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Document Automation

Experlogix Smart Flows Release Preview Guide

Version 4.21
May 2024

The Experlogix Product Team is excited to announce the general availability of Smart Flows 4.21.

The new version of Experlogix Smart Flows, our intuitive yet comprehensive platform to generate your business documents and automate your document flows, is jampacked with performance and UI enhancements:

Redesigned Flow Execution Panel The end users experience to start and manage flow executions has a new look and feel. Running flows has never been easier.
Support for FetchXML-based data collection on the Microsoft Dynamics 365 CE connector Smart Flows supports a new pattern to collect data from Microsoft Dynamics 365 CE, leveraging fetchXML. This pattern makes communication with Microsoft Dynamics 365 CE more efficient, resulting in faster data collection. Depending on the structure and size of your data payloads, the time to collect data is reduced by up to 90%.

As always, the new Smart Flows release contains more minor improvements, optimizations, and fixes that reduce the complexity of automating your document flows so you can generate better documents faster.

From all of us here at Experlogix, happy templating!

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Redesigned Flow Execution Panel

After the update to Smart Flows 4.21 you'll notice the restyled Flow Execution Panel right away. We have given the flow running experience a complete makeover. The new look is designed to help your users run flows faster and interact better with flows that require input or attention.

The new Flow Execution Panel has three panes:

- **Flow Run Pane**: This pane guides you through all the steps of a flow execution, showing the progress throughout and providing all the links to the flow outputs.
- **Flow Run History**: The flow run history pane lists all recent flow executions in a color-coded grid that provides insights into recent flow run history.
- **Unfinished Runs that Require Attention**: The unfinished runs pane is a filtered view of the recent run history that lists flows in an unfinished state. This pane quickly leads you to runs that require user input or authentication or are waiting for the completion of an external event to resume.

Flow Run Pane

When you start a flow execution from within a CRM or ERP system, the Flow Execution Panel opens a Flow Run Pane for your execution straight away. You can see the progress of your flow execution as it goes through the different steps. If steps require interaction, the panel prompts you to do complete any necessary actions. After the flow execution, the Run Pane lists all relevant flow outputs and status feedback, with handy links to the generated outcomes.

If you start a new flow run without passing a flow ID and execution context, the Flow Run Pane opens on the revised flow selection view. Here, you can select the flow you want to run from a list of available flows. You can filter the list by tag groups and tags, read the flow description, and see a preview of the first page of the principal flow template.

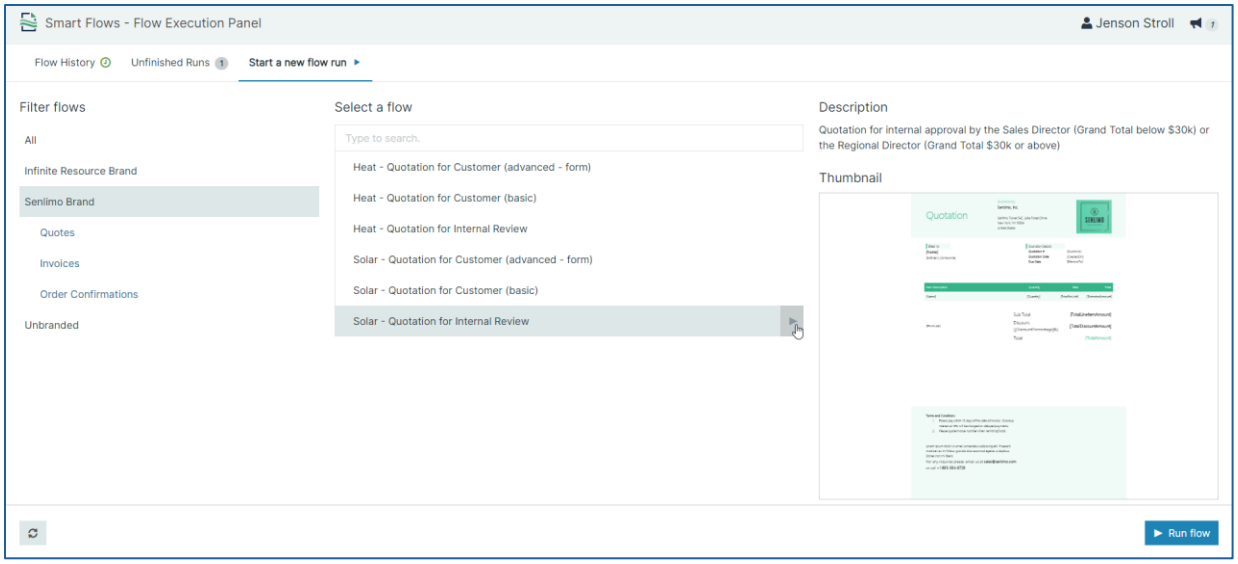

Figure 1 – Flow selection in the redesigned Flow Execution Panel

Flow Run History

The Flow Run History pane of the new Flow Execution Panel lists all recent flow executions you can access. You can filter the flow runs by status and by execution date.

