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# Enfocus Switch 2021 Fall

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## General

### Apple Silicon support

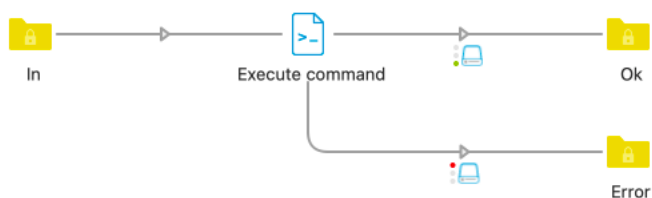
Switch 2021 Fall now offers next to Mac Intel, also native support for the new Apple Silicon M1 chip. Note that running Intel installers on Apple Silicon is not supported (no Rosetta2 support) so please use the corresponding installer for your platform. Native support in contrast to using Rosetta2 ensures optimal performance on Apple Silicon.

### Speed improvements

- General speed improvement on Mac and Win for elements and scripts that are based on Node.js scripting.
- Speed improvement on Windows for file move operations done in Switch.
- Improved performance of creating and modifying jobs in elements and scripts based on Node.js scripting.

### Execute command

Execute command now supports outgoing traffic light connections (success out/error out).



### Operating systems

- Windows Server 2022, Server 2019 and Server 2016.  
We will no longer support 2012 R2.
- Windows 10, Windows 11. Note that Windows 7 is already EOL.
- Mac OS 12 (Monterey), 11 (Big Sur), 10.15.  
We will no longer support 10.14 and 10.13. MacOS 11 and 12 will be supported on both Silicon and Intel Mac.



## Job boards

### Thumbnails

Job boards now also show thumbnails for each job making it easier for Web Portal users to identify jobs.

#### Job board 1 ⋮

+ 5 MB (3 jobs) <span>⋮</span>	- 5 MB (PDF) (3 jobs) <span>⋮</span>	- 5 MB (JPEG) (3 jobs) <span>⋮</span>
switch_referenceguide_00042021.pdf No stage	PitStop-2021-New-features-A4test.pdf No stage	champagneglazen.jpeg No stage
switch_referenceguide_20042021.pdf No stage	PitStopPro-IT-.pdf No stage	happybirthday.jpeg No stage
switch_scripting_legacy_ENFS-28729 No stage	Enfocus PitStop workshop.pdf No stage	squirrel.jpeg No stage

