

Survalent.



Global User Conference

SmartVU 2.0

October 8, 2025



Your training team



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Johnson County REMC



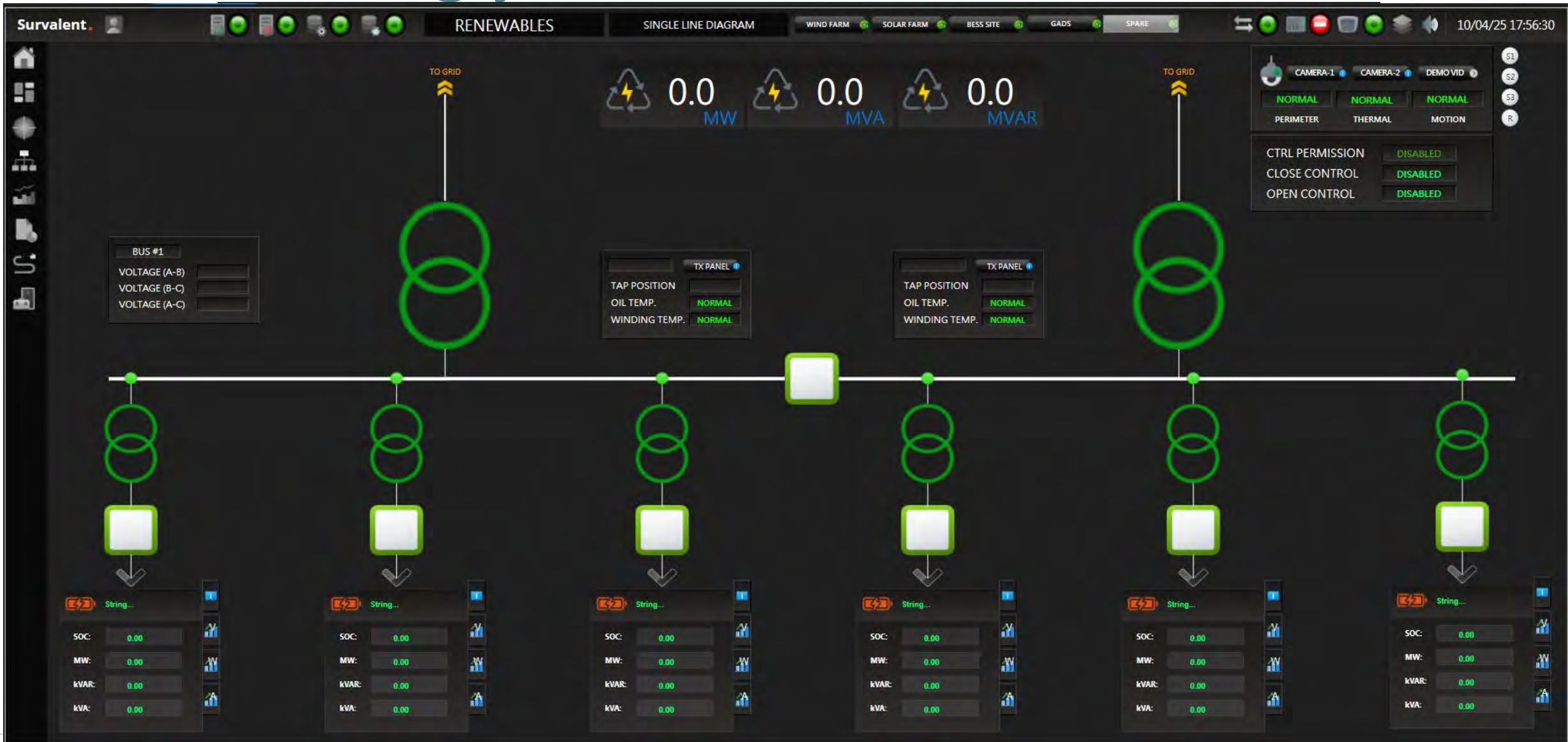
Housekeeping

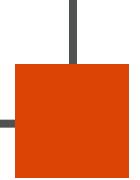
- Ensure that you have scanned/checked in
- Find an available seat
- VMWare Workstation users
- (Please log into your VM)
- Training Software prep (Standard and Database)
- WiFi SSID: Survalent Conference
- Wifi Pin: UC2025
- **Don't hesitate to interrupt for questions.**

Training Agenda

Topics	Description
Introduction	<i>Introduction of SmartVU 2.0</i>
SmartVU 101	<i>Basic things you need to know about SmartVU.</i>
SmartVU Operations	<i>Highlights key features, functionalities, best practices, example screens and things you can do in SmartVU.</i>
SmartVU Editing	<i>SmartVU Editing essentials.</i>
Modern Graphics	<i>To create a modern graphics that would improve your visualization of your Survalent ADMS.</i>
Tips and Tricks	<i>Tips and tricks that you can fully deploy in your own Survalent system.</i>

Modernizing your SmartVU Screens





Introduction

Introduction

What is SmartVU?

- A *user-friendly graphical user interface for managing and monitoring utility operations.*
- *Provides visualization, control and analysis of utility data.*
- *SmartVU 2.0 with new look and features.*



Introduction

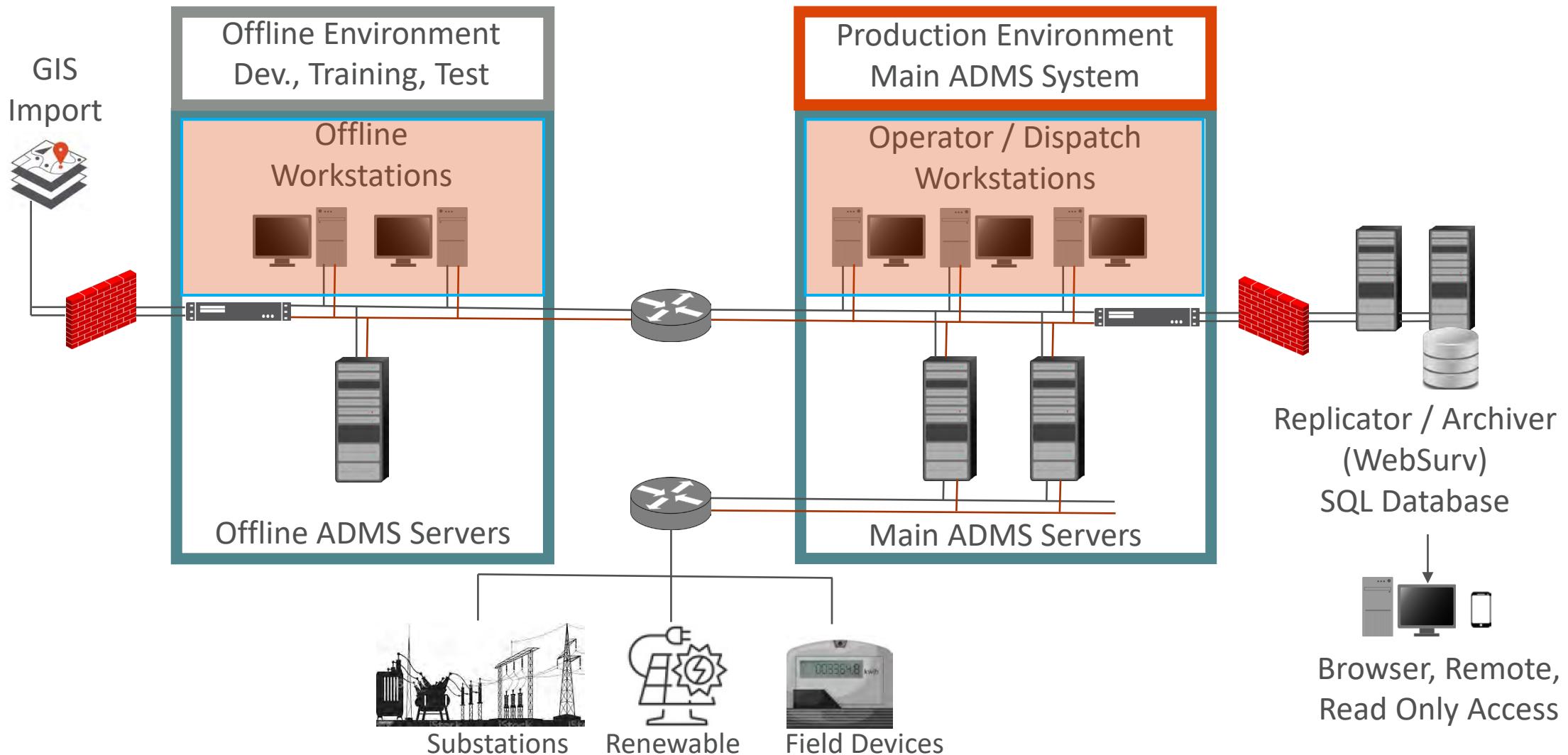
What is SmartVU?

- *Works on a workstation that runs on windows 10 and above operating systems.*
- *Some cases requires a dedicated graphics card for high performance and intensive graphics.*
- *A client application to the ADMS host computer.*
- *Fully utilize graphics and maps that are locally stored in the workstation.*
- *Overlays dynamic analog and status data coming from the host computer.*
- *Controls and Acknowledgement are forwarded to the host computer for execution.*

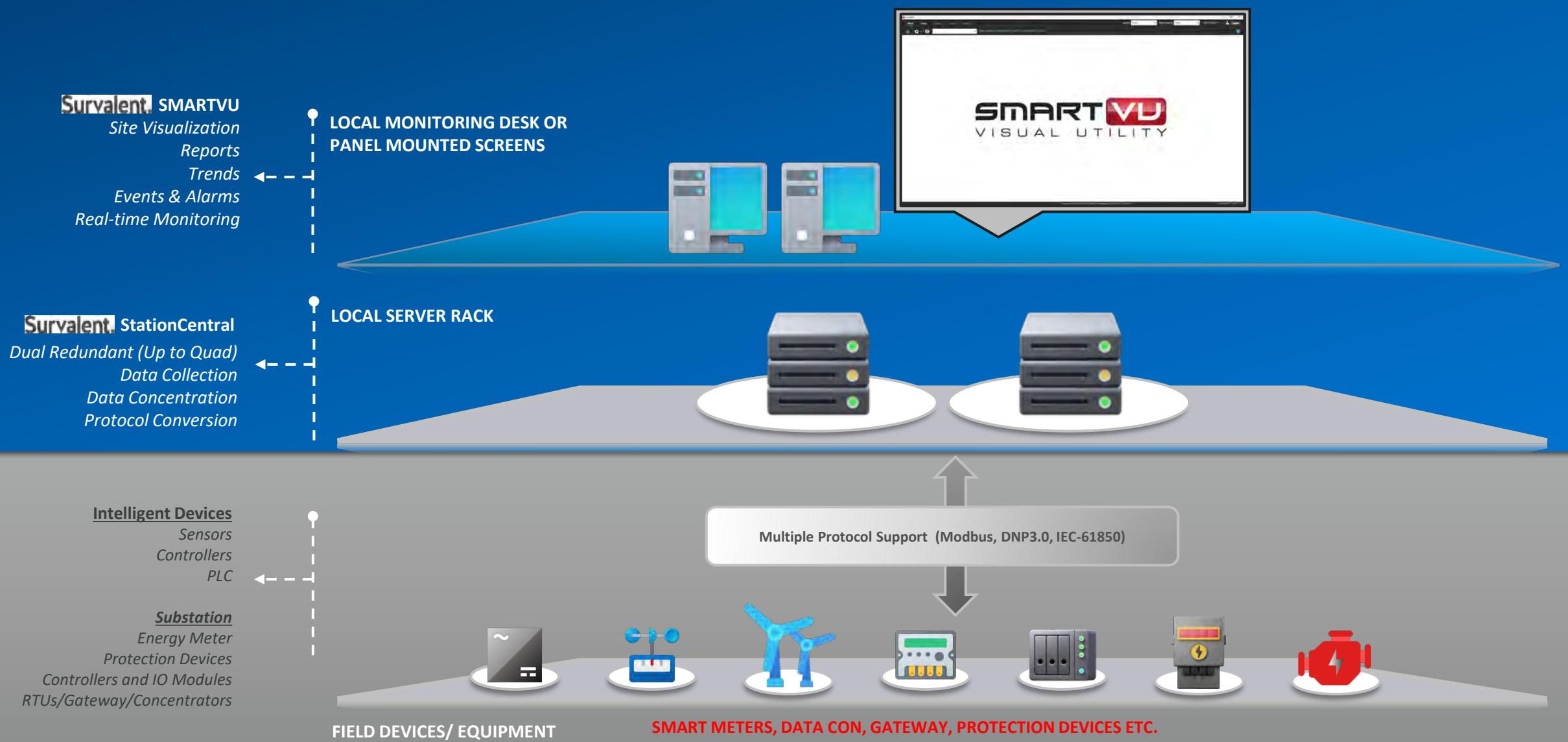


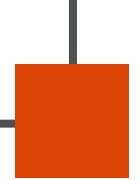
*SmartVU 2.0

SmartVU – Control Room

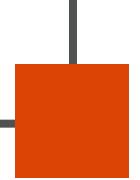


SmartVU – StationCentral





SmartVU 101



SmartVU 101 | Directories

SmartVU 101 | Directories

Exercise

- *Explore your Standard folder*
- *Access the default path for SmartVU*
- *Explore the different types of directories*

File Path:		
Name	Date modified	Type
alm	2025-08-18 11:25 AM	File folder
bmp	2025-08-18 10:07 AM	File folder
cht	2025-08-18 10:07 AM	File folder
cpl	2025-08-18 10:07 AM	File folder
fnl	2025-08-18 10:07 AM	File folder
gcl	2025-08-18 10:06 AM	File folder
gtl	2025-08-18 10:06 AM	File folder
image	2025-08-18 10:06 AM	File folder
iml	2024-06-18 1:26 PM	File folder
phl	2025-08-18 10:06 AM	File folder
pml	2025-08-18 10:05 AM	File folder
qry	2025-08-18 10:05 AM	File folder
stl	2025-08-18 10:05 AM	File folder
submaps	2025-08-18 10:05 AM	File folder
syl	2025-08-18 10:06 AM	File folder
templates	2025-08-18 10:05 AM	File folder
wmp	2025-08-18 10:05 AM	File folder

SmartVU 101 | Directories

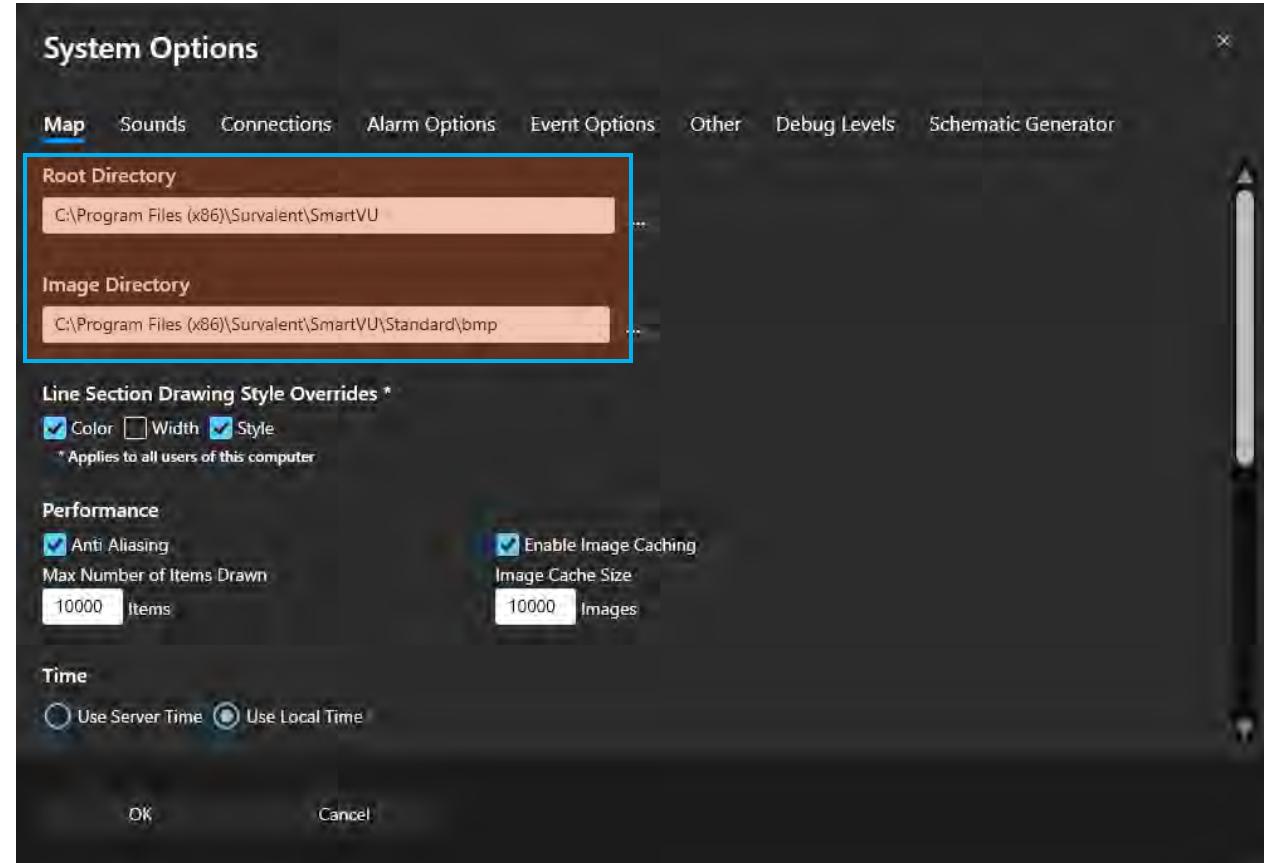
File Explorer Path:		
Name	Date modified	Type
alm	2025-08-18 11:25 AM	File folder
bmp	2025-08-18 10:07 AM	File folder
cht	2025-08-18 10:07 AM	File folder
cpl	2025-08-18 10:07 AM	File folder
fnl	2025-08-18 10:07 AM	File folder
gcl	2025-08-18 10:06 AM	File folder
gtl	2025-08-18 10:06 AM	File folder
image	2025-08-18 10:06 AM	File folder
iml	2024-06-18 1:26 PM	File folder
phl	2025-08-18 10:06 AM	File folder
pml	2025-08-18 10:05 AM	File folder
qry	2025-08-18 10:05 AM	File folder
stl	2025-08-18 10:05 AM	File folder
submaps	2025-08-18 10:05 AM	File folder
syl	2025-08-18 10:06 AM	File folder
templates	2025-08-18 10:05 AM	File folder
wmp	2025-08-18 10:05 AM	File folder

FOLDERS	USE
ALM	<ul style="list-style-type: none"> Contains alarm and event configuration, filters and settings for operators.
BMP	<ul style="list-style-type: none"> Contains all image files imported and used in the map (BMP, GIF, JPEG and PNG)
CHT	<ul style="list-style-type: none"> Contains all the user created trend graphs in SmartVU.
CPL	<ul style="list-style-type: none"> Contains all the control panel created and imported in SmartVU.
FNL	<ul style="list-style-type: none"> Contains all the font styles created and used in SmartVU.
GCL	<ul style="list-style-type: none"> Contains all the colors created and used in SmartVU.
IMAGE	<ul style="list-style-type: none"> Contains Large Images
PHL	<ul style="list-style-type: none"> Contains all the photo image file converted from BMP into photo image used in SmartVU.
PML	<ul style="list-style-type: none"> Contains all the Pmacro files created and used in SmartVU.
QRY	<ul style="list-style-type: none"> Contains all trend graph files, report shortcuts, menu files used in SmartVU.
STL	<ul style="list-style-type: none"> Contains all symbol files created and used in SmartVU.
SUBMAPS	<ul style="list-style-type: none"> Contains all map files that are converted into Submaps.
SYL	<ul style="list-style-type: none"> Contains all symbol files that are created and used in SmartVU.
TEMPLATES	<ul style="list-style-type: none"> Contains all templates files that are created and used in SmartVU.
WMP	<ul style="list-style-type: none"> Contains all SmartVU map files and view menus. used in SmartVU.

SmartVU 101 | Reservations

Reservations

- *Process of sharing the map varies from user to user:*
 - **Option 1:** Copy the Standard Folder to local workstations.
 - Manual work and tedious for more than one workstation.
 - **Option 2:** Setup SmartVU to use the map from a Shared folder.
 - Deviate from the standard setup of SmartVU (changing the Standard folder directory).
 - Anyone can access and change the file (may cause potential problem).

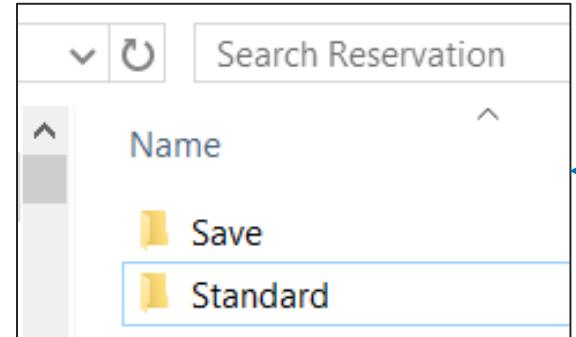
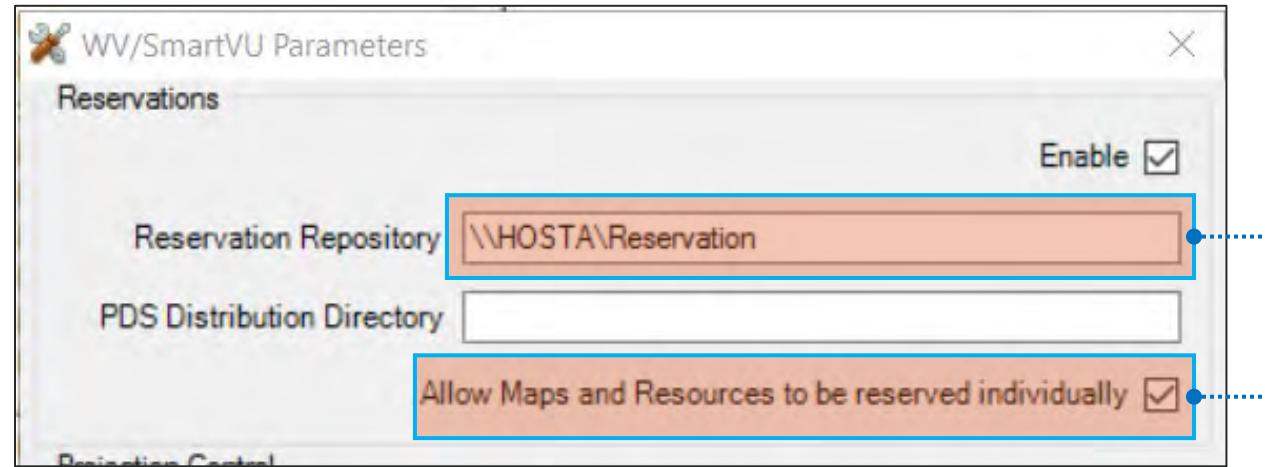


SmartVU 101 | Reservations

Reservations

Recommended Way: Enable the Reservation feature in SmartVU.

- No additional license (core SmartVU feature)
- Automatically publish changes.
- Uses a dedicated reservation repository to store and publish changes to all workstations.
- No need to copy and paste.
- No need to Deviate from the standard setup of SmartVU (changing the Standard folder directory).
- Full auditing and tracking of changes.



FUNCTION	PURPOSE
Allow Maps & Resources to be reserved individually	<ul style="list-style-type: none">Users can reserve (by their username) any SmartVU graphics elements.Reserved user has the rights to edit and modify the reserved SmartVU graphics element.User needs to release the reservation for others to edit.

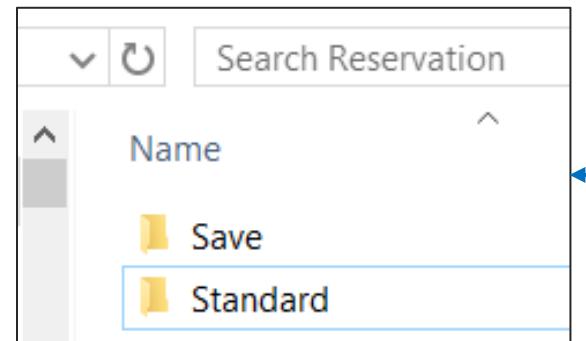
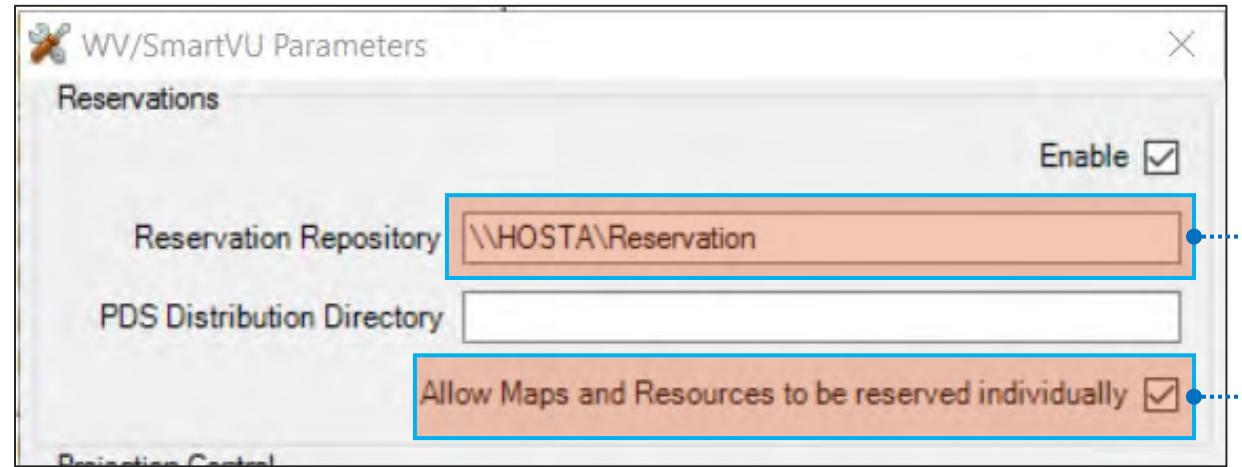
SmartVU 101 | Reservations

When to use reservations?

1. When you exclusively need to edit a graphics element, a map, submap or a template.
2. You want to make sure no other users can make changes on your edits.
3. You want to have control and logs on what are the changes done in SmartVU.
4. Preventing conflict and maintain data integrity.

Use cases

- Single Reservation Mode
- Graph Reservation
- Element Reservation and Editing



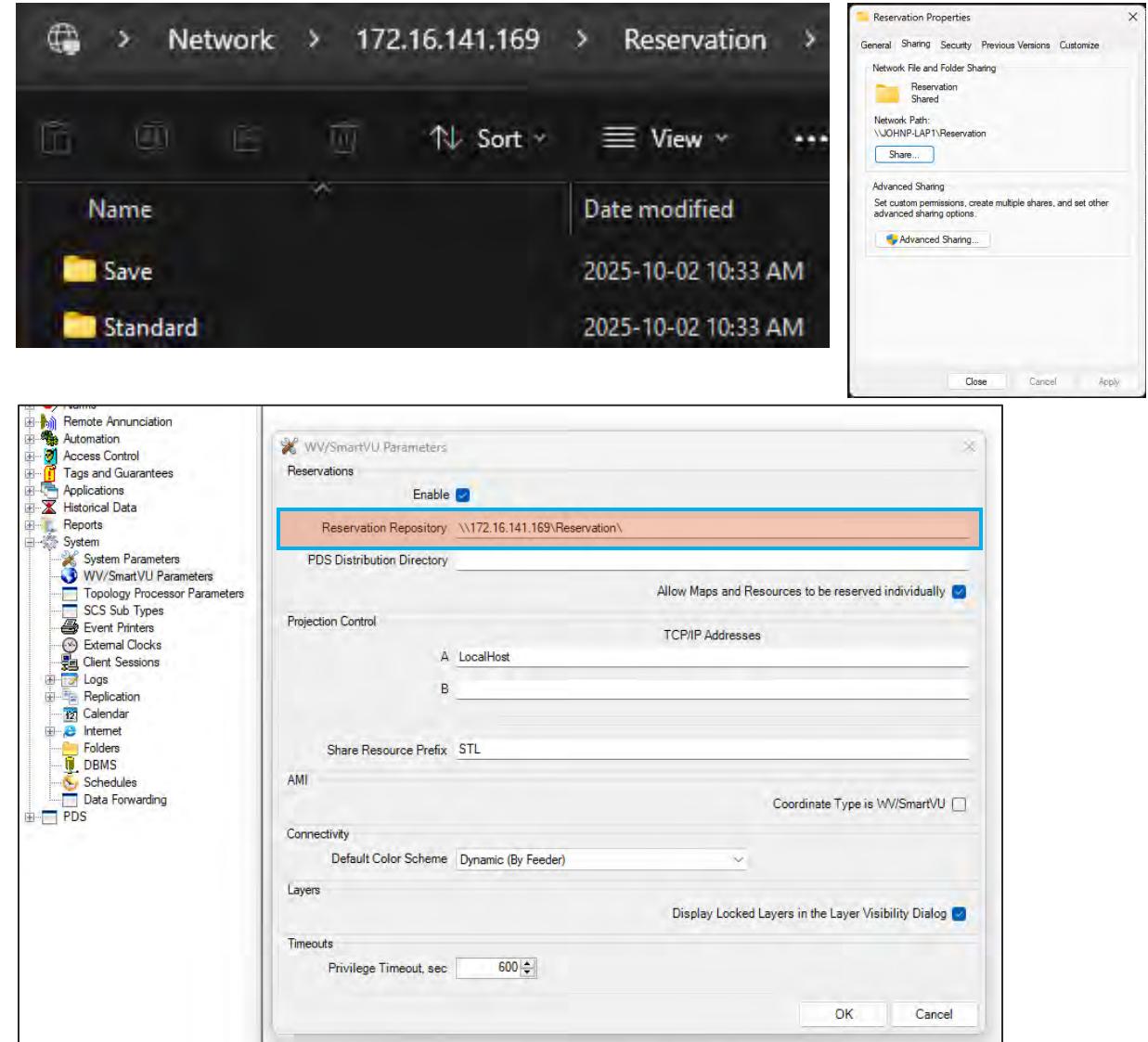
FUNCTION	PURPOSE
Allow Maps & Resources to be reserved individually	<ul style="list-style-type: none">Users can reserve (by their username) any SmartVU graphics elements.Reserved user has the rights to edit and modify the reserved SmartVU graphics element.User needs to release the reservation for others to edit.

SmartVU 101 | Reservations

Exercise

Setup the reservation in your computer:

1. Create a shared folder in your computer that contains the following sub-folders:
 - Save
 - Standard
 - Share the root folder
2. In your STC Explorer:
 - System -> SmartVU Parameter
 - Enable Reservations
 - Set the Reservation Repository Directory (Use the Reservation folder root directory).
 - Ex. \\172.16.141.169\Reservation
3. **OPTIONAL:** Enable allow maps and resources to be reserved individually.

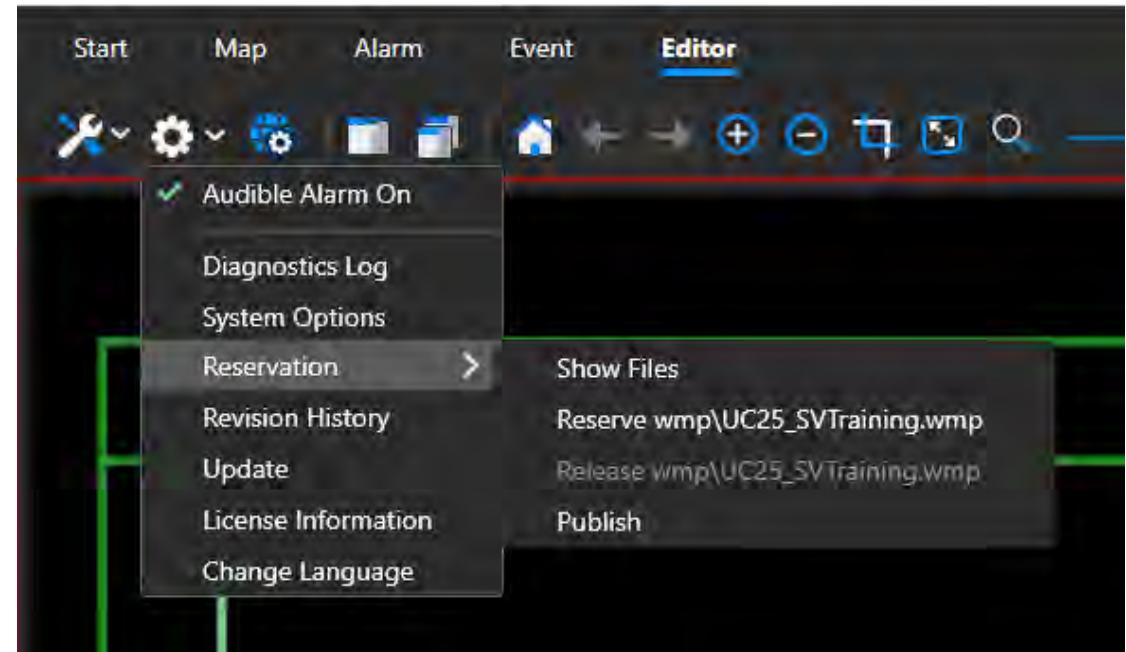
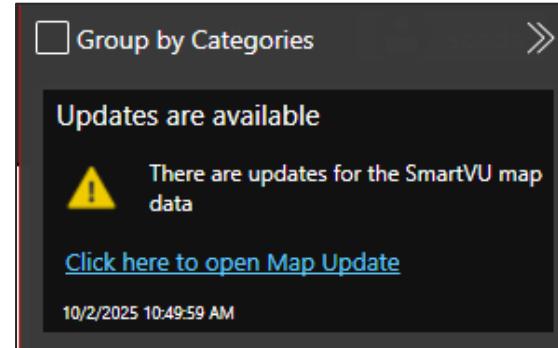


SmartVU 101 | Reservations

Exercise

In SmartVU, Explore the following:

- *Reserving Map*
- *Editing Map*
- *Publishing Map*
- *Releasing Map*



SmartVU 101 | Reservations

Reservations

Reserved Files – files within a system or software environment that have been marked for exclusive use or editing by a specific user.

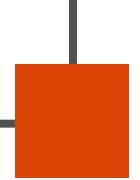
Reservation History – Revision logs of edits done in your SmartVU includes date and time, the SmartVU user, Operations and the computer used. Comments are also included.

The image displays two screenshots of the SmartVU software interface. The top screenshot shows a 'Reserved Files' window with a single entry in a table:

Project	Reservation	User Id	Computer	Date/Time	Operation	File
	1	SCADA	JOHNP-LAP1	2025-10-02 10:55:37	Modify	wmp\UC25_SVTraining.wmp

Below the table are four buttons: 'Release scada', 'Reassign', 'Release', and 'Close'. The top right corner of the window says 'Reservation: 1'. The bottom screenshot shows a 'Revision History' window with a table:

Search	Date/Time	User Id	Operation	Computer	Comments
wmp\UC25_SVTraining.wmp	2025-10-02 10:55:37	scada	Reserve (Modify)	JOHNP-LAP1	
	Date/Time	2025-10-02 10:55:37	User Id	scada	
	Operation	Reserve (Modify)	Computer	JOHNP-LAP1	



Please disable your Reservations



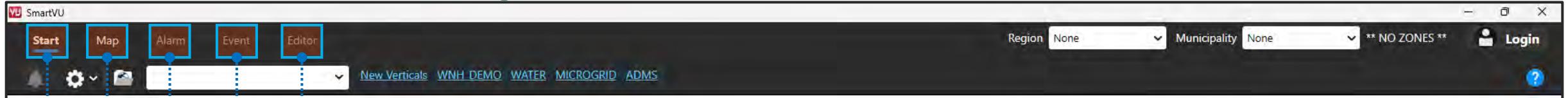
SmartVU 101 | Toolbar

SmartVU 101 | Toolbar



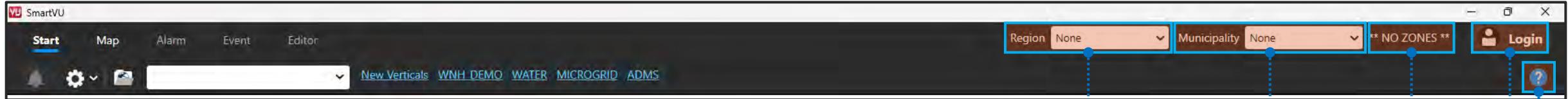
FUNCTION	PURPOSE
Favorite Maps	<ul style="list-style-type: none">Quick Link for the favorite maps.
Quick List	<ul style="list-style-type: none">Drop-down menu for the most commonly used SmartVU maps
Open Map File	<ul style="list-style-type: none">Open the .WMP map file from C:\Program Files (x86)\Survalent\SmartVU\Standard\wmp
SmartVU Options	<ul style="list-style-type: none">SmartVU specific settings to enable audible alarms, diagnostic logs, system options, reservations, update etc.
Silence Alarms	<ul style="list-style-type: none">Manually set specific alarm priorities to silent.
Editor	<ul style="list-style-type: none">Enables the SMARTVU EDIT mode.Contains separate set of tools to build library, map and new SmartVU screens
Events	<ul style="list-style-type: none">Shows system events based on the configured priority, format or events window settings.
Alarms	<ul style="list-style-type: none">Shows system alarms based on the configured priority, alarm format or alarm window settings.
Map	<ul style="list-style-type: none">Main page to display the selected map or the configured default map
Start	<ul style="list-style-type: none">Default landing page for SmartVU

SmartVU 101 | Toolbar

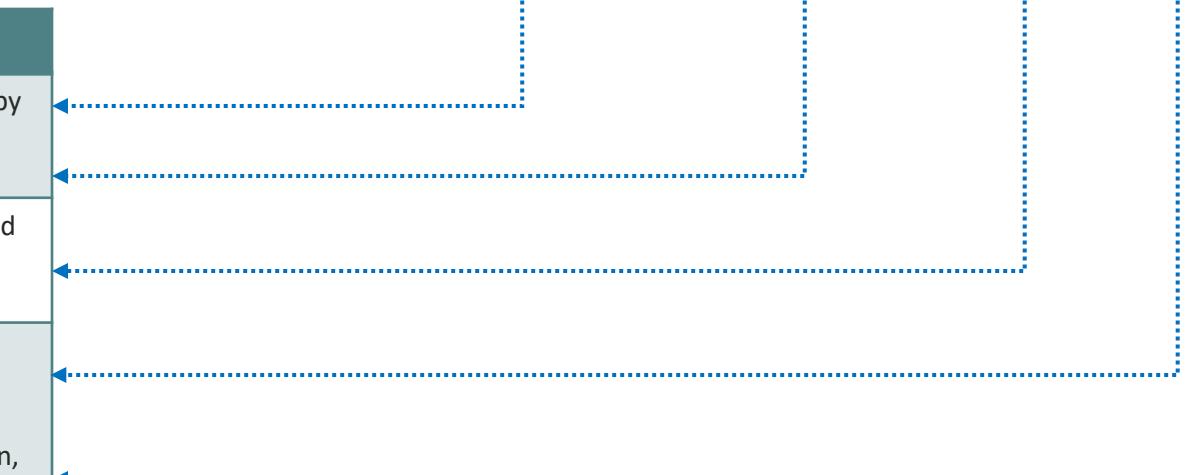


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Silence Alarms	<ul style="list-style-type: none">Manually set specific alarm priorities to silent.
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Alarms	<ul style="list-style-type: none">Shows system alarms based on the configured priority, alarm format or alarm window settings.
Map	<ul style="list-style-type: none">Main page to display the selected map or the configured default map
Start	<ul style="list-style-type: none">Default landing page for SmartVU

SmartVU 101 | Toolbar



FUNCTION	PURPOSE
Regions	<ul style="list-style-type: none">Used by the Survalent OMS to segregate the system by regions.Enabled and configured in the STC Explorer.
Municipality	<ul style="list-style-type: none">Used by the Survalent OMS for Area Management and to calculate the municipality affected by an outage.Enabled and configured in the STC Explorer.
Zones	<ul style="list-style-type: none">Zones are configurable zones of responsibility.Can be used to partition the system into separate (1) utilities (i.e. gas, water, electricity or renewables). (2) Voltage Level (i.e. low level, high level, distribution, transmission).128 logical zones and configured in the STC Explorer
Login	<ul style="list-style-type: none">Use the configured Survalent user credential to access the system based on their user rights.
Help	<ul style="list-style-type: none">Built-in manual for SmartVU



SmartVU 101 | Toolbar

The image shows the SmartVU 101 software interface. At the top, there's a toolbar with buttons for Start, Map, Alarm, Event, Editor, and a dropdown menu. To the right are dropdowns for Region (None), Municipality (None), and a note '** NO ZONES **'. A blue box highlights the 'Login' button. Below the toolbar is a navigation bar with links like New Verticals, WNH DEMO, WATER, MICROGRID, and ADMs. On the left is the STC Explorer window, which has a tree view of system components and a table of users. The user table shows four entries: ADMIN, GUEST, patrick, and SCADA. The ADMIN row is highlighted in green. The table columns are User Name, Description, User Right, Zone Group, Privilege, Enabled, and ID. The bottom of the STC Explorer window has tabs for SCADA and UCVM. To the right of the STC Explorer is a large table comparing the 'Login' function to user management.