The flow execution history table shows all recent flow execution with high-level information, such as the flow execution name, current status, start and end time, and duration. The hyperlink in the name column takes you back to the execution for unfinished runs and the execution results page for finished runs.

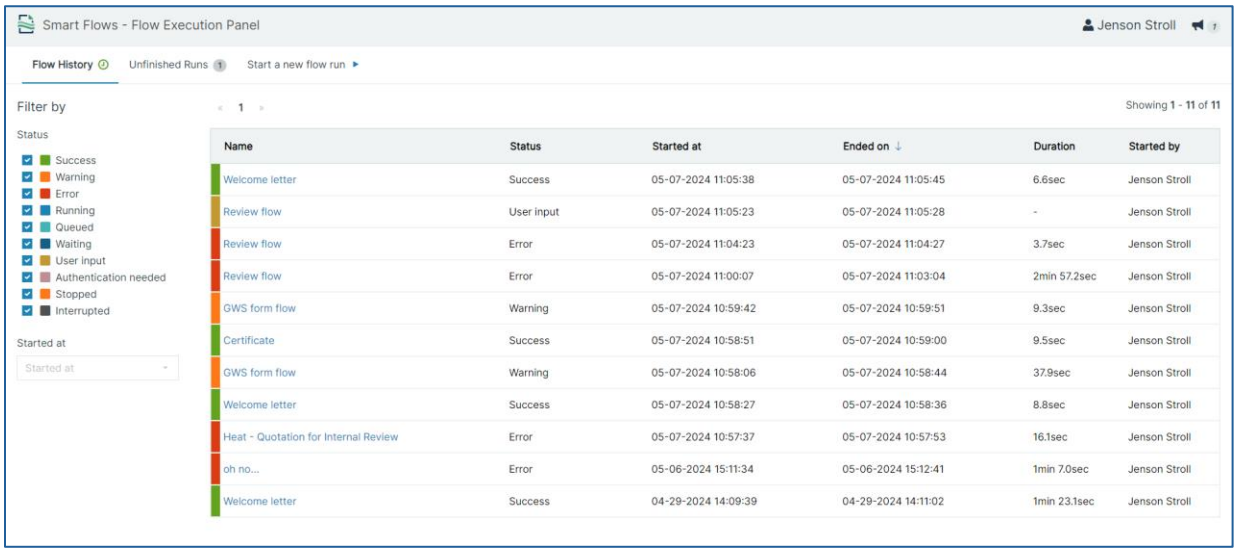

Figure 2 – Flow run history pane in the redesigned Flow Execution Panel

A flow run can have either an unfinished or a finished status:

- Unfinished:
    - **Running**: Your flow is currently being executed. The system is actively processing a flow step.
    - **Waiting**: Your flow is waiting for an external event. When an external event hook message returns a delayed output of a step, the flow run will resume. E-signature flows that are in progress and waiting for a signature could be in this status for some time.
    - **Queued**: The flow run hasn't started yet but is waiting for resources to process it. This may happen when many flow run requests start simultaneously, either because users start flows concurrently or because a background process starts a batch execution.
    - **User input**: The flow run has progressed to a step requiring manual user input. This required input could be a form or an approval, for instance.
    - **Authentication needed**: The flow has progressed to a step that requires individual user authentication. If the system has no authentication token for the active user, the user must (re-)connect. The individual user authentication pattern is available on the Experlogix Smart Flows plugins for Salesforce.com, DocuSign, and Microsoft SharePoint.
- Finished
    - **Success**: The flow run has been completed successfully. Everything went according to plan, happy days. The result page lists all the flow outputs.
    - **Warning**: The flow run has been completed successfully, but something did not go entirely to plan somewhere along the way. There is at least one warning on the results page.
    - **Error**: The flow ended prematurely with an error. The flow result page shows at least one error message that explains what went wrong.
    - **Stopped**: The user has aborted the flow execution.
    - **Interrupted**: Unforeseen circumstances have caused the flow to stop. This could happen in case of downtime or system failure.

