

DraMS Diagram Tool

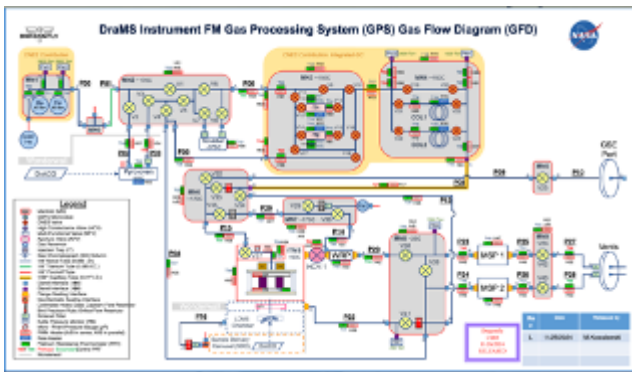
Videos and presentations using all the aspects of the Diagram Tool

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Diagram Tool Introduction

The Diagram Tool allows images to be "animated" based on data in XINA. Typically this is used to view the DraMS Gas Processing System. But any image that can be saved as an "SVG" file can be setup to be animated. (See below for instructions to make PowerPoint slides into SVG files)

[XINA Link](#)



The Diagram Tool is actually 3 tools.

- Diagram Viewer -- Open an existing diagram and select a set of data to animate it
- Diagram Editor -- Create and edit an existing diagram
- Diagram Simulator -- Create scripts to simulate the data and view in the diagram

Creating SVG files from PowerPoint: You cannot simply take a screenshot of a slide. To animate an drawing from PowerPoint, the drawing should have a separate object for each item you want to animate. For instance, in the image above, each valve and each pipe is an object in the PowerPoint slide. Once you have a slide with all of objects (squares, circles, lines, etc.), you can export to SVG. To do this, drag the mouse around the entire slide (or part of the slide you want to export). Then right-click on the slide. From the pop-up menu, select "Save as Picture..." Then in a dialog box that appears, select SVG as the file type.