FUNCTION	PURPOSE
Login	<ul style="list-style-type: none">• Use the configured Survalent user credential to access the system based on their user rights.

USERS	PASSWORDS	USER RIGHTS
ADMIN	• ADMIN	• ALL RIGHTS
GUEST	• GUEST	• NO RIGHTS
SCADA	• SCADA	• ALL RIGHTS
NO LOGIN	• NO PASSWORD	• NO RIGHTS

* NO LOGIN – JUST OPEN A MAP (VIEW ONLY, TAKES ONE SMARTVU SEAT)

SmartVU 101 | Toolbar

The screenshot shows the SmartVU 101 software interface. At the top is a toolbar with tabs: Start (highlighted), Map, Alarm, Event, Editor, and dropdown menus for Region (None), Municipality (None), and a blue-highlighted "Zones" section labeled "** NO ZONES **". There is also a Login button and a help icon.

Below the toolbar is a navigation bar with links: New Verticals, WNH DEMO, WATER, MICROGRID, and ADMS.

The main area features the STC Explorer window. It has a menu bar with File, View, and Help. Below the menu is a toolbar with icons for Stations, Communication Lines, RTUs, DER, IEDs, Indirect IEDs, Point Viewer Filters, Data Exchange, Point Resources, Alarms, Remote Annunciation, Automation, Access Control, Users, User Rights, Zone Groups, Zones, Access Settings, and Network Security. The "Zones" icon is highlighted with a yellow box.

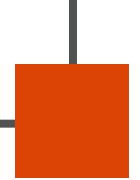
The STC Explorer window displays a table of zones:

ID	Name	Description
1	Zone1	Zone 1
2	Zone2	Zone 2
3	Zone3	Zone 3
4	Zone4	Zone 4
5	Zone5	Zone 5
6	Zone6	Zone 6
7	Zone7	Zone 7
8	Zone8	Zone 8

To the right of the STC Explorer is a callout box with a blue dashed border containing a table:

FUNCTION	PURPOSE
Zones	<ul style="list-style-type: none">Zones are configurable zones of responsibility.Can be used to partition the system into separate (1) utilities (i.e. gas, water, electricity or renewables). (2) Voltage Level (i.e. low level, high level, distribution, transmission).Up to 128 configurable logical zones.

At the bottom of the STC Explorer window are buttons for F1 - Help, SCADA, and UCVM.

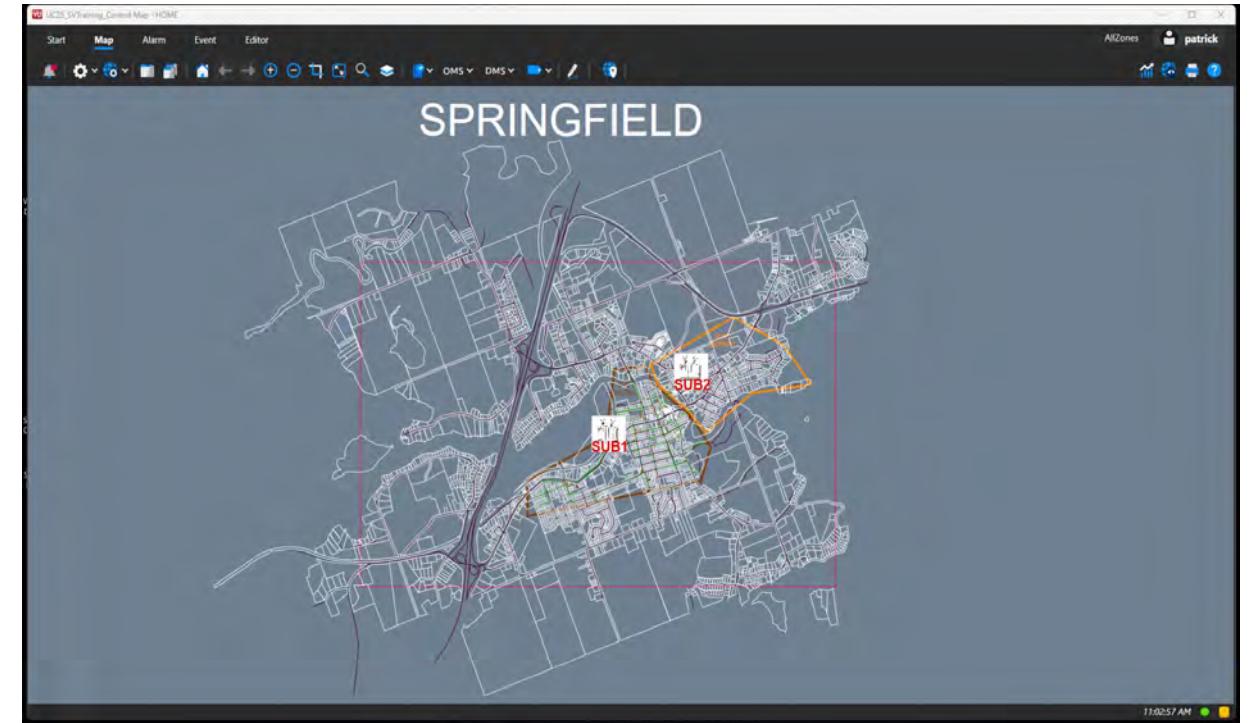


SmartVU | Operations

SmartVU | Operations

Exercise

- *Understanding the online tools in SmartVU*
- *Login your credentials scada/scada*
- *Open “UC25_SVTraining_Control Map”*

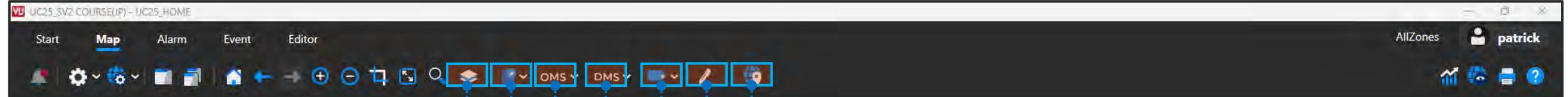


SmartVU | Operations – Navigation and Tool Bars



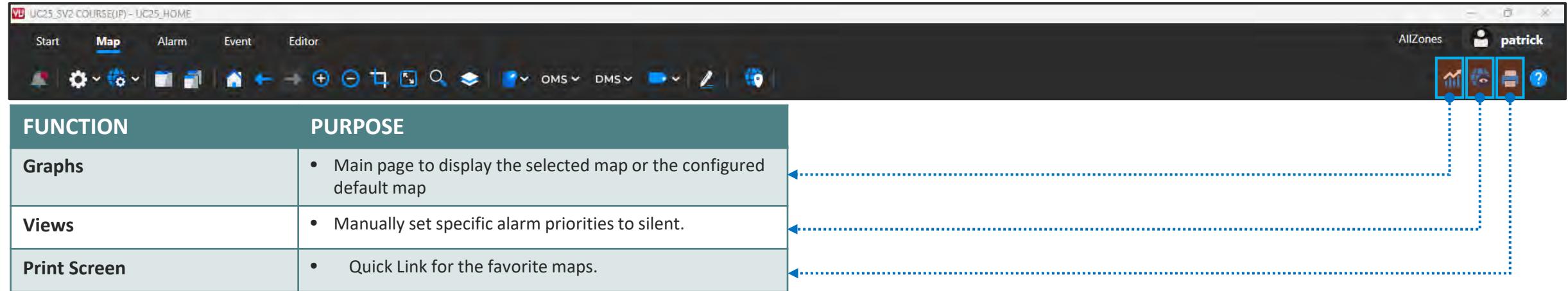
FUNCTION	PURPOSE
Layers	<ul style="list-style-type: none">Quick Link for the favorite maps.
Find	<ul style="list-style-type: none">Drop-down menu for the most commonly used SmartVU maps
Crop Zoom/ Fit to View	<ul style="list-style-type: none">Open the .WMP map file from C:\Program Files (x86)\Survalent\SmartVU\Standard\wmp
Zoom in/Zoom out	<ul style="list-style-type: none">SmartVU specific settings to enable audible alarms, diagnostic logs, system options, reservations, update etc.
Back/Next	<ul style="list-style-type: none">Manually set specific alarm priorities to silent.
Home	<ul style="list-style-type: none">Enables the SMARTVU EDIT mode.Contains separate set of tools to build library, map and new SmartVU screens
New Tab/New Window	<ul style="list-style-type: none">Shows system events based on the configured priority, format or events window settings.
Map Menu	<ul style="list-style-type: none">Shows system alarms based on the configured priority, alarm format or alarm window settings.
SmartVU Options	<ul style="list-style-type: none">Main page to display the selected map or the configured default map
Silence Alarms	<ul style="list-style-type: none">Manually set specific alarm priorities to silent.

SmartVU | Operations – Navigation and Tool Bars



FUNCTION	PURPOSE
Show in Map	<ul style="list-style-type: none">Enable secondary layers related to OMS (Disabled if no OMS License)
Edit Mode	<ul style="list-style-type: none">Enables the SMARTVU EDIT mode.Contains separate set of tools to build library, map and new SmartVU screens
Operations Menu	<ul style="list-style-type: none">Access to SCADA operational tools such as Switch Orders, System Summary, Tags, Reminders and Group Controls.
DMS Menu	<ul style="list-style-type: none">Access to DMS specific functionalities (Disabled if no DMS License)
OMS Menu	<ul style="list-style-type: none">Access to OMS specific functionalities (Disabled if no OMS License)
Notes Menu	<ul style="list-style-type: none">SmartVU's sticky note function.Can apply any notes within the map
Layers	<ul style="list-style-type: none">Access the “Layer Visibility” menu to manually Activate or Declutter specific layers in the map.

SmartVU | Operations – Navigation and Tool Bars

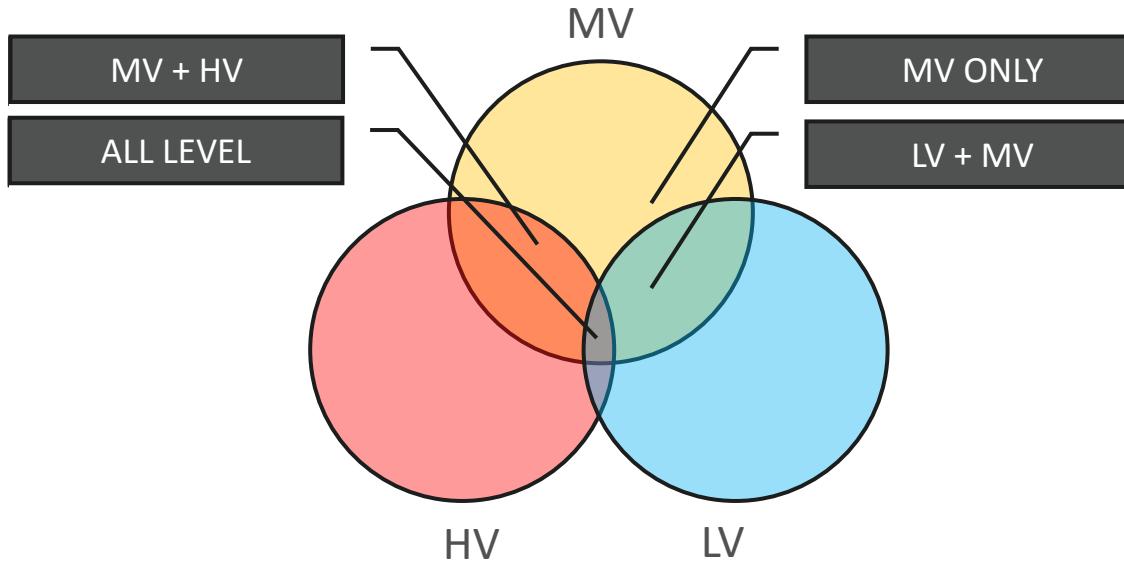
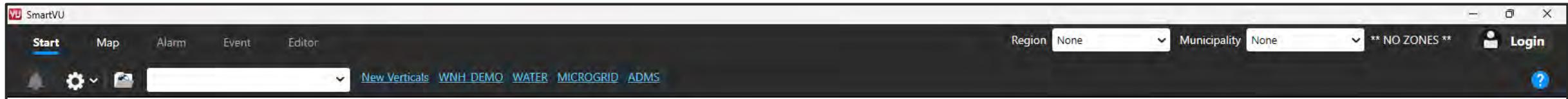


The image shows the SmartVU software interface. At the top, there's a navigation bar with tabs: Start, Map (which is highlighted in blue), Alarm, Event, and Editor. To the right of the tabs are icons for AllZones, a user profile (patrick), and several quick access icons. Below the navigation bar is a toolbar with various icons for tasks like configuration, search, and file operations. A large central area contains a table:

FUNCTION	PURPOSE
Graphs	<ul style="list-style-type: none">Main page to display the selected map or the configured default map
Views	<ul style="list-style-type: none">Manually set specific alarm priorities to silent.
Print Screen	<ul style="list-style-type: none">Quick Link for the favorite maps.

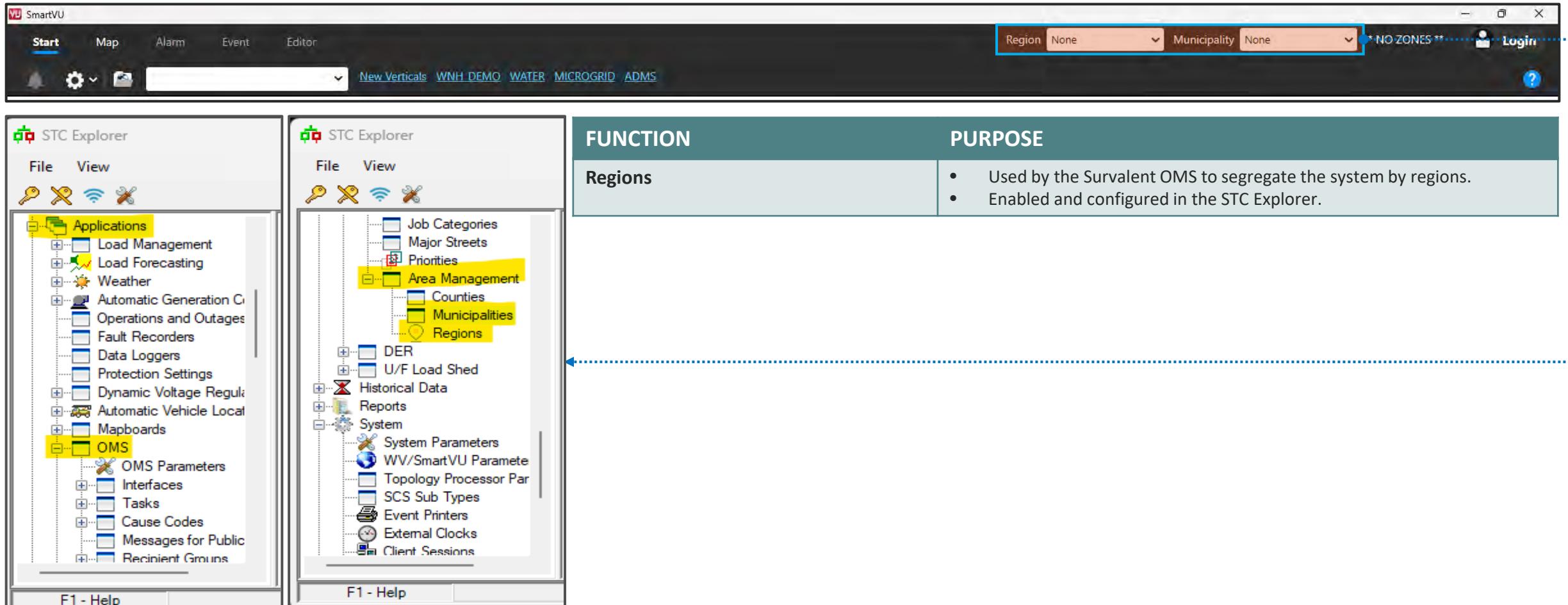
Dotted blue arrows point from the 'Graphs', 'Views', and 'Print Screen' rows in the table to the corresponding icons in the quick access toolbar at the bottom of the interface.

SmartVU | Operations – Navigation and Tool Bars



A configuration dialog box titled "User". The "General" tab is selected. It contains fields for "User Name" (set to "GUEST"), "Description" (set to "Default Account"), "User Rights" (set to "NoRights"), "Region" (set to "<All Regions>"), "Require Authentication Key" (set to "Never"), "Account Enabled" (checked), "Privilege Mode" (unchecked), "Supervisor" (unchecked), "Allow Remote Access" (checked), and "Applications Only" (unchecked). A "Reset Authentication Key" button is also present. A red border highlights the "Zone Groups" section, which includes dropdowns for "General" (<None>), "Control" (<As General>), "Tag" (<As General>), and "Modify Notes" (<As General>). To the right of these are dropdowns for "Alarm Acknowledge" (<As General>), "Alarm Block" (<As General>), "Set Manual / Activate" (<As General>), and "Set Limits" (<As General>). Below this is a "Primary Password" section with fields for "Enter Password" (containing "*****"), "Expires After" (set to "None"), "On" (set to "0"), "Warn before Expiry, days" (set to "0"), and a "Control Password" section with a "Enter Password" field. At the bottom are "Log" fields for "Last Login" and "Number of Login Fails" (set to "0"), a "Raise login alarms against this point" dropdown (<None>), and "OK" and "Cancel" buttons.

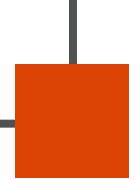
SmartVU | Operations – Navigation and Tool Bars



The image shows the SmartVU Operations interface. At the top is a navigation bar with tabs: Start (highlighted), Map, Alarm, Event, Editor. To the right are dropdown menus for Region (None), Municipality (None), and a status message (*NO ZONES**). A Login button and a help icon are also present. Below the navigation bar is a toolbar with icons for settings, map, alarm, event, editor, and a search bar with dropdown options: New Verticals, WNH DEMO, WATER, MICROGRID, ADMS.

Two screenshots of the STC Explorer are shown side-by-side. The left screenshot shows a collapsed tree view with several categories like Applications, OMS, and System. The right screenshot shows an expanded tree view where the 'Regions' node under 'Area Management' is highlighted in yellow. Both screenshots include a toolbar at the top with icons for file operations and a bottom F1 - Help key.

FUNCTION	PURPOSE
Regions	<ul style="list-style-type: none">Used by the Survalent OMS to segregate the system by regions.Enabled and configured in the STC Explorer.

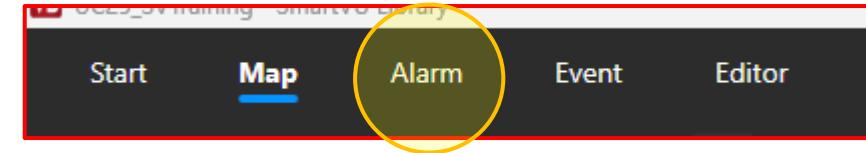


SmartVU | Alarms and Events Tab

SmartVU | Alarms and Events Tab

Exercise

- *Understanding the Alarms and Events Tab*
- *Navigate to your Alarms/Events Tab*
- *And navigate to your Alarm Options.*



Date	Time	Flags	Alarm
2025-08-19	14:01:53	(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL
2025-08-19	13:59:39		DEAD SECTION @SUB1 F5 BREAKER
2025-08-19	13:59:37		DEAD SECTION @SUB1 F4 BREAKER
2025-08-19	13:59:35		DEAD SECTION @SUB1 F3 BREAKER
2025-08-19	13:59:34		DEAD SECTION @SUB1 F22 Breaker
2025-08-19	13:59:34		DEAD SECTION @SUB1 F2 BREAKER
2025-08-19	20:32:56		FLISR Event (000064) with OTO #00049 Completed at SUB1 F1 FEEDER MAIN
2018-06-09	20:32:38		OTO #49 Created from DMS FLISR
2018-06-09	20:32:38		FLISR Event (000064) Initiated at SUB1 F1 FEEDER MAIN
2018-06-09	20:32:38		FLISR Event (000064) with OTO #00048 Completed at SUB1 F2 FEEDER MAIN
2018-06-09	20:32:38		OTO #48 Created from DMS FLISR
2018-06-09	20:32:35		FLISR Event (000063) Initiated at SUB1 F2 FEEDER MAIN
2018-06-09	20:32:34		DMS.SUB1-F1_LOCKOUT FLISR LOCKOUT
2018-06-09	20:32:29		SUB1_F1_FORM0_PhaseCFaultT Phase C Fault Trip On
2018-06-09	20:32:29		SUB1_F1_FORM0_PhaseBFaultT Phase B Fault Trip On
2018-06-09	20:32:29		SUB1_F1_FORM0_PhaseAFaultT Phase A Fault Trip On
2018-06-09	20:32:01	(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL
2018-06-09	20:32:01		SUB1_F1_FORM0_PhaseCFaultT Phase C Fault Trip Off
2018-06-09	20:32:01		SUB1_F1_FORM0_PhaseBFaultT Phase B Fault Trip Off
2018-06-09	20:32:01		SUB1_F1_FORM0_PhaseAFaultT Phase A Fault Trip Off
2018-06-09	20:19:23		FLISR Event (000062) with OTO #00047 Completed at SUB1 F1 FEEDER MAIN
2018-06-09	20:19:06		OTO #47 Created from DMS FLISR
2018-06-09	20:19:06		FLISR Event (000062) Initiated at SUB1 F1 FEEDER MAIN
2018-06-09	20:19:02		FLISR Event (000062) with OTO #00046 Completed at SUB1 F2 FEEDER MAIN
2018-06-09	20:19:02		OTO #46 Created from DMS FLISR
2018-06-09	20:19:01		FLISR Event (000061) Initiated at SUB1 F2 FEEDER MAIN
2018-06-09	20:19:00		DMS.SUB1-F1_LOCKOUT FLISR LOCKOUT
2018-06-09	20:18:54		SUB1_F1_FORM0_PhaseBFaultT Phase B Fault Trip On
2018-06-09	20:18:54		SUB1_F1_FORM0_PhaseCFaultT Phase C Fault Trip On
2018-06-09	20:18:54		SUB1_F1_FORM0_PhaseAFaultT Phase A Fault Trip On
2018-06-09	20:18:14	(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL
2018-06-09	20:18:14		SUB1_F1_FORM0_PhaseCFaultT Phase C Fault Trip Off
2018-06-09	20:18:14		SUB1_F1_FORM0_PhaseBFaultT Phase B Fault Trip Off
2018-06-09	20:18:14		SUB1_F1_FORM0_PhaseAFaultT Phase A Fault Trip Off
2018-06-09	20:17:26		FLISR Event (000060) with OTO #00045 Completed at SUB1 F1 FEEDER MAIN
2018-06-09	20:17:26		OTO #45 Created from DMS FLISR
2018-06-09	20:17:25		FLISR Event (000059) Initiated at SUB1 F1 FEEDER MAIN
2018-06-09	20:17:22		FLISR Event (000059) with OTO #00044 Completed at SUB1 F2 FEEDER MAIN
2018-06-09	20:17:22		OTO #44 Created from DMS FLISR
2018-06-09	20:17:21		FLISR Event (000059) Initiated at SUB1 F2 FEEDER MAIN
2018-06-09	20:17:21		DMS.SUB1-F1_LOCKOUT FLISR LOCKOUT
2018-06-09	20:17:15		SUB1_F1_FORM0_PhaseCFaultT Phase C Fault Trip On
2018-06-09	20:17:15		SUB1_F1_FORM0_PhaseBFaultT Phase B Fault Trip On
2018-06-09	20:17:15		SUB1_F1_FORM0_PhaseAFaultT Phase A Fault Trip On
2018-06-09	20:16:57	(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL



SmartVU | Alarms and Events Tab

The screenshot illustrates the configuration of alarm options in the SmartVU software. On the left, the 'Alarm Options' dialog is open, showing various filter settings. A callout box highlights the 'Zones' dropdown set to 'AllZones'. Another callout box highlights the 'Time Filter' dropdown set to 'All'. On the right, the 'STC Explorer' window displays a tree view of system components and a table of zones. The 'Zones' node is selected, and its corresponding table shows eight entries:

ID	Name	Description
1	Zone1	Zone 1
2	Zone2	Zone 2
3	Zone3	Zone 3
4	Zone4	Zone 4
5	Zone5	Zone 5
6	Zone6	Zone 6
7	Zone7	Zone 7
8	Zone8	Zone 8

FUNCTION

PURPOSE

Function	Purpose
Alarm Options	• Set your preferred alarm configuration.

SmartVU | Alarms and Events Tab

The screenshot shows the SmartVU Alarms and Events Tab interface. At the top, there is a navigation bar with tabs: Start, Map, **Alarm**, Event, Editor, and a user profile for patrick. Below the navigation bar is a toolbar with various icons for settings, alarms, events, and communication.

The main area is titled "Alarm Options". It includes the following sections:

- Title:** Factory Settings
- Zones:** AllZones
- Priority Filter:** A list of priority levels from 0 to 10, with checkboxes for each. Buttons for "Select/Unselect All" and "Group by Priority" are also present.
- Attributes:** A section for filtering based on alarm status. It includes checkboxes for Active, Cleared, Acked, and Unacked, along with "and" and "or" operators.
- Time Filter:** A dropdown menu set to "All".
- Select:** A list of selected stations and communication modules, which is highlighted with a blue border. Buttons for "Select All" and "Clear All" are at the bottom.

A yellow arrow points from the "All Stations" dropdown in the top navigation bar to a context menu that is open over the "Select" list. This context menu contains the following options:

- All
- UnAcknowledged
- Outstanding or Unacknowledged
- Alarms & Events Blocked
- Only Blocked Alarms

A blue dashed box encloses the "Select" list and the context menu. To the right of the "Select" list is a tree view of the station hierarchy, also enclosed in a blue dashed box. The tree view shows:

- Stations
 - Brampton
 - Status
 - Analog
 - Text
 - SEL-734
 - SEL_734
 - COMMUNICATION
 - DMS
 - OMS
 - PATRICK
 - RECLOSER1
 - RECLOSER10
 - RECLOSER10
 - Recloser100
 - RECLOSER11
 - RECLOSER12
 - RECLOSER13
 - RECLOSER14
 - RECLOSER15
 - RECLOSER2
 - RECLOSER3
 - RECLOSER4
 - RECLOSER5
 - RECLOSER6
 - RECLOSER7
 - RECLOSER8
 - RECLOSER9
 - SUB1
 - SUB1
 - SUB1_F1_FORM6
 - SUB1_F2_FORM6
 - SUB1_F3_FORM6
 - SUB1_F4_FORM6
 - SUB1_F5_FORM6
 - SUB2
 - SUB2
 - SUB2_F1_FORM6
 - SUB2_F2_FORM6
 - SUB2_F3_FORM6
 - SUB2_F4_FORM6
 - SUB2_F5_FORM6
 - SUB1_1
 - SUB2_1

SmartVU | Alarms and Events Tab

The screenshot shows the SmartVU software interface with the 'Alarms and Events' tab selected. The main window displays a list of alarms. A blue dashed arrow points from the 'Priority Filter' section of the 'Alarm Options' dialog to the 'Flags' column of the alarm list table.

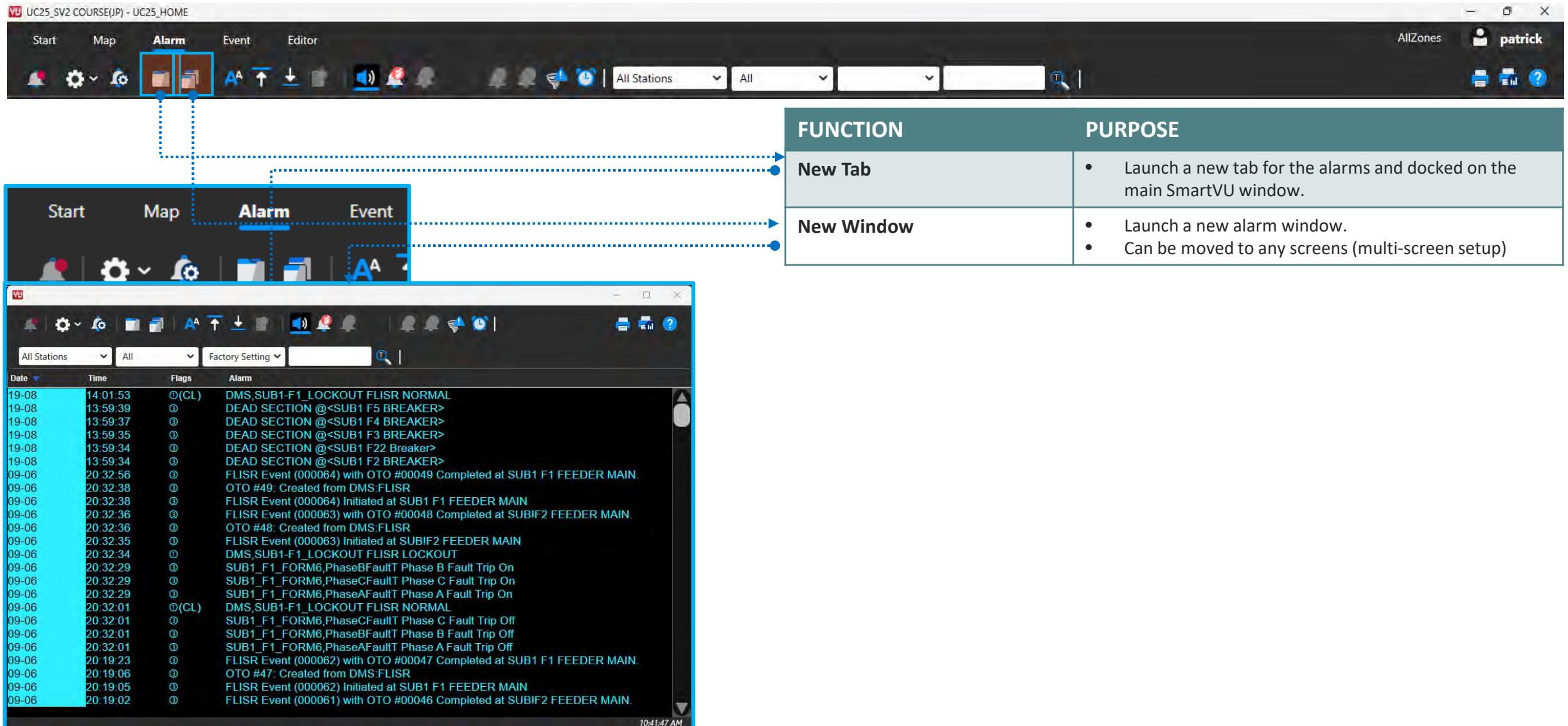
Alarm Options Dialog:

- Title:** Factory Settings
- Date / Time:**
 - Show Years
 - Milliseconds
 - Show Server Capture Timestamp
 - Chronological Reverse Chronological
- Select:**
 - Maintenance Only
 - Include maintenance alarms
 - Show Station Column
 - Alarms and Events Blocked Only
 - Alarms Blocked Only
- Point Filter:**
 - Station List Single System
- Zones:** AllZones
- Priority Filter:** Priority 1 selected (checkbox checked). Other priorities 0, 2, 3, 4, 5, 6, 7, 8, 9, 10 are shown as checkboxes.
- Attributes:**
 - Active
 - and
 - Acked
 - or
 - Cleared
 - or
 - Unacked
- Time Filter:** Type: All

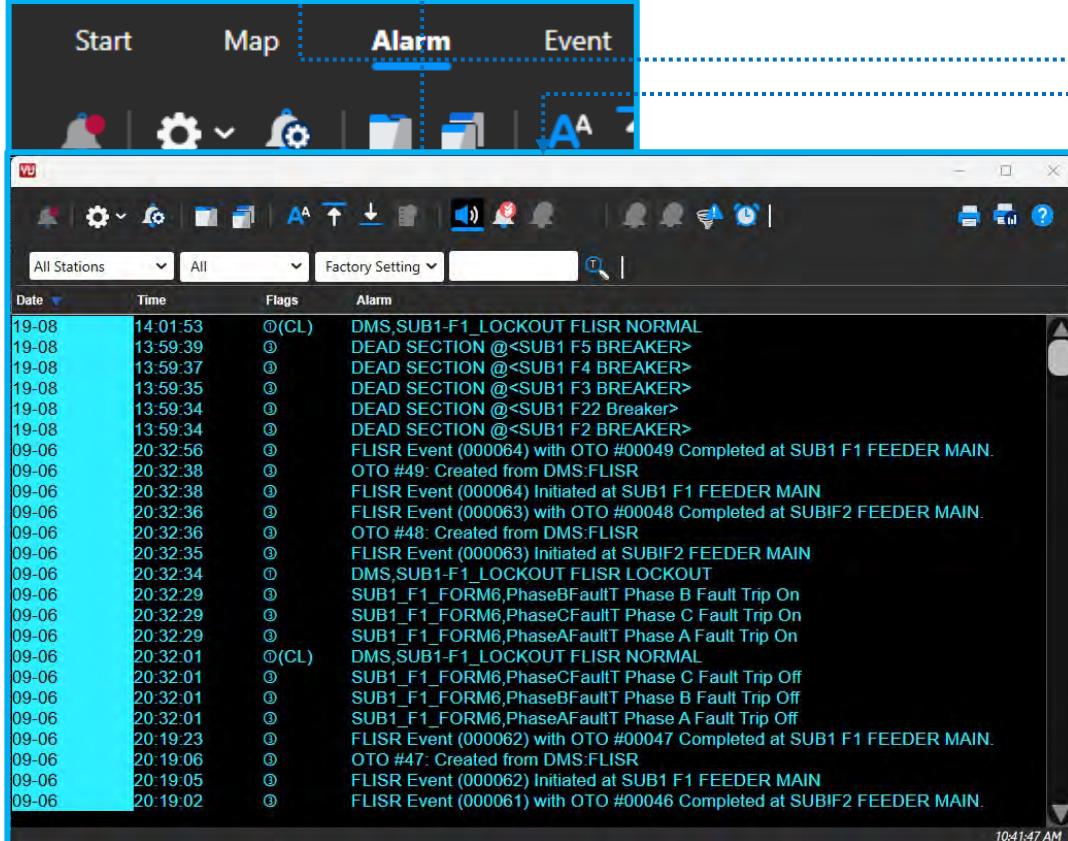
Table of Alarms:

Date	Time	Flags	Alarm
19-08	14:01:53	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:32:34	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:32:01	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:19:00	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:18:14	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:17:21	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:16:57	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:08:33	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:08:13	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:02:48	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:01:56	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:50:51	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:50:32	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:49:51	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:49:31	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:44:21	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:44:00	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:40:13	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:39:52	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:34:41	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:34:16	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:25:41	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:25:13	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:21:23	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	19:20:39	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
09-06	19:17:34	①	DMS,SUB1-F1_LOCKOUT FLISR LOCKOUT
23-05	11:08:45	①	SYS\$,HostA Host A state Master
16-05	12:15:15	①	SYS\$,HostA Host A state Master
10-05	17:55:45	①	SYS\$,HostA Host A state Master
10-05	17:44:34	①(CL)	DMS,RECLOSER1_LOCKOUT FLISR NORMAL
10-05	17:43:46	①	DMS,RECLOSER1_LOCKOUT FLISR LOCKOUT

SmartVU | Alarms and Events Tab



FUNCTION	PURPOSE
New Tab	<ul style="list-style-type: none">Launch a new tab for the alarms and docked on the main SmartVU window.
New Window	<ul style="list-style-type: none">Launch a new alarm window.Can be moved to any screens (multi-screen setup)



Date	Time	Flags	Alarm
19-08	14:01:53	①(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL
19-08	13:59:39	①	DEAD SECTION @<SUB1 F5 BREAKER>
19-08	13:59:37	①	DEAD SECTION @<SUB1 F4 BREAKER>
19-08	13:59:35	①	DEAD SECTION @<SUB1 F3 BREAKER>
19-08	13:59:34	①	DEAD SECTION @<SUB1 F22 Breaker>
19-08	13:59:34	①	DEAD SECTION @<SUB1 F2 BREAKER>
09-06	20:32:56	①	FLISR Event (000064) with OTO #00049 Completed at SUB1 F1 FEEDER MAIN.
09-06	20:32:38	①	OTO #49: Created from DMS:FLISR
09-06	20:32:38	①	FLISR Event (000064) Initiated at SUB1 F1 FEEDER MAIN
09-06	20:32:36	①	FLISR Event (000063) with OTO #00048 Completed at SUBIF2 FEEDER MAIN.
09-06	20:32:36	①	OTO #48: Created from DMS:FLISR
09-06	20:32:35	①	FLISR Event (000063) Initiated at SUBIF2 FEEDER MAIN
09-06	20:32:34	①	DMS.SUB1-F1_LOCKOUT FLISR LOCKOUT
09-06	20:32:29	①	SUB1_F1_FORM6_PhaseBFaultT Phase B Fault Trip On
09-06	20:32:29	①	SUB1_F1_FORM6_PhaseCFaultT Phase C Fault Trip On
09-06	20:32:29	①	SUB1_F1_FORM6_PhaseAFaultT Phase A Fault Trip On
09-06	20:32:01	①(CL)	DMS.SUB1-F1_LOCKOUT FLISR NORMAL
09-06	20:32:01	①	SUB1_F1_FORM6_PhaseCFaultT Phase C Fault Trip Off
09-06	20:32:01	①	SUB1_F1_FORM6_PhaseBFaultT Phase B Fault Trip Off
09-06	20:32:01	①	SUB1_F1_FORM6_PhaseAFaultT Phase A Fault Trip Off
09-06	20:19:23	①	FLISR Event (000062) with OTO #00047 Completed at SUB1 F1 FEEDER MAIN.
09-06	20:19:06	①	OTO #47: Created from DMS:FLISR
09-06	20:19:05	①	FLISR Event (000062) Initiated at SUB1 F1 FEEDER MAIN
09-06	20:19:02	①	FLISR Event (000061) with OTO #00046 Completed at SUBIF2 FEEDER MAIN.

