belongs. If you selected a specific flow in the toolbar **Flow** list, only collections belonging to this flow are displayed in the table.
Status	The status of the collection: **Locked**: The collection is currently being processed by one of the station instances. **Available**: The collection is awaiting processing. **Hold**: The collection is on hold and must be released before it can be processed. See Hold or release a collection for more information.

Column	Description
Time in System	The elapsed time, in hours, minutes, and seconds, since the collection entered the system. If this time is larger than a predefined threshold, the time appears in red. You should investigate why processing of the collection has not been completed after such a long time. You can define this threshold in the configuration options.
User	For locked collections: Name of the user logged in on the station on which the collection is locked.
Machine	For locked collections: Name of the machine running the station on which the collection is locked.
Meta Tags	Information about the collection and specific fields in the collection; for example, **CreationTime**, **AnyBadPagesOrForms**, **NumberOfForms**. An application's meta tags are defined in the eFLOW Design module. You can specify which meta tags to display in the **Collections** table and the order in which they are displayed. See Modify meta tag columns for more information.

Stations table

To view all workstations that are currently running a specific station, click on the station in the workflow diagram.

The workstations are displayed in the **Stations** table. Each line in the **Stations** table represents one logged-in instance of the selected station.

Column	Description
Status	The status of the station: **Running**: The station is currently processing collections. **Idle**: The station is currently not processing collections.
User	Name of the user logged in on this station instance.
Machine Name	Name of the computer running this station instance.
Station Name	Name of the eFLOW station.

Column	Description
Current PPM	Current number of pages processed per minute in the station. This column has a red border if the number is less than the minimum pages per minute specified in the configuration. See Configure Control for more information.

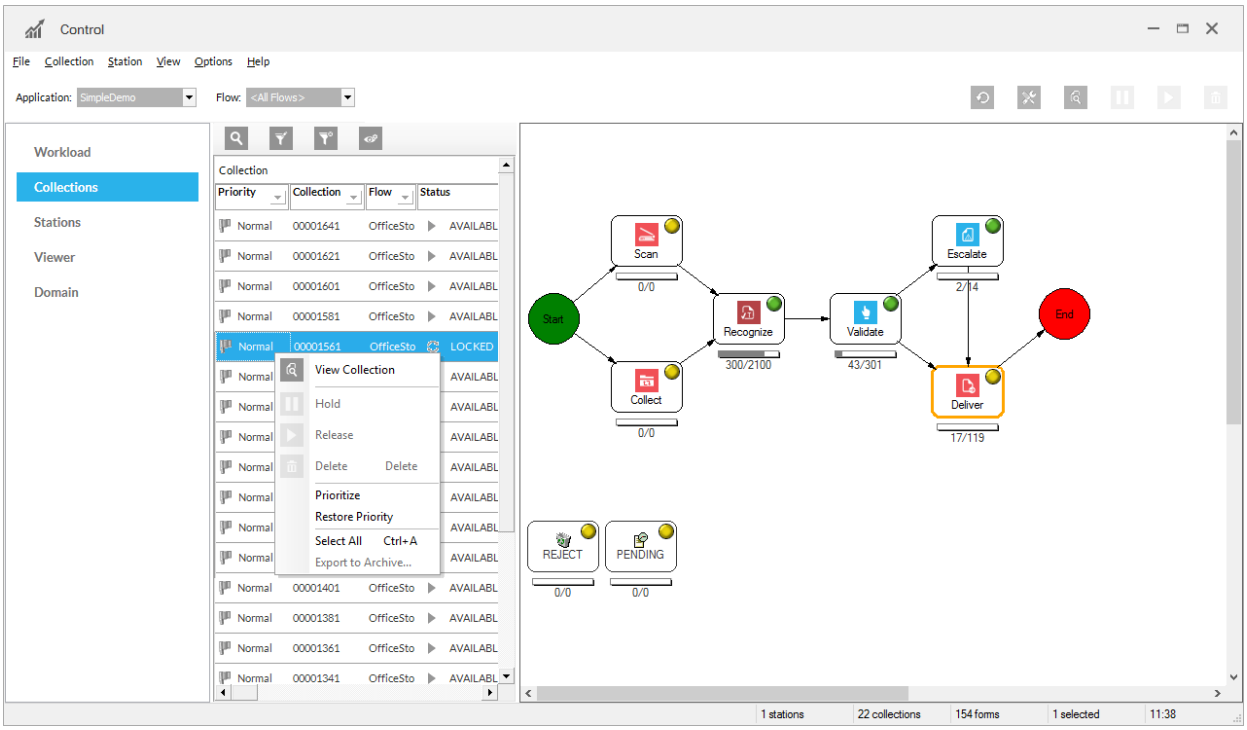
Collections view

The **Collections** view shows all collections currently in the selected application. It is useful for locating a specific collection within the application.

