Survalent.

SurvalentOne SCADA Refresher

Global User Conference – Denver 2025

Housekeeping

- **Few Things Before We Start**
  - Ensure Everyone Is Scanned/Checked In
  - (Important for certificates)
  - Ensure Everyone Has A Seat
  - Ensure Everyone Has VMWare Running
  - Survalent Conference Wi-Fi Password - *SurvalentUC*

Training Team

Amel Delli
Technical Trainer
Survalent

Neil Patterson
IT Manager
Survalent

Agenda

DAY 1

- Learn to navigate Survalent's Support Site and Install Software
- Set Up Users, Zone Groups, Zones, Point Types, and State Strings, Alarm Parameters
- Create a map, add elements, and import elements including CAD files
- Create Symbols, Color Tables, and Fonts
- Create Station and Configure Communication Lines and RTUs
- Create and Configure Status and Analog Points

Day 2

- Create and Configure PMacros
- Navigating SmartVU applications
- Dump Points
- Using IED Wizard Templates
- Import, Install and Configure Control Panels
- Sustained and Momentary Alarms
- Create Reports
- Automation Templates
- Command Sequences, and Control Groups

Daily schedule

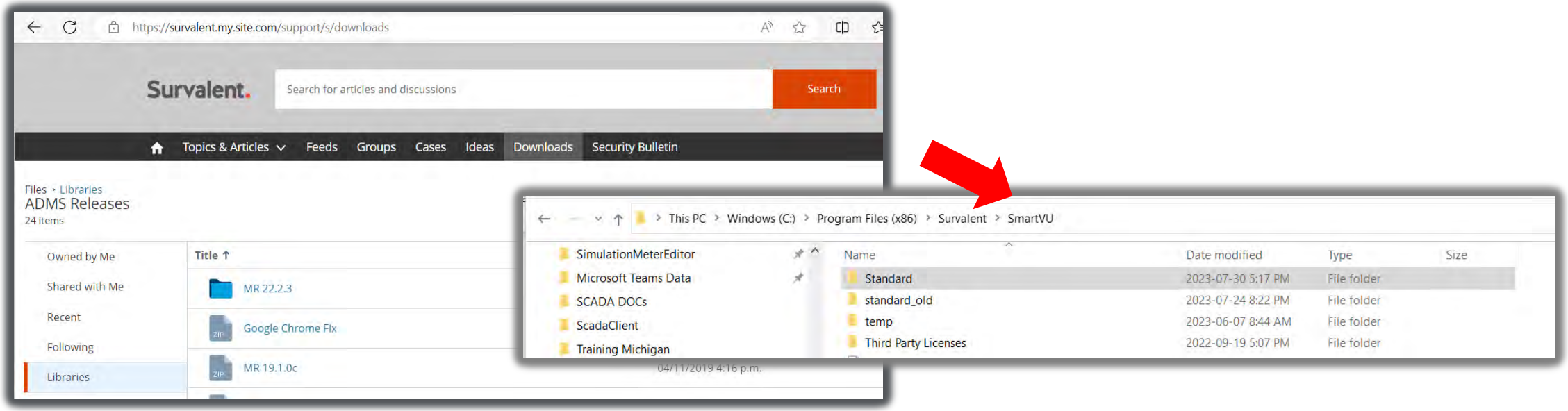
Breaks

- Two 15-minute breaks
- A single one-hour lunch break

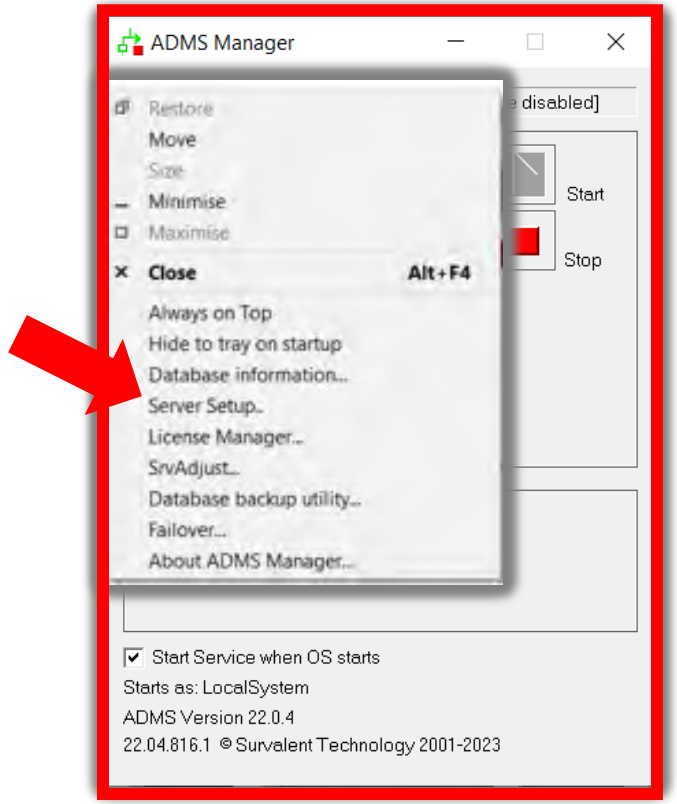
8:30 AM	10:30 AM	
10:30 AM	10:45 AM	BREAK
10:45 AM	12:30 PM	
12:30 PM	1:30 PM	LUNCH
1:30 PM	3:00 PM	
3:00 PM	3:15 PM	BREAK
3:15 PM	5:15 PM	

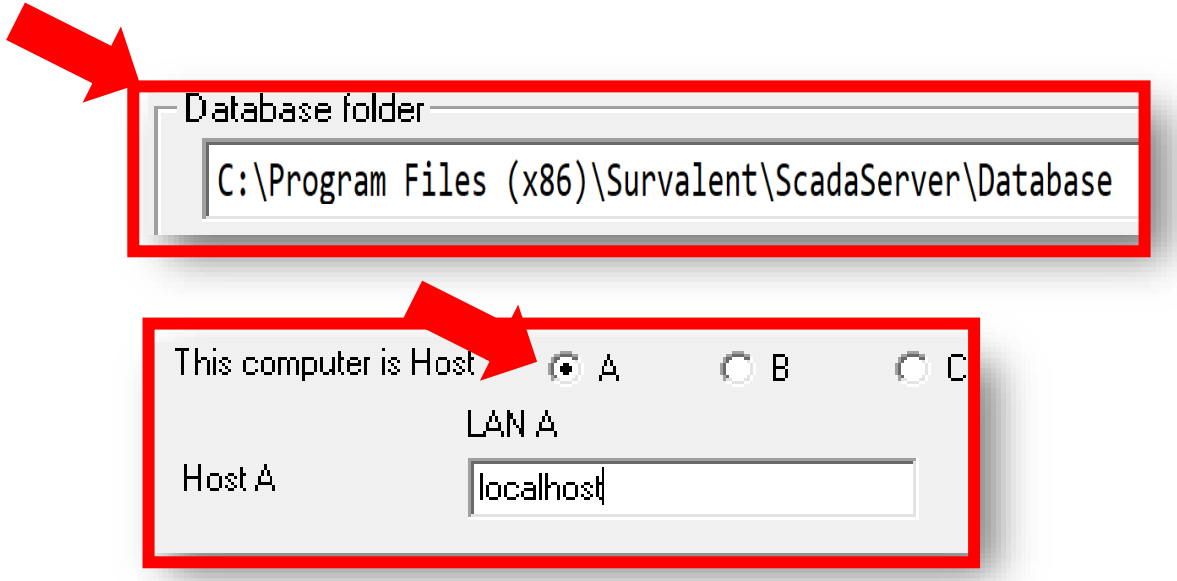
System preparation

- Survalent Software Installation Kit
- Ensure that it is installed and working
- Database and Standard Folders in place and Backed up



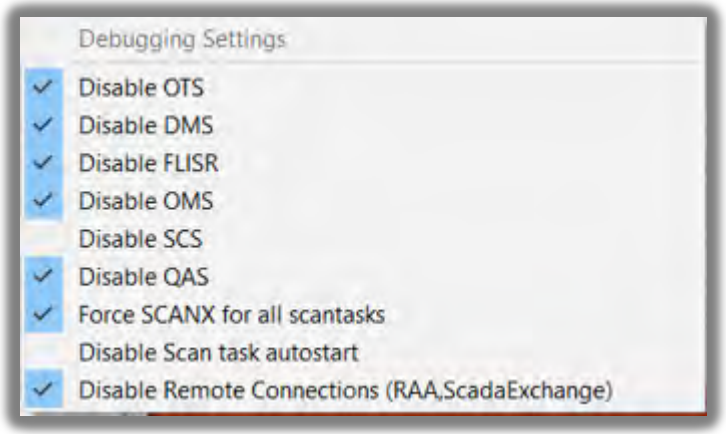
System preparation

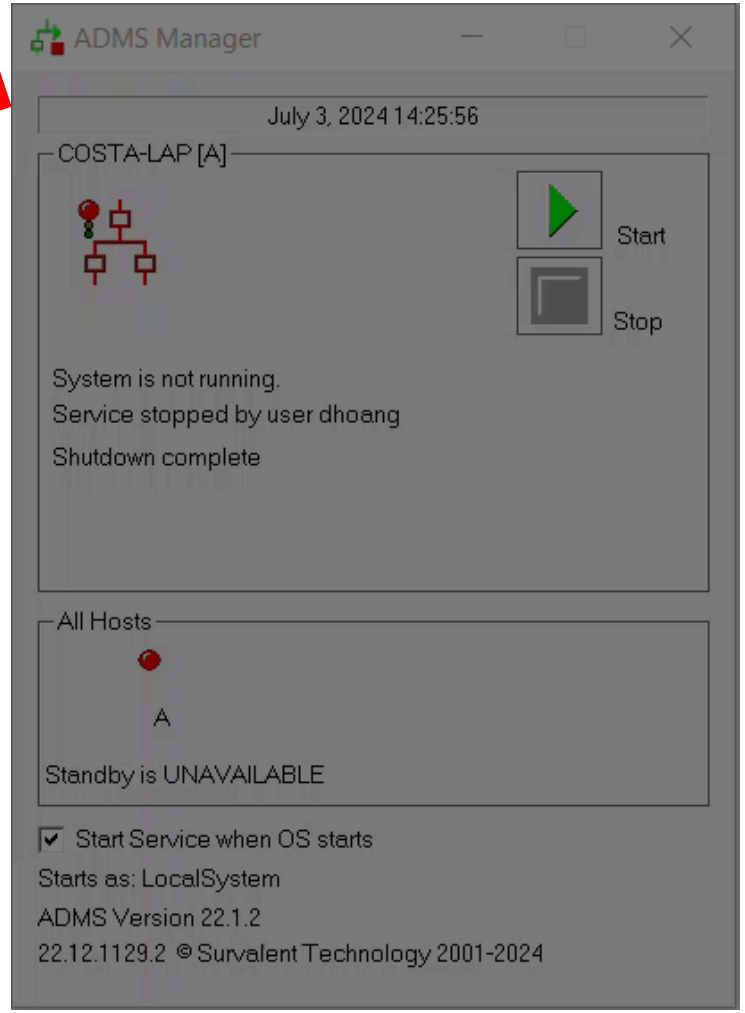




System preparation

CTRL+SHIFT+ Left Mouse Click





Important folders

Check to see this folder exist on your desktop

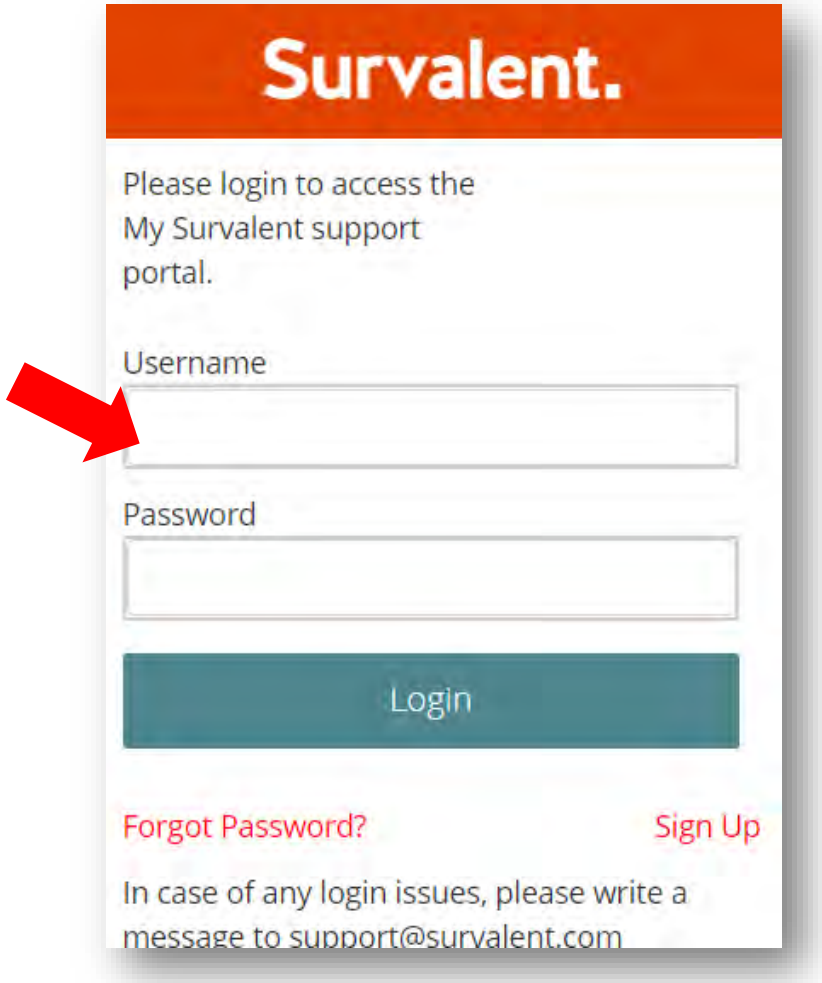
“docs”

This file is found here:

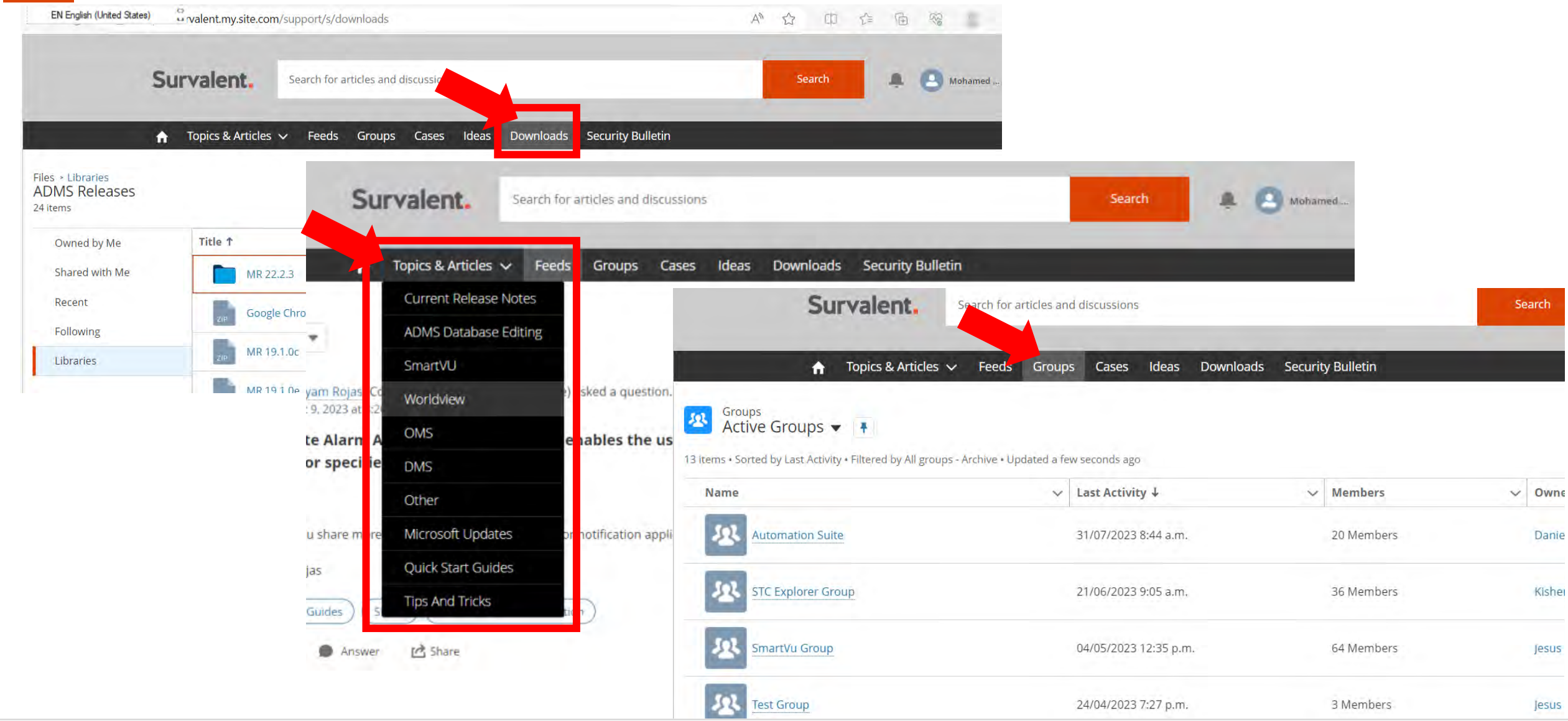
C:\Users\Administrator\Desktop\docs

My Survalent Portal

- www.survalent.com
- Get the latest versions of the software
- User guides, release notes and resources available
- Engage in community groups
- Submit and follow up on your cases
- Access the Product Knowledge Base

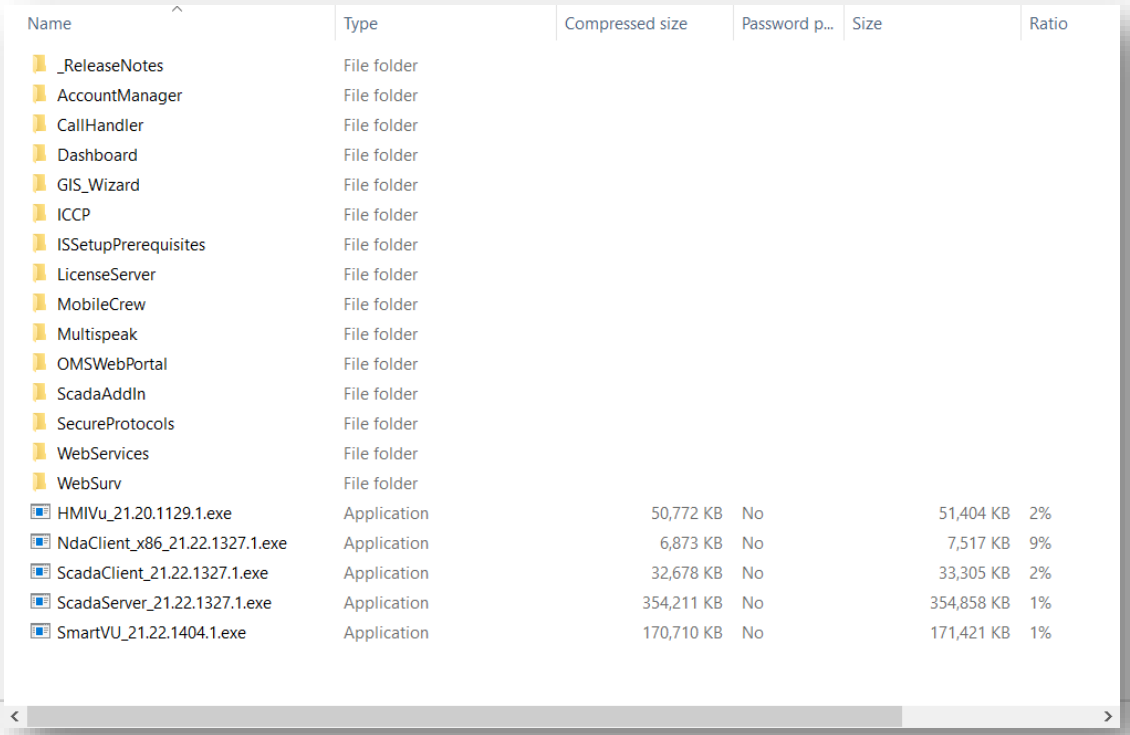


MySurvalent Portal



My Survalent Portal

- Maintenance Releases (4x per year)
- Product Releases (based on year)
- Contains same version of software for Survalent



Name	Type	Compressed size	Password p...	Size	Ratio
_ReleaseNotes	File folder				
AccountManager	File folder				
CallHandler	File folder				
Dashboard	File folder				
GIS_Wizard	File folder				
ICCP	File folder				
ISSetupPrerequisites	File folder				
LicenseServer	File folder				
MobileCrew	File folder				
Multispeak	File folder				
OMSWebPortal	File folder				
ScadaAddIn	File folder				
SecureProtocols	File folder				
WebServices	File folder				
WebSurv	File folder				
HMIVu_21.20.1129.1.exe	Application	50,772 KB	No	51,404 KB	2%
NdaClient_x86_21.22.1327.1.exe	Application	6,873 KB	No	7,517 KB	9%
ScadaClient_21.22.1327.1.exe	Application	32,678 KB	No	33,305 KB	2%
ScadaServer_21.22.1327.1.exe	Application	354,211 KB	No	354,858 KB	1%
SmartVU_21.22.1404.1.exe	Application	170,710 KB	No	171,421 KB	1%

System Backups

Database Backup

- Backups the entire SCADA database, it is simply a copy of the database backup facility built-in on the host's disk drive.

Graphics Backup

- If Reservation is available, the repository can be used as a backup since it holds the master copy of the graphics.
- If the Repository is not available, manually copying the individual files is needed.

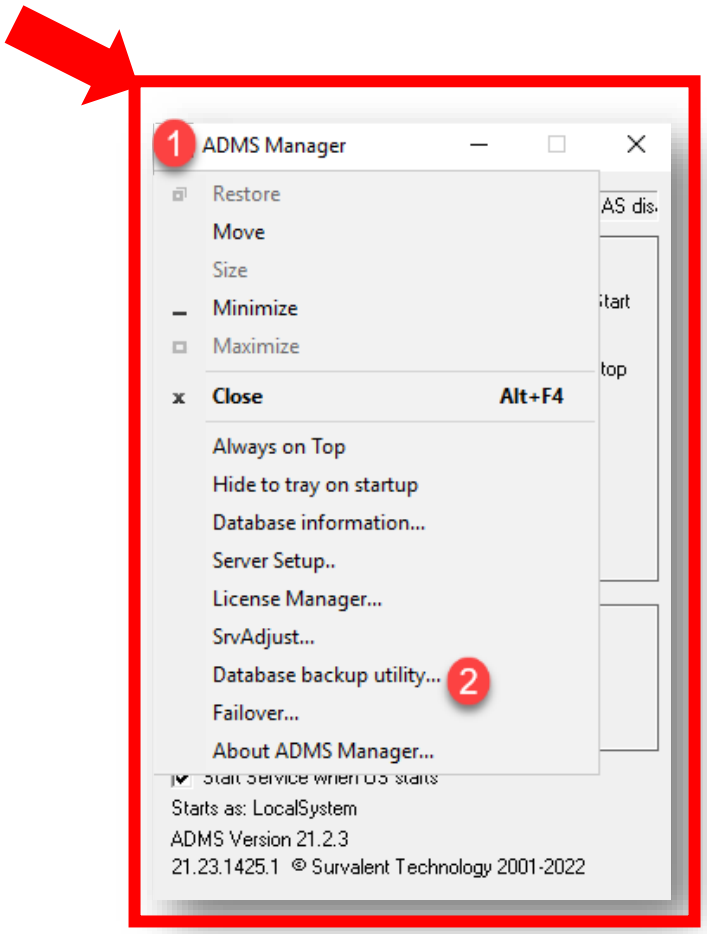
Templates Backup

- IED Wizard template files are kept in a shared location.
- Backup should be placed anywhere on the network for easy access, editing, and restoration of templates.