Introduction

The screenshot shows the Survalent software interface in the 'Alarm' tab. A context menu is open over an alarm point, highlighting several icons: Font, Top/Bottom, Notes, Turn Off Audible Alarms, Page Acknowledge, Storm Suppression, and Reminder Alarm. Dashed blue arrows point from these menu items to corresponding sections in a table on the right.

FUNCTION	PURPOSE
Font	<ul style="list-style-type: none">Change the general font used in the alarm window
Top/Bottom	<ul style="list-style-type: none">Use the configured Survalent user credential to access the system based on their user rights.
Notes	<ul style="list-style-type: none">Add notes on top of the alarm.Click on a specific alarm to activate the function.
Turn Off Audible Alarms	<ul style="list-style-type: none">Silent all audible alarms
Page Acknowledge	<ul style="list-style-type: none">Acknowledge the alarm on the currently viewed page.
Storm Suppression	
Reminder Alarm	

Notes
Topic: DMS:SUB1-F1_LOCKOUT
Author: [redacted]
Modified: [redacted]
Point Name: Topic
B U I This note from the user. I can setup notes on each individual alarm in my Survalent system.
Save Find in Map Cancel
OK Cancel

SmartVU | Alarms and Events Tab

UC25_SV2 COURSE(JP) - UC25_HOME

Start Map **Alarm** Event Editor

All Stations All

AllZones patrick

Reminder Alarms

Expiration Time	Employee Name	Work Location	Vehicle #	Contact Name	Contact #	Emergency Name	Emergency #	Priority	Zone Group	Status	Comment

Add New Alarm Modify Selected Alarm Cancel Selected Alarm Delete Selected Alarm

Reminder Alarm

Employee Name: * Alarm Time: - 30 min *

Zone Group: * Comment:

Alarm Priority: * Work Location: *

Contact Name: Vehicle Number:

Contact Phone: Employee Phone:

Emergency Name: Employee Mobile:

Emergency Phone:

Save **Dismiss**

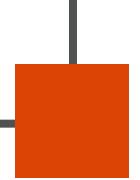
SmartVU | Alarms and Events Tab

The screenshot shows the SmartVU software interface with the 'Alarm' tab selected. A blue callout arrow points from the 'AA' icon in the top menu bar to the 'Font Chooser' dialog box, which is displayed in the foreground. The dialog box allows users to select a font family (e.g., Arial, Helvetica), typeface (e.g., Regular, Italic), and size (e.g., 11, 12, 13). A preview window shows the text 'Quick Brown Fox' in the selected font. The main application window in the background displays various icons and search bars.

FUNCTION	PURPOSE
Alarm Acknowledge	<ul style="list-style-type: none">Acknowledge selected alarm
Delete Alarm	<ul style="list-style-type: none">A configurable user right allowing user to delete the selected alarm. (Disabled by default)
Notes	<ul style="list-style-type: none">Add notes on top of the alarm.Click on a specific alarm to activate the function.
Turn Off Audible Alarms	<ul style="list-style-type: none">Silent all audible alarms
Page Acknowledge	<ul style="list-style-type: none">Acknowledge the alarm on the currently viewed page.
Storm Suppression	
Reminder Alarm	

SmartVU | Alarms and Events Tab

Date	Time	Capture Time	Flags	Event
19-08	13:59:30	13:59:30	①	Open SUB1_F2_FORM6,Mechanism3ph FROM johnp-lap1::patrick
19-08	13:59:31	13:59:32	①	SUB1_F2_FORM6,Mechanism3ph Mechanism 3-phase Travel
19-08	13:59:32	13:59:32	①	Open SUB1_F3_FORM6,Mechanism3ph FROM johnp-lap1::patrick
19-08	13:59:33	13:59:33	①	SUB1_F2_FORM6,Mechanism3ph Mechanism 3-phase Open
19-08	13:59:33	13:59:33	①	Open SUB1_F4_FORM6,Mechanism3ph FROM johnp-lap1::patrick
19-08	13:59:33	13:59:33	①	SUB1_F3_FORM6,Mechanism3ph Mechanism 3-phase Travel
19-08	13:59:34	13:59:34	③	DEAD SECTION @<SUB1 F22 Breaker>
19-08	13:59:34	13:59:34	③	DEAD SECTION @<SUB1 F2 BREAKER>
19-08	13:59:35	13:59:35	①	SUB1_F3_FORM6,Mechanism3ph Mechanism 3-phase Open
19-08	13:59:35	13:59:35	③	DEAD SECTION @<SUB1 F3 BREAKER>
19-08	13:59:35	13:59:35	①	SUB1_F4_FORM6,Mechanism3ph Mechanism 3-phase Travel
19-08	13:59:35	13:59:35	①	Open SUB1_F5_FORM6,Mechanism3ph FROM johnp-lap1::patrick
19-08	13:59:36	13:59:37	①	SUB1_F4_FORM6,Mechanism3ph Mechanism 3-phase Open
19-08	13:59:37	13:59:38	①	SUB1_F5_FORM6,Mechanism3ph Mechanism 3-phase Travel
19-08	13:59:37	13:59:37	③	DEAD SECTION @<SUB1 F4 BREAKER>
19-08	13:59:38	13:59:39	①	SUB1_F5_FORM6,Mechanism3ph Mechanism 3-phase Open
19-08	13:59:39	13:59:39	③	DEAD SECTION @<SUB1 F5 BREAKER>
19-08	14:01:38	14:01:38		Line sections saved from johnp-lap1::patrick
19-08	14:01:41	14:01:41		Line sections published from johnp-lap1::patrick
19-08	14:01:53	14:01:53	①(CL)	DMS,SUB1-F1_LOCKOUT FLISR NORMAL
19-08	14:01:53	14:01:53		"DMS,SUB1-F1_LOCKOUT" FLISR Manual input from johnp-lap1::patrick Status = NORMAL (LOCKOUT)
19-08	14:01:59	14:01:59		Line section edit started from johnp-lap1::patrick
19-08	14:10:08	14:10:08		Login UC2025::SCADA [StcExplorer] success
19-08	14:13:40	14:13:40	①	SCADA STARTUP A
19-08	14:13:40	14:13:40	①	Started scantask SCANX.EXE ComlineID=5 ProcessID=6896 from *.*
19-08	14:13:40	14:13:40	①	Started scantask SCANX.EXE ComlineID=3 ProcessID=6212 from *.*
19-08	14:13:40	14:13:40	①	Started scantask SCANX.EXE ComlineID=2 ProcessID=6688 from *.*
19-08	14:13:40	14:13:40	①	Started scantask SCANX.EXE ComlineID=4 ProcessID=6208 from *.*
19-08	14:13:40	14:13:40	①	Started scantask SCANX.EXE ComlineID=1 ProcessID=6728 from *.*
19-08	14:13:47	14:13:47		Login JOHNP-LAP1::PATRICK [SmartVU2] success
19-08	14:13:47	14:13:47		Logout JOHNP-LAP1::patrick [SmartVU2] success
19-08	14:13:47	14:13:47		Login JOHNP-LAP1::PATRICK [SmartVU2] success
19-08	14:13:47	14:13:47		Login UC2025::SCADA [StcExplorer] success
19-08	14:13:49	14:13:49		Line section edit started from johnp-lap1::patrick
19-08	14:46:56	14:46:56		Logout JOHNP-LAP1::patrick [SmartVU2] success
19-08	14:50:11	14:50:11		Line section edit started from johnp-lap1::patrick

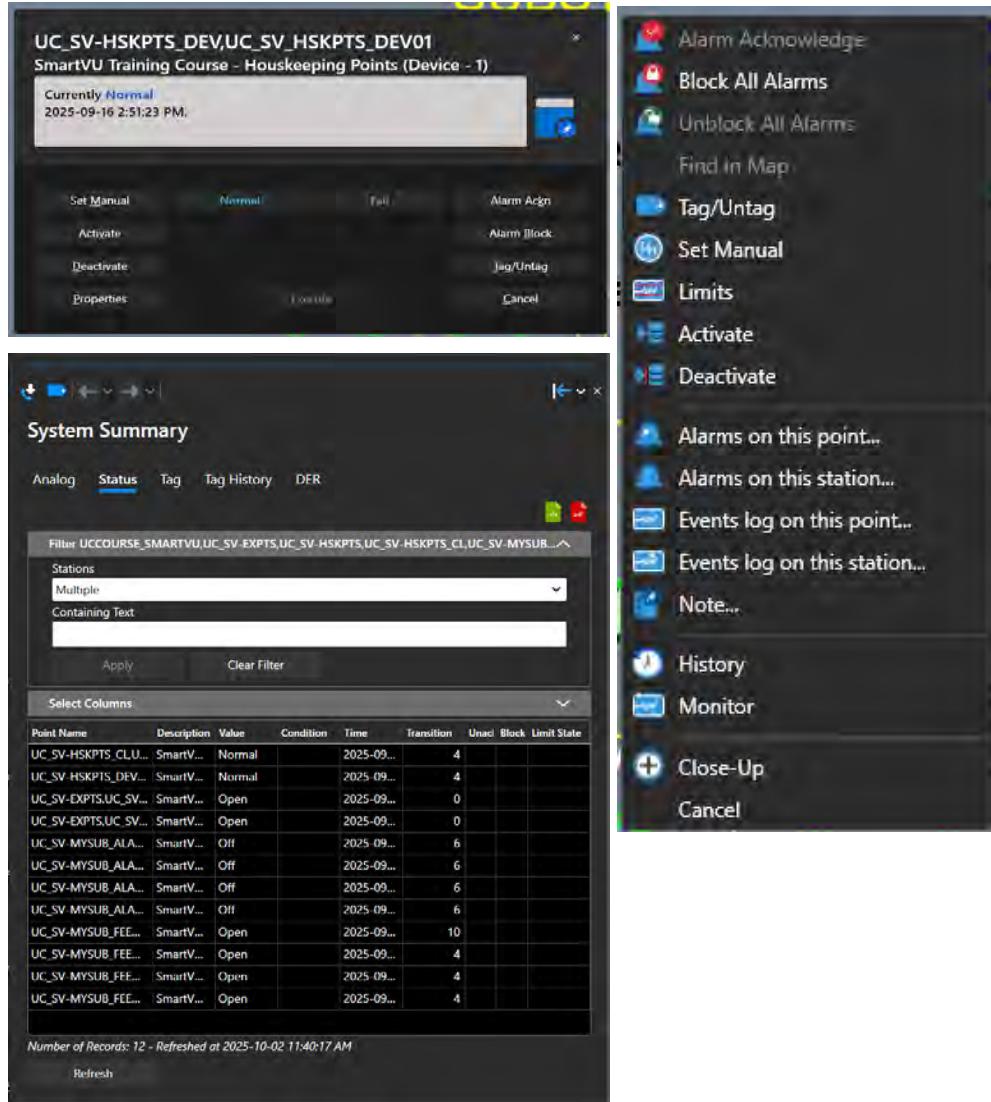


SmartVU | Features

SmartVU | Features

Operational Features

- *Device control*
 - *SBO*
 - *Execute Warning Message*
 - *Control Password*
- *Monitor*
- *History Function*
- *Alarms and Events on specific device.*
- *Alarms and Events on specific station.*
- *Limits*
- *Activate/Deactivate*
- *Alarm Block*
- *Alarm Acknowledge*
- *Notes*
- *System & Abnormal Summary*
- *Find & Advance Query*
- *Historical and Ad Hoc Graphs*
- *Dark and Light Mode*



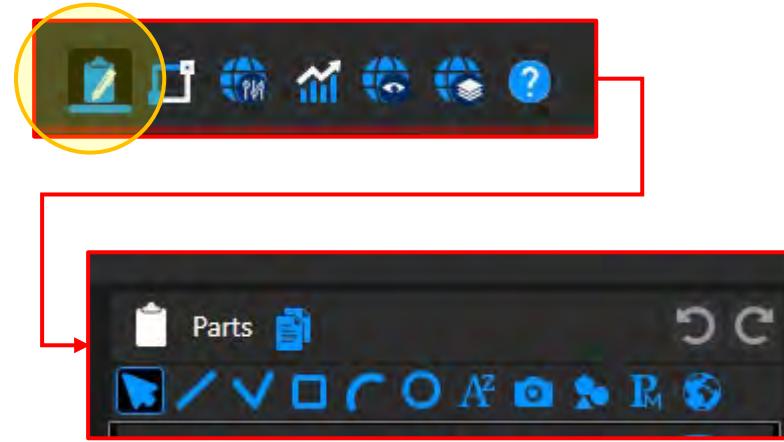


SmartVU | Editing Mode

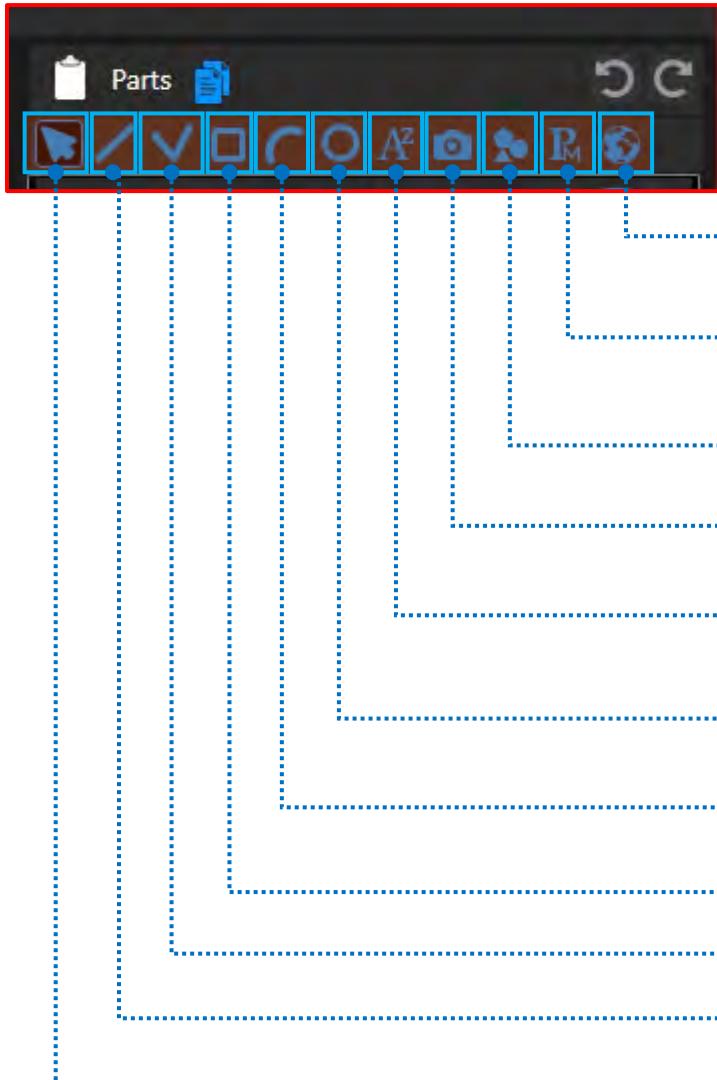
SmartVU | Editing Mode

The Edit Parts Tools

- *Set of editing tools for creating a SmartVU Map*



SmartVU | Editing Mode

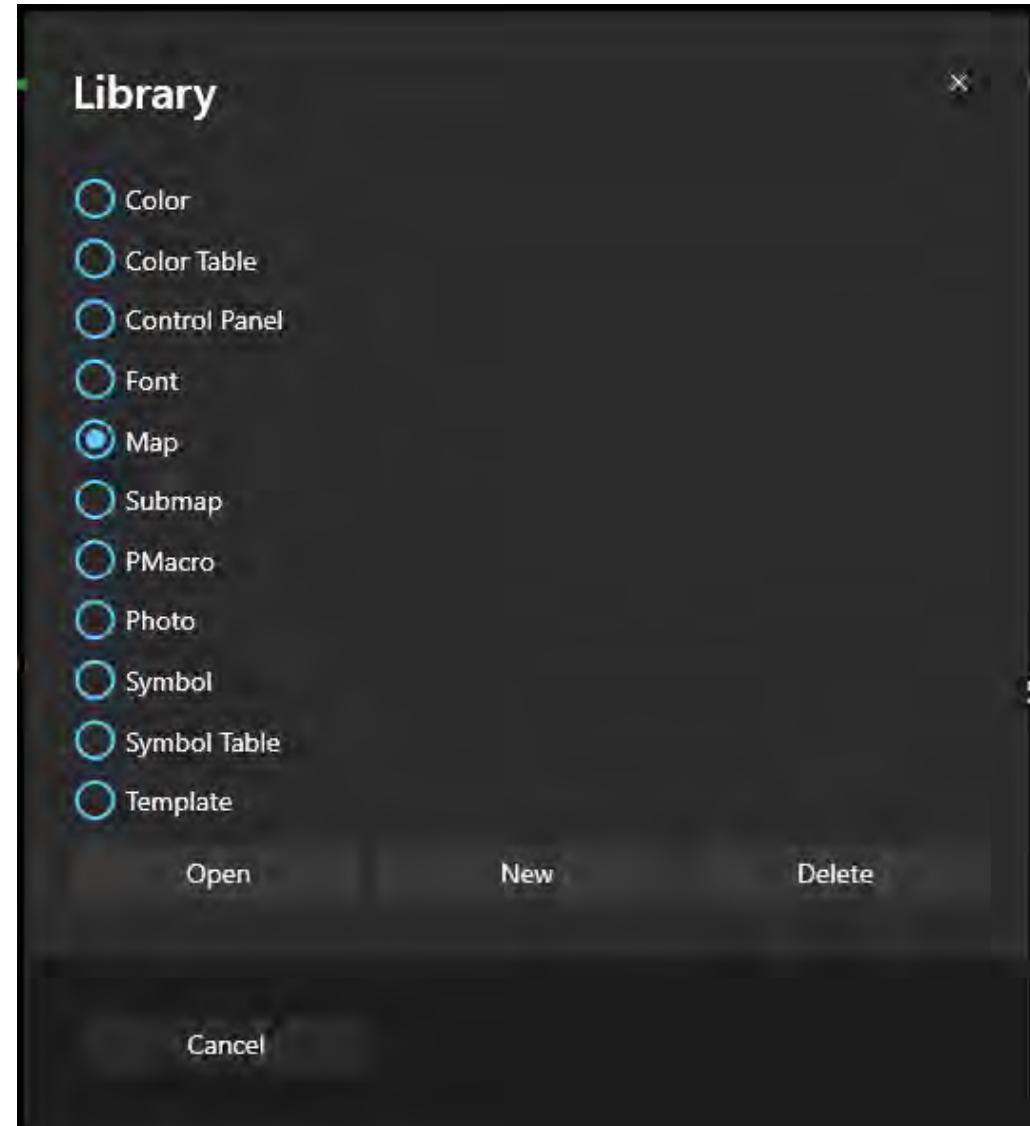


FUNCTION	PURPOSE
Add Submap	<ul style="list-style-type: none">Enable secondary layers related to OMS (Disabled if no OMS License)
Add Pmacro	<ul style="list-style-type: none">Add Pmacro / Dynamic Objects in the map (i.e breaker, templates, pushbutton or analog measurements)Allows the user to choose a pmacro and pmacro type in the library.
Add Symbol	<ul style="list-style-type: none">Add static symbol in the map.Allows the user to choose symbols in the symbol library.
Add Photo	<ul style="list-style-type: none">Add static image in the map.Allows the user to choose images in the photo library.
Add String	<ul style="list-style-type: none">Add a text or string in the map.Allows the user to choose in the font library.
Add Circle	<ul style="list-style-type: none">Add a round object in the map.
Add Arc	<ul style="list-style-type: none">Add an arch object in the map.
Add Rectangle	<ul style="list-style-type: none">Add a rectangle/square object in the map.
Add Polyline	<ul style="list-style-type: none">Add polyline object in the map (i.e. Triangle, Polygons etc.)
Add Line	<ul style="list-style-type: none">Add Line in the map
Cursor	<ul style="list-style-type: none">Use for selecting objects and elements in SmartVU.

SmartVU | Editing Mode

The SmartVU Library

- *Compilation of SmartVU graphical elements that can be used for your map creation.*
- *These are out of the box and customized objects and elements to reflect your company's drawing standards.*



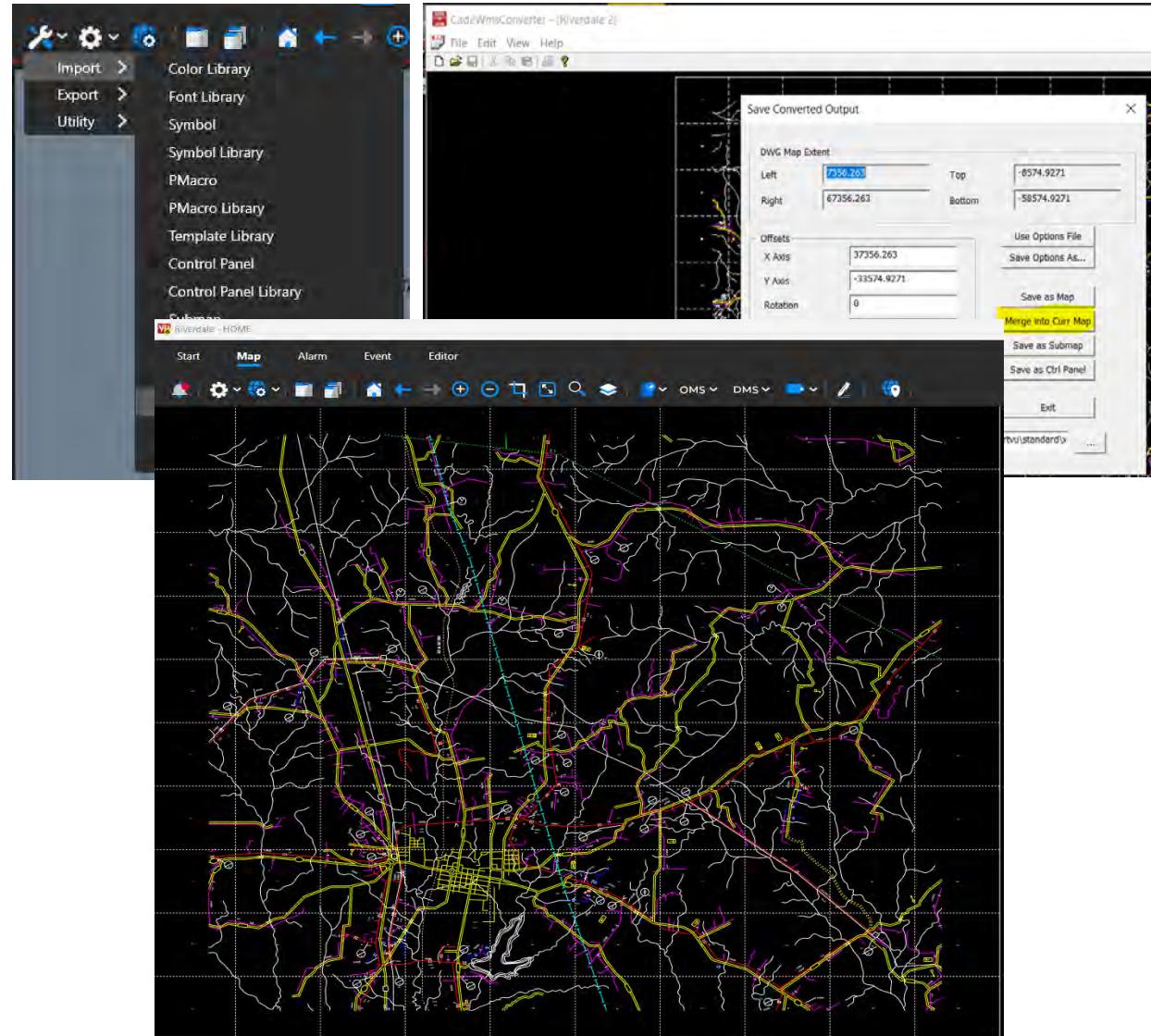


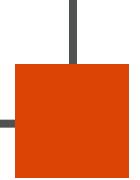
SmartVU | Editing Tools (Import/Export)

SmartVU | Editing Tools (Import/Export)

Import/ Export Tools

- Import SmartVU Library (Color, Font, Symbol, Pmacro, Template and Control panel) into your new Survalent system.
- Quick way to import existing SmartVU maps and Submaps.
- Can import CAD files (DXF/DWG), fastest way to start your base map (i.e. site map, territory map, substation or network schematic and single line diagram).
- Export Tool to export your library for new projects





SmartVU | Creating your first Map

SmartVU | Creating your first Map

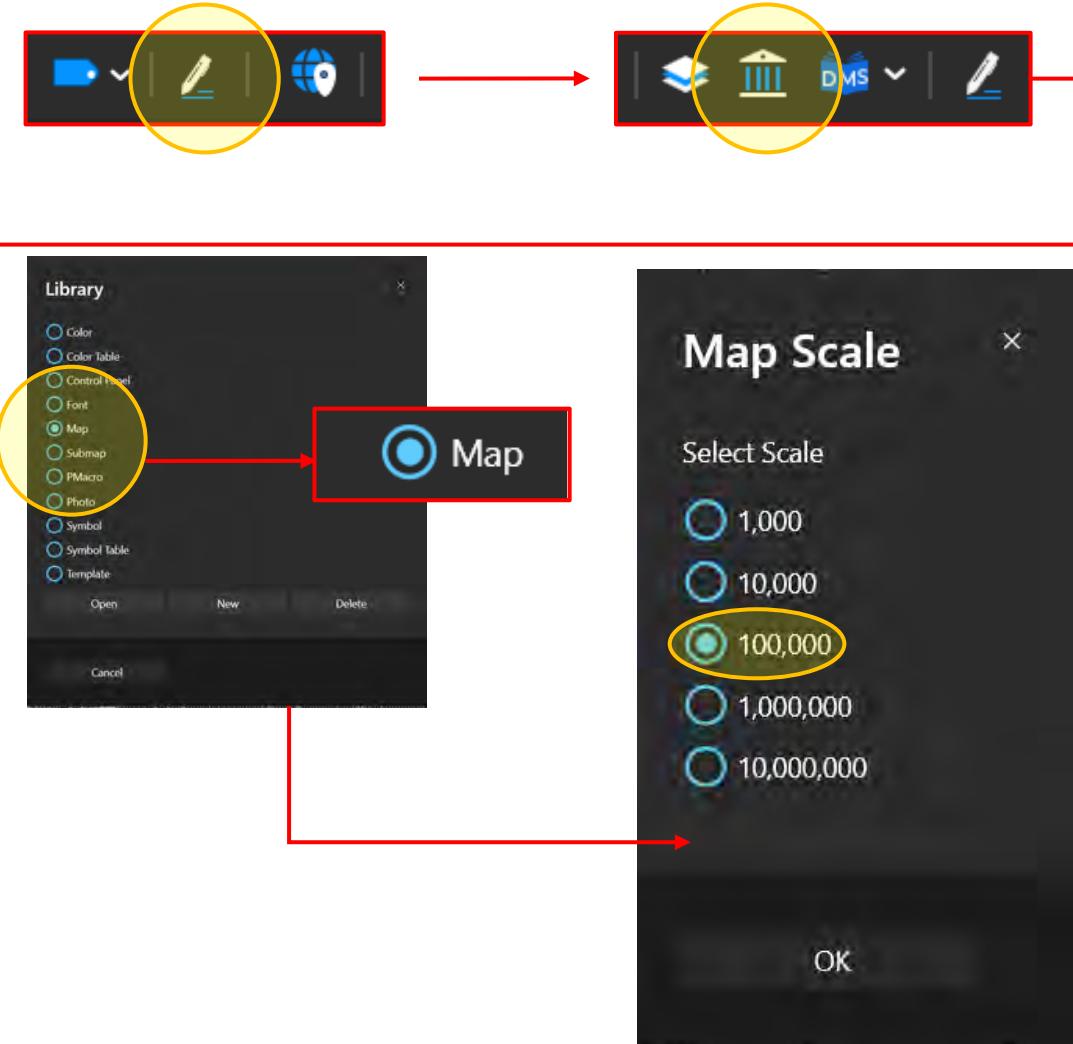
Exercise

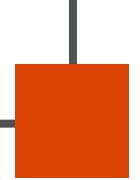
Creating your first Map

- Go to the Map Tab
- Go to Edit Mode -> Library -> Map
- Scale 100,000 x 100,000
 - Common scale used (but you can use a different scale)
- Save your new map.

Options to change background

- Go to Map Properties.
- Change Background color
 - typically, darker or neutral colors to reduce eye strain for users that will be using the SmartVu for long periods)
 - Highly adaptable neutral color that provides stable and non-distracting background.
 - Colors that don't clash with your alarm colors.



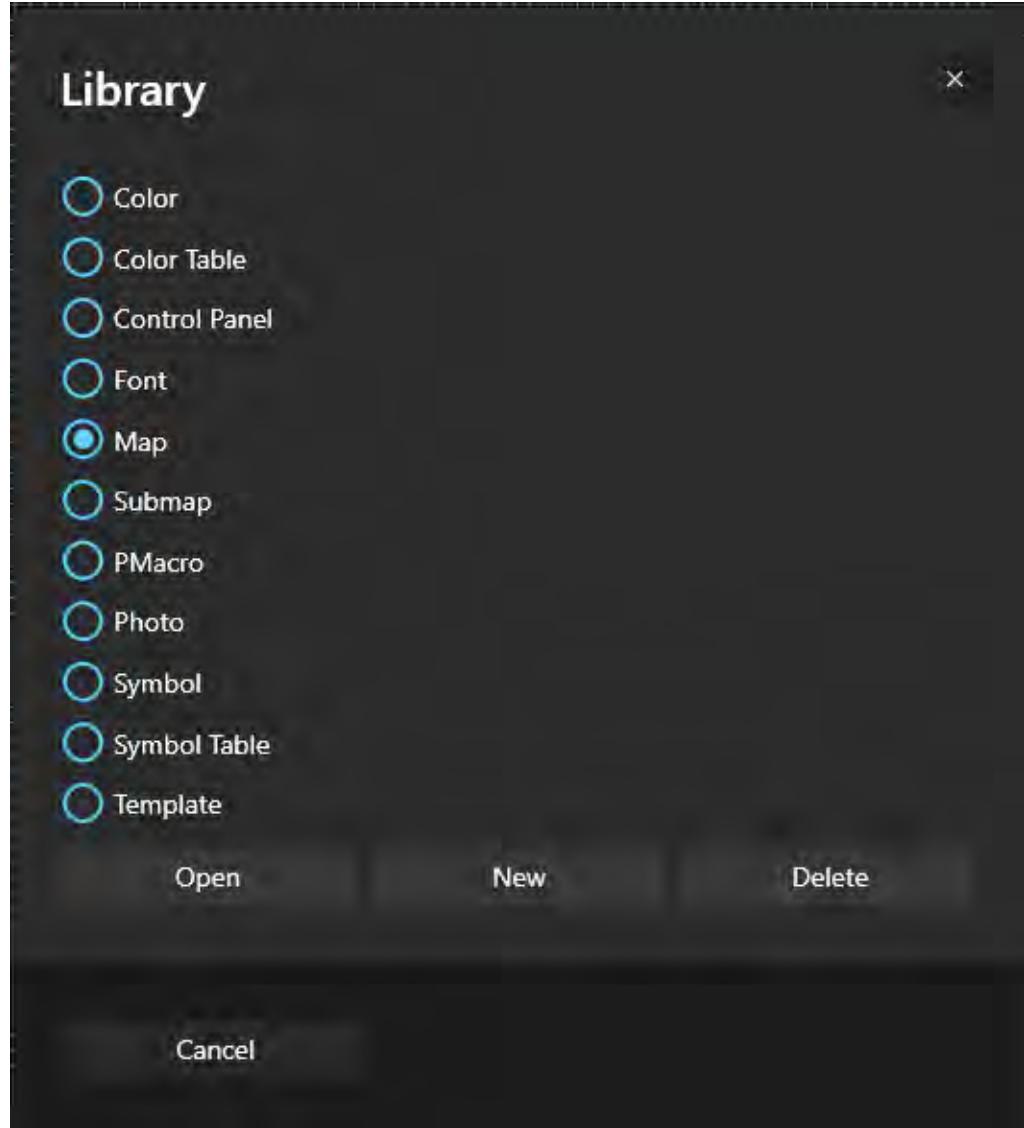


SmartVU | Library

SmartVU Library

Library

- A compilation of drawing objects that are used within the SmartVU.
- Fully customizable objects and elements that will reflect your company's drawing standard and intended use of the SmartVU application.



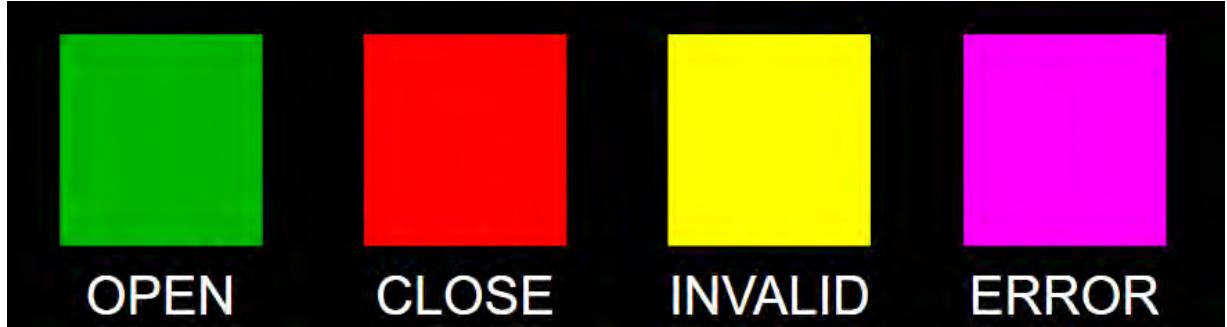


SmartVU | Colors

SmartVU Library

Colors

- Generally used to select color combination used in your SmartVU map.
- Often use to represent or indicates states or statuses in your SCADA.
- **Breaker Status** - Open, Close, Invalid and Error
- **Disconnect Switch Status** – Open, Close, Travel and Error.
- **Line Section** – Energized, De-energized, Parallel, Looped etc.
- **Voltage Level** – Low Voltage, Medium Voltage, High Voltage.
- **KV Level** – 13.8kV, 500kV etc.



Exercise

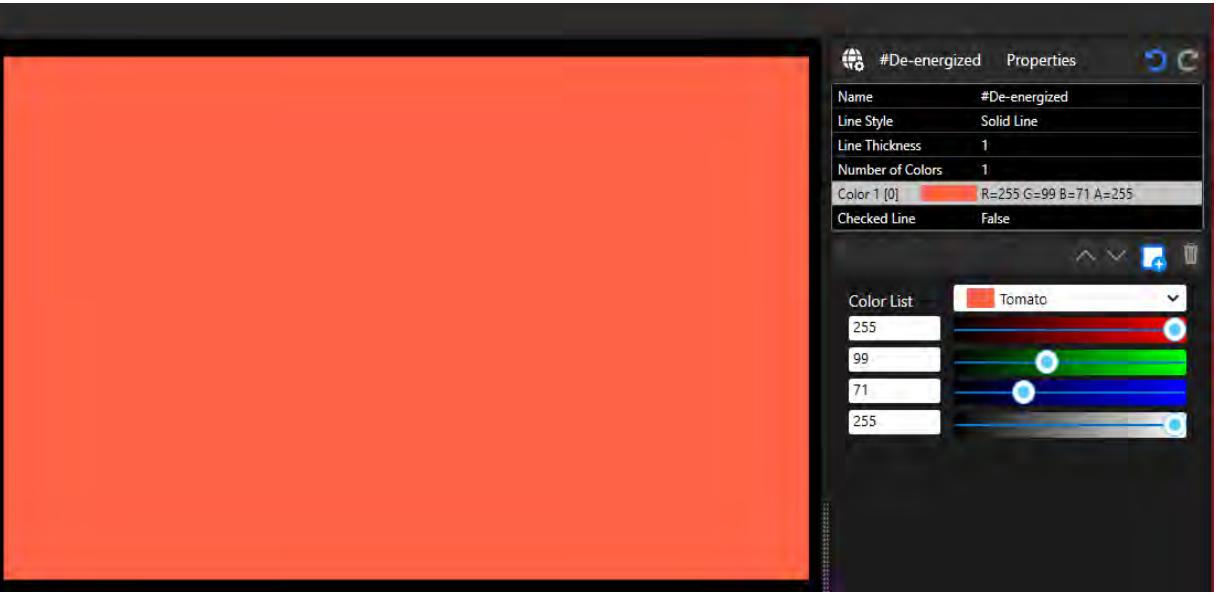
Exercise

Creating colors

- Go to Edit Mode -> Library -> Color
- Create the following Colors:
Borders and Guides
 - Color Guide - R = 50 G = 205 B = 50 A = 198

Breaker Status

- Open – Green Color
- Close – Red Color
- Open_Nack – Blinking Green Color
- Close_Nack – Blinking Red Color



TIPS:

- To make the color blink, set the number of colors to 2 and set the secondary color to black or different color.
- The “A” (Opacity) parameter is to set the transparency of the color.