See Workload view for information on the **Collections** table and the workflow diagram.

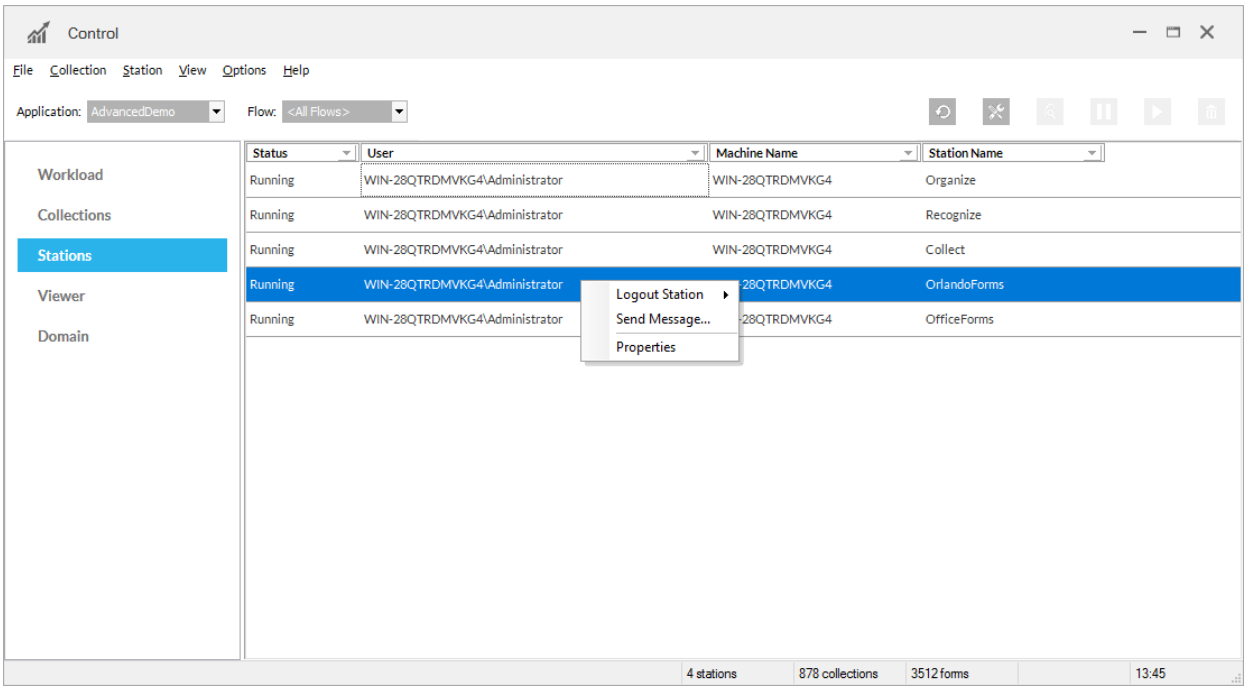
To locate the position of a collection in the workflow, click on the collection in the table. The border of the station in which the collection currently resides is highlighted in the workflow diagram.

To perform actions on a collection, right-click on the collection and select from the menu. See Work with collections for more information.



Stations view

The **Stations** view displays the status of all active stations and users in the selected application.



Each line in the **Stations** view represents one logged-in instance of the selected station. To filter the view, click the arrow next to a column heading and select an entry from the filter list.