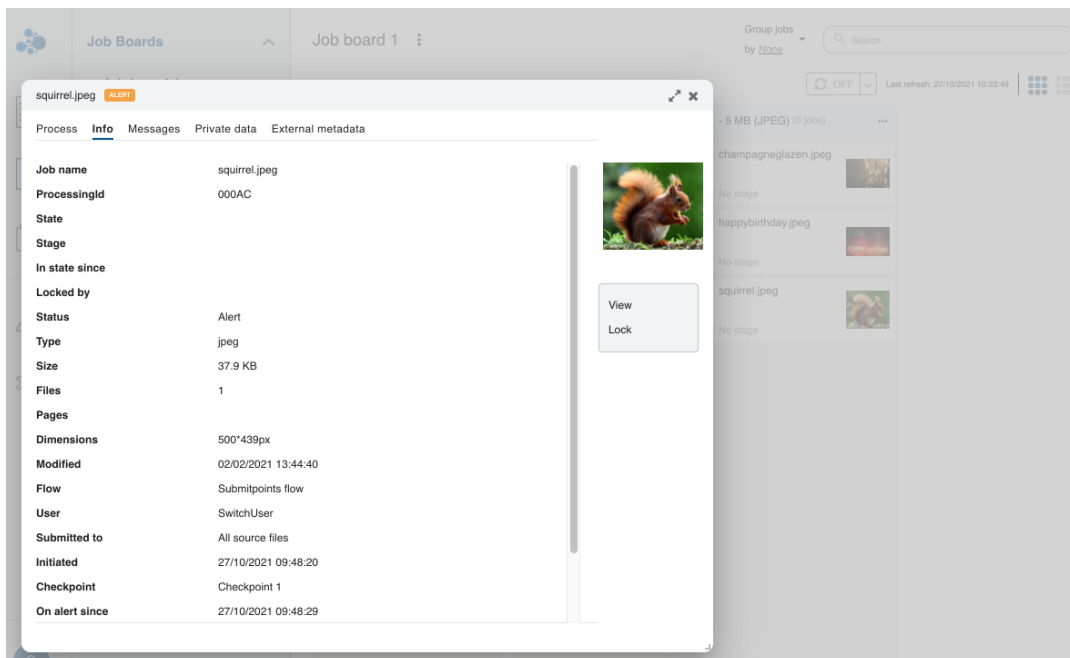
### Refresh job info element

By using the *Refresh job info* element, flow designers and administrators have full control in which stages of the flow thumbnails and other job info that is shown on the job boards and job info dialog should be recalculated (see further).



## Redesigned Job info dialog

The job info dialog had a complete make-over and now also shows detailed job info like a thumbnail, number of pages, dimensions, ... Now it is also no longer necessary to manually disable the auto-refresh option on the job board before opening the job info dialog. Next to that, users who have the Client module can also access all job client features for jobs waiting in a Checkpoint from within the new job info dialog when opened from a job board.





## Advanced job board column filters

So far it was only possible to set up basic filters for job board columns based on flows and stages.

In this release we allow job board users to set up advanced job board column filters based on any job info field available in Switch.

In the example below, you can see a job board in configuration view. The first column will display big files (+5MB), the second and the third column will display small files (-5MB) split up per file type (TXT or PDF).

### Edit File size/File type Basic mode **Advanced mode**

Board Name: File size/File type

Board Columns

[+ add column](#)

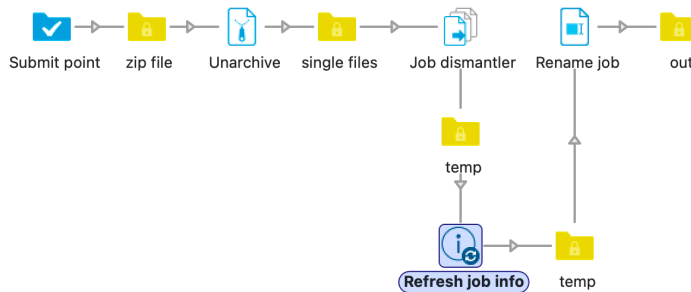
<u>+ 5 MB</u> <span>+</span> <span>x</span>	<u>- 5 MB (TXT)</u> <span>+</span> <span>x</span>	<u>- 5 MB (PDF)</u> <span>+</span> <span>x</span>
<b>Select Filter</b> <a href="#">Create</a> <a href="#">Manage</a>	<b>Select Filter</b> <a href="#">Create</a> <a href="#">Manage</a>	<b>Select Filter</b> <a href="#">Create</a> <a href="#">Manage</a>
<input checked="" type="radio"/> + 5 MB	<input type="radio"/> + 5 MB	<input type="radio"/> + 5 MB
<input type="radio"/> - 5 MB	<input type="radio"/> - 5 MB	<input type="radio"/> - 5 MB
<input type="radio"/> - 5 MB (PDF)	<input type="radio"/> - 5 MB (PDF)	<input checked="" type="radio"/> - 5 MB (PDF)
<input type="radio"/> - 5 MB (TXT)	<input checked="" type="radio"/> - 5 MB (TXT)	<input type="radio"/> - 5 MB (TXT)
<input type="radio"/> Alert jobs	<input type="radio"/> Alert jobs	<input type="radio"/> Alert jobs
<input type="radio"/> Waiting	<input type="radio"/> Waiting	<input type="radio"/> Waiting




## Client module

### Check jobs – Refresh Job info element

- Speed improvement: thumbnails of child jobs are no longer automatically calculated.
- The new *Refresh job info* element allows the Switch administrator or flow designer to control the generation of thumbnails and job info shown in the Check jobs view. In the past, the job info and the thumbnails shown in the Check jobs view were automatically generated each time a new job was created from a job that came in through a Submit point or Checkpoint, which in some cases could lead to a big performance hit. Thanks to the Refresh job info element flow designers and Switch administrators can now force Switch to only generate the thumbnails and job info where they need it. That way no hardware resources are used when it's not needed or not wanted, and it frees up hardware resources for actual processing.

