Conditional Private Data

V2.0 Documentation

Changes

Type	Note
Feature	Added new Property "All other jobs" for all Conditional Private Data keys.

Overview

Conditional Private Data automatically enriches jobs with private data based on flexible conditions—then intelligently routes them to multiple destinations. No more managing data separately per folder. Add private data via text, scripts, or conditional logic. Filter routing by file patterns, regex, or conditions. Export as JSON/XML datasets. One flow element replaces complex folder-based workflows.

Stop Managing Routing and Metadata Separately

The old way is broken: route jobs to folders, then manually record private data for each destination. It's complex, error-prone, and impossible to scale.

> *One missed folder = lost data. One routing change = update dozens of configurations. Plus all that disk activity moving jobs folder-to-folder slows everything down.*

Conditional Private Data changes everything.

Automatically enrich jobs with custom metadata based on flexible conditions, then intelligently distribute them to unlimited destinations—all from a single flow element. **No folders. No duplication. No disk thrashing.**

Dynamic Data Enrichment

- **Attach custom private data** to all jobs or specific connections

- **Build conditional rules** that apply data based on your criteria

- **Use text fields, script expressions, or conditional logic** (up to 10 keys × 5 conditions each)

- **Export private data as JSON or XML datasets** for downstream systems

- **Combine flow-level and connection-level data** for maximum flexibility

Intelligent Distribution

- Route by file type, name patterns, or custom expressions

- Send the same job to multiple destinations simultaneously

- Exclude specific jobs from certain paths with precision

- Create catch-all rules for exceptions and edge cases

Zero Scripting Required

Configure everything through standard Switch property fields. Advanced users can leverage expressions **(Scripting Module Required)**, but basic operation requires **no scripting**.

New in Version 1.0

Version 1.0 introduces the app with the following capabilities:

Intelligent Job Routing

- Incorporating Switch-based filter types: literal (All jobs, All other jobs), file patterns (wildcards), regular expressions, etc.

- Exclude filters to prevent specific jobs from being routed to connections

Flexible Private Data Management

- Flow element-level private data applied to all outgoing jobs

- Connection-specific private data for targeted enrichment

- Three input methods: direct text entry (key=value format), script-based key-value pairs (up to 10 pairs), and conditional private data (up to 10 keys with five conditions each)

- Duplicate conditional private data handling with "Keep first" or "Keep latest" strategies

- Optional dataset attachment (JSON or XML format) on outgoing connection

Advanced Workflow Control

- Custom job naming per connection (use current name or specify new name)

- Automatic child job creation when multiple connections match

- Single job forwarding when only one connection matches (preserving original job)

- Comprehensive logging at debug level for troubleshooting

Compatibility

Switch 25.11 and higher. Windows and Mac OSX

Incoming Connections

At least one incoming connection is required.

Outgoing Connections

At least one outgoing connection is required.

Flow Element & Connection Shared Properties

Private Data: Enable manual entry of private data in key=value format

- Enter one key-value pair per line
- Format: key=value (e.g., Priority=High, Department=Billing)
- Only the first = is used as a separator, allowing values to contain = characters
- Empty lines are ignored
- Keys without values are ignored

Script Private Data: Enable script-based private data entry (up to 10 key-value pairs)

- **Script Key 1-10**: The tag name for the private data
- **Script Value 1-10**: The value for the private data
- Supports dynamic values from Switch variables/expressions
- Only pairs with both key and value are added

Conditional Private Data: Enable conditional private data (up to 10 keys, each with up to 5 conditions)

- **Key 1-10**: The tag name for the private data
- **Handler 1-10**: Choose how to handle multiple matching conditions
    - **Keep first**: Uses the value from the first matching condition
    - **Keep latest**: Uses the value from the last matching condition
- **Condition 1-1 through 1-5**: Boolean expression that determines if this value should be applied
    - **Value 1-1 through 1-5**: The value to apply if the corresponding condition is true
- **All other jobs:** If no Conditions (1-5) are met for all Conditional Private Data keys, then the value (if set to anything other than "None") will be utilized for said key.

Private Data Deduplication
When multiple private data entries share the same key (tag), Conditional Private Data handles duplicates based on the Handler setting for Conditional values. A warning is logged when duplicates are detected, showing which keys have multiple values when the job is passed down a connection.

The combination order is Flow element private data → Flow element script private data → Flow element conditional private data → Connection private data → Connection script private data → Connection conditional private data.

Connection Properties

Include/Exclude Filtering

Include: Specify which jobs should be accepted by a connection

- **All Files**: Accepts every incoming job (literal match)
- **All Other Files**: Accepts jobs that don't match any other connection (catch-all)
- **Condition with variables**: Use Switch's built in editor to build complex conditional logic.
- **File types**: Select one or more file types from Switch's built in editor.
- **File Pattern**: Accepts jobs matching wildcard patterns (e.g., *.pdf, Invoice_*.xml, Job????.txt)
    - * matches zero or more characters
    - ? matches exactly one character
    - Case-insensitive matching
- **Regular Expression**: Accepts jobs matching a regex pattern (e.g., ^Invoice_\d{4}\.pdf$)

Exclude: Specify which jobs should be rejected by a connection

- Uses the same filter types as Include
- "All other jobs" is a catch-all for any jobs that don't match the "other" conditions.

> Jobs that don't match any outgoing connection will automatically fail and route to Problem Jobs. The Include/Exclude logic is modeled after Switch's native filtering functionality, though minor differences may exist in edge cases.

Job Naming

Job Name: Determine the name of the outgoing job

- **Current**: Maintains the original incoming job name
- **Custom Name**: Specify a new name for jobs sent to this connection

Dataset Attachment

Attach as Dataset: Choose whether to attach private data as a dataset file

- **Yes**: Creates a dataset containing all private data for this job/connection
- **No**: Private data is only stored in job metadata (not as a separate file)

Dataset Name (When Attach as Dataset is Yes): The name for the dataset

- Specify a unique name for referencing this dataset in subsequent flow elements
- Name is trimmed of leading/trailing whitespace

Dataset Type (When Attach as Dataset is Yes): Choose the format for the dataset file

- **JSON**: Creates a JSON file with private data as key-value pairs

- o Format: {"key": "value", "key2": "value2"…}
- **XML**: Creates an XML file with private data as elements
  - o **Format**: <Data><key>value</key><key2>value2</key2>…</Data>
  - o Tag names are sanitized (invalid XML characters replaced with underscores)
  - o Tags starting with "xml" are prefixed with underscore
  - o Values are XML-escaped (handling &, <, >, ", ')

About Significans Automation

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We offer programming and expertise in custom workflow development, deployment of communication and project management systems, color management, and end-to-end business integration. While upholding software neutrality, Significans Automation advises and tailors best in class software to optimally fit the environment.

The level of sophistication that is provided increases profitability, improved quality control, and enhanced production efficiency, enabling Artificial Intelligence and Robotics, while also facilitating new revenue opportunities in e-commerce. We are driven by the conviction that customized automation is the only path forward.