Systems Backup

- Complete backup of the system disks, including the operating system, SCADA software, SCADA database, and any other files that may be lying around the disk.

Backup



- Importance of regular database backups
- ADMS Manager can be running for this backup utility
- Standard Folder Not Backed Up with this Utility (Manual)

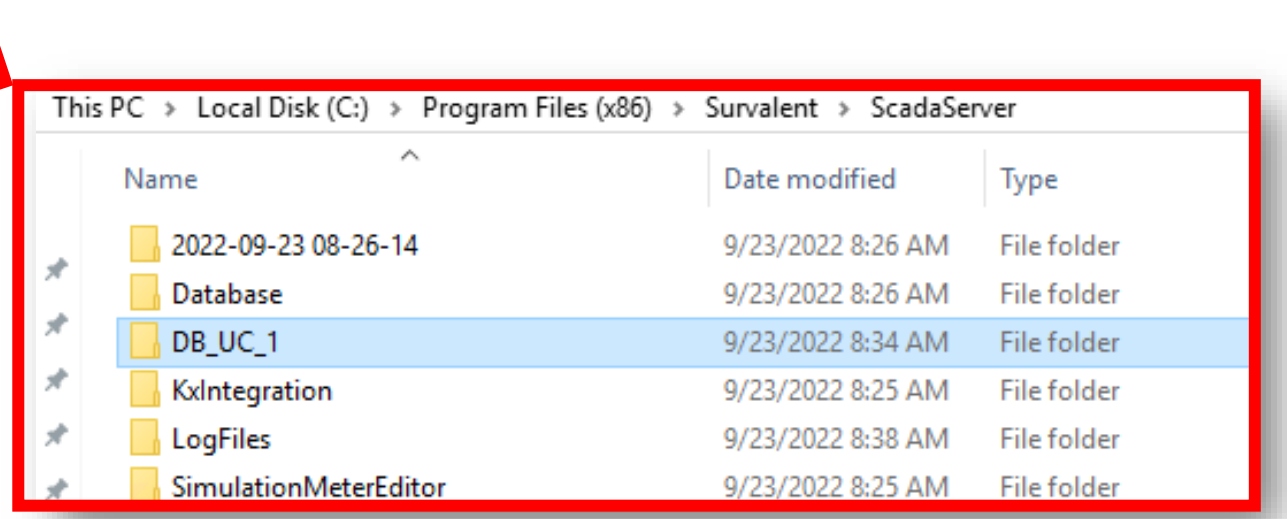
Backup

- **Default Database folder**

➢ Software prior to 21.3

- ***C:\Program Files (x86)\quindar\ScadaServer\Database***

- Software 21.3 or higher
  - ***C:\Program Files (x86)\Survalent\ScadaServer\Database***



➢ Default Graphics folder

- ***C:\Program Files (x86)\Survalent\SmartVu\Standard***

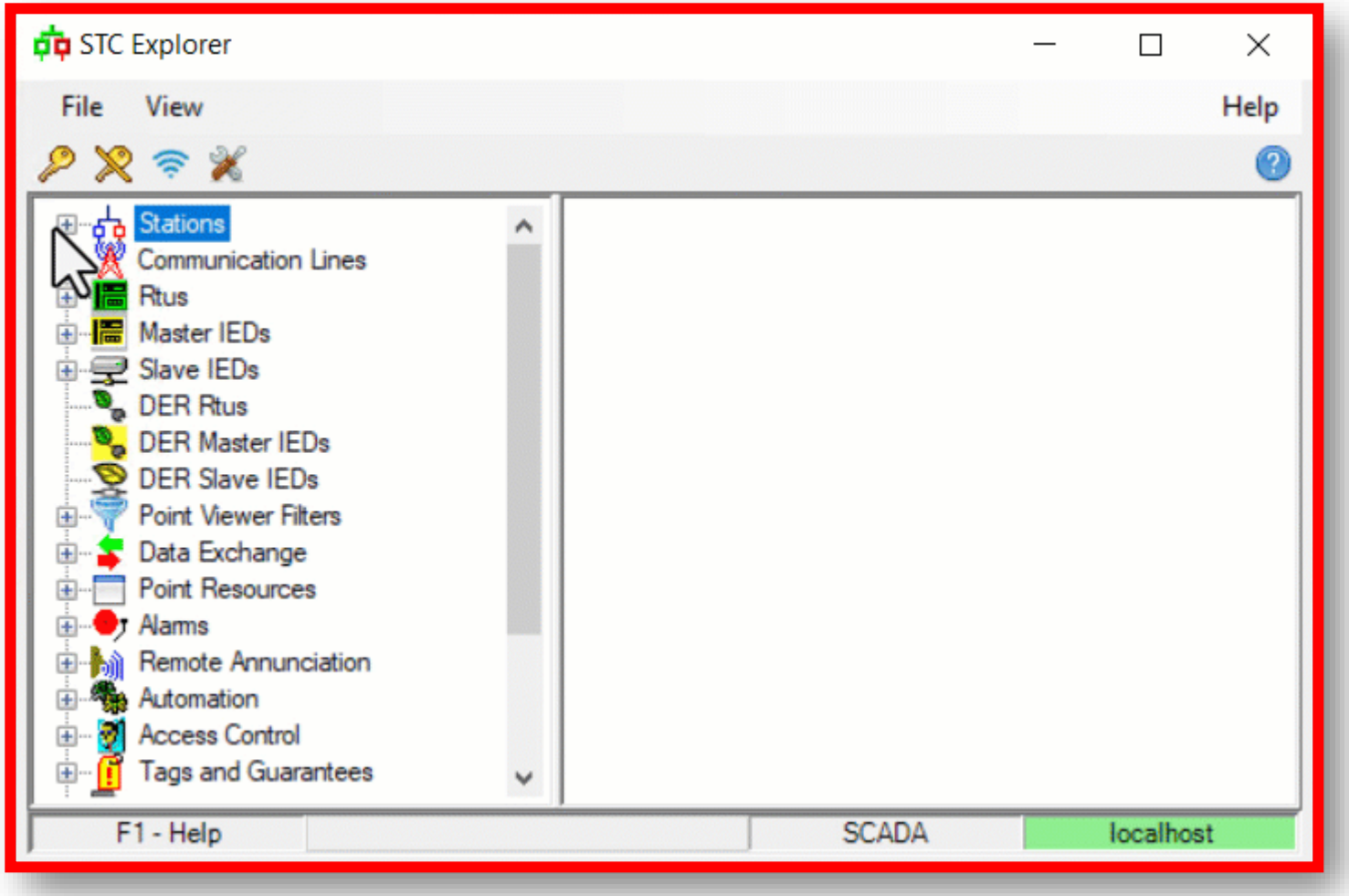
Exercice

Back ups!

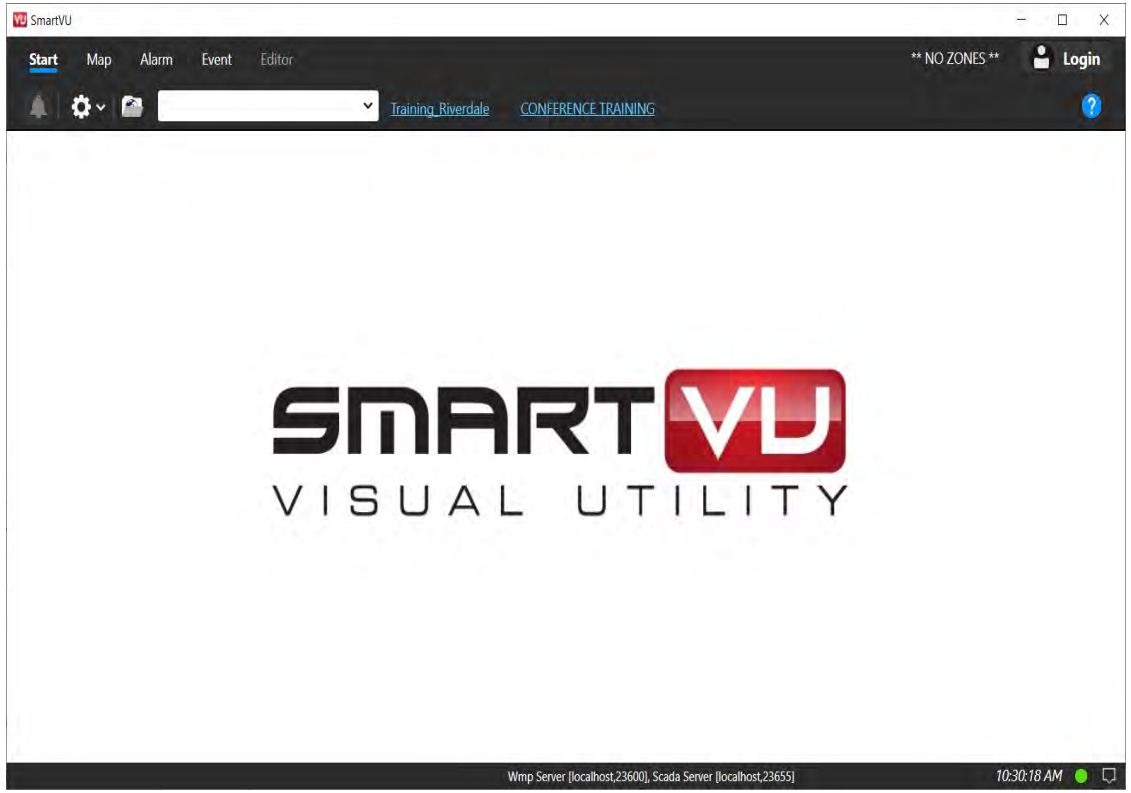
1) Open ADMS Manager
2) Open Options Menu
3) Select ‘Database Backup Utility’
4) Backup Database Folder
5) Also, Backup Standard Folder

SCADA/STC Explorer

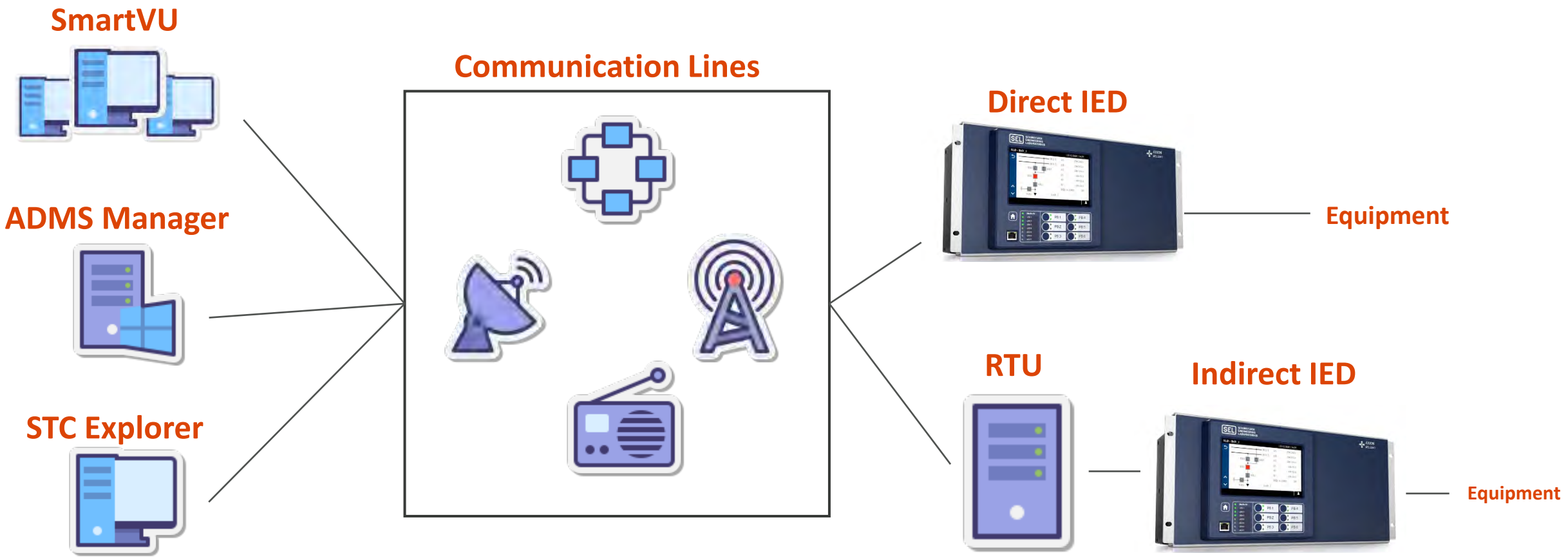
- database editing tool
- organization of all points
- Creation of stations, add points and change parameters
- Install devices (IED), RTUs, etc..
- lots of custom control and flexibility



SmartVU Vs SmartVU 2.0

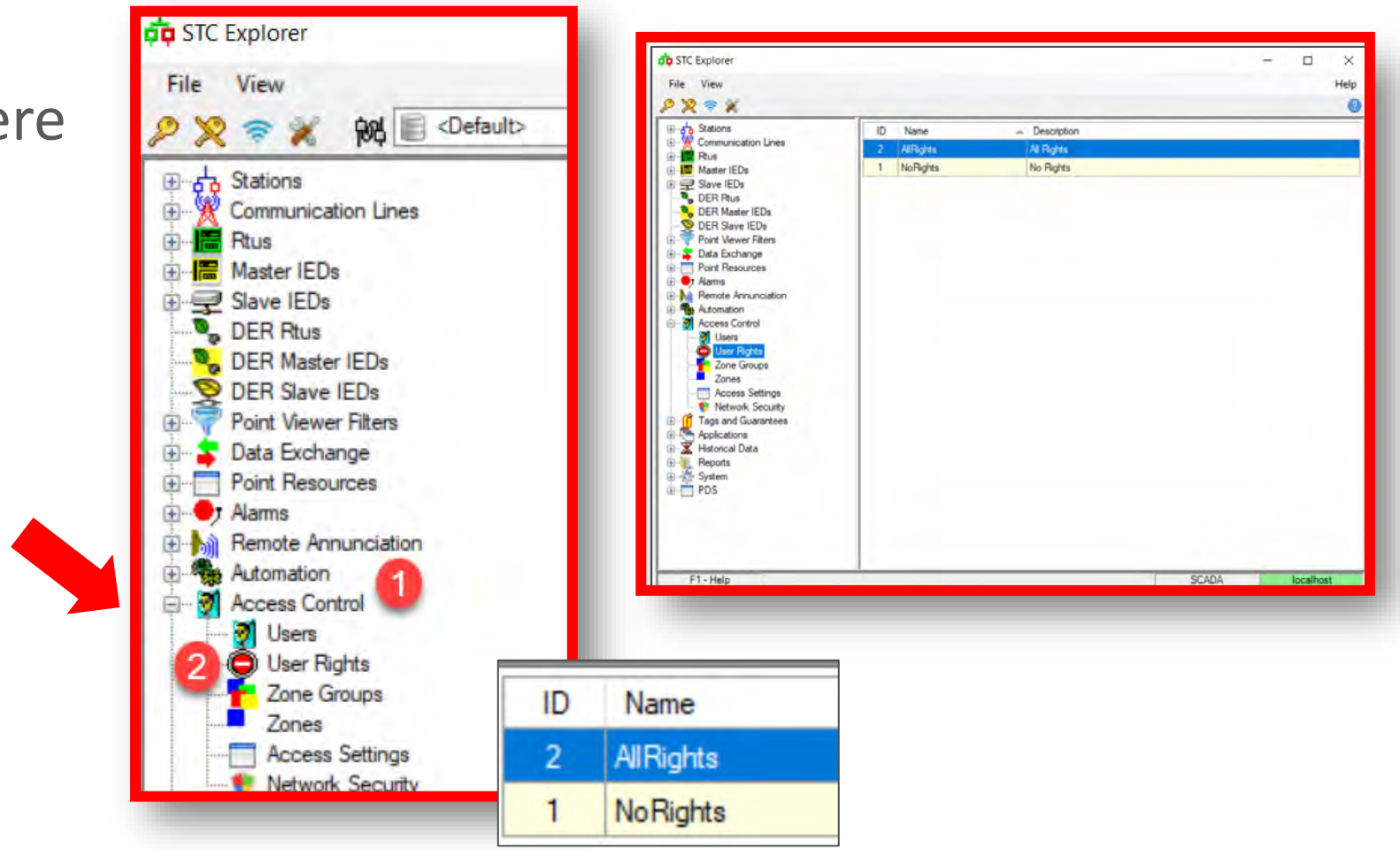


Putting it all together



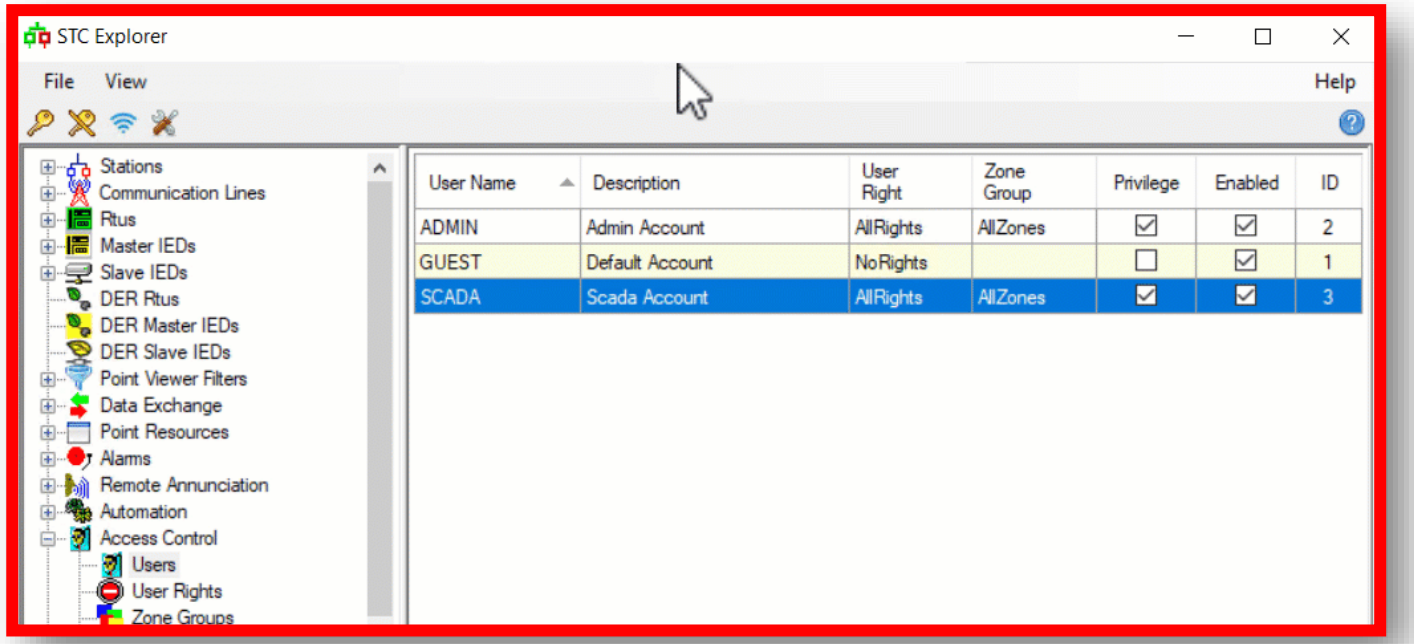
Access control: Users

- User Profile and Rights
  - To access the system, there must be a valid account
  - Each account must have proper permissions
  - Built-in users
- (Guest, Admin and Scada)



Access control: User rights

- Customizable
- Assign permissions
- Enable and Disable



Exercise

Create User & User Rights

- Open STC Explorer
- Create User Rights For Operator Users
- Create User Profile for Operators

Zones and Zone groups

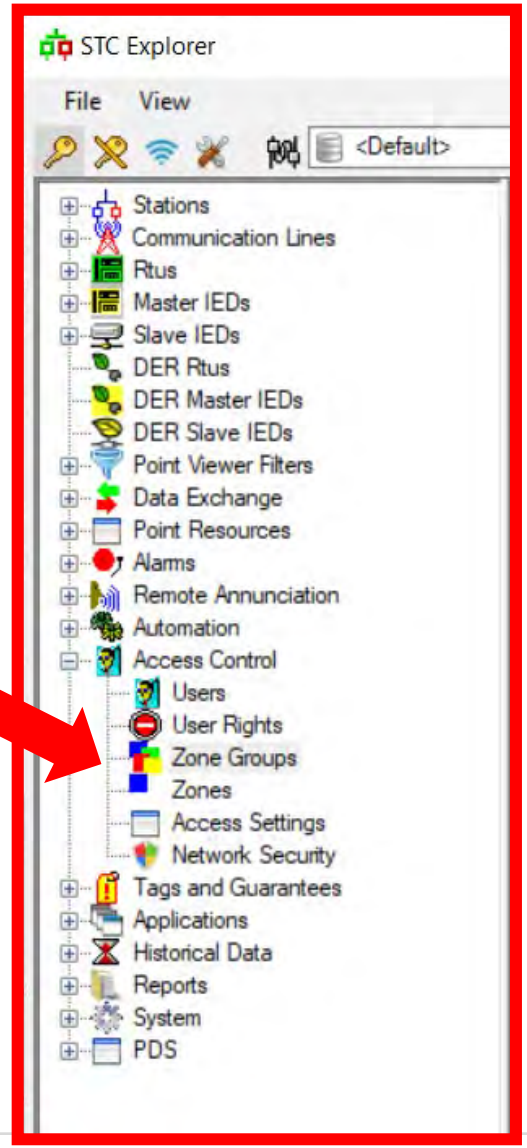
Zones

- Intended to represent areas of responsibility
- 128 individual zones

Zones Groups

- Zones are organized into groups
- Groups can contain one or more zones
- A zone can be a member of one or more groups