In the example below, the Refresh job info flow element is inserted in the flow to display the status of the jobs in the Check jobs view just before the jobs are renamed. The Check jobs view now shows the single files (with a thumbnail) in addition to the ZIP file that was submitted.



Check Jobs ⋮						
Thumbnail	Job name	Status	User	Submitted to	Initiated	
	files.zip	Completed	SwitchUser	Submit point	2021-10-0...	
	file1.png	Processing	SwitchUser	Submit point	2021-10-0...	
	file2.png	Processing	SwitchUser	Submit point	2021-10-0...	



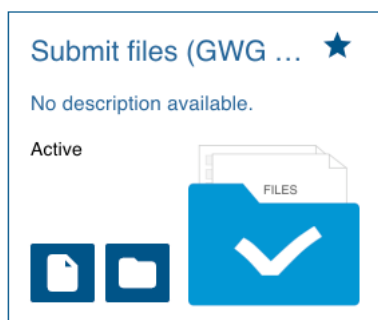
In the properties of Refresh job info, you can specify whether you want to keep, remove or update the thumbnails of the original job (shown in the Check jobs view). The job info (shown on the Processing tab of the Process jobs dialog) can be kept as it is or can be updated to the current status.

Property	Value
Element type	Refresh job info
<b>Name</b>	<b>Refresh job info</b>
<b>Description</b>	
<b>Thumbnail</b>	<b>Refresh</b>
<b>Job info</b>	<b>Update</b>

## UX improvement for faster job submission

Switch 2021 Spring introduced the concept of a queue dialog to compose job folders on the fly by adding files and folders from different locations without first having to compose them on the local machine.

Switch 2021 Fall now offers direct submission of separate jobs without using the queue either by using the icon or by drag and drop to reduce the number of mouse clicks for faster and easier job submission.



How does it work?

- The first icon allows you to submit separate job files. Click the file icon and simply select the files you want to submit.
- The second icon allows you to submit folders (containing one or more job files or subfolders). Click the folder icon and add files and folders (optionally from different locations) to a queue (as introduced in Switch Spring 2021).
- Alternatively, you can drag and drop files and folders onto the Submit point and submit them right away. It is not possible to add files and folders from different locations.

More details can be found in the Switch Reference Guide.



## Submit jobs/Process jobs dialog

Based on user feedback, we improved the UX for the Submit jobs and the Process jobs dialog.

Example of the Submit jobs dialog (Metadata tab)

Archive 2

Metadata Info

Profile: Unknown (Choose a profile)

Fixed Size: [ ]

Width: 1 (Enter a value)

Width Unit: Inch (Choose a unit)

Height: [ ] (Enter a value)

Height Unit: Inch (Choose a unit)

Bleed: No

Brand: [ ]

Fax: [ ]

Destination: [ ]

Version: [ ]

Name: Archive 2

Buttons: Cancel, Submit

Example of the Process jobs dialog (Info tab):

MissingBleed.pdf ALERT

Process Info

Job name: MissingBleed.pdf

State: -

In state since: -

Locked by: SwitchUser

Status: Alert

Type: pdf

Size: 194.1 KB

Files: 1

Pages: 1

Dimensions: -

Modified: 20/08/2021 16:45:57

Flow: Checkpoint

User:

Submitted to:

Initiated: 03/09/2021 13:49:44

Checkpoint: Checkpoint 1

On alert since: 03/09/2021 13:49:44

Family: 0003R

Updated: 03/09/2021 14:20:55

Thumbnail image: [ ]

Buttons: View, Unlock





## Scripting

### Node.js version 16 support

Switch now allows script writers to take advantage of the latest features and bug fixes that are available in the latest Node.js Active LTS version 16.