Unfinished Runs that Require Attention

The new Flow Execution Panel has a dedicated page that lists all unfinished flow runs the user can access. This allows the user to interact with flow runs that require input. It also shows progress on flows that are waiting for an external event.

If a flow requires you to fill out a large Great White Shark (Preview) form or a Smart Form, you can pause the form and then return to the flow run later via the unfinished run page. Likewise, it is also your go-to page to check the status of a flow run waiting for a recipient to electronically sign a generated document or a flow waiting for approval.

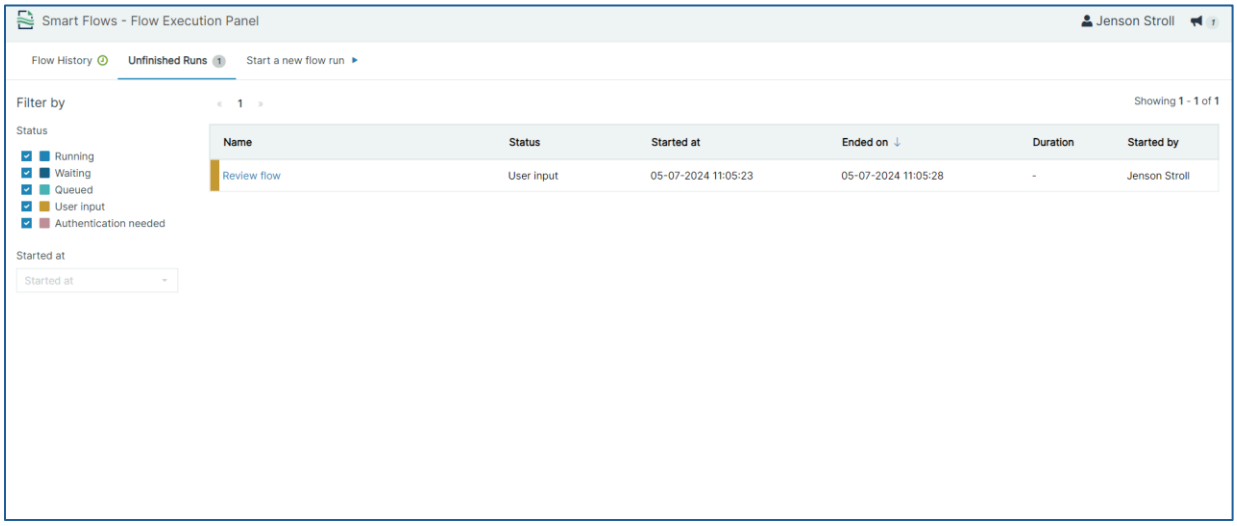

Figure 3 – Unfinished runs page of the redesigned Flow Execution Panel

Flow Execution Panel User Interface

The new Flow Execution Panel design is rooted in the Experlogix Design System (EDS), which paves the direction of UI for next-generation Experlogix products. The EDS is built upon core design principles that guarantee an intuitive and inclusive user experience across all product lines.

Data Collection from Microsoft Dynamics 365 Customer Engagement with FetchXML

FetchXML versus OData

Experlogix Smart Flows 4.21 supports the collection of Microsoft Dynamics 365 CE data using fetchXML. This pattern is more efficient than the OData-based pattern that Experlogix Smart Flows uses out of the box. The difference lies in the number of API calls that the process requires.

- The **OData pattern** executes a single call to get a record and all of its N:1 and 1:N related records from Microsoft Dynamics 365 CE. So, if your dataset goes one degree of relationship deep, Smart Flows can fetch all data in a single call. If your data set is more complex and goes multiple levels deep, we launch a separate call for each child record. Example: You collect a quote record with 50 line items, each linking to an existing product. The data collection process will contain one call for the quote and the 50 line items plus 50 separate calls to get the related product records, resulting in 51 calls to the Microsoft Dynamics web API.

- Using the new pattern based on **fetchXML**, Experlogix Smart Flows launches one single call per degree of relationship. In the same example above, Smart Flows calls Microsoft Dynamics 365 once to get the quote record, once to get the line items, and once to get the corresponding product records, resulting in 3 API calls to Microsoft Dynamics 365 CE.