Zones and Zone groups



Exercise

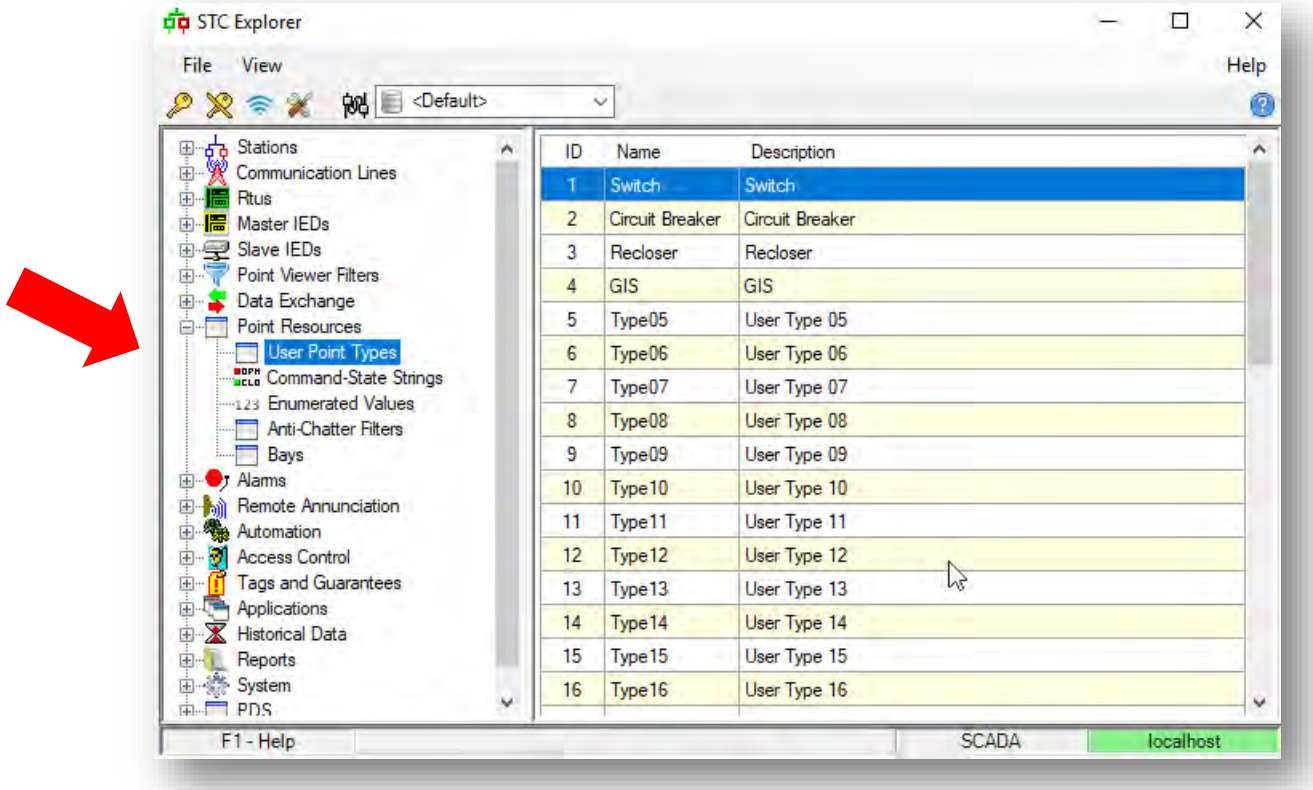
Create Zones & Zone Groups

- Open STC Explorer
- Create **Zones** called North, and South
- Create a **Zone Group** called North Zone Group and add zone North to it
- Assign a Status point to this zone group
- Add a User to this zone group

User Point Types

Point Types

- Intended for grouping status and analog points by function or data type
- Very useful for reporting



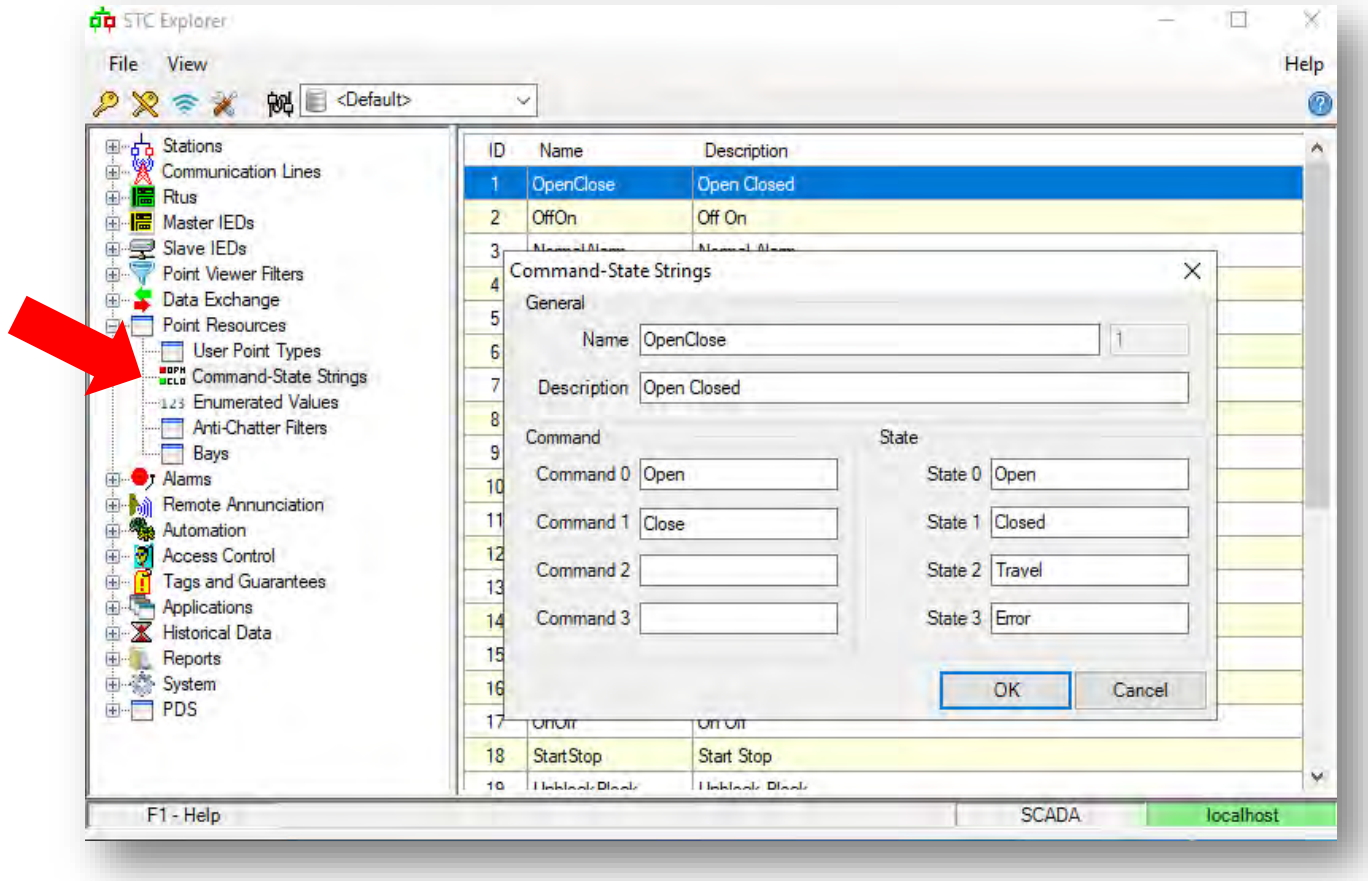
Exercise

Create a User Point Type

- Open STC Explorer
- Create a User Point Type called AMPS

Command-State Strings

- Text strings that represent the commands that can be sent out to a controllable device (0,1), and feed back states (0,1,2,3)
- All Status Points use command/state strings to define strings to display their state and identify the commands that can be issued
- Some PMacros will allow us to display the strings on the map

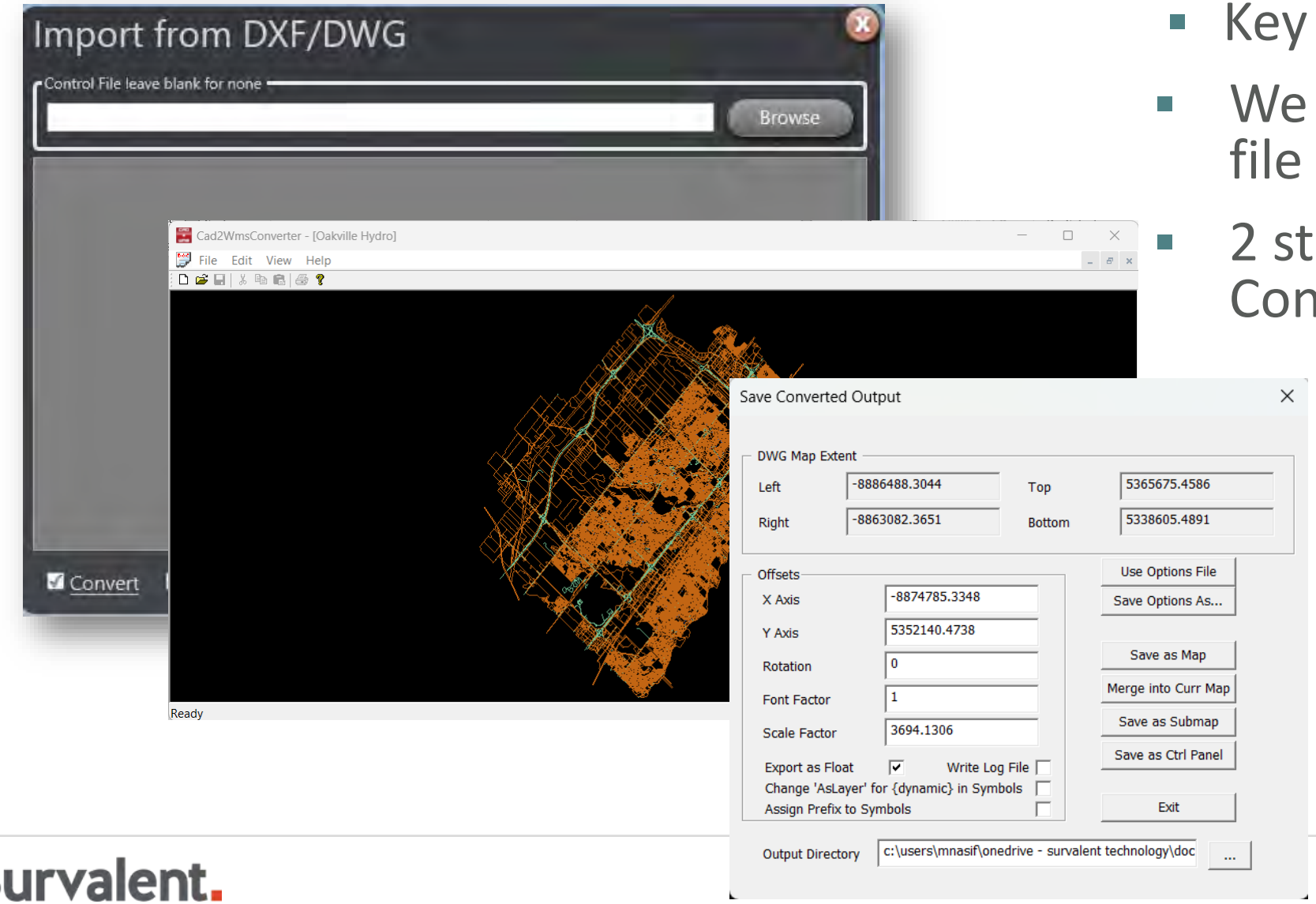


Exercise

Take a look at Command-State

- Open STC Explorer
- Locate the current setting of Command-State called Open/Close
- What happens when commanded state does not match Feedback state (Status Input)?

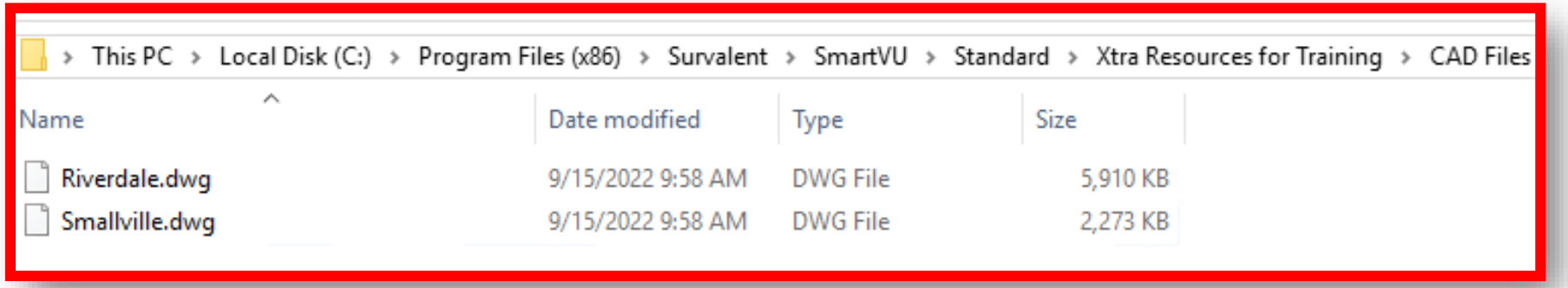
Import a CAD file



- Key points
- We support importing CAD file (DXG/DWG)
- 2 step process consists of Converting and Importing

Import a CAD file

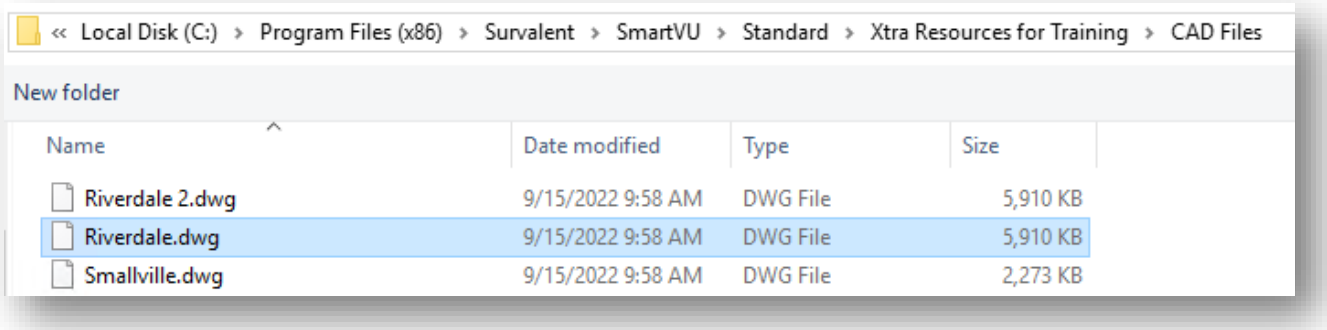
- Training CAD file location:
- *C:\Users\Administrator\Desktop\Xtra Resources for Training\CAD Files\Riverdale.dwg*



Exercise

Conversion Steps

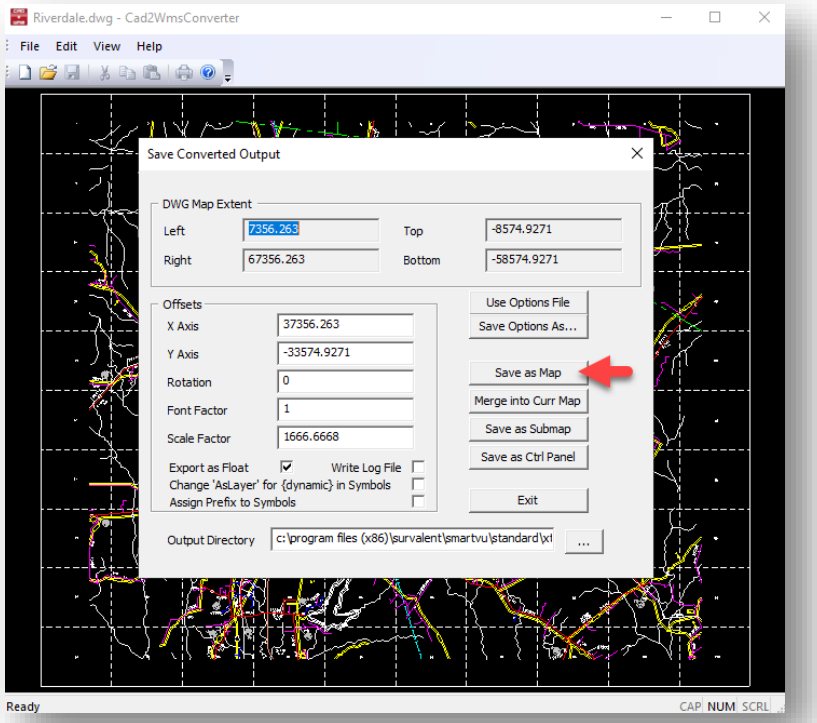
- Using the utility called Cad2WmsConverter
- Open file from path:



Exercise

Conversion Steps

- Once the map is loaded, click File and Save As
- Then click Save as Map or Merge into Current Map

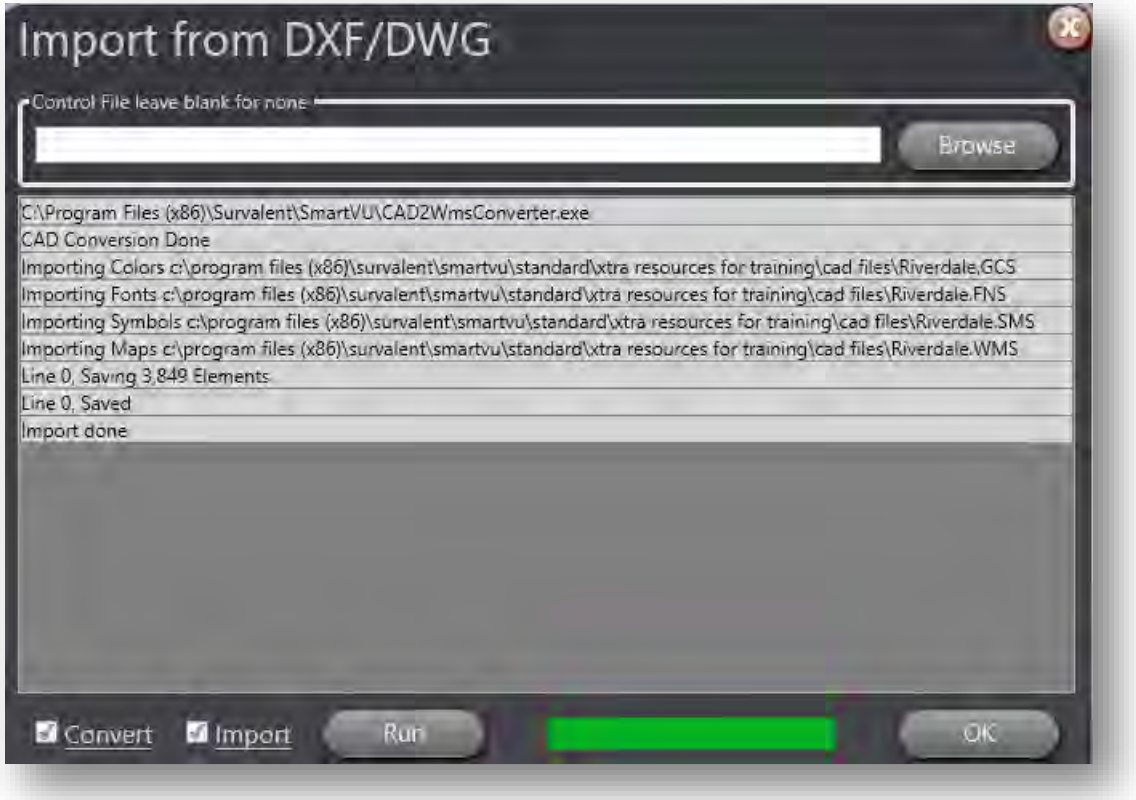


- After the export is finished, you may close out of this application

Exercise

Import Steps

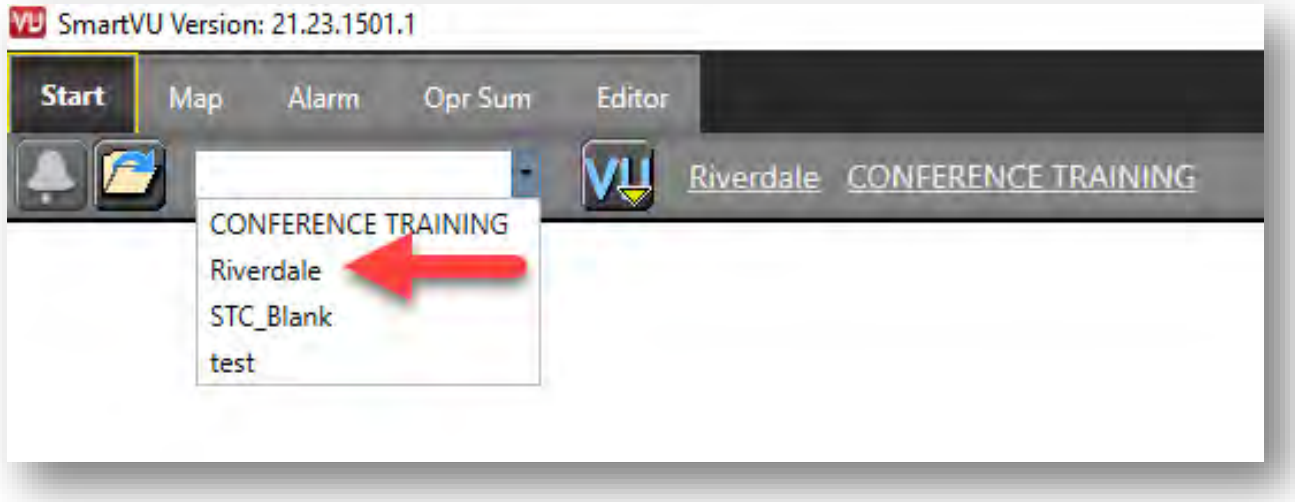
- At this point, SmartVu will take over the import process



Exercise

Open up the Riverdale Map

- Open the Riverdale Map



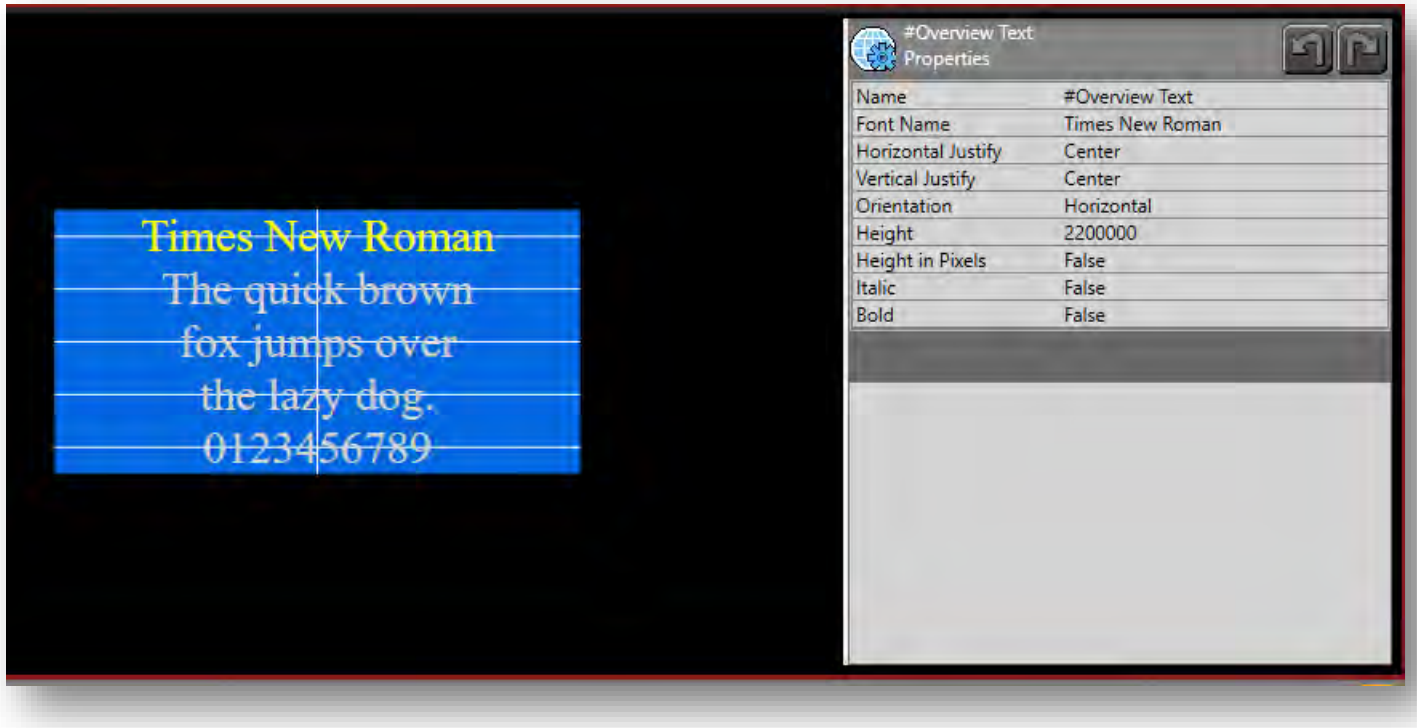
Exercise

Import the training CAD file

- Open SmartVU, login as user: scada/scada
- Editor tab, click on Tools, select Import> Import from DXF/DWG
- Then click on Run