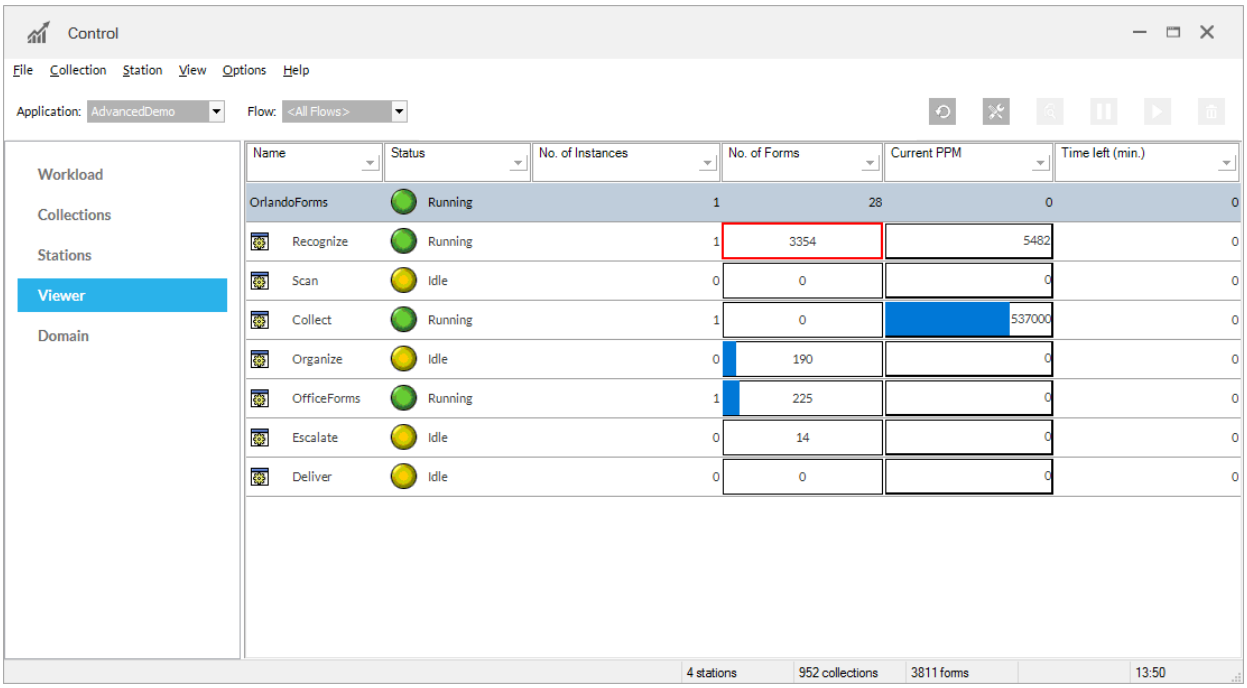
See Stations table for information on the columns displayed in this view.

To perform actions on a station, right-click on the station and select from the menu. See Work with stations for more information.

Viewer view

The **Viewer** view provides an overview of overall system usage and progress for a selected application.

You can use this view to immediately spot problems with station thresholds. For example, if not enough stations are working to perform recognition, the Viewer view display will indicate this. See Configure Control for information on defining thresholds.



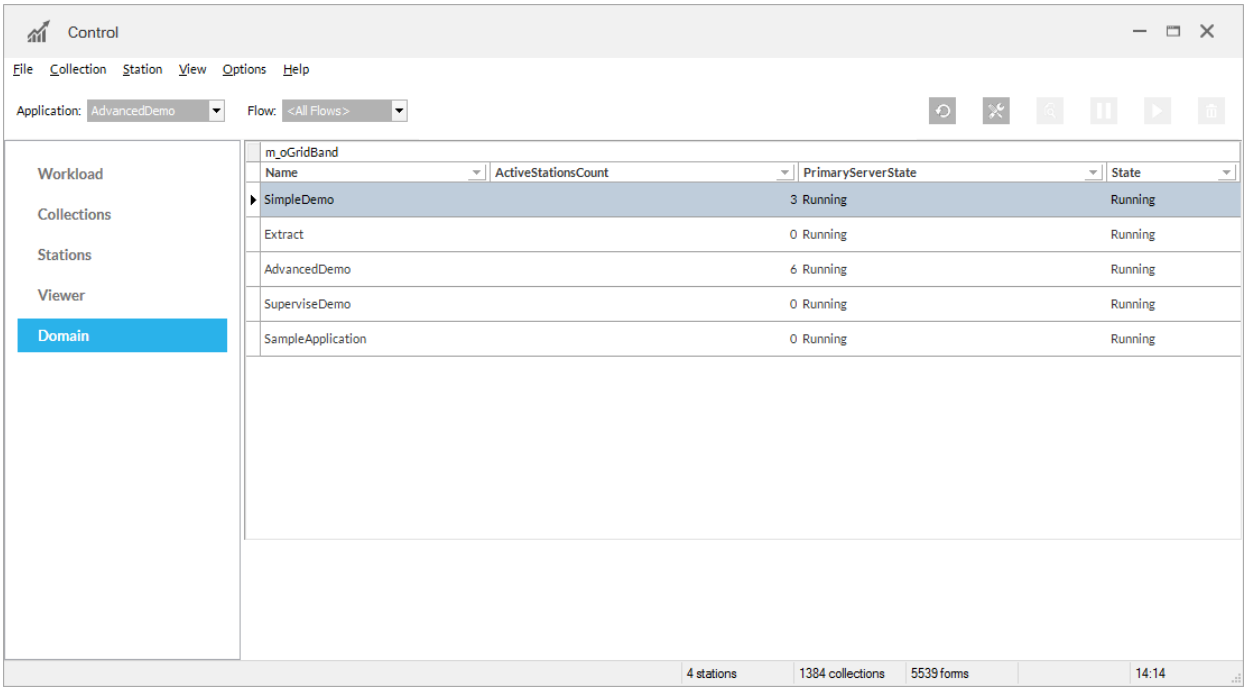
Each line in the **Viewer** view represents a station of the selected application. To filter the view, click the arrow next to a column heading and select an entry from the filter list.