As the example illustrates, the fetchXML pattern can reduce the overhead required when collecting data. The reduction is most significant for data payloads containing one-to-many relationships with many children, each with nested relationships. In Data Set Builder, such data sets are marked with warnings.

Switching Between Data Collection Patterns

The 4.21 release of Experlogix Smart Flows lets you switch between data collection patterns for Microsoft Dynamics 365 CE via the Control Panel. In Settings > Plugin Settings, a tick box switches fetchXML for your project's Microsoft Dynamics 365 CE plugin.

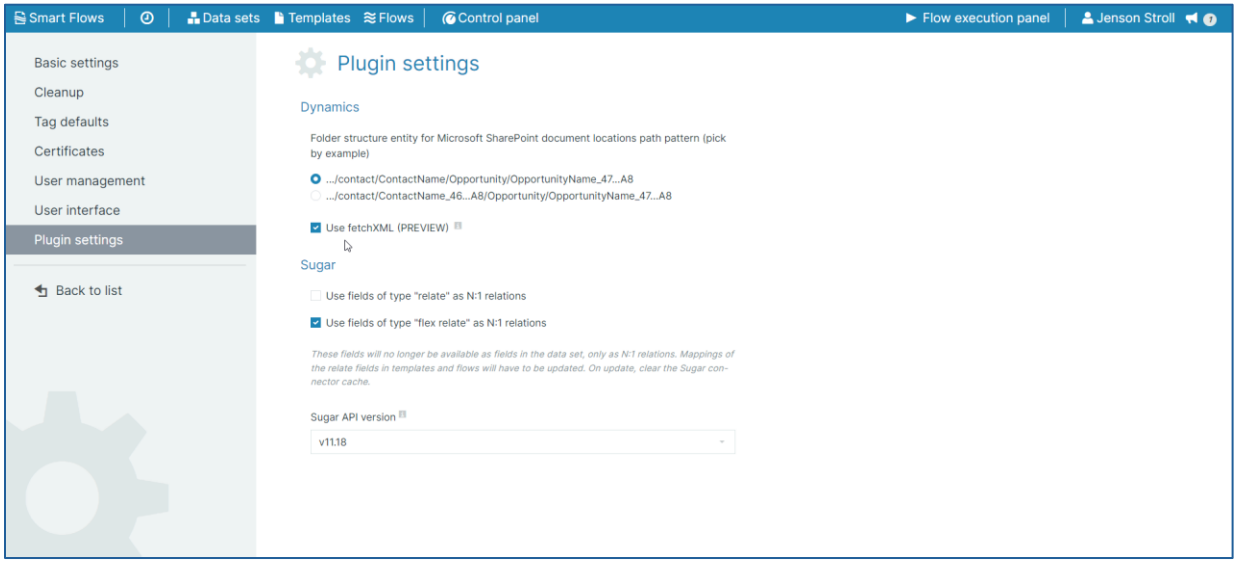

Figure 4 – Switching on data collection using the fetchXML pattern for the Microsoft Dynamics 365 CE plugin

By default, the data collection pattern for Microsoft Dynamics 365 CE plugins is standard OData. This default setting guarantees unchanged data collection behavior after the upgrade to Smart Flows 4.21. We invite you to switch on fetchXML if your project contains data sets with 1:N relationships that have nested lookups or 1:N relationships, especially if the corresponding data payloads have many children in the 1:N relationship (e.g., quotations with many line items, accounts with many contacts, etc.).

Beta testing has indicated that the data collected via the fetchXML pattern is identical to data collected via the OData endpoint pattern. The fetchXML pattern does not support filtered relationships with a complex filtering condition that contains fields of more than one entity. If you notice any discrepancies between the two patterns' collection results, we invite you to report these.

Optimizations for the Microsoft Dynamics 365 CE Plugin

Overhead reduction, when collecting data, is not the only optimization for the Microsoft Dynamics 365 CE plugin. The 4.21 release of Smart Flows also improves the user syncing mechanism and a revised entity structure for the Experlogix Smart Flows app.

Improved User Synchronization

If your Microsoft Dynamics 365 CE connector points to a specific Business Unit, Smart Flows 4.21 provides two options for user synchronization – you only sync users of that Business Unit, or you sync users of that Business Unit and all its child Business Units.