Fonts

- Are used to display text on the map
- Customize each font to keep consistency for your labels, titles, names, etc…



Exercise

Create Some Fonts

- Open the Training SLD Map and go to the Edit Tab
- Go to the Library, select Font and select New
- Create the following fonts:
  - Home Page Title – height: 10 million
  - Home Page Label – height: 2 million
  - Substation Title – height: 100,000
  - Substation Label – height: 30,000

Colors

Key points

- Are often used to represent a function, i.e. represents Open/Close states of a circuit breaker
- Open color 
- Close color 

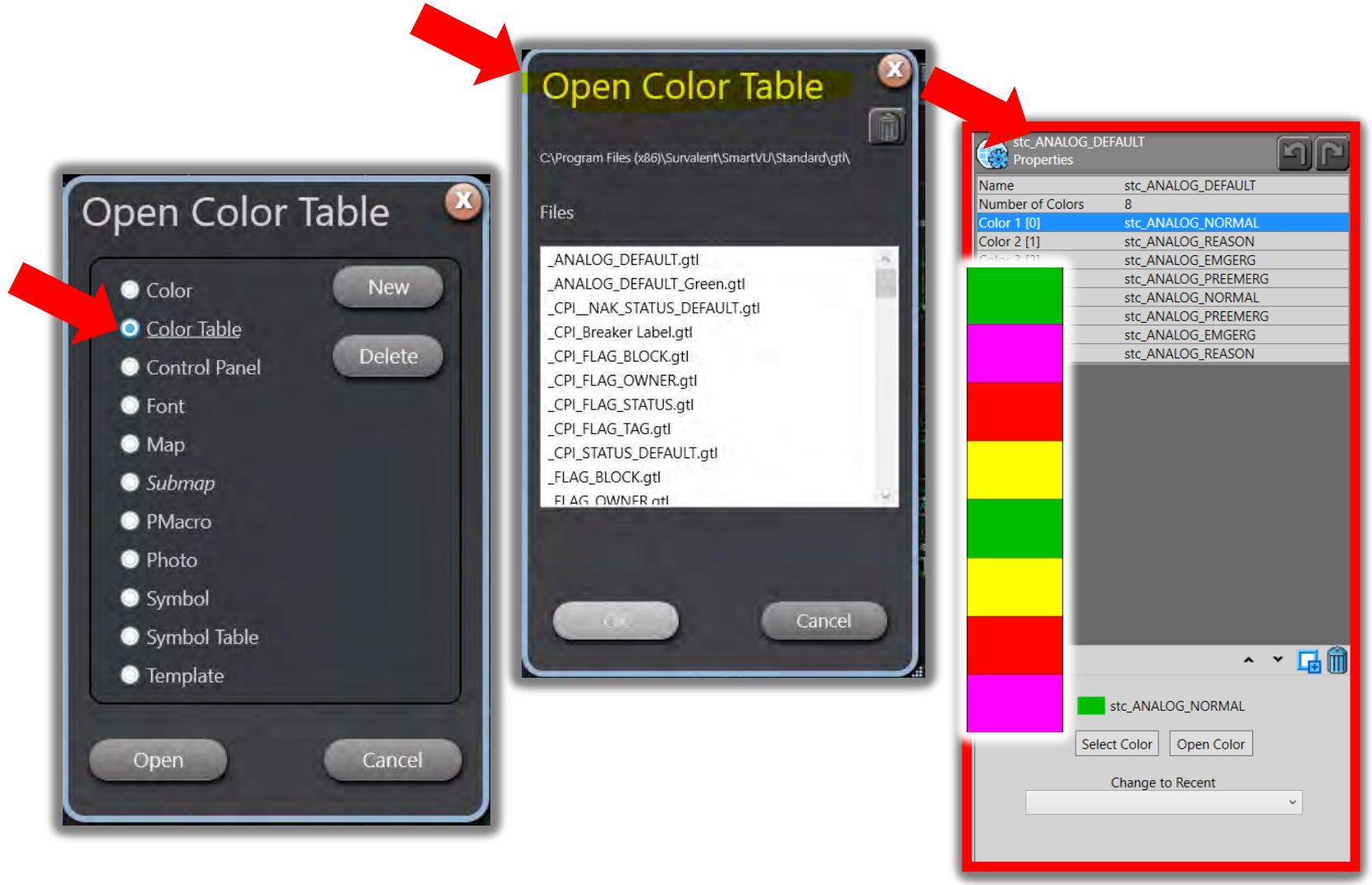
Exercise

Create Functional Colors

- Open the Training SLD Map and go to the Editor Tab
- Go to the Library, select Color and select New
- Create the following colors:
  - #Open – green color
  - #Close – red color
  - #NAK open – blinking green color
  - #NAK close – blinking red color

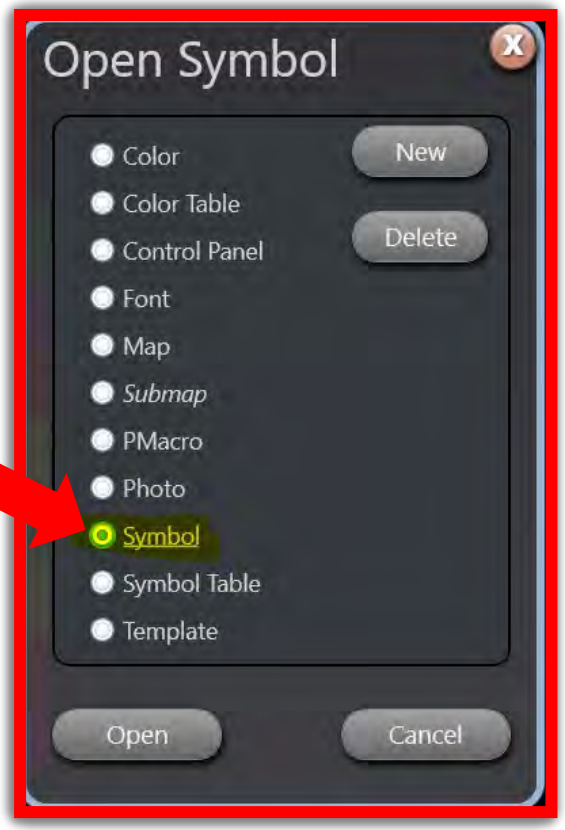
Color Tables

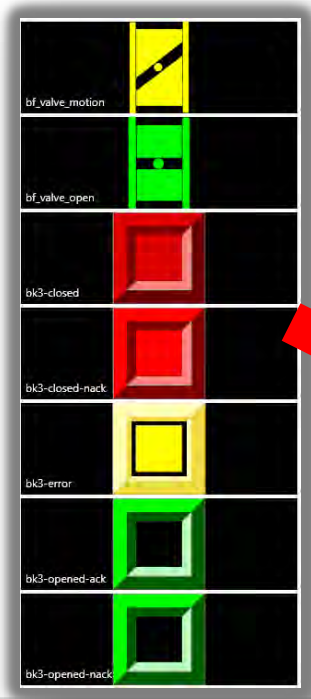
- An efficient way of assigning colors
- You can define the colors for each state of a point
- Some PMacros will use these color tables automatically to assign colors

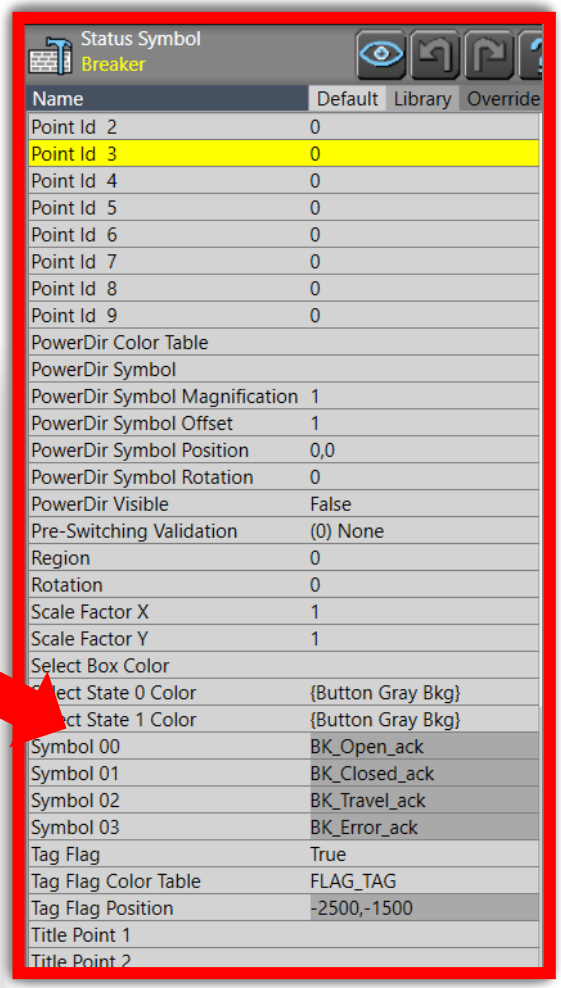


Symbols

- Very versatile and customizable
- Can be Hand Drawn Images or Stored Images (but saved as a symbol)
- It is used with a Pmacro
- Drawn objects that can be grouped together to represent a device i.e. Circuit breaker







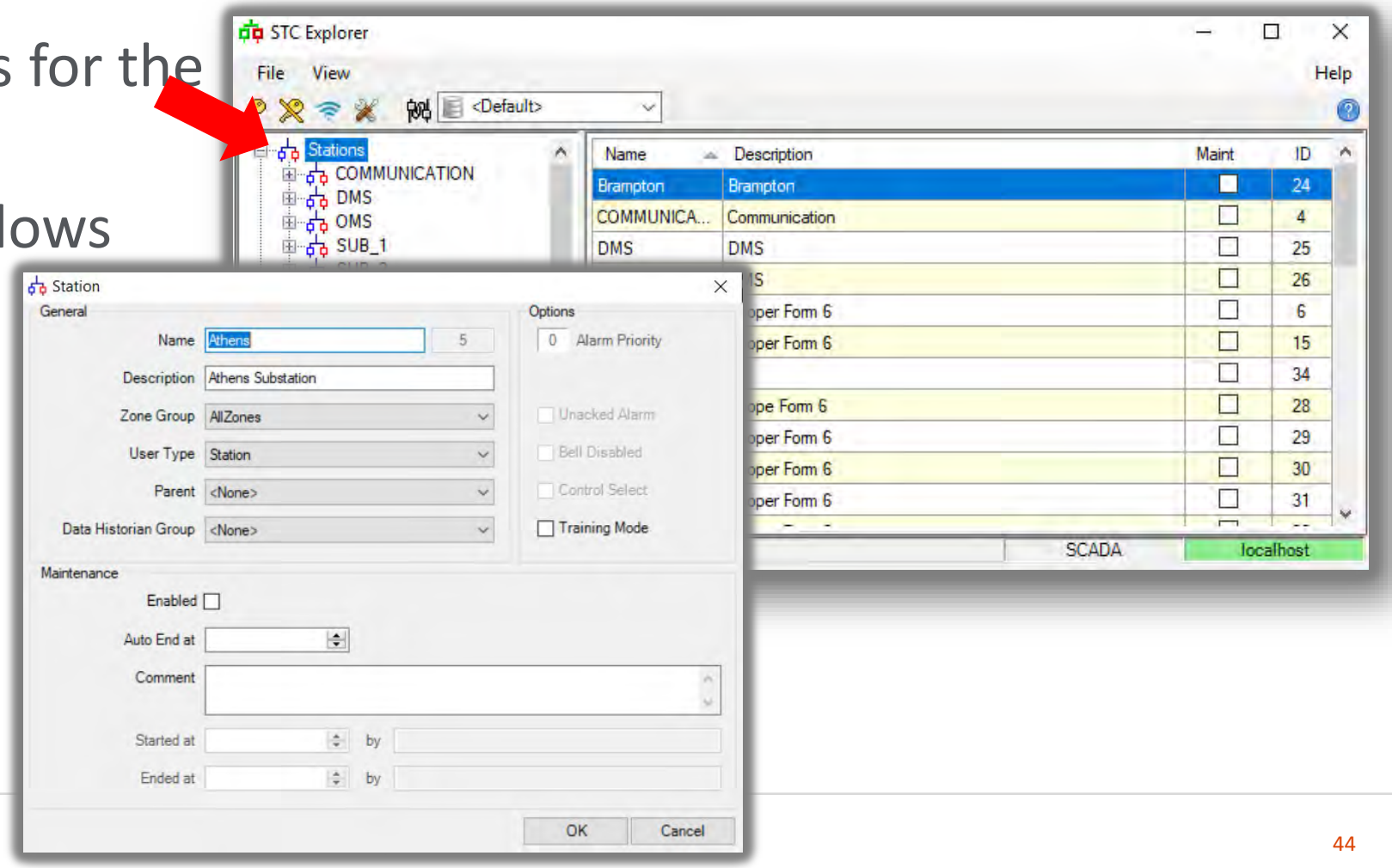
Exercise

Create Symbols For A Circuit Breaker

- Open the Training SLD Map and go to the Editor Tab
- Go to the Library, select Symbol and select New
- Create the following Symbols:
  - #Open Breaker – using #Open color
  - #Close Breaker– using #Close color
  - #NAK Open Breaker – using #NAK Open color
  - #NAK Close Breaker – using #NAK Close color

Stations

- Represent a group of points that are physically related
- Logical grouping of points for the Operator
- Like folders on your Windows Environment



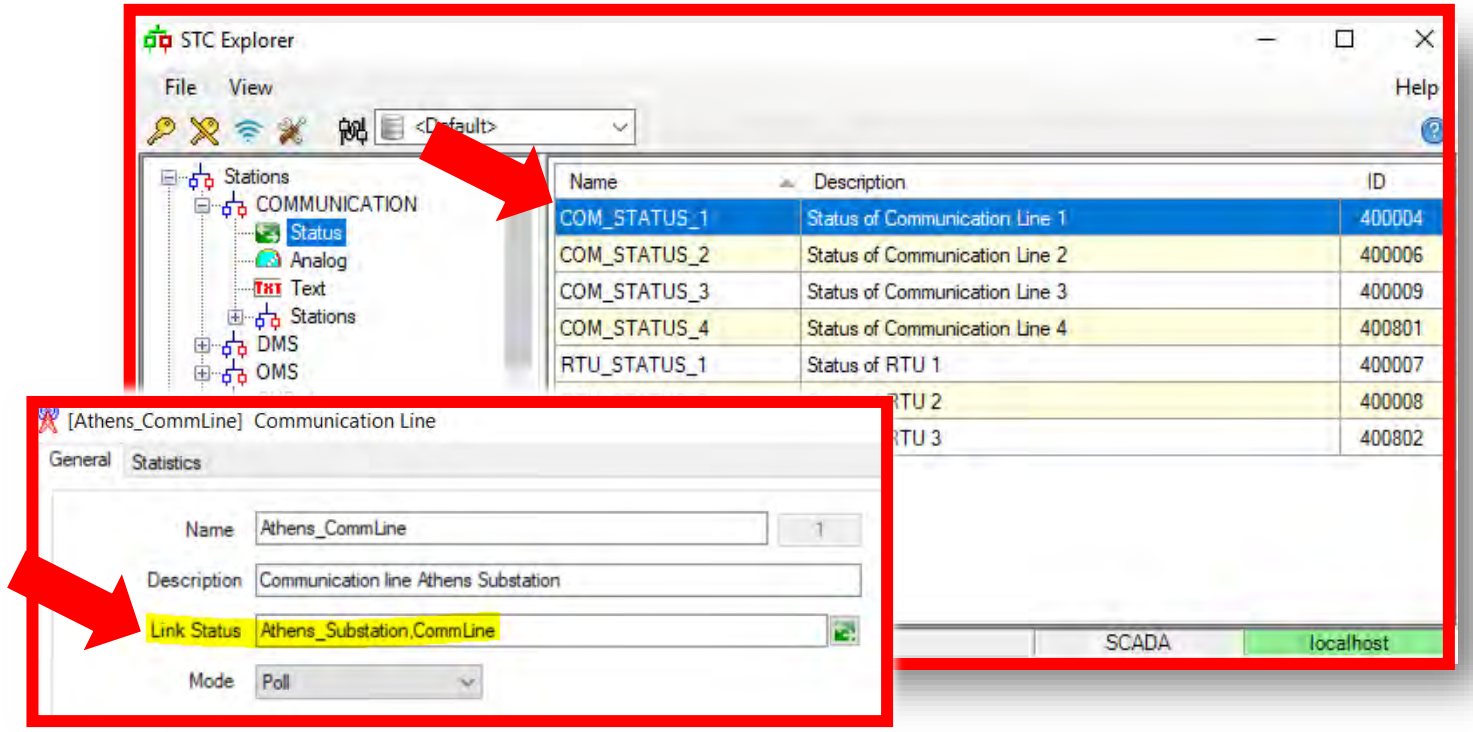
Exercise

Create a Station

- Open STC Explorer
- Click on the Stations heading
- Create a Station called North

Link Status Point

- pseudo point type for Health monitoring, i.e. no telemetry
- Allows you to monitor connection status
- Required for the creation of Communication Lines/RTUs/DE Servers



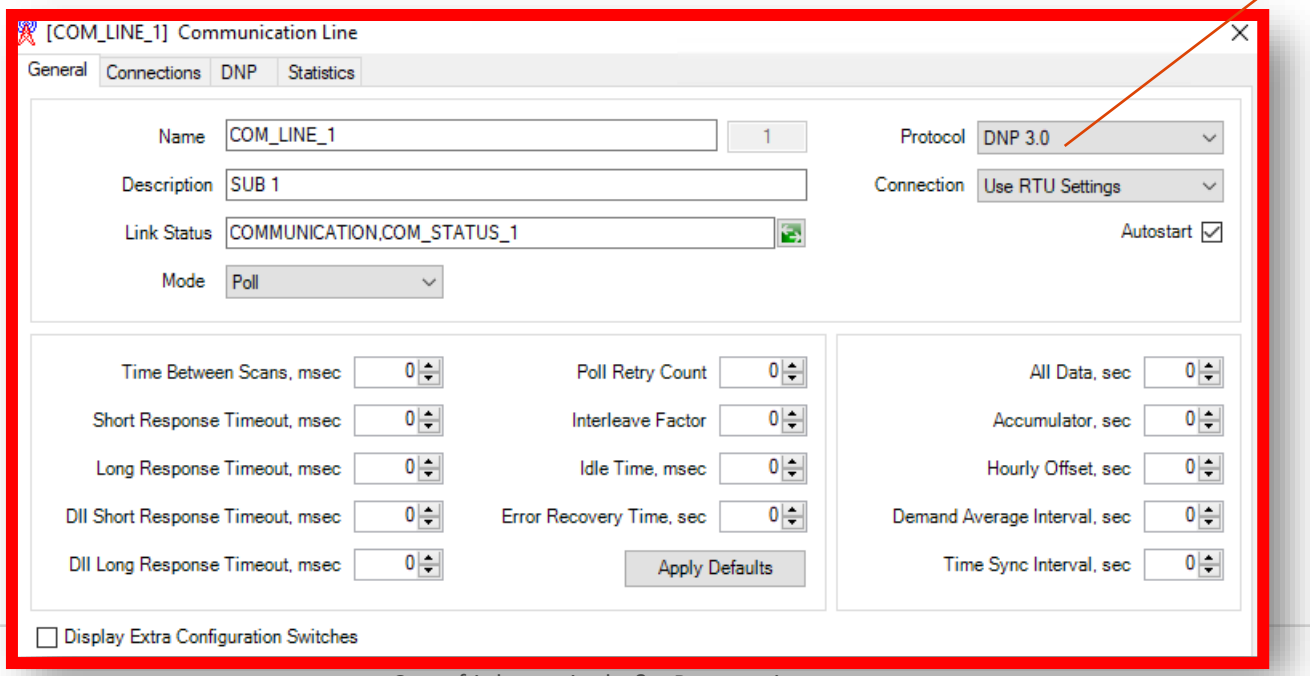
Exercise

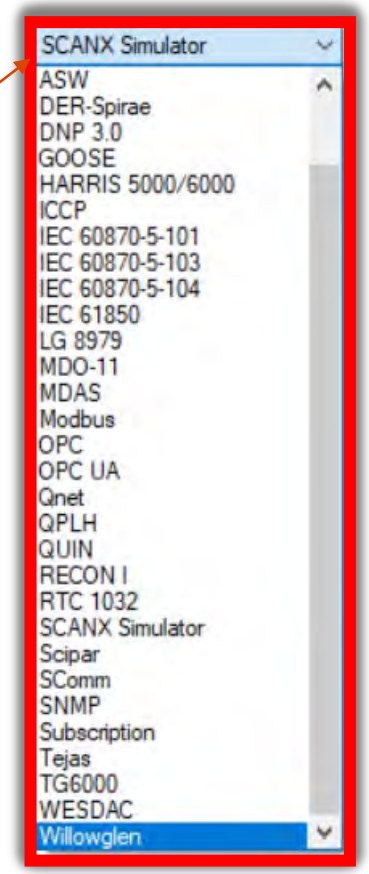
Create two Health Points

- Open STC Explorer
- Click on the Communication Station
- Create two Health Points called:
  - COM_STATUS_NORTH
  - RTU_STATUS_NORTH

Communication Lines 1/2

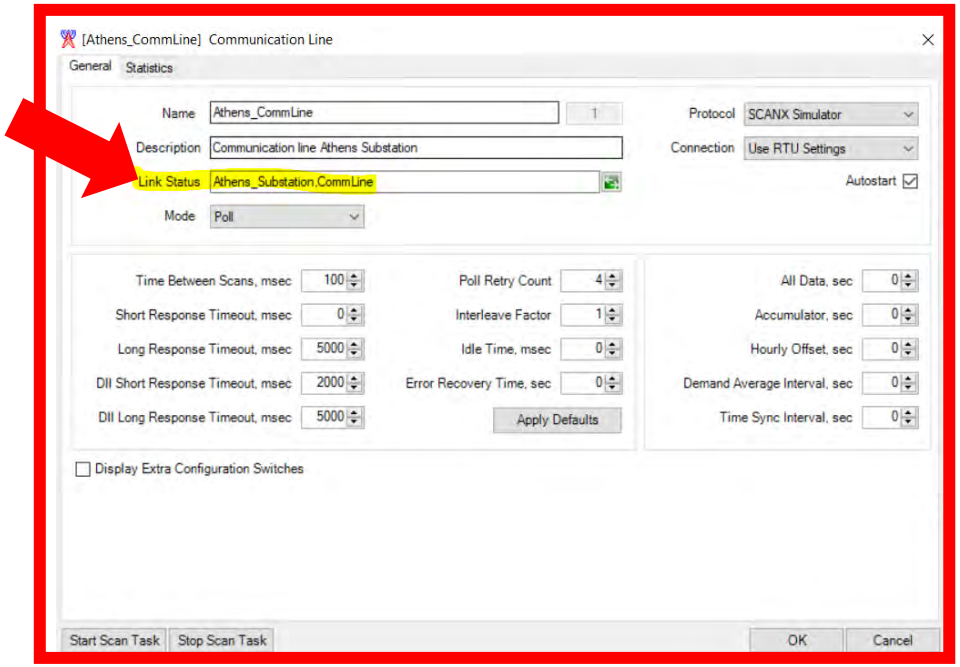
- is an element in the database that represents the medium used to communicate with RTU(s) or Master IEDs.
- SCADA Host runs a separate scan task for each commlines
- Lots of attributes to define such as protocols, baud rates, etc…





COMMUNICATION Lines 2/2

- By manually setting the communication line status point to Down, you can tell the scan task to stop polling, thereby effectively “shutting down” the communication line



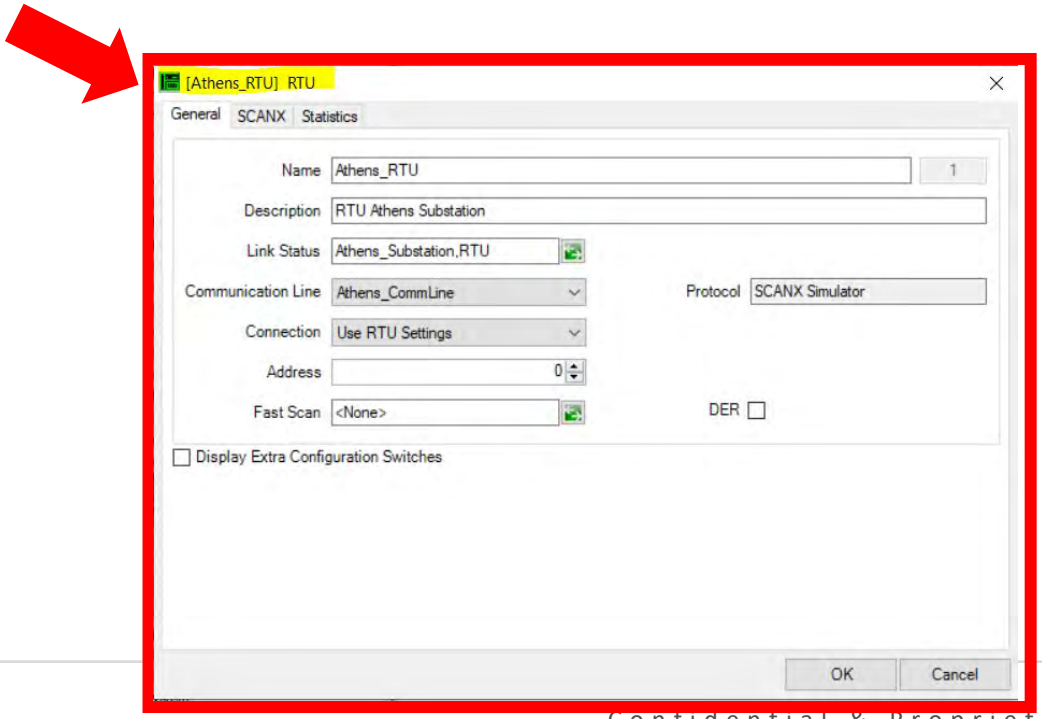
Exercise

Create a Communication Line

- Open STC Explorer
- Click on the Communication Lines
- Create a communication line called:
  - COM_LINE_NORTH
  - Protocol: DNP
  - Link Status: COM_STATUS_NORTH

Remote Terminal Unit (RTU)

- is an element in the database that represents a physical RTU/IED that is connected directly to the communication line.
- Has an associated link status point that the scan task uses to tell you it's communicating with the physical device.



