Fans Meeting Platform

Oslo February 8. 2024

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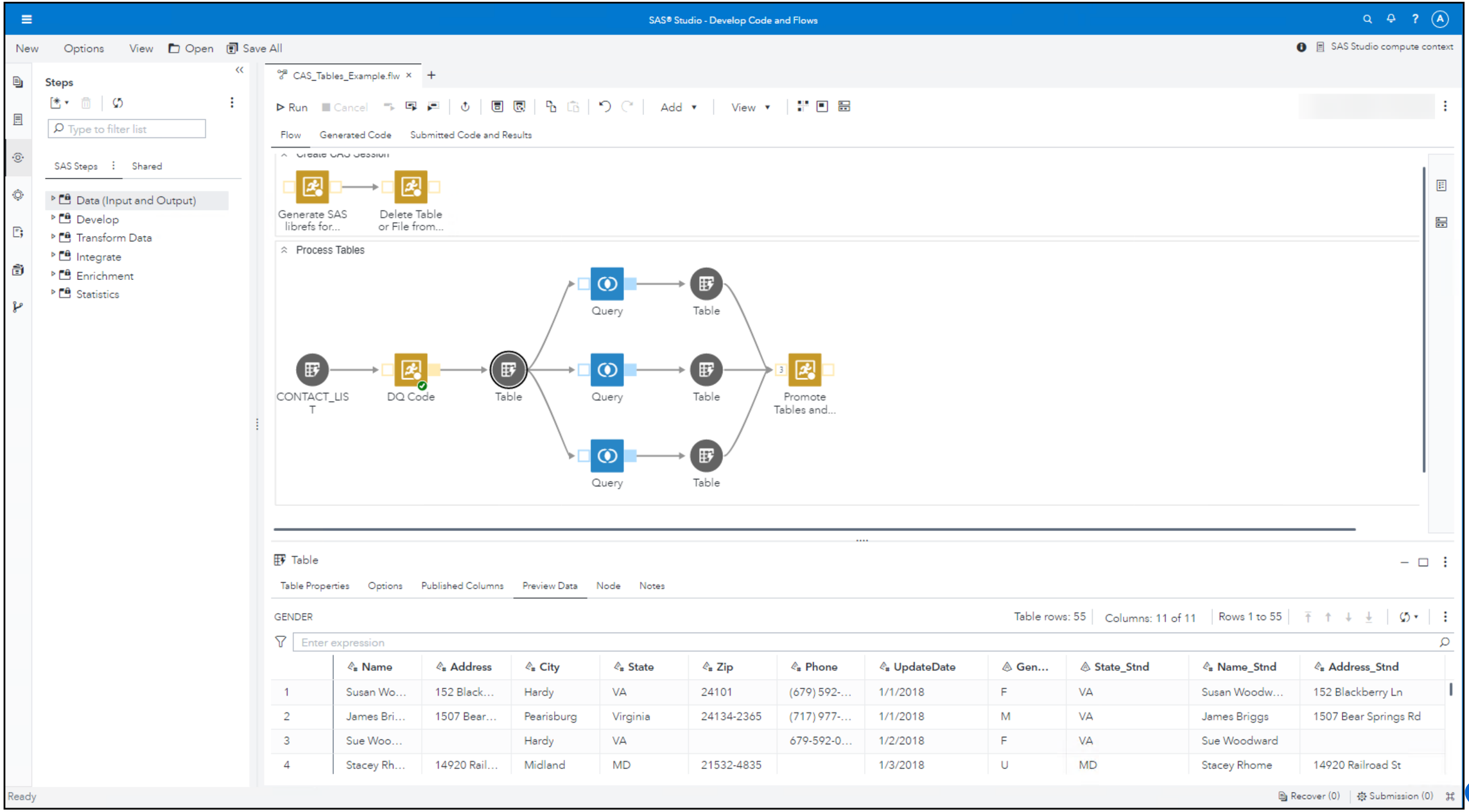
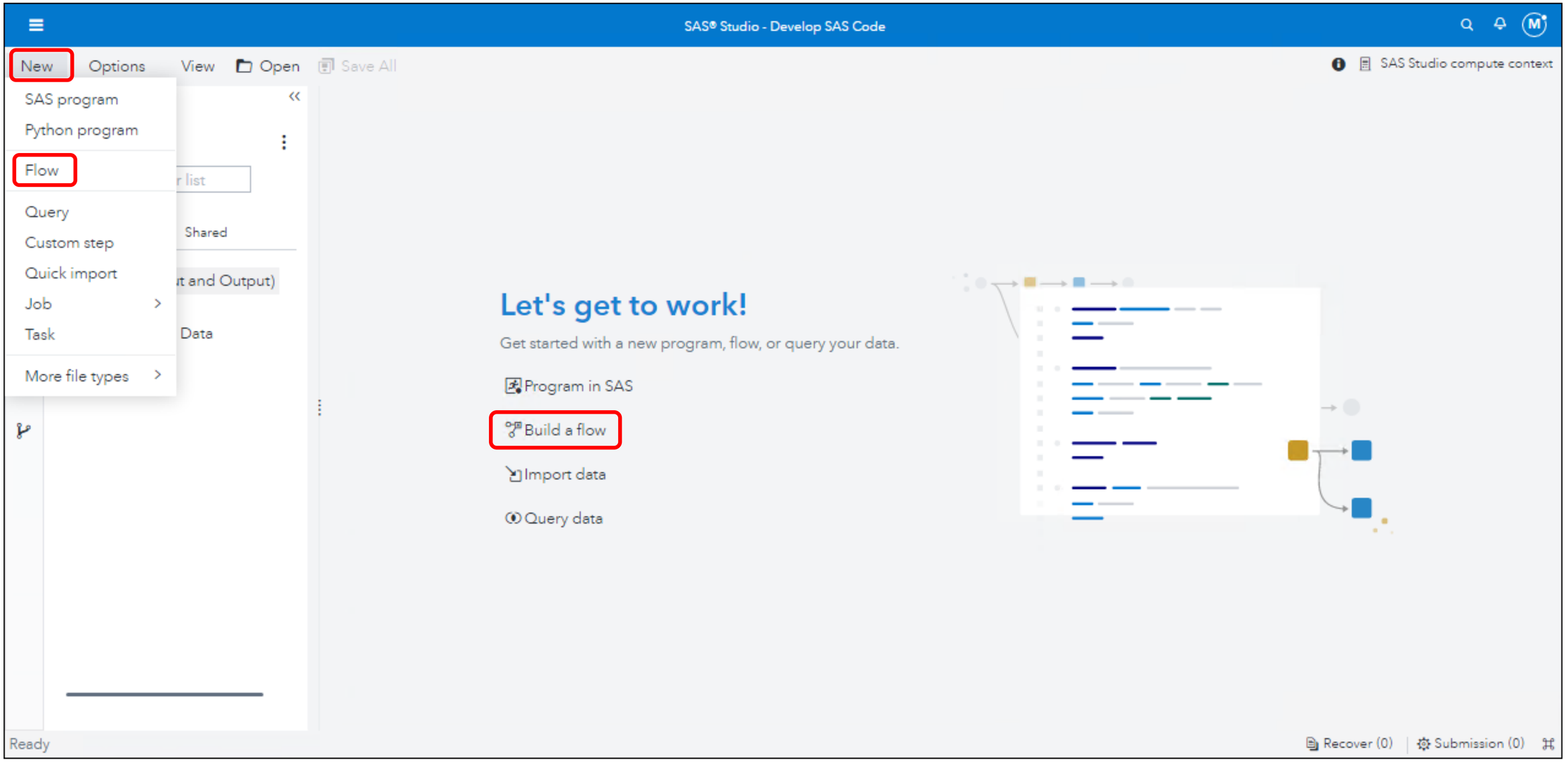
SAS Studio Flows and Scheduling