Furthermore, the user sync is no longer limited to users with one of the Experlogix Smart Flows security roles in Microsoft Dynamics 365 CE. You can also map other Microsoft Dynamics 365 CE security roles to the Administrator, Designer, or User roles in Experlogix Smart Flows. Please note that Microsoft Dynamics 365 CE users still need one of the Smart Flows-specific security roles to see the Smart Flows buttons in the Microsoft Dynamics 365 CE command bar. Syncing other users is primarily helpful for custom Microsoft Power Apps scenarios where users start a flow run by selecting a custom command bar button.

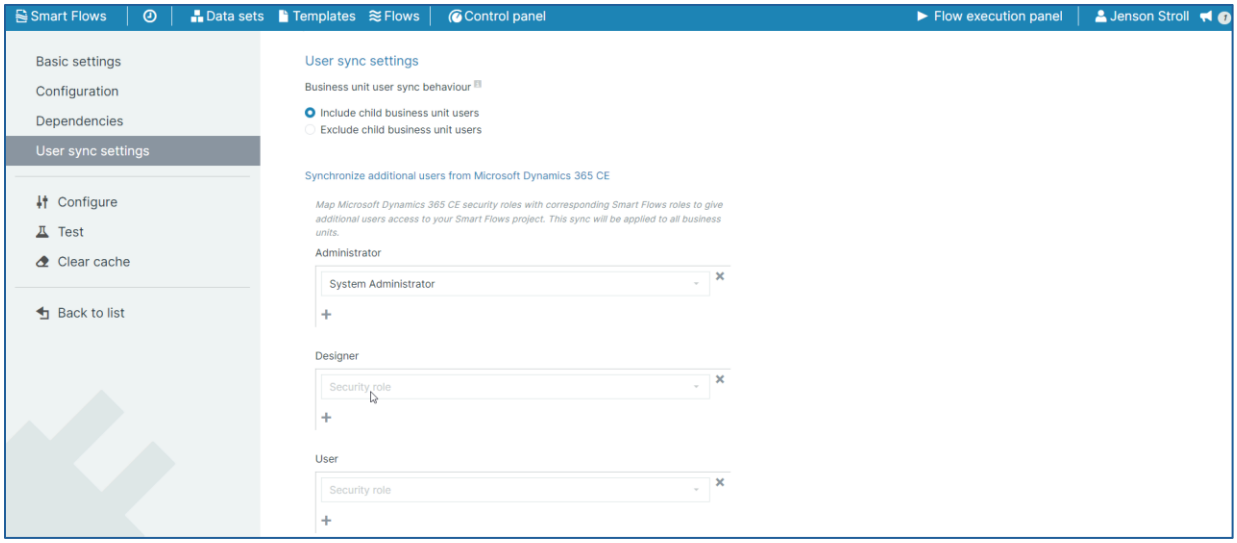

Figure 5 – User sync settings for a Microsoft Dynamics 365 CE connector

Revised Entity Structure for the Experlogix Smart Flows App

The 4.21 Experlogix Smart Flows app for Microsoft Dynamics 365 CE contains a Configuration Settings entity next to the Configuration entity. This entity, which is inaccessible within the app's UI, stores details of your Experlogix Smart Flows project configuration. During connector setup, administrators can choose whether to create a Configuration Settings record. By default, new configurations will create such a record.

Support for Signed PDF

To guarantee the authenticity and integrity of a document, the PDF standard provides the capability to sign a document with a certificate. Such a certificate serves as proof for the recipient that the document the certificate holder is indeed the person or body that has issued the document and that nobody has tampered with it.

The Convert to PDF step in Flow Builder now supports signing your PDF document with a certificate. As a certificate holder, you can upload your PDF certificate as an asset in the Smart Flows Asset Store and use it to sign generated files as you convert from docx to PDF.