Exercise

Exercise

Creating colors

- Go to Edit Mode -> Library -> Color
- Create the following Colors:

Breaker Sections (Closed)

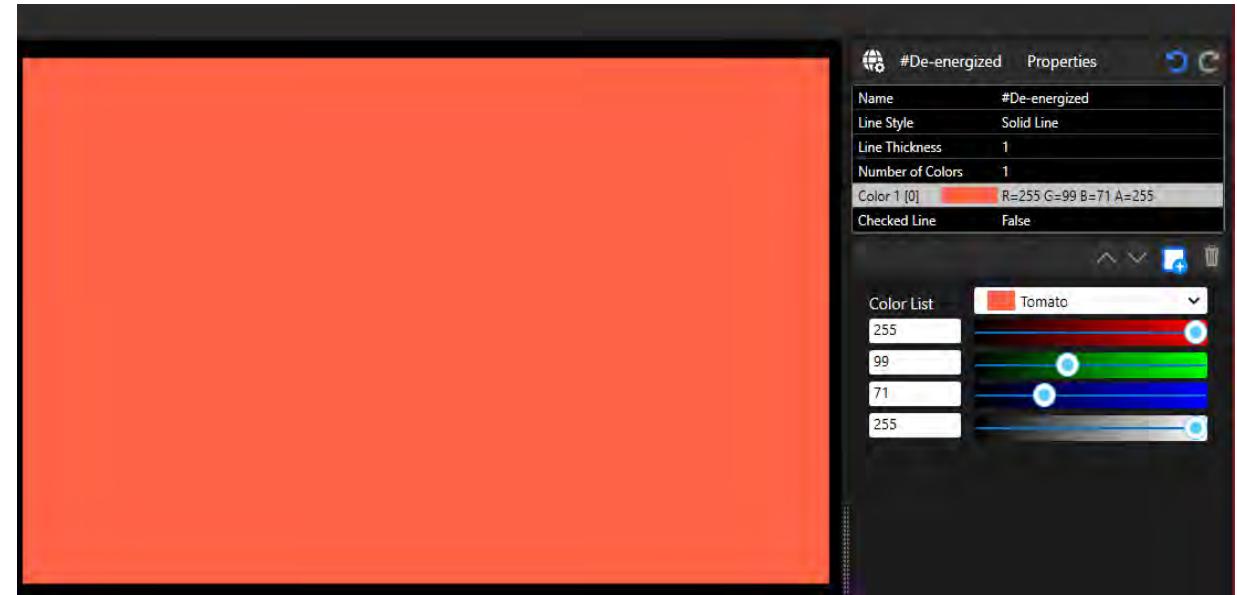
- CB_Close Shade 1 – R = 255, G = 20, B = 15, A = 255
- CB_Close Shade 2 – R = 115, G = 30, B = 38, A = 255

Breaker Sections (Open)

- CB_Open Shade 1 – R = 0, G = 189, B = 1, A = 255
- CB_Open Shade 2 – R = 17, G = 74, B = 18, A = 255

Breaker Sections (Error)

- CB_Open Shade 1 – R = 105, G = 105, B = 105, A = 255
- CB_Open Shade 2 – R = 211, G = 211, B = 211, A = 255



TIPS:

- To make the color blink, set the number of colors to 2 and set the secondary color to black or different color.
- The “A” (Opacity) parameter is to set the transparency of the color.



SmartVU | Colors Table

SmartVU Library

Colors Tables

- *Efficient way to assign colors.*
- *Set colors to represent states of a point.*
- *Can be use in Pmacro functions.*
 - *Alarm Blocked Flag Color Table*
 - *Alarm Color Table*
 - *Color Table*
 - *Condition Flag Color Table*
 - *Note Flag Color Table*
 - *Owner Flag Color Table*
 - *Power Direction Color Table*
 - *Tag Flag Color Table*

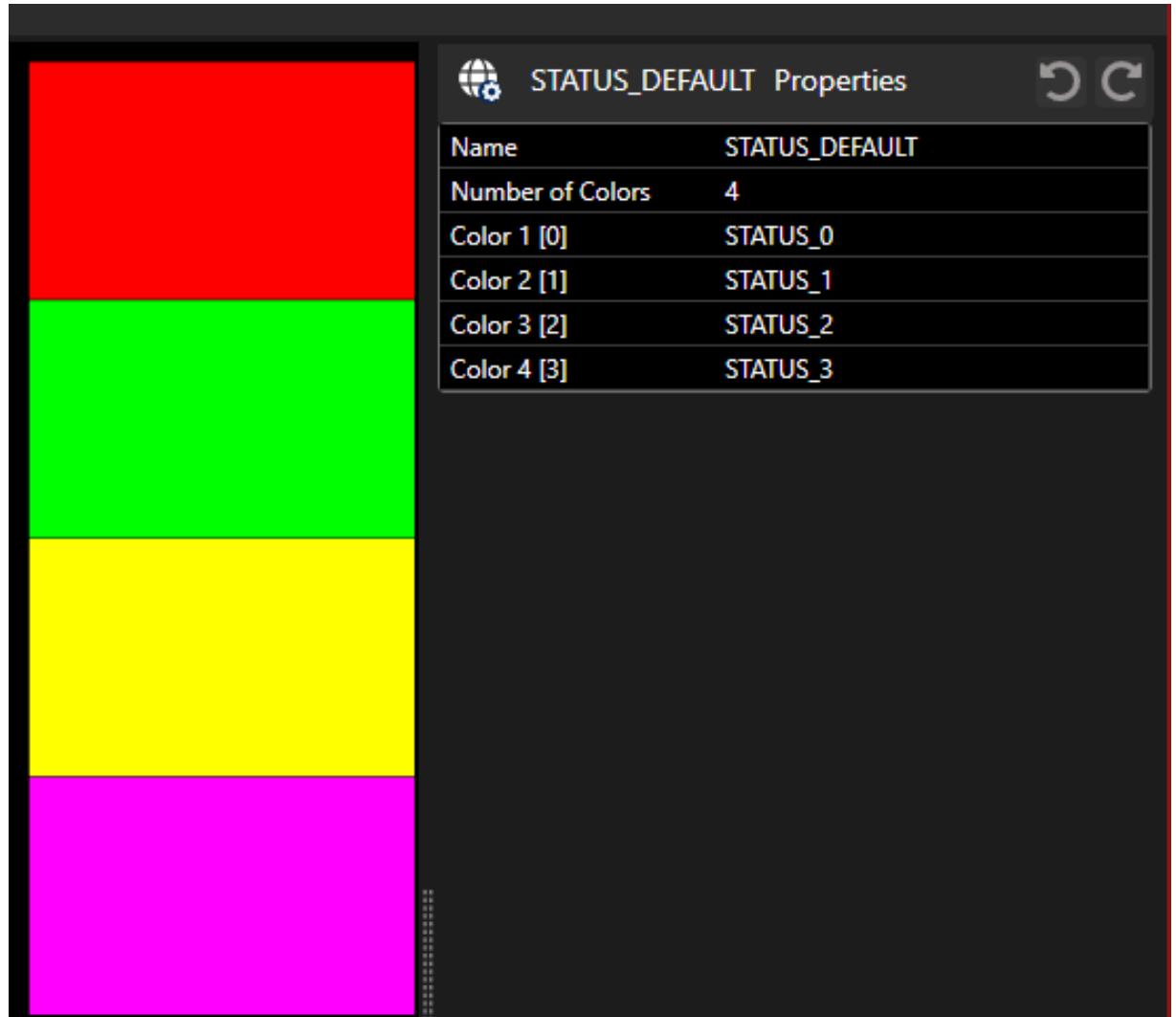


Exercise

Exercise

Creating color tables

- Go to Edit Mode -> Library -> Color Tables
- Set Number of Colors to 4
- Create “Color Status”
 - Color 1 [0] Status 1
 - Color 2 [1] Status 2
 - Color 3 [2] Status 3
 - Color 4 [3] Status 4

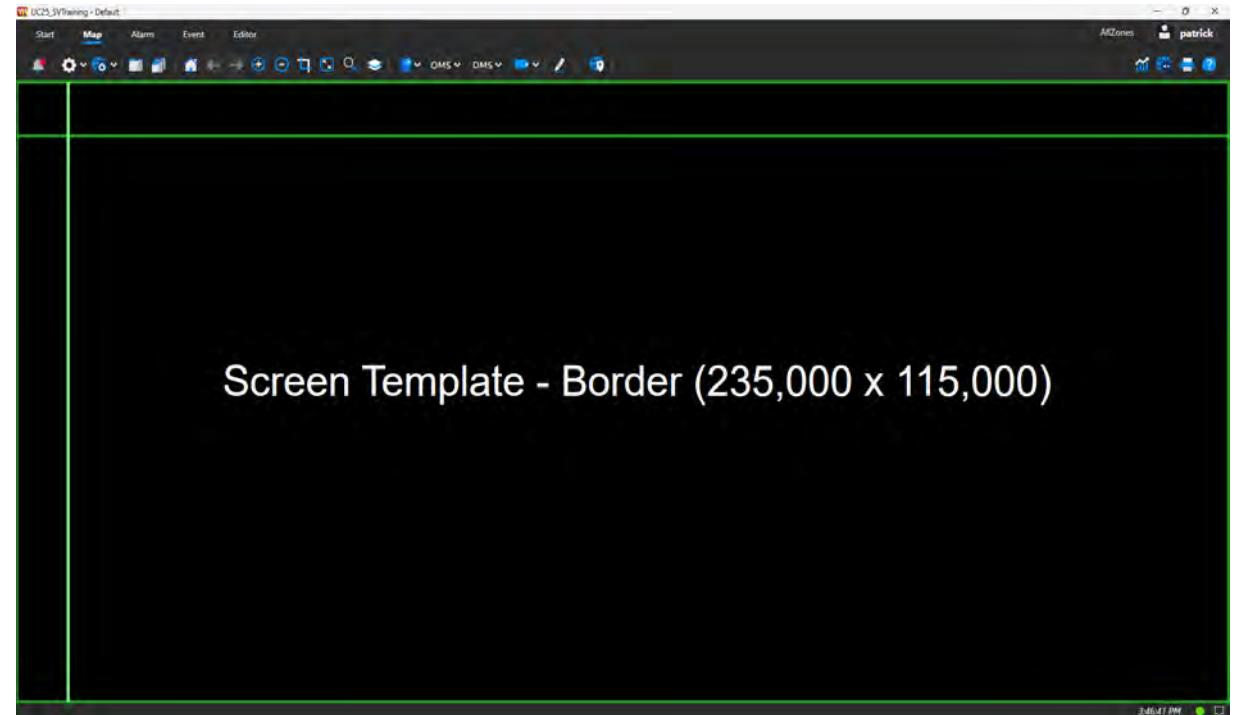




SmartVU | Screen Scaling

Screen Scaling

- *Maximizing the effective space of your SmartVU screen to fit in your screen.*
- *No dead space/ blank space.*
- *Fully Maximize your SmartVU workspace.*



Screen Template - Border (235,000 x 115,000)

Exercise

Exercise

Setting your screen template

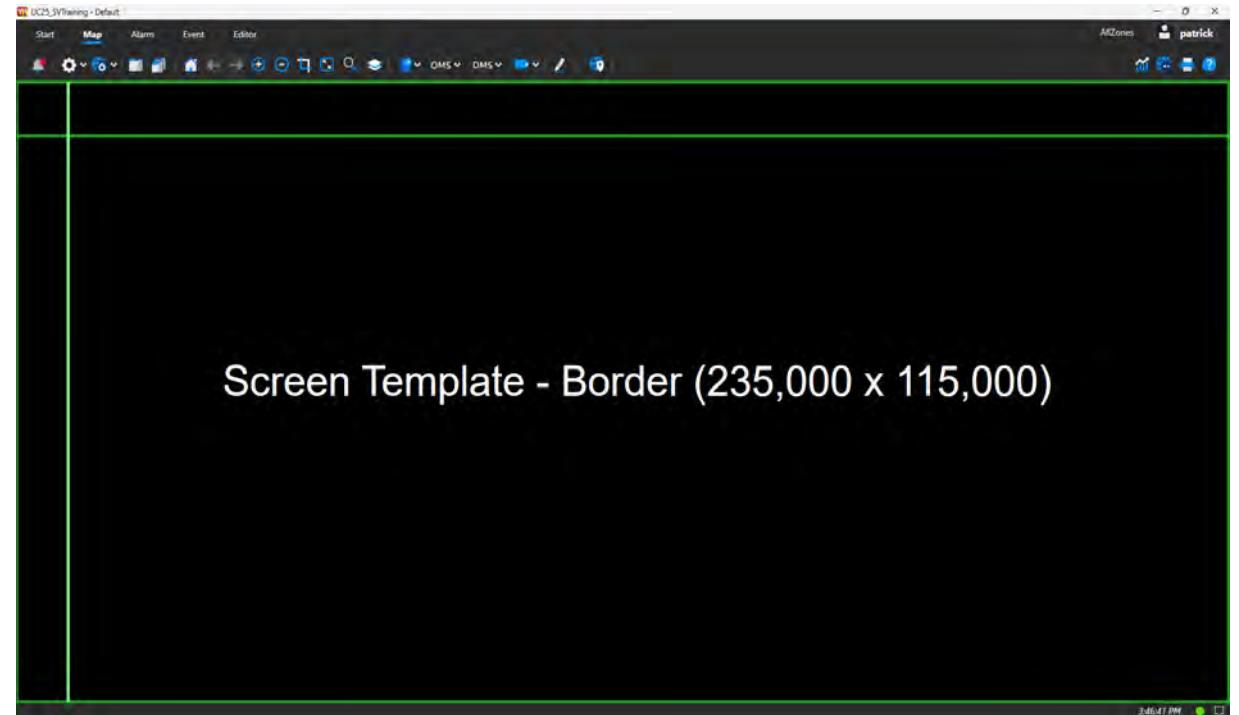
- Use the rectangle tool and set the dimension to Width = 235,000 Height = 115,000.
- Set the rectangle lower left corner at coordinates (0,0)
- Set the color to “Color Guide”

Set the guide for your navigation bars.

- Set the grid Spacing to 2,500 x 2,500
- Use the rectangle tool to set the following dimensions:
 - Top Navigation Bar: 235,000 x 10,000
 - Left/Right Navigation Bar: 10,000 x 115,000
 - Place these guides where you want your navigation and map information will be displayed.

NOTE:

- This will be your template for all your SmartVU screens.
- Use this to properly scale your graphics.



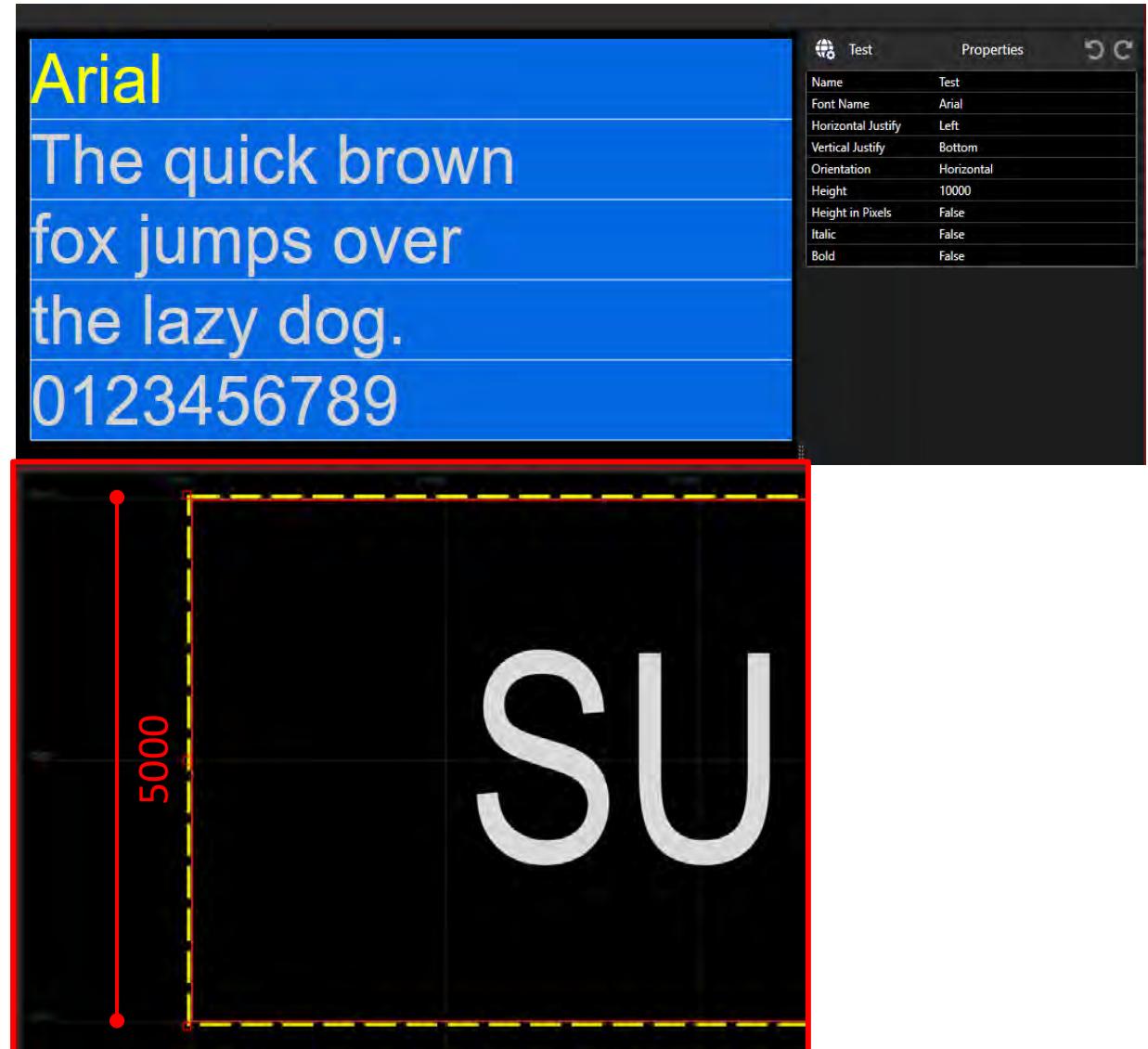


SmartVU | Fonts

SmartVU Library

Fonts

- Fonts are used to display string or text on the map.
- Fully configurable font properties to maintain consistency for labels, titles, names, etc.
- Fonts are also used to set the text properties of Analog Points values and Alarm messages.
- Font Height are measures relative to the Grid spacing (Line X & Line Y).



Exercise

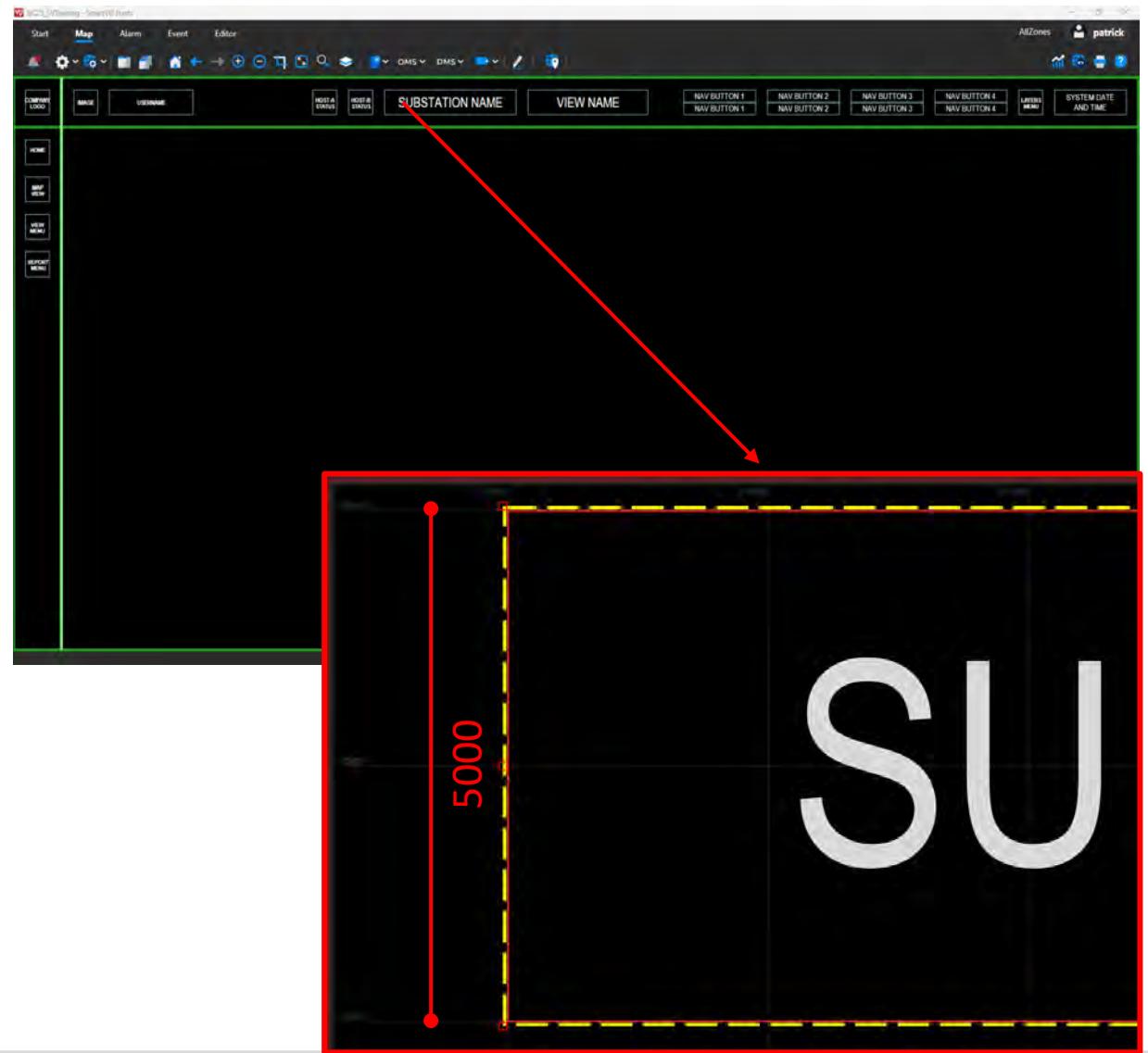
Exercise

Creating a font

- Go to Edit Mode -> Library -> Font
- Create the following Font:
 - Map Title = height: 4000
 - Button Font = 2500
 - Sub Text = 1500
 - Analog Point Text = 2400

TIPS:

- Organize your by using a prefix to easily find your new fonts.
- EX:
- <YourName>_MapTitle
 - UC25_Exercise_MapTitle
 - __SVTraining_MapTitle
- For smaller fonts, enable the grid spacing to 2,500 x 2,500 or lower to get their sizes.



[Start](#) [Map](#) [Alarm](#) [Event](#) [Editor](#)

AllZones

patrick



COMPANY LOGO

IMAGE USERNAME

HOST-A STATUS HOST-B STATUS

SUBSTATION NAME

VIEW NAME

NAV BUTTON 1
NAV BUTTON 1NAV BUTTON 2
NAV BUTTON 2NAV BUTTON 3
NAV BUTTON 3NAV BUTTON 4
NAV BUTTON 4

LAYERS MENU

SYSTEM DATE AND TIME

HOME

MAP VIEW

VIEW MENU

REPORT MENU

TEXT = UC25_SV – Sub Text
Guide = 17500 x 5000TEXT = UC25_SV – Map Title Font
Guide = 25000 x 5000TEXT = UC25_SV – Buton Title
Guide = 15000 x 2500TEXT = UC25_SV – Sub Text
Guide = 5000 x 5000

Exercise

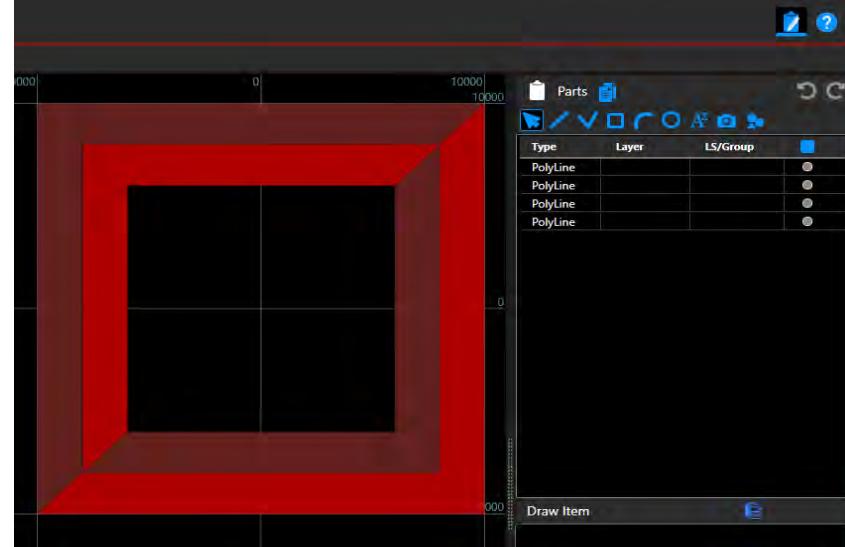


SmartVU | Symbols

SmartVU Library

Symbols

- *Versatile and customizable.*
- *Can be hand-drawn symbols (to match your standard symbols) or images (converted to symbols).*
- *Generally used as part of the Pmacro or Static symbols in your map.*
- *Symbols can be grouped together to create an object in SmartVU (Symbols + Images + Texts)*



Exercise

Exercise

Creating a Symbol (Non-Alarm States)

STEP 1:

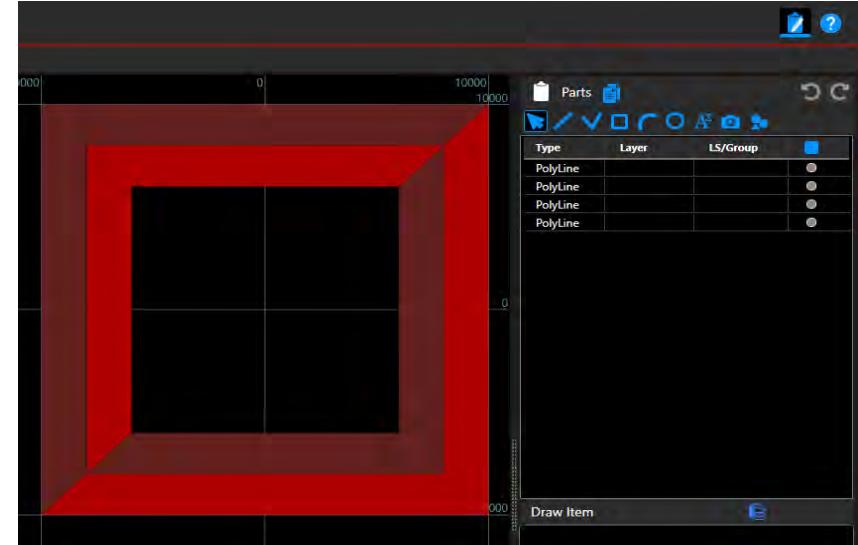
- Scale your symbol using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the symbol. (i.e. 7,500 x 7,500)

STEP 2:

- Go to Library -> Symbols
- Set your grid spacing to X = 500 and Y = 500.
- Paste your guide object at coordinates (0,0)
- This will serve as your reference for the size of your symbol.

TIPS:

- Always set your object lower left corner to the origin.
- Helps the object positioning easier on the map



Exercise

Exercise

Creating a Symbol (Non-Alarm States)

STEP 3:

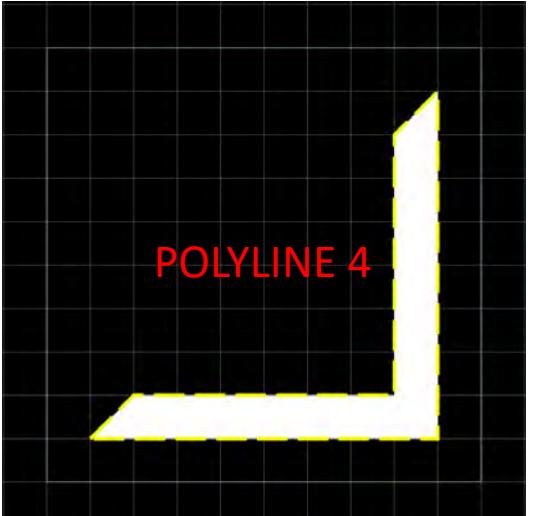
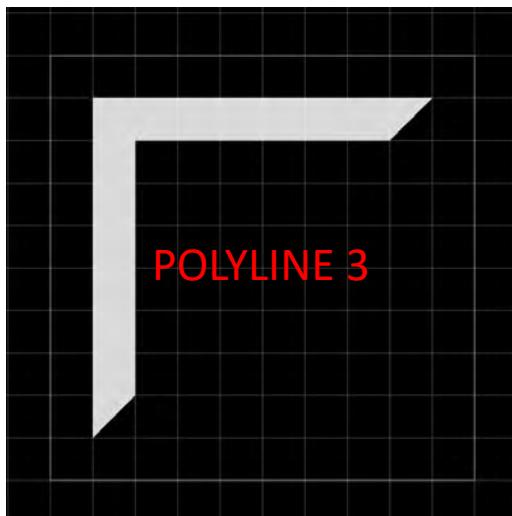
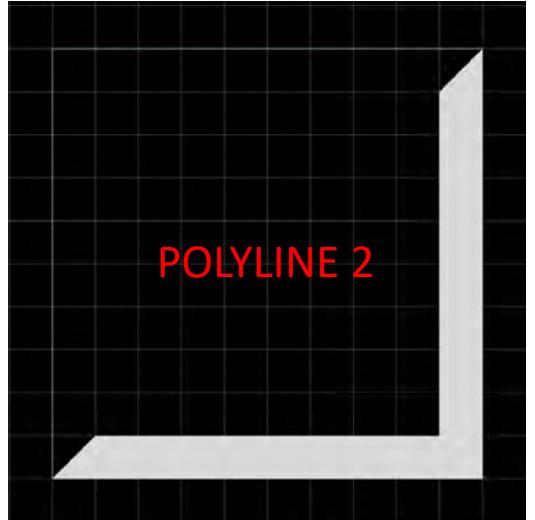
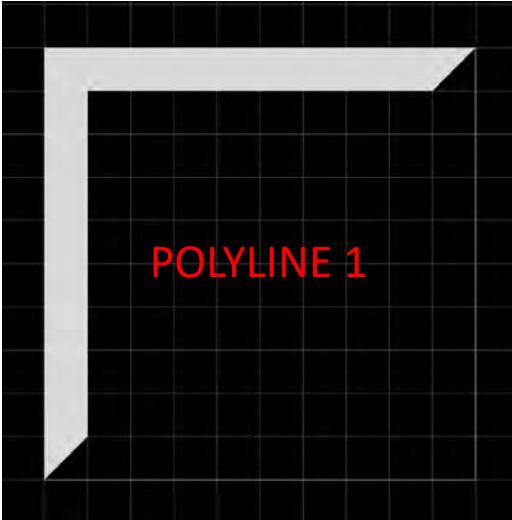
- Using the Polyline tool draw the sections of the breaker.
- Sections of the Breaker are shown in the slide.
- Set all sections to be closed and filled.

STEP 4:

- Set the following colors for each breaker sections:
 - Polyline 1& 4 = CB_Close Shade 1
 - Polyline 2& 3 = CB_Close Shade 2
 - Save as “UC25_SV_CBClose”

STEP 4:

- Do the same process using the other color shades to create:
 - UC25_SV_CBOpen
 - UC25_SV_Error



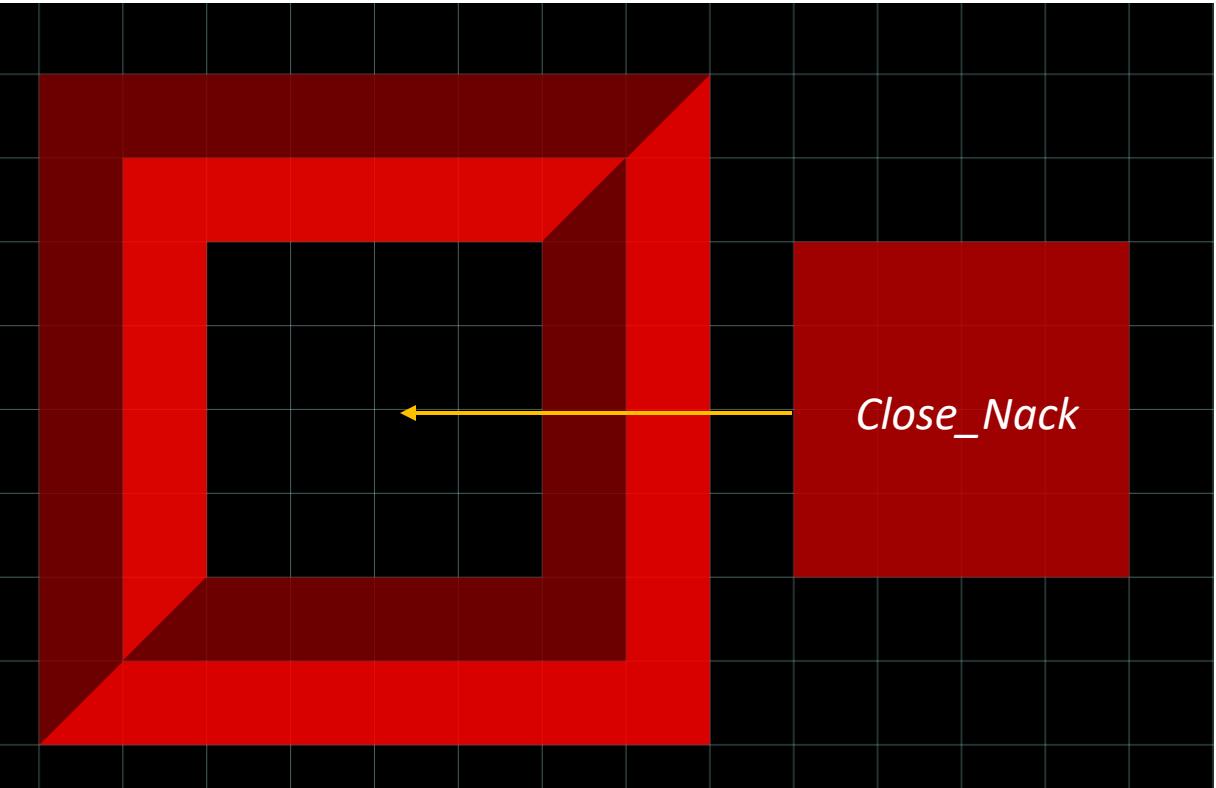
Exercise

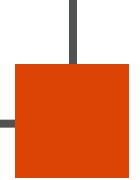
Exercise

Creating a Symbol (Alarm States)

STEP 1:

- Open the “UC25_SV_CBClose” Symbol.
 - Save as “UC25_SV_CBClose_Nack” (**Do this to prevent overwriting the previous symbol**)
 - Create a square to fill the empty space inside the breaker (represent close state).
 - Set the color to Close_Nack
 - Save
-
- Do the same steps for “UC25_SV_CBOpen_Nack”





SmartVU | Photos

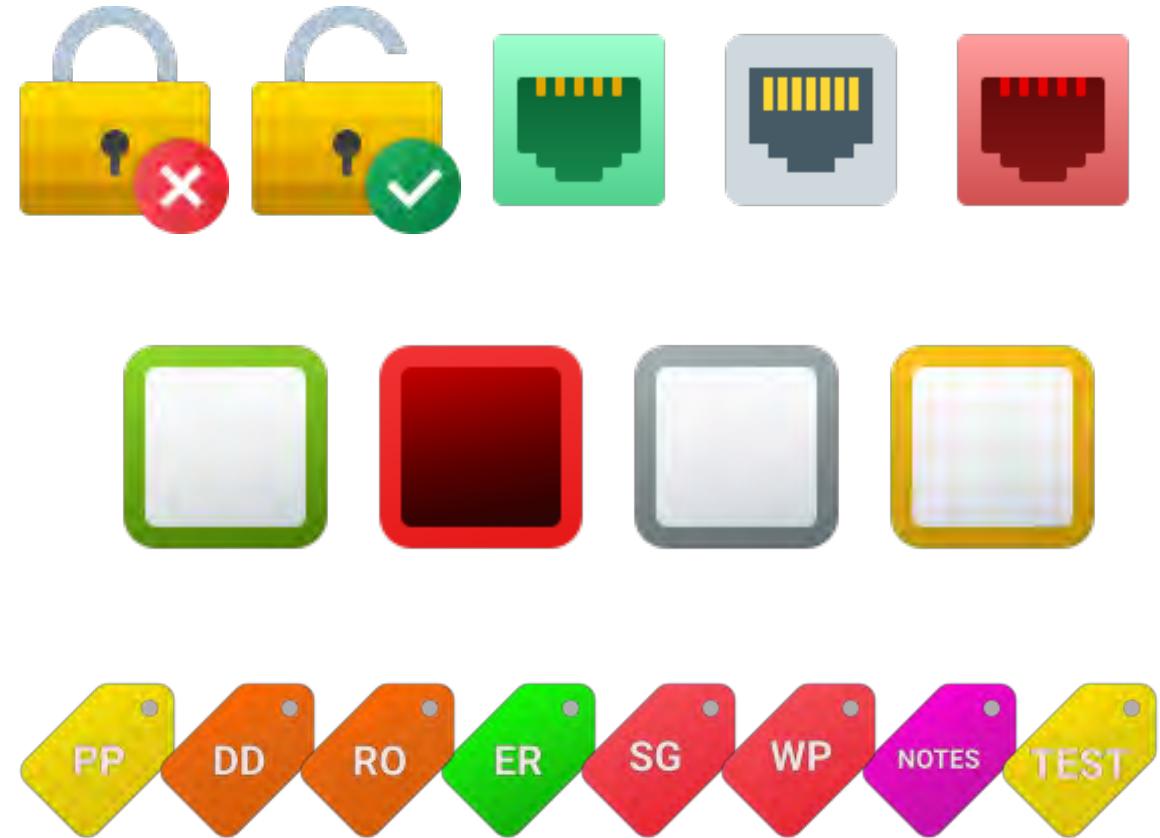
SmartVU Library

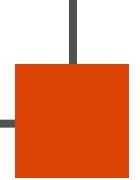
Photos

- Imported images in SmartVU that can be used in the Map.
- Using images makes your graphics more flexible and easier to edit.
- Images can be converted into symbols.
- Modernized your graphics.