SAS Studio – Flows

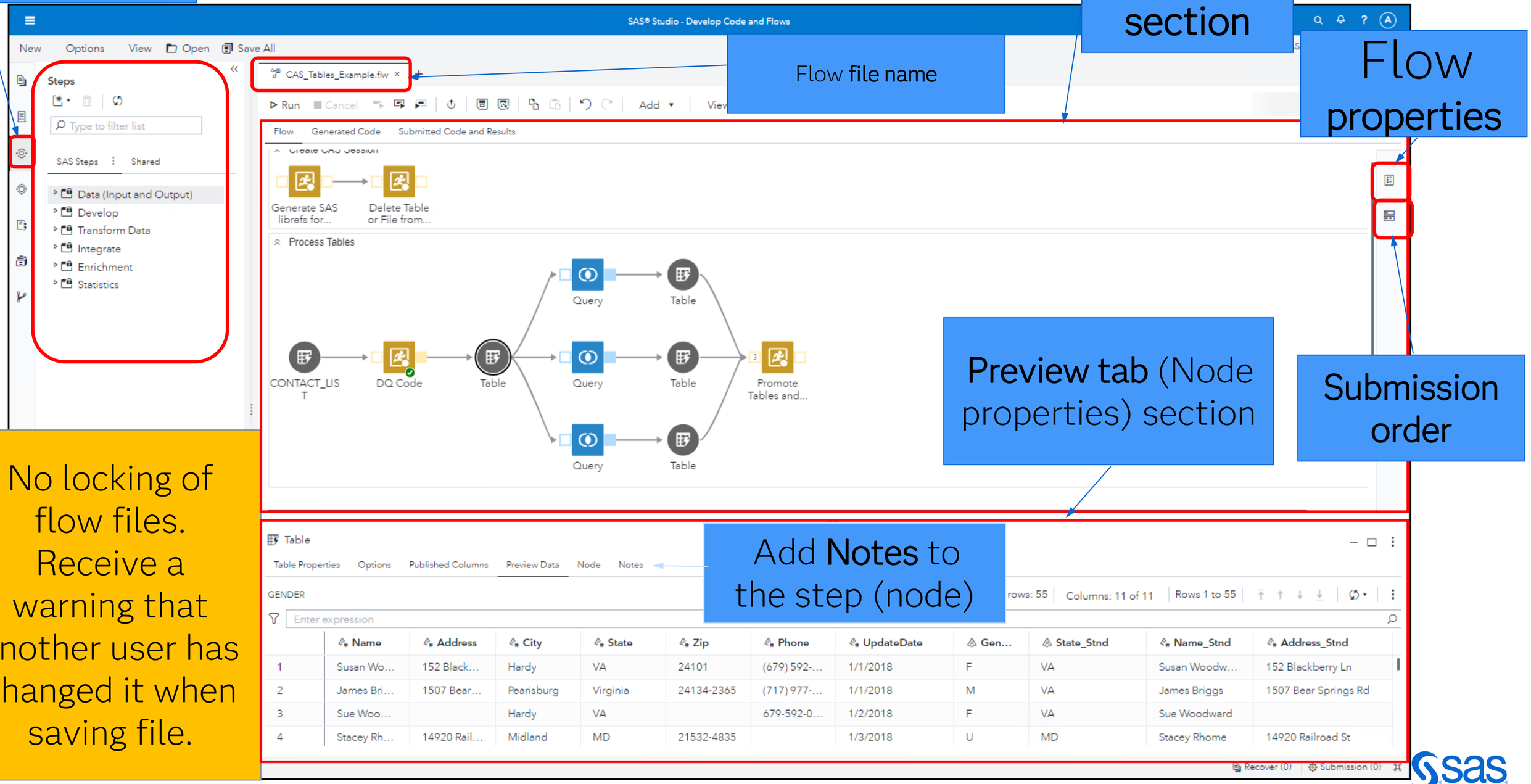


SAS Studio – Flows

Create a Flow



Flow steps – Flows



No locking of flow files. Receive a warning that another user has changed it when saving file.