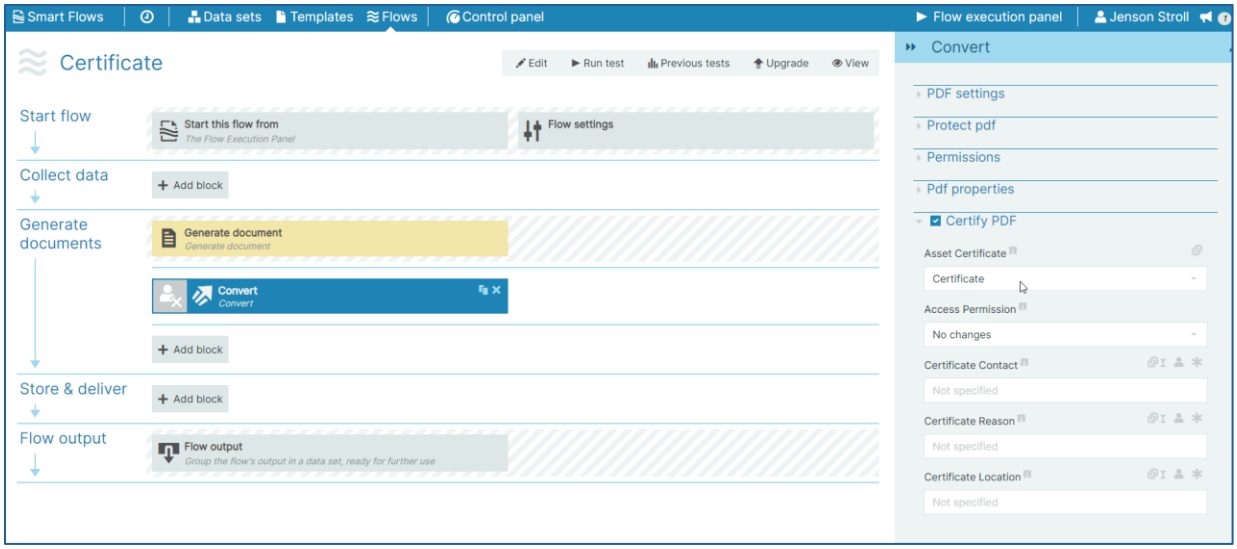

Figure 6 – Singing a PDF with a certificate in the Convert step of a flow

To provide additional information to the recipient, you can pass along a reason for signing, a contact, and a location. You can also set specific access levels to the signed PDF:

- Allow recipients to make annotations
- Allow recipients to fill out form fields
- Do not allow any form of editing the document.

When uploading a certificate to the Asset Store, Experlogix Smart Flows recognizes certificate files and will ask for a corresponding password. Smart Flows supports PKCS12 certificates. Uploaded certificate assets must be of type *.p12 or *.pfx.

Retry Mechanism for Unsuccessful Flow Runs

As much as we all try to avoid it, sometimes flow executions finish in an unsuccessful state. For those occasions, Smart Flows 4.21 introduces a restart capability, which is available for all flow executions that finished in a status that is not “Success.” This capability is available on the Recent Flow Runs page in the Reporting section of the Control Panel.

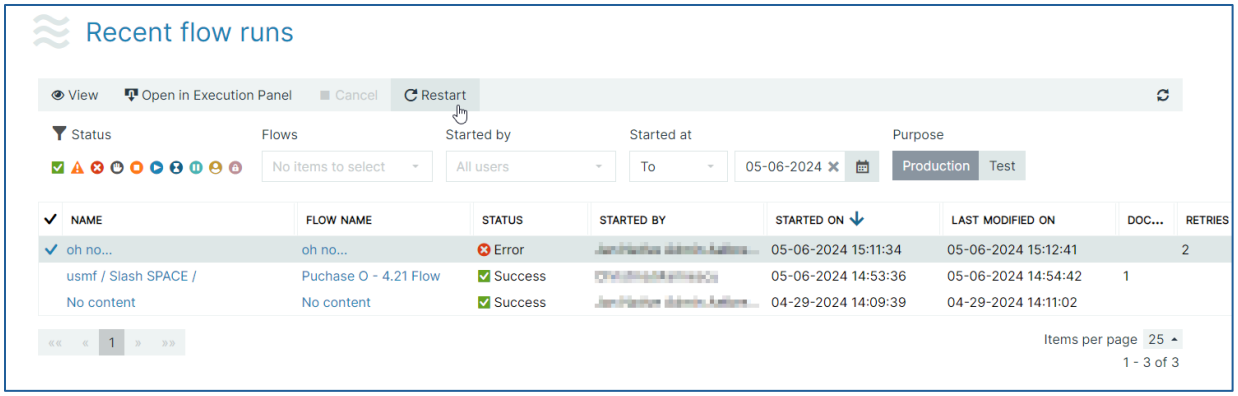

Figure 7 – Restart a flow from within the Reporting section of Project Console

The retry mechanism is also available via the flows/executions/retry endpoint of the Experlogix Smart Flows REST API.

The detailed report of a flow execution now also shows information per attempt on whether a flow execution was restarted.