### Node.js ImageDocument class

The ImageDocument class allows to retrieve basic information about images for script writers not having to depend on other 3rd party Node modules. The API description of the ImageDocument class can be found in the Node.js scripting documentation provided in the beta program.

### Node.js Webhook support

Connectivity with external services is now also possible through Webhooks from within the Switch Node.js scripting. Webhooks allow external applications or services to send notifications to Switch. For example, the notification could contain the status of a job or trigger an update when a new order comes in via the MIS system. Webhooks open up a whole world of possibilities for script writers, App creators and integrators – and will ultimately simplify your automated workflow.

In contrast to legacy scripting, the Node.js scripting API also allows to store information in global data in the entry point that generated the webhook response.

The webhooks API description can be found in the Node.js scripting documentation provided in the beta program. For more details, refer to the description of:

- Switch::httpRequestSubscribe
- Switch::httpRequestUnsubscribe
- httpRequestTriggeredSync
- httpRequestTriggeredAsync
- HttpRequest class
- HttpResponse class

### flowStartTriggered and flowStopTriggered entry points

Next to the new flowStopTriggered entry point in Node.js scripting that also existed in the legacy scripting, Node.js scripting now also offers the flowStartTriggered entry point allowing script writers to detect when the flow is being started and stopped.

The API description can be found in the Node.js scripting documentation provided in the beta program.

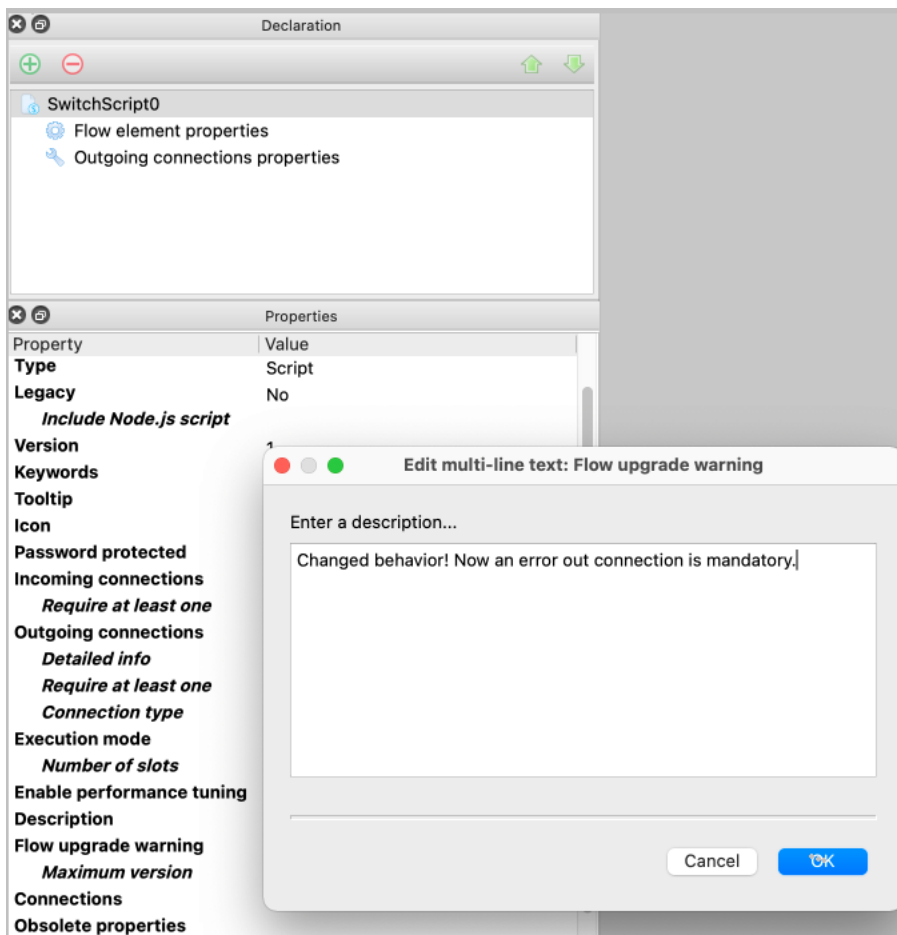


## Detect missing await statements in Node.js scripting

For script writers it can be easy to forget to write an await statement to let the Node.js script wait until promises and callbacks are completely finished, which could lead to undefined behavior of the script. Now Switch will try to detect missing await statements at runtime and log a corresponding warning message if needed.