SAS Studio – Flows

Toolbar

Run entire flow

Run selected node

Run nodes downstream from selected node

Run nodes upstream from selected node

Submit flow in background

Add a step or **note** to the flow

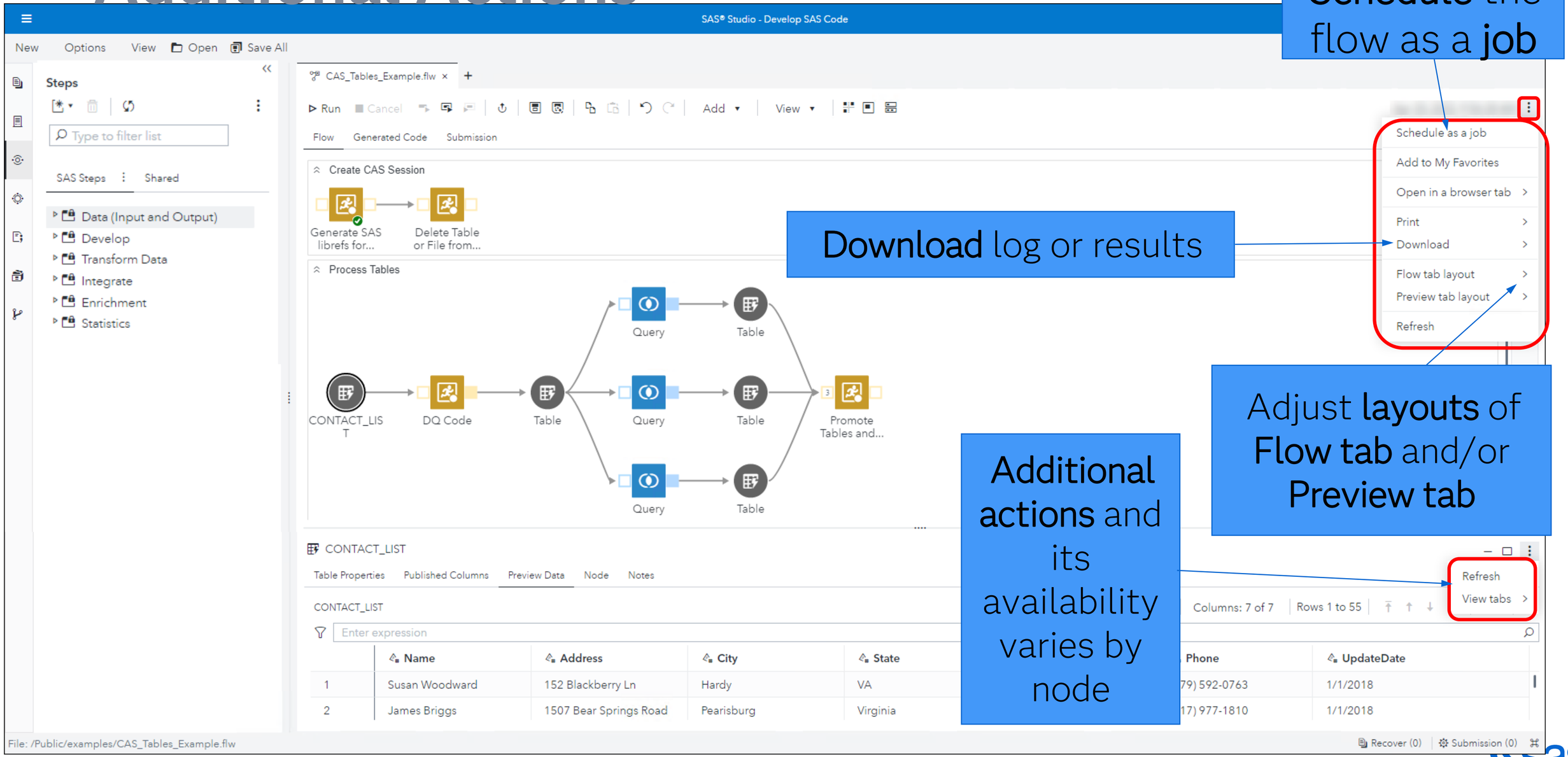
View
Collapse all ports
Expand all ports

Arrange nodes

Reorder nodes and swimlanes

Show/Hide the **overview map**

Additional Actions



Schedule the flow as a **job**

Download log or results

Adjust **layouts** of **Flow tab** and/or **Preview tab**

Additional actions and its availability varies by node

SAS Studio – Flows

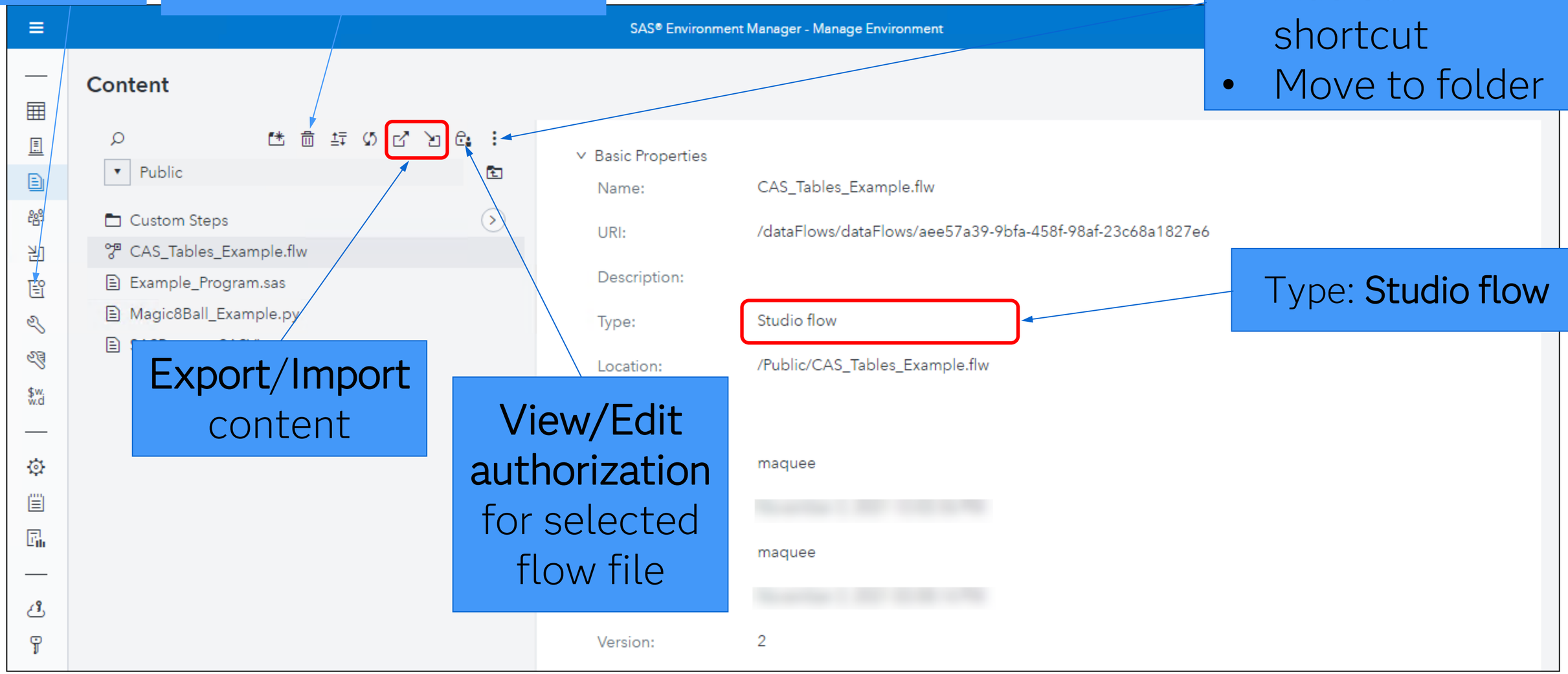
Content

Delete selected flow file

File Maintenance

Additional actions:

- Rename
- Add as shortcut
- Move to folder



Type: **Studio flow**

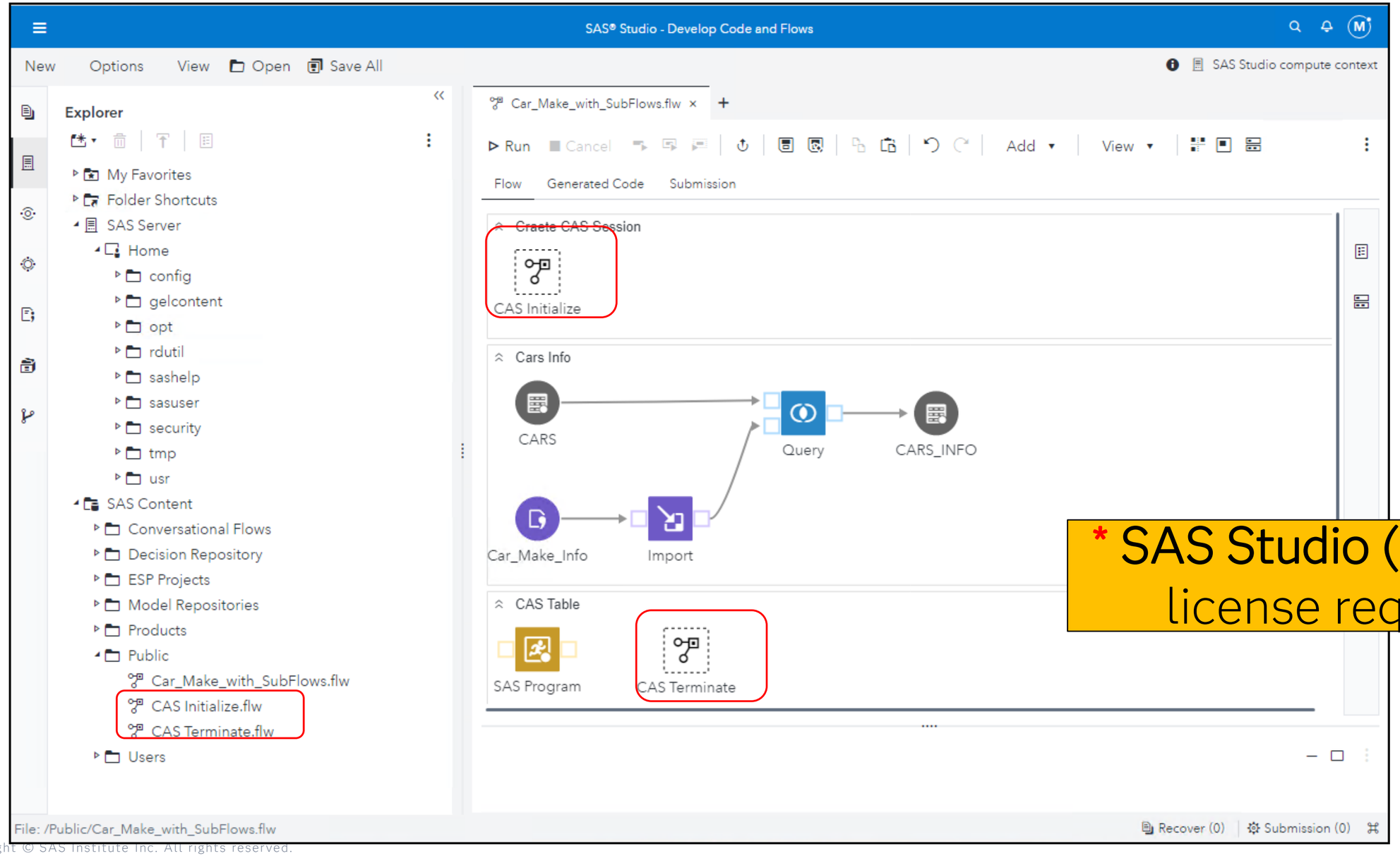
Export/Import content

View/Edit authorization for selected flow file

Subflows

Adding another flow to current flow

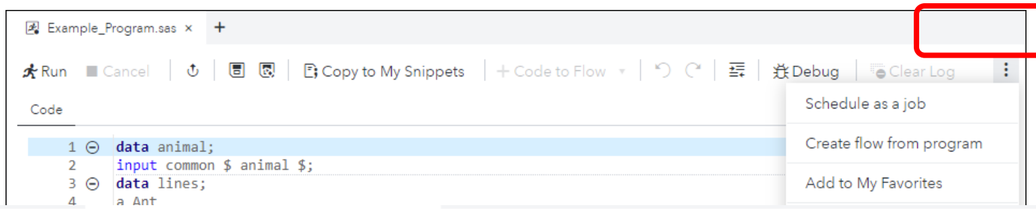
Subflows*



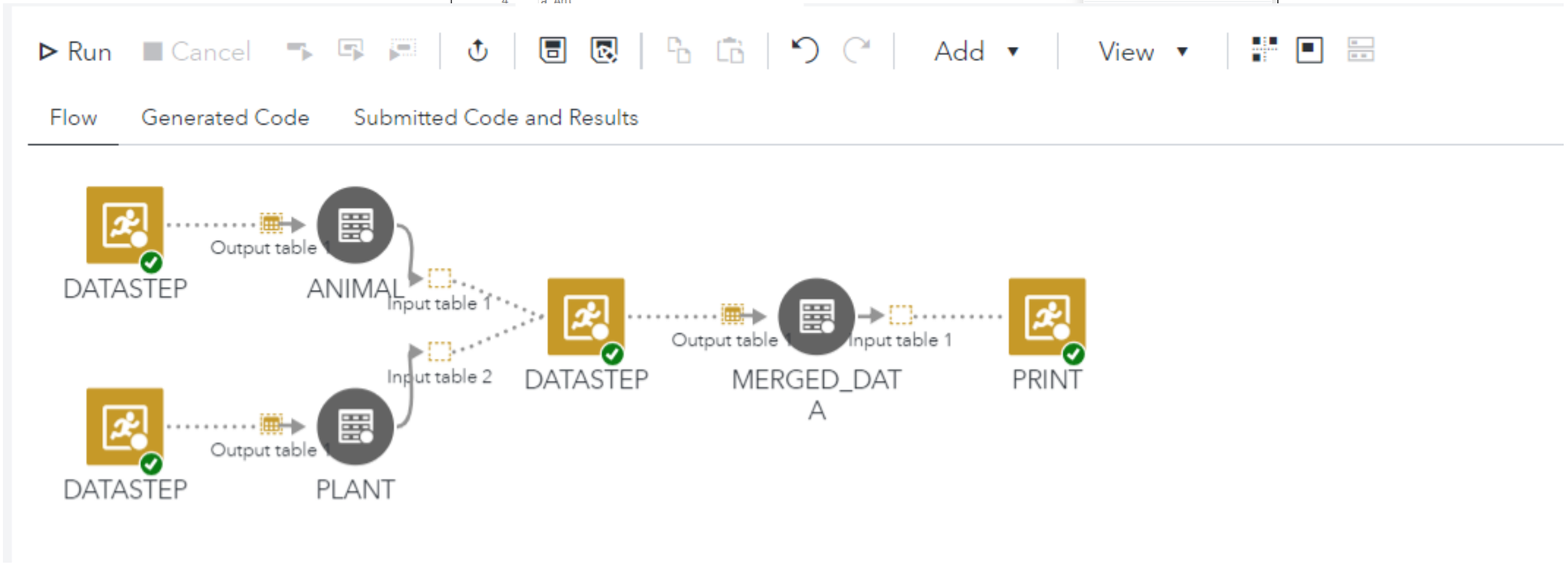