Exercise

Create an RTU

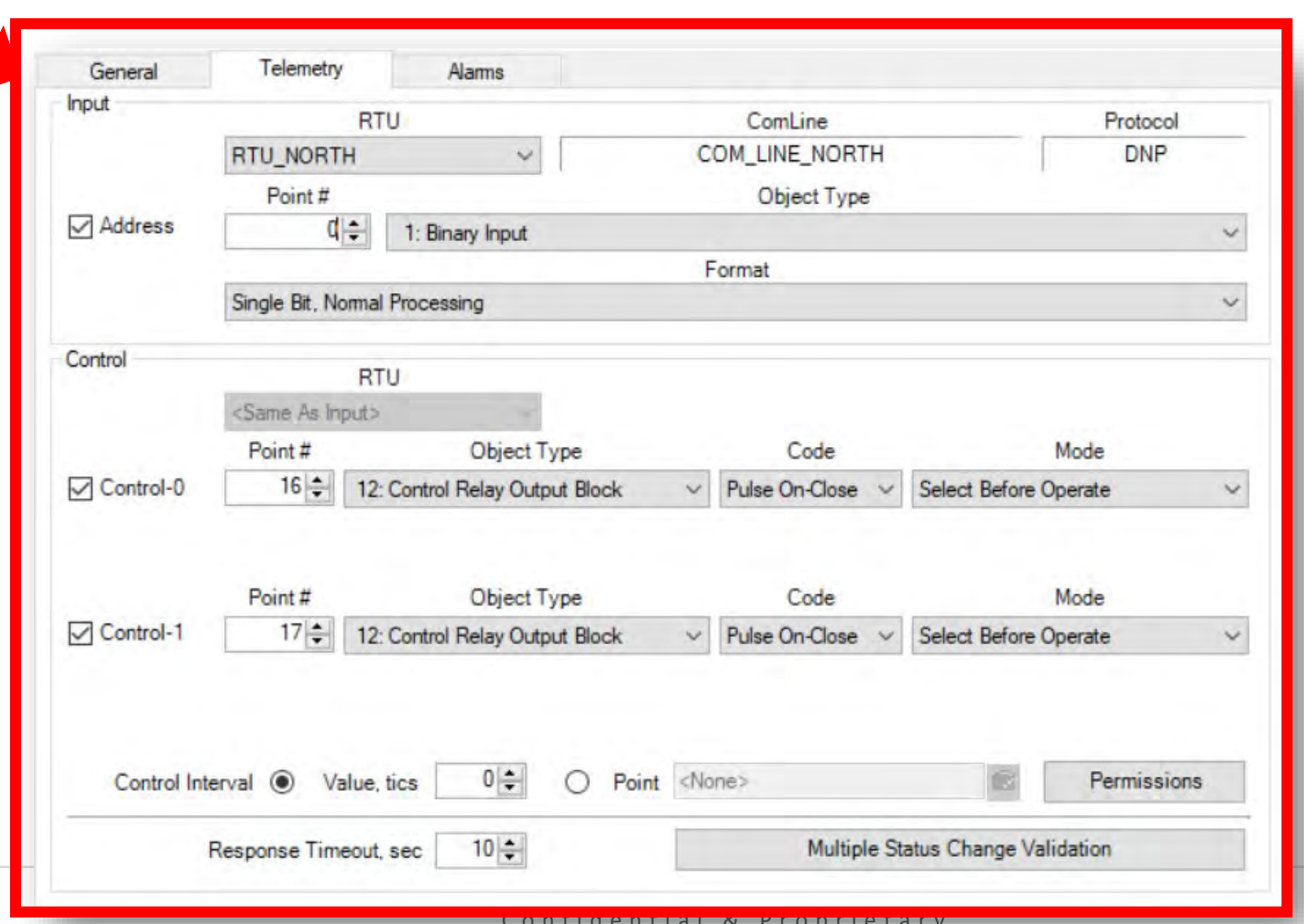
- Open STC Explorer
- Click on the RTUs
- Create a RTU called:
  - RTU_NORTH
  - Link Status: COM_STATUS_RTU
  - Address: 3
  - DNP port: 20000 (Under Connections)

Status Point

- At this point, let's manually add in some points
- Status point is used to represent the state of a field device such as a breaker or valve
- two-state (breaker 0,1) or four-states (motor 0,1,2,3)
- Telemetry Information obtainable from Device User Guide

Sample SEL651R

Create a Status Point for a Breaker (Sample)



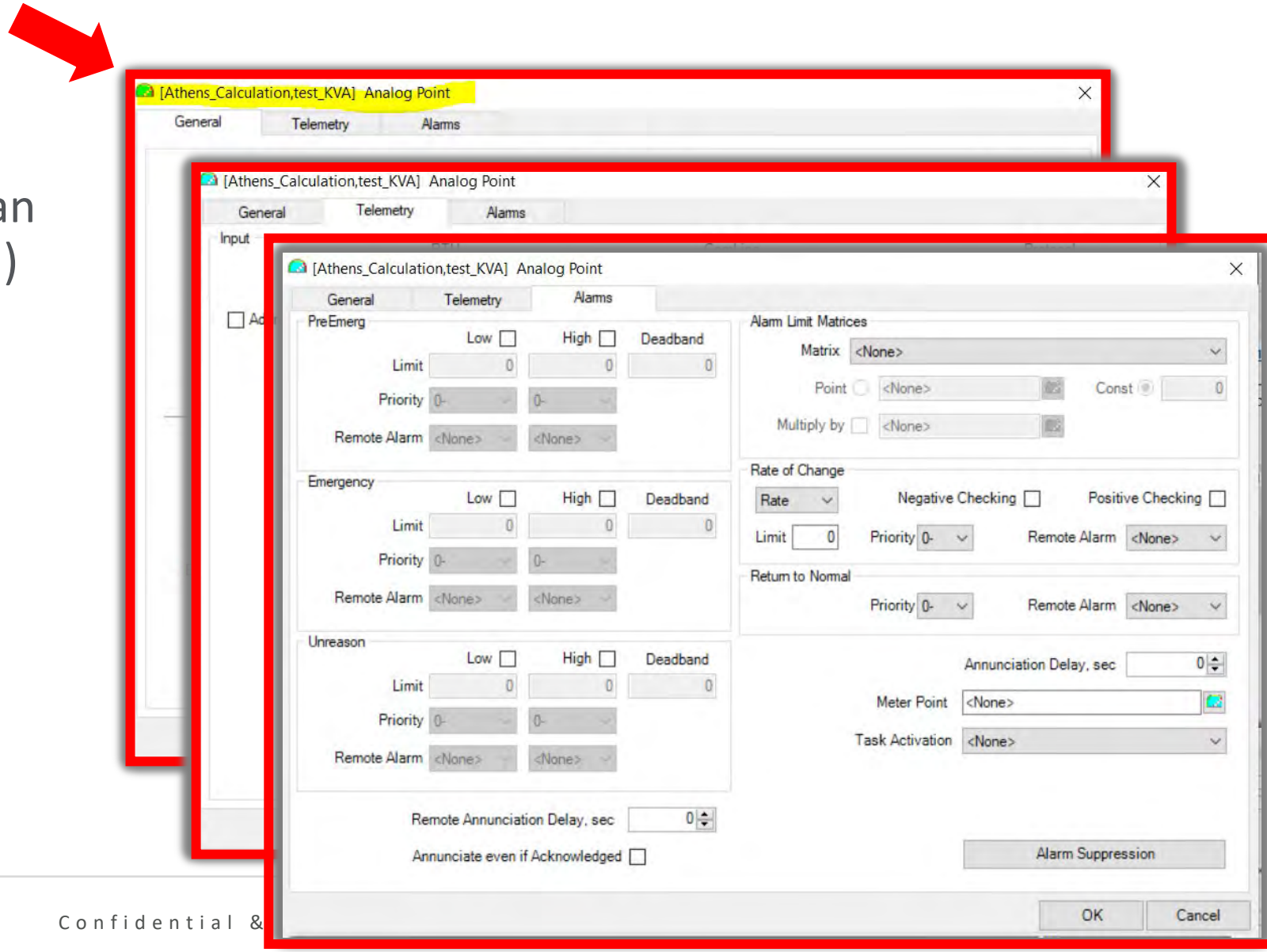
Exercise

Create a Status Point for a Circuit Breaker

- Open STC Explorer
- Click on the North Station
- Create a Status Point called:
  - Name: 52A
  - User Type: Circuit Breaker
  - Command-State: OpenClose
  - Under Alarms
    - Change Priorities to 1
    - Change Normal State to State 1
    - Enable Raise Alarm Control

Analog Point

- Analog point represents a numeric value
- Support alarm limits (cause an alarm to be raised or cleared)
- Optional limits:
  - **Pre-Emergency**
  - **Emergency**
  - **Reasonable**
- **Apply Deadband and alarm priorities**



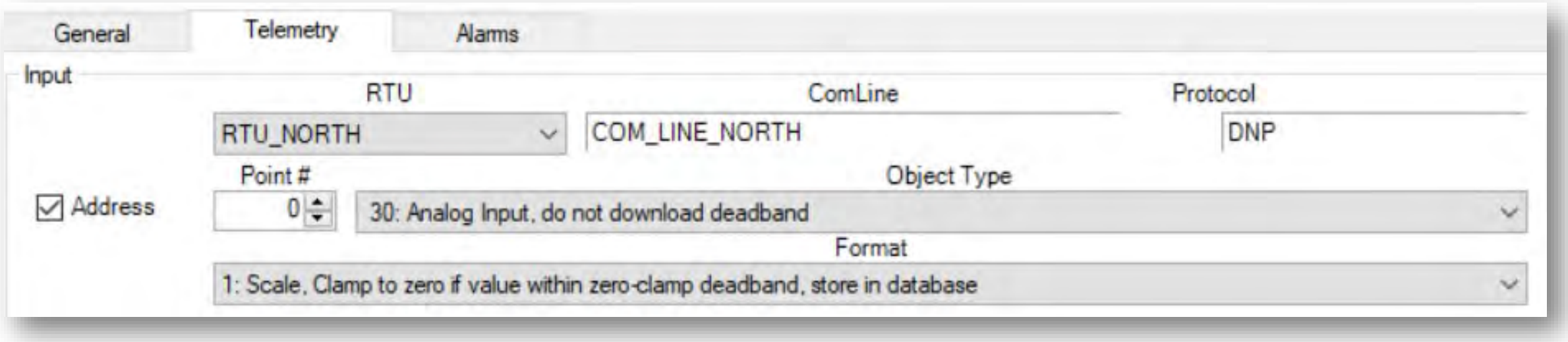
Exercise

Create an Analog Point

- Open STC Explorer
- Click on the North Station
- Create Analog Point called:
  - Name: IA
  - User Type: IEDdata or AMPS
  - Device class: Analog
  - Engineering Units: AMPS

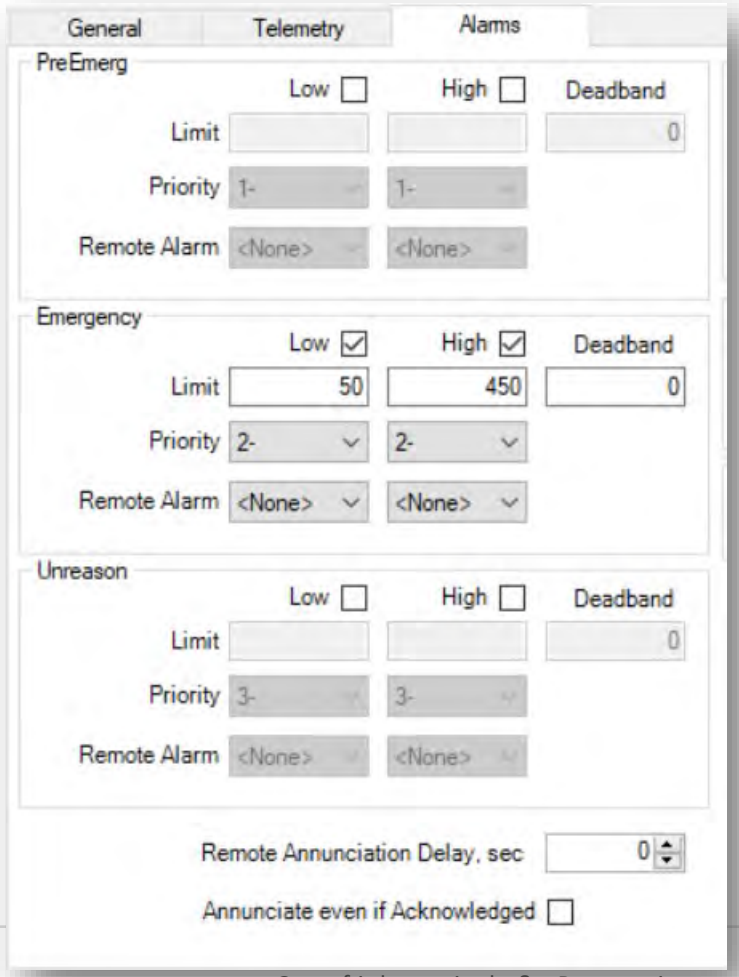
Exercise: Continued

Create an Analog Point



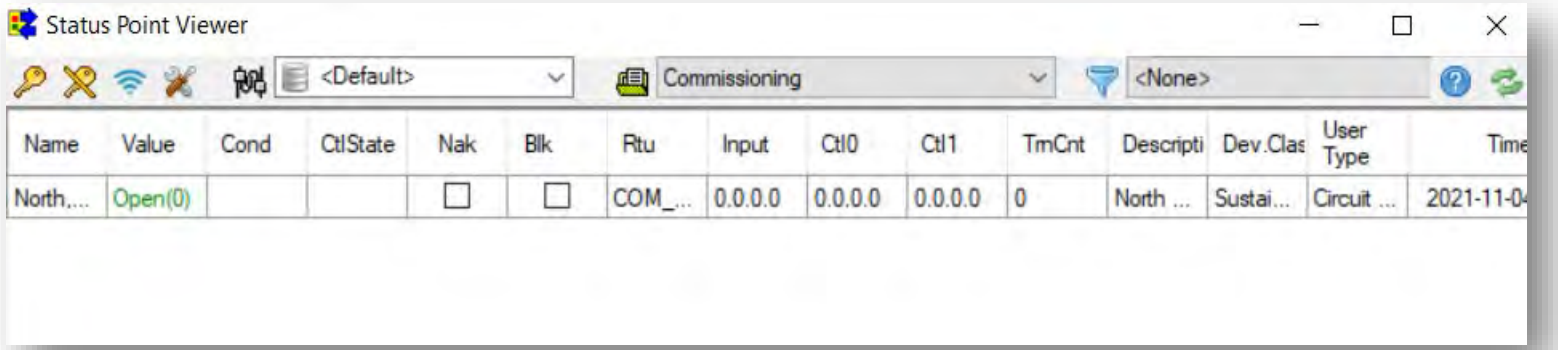
Exercise: Continued

Create an Analog Point

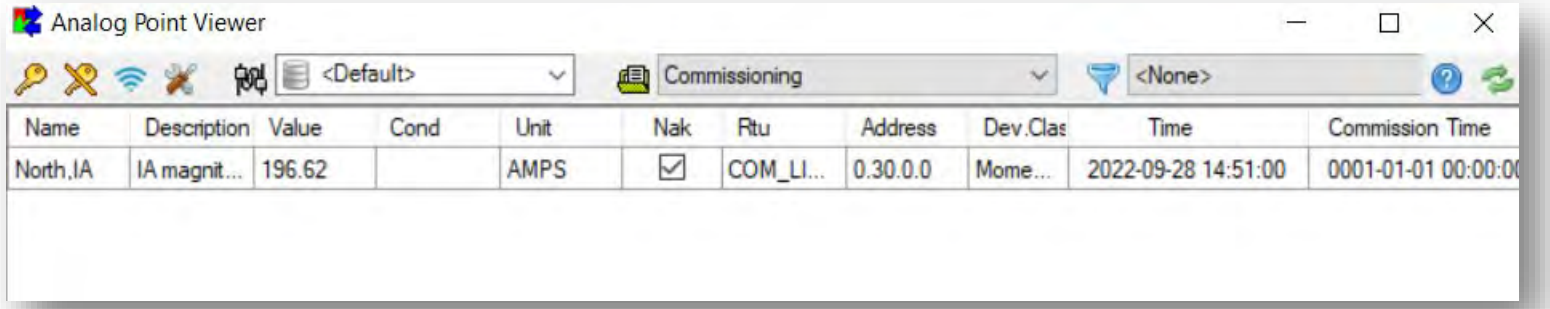


Status / Analog Point Viewer

- Status Point Viewer



- Analog Point Viewer



Exercise

Status and Analog Point Viewer

- Open the Status Point Viewer
  - Locate our 52A status point and list out the functions that you can perform
- Open the Analog Point Viewer
  - Locate our IA analog point and list our the functions that you can perform
  - Also, are the numeric numbers changing?

Survalent.

SurvalentOne SCADA Refresher

Global User Conference – Denver 2025

Agenda

DAY 1

- Learn to navigate Survalent's Support Site and Install Software
- Set Up Users, Zone Groups, Zones, Point Types, and State Strings, Alarm Parameters
- Create a map, add elements, and import elements including CAD files
- Create Symbols, Color Tables, and Fonts
- Create Station and Configure Communication Lines and RTUs
- Create and Configure Status and Analog Points

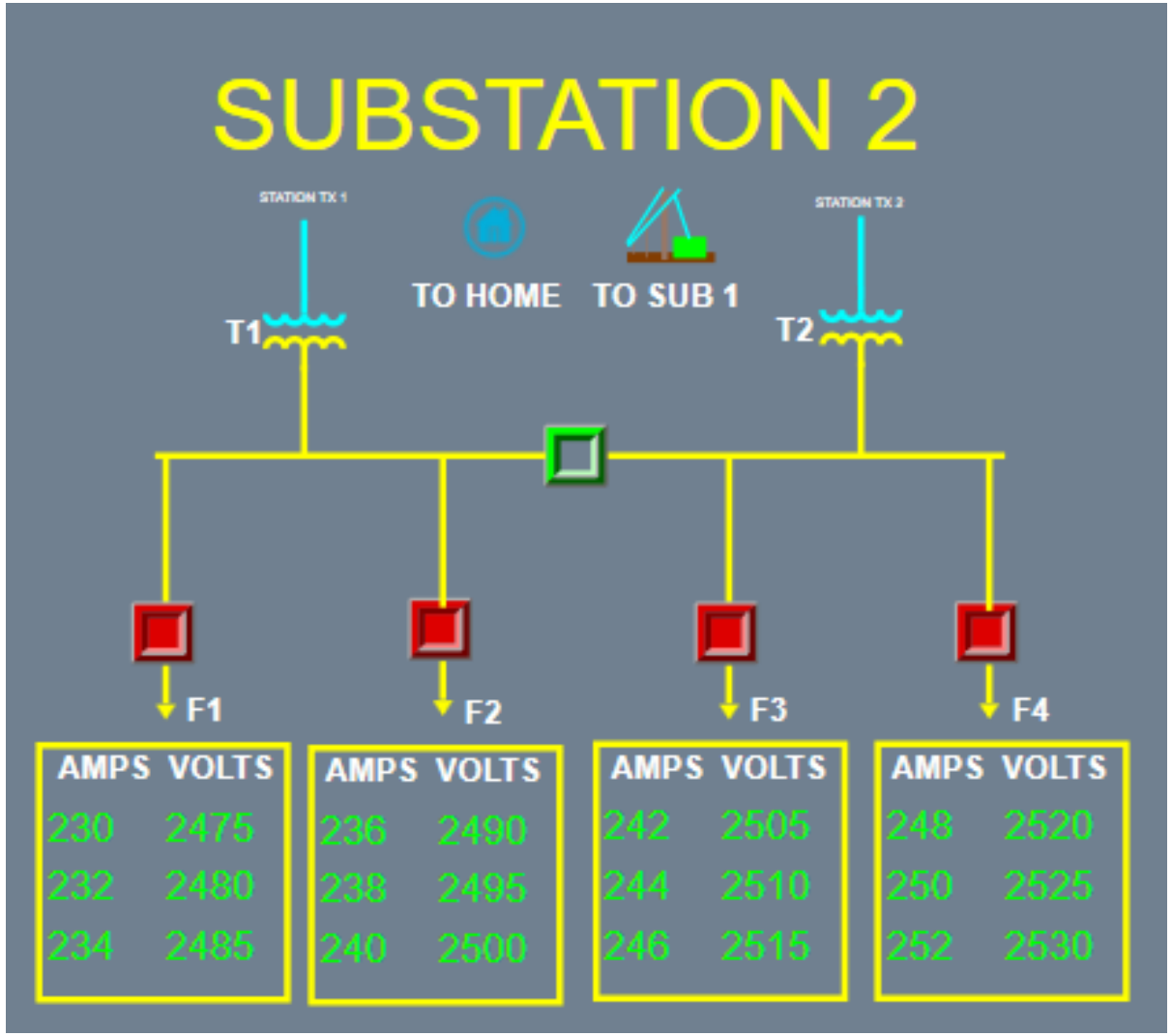
Day 2

- Create and Configure PMacros
- Navigating SmartVU applications
- Dump Points
- Using IED Wizard Templates
- Import, Install and Configure Control Panels
- Sustained and Momentary Alarms
- Create Reports
- Automation Templates
- Command Sequences, and Control Groups

DAY 2

Single Line Diagram (SLD)

- Is a simplified schematic representation of a section of an electrical system
- Helps illustrate our network, devices, etc…



Drawing Tools

- Several built-in tools
- Alignment tools

Exercise

Draw a Single Line Diagram

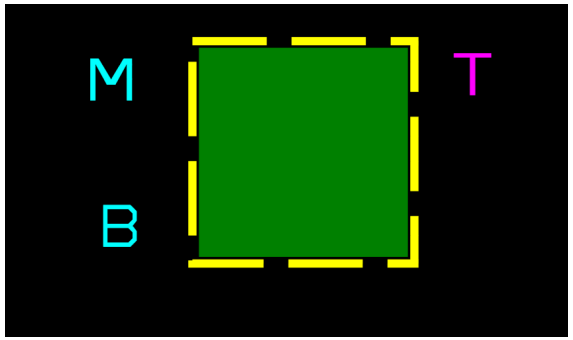
- Open SmartVU and launch the Training SLD map > go to the North Station
- Using the drawing tools, complete the single line diagram

PMacros

- At this point, we have created fonts, colors and symbols in our system.
- Using Pmacros, we can utilize these elements to enhance our map (dynamically) by:
  - simulating a device such as a breaker
  - using it as a pushbutton to produce a report, graph, run/stop an application, etc..
  - Display colors, values, and more….