## Upgrade warning support in Switch scripting

SwitchScripter now offers script writers the ability to trigger a custom warning message when users upgrade to a new version of the script or when importing flows that use old versions of the script. This enables script writers to inform end users of changes in behavior of the new version and ultimately leads to a better understanding.



Property	Value
Type	Script
Legacy	No
<i>Include Node.js script</i>	
Version	1
Keywords	
Tooltip	
Icon	
Password protected	
Incoming connections	
<i>Require at least one</i>	
Outgoing connections	
<i>Detailed info</i>	
<i>Require at least one</i>	
<i>Connection type</i>	
Execution mode	
<i>Number of slots</i>	
Enable performance tuning	
Description	
Flow upgrade warning	
<i>Maximum version</i>	
Connections	
Obsolete properties	



## Allow to use custom ts config for transpiling

Switch scripting now allows the usage of a custom `tsconfig.json` file to customize the options used for transpiling Typescripts, for example, to use typescript features that require additional transpile options.

For more information, visit <https://www.typescriptlang.org/docs/handbook/tsconfig-json.html>

## Retrieve element instance name

It is now possible to retrieve the instance name of a Switch element in a script.

The API description can be found in the Node.js scripting documentation provided in the beta program.

For more details, refer to the description of:

`FlowElement::getName(): string`

## Bug fixes

The following bugs have been fixed:

ENFS-23677	Performance bottleneck when creating child jobs from jobs that came in through submit and checkpoints.
ENFS-28917	Change unclear behavior related to attaching user info to jobs in submit and checkpoints
ENFS-28963	Scripting documentation – correctly describe behavior when job is sent to an outgoing traffic connection and no matching outgoing connection is found.
ENFS-29044	Strings in the web portal navigation pane are cut off in some languages
ENFS-29272	Node.js scripting – dependent properties of parent properties that use a text with variables or a script expression editor not accessible from the Node.js script.
ENFS-29388	Node.js scripting Element scope for global data doesn't work from other entry points besides <code>timerFired</code> and <code>jobArrived</code>
ENFS-29469	Private data/metadata is not shown on the job info dialog for outdated jobs
ENFS-29576	Dashboard history graphs ignores column that was chosen in the "Set" field and always takes values from the first column of the job board instead
ENFS-29656	Assemble job – existing job not always replaced when overwrite duplicates is enabled
ENFS-29676	No warning pop-up dialog shown when selecting files that have a wrong file type in case of "File" only submit points
ENFS-29717	Improved Chinese translation for the Process button on the Process job dialog in the web portal
ENFS-29725	Active Directory synchronization problems



ENFS-29790	Split PDF - file size issue when splitting certified PDF files
ENFS-29809	Documentation bug for PDFDocument class
ENFS-29839	Node.js scripting - PDF Class error when using UNC paths on Windows
ENFS-29891	Node.js scripting - Job.createChild() fails when creating folders of more than 4GB and files of more than 2 GB
ENFS-29956	Submit Point URL with HTTPS is asking for login when it is set to no authorization
ENFS-29968	Dashboard live graph and table widgets not updating synchronously
ENFS-29971	Incorrect handling of multiple placeholder arguments in FlowElement.Log method
ENFS-30291	Text with variables do not work for "Send alerts to" property on the Problem jobs element
ENFS-30520	Crash when generating thumbnails for PDF files in Switch
ENFS-30685	Documentation bug for Job.Origin