TIPS:

- Use abundant free images from the internet.
- Create your own unique symbols.





SmartVU | Photos used as Symbols

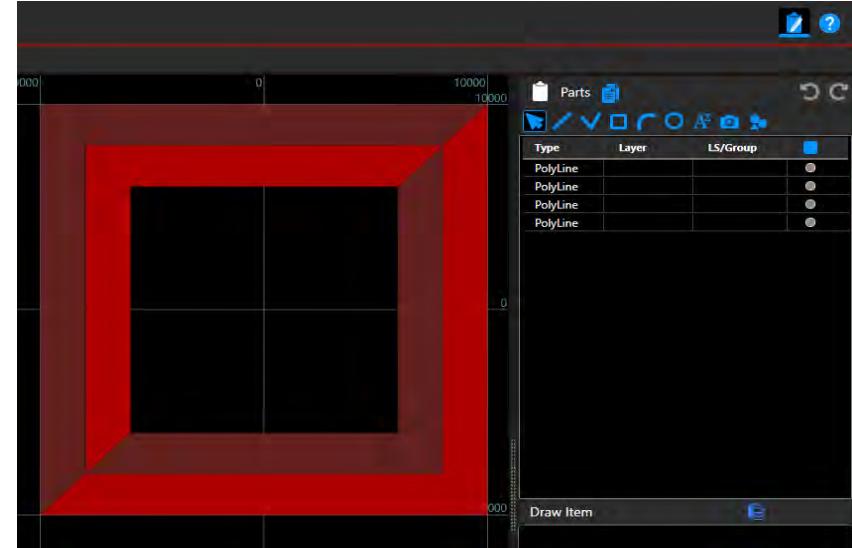
Exercise

Exercise

Creating a Symbol (Using Images)

STEP 1:

- Scale your symbol using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the symbol. (i.e. 7,500 x 7,500)



STEP 2:

- Go to Library -> Symbols
- Set your grid spacing to X = 500 and Y = 500.
- Paste your guide object at coordinates (0,0)
- This will serve as your reference for the size of your symbol.



TIPS:

- Always set your object lower left corner to the origin.
- Helps the object positioning easier on the map

Exercise

Exercise

Creating a Symbol (Using Images)

STEP 3:

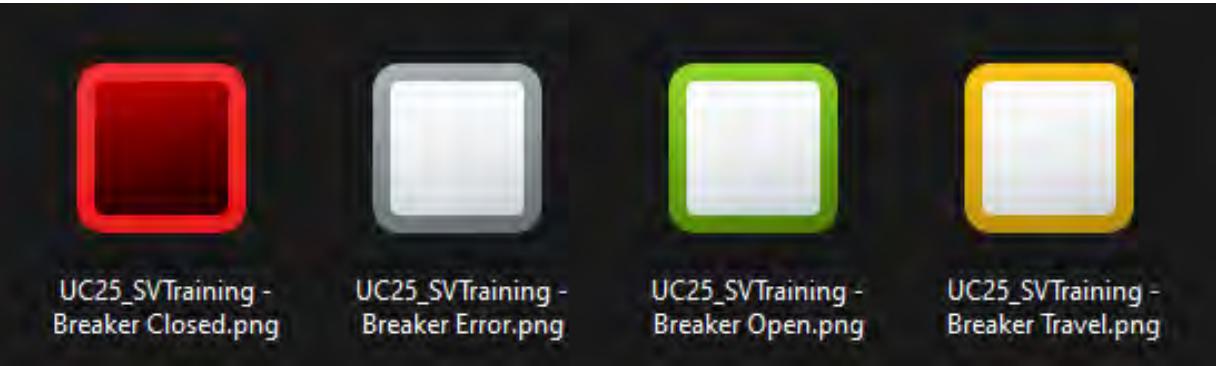
- Using the Photo tool, choose the photo in your library.
- Place the image at coordinates (0,0)
- Add additional images or symbol based on what you want to create.

STEP 4:

- Create symbols using the following:
 - “UC25_SV_CBOpen_Image” = ***UC25_SVTraining - Breaker Open.png***
 - “UC25_SV_CBClose_Image” = ***UC25_SVTraining - Breaker Closed.png***
 - “UC25_SV_CBClose_Invalid” = ***UC25_SVTraining - Breaker Travel.png***
 - “UC25_SV_CBClose_Error” = ***UC25_SVTraining - Breaker Error.png***

STEP 5:

- For the Unacknowledged states, add a blinking color.



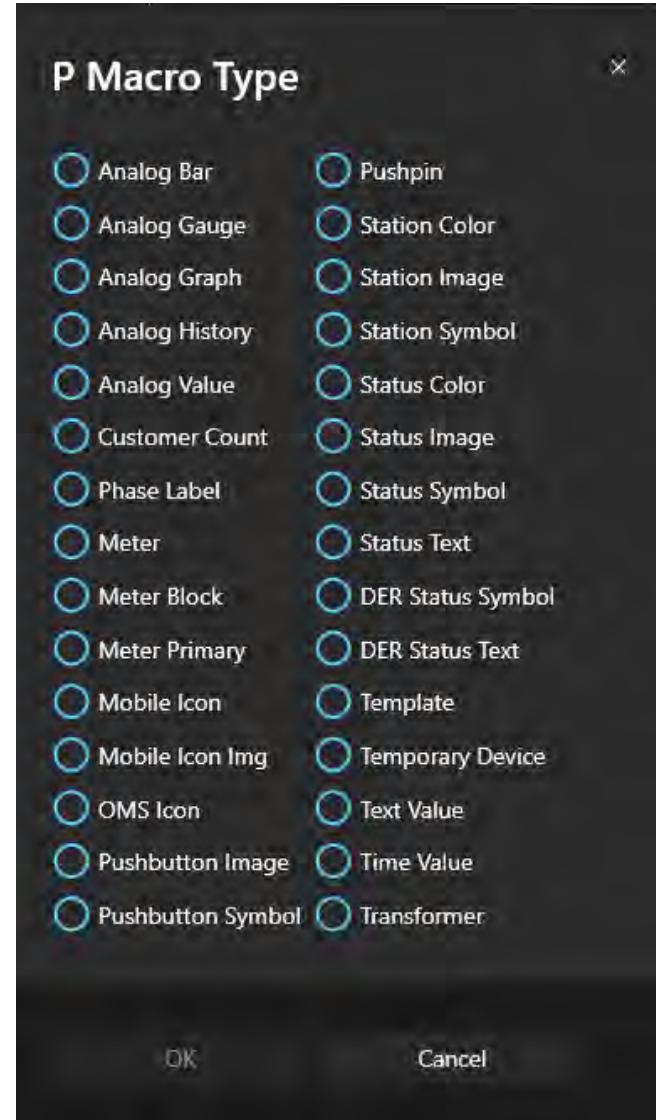


SmartVU | Pmacro

SmartVU Library

Pmacro

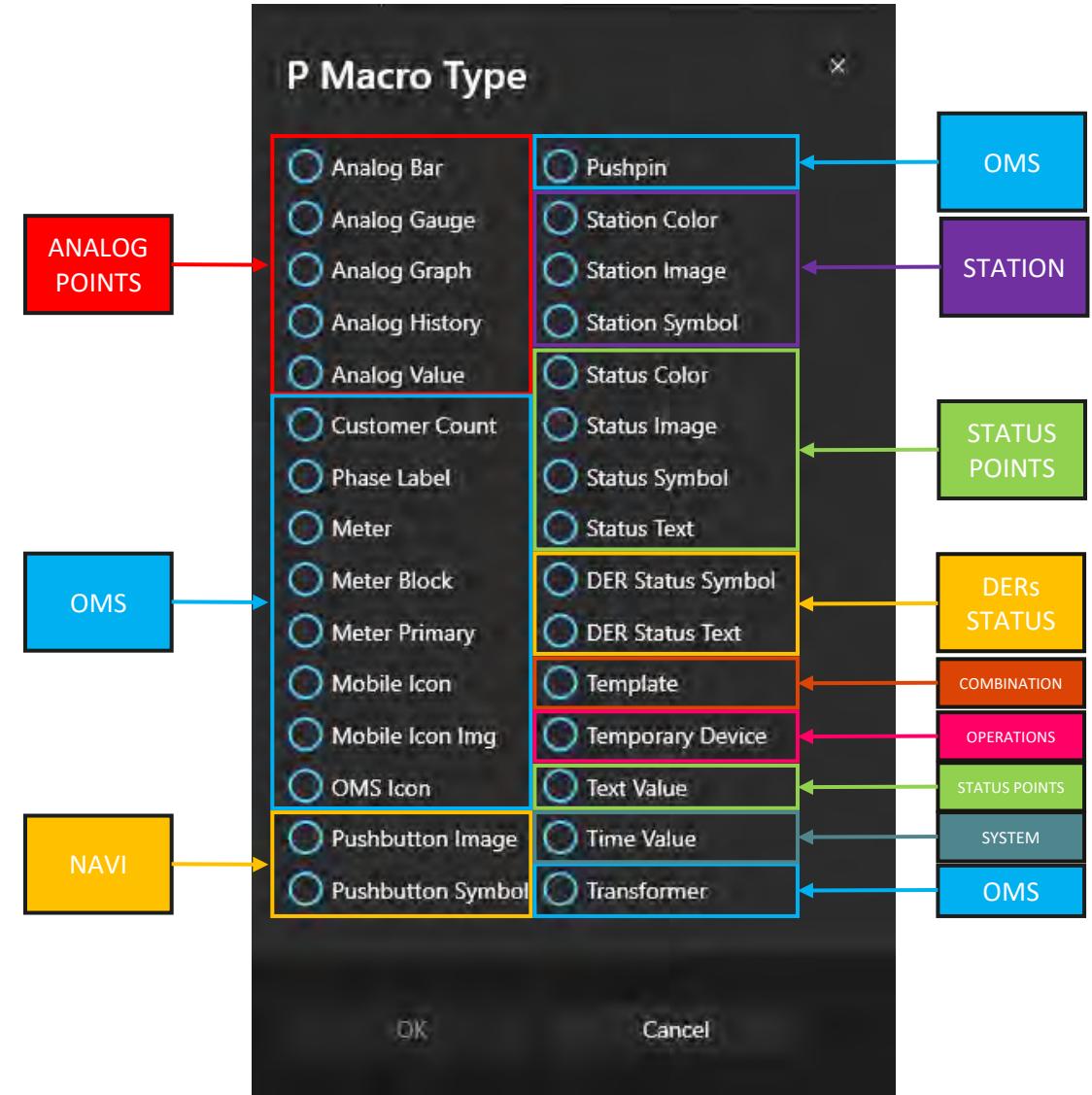
- Dynamic objects that displays the values (status and analog) of database point and can also act as a poke points.
- Symbols, Images and Alphanumeric values are displayed by pmacro.
- Pmacro's are linked to the database and display different dialog boxes.



SmartVU Library

Pmacro - Types

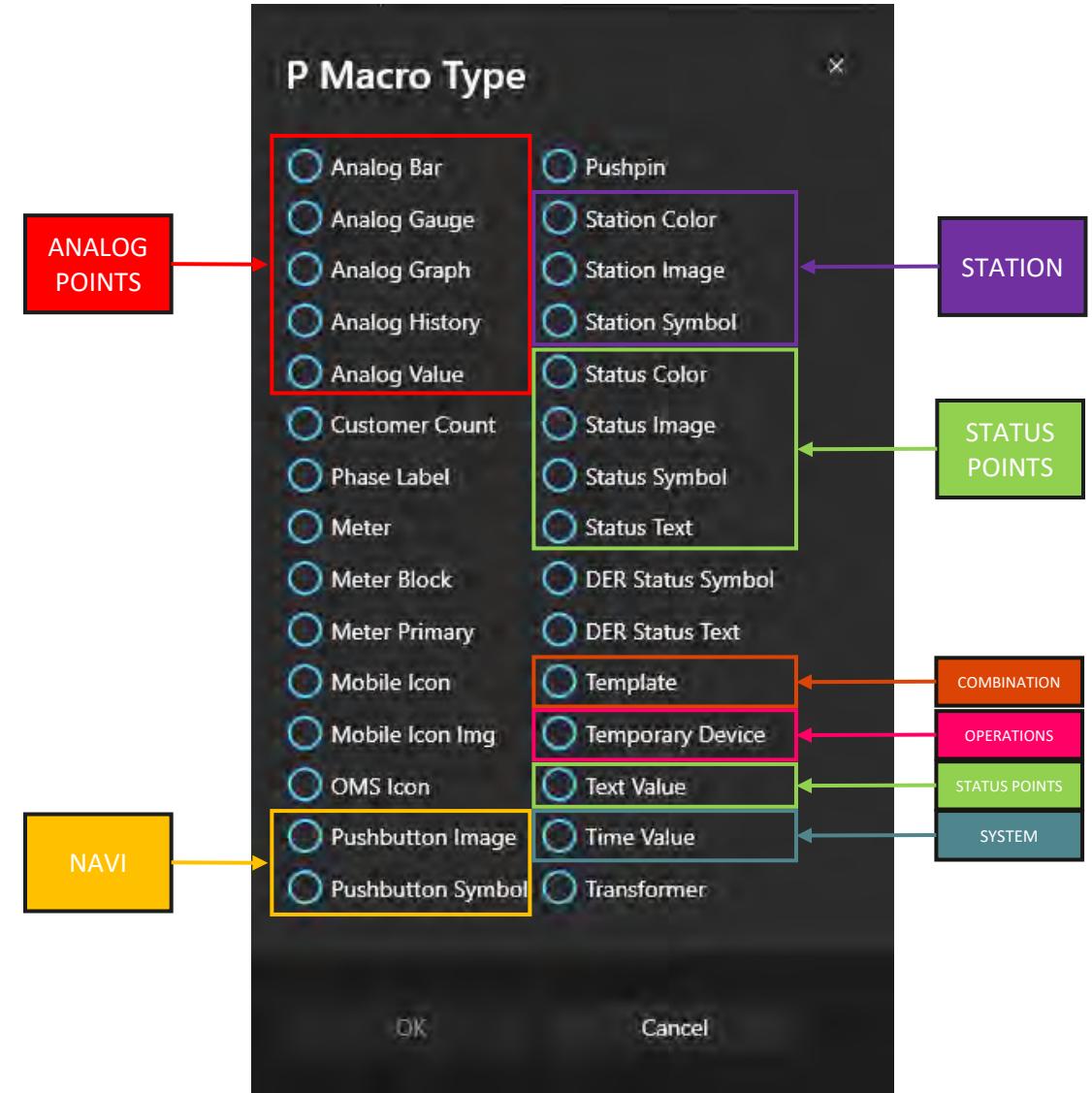
- *Analog*
- *Status*
- *Text*
- *OMS*
- *Navigation*
- *Operations*
- *System*



SmartVU Library

Pmacro – What we don't cover

- Since most of the OMS Pmacro can be created using the same steps as what we are covering today.
- DER Status Symbol and Text are the same as the regular ones.



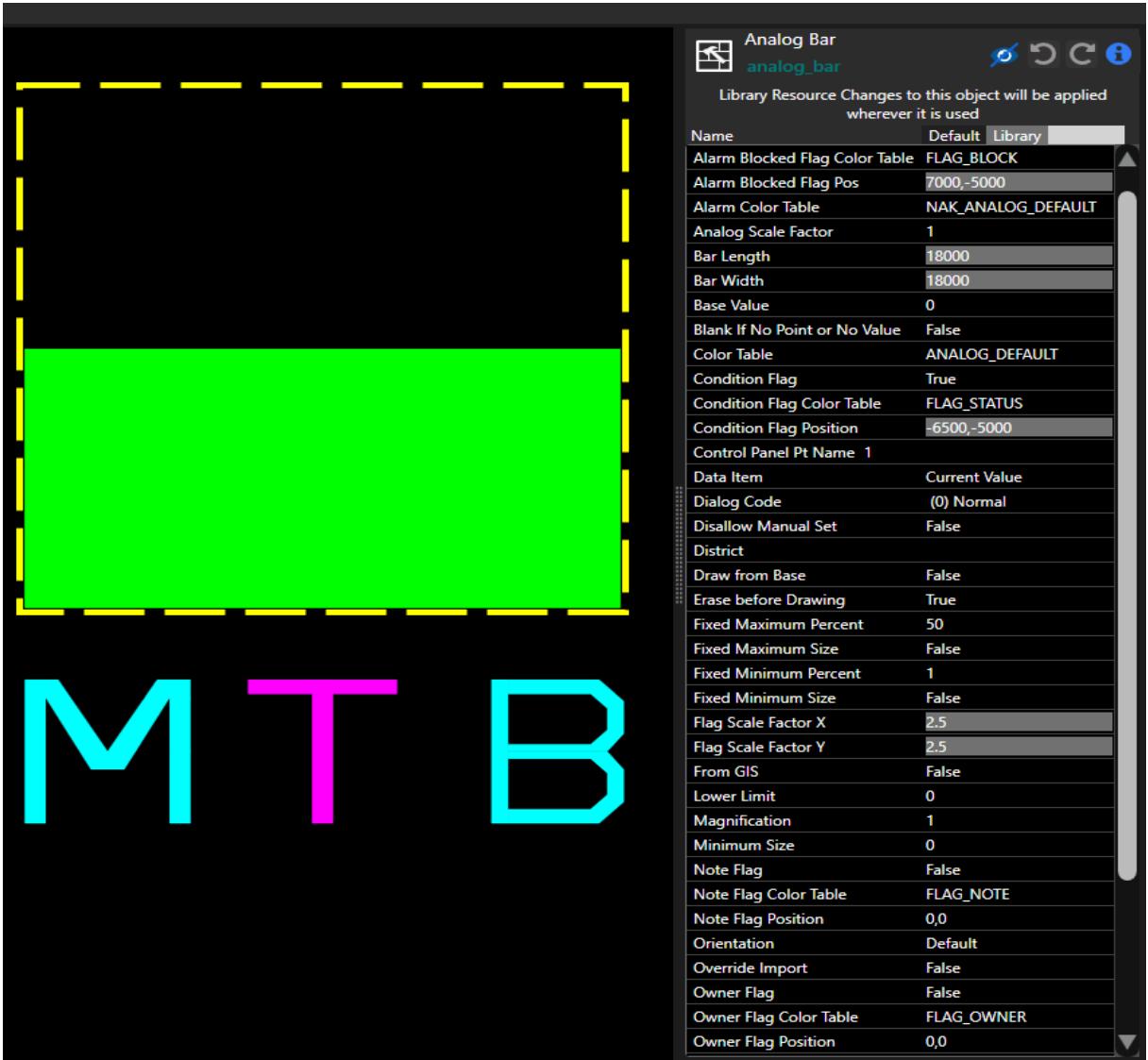


SmartVU | Analog Bar Pmacro

SmartVU Library

Pmacro – Types | Analog Bar

- PMacros display analog point values in the form of real time bar graphs.
- Each Analog Bar - PMacro displays one bar.
- The length of each bar updates to reflect the value of the associated point.
- The color of the bar can be made to reflect the limit state of the analog point (i.e. what alarm limits are violated, if any, by the point's current value).
- Can be set Vertical or Horizontal



Exercise

Exercise

Creating an Analog Bar Pmacro

STEP 1:

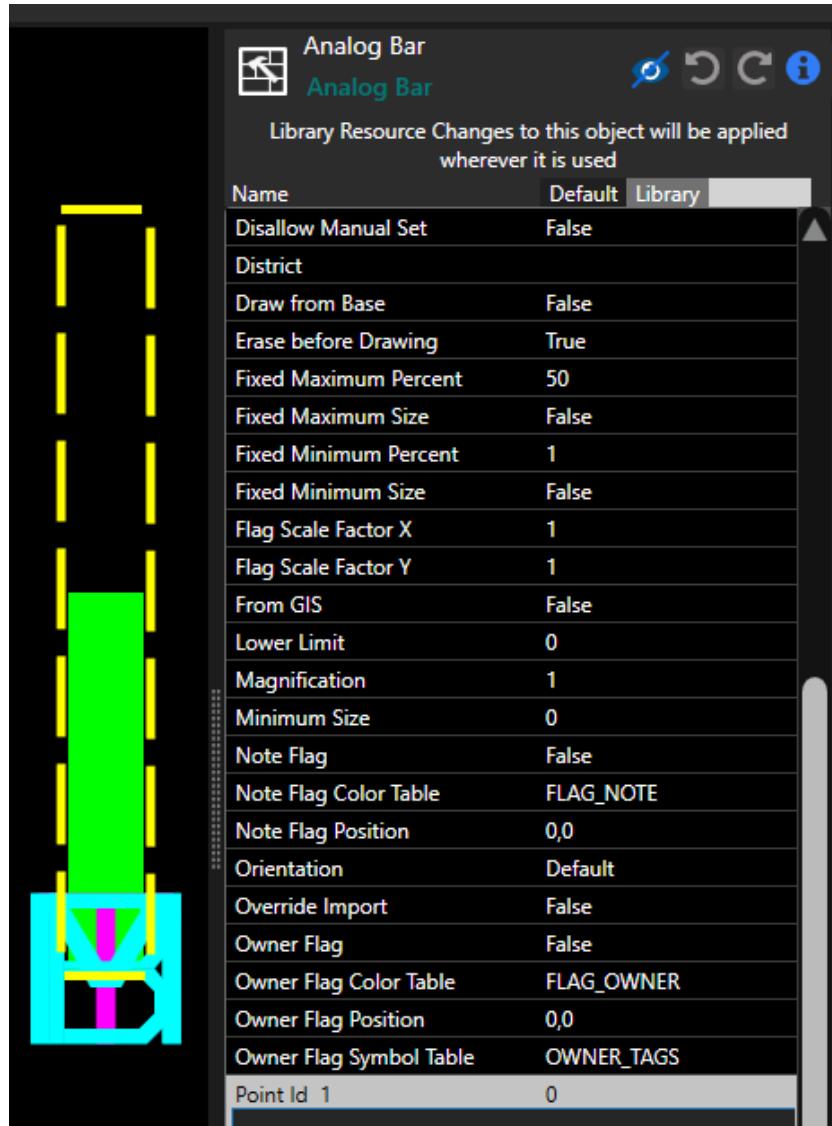
- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

STEP 2:

- Go to Library -> Pmacro -> New -> Analog Bar
- Name your Pmacro (i.e. Analog Bar Graph)
- Set the bar length and width based on your scaled size.
- Set the Lower and Upper Limit of your Graph.
- Save

TIPS:

- Set the “Erase before Drawing” = True, to set the Pmacro’s background to transparent.
- Set the “Draw from Base” = True, to invert the bar graph – You may need to swap the upper and lower limit.

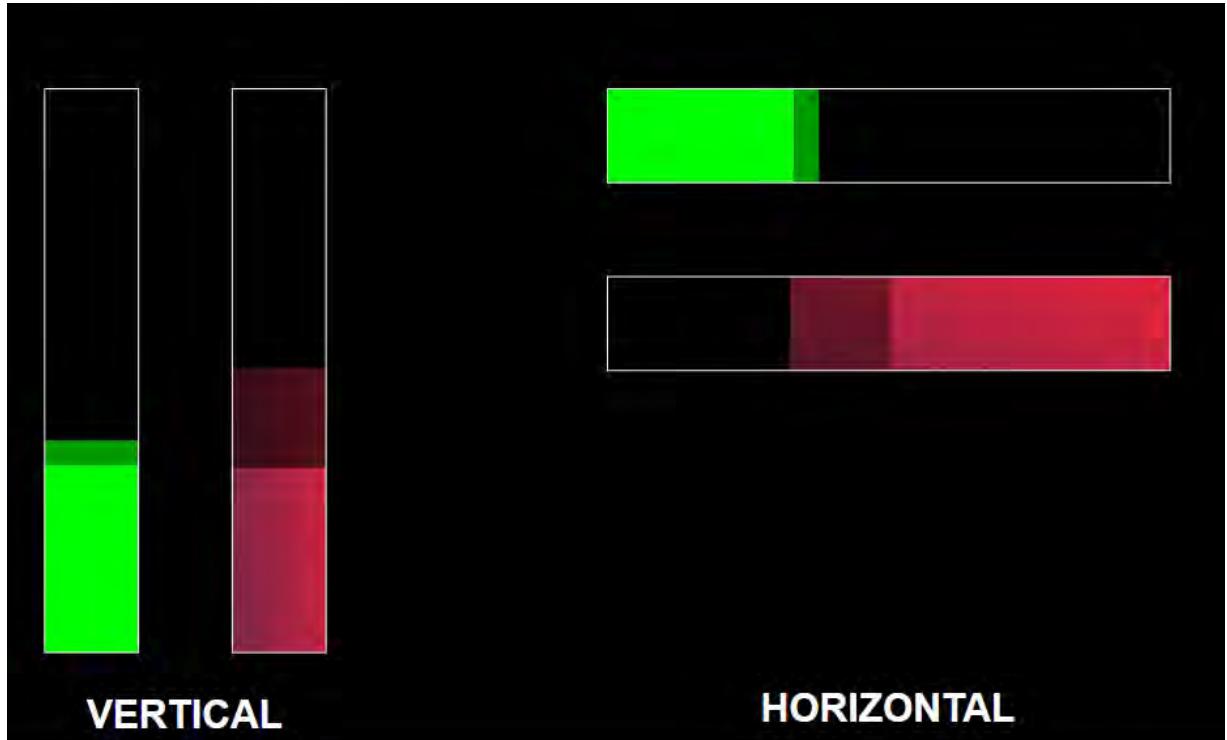


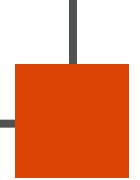
Exercise

Tips and Tricks

Modernize your Bar Graph

- Use the same graph you created.
- Set the “Erase before Drawing” = True, to set the Pmacro’s background to transparent.
- Set the Color Table = “UC25_SVTraining – Graph Dark Shade”
- Set the “Draw from Base” = True, to invert the bar graph.
- Insert the image “UC25_SVTraining – Red Bar Graph (Vertical)”
- Match the sizes of the Bar Graph Pmacro and your Bar Graph Image
- Assign “UC_SV-MYSUB_BGRAPHS,UC_SV-MYSUB_BGRAPH_ANALOG02” to the pmacro
- Try other images:
 - UC25_SVTraining - Bar Graph (Gradient Blue).png
 - UC25_SVTraining - Bar Graph (Light Bruise_.png
 - UC25_SVTraining - Bar Graph (Sun Burst).png
 - UC25_SVTraining - Bar Graph (Purple).png





SmartVU | Analog Gauge Pmacro

SmartVU Library

Pmacro – Types | Analog Gauge

- PMacros display analog point values in the form of a gauge or meter.
- Each Gauge PMacro displays one analog value.
- Options to change to different gauge types (Dial, Meter, Quarter, Horizontal, Vertical, Indicator, Lead and Lag).



SmartVU Library

Pmacro – Types | Analog Gauge

- *Gauge limits (6min/6max)*
- *Gauge Limit colors.*
- *Major and minor divisions.*



Exercise

Exercise

Creating an Analog Gauge Pmacro

STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

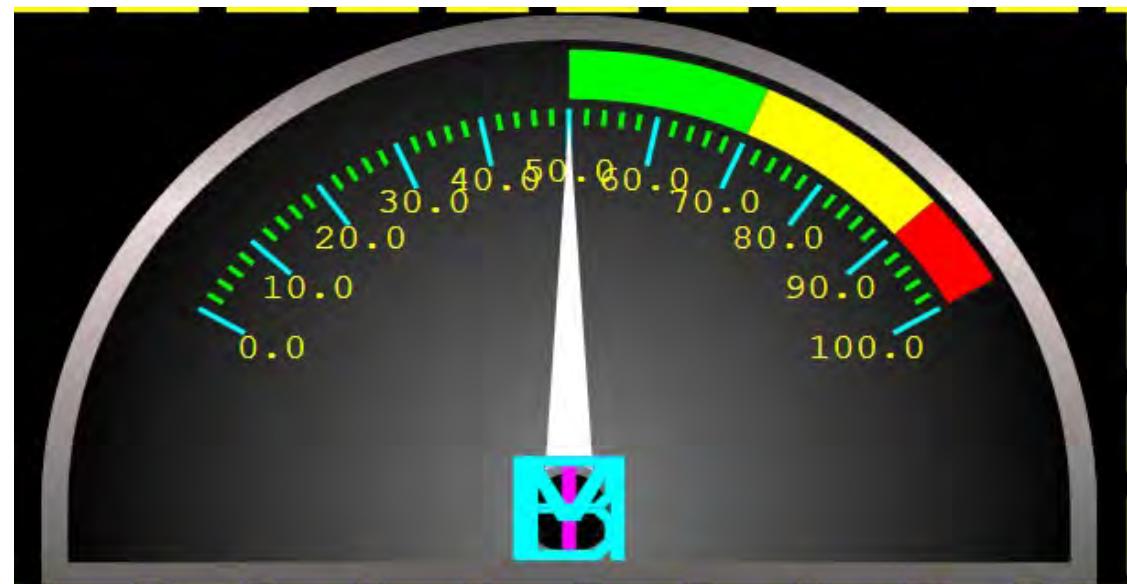
STEP 2:

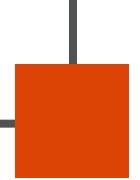
- Go to Library -> Pmacro -> New -> Analog Gauge
- Name your Pmacro (i.e. Analog Gauge Graph)
- Set the gauge length and width based on your scaled size.
- Set the limits of your Gauge.
- Set your Upper and Lower Limits (0,100)
- Gauge Start Angle = 30
- Major Division = 10
- Minor Division = 5
- Save

OPTIONAL:

- Set Gauge Label

LIMITS	RANGE	COLOR
Gauge Limit 1	• 0-20	• STANDARD_GREEN
Gauge Limit 2	• 20-40	• STANDARD_DARK_GREEN
Gauge Limit 3	• 40-60	• STANDARD_YELLOW
Gauge Limit 4	• 60-80	• STANDARD_ORANGE
Gauge Limit 5	• 80-100	• STANDARD_RED
Gauge Limit 6	• 0	



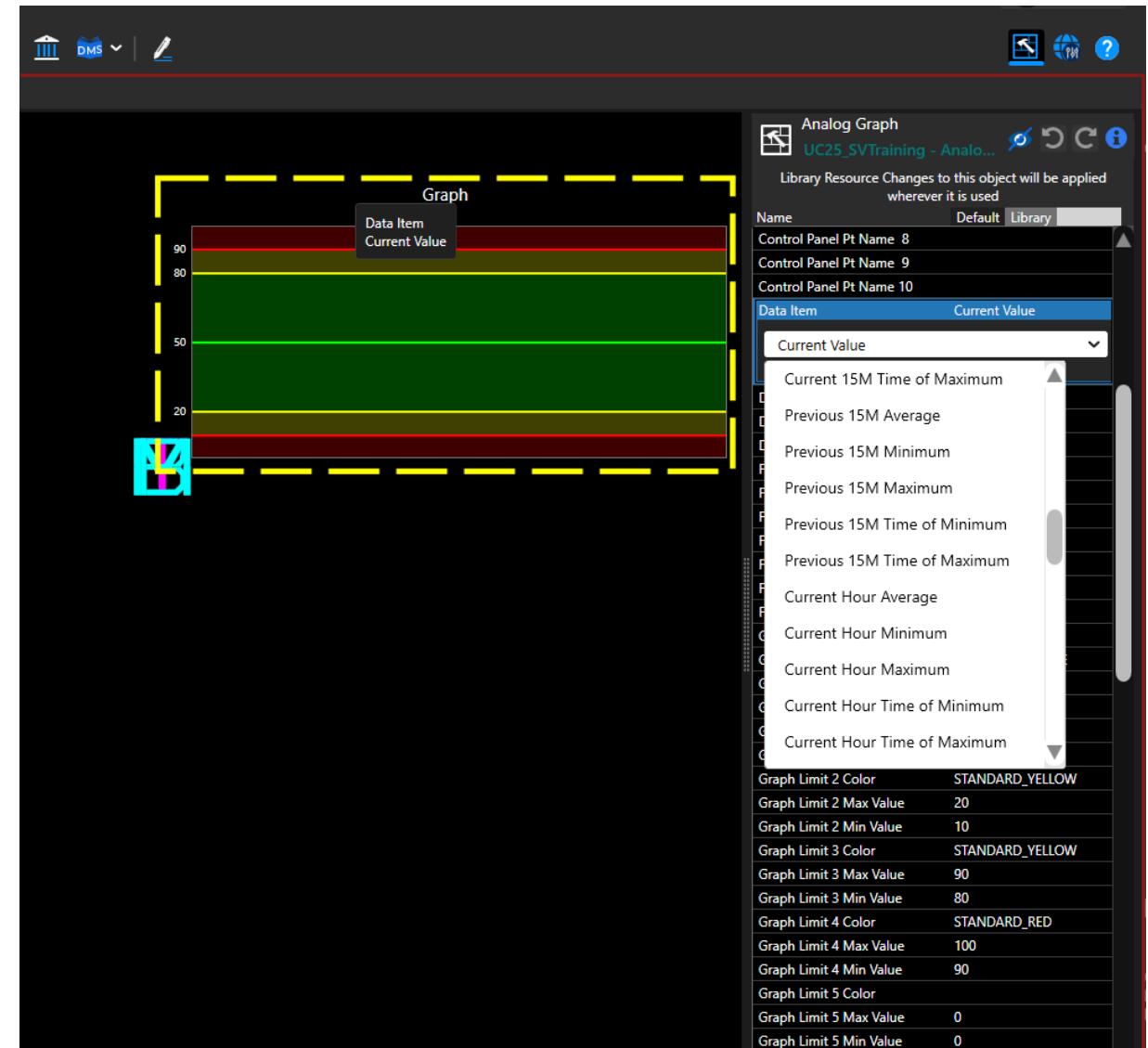


SmartVU | Analog Graph Pmacro

SmartVU Library

Pmacro – Types | Analog Graph

- PMacros display analog point values in the form of a graph.
- Each Graph PMacro displays up to 10 values.
- Options to change data items to current value, Limits, Current and Previous values.



Exercise

Exercise

Creating an Analog Graph Pmacro

STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

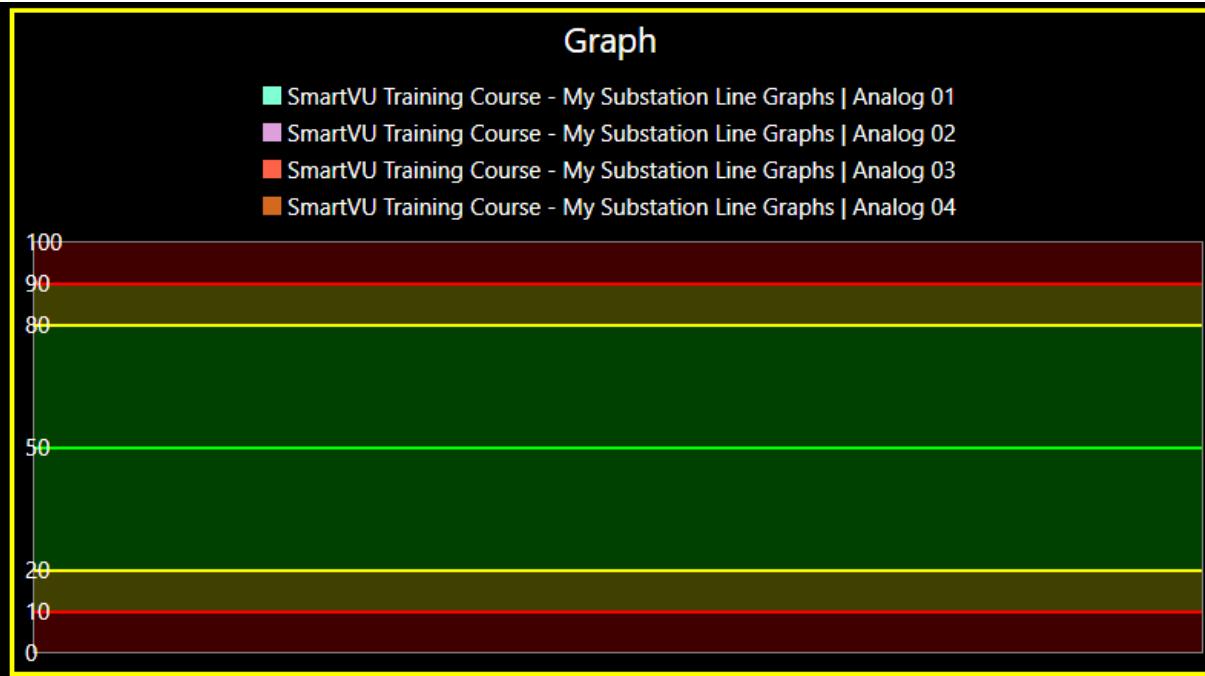
STEP 2:

- Go to Library -> Pmacro -> New -> Analog Graph
- Name your Pmacro (i.e. Analog Graph)
- Set the pmacro length and width based on your scaled size.
- Save

OPTIONAL:

- Set Graph Label
- Adjust to recent = True, Upper limit automatically adjust to include the value.