Column	Description
Name	Name of the eFLOW station.
Status	**Running**: The station is currently processing collections. **Idle**: The station is currently not processing collections. **Pending Logout**: A logout request has been sent to the station, but log out has not yet been completed. See Log out a station for more information.
No. of Instances	Number of instances currently running this station. A station can run more than once, on one or more workstations; each occurrence of the station is an instance.
No. of Forms	Total number of forms in all instances running this station. If the total number of forms exceeds the threshold value defined in the configuration, the field is marked with a red border. See Queue thresholds for more information.
Current PPM	Current average number of pages per minute processed by the station. If this figure is low, you may want to add more automatic station instances or manual operators, or logout station instances to release resources.

Column	Description
Time Left (min.)	The estimated time remaining until the station has finished processing the collections, based on the current processing rate. For example, if the last collection took 1 minute to process and there are still 12 collections in the queue, the **Time Left** will be 12 minutes.

Domain view

The **Domain** view provides an overview of the overall status of all active applications in the eFLOW domain.



Each line in the **Domain** view represents one application. The table contains the following columns. To filter the view, click the arrow next to a column heading and select an entry from the filter list.

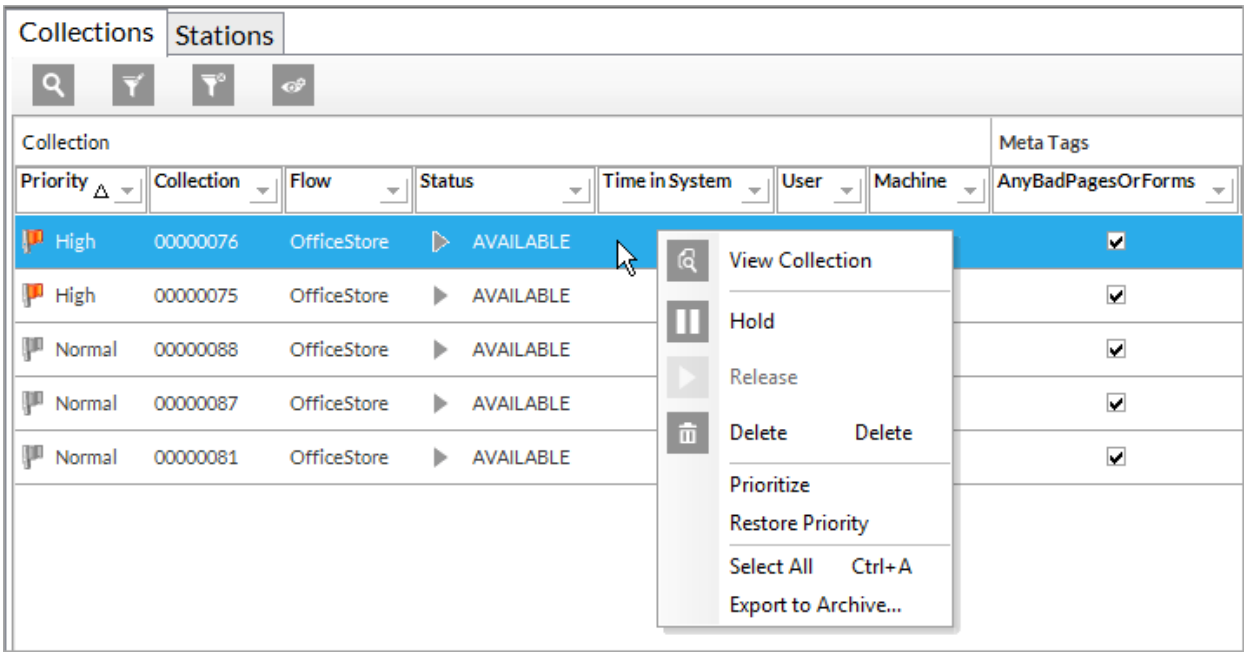
Column	Description
Name	Name of the eFLOW application.
ActiveStationsCount	The number of currently active station instances.
PrimaryServerState	The status of the primary server.
State	The status of the server.

Work with collections

This section explains how to work with the **Collections** table and how to perform various actions on collections.

In the Workload view, the **Collections** table displays all collections in the currently selected station. In the Collections view, the Collections table displays all collections in the currently selected application. See Collections table for a description of the columns in this table.

Right-click on a collection in the **Collections** table to access a context menu that enables you to perform actions on the collections.



Work with the collections table

Change the table height

Workload view only. Position the mouse cursor on the border above the table. When the cursor changes to a crosshair ✢, drag up or down to increase or decrease the table height.