Three popular PMacros

STATUS SYMBOL

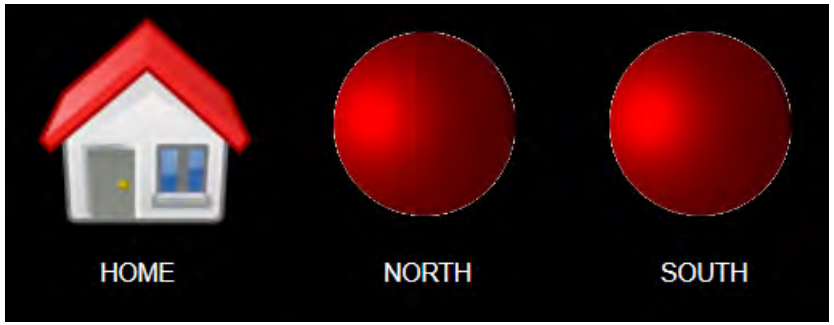


- Circuit breaker

ANALOG VALUE

- Displaying values

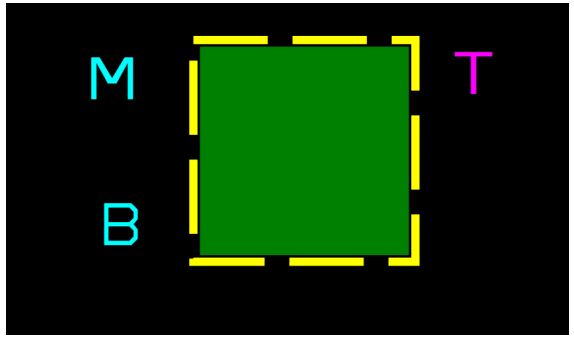
PUSHBUTTON



- Bring up another view of the map

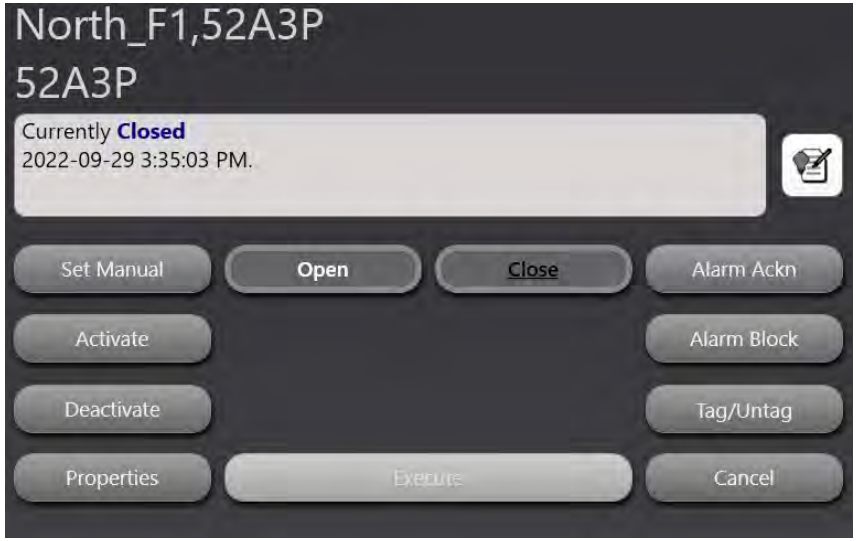
Status Symbol PMacro

STATUS SYMBOL



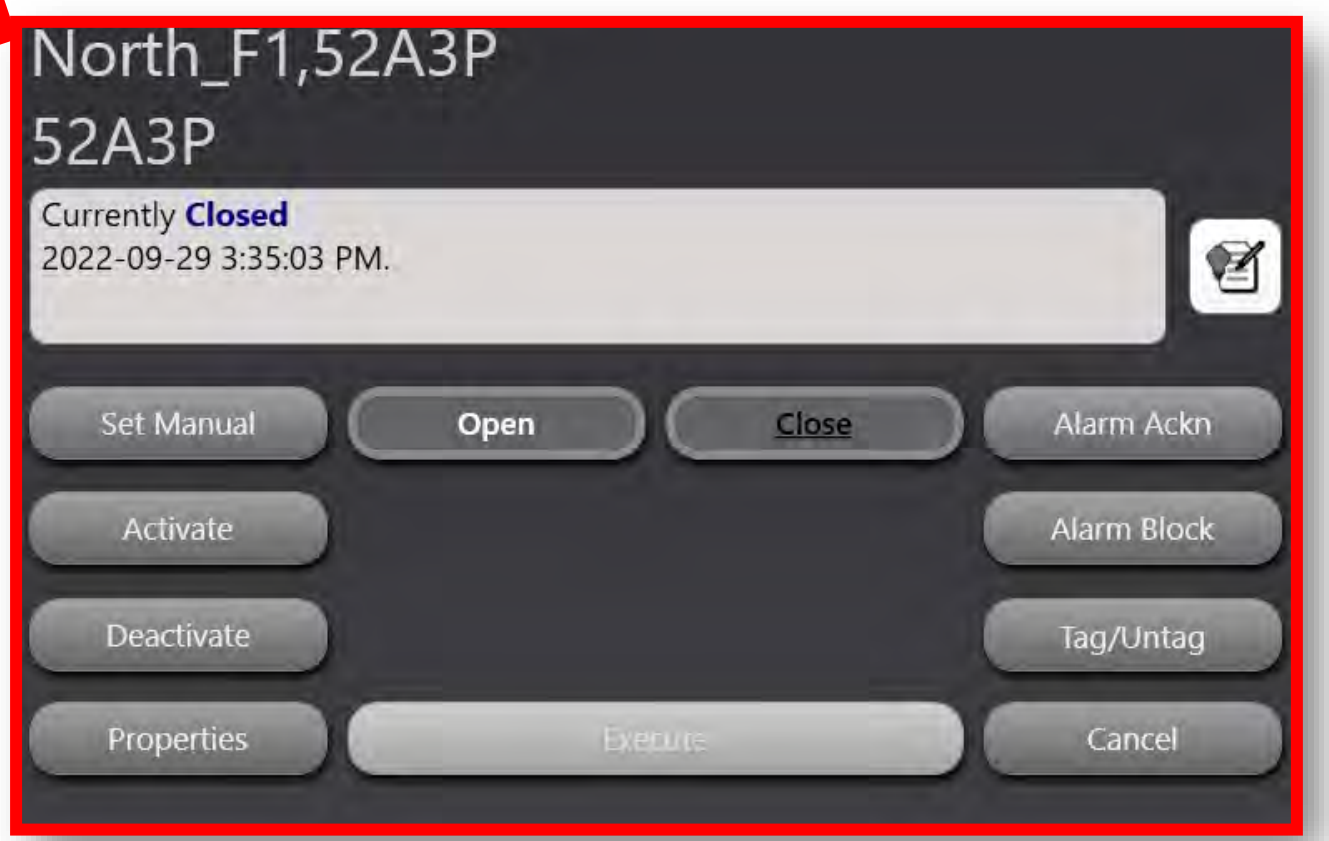
- Circuit breaker

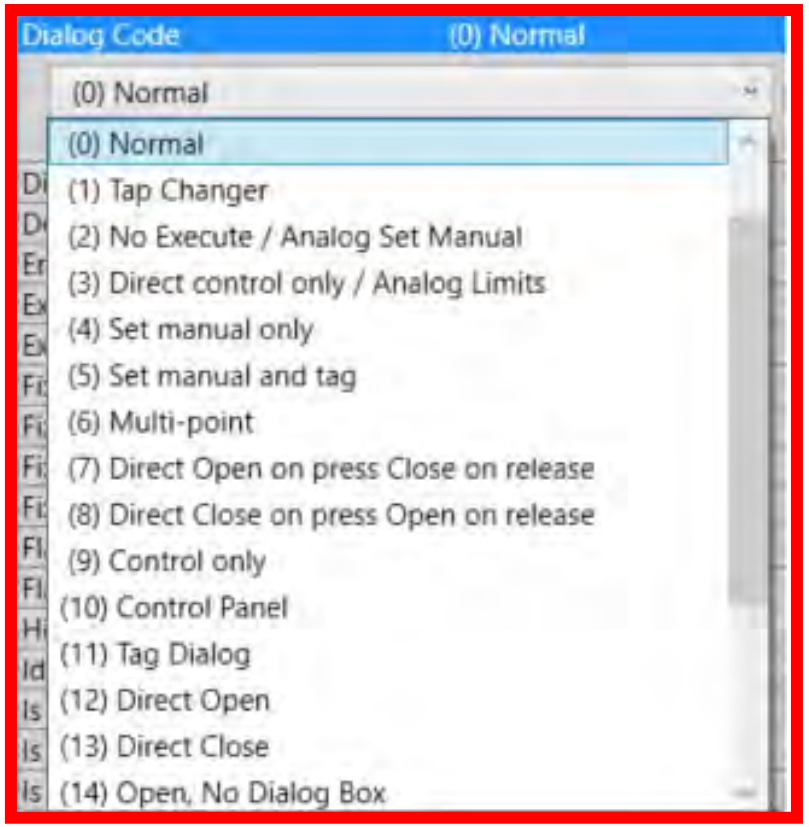
- Recall the 4 symbols that we created:
  - #Open Breaker
  - #Close Breaker
  - #NAK Open Breaker
  - #NAK Close Breaker
  - Font Color Table (All White) – Font Substation Label



Status Symbol PMacro

- Several control options for the operators





Status Symbol PMacro

- **List of dialog codes**

Dialog Code	Name	Description
-2	No dialog, Variable symbol sizes	A dialog code of –2 assigned to symbol PMacros causes the extent of the PMacro to depend on the currently displayed symbol instead of on the aggregate of all the symbols that are associated with the p-macro. Other than this, the behavior is as for dialog code –1. Using this combination of dialog codes allows you to create a p-macro that, while its point is in one state, stops another p-macro from being selected, but when the point is in another state, the second p-macro is both visible and selectable.
-1	Disabled (no dialog)	This is a special dialog code that is used for PMacros that are for viewing purposes only. The dialog code prevents the control panel from displaying when you click on the PMacro however the Tag/Untag, Notes, Alarm and Oprsum Viewer dialogs can be viewed from the right-click drop-down menu.
0	Normal	This dialog code causes all the buttons on the dialog to appear when the PMacro is selected.
1	Tap changer	The control panel displays a Properties button that allows you to access the point editor and allows you to make changes to the point if you have the right.
2	No execute/Analog Set Manual	The control panel displays a Properties button that allows you to access the point editor and allows you to make changes to the point if you have the right. For status points, dialog box has no 'Execute', for analog points, dialog box is 'Set Manual' type
3	Direct control only/Analog Limits	For status points, dialog box does direct control, without requiring 'Execute', for analog pints, dialog box is the 'Set limits' dialog.
4	Set manual only	This dialog code causes the Dialog to display only Manual Set buttons when the PMacro is selected.
5	Set manual and tag	This dialog code causes the Dialog to display only Manual Set and Tag buttons when the PMacro is selected.
6	Multi-point	There are two direct control panels for multi-points: • One is for multi-points PMacros where only one point name is defined • One is for multi-points PMacros when all the tree point names are defined

Status Symbol PMacro

- **List of dialog codes**

7	Direct Open on press Close on release	The dialog for this code contains just one control pushbutton. When you press and hold the control pushbutton, a 0-control is issued to the point, and the pushbutton label updates to show the state 1 command string. When you release the pushbutton, a 1-control is issued and the pushbutton label reverts to the 0 command string.
8	Direct Close on press Open on release	The dialog for this code contains just one control pushbutton. When you press on the control pushbutton, a 1-control is issued, and when you release the pushbutton, a 0-control is issued. You can keep the dialog up for repeated control actions by specifying a non-zero value for the Control Fail Timeout resource.
9	Control only	An execute button is included in this control panel.
10	Control Panel	If you use this dialog code a control panel is launched when you select the point.
11	Tag Dialog	Use this code if you want just the Tag/Untag dialog to be displayed when you select the point (with no other functions allowed).
12	Direct Open	The dialog for this dialog code contains just one pushbutton. Pressing on the pushbutton causes a control to be issued "open". This dialog is particularly useful for mimicking controls in control panels.
13	Direct Close	The dialog for this dialog code contains just one pushbutton. Pressing on the pushbutton causes a control to be issued "close". This dialog is particularly useful for mimicking controls in control panels.
14	Open, No Dialog Box	Use this dialog code to get a Command 0 button when the PMacro is selected. Execute is automatic.
15	Close, No Dialog Box	Use this dialog code to get a Command 1 button when the PMacro is selected. Execute is automatic.
16	Toggle state, No Dialog Box	Use this dialog code to have the point change state when selected.
17	Perform Indirect Action	Reserved for future use.
18	Alarm Acknowledge	Use this dialog code if you want to set your PMacro to acknowledge and alarm when selected.
19	Non-Ganged Switch	Use this dialog code for up to three non-ganged switch points. For more details click on Non-ganged switches.

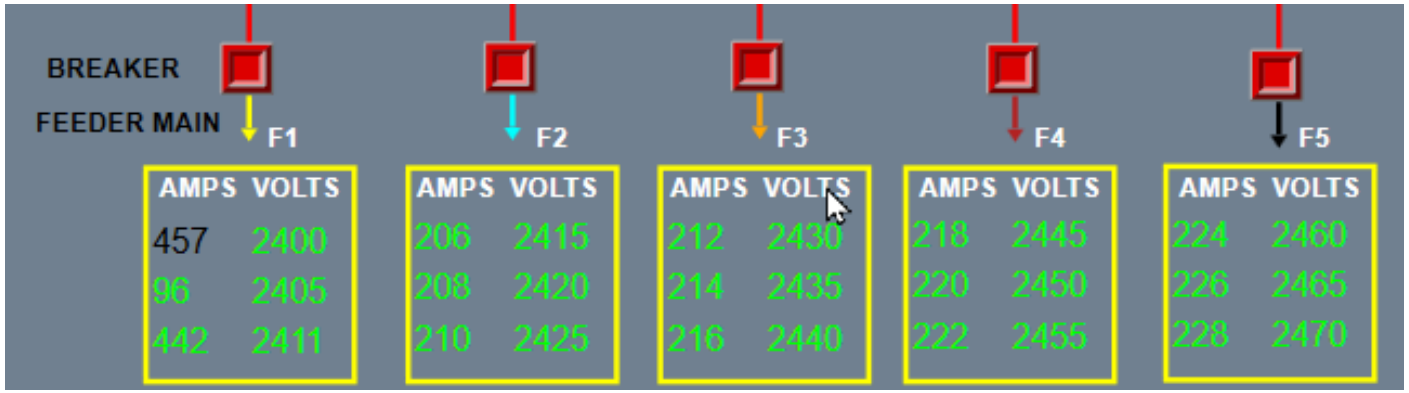
Exercise

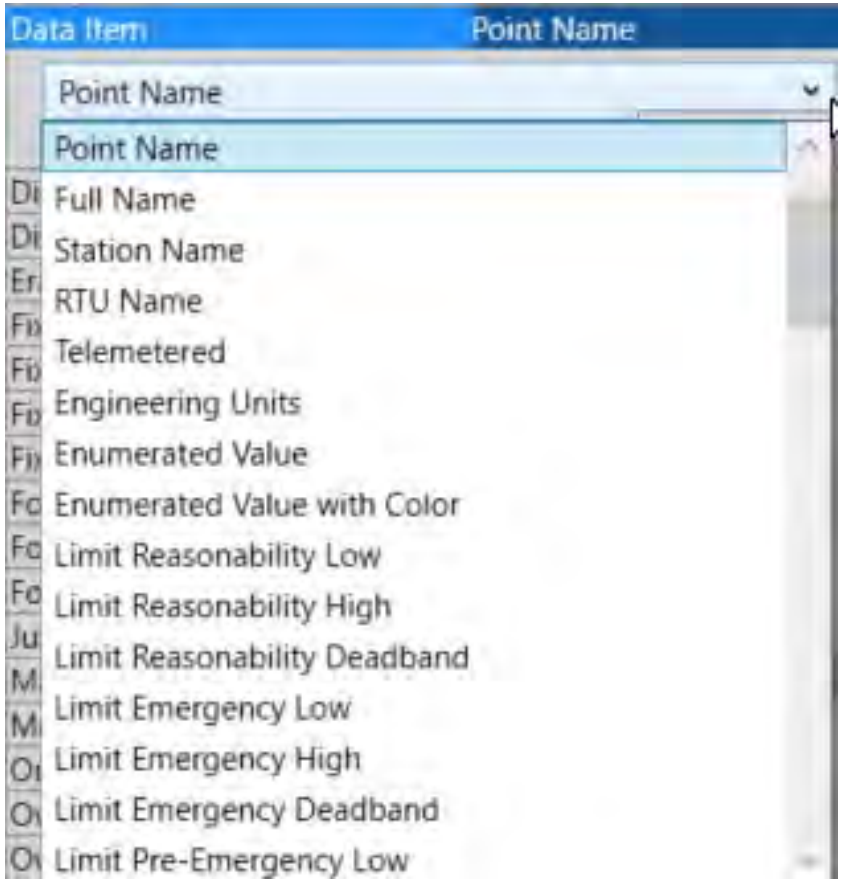
Create a Status Symbol Pmacro

- Open SmartVU and launch the Training SLD map.
- Go to a blank or open space on the map
- Create a new Status Symbol PMacro using the symbols that we have previously created
- Add it to the map and link it to our North, 52A status point

Analog Value PMacro

- Used to display database values





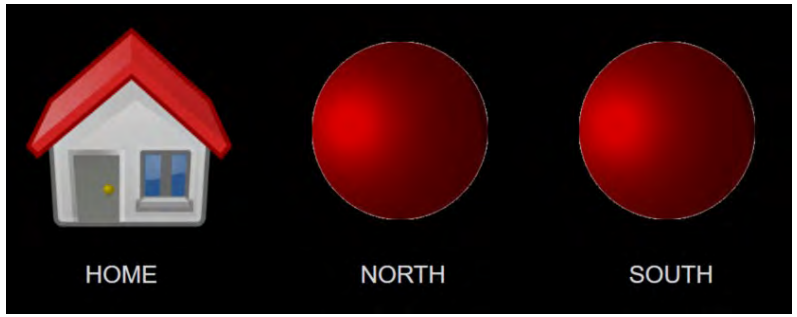
Exercise

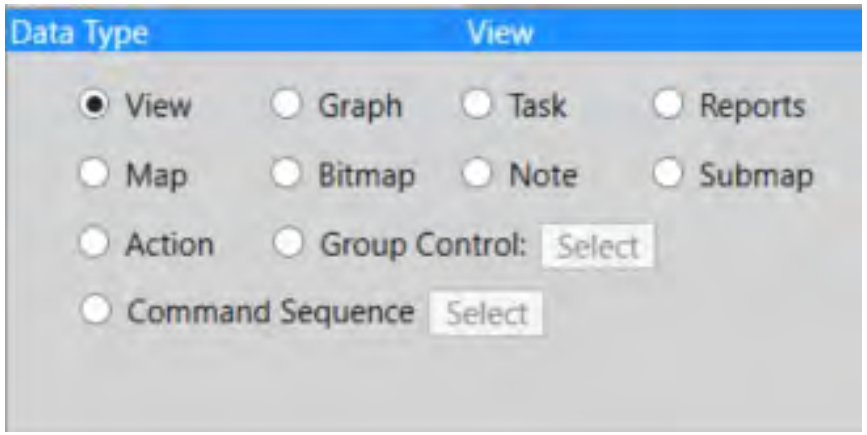
Create an Analog Value Pmacro

- Open SmartVU and launch the Riverdale map.
- Go to a blank or open space on the map
- Create a new Analog Value PMacro
- Add it to the map and link it to our North, IA analog point

Pushbutton Image PMacro

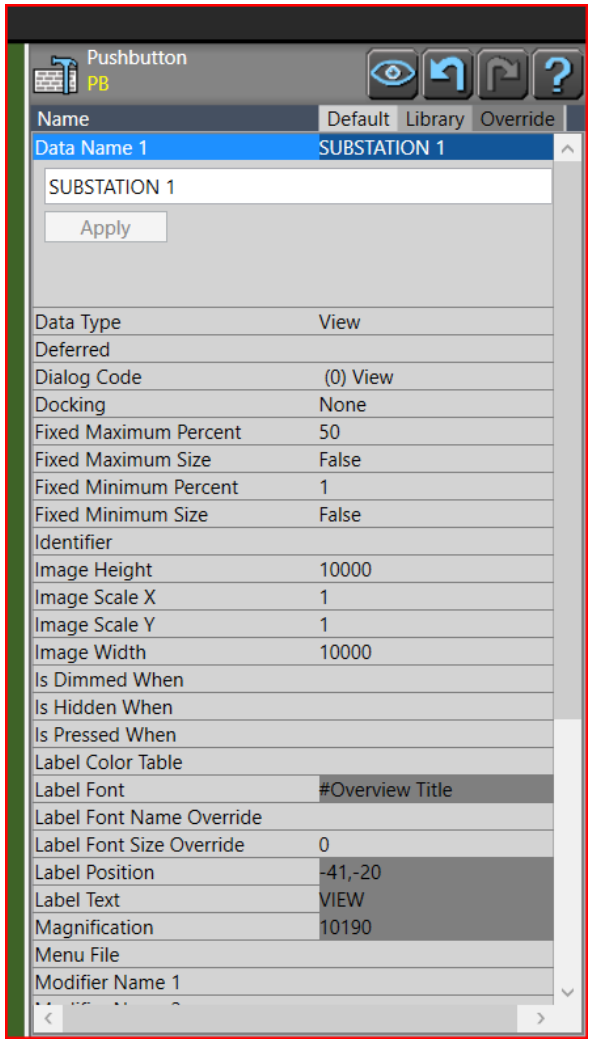
- Are very versatile and can be made to execute an action
- Change views or maps
- Open Graphs, start tasks, produce reports, etc…