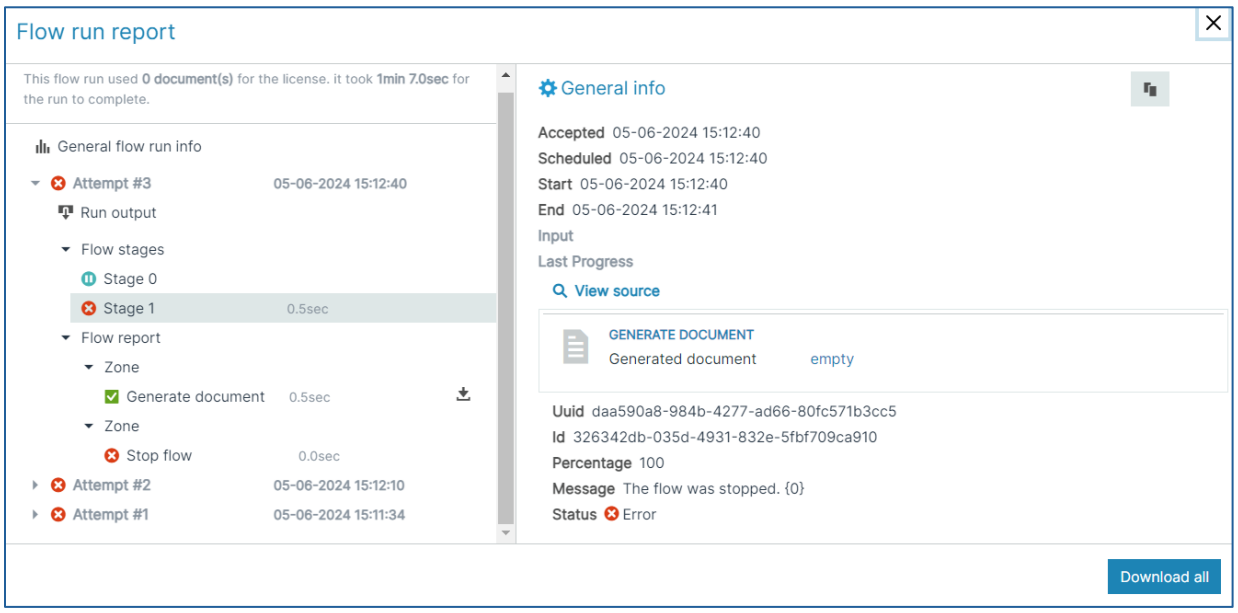

Figure 8 – A detailed flow run report showing multiple flow execution attempts

Minor Improvements

As always, a new Smart Flows release brings minor improvements and quality-of-life upgrades. We are happy to list some of those included in the 4.21 release.

- **Several improvements were made to the Project "Great White Shark" Plugin**. Based on early adopter input from the Project "Great White Shark" Preview Program, we were able to implement several improvements, including support for special characters when parsing form data set field values, use of GWS data set fields in Flow Builder, and mapping of uploaded images and files from form data sets in Template Builder.
- **Revised pattern for Open Microsoft SharePoint document link**. Several clients were confronted in late April 2024 with a sudden change in behavior of their Smart Flows generated Microsoft SharePoint links caused by a Microsoft update. Although Microsoft reverted the changes soon after, we have implemented a new link pattern that provides better continuity in similar situations.
- **Optimized search in drop-down menus.** Drop-down menus have been improved to filter on other properties than the item's name or ID property. This is particularly handy when searching for sample records in a connected system.
- **Improved filtering in list views.** List views throughout Project Console can now be filtered on multiple values per parameter (e.g., show all data sets of three types out of seven).

Release Notes and Release Artefacts

Comprehensive release notes and an overview of downloadable release artefacts are available through the Experlogix knowledge base.

Experlogix Smart Flows 4.21 Release Notes
Experlogix Smart Flows 4.21 Release Artefacts

About Experlogix

Experlogix solutions simplify and humanize the most complex products and processes to unlock workflow velocity and create a better customer experience. Experlogix Design Center makes configuration and other processes faster than you ever thought possible and more straightforward than you dared to imagine. Experlogix Document Automation simplifies and optimizes even the most complex document processes for companies worldwide in any industry. Experlogix — simplifying the complex. Experlogix is a global company headquartered in Salt Lake City, with European headquarters in Veenendaal, Netherlands. We are online at www.experlogix.com.