Sort

Click on a column heading to sort the table by that column in ascending order. Click again to sort in descending order. The icon indicates the current sort order:

△ Ascending

▽ Descending

You can only sort the list by a single column.

Search

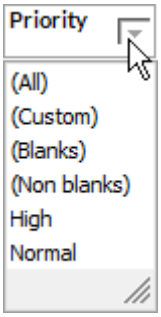
To search for a collection, click the **Find collection** button . In the **Find collection** dialog box, enter the name of the collection, or part of the name, and click **OK**.

Filter

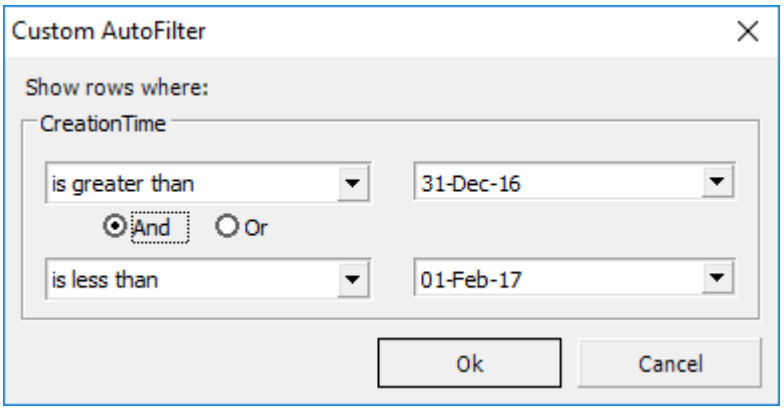
You can filter the **Collections** table to display only collections that correspond to the criteria you define.

Simple filter

Click the arrow next to a column heading and select an entry from the filter list.



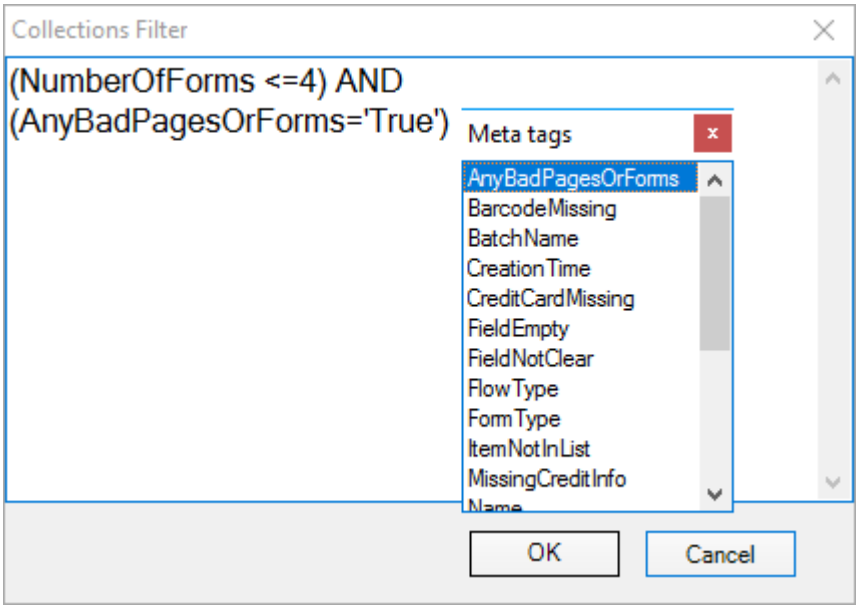
Click **(Custom)** to create a custom filter. In the **Custom AutoFilter** dialog box, select from the lists to construct your filter, then click **OK**.



Advanced filter

The advanced filter enables you to filter by specific meta tags.

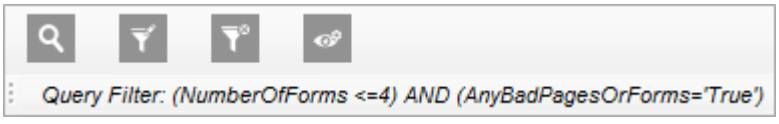
1. Click on the **Set collections filter** button .
2. In the **Collections Filter** dialog box, enter a filter expression.



   - You can use any SQL syntax to formulate the filter query.
   - To display a list of the available meta tags, press CTRL + SPACE. Double-click on a meta tag to add it to the expression.
   - Enclose string values in single quotations marks.
   - For meta tags that use a check box, use the values '*True*' (check box checked) or '*False*' (check box unchecked) in the expression. For example, *AnyBadPagesOrForms* = '*True*'.
   - To specify more than one condition, enclose each condition in parentheses and connect them with AND or OR. For example, *(NumberOfForms >= 4) AND (AnyBadPagesOrForms = 'True')*.
   - If your filter syntax is incorrect, an error message is displayed.
3. Click **OK**.

