Generate Checksum

Description
The app generates a checksum of the single file job. Jobs that are folders are being routed to the output connection without a checksum.
The app creates a reference to the file of the job and reads it completely to generate a MD5 hash of its content. This hash is then stored in a private data field with a customizable key that can be adjusted within the app parameters.

This checksum can be useful in various scenarios. For example:
- **File Comparison:** When files are repeatedly processed, the checksum allows you to compare jobs to determine if a file has already been handled.
- **External System Verification:** When receiving jobs from an external source where you can't control what files are being sent to you, the checksum confirms if the incoming file is identical to a previously received version of this exact file.

Compatibility
Switch Fall 2023 and later.

Connections
The app has an incoming connection and a single output connection. In the event of an error, the job fails.

Properties detailed info
Configure the checksum generation process by selecting the algorithm, output format (hex or base64), and the private data key for storing the checksum.

Flow elements properties
- **Checksum Algorithm:**
  Choose the algorithm for checksum generation. Options include
  MD5, AES-256-DBC, AES-256-ECB, SHA-256 and SHA-512
- **Output Type:**
  Select the output format for the checksum, either hex or base64.
- **Private Data Key:**
  Define the key under which the checksum will be stored, making it accessible for future reference within workflows.
- **Route folders to error connection:**
  Determine the routing for folder jobs. When set to "yes," folder jobs are sent to the error output connection, as the app can only generate checksums for single files. When set to "no," folder jobs are routed to the success output connection without a checksum.

Outgoing connections properties
- No properties for outgoing connections.