Exercise

Create a Pushbutton Image Pmacro



- Open SmartVU and launch the Training SLD map.
- Go to a blank or open space on the map
- Open a new Pushbutton Symbol PMacro
- Add it to the map and link it to a View, i.e. Substation 1

How to Create an Analog Value PMacro 1.pdf

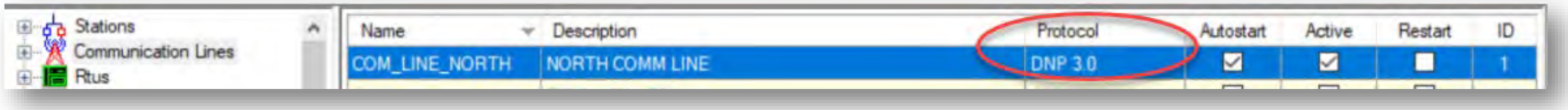
How to Create an Analog Value PMacro 2- Analog Value.pdf

IED Wizard

- is a tool that automates the creation of the database for an IED
- Survalent has an extensive collection of most IEDs
  - Simply select the manufacturer from the drop-down list, specify the Station Name/Description/TCP/IP addressing and unit address
  - Telemetry and Control addresses / RTU-to-IED mapping are generated automatically
- Add/remove points anytime
- Create your own templates
- Support two types of Installs:
  - Master IED – attaching directly to the communication line
  - Slave IED – attaching off an RTU

IED Wizard

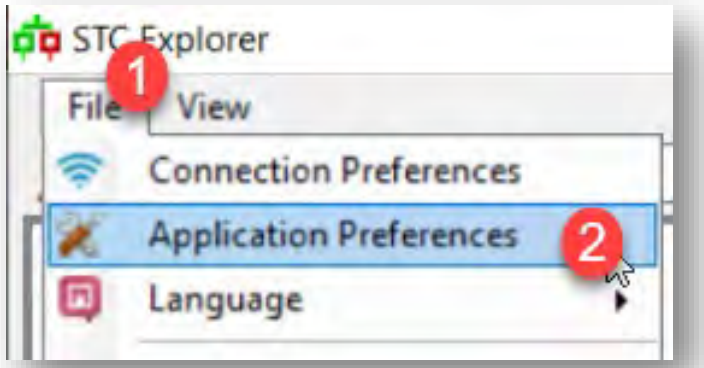
- For our exercise, we will be installing a few SEL-651R devices (DNP protocol)
- Attaching it to our COMM_LINE_NORTH (DNP)

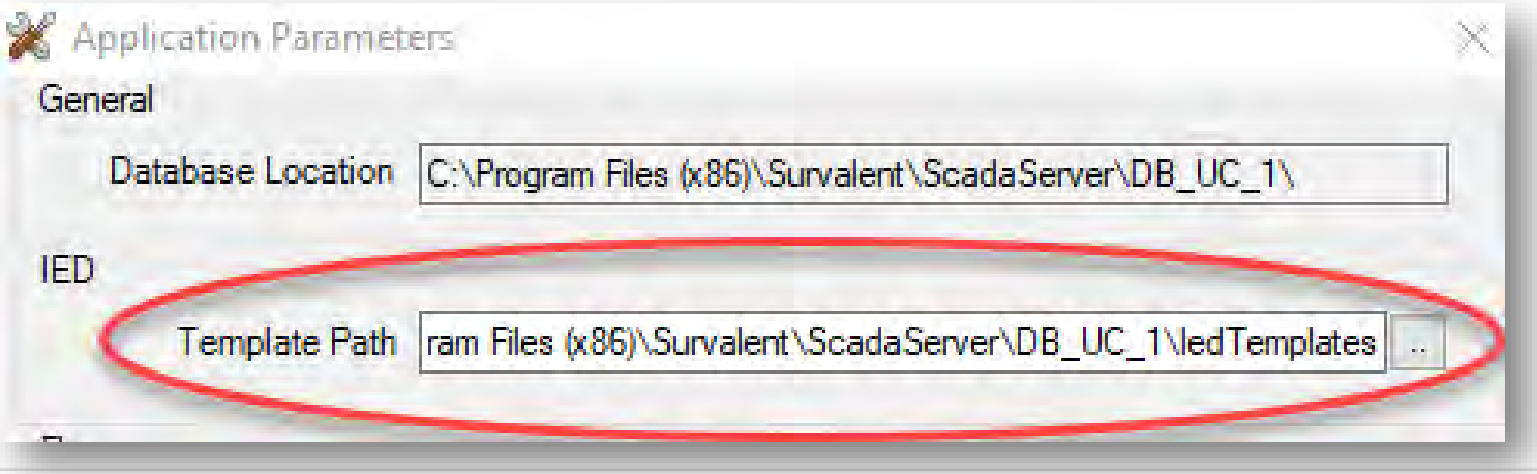


IED Wizard

- Important steps:
- IED Wizard templates are available on My Survalent Portal
- A copy of the Schweitzer (SEL) template folder is already pre-saved for this exercise

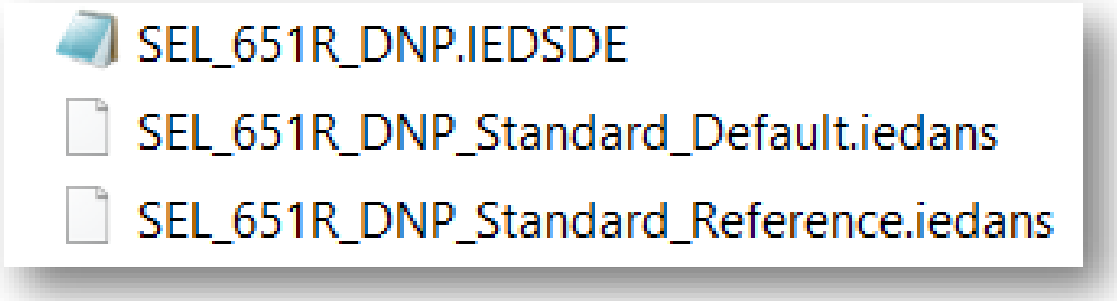
- Templates are to be located here:
  - *C:\Program Files (x86)\Survalent\ScadaServer\Database\IedTemplates*
  - *ensure that STC Explorer is pointing to this folder





IED Wizard

- Important files:



- IEDINI- contains information about initialization parameters required for Slave and Master IEDs.
- IEDSDE- list of points with all their parameters, based on the vendor's documentation
- IEDANS - consists of the standard configuration (all of the points)

Exercise

Create IEDs using the IED Wizard

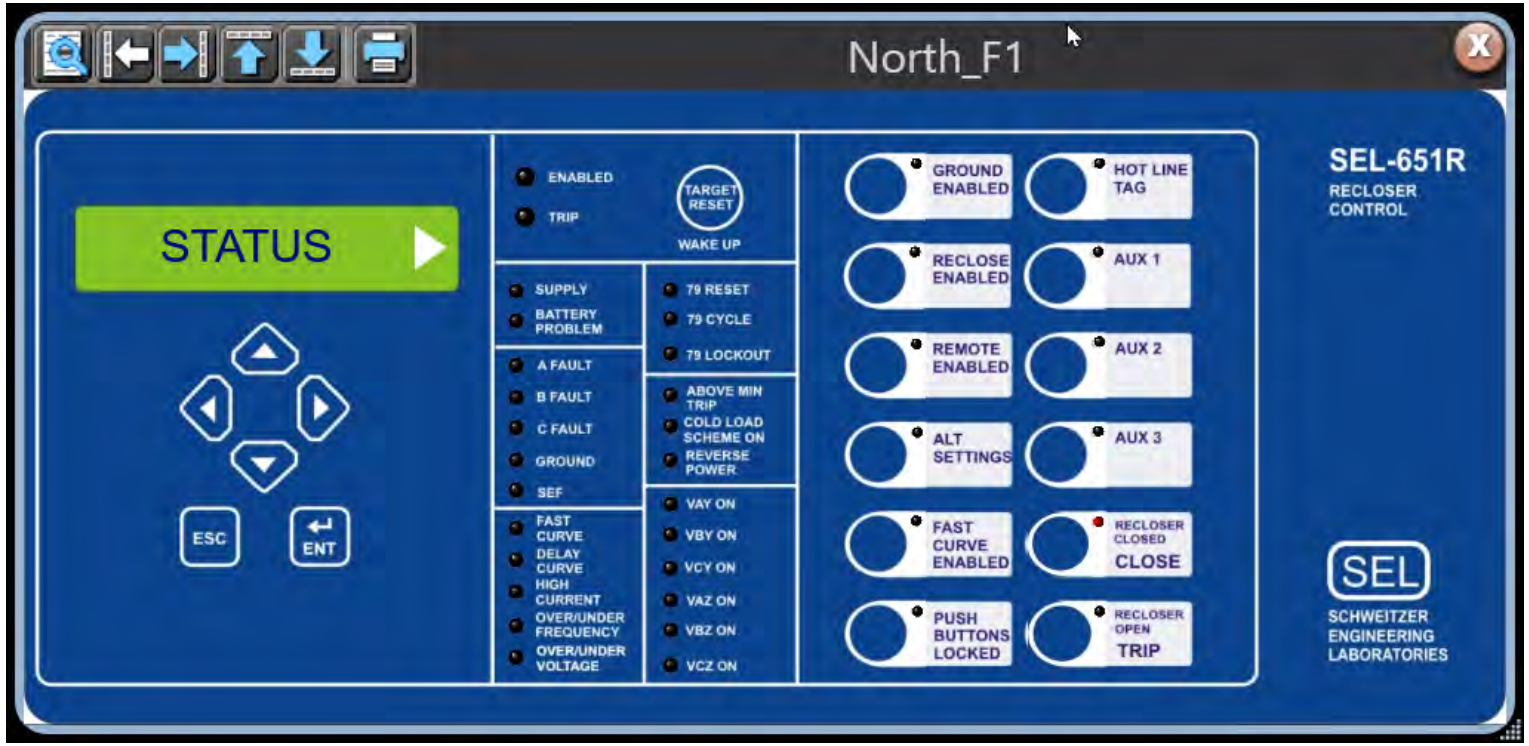
- Let's install two Schweitzer (SEL-651R) IEDs for our North Station
  - Install them directly to the North communication line

Control Panels

- Control Panel is a tool that allows you to populate a substation drawing with all of the IED's points in just a few keystrokes
- Supports images of IED devices – to provide familiarity for Operators
- My Survalent portal – downloads available (.zip format)

- **Key notes:**
  - Do not extract the .zip file
  - Copy the .zip file to c:\Program Files (x86)\Survalent\SmartVU
  - Then Import Control Panel into SmartVU
  - Uses the point name to link up the points automatically
    - *(Control Panel Pt Name 1 field)

Control Panels



- Supports many pages
- Force Operators to run controls from here
- Customize buttons
- Saves a lot of map space
- Quick deployment

Exercise

Create and install a Control Panel

- Create a control panel using the SEL-651R template below:

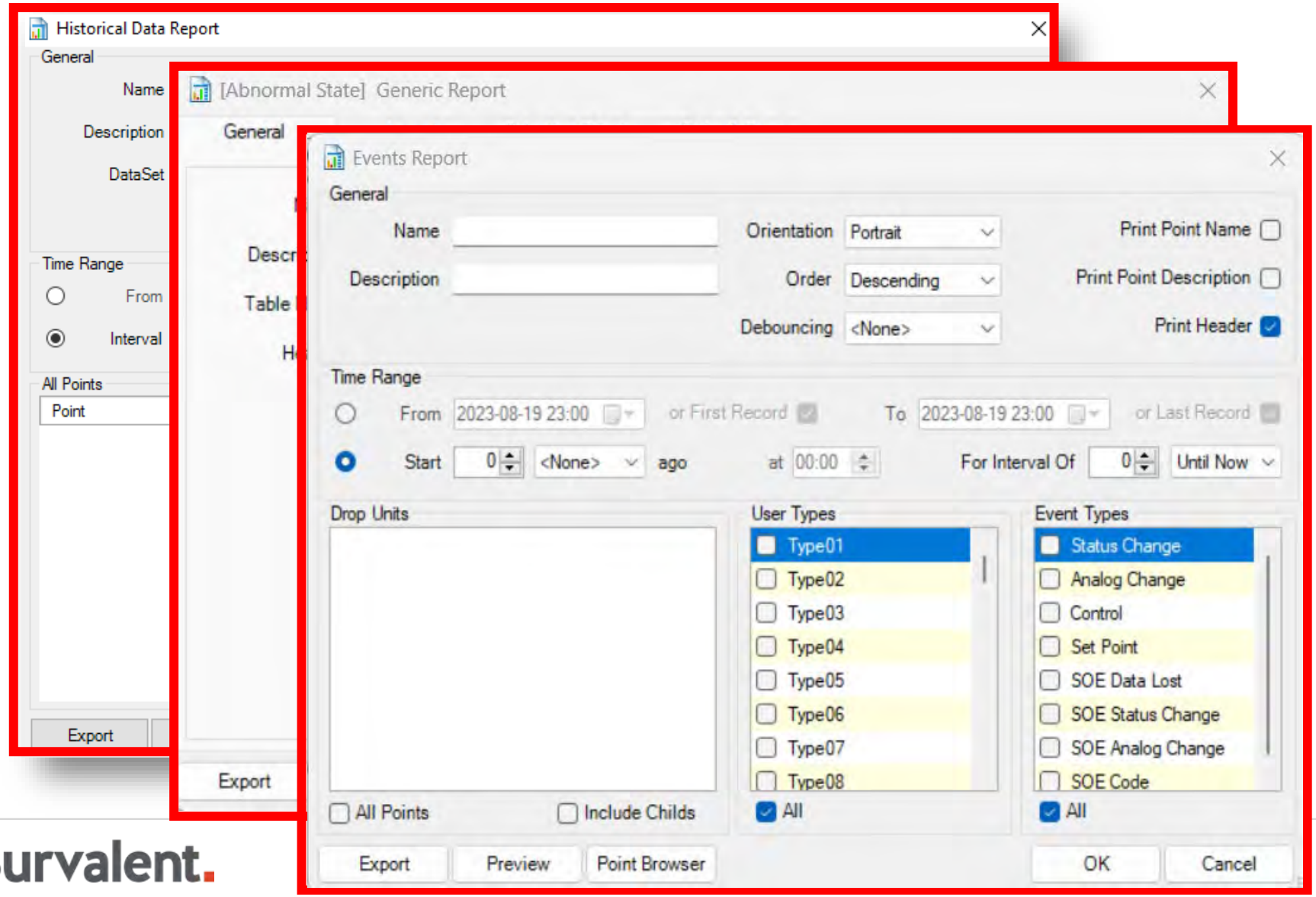
C:\User\Administrator\Desktop\Xtra Resources for Training\Control Panel Files**SEL-651R Relay 2 (horizontal).zip**

- Then import it into the map and install it for North F1
- Once it is imported, modify the Open/Closed Pmacro – clear the POINT ID 1 fields.

SCADA Reports

- System supports a wide range of reporting types catering to your requirements.
- Historical reports are popular to produce

SCADA Reports



- Historical (datasets)
- Generic (customize)
- Operation Log (Operator Summary Tab)
- Events
- Log settings

SCADA Historical Reports

Historical Datasets and Historical Reports

- Historical databases are organized in datasets
- Datasets are groups of points that are sampled at a common frequency/storage duration

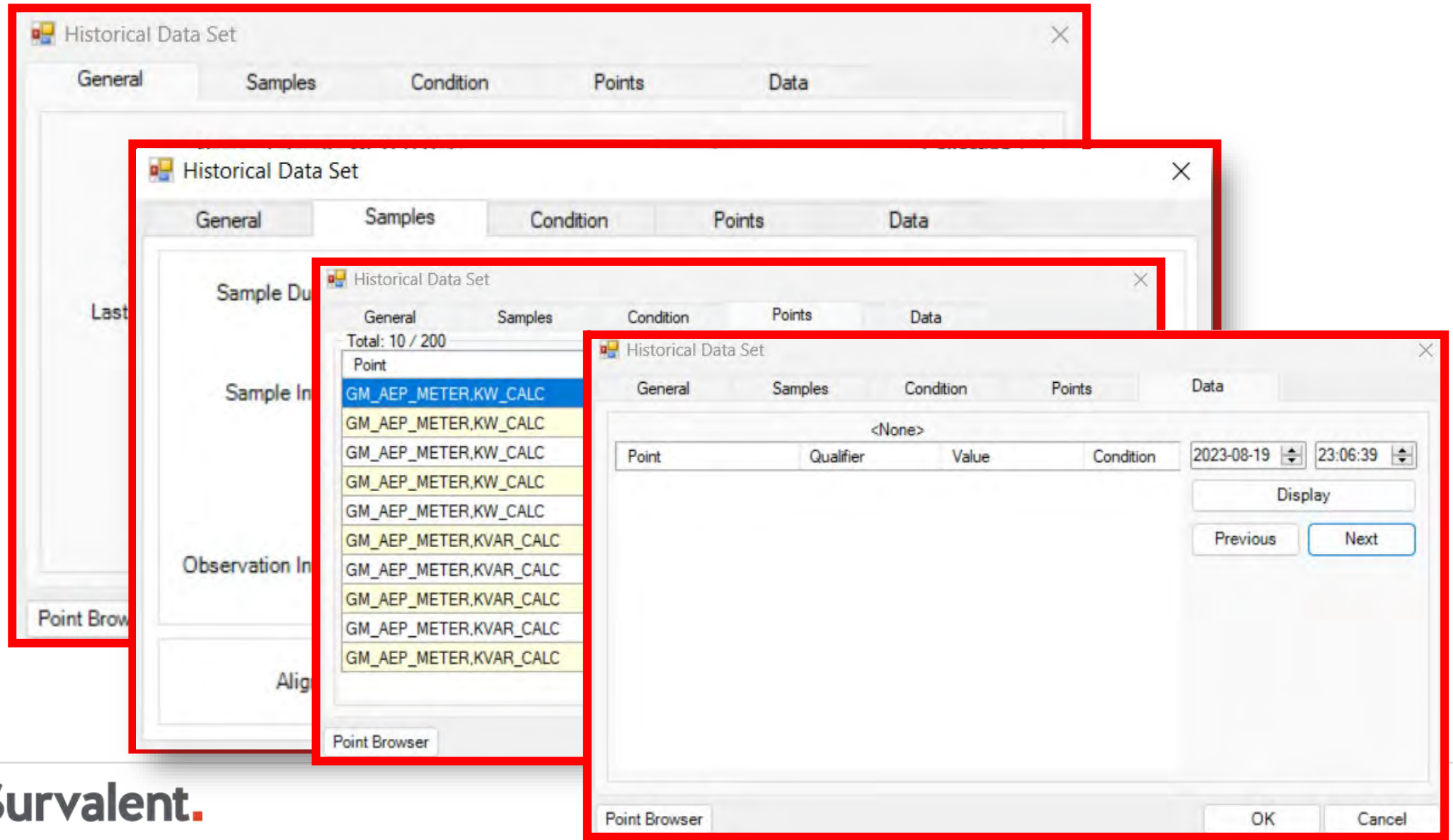
Must Specify

- Which points do you want to be sampled?
- How often do you want them sampled?
- How long do you want to samples held?
- What stats (e.g. min, max, average) do you want to be collected?

Producing a report

- We can produce reports from the datasets above

SCADA Reports

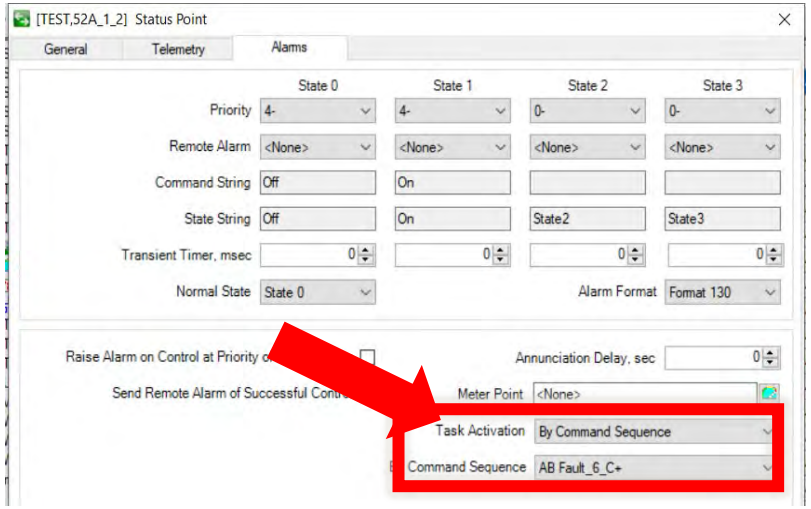


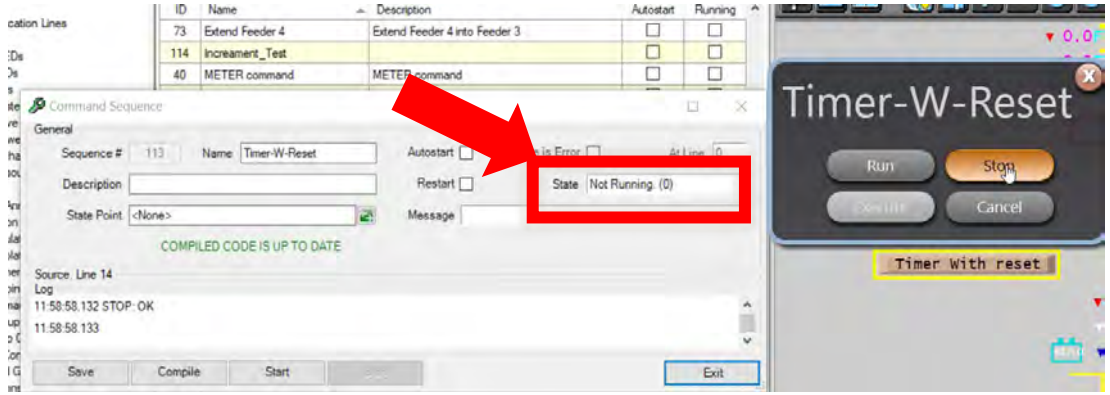
Command Sequence

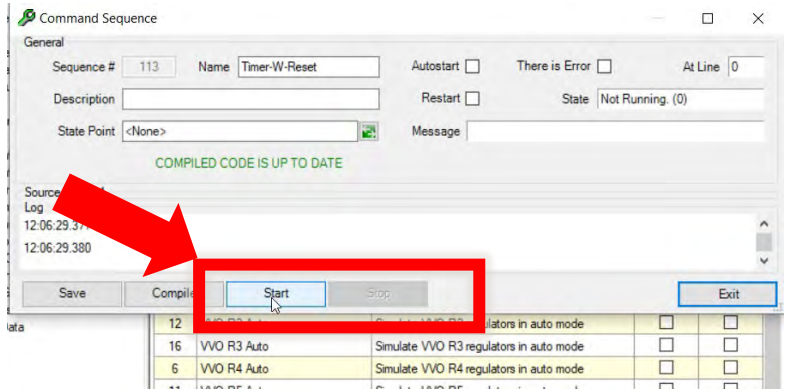
- The Command Sequencing language is a programming language that is specifically designed to be used with SCADA systems.
- The programming environment allows you to define and execute programs that use database points as variables.
- Command sequence programs can be used for calculations, open-loop control or closed-loop control.