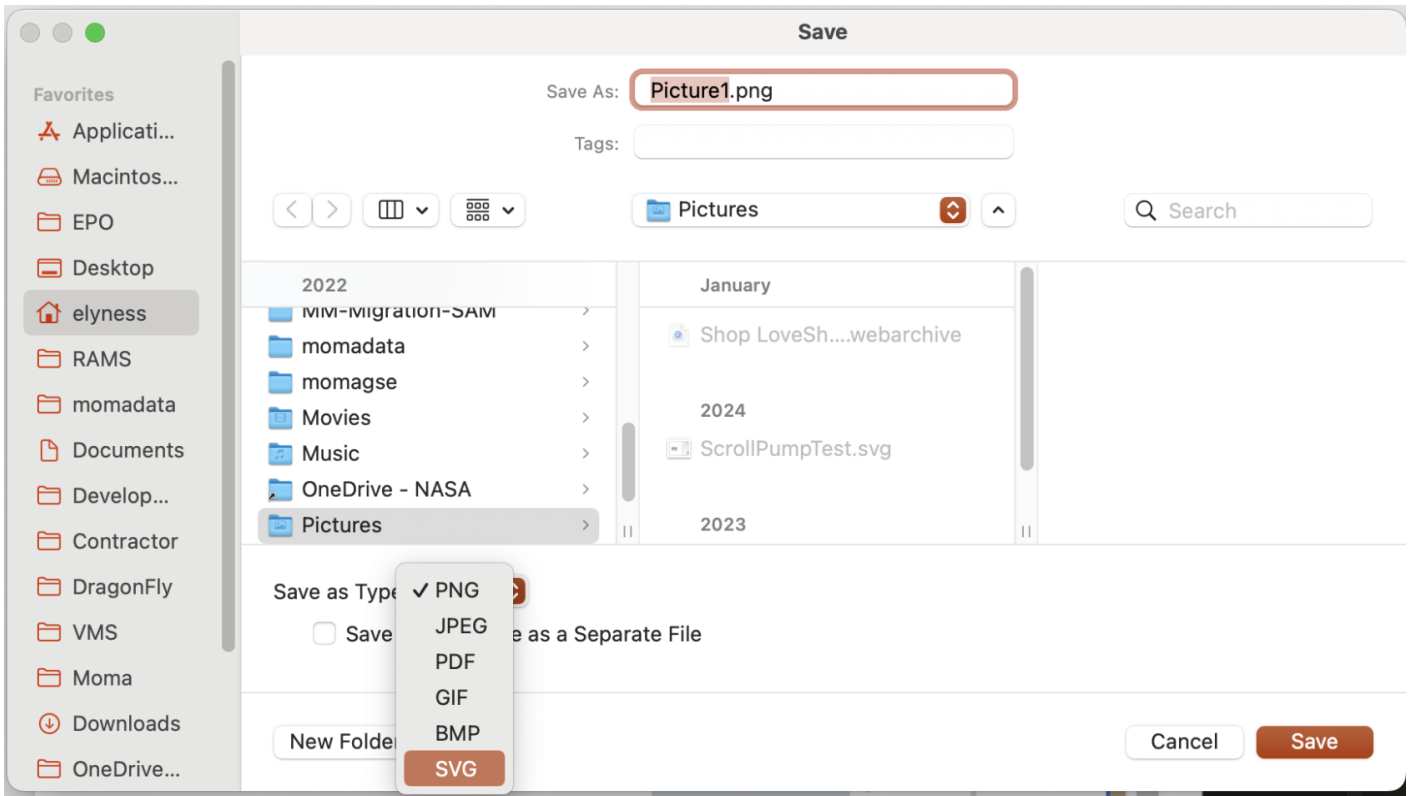


Diagram Viewer

The Diagram Viewer tool brings diagrams and schematics alive by changing diagram attributes, such as color or text, based on telemetry data.

For a video tutorial on using the Diagram Viewer, click [here](#)

To view the training presentation in PDF form, click [here](#)

To download the training presentation as a PowerPoint file, click [here](#)

The screenshot displays the Diagram Viewer interface with several key components highlighted:

- Database Selector:** A panel on the left for selecting diagrams from a database.
- Diagram Selector:** A panel below the database selector showing a list of available diagrams.
- Time Range/Interval Selector:** A panel for configuring the time range and interval for data display.
- Diagram Summary:** A panel at the top right showing the current diagram name and model.
- Switch Information:** A table listing valve statuses and their associated triggers.
- Indicator Information:** A table listing indicator statuses and their effects.
- Diagram:** A large schematic diagram of the 'DraMS Instrument FM Gas Processing System (GPS) Gas Flow Diagram (GFD)'.

Status	Label	Type	Trigger	Override
X	Valve 1	Event	On: "valve 1 open"; Off: "valve 1 closed"	IE
X	Valve 2	Event	On: "valve 2 open"; Off: "valve 2 closed"	IE
X	Valve 3	Event	On: "valve 3 open"; Off: "valve 3 closed"	IE
X	Valve 4	Event	On: "valve 4 open"; Off: "valve 4 closed"	IE
X	Valve 5	Event	On: "valve 5 open"; Off: "valve 5 closed"	IE
X	Valve 6	Event	On: "valve 6 open"; Off: "valve 6 closed"	IE
X	Valve 7	Event	On: "valve 7 open"; Off: "valve 7 closed"	IE
X	Valve 8	Event	On: "valve 8 open"; Off: "valve 8 closed"	IE
X	Valve 9	Event	On: "valve 9 open"; Off: "valve 9 closed"	IE

Status	Label	Switches	Effects	Mnemonics
X	Valve 1	Valve 1	Fill: red	none
X	Valve 2	Valve 2	Fill: red	none
X	Valve 3	Valve 3	Fill: red	none
X	Valve 4	Valve 4	Fill: red	none
X	Valve 5	Valve 5	Fill: red	none
X	Valve 6	Valve 6	Fill: red	none
X	Valve 7	Valve 7	Fill: red	none
X	Valve 8	Valve 8	Fill: red	none
X	Valve 9	Valve 9	Fill: red	none

The main diagram is titled "DraMS Instrument FM Gas Processing System (GPS) Gas Flow Diagram (GFD)" and includes a legend and a NASA logo. It shows a complex network of pipes, valves, and instruments.