LIMITS	RANGE	COLOR
Gauge Limit 1	• 0-10	• STANDARD_RED
Gauge Limit 2	• 10-20	• STANDARD_YELLOW
Gauge Limit 3	• 80-90	• STANDARD_YELLOW
Gauge Limit 4	• 90-100	• STANDARD_RED
Gauge Limit 5	• 0	
Gauge Limit 6	• 0	



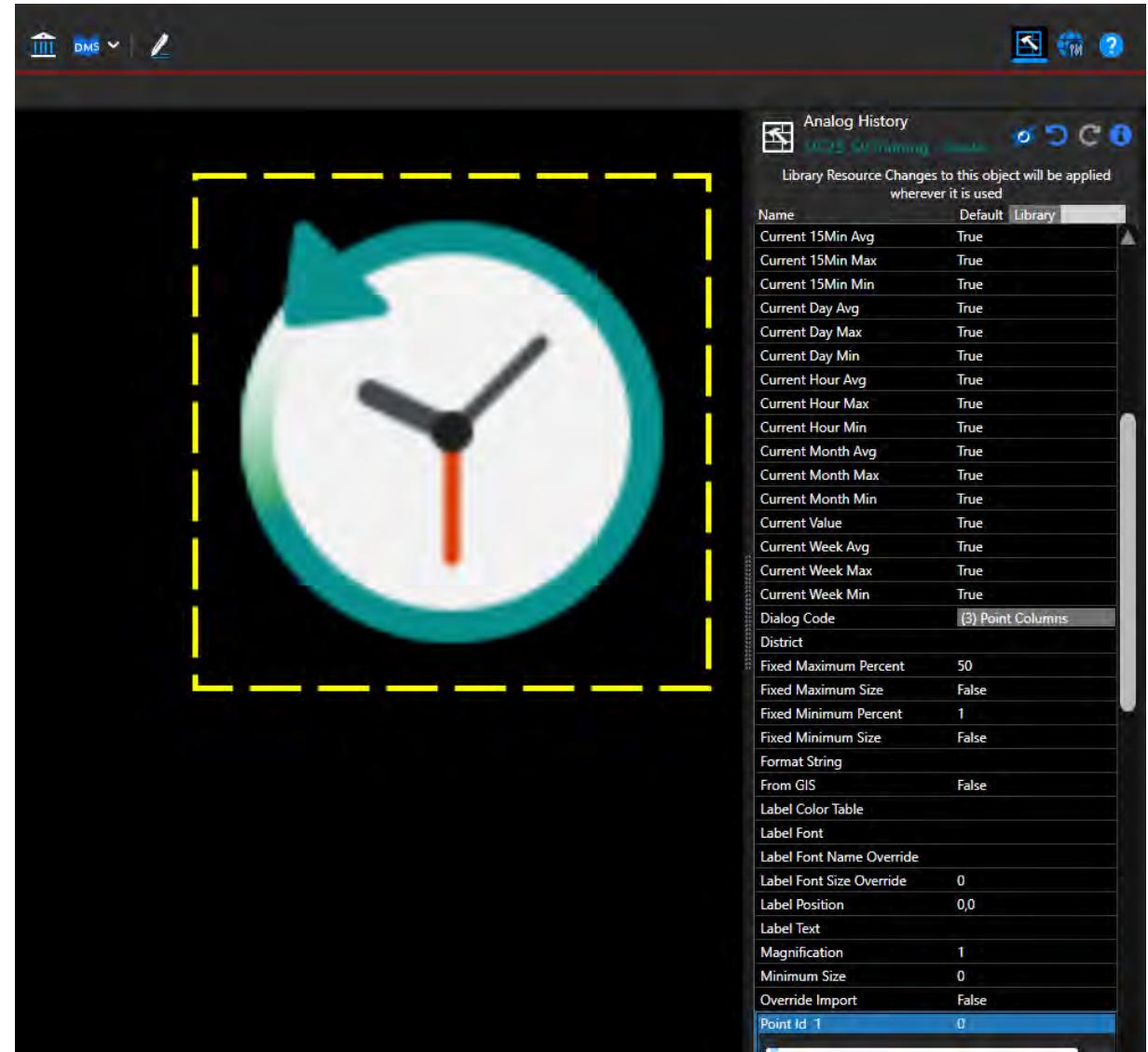


SmartVU | Analog History Pmacro

SmartVU Library

Pmacro – Types | Analog History

- PMacros display historical analog point values in the form of a pop-up list.
- Each Pmacro can displays historical analog values up to 18 points.
- The table may be organized to show one data item per line, or to show multiple points on each line.



Exercise

Exercise

Creating an Analog Graph Pmacro

STEP 1:

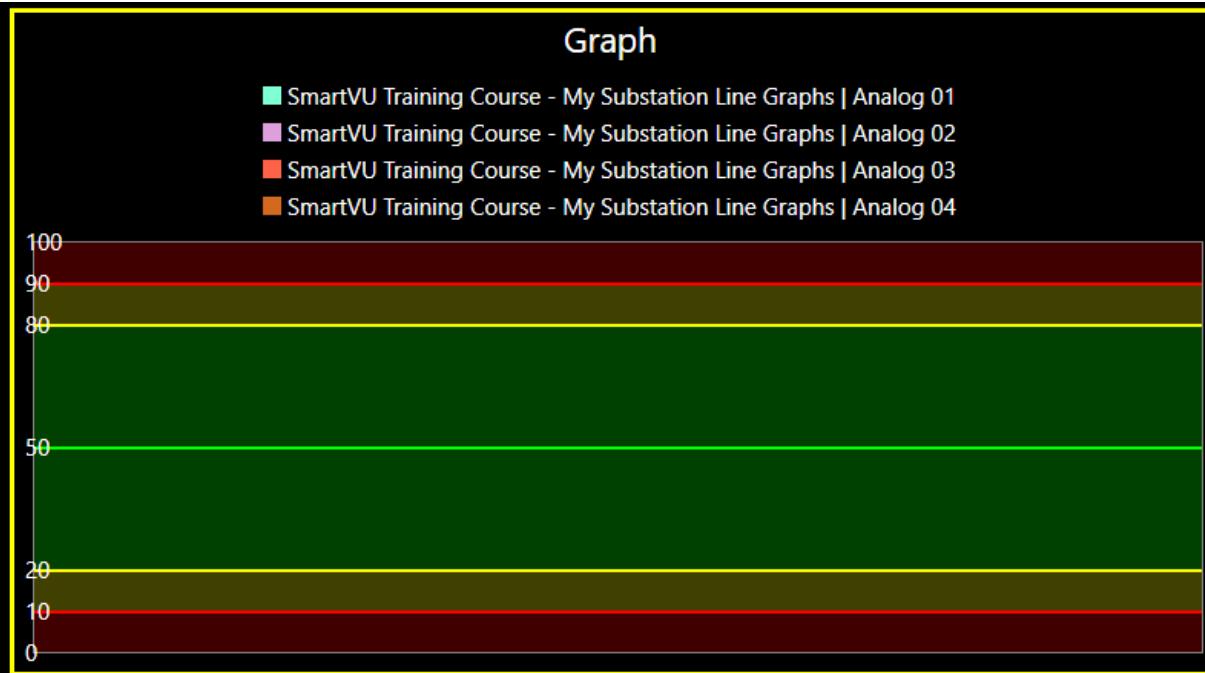
- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

STEP 2:

- Go to Library -> Pmacro -> New -> Analog History
- Name your Pmacro (i.e. Analog History)
- Set the pmacro length and width based on your scaled size*.
- Set the samples you want to display.
- Set the Dial Code (Point Row or Point Column)
- Set the points
- Save

* Depends on the Symbol you use (Icon or Pushbutton)

LIMITS	RANGE	COLOR
Gauge Limit 1	• 0-10	• STANDARD_RED
Gauge Limit 2	• 10-20	• STANDARD_YELLOW
Gauge Limit 3	• 80-90	• STANDARD_YELLOW
Gauge Limit 4	• 90-100	• STANDARD_RED
Gauge Limit 5	• 0	
Gauge Limit 6	• 0	



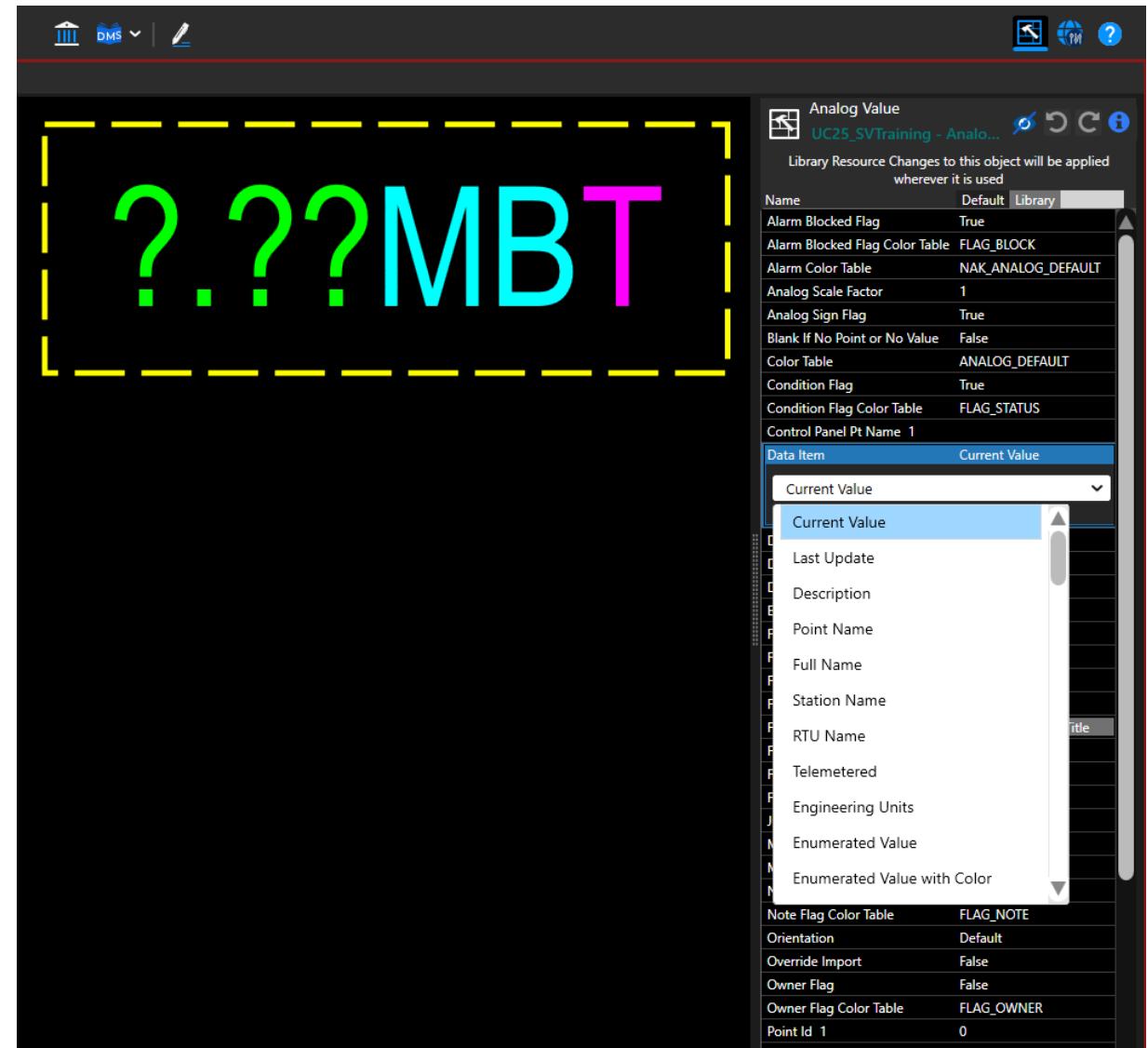


SmartVU | Analog Value Pmacro

SmartVU | Analog Value Pmacro

Pmacro – Types | Analog Value

- PMacros display analog point in the form of a numerical value.
- Each Pmacro can displays real-time analog values changes and different data items.
- Colors tables can be set to reflect the point's limit states and unacknowledged alarms.



SmartVU | Analog Value Pmacro

Pmacro – Types | Analog Value

- **Dial Codes** – Selection of control dialog displayed by the pmacro.
- **Data Items** – Selection of data items displayed by the Pmacro.

DIAL CODE	DIAL CODE NAME	DESCRIPTION
-2	Disabled (No update)	Completely disable the analog point. No update will be displayed
-1	Disabled (No Dialog)	Disables the Analog Point dialog box. Prevent anyone from accessing the point dialog box.
0	Normal	Normal dialog box (default)
1	Menu	Allows the user to choose from a list of options on a menu file. Typically used for setpoints.
2	Set Manual	Directly launch the Set manual value dialog box. Suitable for manual setpoints or manually set values.
3	Limit Dialog	Directly launch the Limit dialog box. Suitable for values that frequently requires limit changes.

SmartVU | Analog Value Pmacro

Pmacro – Types | Analog Value

- **Dial Codes** – Selection of control dialog displayed by the pmacro.
- **Data Items** – Selection of data items displayed by the Pmacro.

DATA ITEM	DESCRIPTION
Current Value	The current analog value of the point (this is the default)
Last Update	Displays the last updated value from your analog point.
Description	Displays the point description of your analog point.
Point Name	Displays the name of the analog point.
Full Name	Displays the full name of the point (Station Name, Point Name)
Station Name	Displays the Station Name where the point belong.
RTU Name	Displays the RTU name where the point belong.
Telemetered	Displays a string to indicate if the point is telemetered.
Engineering Units	Displays the engineering units of the point.
Engineering Value	Engineering units in String format.
Enumerated Values/ Enumerated Values with Colors	Displays the value based on the enumerated value table.
Limit Values	Displays the limit value of the point.
History Values	Displays the value based on the selected period. (Current or Previous 15M, Hour, Day, Week, Month)

SmartVU | Analog Value Pmacro

Exercise

Creating an Analog Value Pmacro

STEP 1:

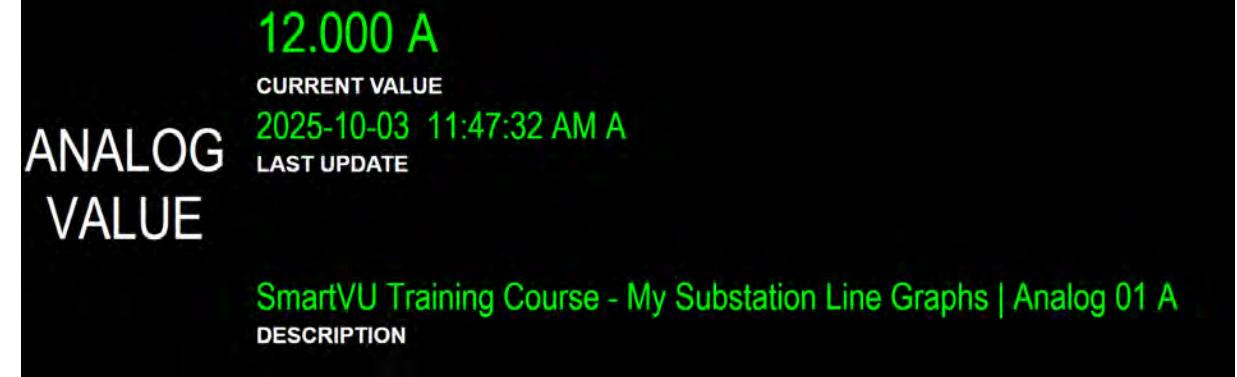
- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

STEP 2:

- Go to Library -> Pmacro -> New -> Analog Value
- Name your Pmacro (i.e. Analog Value)
- Set the pmacro length and width based on your scaled size.
- Set the Dial Code to (0)Normal
- Set the Data Item to Current Value
- Set the font to “Analog point Text”
- Set the font color to “Color Table”
- Save

Optional:

- Set the points





SmartVU | Status Points Pmacro

SmartVU | Status Points Pmacro

TYPE	DESCRIPTION
Status Color	<ul style="list-style-type: none">• Use a single symbol in combination with a {dynamic} colors (Color Tables).• Color Table = Normalized State• Alarm Color Table = Unacknowledged State
Status Image	<ul style="list-style-type: none">• Use an image to display the state of the point.• Alarm image 00-03 for alarm states.• Image 00-03 for Normalize states.
Status Symbol	<ul style="list-style-type: none">• Use different symbols (or in combination with Images) for each specific point state.• Symbols 00-03 = Normalized State• Alarm Symbols 00-03 = Unacknowledged State
Status Text	<ul style="list-style-type: none">• Displays the state string of the status point.• Text based

SmartVU | Status Points Pmacro

Pmacro – Types | Status Points

- **Dial Codes** – Selection of control dialog displayed by the pmacro.



DIAL CODE	DIAL CODE NAME	DESCRIPTION
0	Normal	Normal operation (SBO) with dialog box
1	Tap Changer	Dialog box with Tap control (Raise/Lower)
2	No Execute	Dialog box with Execute button disabled
3	Direct Control Only	Dialog box with controls only, Execute button disabled.
4	Set Manual Only	Dialog box with manual states (based on point state)
5	Set Manual and Tag	Dialog box with Manual and Tag option only.
6	Multi-point	Dialog box with multiple points control.
7	Direct Open on Press, Close on Release	Momentary/Non-latching control
8	Direct Close on Press, Open on Release	Momentary/Non-latching control
9	Control Only	Dialog box with controls only, Execute button enabled.
10	Control Panel	Launch IED control panel/ Faceplates
11	Tag Dialog	Direct launch the tag dialog box.
12	Direct Open	Dialog box with direct Open control only
13	Direct Close	Dialog box with direct Close control only
14	Open, No Dialog Box	Direct open control only
15	Close, No Dialog Box	Direct close control only
16	Toggle State, No Dialog Box	Direct Toggle the state of the point
17	Perform indirect Action	
18	Alarm Acknowledge	Acknowledge Alarm on the point
19	Non-Ganged Switch	Used for non-ganged switches

SmartVU | Status Points Pmacro

Exercise

Create Status Symbol

STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

STEP 2:

- Go to Library -> Pmacro -> New -> Status Point Symbol
- Name your Pmacro (i.e. Breaker Status)
- Set the pmacro length and width based on your scaled size.
- Set the Dial Code to (0)Normal
- Set the Symbols and Alarm Symbols (based on the table)
- Save

Optional:

- Set the points
- Set the label of your Pmacro

Symbol	Symbol Name
Symbol 00	"bk3-opened-ack"
Symbol 01	"bk3-closed-ack"
Symbol 02	"bk3-travel"
Symbol 03	"bk3-error"
Alarm Symbol 00	"bk3-opened-nack"
Alarm Symbol 01	"bk3-closed-nack"
Alarm Symbol 02	"bk3-travel"
Alarm Symbol 03	"bk3-error"



SmartVU | Status Points Pmacro

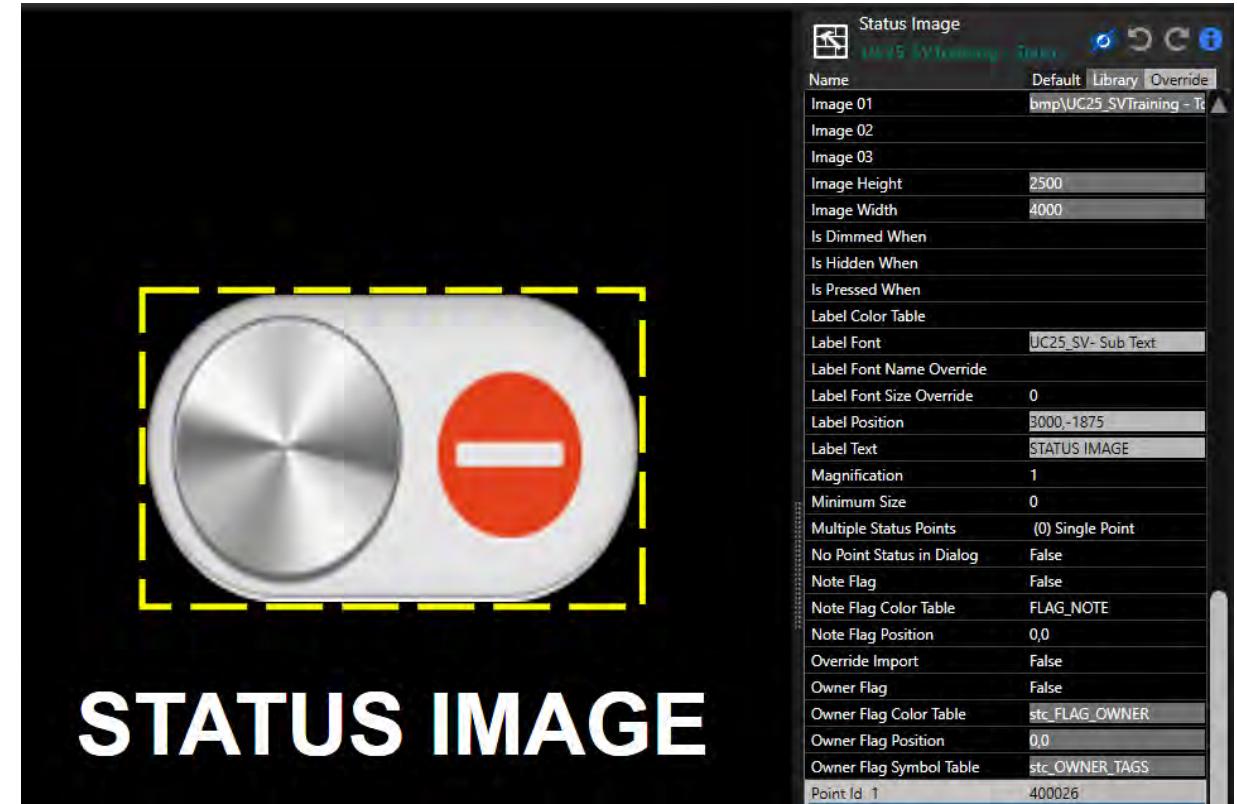
TIPS and TRICKS

SETTING-UP YOUR PMACRO LABELS

- Select your Label Font ("UC25_SV-Sub Text")
- Set Label Text:
 - Your own label
 - Use Point name for Label
 - Use Point description for Label

ALIGNMENT ON YOUR LABELS (CENTERED on the Pmacro)

- Label Position
 - $X = (\text{width} * \text{scale factor } X * \text{magnification})/2$
 - $Y = (\text{height} * \text{scale factor } Y * \text{magnification})/2$
- Example:
 - $X = (4000 * 1.5 * 1)/2 \rightarrow 3000$
 - $Y = (2500 * 1.5 * 1)/2 \rightarrow 1875$ (set to -1875 to move the label under the Pmacro)



SmartVU | Status Points Pmacro

TIPS and TRICKS

Create Status Symbol (with Images)

Use Images on your Symbol

- Download a 90 x 90 pixel image for your statuses.
- Can be used in combination with current SmartVU symbols.

Advantages:

- Modern look
- Easy to create, skip the process of manual drawing.
- Free images from the internet.



SmartVU | Status Points Pmacro

Exercise

Create Status Symbol (Using Images)

STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

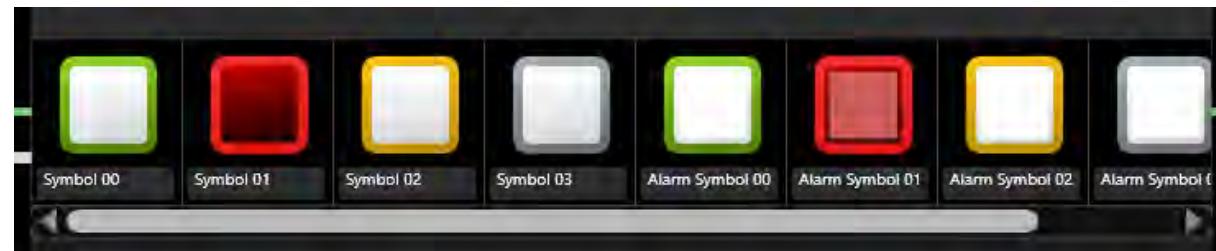
STEP 2:

- Go to Library -> Pmacro -> New -> Status Point Symbol
- Name your Pmacro (i.e. Breaker Status Image)
- Set the pmacro length and width based on your scaled size.
- Set the Dial Code to (0)Normal
- Set the Symbols and Alarm Symbols (based on the table)
- Save

Optional:

- Set the points
- Set the label of your Pmacro

Symbol	Symbol Name
Symbol 00	"UC25_SVTraining – Image Symbol CB Open"
Symbol 01	"UC25_SVTraining – Image Symbol CB Close"
Symbol 02	"UC25_SVTraining – Image Symbol CB Travel"
Symbol 03	"UC25_SVTraining – Image Symbol CB Error"
Alarm Symbol 00	"UC25_SVTraining – Image Symbol CB Open NACK"
Alarm Symbol 01	"UC25_SVTraining – Image Symbol CB Close NACK"
Alarm Symbol 02	"UC25_SVTraining – Image Symbol CB Travel NACK"
Alarm Symbol 03	"UC25_SVTraining – Image Symbol CB Error NACK"



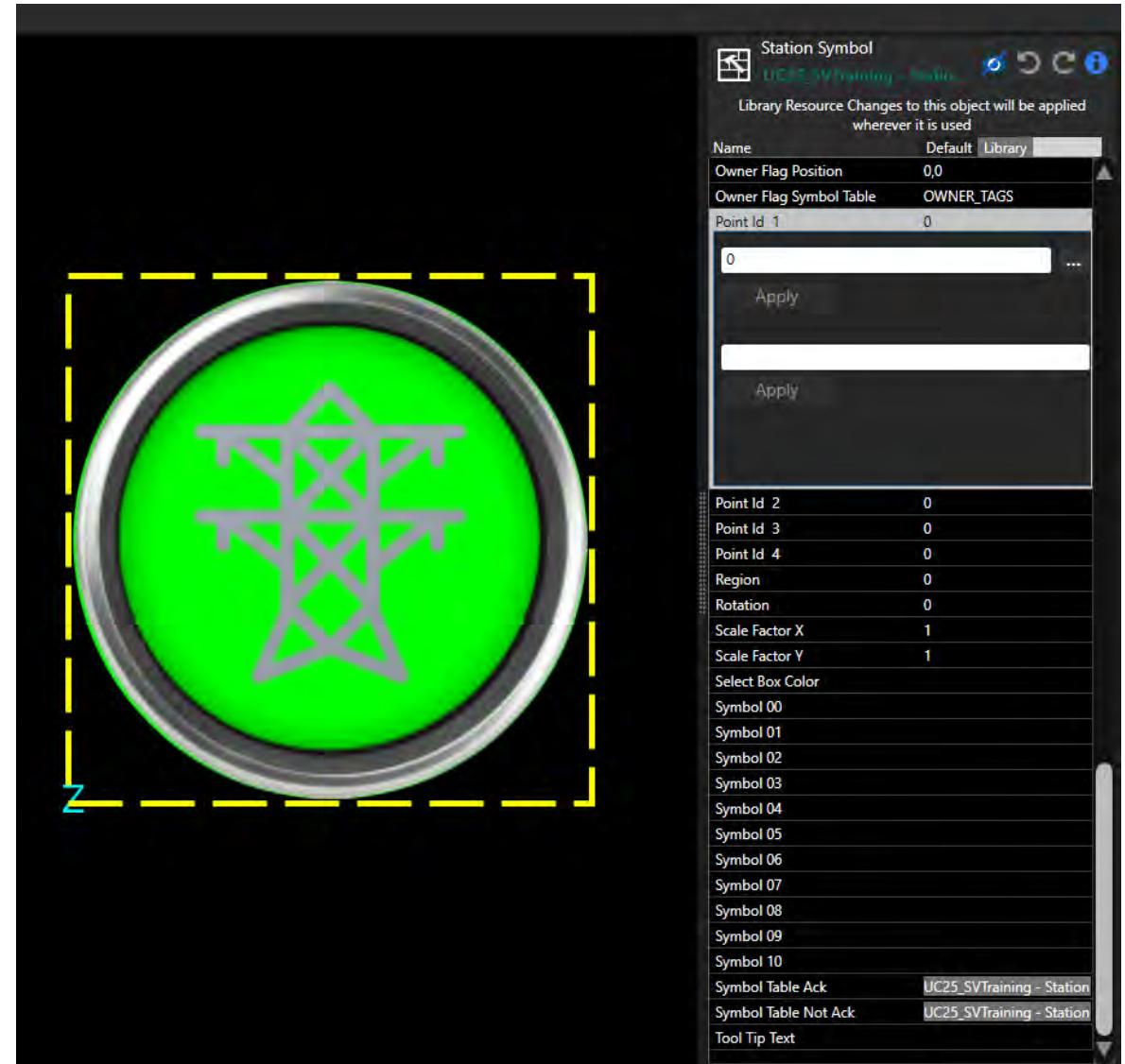


SmartVU | Station Pmacro

SmartVU | Station Pmacro

Station Pmacro

- General representation of your Station.
- Can display a Parent Level alarm (Point Id) if there are any alarms from the child stations.
- Can be used as a point or navigation to your substation (Data Name) or to launch a control panel (Control Panel File).
- Can use individual station symbol or the Symbol tables



SmartVU | Station Pmacro

Type	Description
Station Color	<ul style="list-style-type: none">• Use a station symbol in combination with a {dynamic} colors (Color Tables).• Color Table = Normalized State• Alarm Color Table = Unacknowledged State
Station Image	<ul style="list-style-type: none">• Use an image to display the state of the Station.• Alarm image 00-03 for alarm states.• Image 00-03 for Normalize states.
Station Symbol	<ul style="list-style-type: none">• Use different symbols (or in combination with Images) for each specific Station Statuses.• Symbols 00-03 = Normalized State• Alarm Symbols 00-03 = Unacknowledged State

SmartVU | Station Pmacro

Exercise

Create a Station Symbol

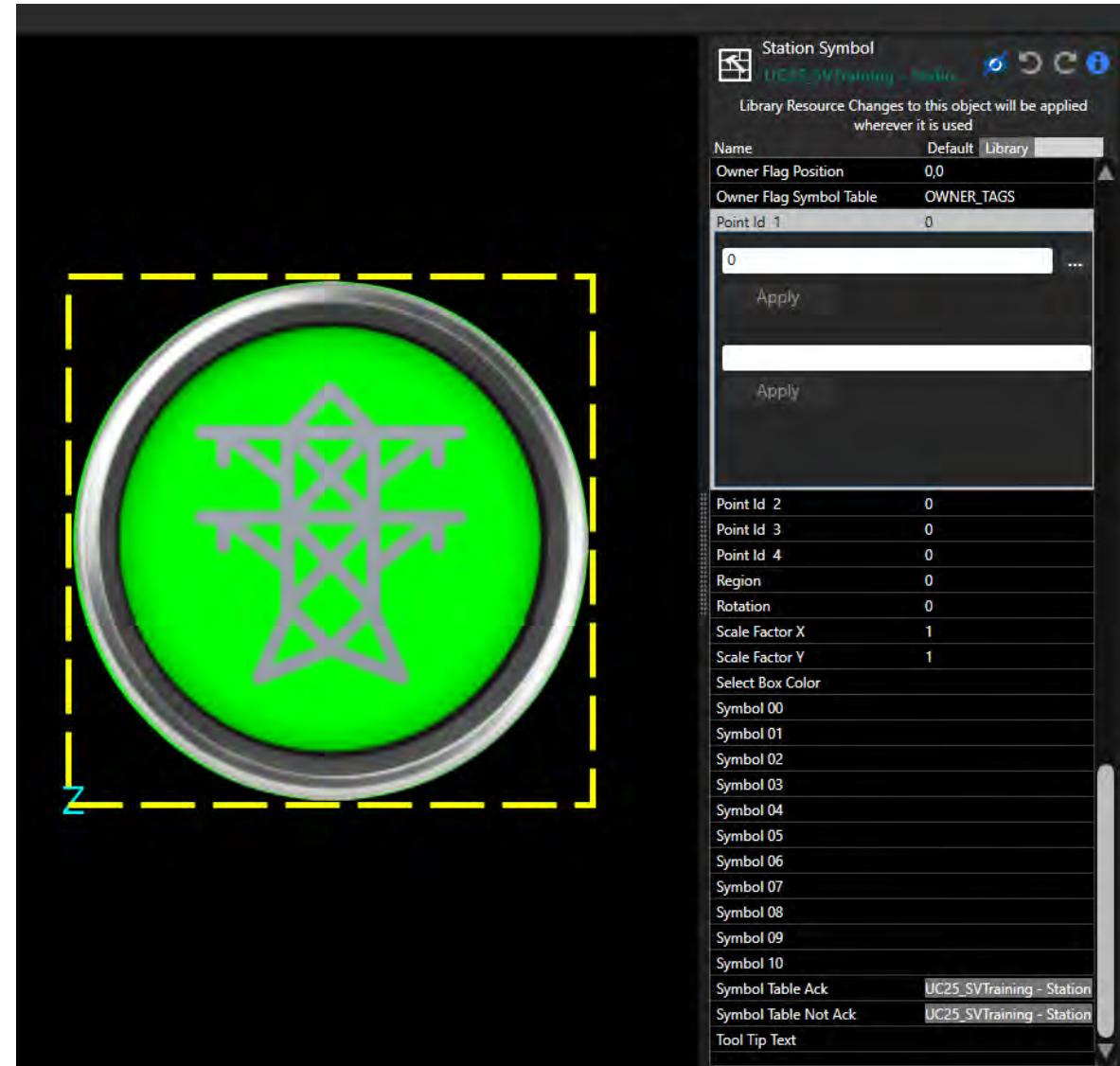
STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

STEP 2:

- Go to Library -> Pmacro -> New -> Station Symbol
- Name your Pmacro (i.e. Substation)
- Set the pmacro length and width based on your scaled size.
- Set the Dial Code to (0)Normal
- Set the Symbol Table Ack and Symbol Table not Ack = "UC25_SVTraining - Station Symbol Pmacro" OR Set the Symbols and Alarm Symbols to your preferred Station Symbol.
- Save

NOTE: We will modify it later for Station Navigation & set the station ID.

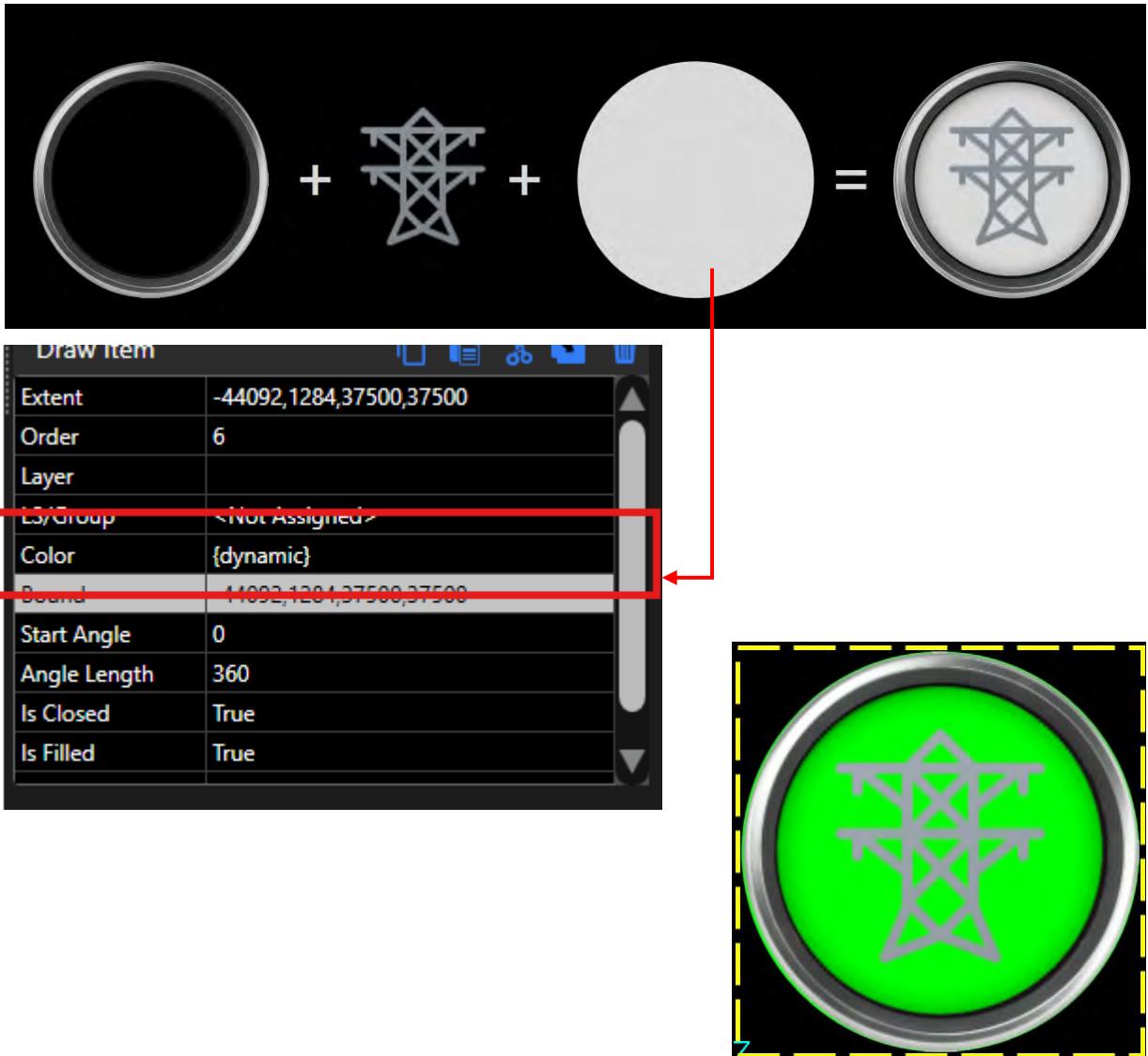


SmartVU | Station Pmacro

TIPS and TRICKS

Creating a Station Symbol (using images)

- *Scale your images based on your size template.*
- *Use a 90 x 90 pixels images that will represent your station.*
- *1st image is for the Station border to emphasize your Station from an overview page or even viewing the screen from a distance.*
- *2nd Image is for the main station symbol.*
- *3rd Use a {Dynamic} color on your background shape to show different states from the Station.*



SmartVU | Station Pmacro

TIPS and TRICKS

Use Station Pmacro to launch your Control Panel

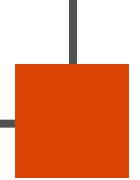
- Set your Image 00-10 and Alarm Image 00-10 with the device face plate.
- Set the Dial Code to (1) Control Panel
- Link the Control Panel File (look for the main file)
- Set the Point ID to your device Station Name
- Set the Control Panel Pt Name 1 = Device Name

From GIS	Name
Image 00	stl_stc_cooper_form6c.jpg
Image 01	stl_stc_cooper_form6c_nak.jpg
Image 02	stl_stc_cooper_form6c_nak.jpg
Image 03	stl_stc_cooper_form6c_nak.jpg
Image 04	stl_stc_cooper_form6c_nak.jpg
Alarm Image 00	stl_stc_cooper_form6c_nak.jpg
Alarm Image 01	stl_stc_cooper_form6c_nak.jpg
Alarm Image 02	stl_stc_cooper_form6c_nak.jpg
Alarm Image 03	stl_stc_cooper_form6c_nak.jpg
Alarm Image 04	stl_stc_cooper_form6c_nak.jpg

Control Panel File	cpl\stc_cooper_f6_recloser_main.cplt
Control Panel Position X	0
Control Panel Position Y	0
Control Panel Pt Name 1	
Control Panel Pt Name 2	
Control Panel Pt Name 3	

Control Panel File	cpl\stc_cooper_f6_recloser_main.cplt	
Select	Open	Blank
Clear		

Control Panel Pt Name 1
Control Panel Pt Name 2
Control Panel Pt Name 3
Control Panel Pt Name 4
Control Panel Pt Prefix

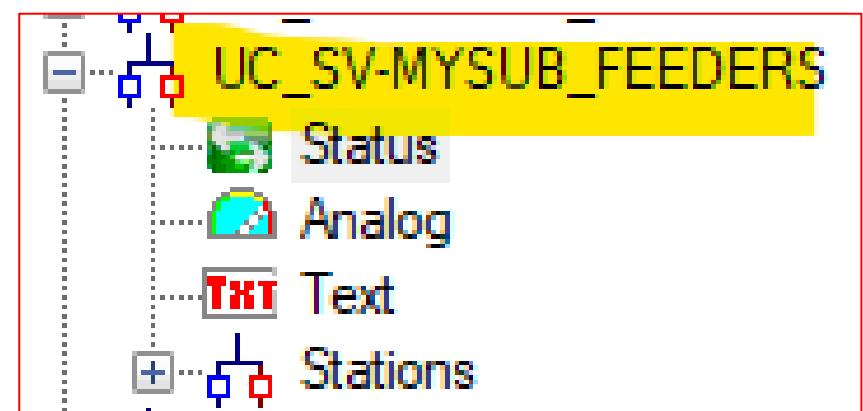
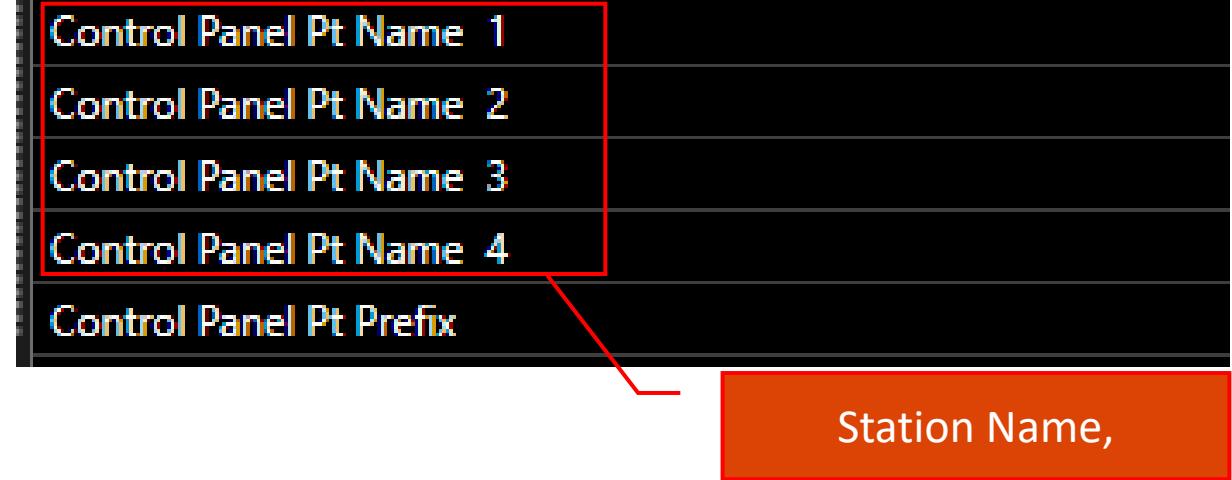


SmartVU | Control Panel Pt Name

SmartVU - Control Panel Pt Name

What is Control Panel Pt Name?