Command Sequence – Start and Stop

- A command sequence program may be started and stopped via the command sequence editor; or
- Poke points on SmartVU maps (Pushbutton); or
- Activate automatically by a change of state of one or more status points.







Command Sequence - Features

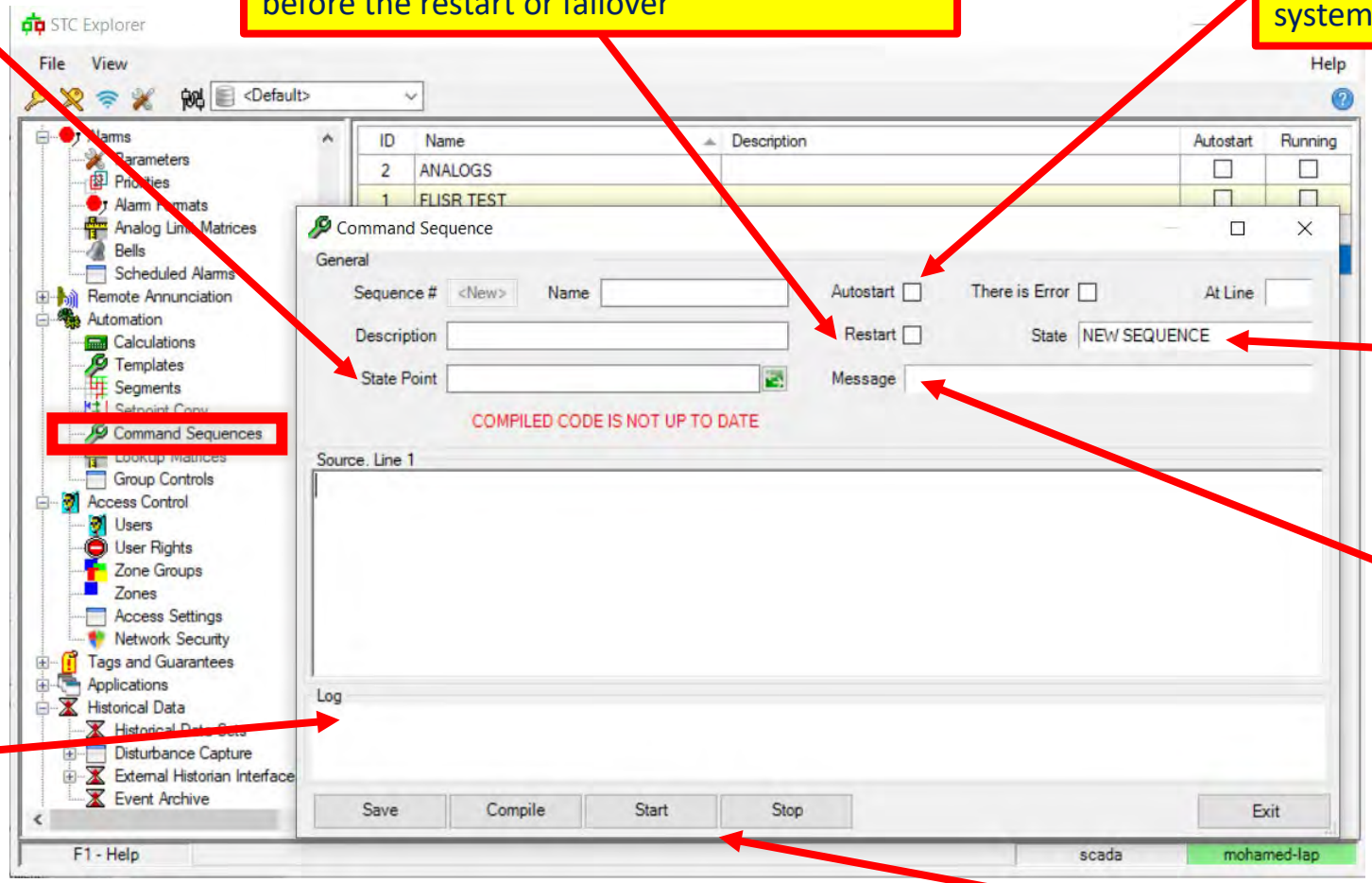
- Arithmetic and Boolean operators.
- Evaluation of arithmetic and Boolean expressions.
- Exponential and logarithmic functions.
- Minimum, maximum, absolute value, modulus functions.
- Current time function.
- Comparison and test.
- Delay or Wait.
- Capability to issue controls and setpoints.
- Capability to raise alarms.
- Virtually unlimited temporary variables per command sequence.
- permanent variables (preserved across restarts).
- Arrays of point names and numeric constants.
- Capability to call other command sequences as subroutines.
- Templates. These are command sequencing subroutines that can be defined with both input and output parameters, because templates can also be referenced on CALCED, this feature allows you to develop complex custom calculations for periodic execution.
- Two-dimensional table lookup.
- Set analog alarm limits.
- Event triggering (command sequences can be automatically triggered by status changes).
- Generate reports.

Command Sequence - Editor

status point is set to 1 when the sequence is activated

Auto restart only if the sequence was running before the restart or failover

automatically restart after a system restart or failover



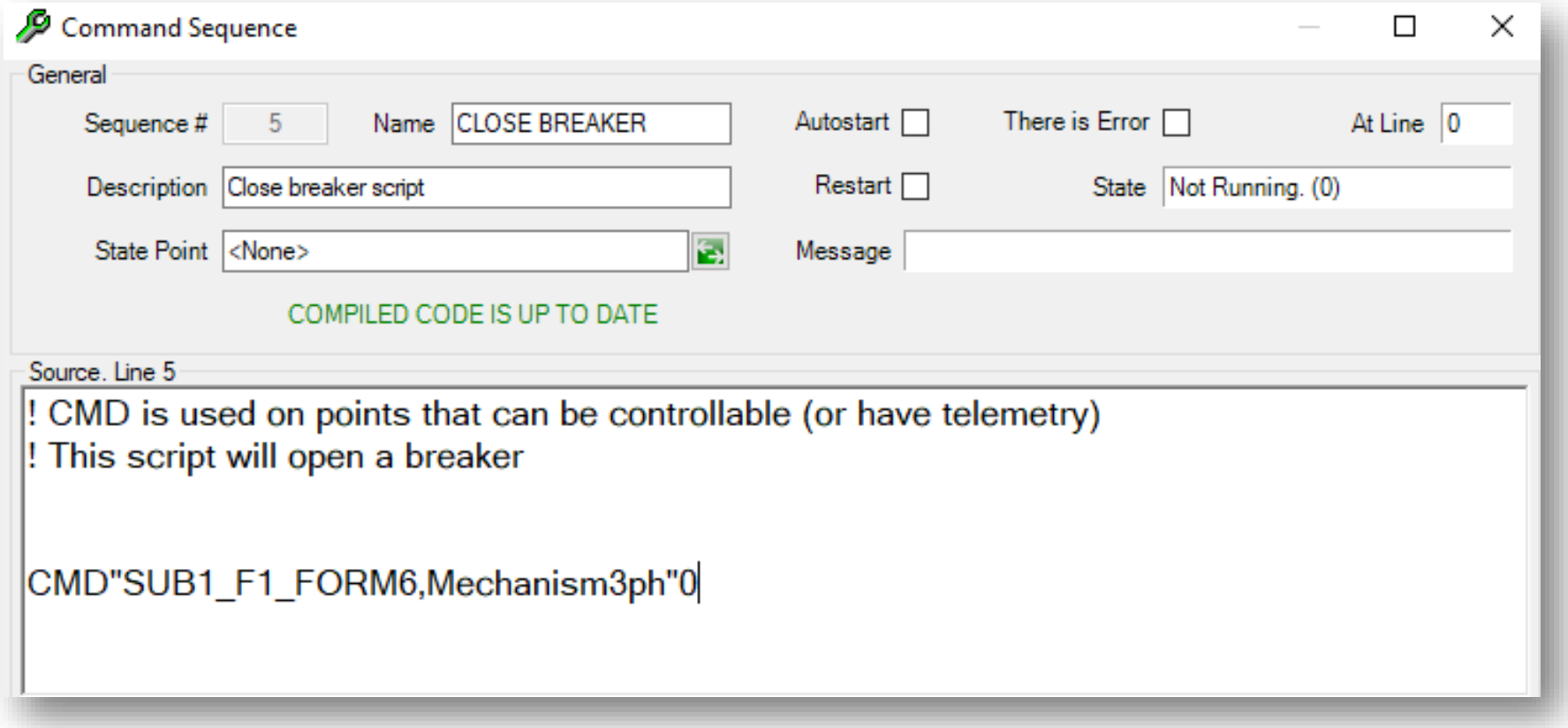
running status is displayed here

displays the last execution error message

results of compilation attempts, and operator initiated start and stop operations

Starting and Stopping

Command Sequence - Script



Exercise

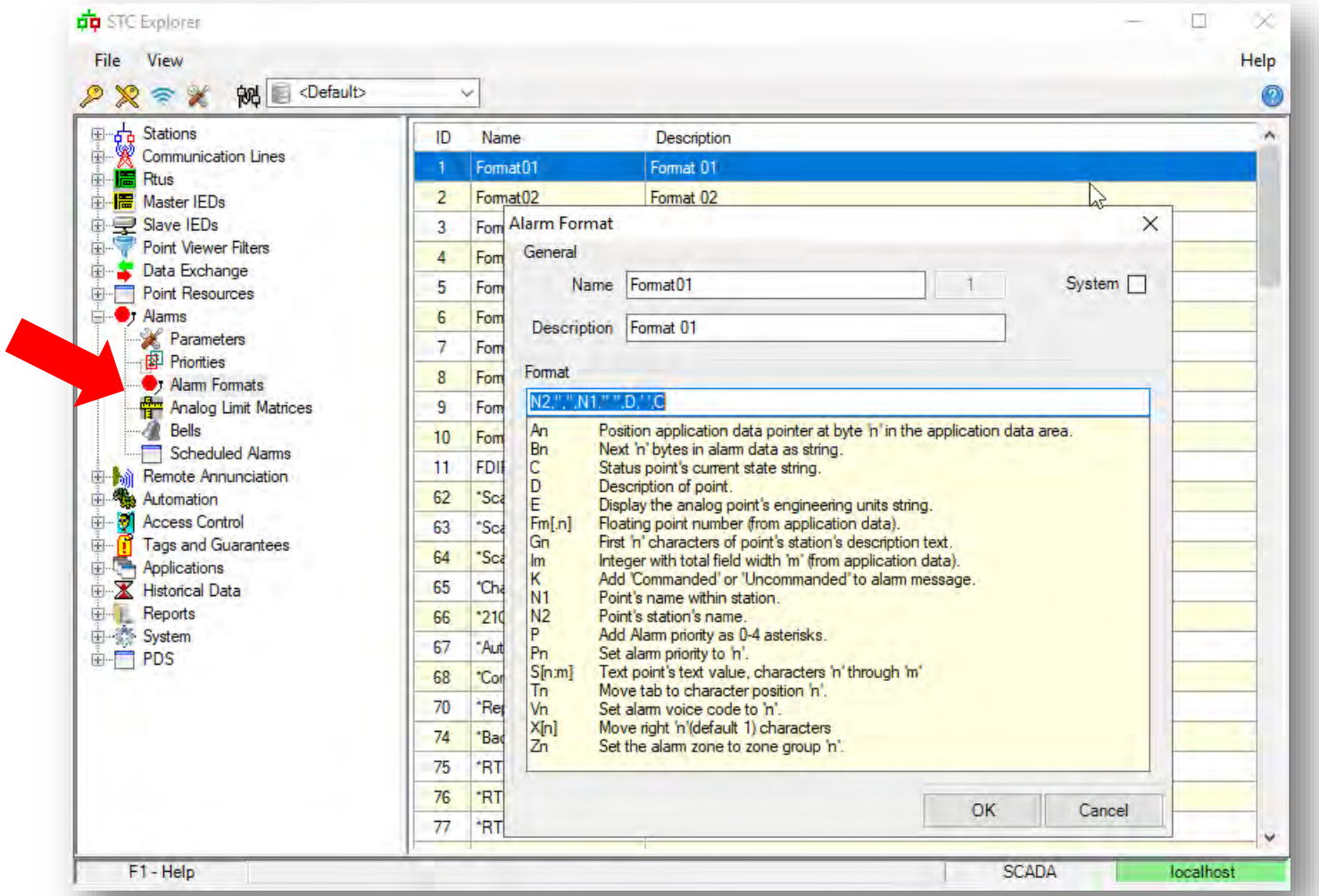
Explore simple command sequence

- Go to STC Explorer> Automation> Command Sequence
- Explorer sample command sequence in the system

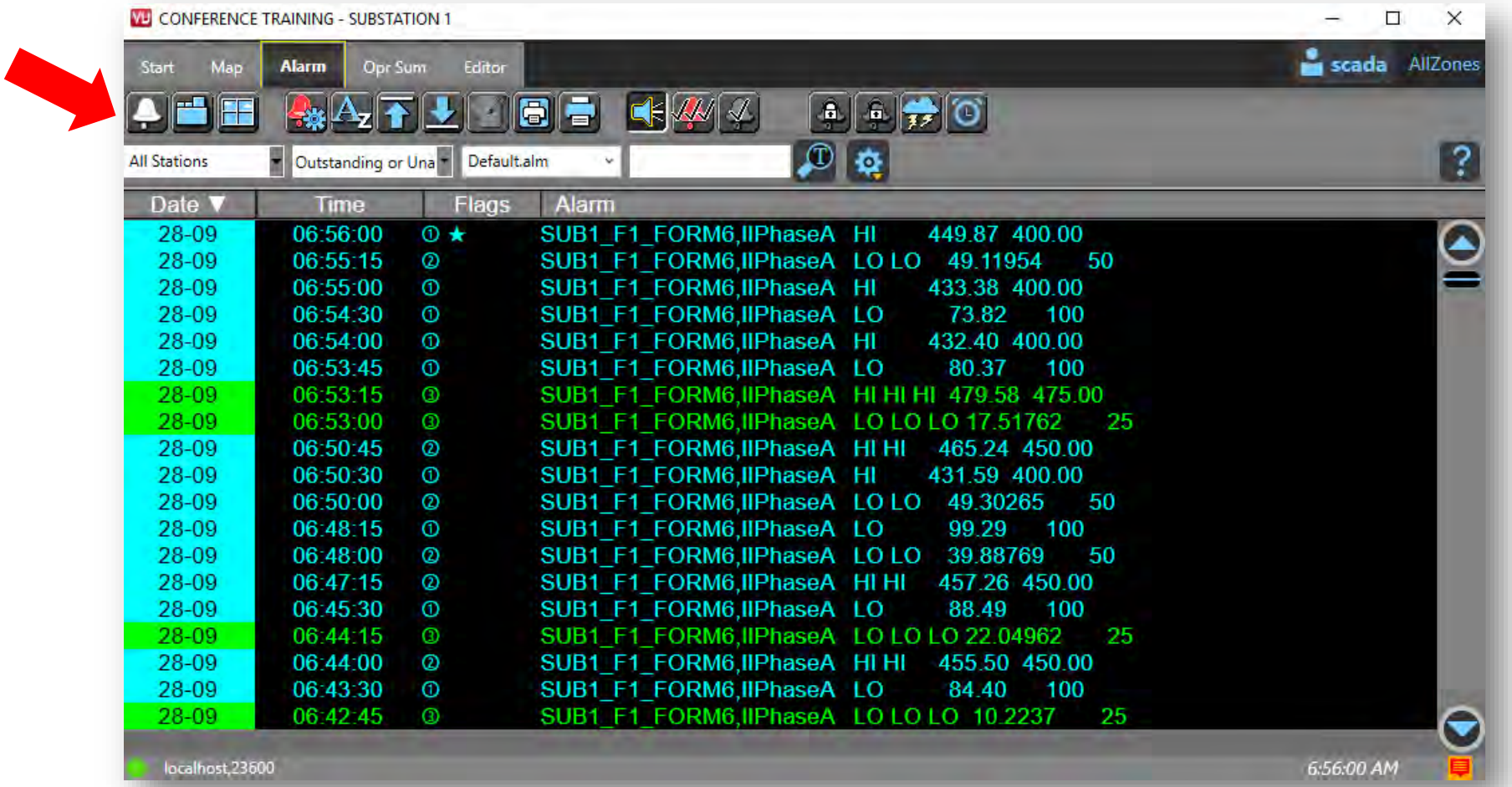
ID	Name	Description
5	CLOSE BREAKER	Close breaker script
1	FLISR TEST	
4	OPEN BREAKER	Open breaker script
2	RANDOM NUMBERS	Randomize numbers for points

Alarm Formats

- These are format strings that specifies what an alarm should look like.
- Controls the way alarms are being displayed in SmartVU



Alarm Formats example



Exercise

Take a look at an Alarm Format

- Open STC Explorer
- Open the Alarm Format called Format01 and discuss the format.

Sustained and Momentary Alarms

- These are the common device classes for Status Points

- Momentary alarm class:
  - **When tripped, will show up in the Alarm list**
  - **No acknowledgment is required before it disappears from the alarm list**
- Sustained alarm class:
  - **When tripped, will show up in the Alarm list**
  - **Requires acknowledgment and return to its normal state before it is removed from the alarm list**

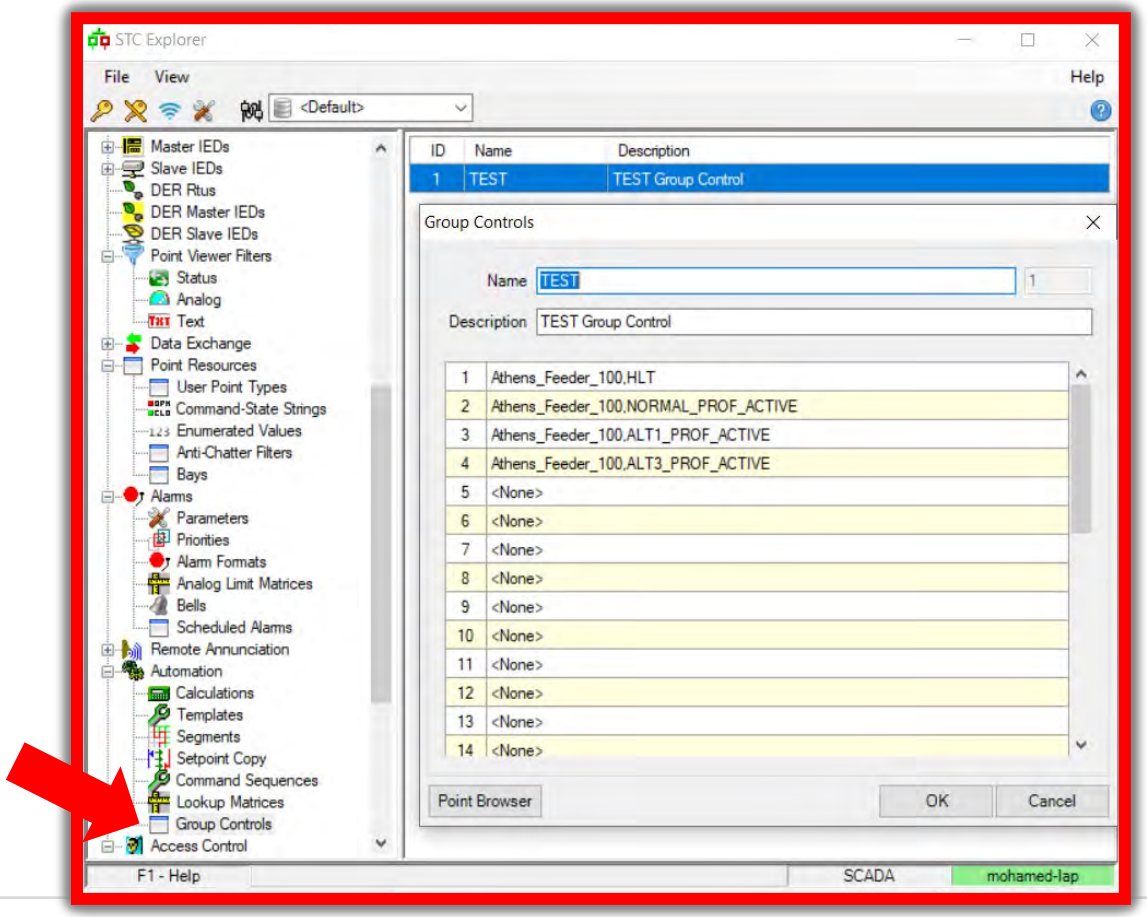
Exercise

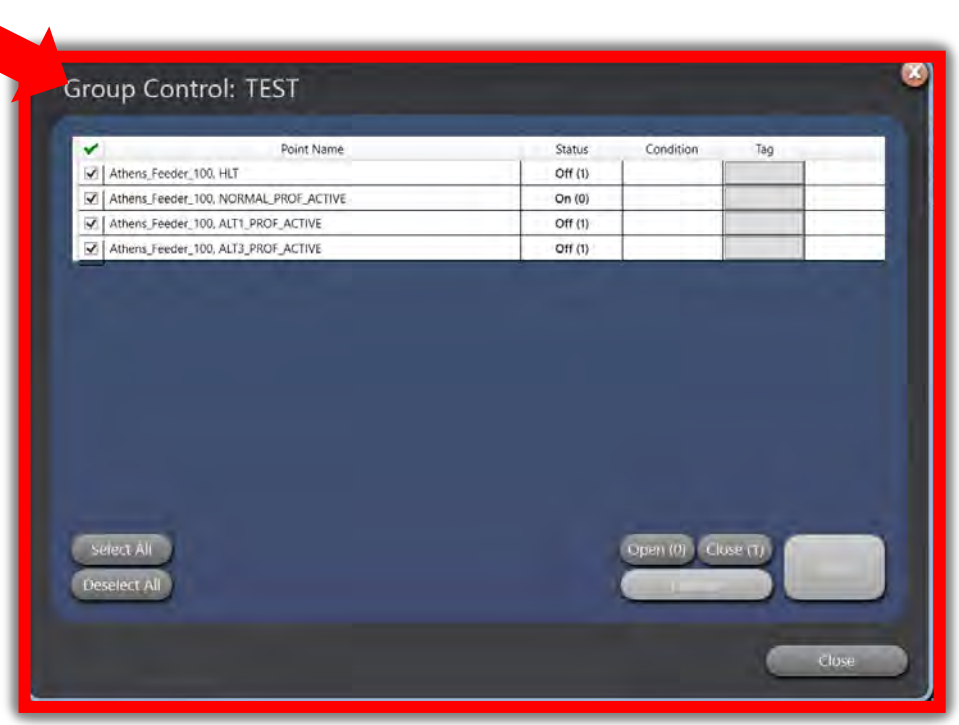
Practice setting device classes to Sustained and Momentary

- Go to SmartVU and located your North_F1,52A3P breaker
- Edit this point within STC Explorer
- Change device classes
- Test to see how it behaves

Group Control

- Allows you to create a group of points that can be controlled together





Exercise

Create Group Control

- Go to STC Explorer > Automation > Group Controls
- Create a new group
- Add some breakers into it
- Test it out on the CONFERENCE TRAINING map

Survalent.

Questions?

Thank You