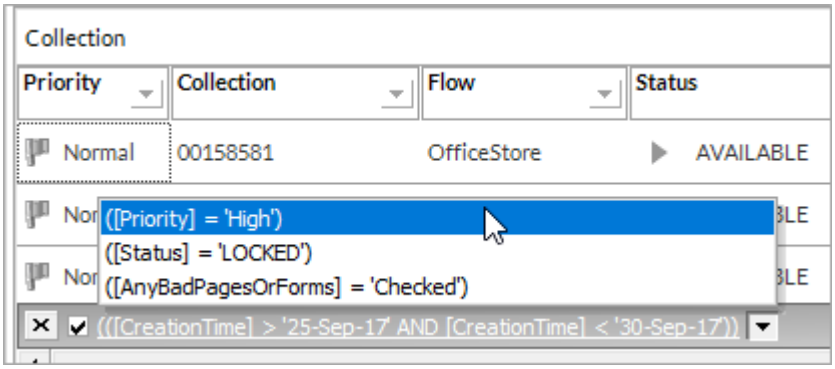
Clear a filter

The current filter is displayed above the **Collections** table. To clear the filter and display all collections again, click the **Clear Filter** button.



Previous filters

When you use the simple filter, the current filter and any previous filters you have set (simple or advanced) are available below the **Collections** table.



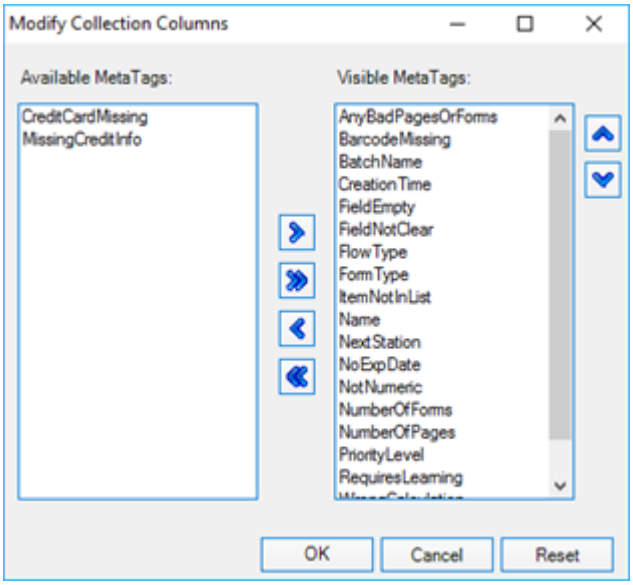
To clear the current filter, clear the check box.

To use a previous filter, click on the arrow and select the filter from the list.

Modify meta tag columns

You can specify which meta tags to display in the **Collections** table and the order in which they are displayed.

1. Click the **Modify columns** button .
2. In the **Modify Collection Columns** dialog box, select meta tags in the **Available Meta Tags** list or the **Visible Meta Tags** list, then click one of the buttons between the lists to transfer them to the other list.



To restore the default settings, click the **Reset** button.

3. To change the display order of the meta tags, select a meta tag and click the **Move Up** or **Move Down** button.
4. Click **OK**.

Select collections

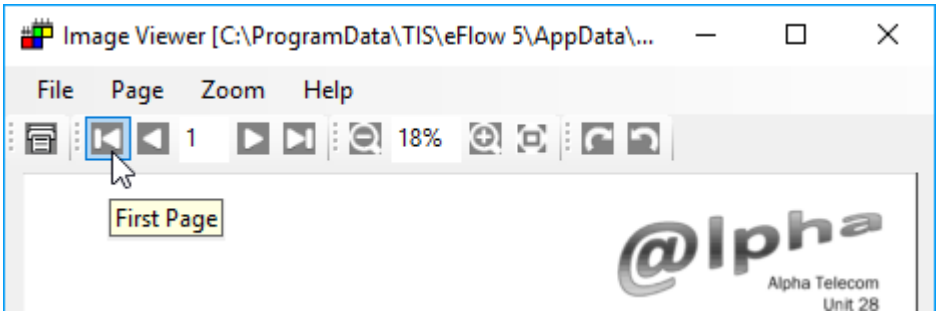
With the exception of viewing a collection's image, you can perform all collection actions on one or multiple collections.

- Single collection: Click on the collection in the **Collections** table.
- Multiple collections: Click on the first collection, then hold down SHIFT or CTRL and click on the other collections.
- All collections in the list: Right-click in the list and select **Select All**.

View collection images

To view the images of a collection, right-click on the collection and select **View Collection**.

The images are displayed in the **Image Viewer**. Use the menu or the buttons at the top of the viewer to work with the images. Position the mouse cursor over a button to view a tooltip showing the button's purpose.