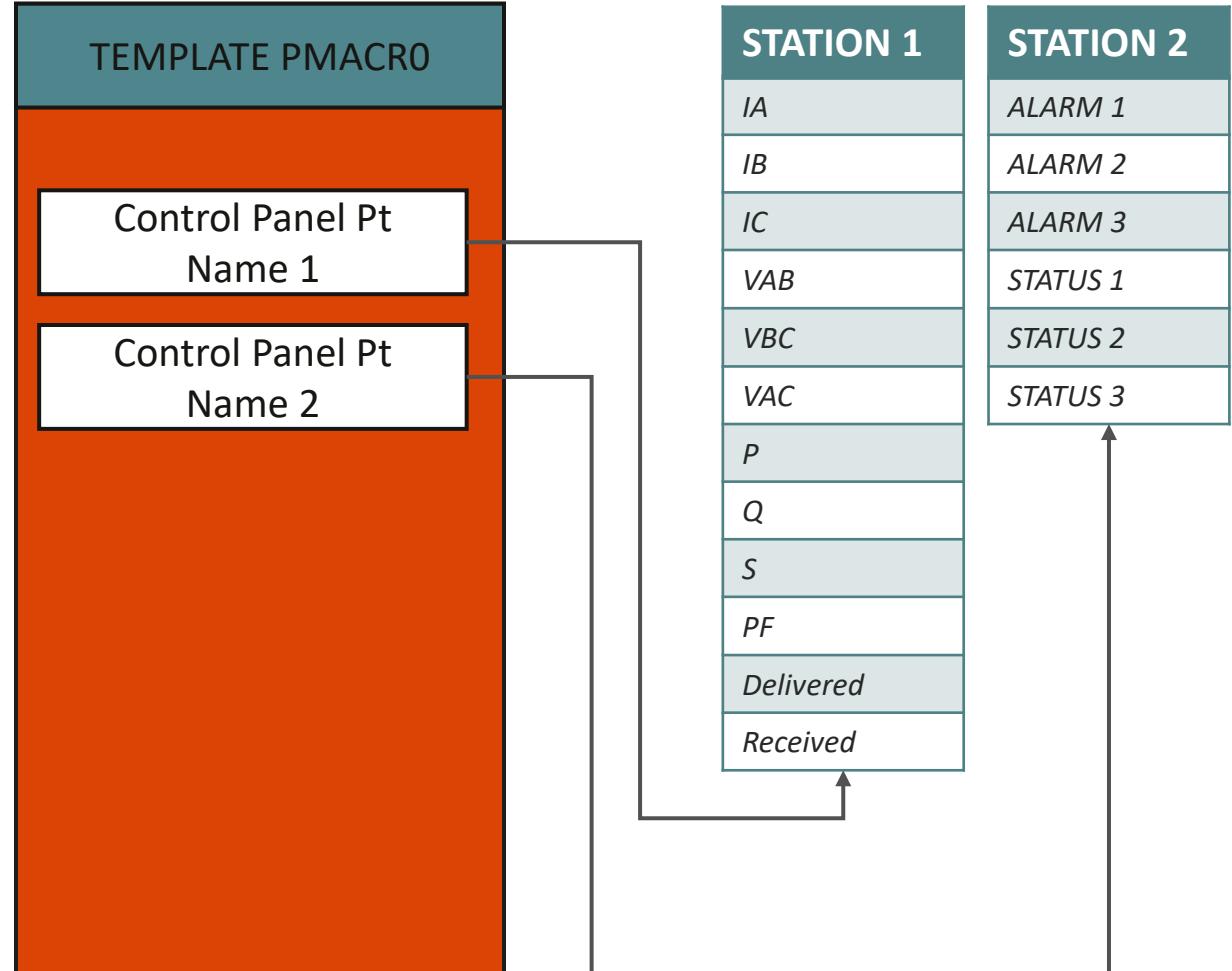
- Generally used by the control panel to automatically identify the station and automatically pull the corresponding points in the control panel.
- Can also be used as a method to deploy your SmartVU elements quickly without manually changing the points associated to your Status, Analog or Template Pmacro
- For template pmacro and control panel use, it allows you to combine up to 4 different station in one template *.



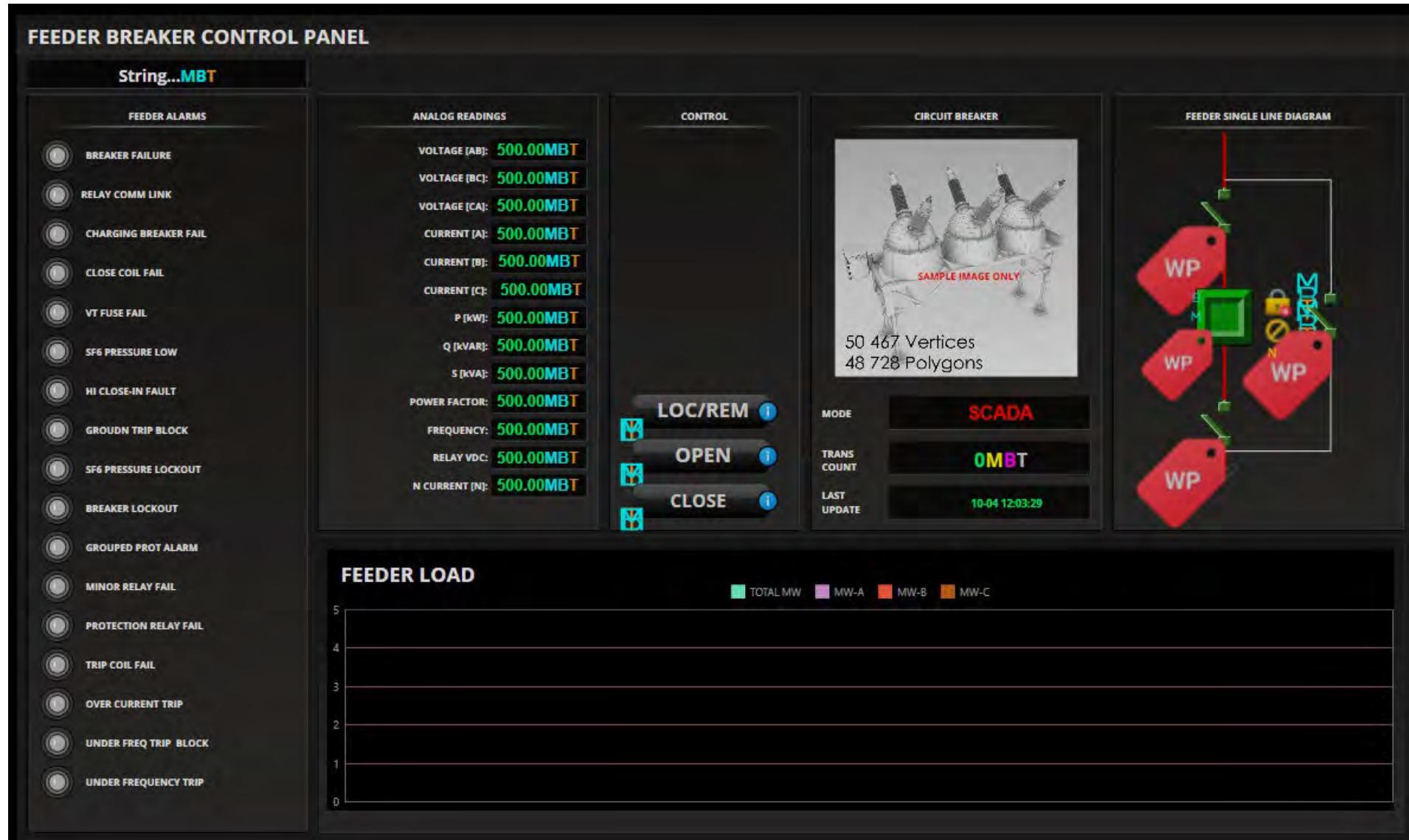
SmartVU - Control Panel Pt Name

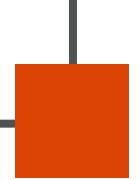
Use Case

- *Combining information from different devices and station.*
- *Provides flexibility on what you can build in your SmartVU screen.*
- *Follows your database structure (organized by):*
 - *Location*
 - *Station*
 - *Grouping*
 - *Device*
- *Fully take advantage of the uniform naming convention when you use the IED/DER Wizard.*



SmartVU - Example





SmartVU | Maps, Submap, Views and Layers

SmartVU | Maps, Submap, Views and Layers

What is Maps and Submaps?

- **Maps** – *Consists of the graphical objects, elements and submaps combined together to form your SmartVU screen.*
- **Submaps** – *Portions or section of the Map that is created to form the map.*
 - *Substations + GIS map*
 - *Schematic diagram composed of different smaller sub-systems.*

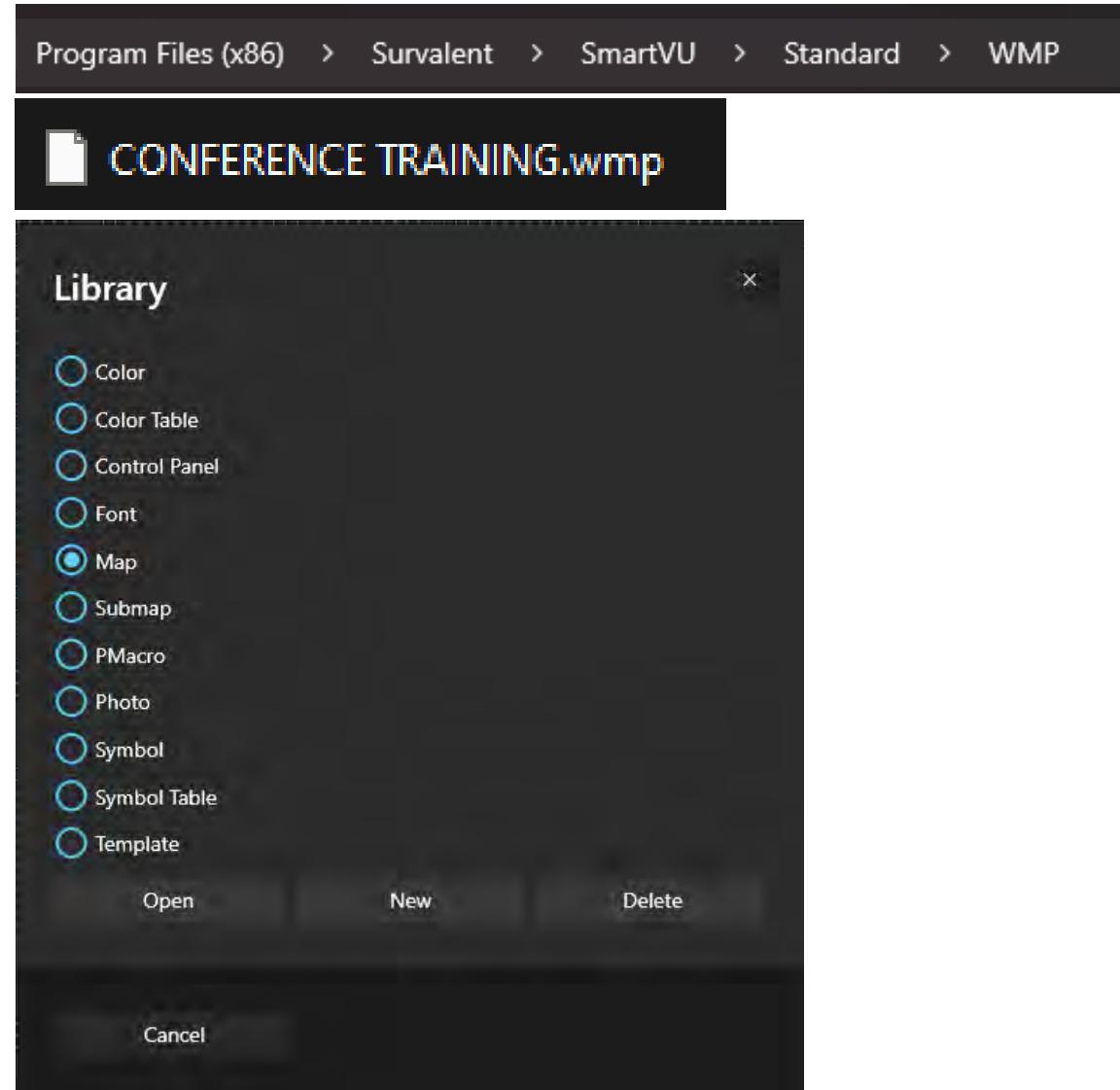
UTILITY XYZ OVERVIEW MAP



SmartVU | Maps, Submap, Views and Layers

What is Maps and Submaps?

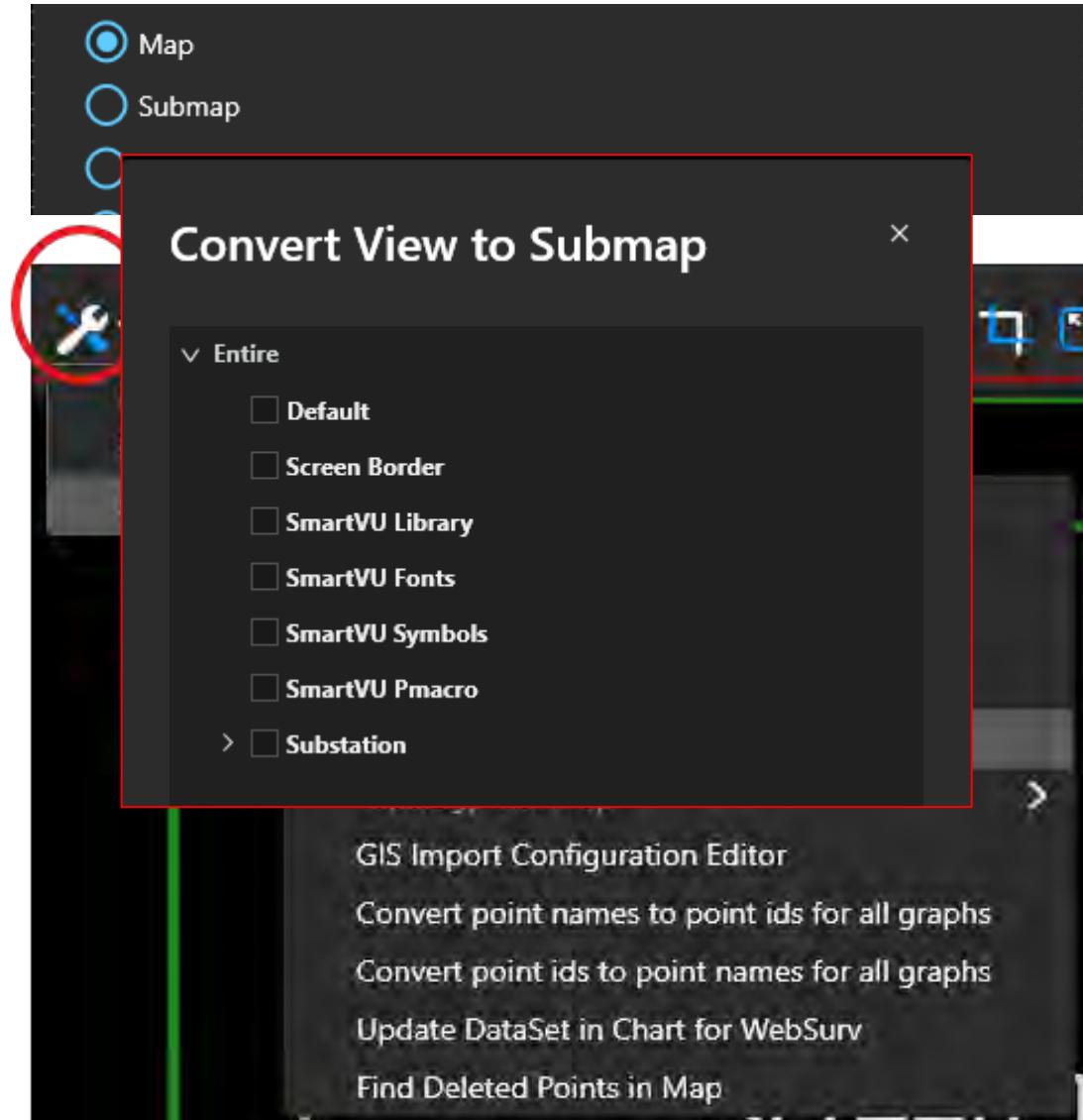
- **Maps**
 - *For new system, this is what you create in the SmartVU library.*
 - *For existing system, this what you open using the “Open Map File”*
 - *Save as .wmp file and stored in your Standard/wmp folder.*



SmartVU | Maps, Submap, Views and Layers

What is Maps and Submaps?

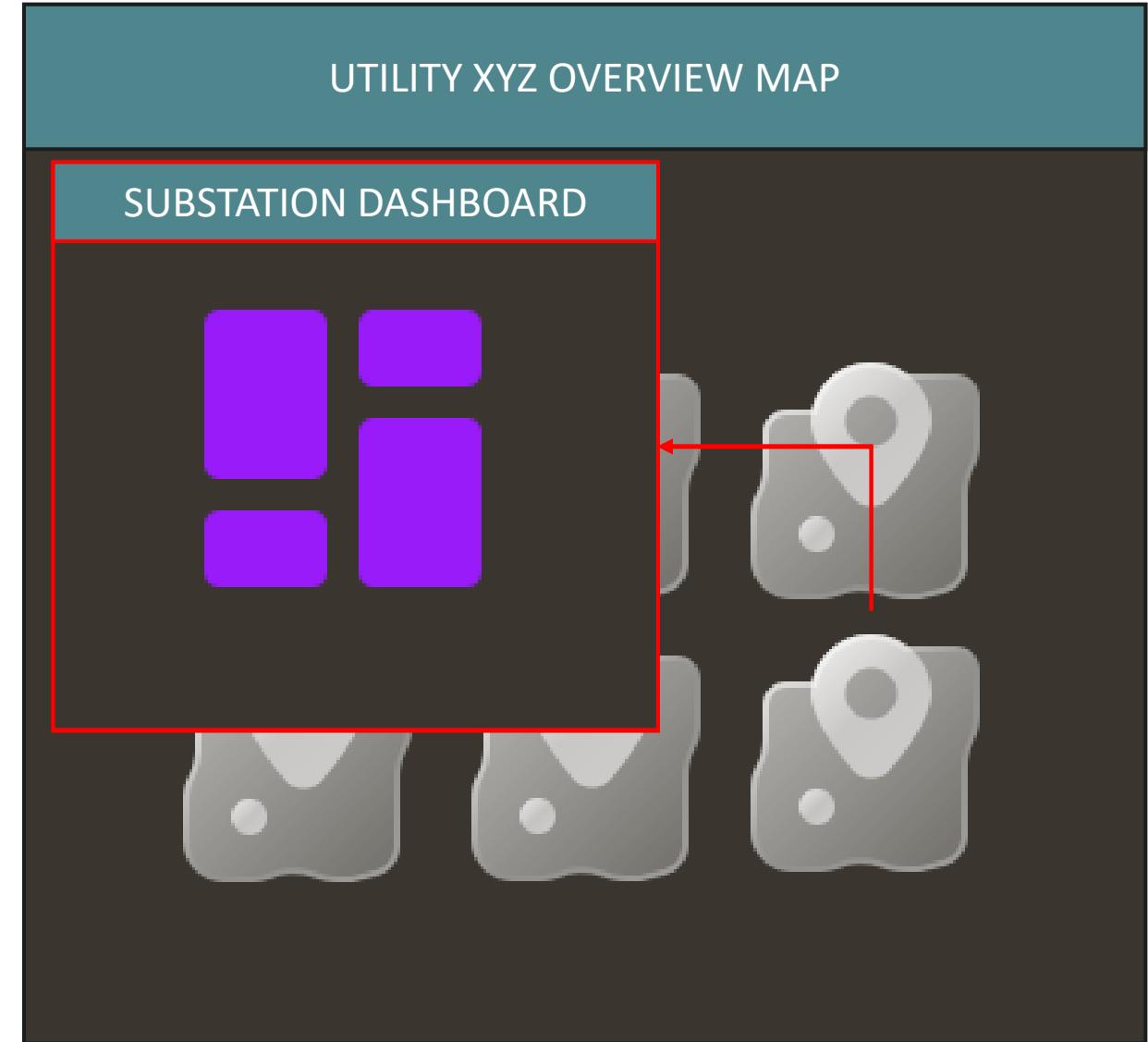
- **Submaps**
 - *Created via the SmartVU Library.*
 - *Existing Maps can be converted into Submap using the SmartVU Utility tool.*



SmartVU | Maps, Submap, Views and Layers

What is Views?

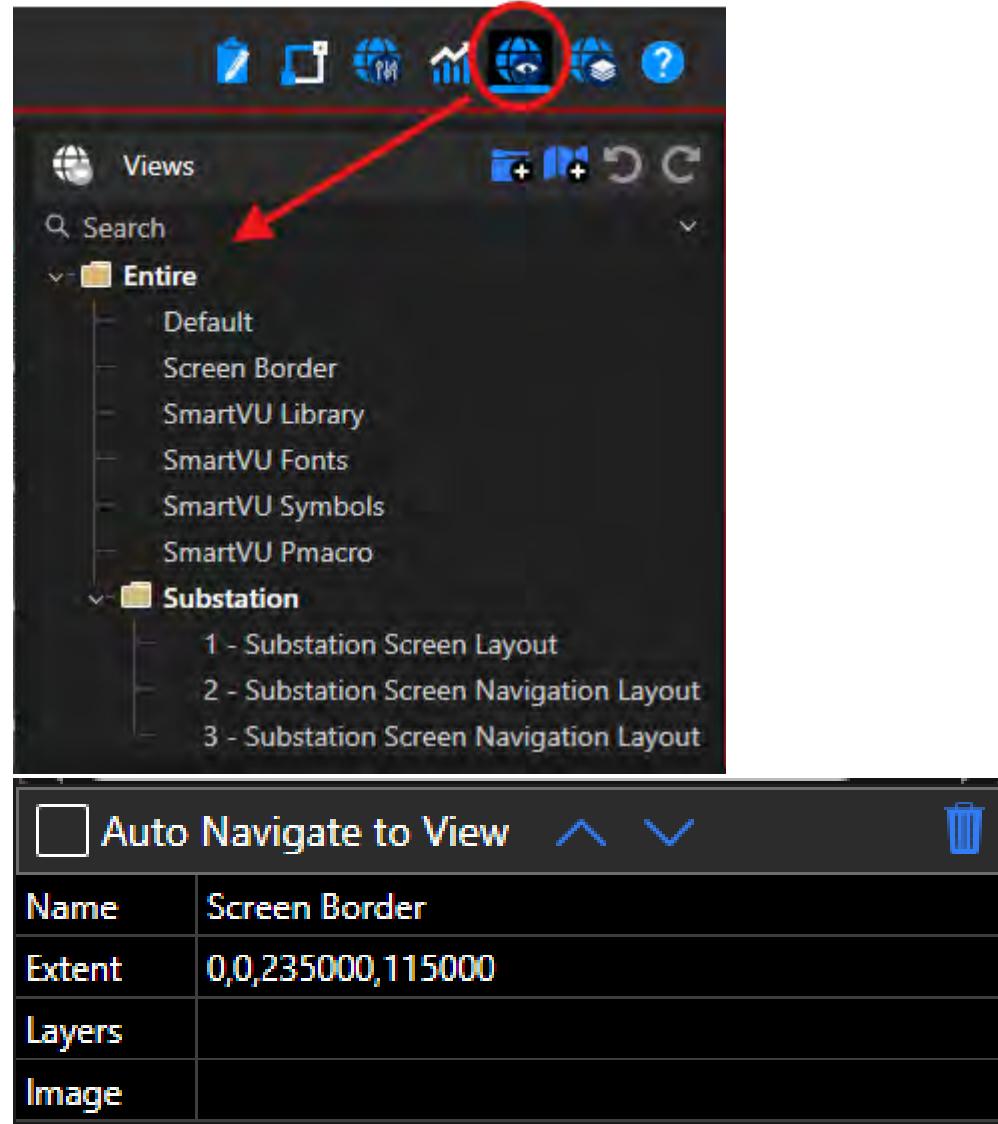
- *Views*
 - *A bookmark to a particular portion of the map.*



SmartVU | Maps, Submap, Views and Layers

What is Views?

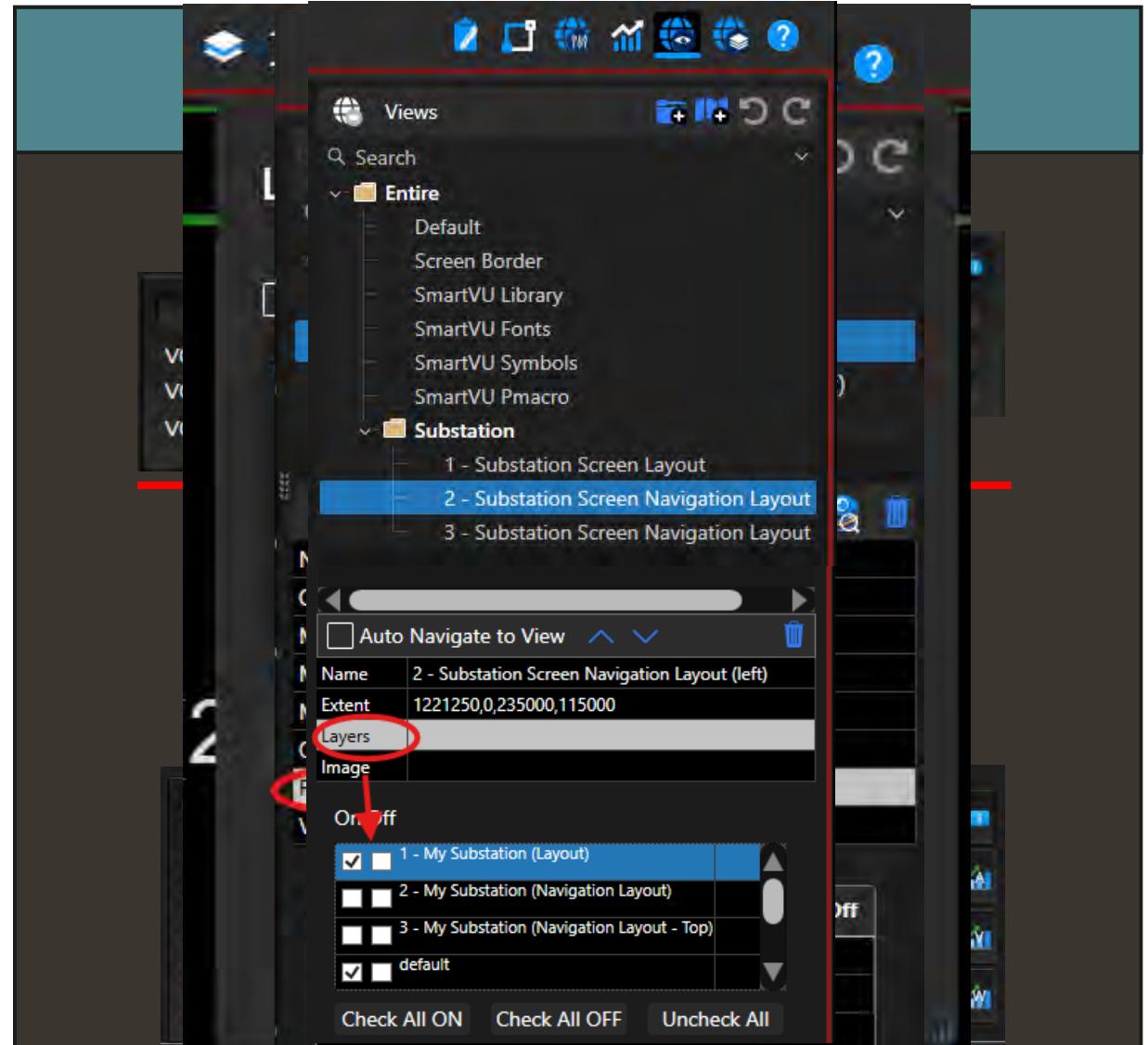
- *Created via the view menu.*
- *Can be organize by creating folders*
- *View name is used as a link to setup navigation around your SmartVU map.*
- *Extent is used for setting the “View Coverage” or “Effective Coverage” of your view.*



SmartVU | Maps, Submap, Views and Layers

What is Layers?

- Stack of transparencies and can be turned on and off (de-clutter) to hide or show specific information in the map.
 - SLD Only
 - Show Meters
 - Show Bus and TX Info
 - All Layers
- Can be manually Enable/Disable in the Layers dialog box.
- Can be configured to be automatically Enabled/Disabled in the Map Layers properties and in the Views properties



Exercise

Exercise

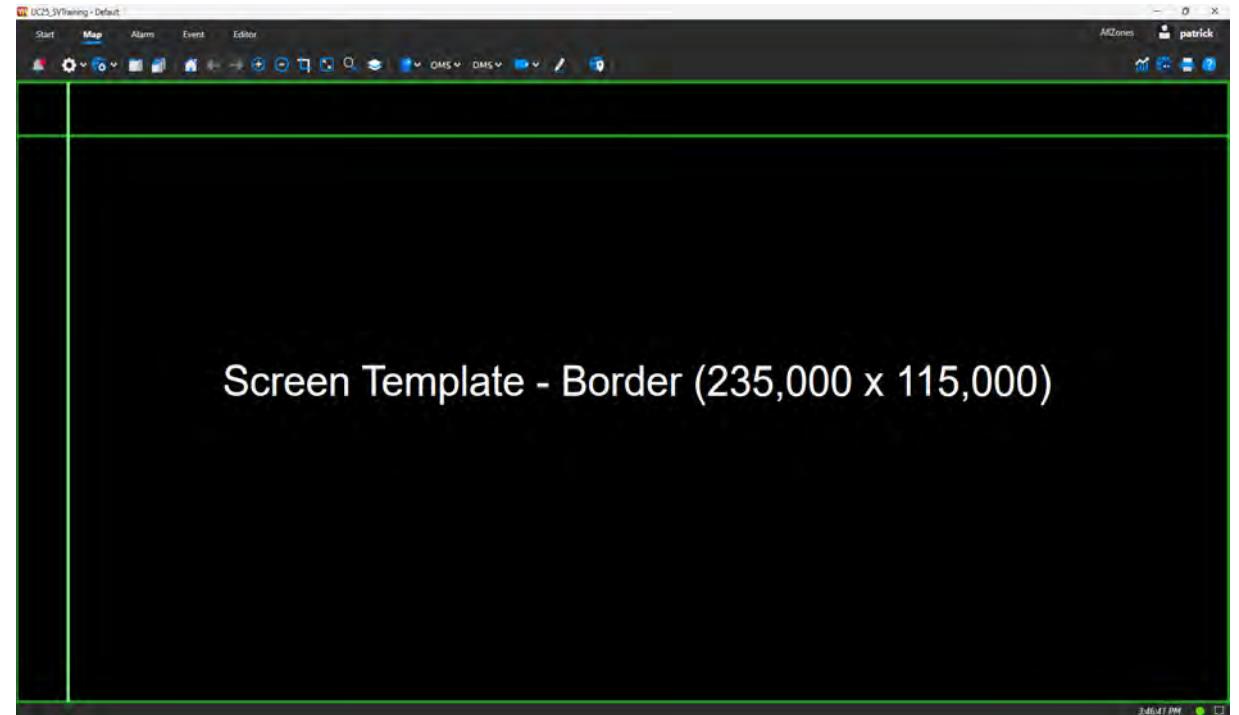
Creating your first view

Using the outer border of your screen template, set the view extent.

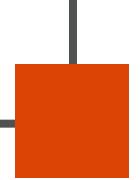
- Create the following views and folder
 - My Substation View (Folder)
 - My Substation - Show All
 - My Substation - SLD Only
 - My Substation - SLD + Meter Reading
 - My Substation - Show Control panels
 - Save the view (ex. Main View, Substation View)

Creating your first Layers

- Create the following layers and folders
 - My Substation Layers (Folder)
 - Navigation Layer
 - SLD Layer
 - Metering Layer
 - Control Panel Layer



Screen Template - Border (235,000 x 115,000)



SmartVU | Time and Text Value

SmartVU | Time and Text Value

Time and Text Value

- **Time Value** – A *pmacro* that allows you to display the current date and time using different formatting codes.
- **Text Value** – A *pmacro* that allows you to display text string (either manual set or using text points *).

***Supported by selected devices**

Code	Output
!U	Current logged-in SCADA user name
%a	Abbreviated weekday name
%A	Full weekday name
%b	Abbreviated month name
%B	Full month name
%c	Date and time representation appropriate for locale
%d	Day of month as decimal number (01 – 31)
%H	Hour in 24-hour format (00 – 23)
%l	Hour in 12-hour format (01 – 12)
%j	Day of year as decimal number (001 – 366)
%m	Month as decimal number (01 – 12)
%M	Minute as decimal number (00 – 59)
%p	Current locale's A.M./P.M. indicator for 12-hour clock
%S	Second as decimal number (00 – 59)
%U	Week of year as decimal number, with Sunday as first day of week (00 – 53)
%w	Weekday as decimal number (0 – 6; Sunday is 0)
%W	Week of year as decimal number, with Monday as first day of week (00 – 53)
%x	Date representation for current locale
%X	Time representation for current locale
%y	Year without century, as decimal number (00 – 99)
%Y	Year with century, as decimal number
%z, %Z	Time-zone name or abbreviation; no characters if time zone is unknown
%%	Percent sign

SmartVU | Time and Text Value

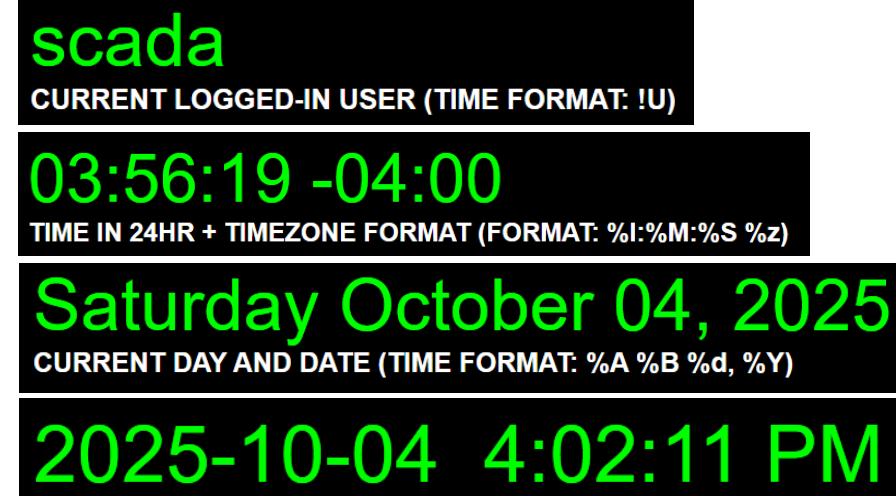
Exercise

Create your first Time Pmacro

- *Create your first Time Value Pmacro.*
- *Add the Pmacro in your map and set it to show:*
 - *The current logged-in user.*
 - *The time in 24HRs and the time zone.*
 - *The current date.*
 - *The current Date and Time*

TIPS AND TRICKS: To make the Pmacro creation easier, use the “save as” function as you complete the changes instead of repeating the

Name	Font	Time Format
Current User Login	UC25_SV-General Font (Left) or any font with the Size = 5000	!U
Time in 24HR Format + Time Zone	UC25_SV-General Font (Left) or any font with the Size = 5000	%I:%M:%S %z
Current Date	UC25_SV-General Font (Left) or any font with the Size = 5000	%A %B %d, %Y





SmartVU | Pushbuttons

SmartVU | Pushbuttons

What is Pushbutton Pmacro?