* SAS Studio (Analyst) license required

Create flow from sas program

Create a SAS Studio Flow from a SAS Program



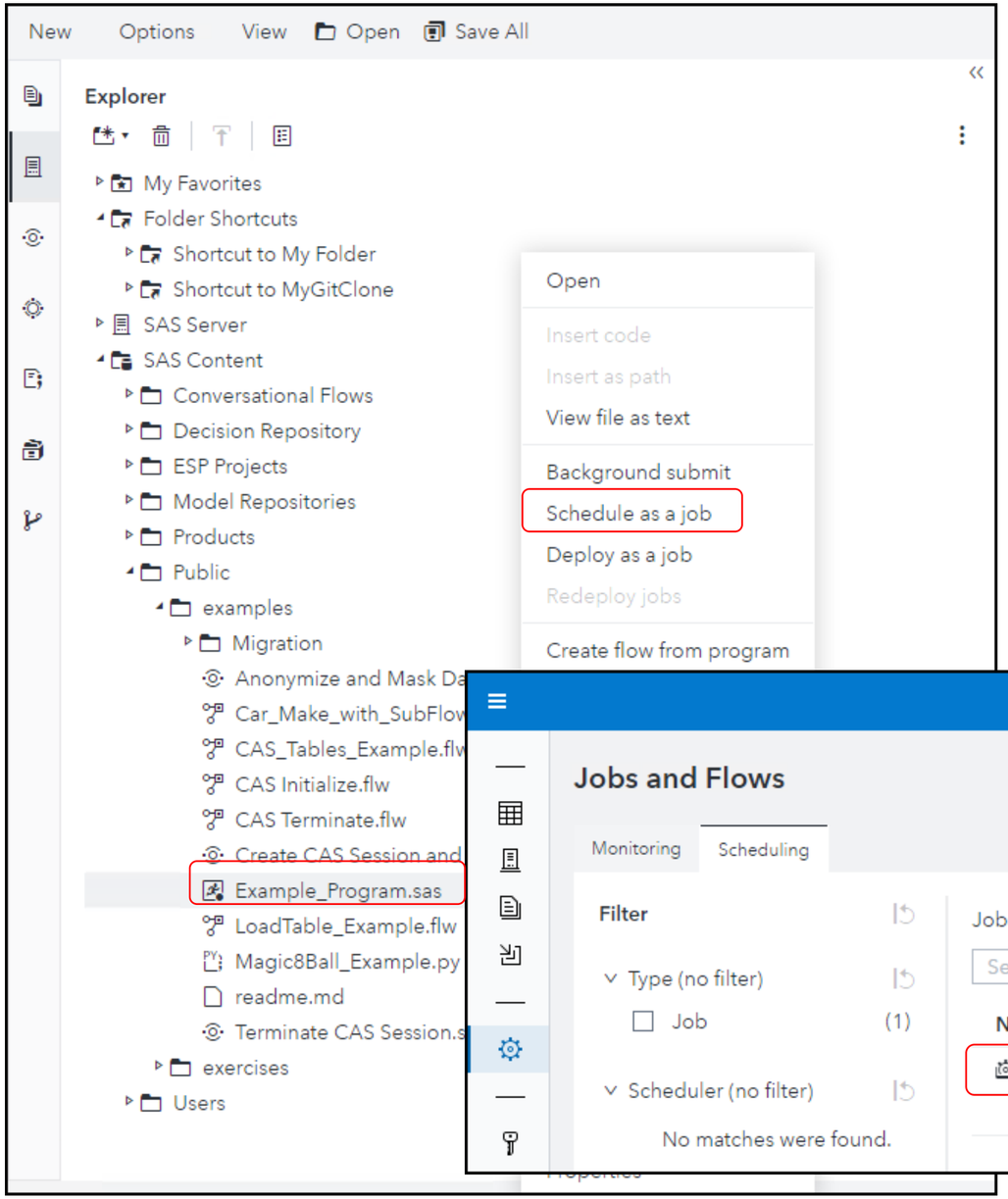
Create flow from program

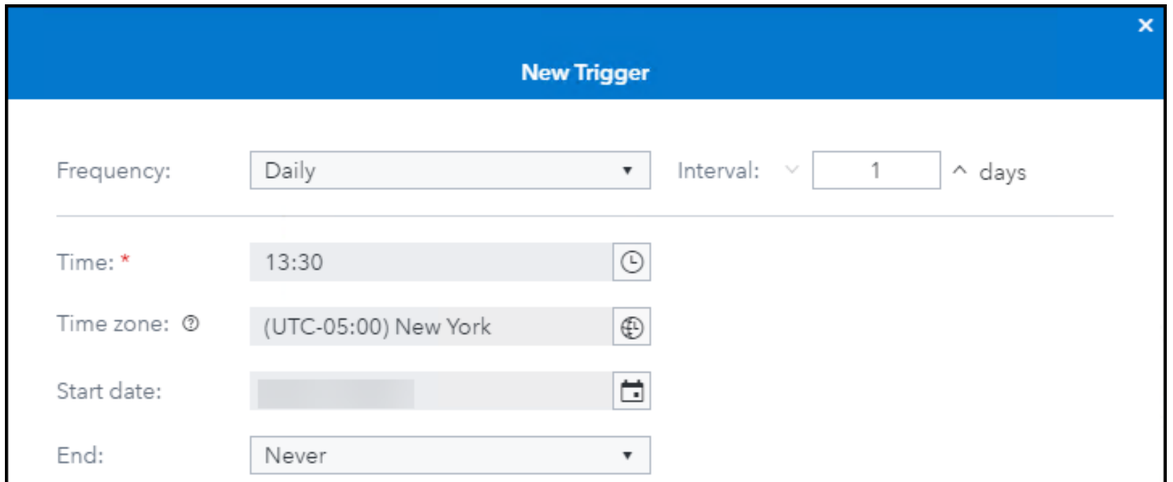


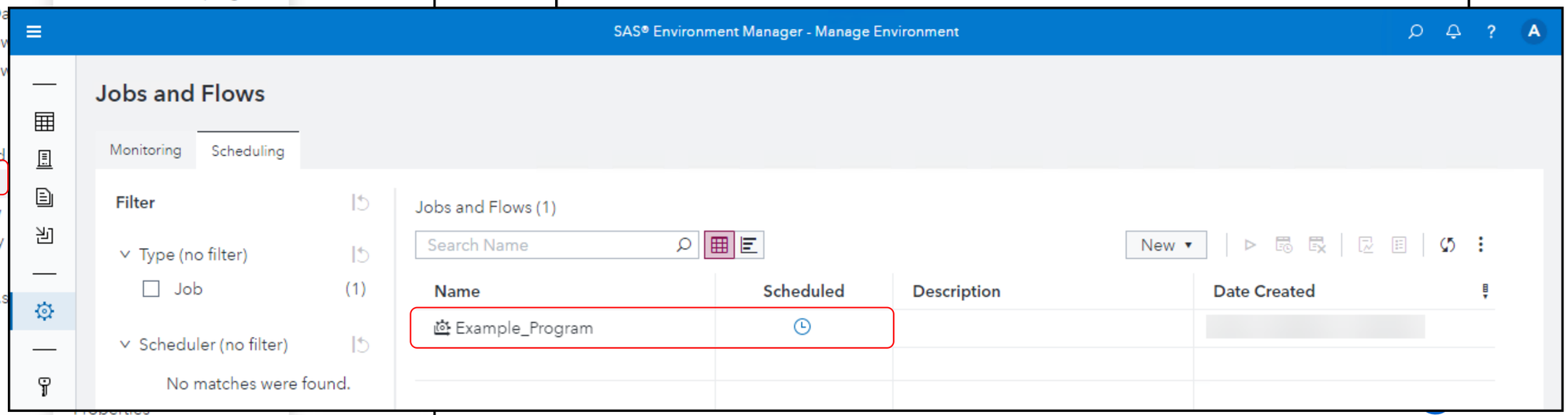
SAS Viya: SAS Studio Flow and Custom Steps