Move a collection

You can move a collection by dragging and dropping it from the **Collections** table to one of the stations in the workflow diagram, provided the collection is in a compatible format. For example, you can drag collections from the Validate or Deliver station back to the Recognize station, but you cannot drag and drop collections to and from the Scan and Collect stations.

You cannot move locked collections, that is, collections that are currently being processed.

Prioritize a collection

You can raise the priority of a collection to ensure that it is processed before other collections in the queue.

By default, collections are assigned the priority **Normal**. When you prioritize a collection, the priority changes to **High**. Collections with the priority **High** are processed before all other collections.

Collections retain their priority when they pass to the next station. You cannot prioritize locked collections.

- To raise the priority to **High**, right-click on the collection and select **Prioritize**.
- To return the priority of the collection to **Normal**, right-click on the collection and select **Restore priority**.
- To raise or restore the priority of all collections in the selected application, in the **Station** menu, select **Prioritize All Collections** or **Restore All Collections Priority**.

Hold or release a collection

You can hold a collection to pause processing of that collection. Processing of the collection stops, but processing of other collections in the queue continues. You cannot hold or release locked collections.

- To hold a collection, right-click on the collection and select **Hold**.
- To resume processing of a collection that is on hold, right-click on the collection and select **Release**.
- To hold or release all collections in the currently selected application, in the **Station** menu, select **Hold All Collections** or **Release All Collections**.

Note: Held collections are displayed at the bottom of the **Collections** table.

Delete a collection

You cannot delete locked collections.

To delete a collection, right-click on the collection and select **Delete**, then click **OK** to confirm the deletion.

To delete all collections in the currently selected application, in the **Station** menu, select **Delete All Collections**, then click **OK** to confirm the deletion.

Note: In the **Workload** view, **Delete All Collections** applies only to the currently selected station.

Export and import collections

You can export collections to a file, for example, to move them to another environment for testing or support purposes. The file has the extension *.Dynamic*. You can only import collections into the same application (that is, the same CAB) from which they were exported. The collections are imported to the same station queue from which they were exported.

- To export a collection, in the **Workload** view, select the collection, then right-click and select **Export to Archive**. Enter a file name and click **Save**.
- To export all collections in the currently selected application, select the menu item **File > Export Dynamic to Archive**. Enter a file name and click **Save**.
- To import collections, select the menu item **File > Import Dynamic Archive**. Select the file and click **Open**.

Work with stations

This section explains how to work with stations.

Add a station instance to a queue

You can add additional instances of automatic stations, such as Recognize or Deliver, to spread the processing load and thus avoid bottlenecks in the workflow.

1. In the **Workload** view, double-click on the station.
2. In the **Login Station** dialog box, select the machine on which the instances should run and the number of instances to add.
3. Click **Run Now**.

Log out a station

In the **Stations** view, right-click on station and select one of the **Logout Station** options:

Option	Description
Request Orderly Logout	The station logs out after completing the current operation. It completes processing of the current collection, puts the collection to the server, then shuts down. Applies only for automatic stations.
Request Immediate Logout	The station attempts to abort the current operation and shuts down immediately. Applies only for automatic stations.
Disconnect From Server	The station is disconnected from the eFLOW server. It may continue working for a while, but it is not able to put the collections back to the server.

Send a message to a station

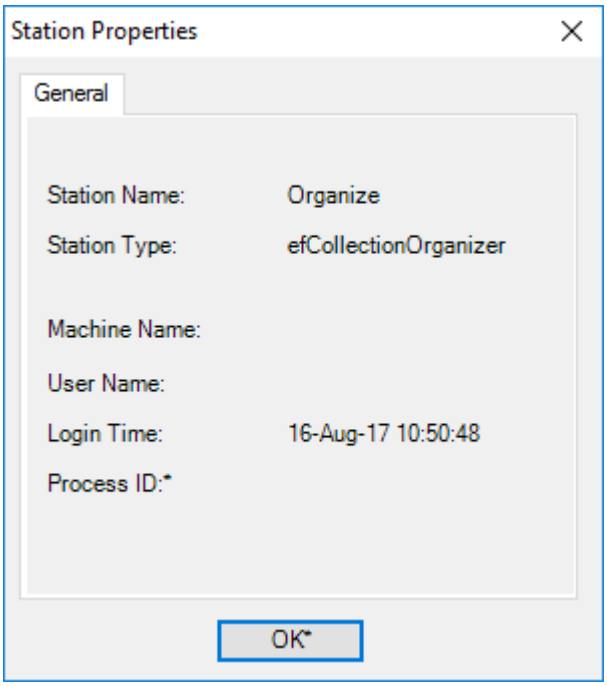
To send an instant message to users of manual stations, in the **Stations** view, right-click on the station instance and select **Send message**.