The file attachment on the left contains a step-by-step description of using the Diagram Viewer.

Diagram Editor

The Diagram Editor tool allows you to create and manage responsive diagrams and dashboards. While you can view data here, the Diagram Viewer and Diagram Simulator are better suited for that purpose.

For a video tutorial, click [here](#)

To download a PDF of a training presentation, click [here](#)

To download a PowerPoint of the training materials, click [here](#)

The layout of the Diagram Editor is almost identical to the Diagram Viewer, so please refer to the Diagram Viewer tutorial for an introduction.

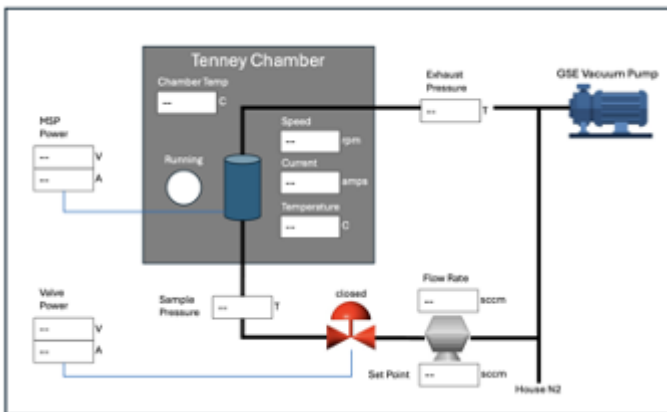


Diagram Simulator

The Diagram Simulator tool allows you to view responsive diagrams and dashboards with simulated data in the form of sequence files. For real data, use the Diagram Viewer.

For a video tutorial on the diagram simulator, click [here](#)

For a PDF of the training presentation, click [here](#)

To download the training PowerPoint file, click [here](#)

The screenshot shows the Diagram Simulator interface with several callouts pointing to key components:

- Database Selector:** Located in the top-left sidebar, it shows a list of diagrams including "Minature Scroll Pump GSE".
- Diagram Selector:** Located below the Database Selector, it shows a list of sequence files including "MSP Test".
- Sequence File Selector:** Located below the Diagram Selector, it shows a list of sequence files including "MSP Test".
- Diagram Summary:** Located at the top of the main content area, it displays the title "Scroll Pump Life Test".
- Sequence File:** A table showing the sequence of states and lines. The data is as follows:

State #	Line #	Text
2	1	MN MSP
3	2	MN Mas
4	3	MN MSP
5	4	MN MSP:PS Current: 0.2
6	5	MN 07_MSP_Outlet_End_Plate: 21
7	6	MN MSP:PS Voltage: 15
8	7	MN MSP:PS Current: 0.18
8	8	MN 07_MSP_Outlet_End_Plate: 21
- Switch Information:** A table showing switch status and labels. The data is as follows:

Status	Label	Type	Override
✓	Pump Running		
x	valve state		
- Indicator Information:** A table showing indicator status and labels. The data is as follows:

Status	Label	Switches	Mnemonics
✓	Chamber Control Temperature	Always On	MSPChamber_Control_Temp
✓	Pump Running	Pump Running	MSPSpeed
✓	Pump Speed	Always On	MSPSpeed
✓	Pump Current	Always On	MSP:PS Current
✓	Pump Temperature	Always On	Text, MN: MSP:PS Current
✓	sample pressure	Always On	Text, MN: 07_MSP_Outlet_End_Plate
✓	Flow Rate	Always On	Text, MN: Sample_Pressure
✓	Flow endpoint	Always On	Text, MN: Mass_Flow
✓	Flow endpoint	Always On	Text, MN: Flow_Switch
- Diagram:** A schematic diagram showing a "Tenneco Chamber" with a "GSE Vacuum Pump" connected to it. The chamber is labeled "22" and has a "Running" indicator. The vacuum pump is labeled "GSE Vacuum Pump". The diagram also shows "Exhaust Pressure" at 1140 and "MSP Power" at 15 V and 0.18 A.