SAS Studio – Creating Jobs in SAS Environment Manager

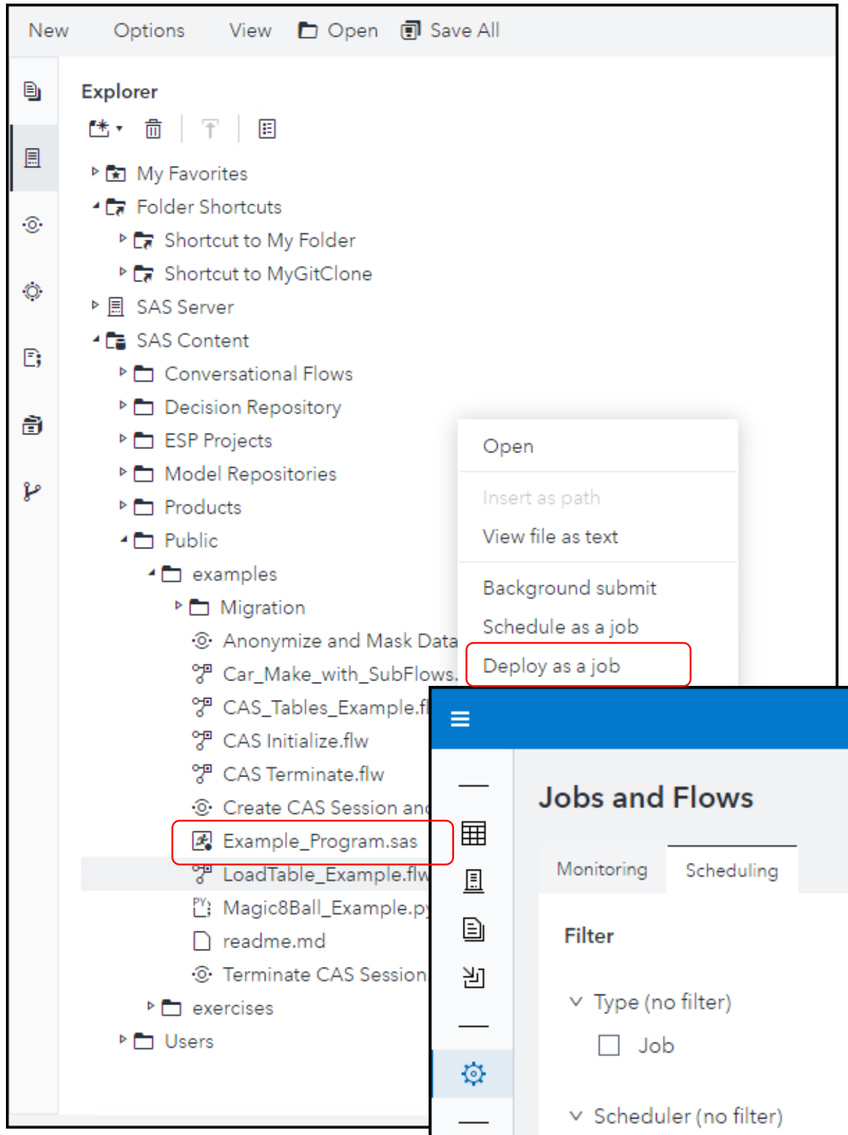
Schedule as a Job

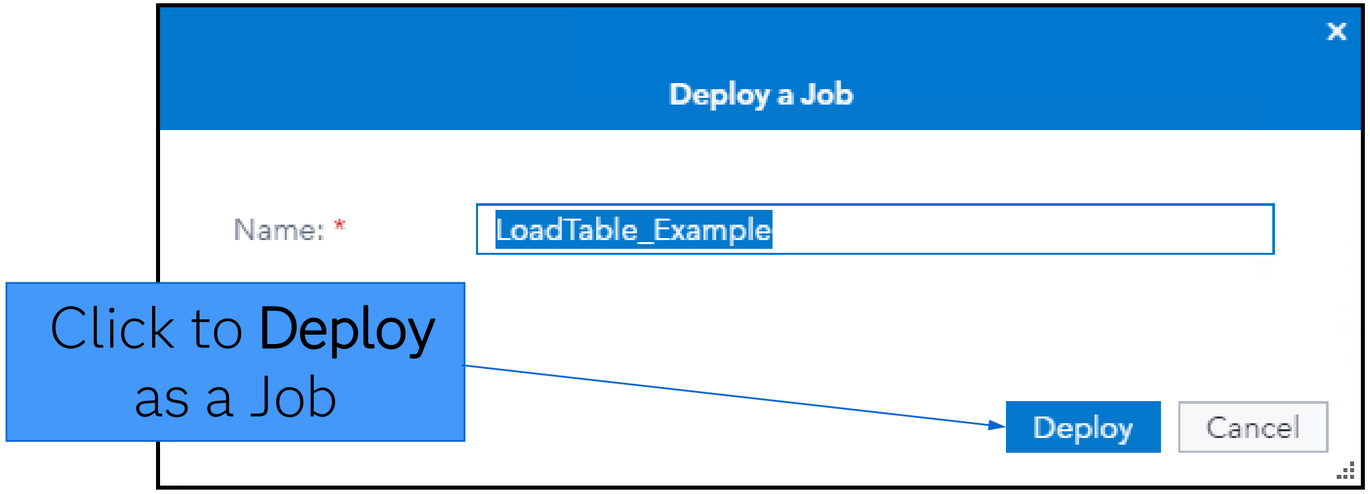




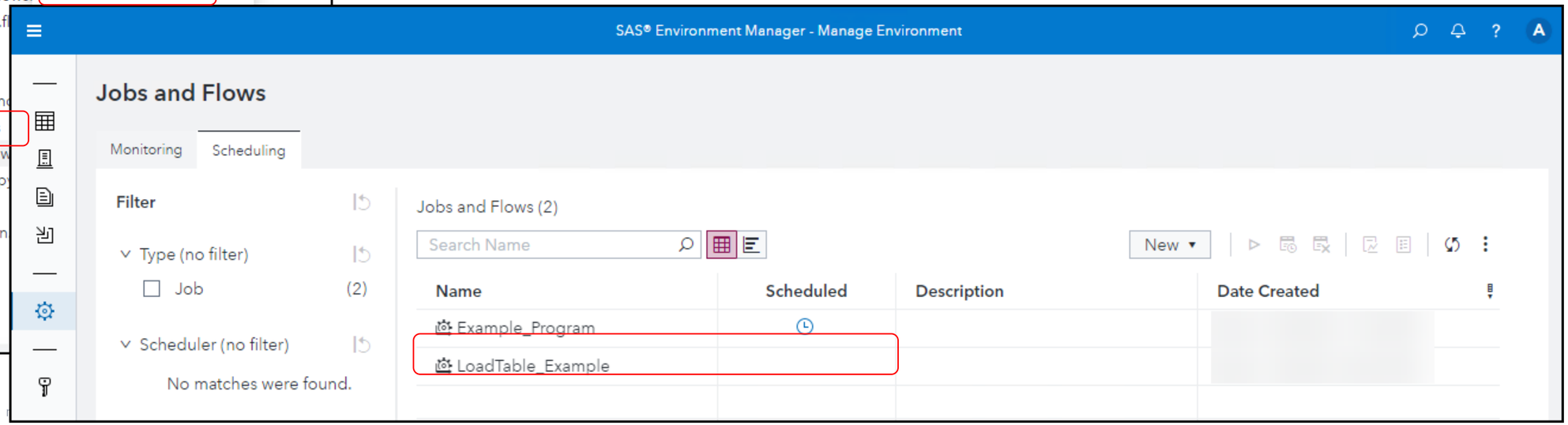


Deploy as a Job

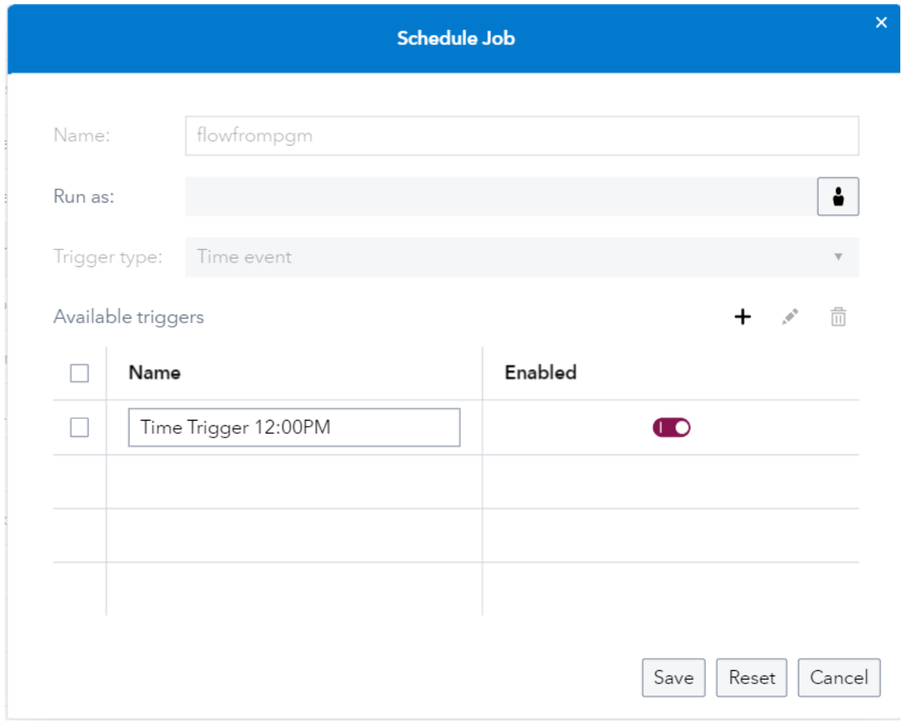


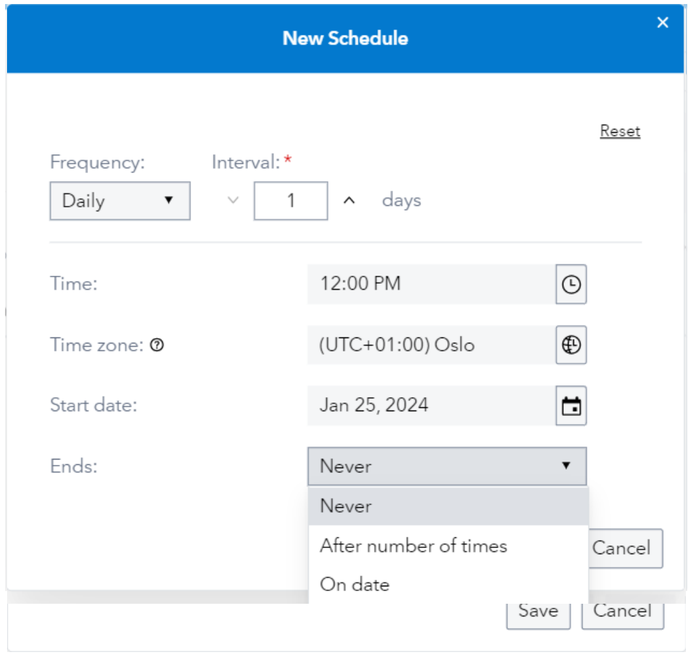


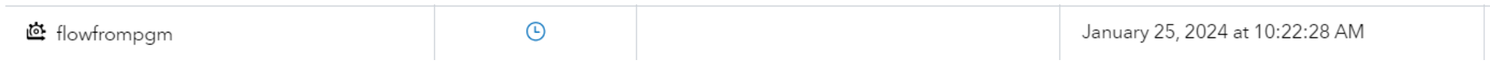
Click to **Deploy** as a Job



Schedule the job







SAS Studio licenses

Functional differences

Feature	SAS Studio	SAS Studio Analyst	SAS Studio Engineer
Basic functionalities	Yes	Yes	Yes
Data management	Limited	Extended	Advanced
Statistical analysis	Basic	Advanced	Advanced with prediction and machine learning
Programming tools	SAS Data Language (SAS)	SAS Data Language (SAS)	SAS Data Language (SAS) and Python
Code sharing and collaboration	Yes	Yes	Yes
Job management	Limited	Extended	Advanced
Integration with other SAS tools	Limited	Extended	Advanced