- *Pmacro that are configurable to perform certain actions when you click it.*
- *Use for:*
 - *Navigation*
 - *Accessing a map*
 - *Starting a command sequence*
 - *Accessing reports*
 - *Menus*
 - *Etc.*
- *Types:*
 - *Symbol Push button (Symbol 00 & 01)*
 - *Image Push button (Image 00 & 01)*
- *Fully configurable data type and dial code*

DATA TYPES	DESCRIPTION
VIEW	<i>Directly navigate or access a menu selection of views.</i>
MAP	<i>Directly access to a map.</i>
ACTION	<i>Execute actions (i.e. Acknowledge, Open, Close, execute etc.)</i>
COMMAND SEQUENCE	<i>Directly initiate or access a menu selection of command sequence</i>
GROUP CONTROL	<i>Directly initiate a group contro.</i>
GRAPH	<i>Directly launch or access a menu selection of graphs.</i>
SUBMAP	<i>Directly open or access a menu selection of submaps.</i>
NOTE	<i>Directly launch the notes function of SmartVU.</i>
TASK	<i>Directly launch a task or access a menu selection of tasks.</i>
BITMAP	<i>Brings in an image into SmartVu.</i>
REPORT	<i>Directly launch or access a menu selection of reports. Also launch the report wizard</i>

SmartVU | Pushbuttons

Exercise

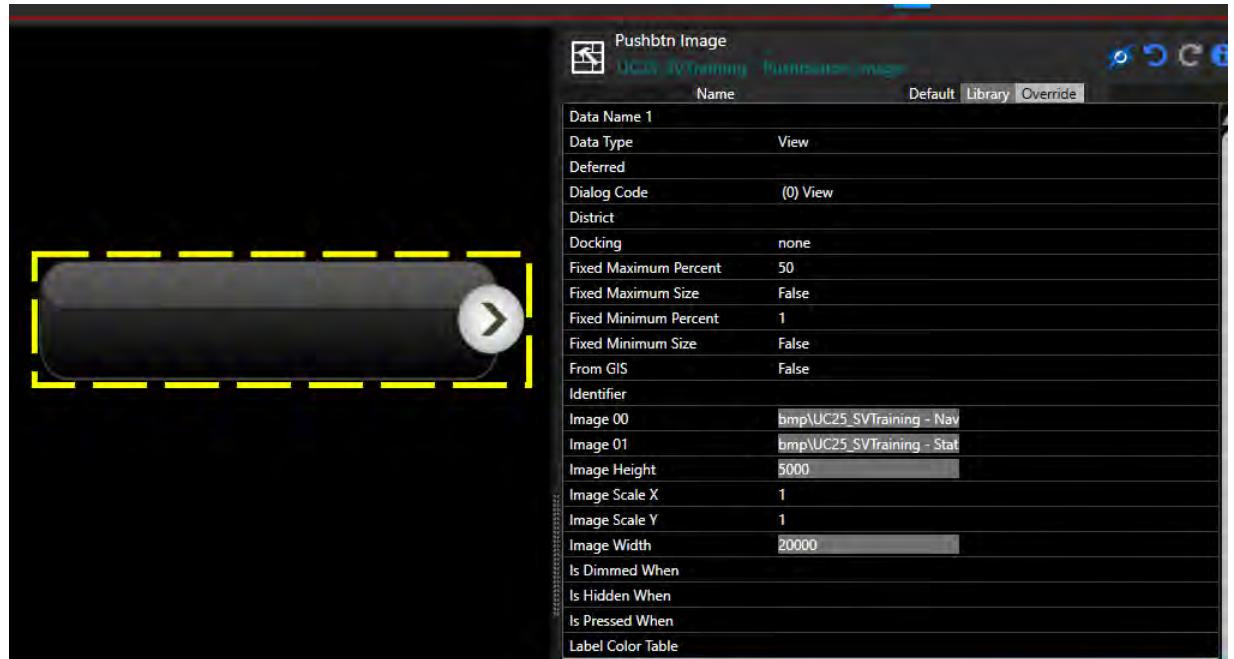
Create a pushbutton pmacro (image)

STEP 1:

- Scale your pmacro using your template.
- Set your grid spacing to X = 2,500 and Y = 2,500
- Use the rectangle tool and the grid lines to set the size of the Pmacro. (i.e. 2,500 x 2,500)

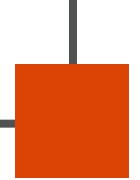
STEP 2:

- Go to Library -> Pmacro -> New -> Pushbutton Image Pmacro
- Name your Pmacro (i.e. Pushbutton)
- Set the pmacro length and width based on your scaled size.
- Set the Label font to “UC25_SV-Sub Label Font”
- Leave the label text , dial code and data type as default (for now)
- Set both Image 00 and Image 01 = “UC25_SVTraining - Navigation Button - Station (Black).png”
- Save



ALIGNMENT ON YOUR LABELS (CENTERED on the Pmacro)

- Label Position
 - $X = (\text{width} * \text{scale factor } X * \text{magnification})/2$
 - $Y = (\text{height} * \text{scale factor } Y * \text{magnification})/2$

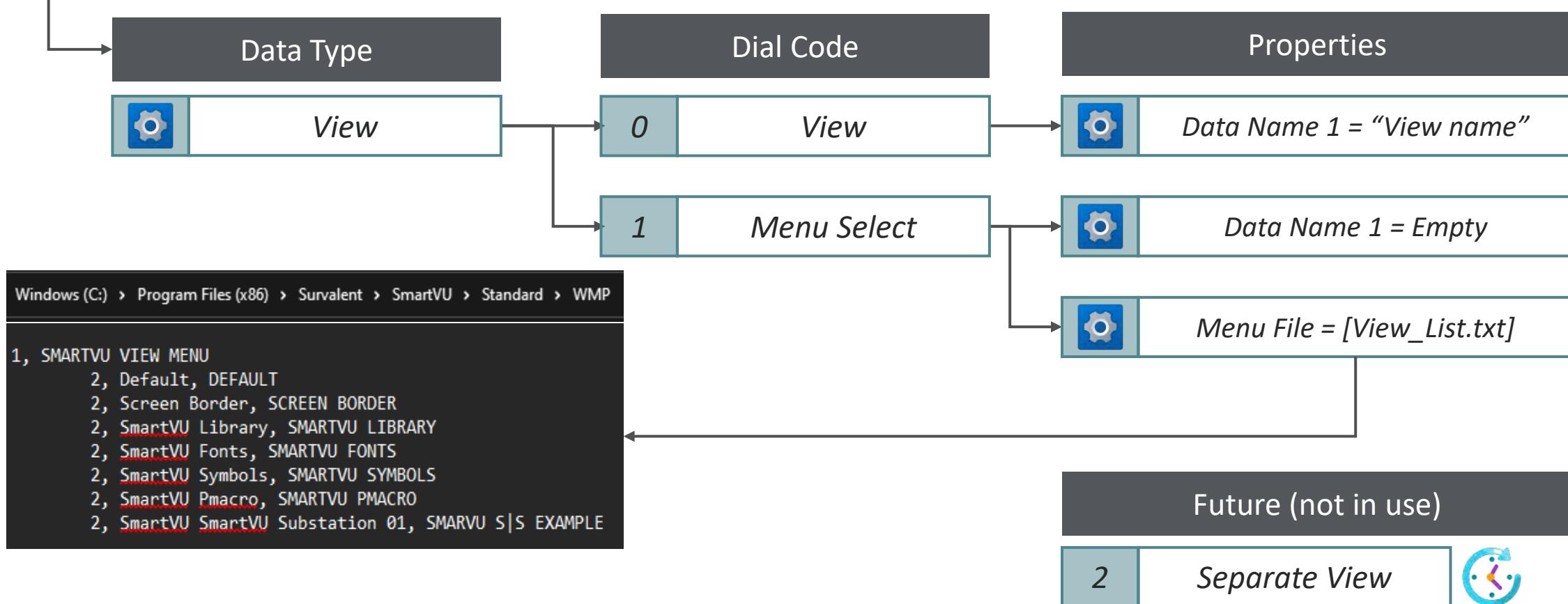


SmartVU | Pushbuttons – Dial Codes

SmartVU | Pushbuttons – View

View Pushbutton

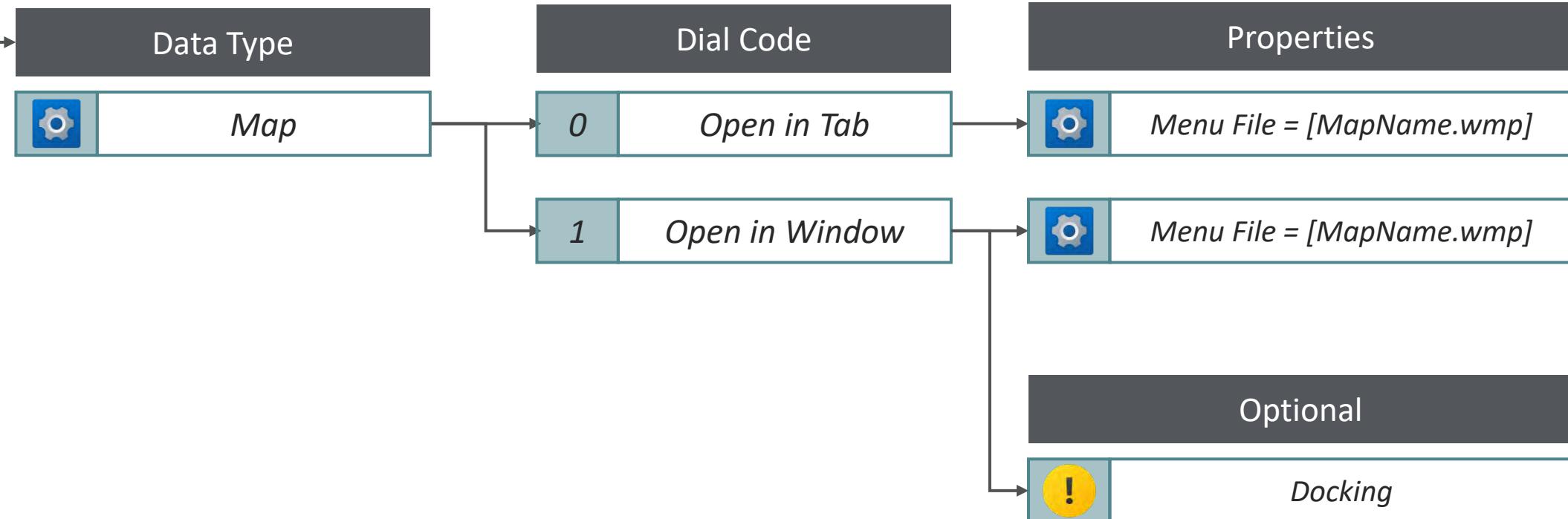
- Direct navigation to the view link to the pushbutton.



SmartVU | Pushbuttons – Map

Map Pushbutton

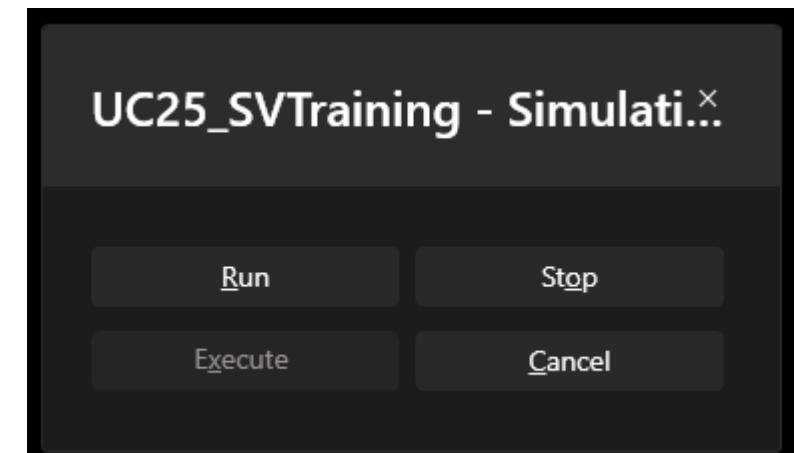
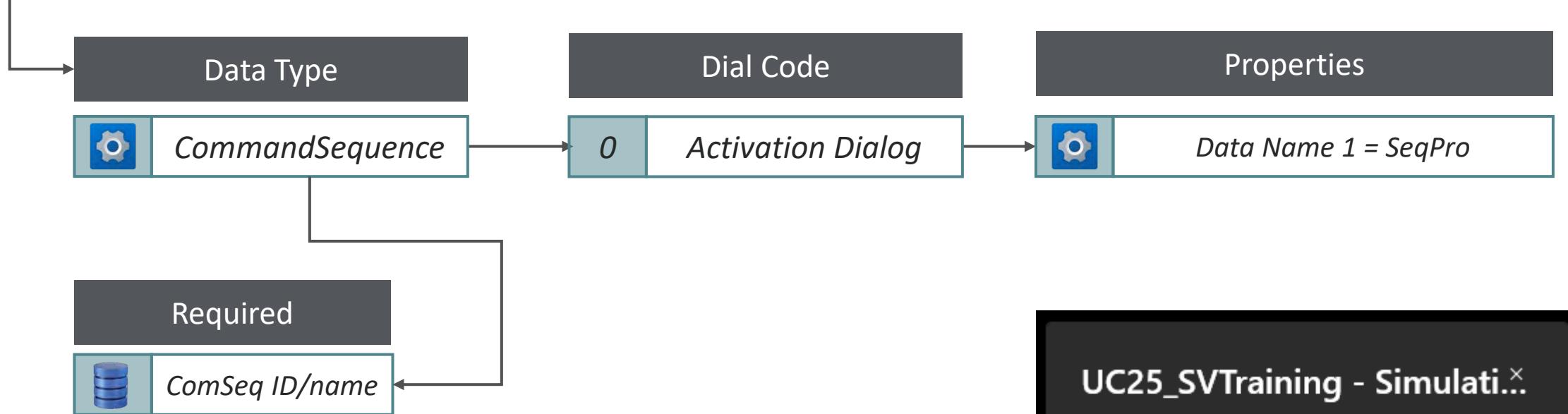
- Direct access to a map



SmartVU | Pushbuttons – Command Sequence

Command Sequence Pushbutton

- Directly initiate or access a menu selection of command sequence



SmartVU | Pushbuttons – Group Control

Group Control Pushbutton

- Directly initiate a group control



Group Control UC25_SVTraining - Group Control

Point Name	Status	Condition	Tag
UC_SV-MYSUB_FEEDERS, UC_SV-MYSUB_	Open (0)		
UC_SV-MYSUB_FEEDERS, UC_SV-MYSUB_	Open (0)		
UC_SV-MYSUB_FEEDERS, UC_SV-MYSUB_	Open (0)		
UC_SV-MYSUB_FEEDERS, UC_SV-MYSUB_	Open (0)		

Open (0) Close (1)

Execute Abort

Close

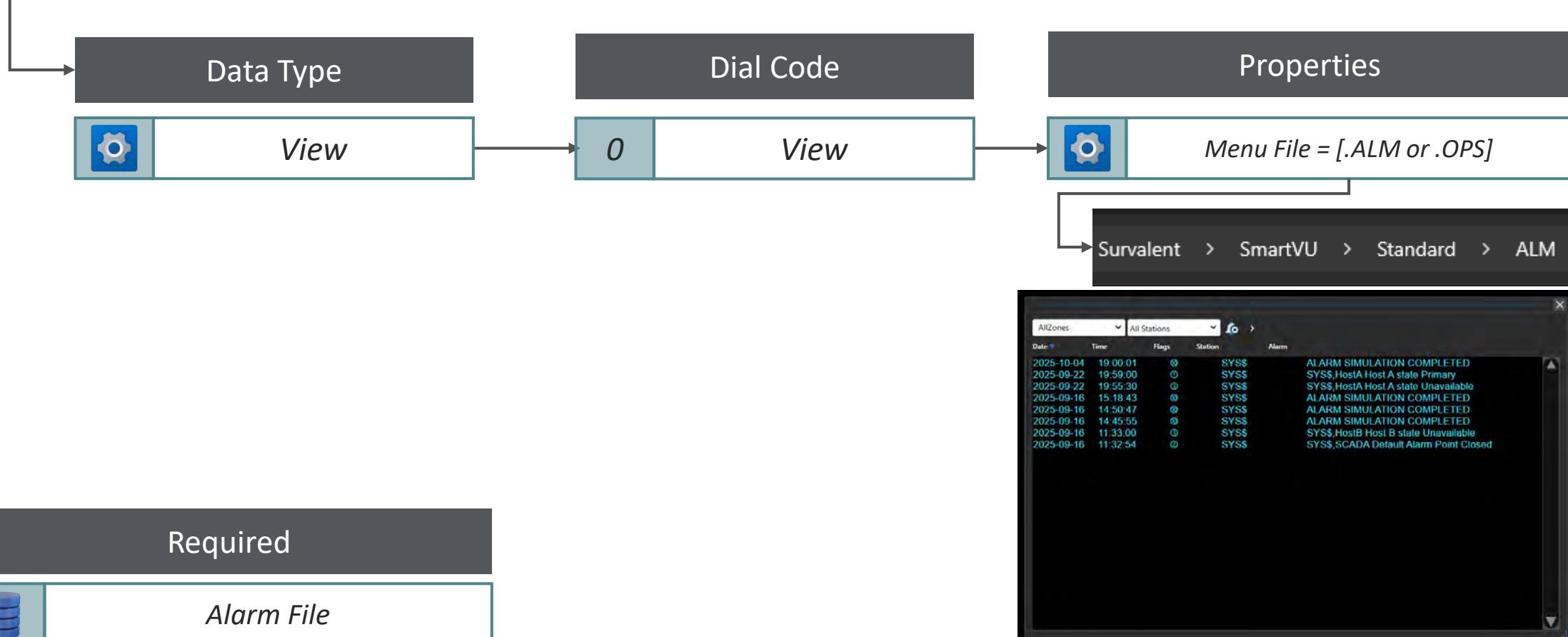
Required

Group Controls

SmartVU | Pushbuttons – Alarm/Events

Alarm/Events Pushbutton

- Launch an alarms/events window.



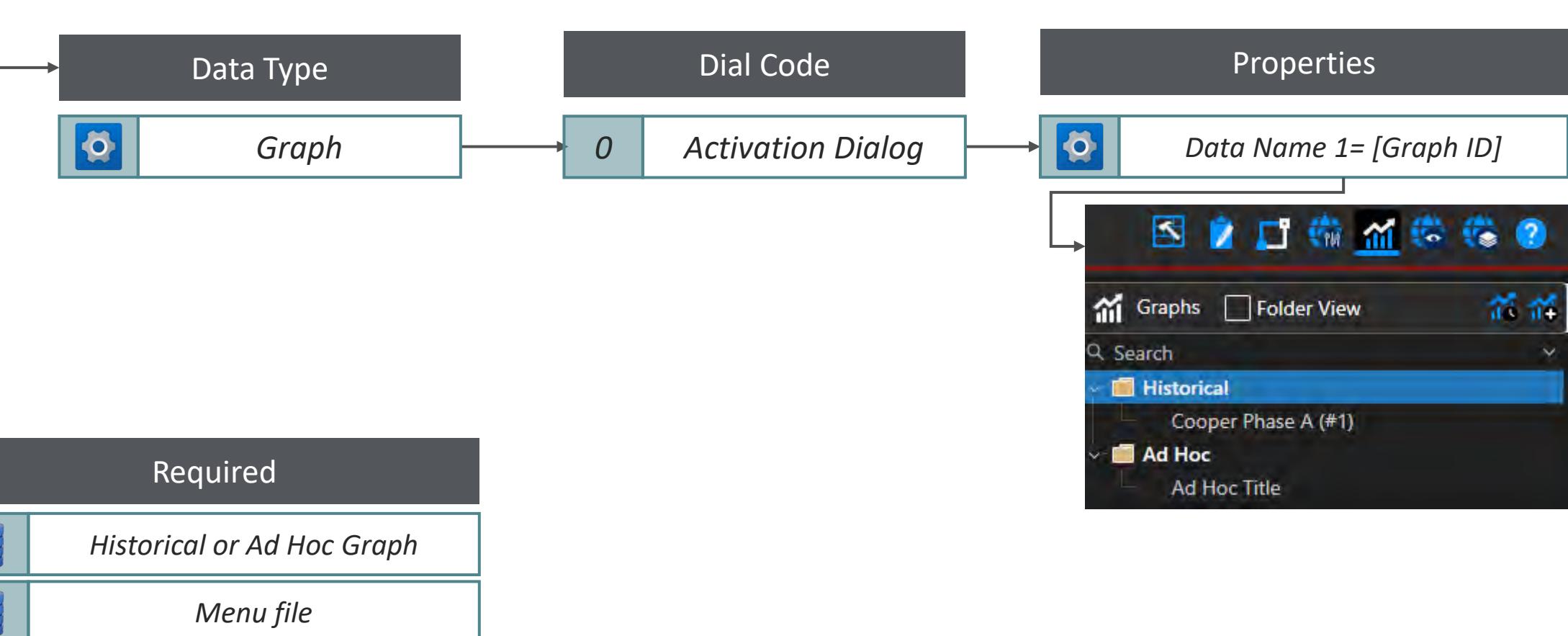
Required

Alarm File

SmartVU | Pushbuttons – Graphs

Graphs Pushbutton

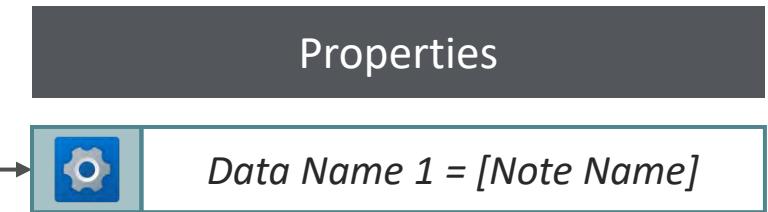
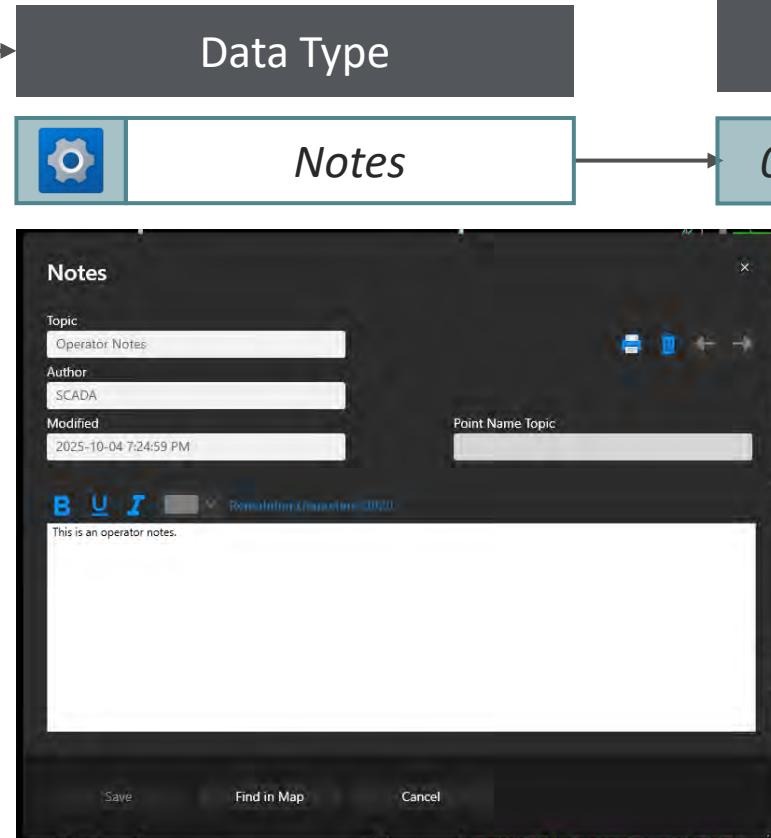
- Directly launch or access a menu selection of graphs.



SmartVU | Pushbuttons – Notes

Notes Pushbutton

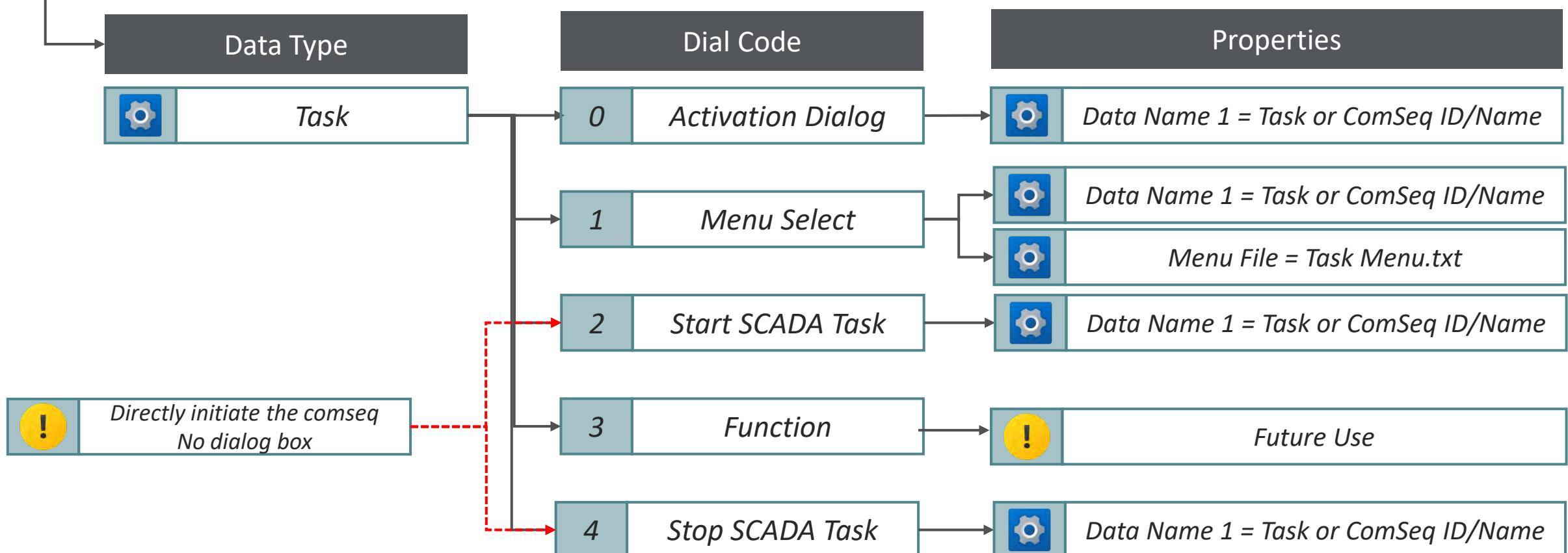
- Directly launch the notes pushbutton.



SmartVU | Pushbuttons – Tasks

Tasks Pushbutton

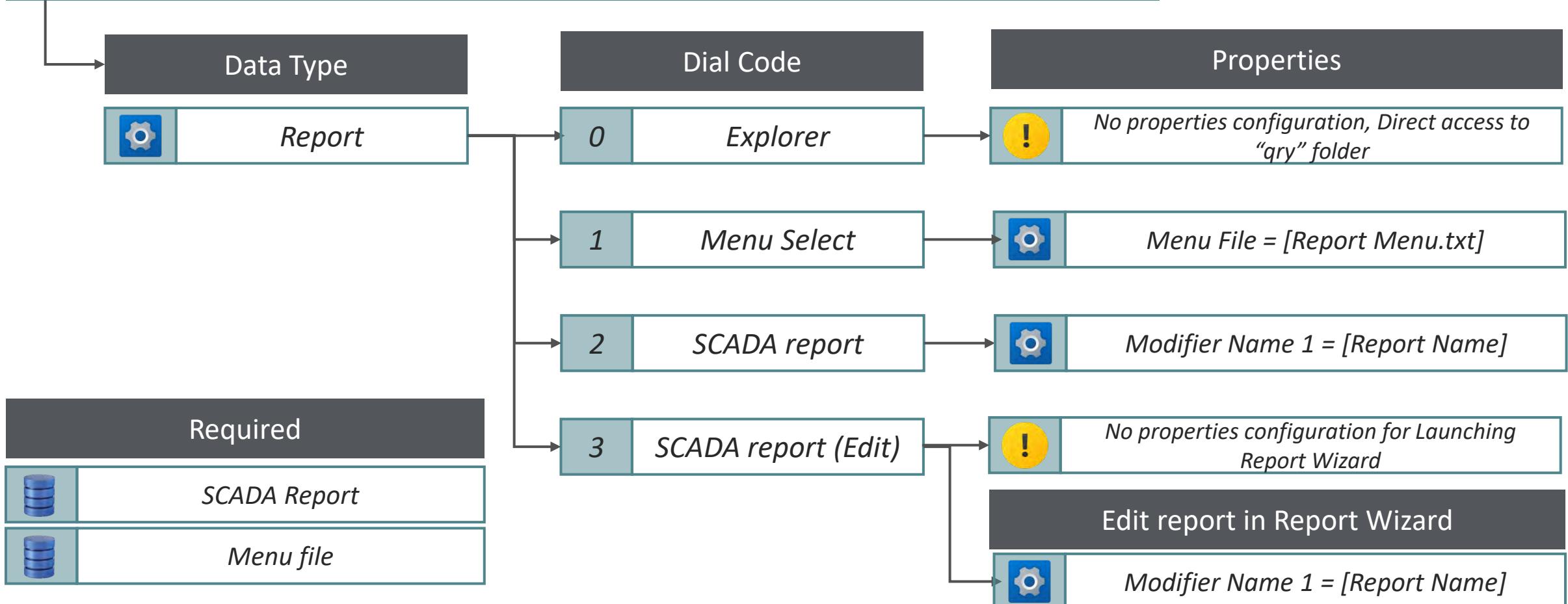
- Directly execute or access a menu selection of tasks.



SmartVU | Pushbuttons – Report

Report Pushbutton

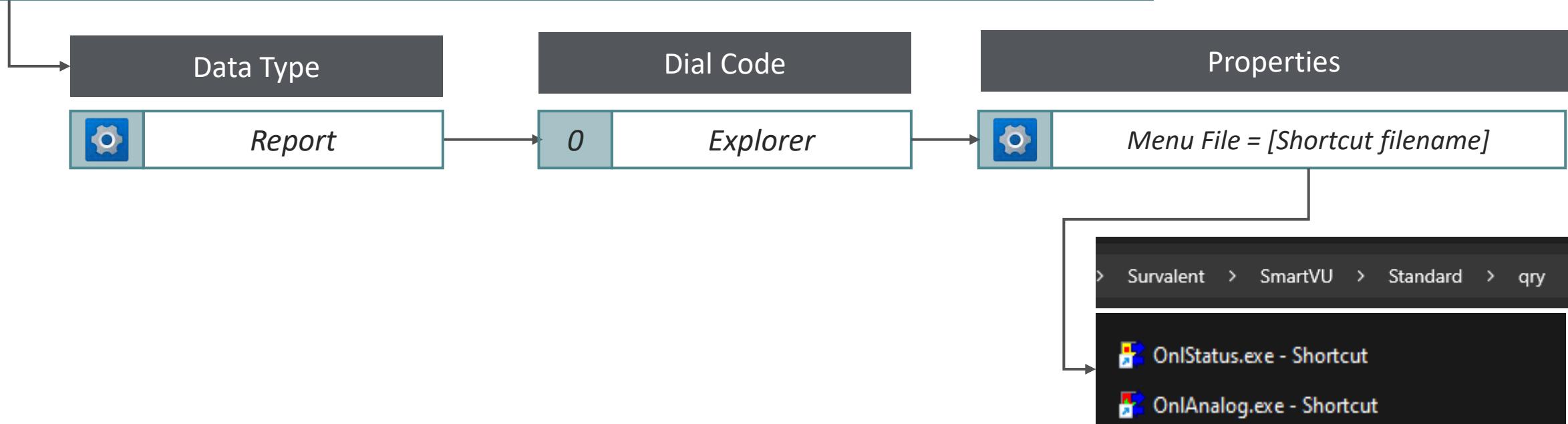
Directly launch or access a menu selection of reports. Also launch the report wizard.



SmartVU | Pushbuttons – Report (Survalent Tools)

Report Pushbutton (For launching application shortcuts or webpage)

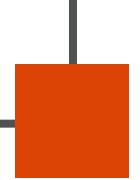
Directly launch Survalent Applications



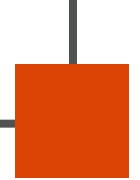
Required



Create application shortcut



SmartVU | Using what we learned (Actual)

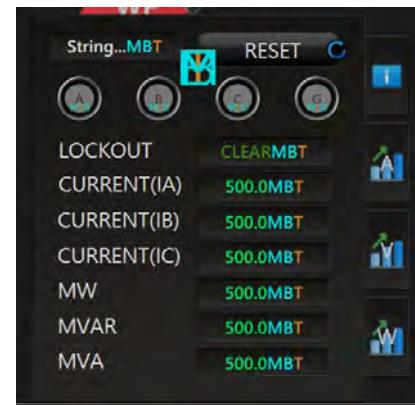
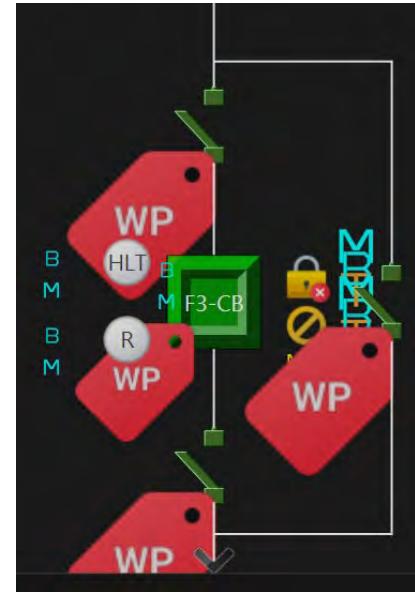


SmartVU | Templates & Templates Pmacro

SmartVU | Templates & Templates Pmacro

Templates

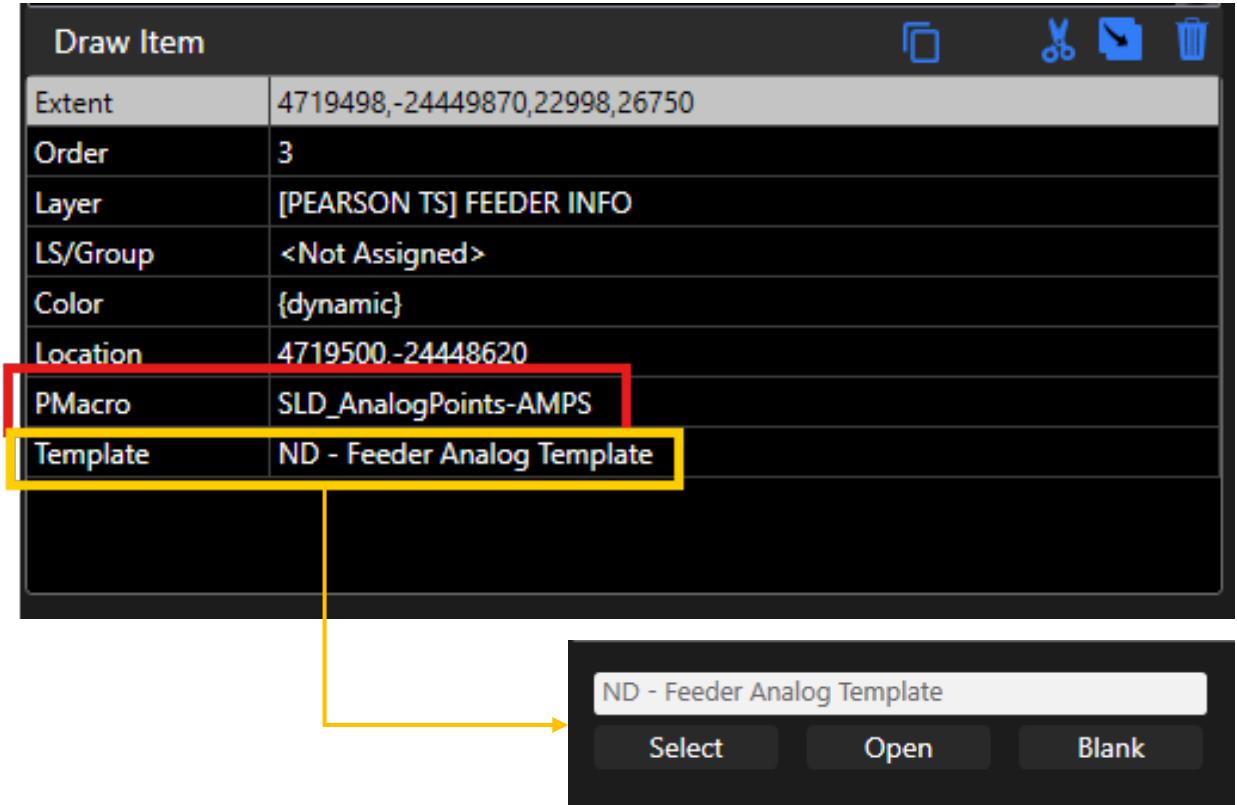
- A complex object that contains combinations of Pmacros, Symbols, Graphs and Text Strings.
- It's like a "cookie cutter", allows you to create the same exact set of information without building it from scratch.
- Deploy devices quicker and easier.
- Use for:
 - Navigation toolbars
 - Feeder Information
 - Common Feeder configuration (ex. Breaker and a half scheme etc.)
 - Something that you commonly used in your map.

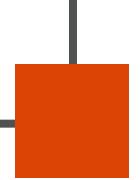


SmartVU | Templates & Templates Pmacro

Templates Pmacro

- A type of template that contains specific “Template file”.
- You don’t need to create multiple Pmacro for each template.





Creating a Template (most used)



Questions?

Additional Questions?



Survalent.

Visit us at the Demo booth

Or

Email: support@survalent.com

Thank You