The station will receive the request and display the message to the user in a dialog box.

View station properties

In the **Stations** view, right-click on the station and select **Properties**.

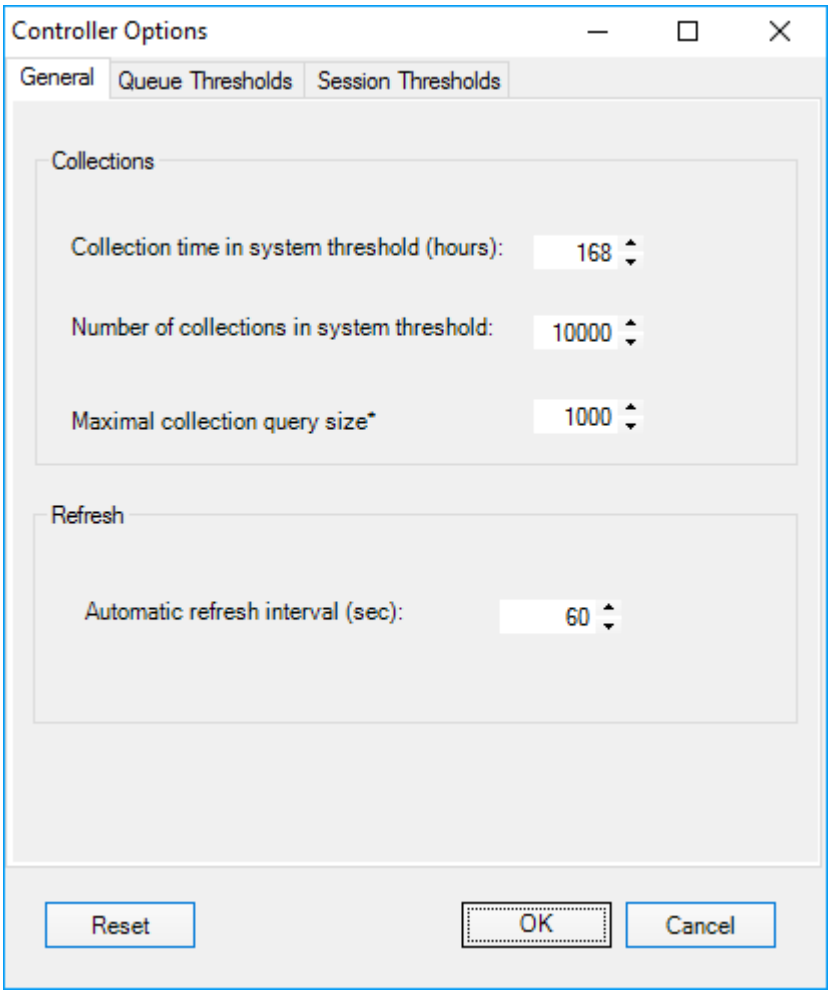
The **Process ID** is the **PID** of the process that is displayed in the Windows Task Manager in the **Details** tab.



Configure Control

To change the configuration settings, click the **Configure** button on the toolbar , or select the menu item **Options > Configure**.

The **Controller Options** window opens.



Click the **Reset** button to restore the settings to their default values. This restores the settings in all tabs.

General options

Option	Description
Collection time in the system threshold (hours)	Specifies the maximum time in hours that a collection may remain in the system without the user being alerted. When a collection is in the system longer than the specified time, the collection's **Time in System** value turns red in the **Collections** table to alert the user.
Number of collections in system threshold	Specifies the total number of collections that the system may handle at any time. When this threshold is reached, an error message is displayed when new collections are imported, but this does not prevent the import of the collections.
Maximal collection query size	Specifies the maximum number of collections to display in the **Collections** table.
Automatic refresh interval (sec)	Specifies how often the information displayed in the Control views is updated, in seconds.

Queue thresholds

Option	Description
Station	Name of the eFLOW station.
Max Forms In Queue	Specifies per station how many forms may be held in the queue of that station. If this threshold is exceeded, the station's **No. of Forms** value is highlighted red in the **Viewer** view. The station's load bar also indicates how close to this threshold the queue load is. See Station load bar for more information.
Min PPM (pages per minute)	Specifies per station the minimum number of pages to be processed per minute. If this minimum is not reached, the station's **Current PPM** value is highlighted red in the **Stations** view and the **Viewer** view.

Session thresholds

Option	Description
Station	Name of the eFLOW station.
Min PPM (pages per minute)	Specifies the minimum number of pages to be processed per minute by each station instance.
Min Speed	Specifies the minimum activity speed expected for each station instance. Rate units are station-specific, for example, forms per minute, or typed characters per minute.