Scheduling

Understanding Workload Management

Scheduling Jobs in SAS Viya

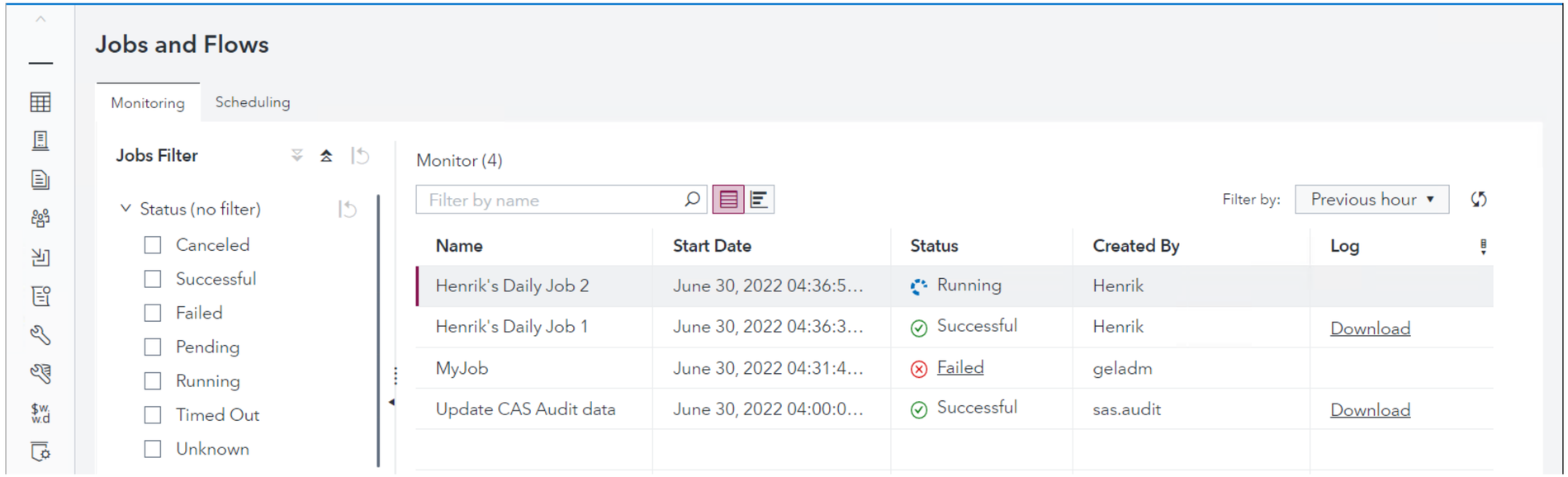
- Scheduling is now part of the base Viya platform, not SAS Workload Management
- You can specify that jobs are submitted to the grid at a certain time of day
- Execution windows can also be specified for a queue

Using Third Party Schedulers

- Many customers already have an enterprise scheduler which can be used to submit jobs to SAS Viya and the SAS Workload Orchestrator
- At a high level, the Scheduler submits a command like the batch CLI command
- The scheduler monitors the execution of the job and takes actions based on its return code

SAS Environment Manager – Jobs and Flows

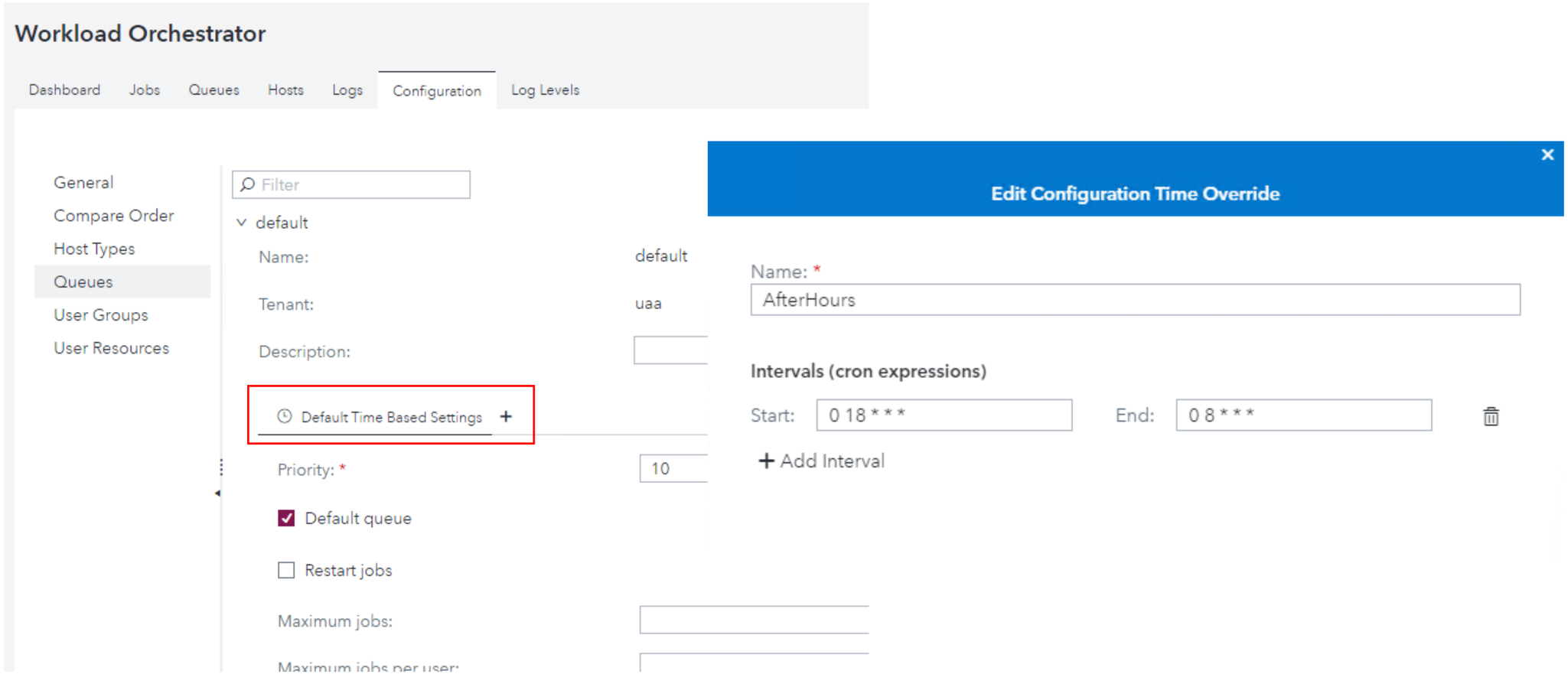
- **Define Job Requests and include them in Job Flows, which can be scheduled (time-based triggers)**
- **Jobs in a flow are individually submitted to Workload Orchestrator**



- **All jobs use the Job Execution launcher context and run in the default queue (unless another queue is assigned to the context)**
- **Imparity with LSF Flow Manager flows**

Specifying Execution Windows for Hosts & Queues

- **You can also specify start and end times for time-based queue and host parameters**



Thanks