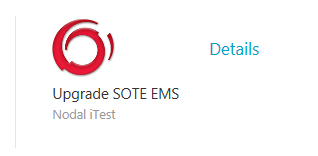
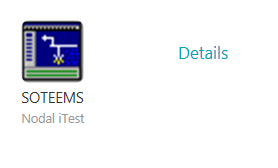
**Upgraded SOTE EMS – Real-Time Snapshot Studies using STNET**

To conduct Upgraded EMS real-time snapshot study in STNET, you must first log into the Citirix and Upgrade SOTE EMS. To do this:

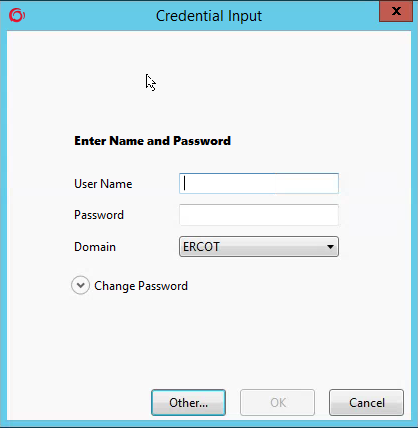
* Open ERCOT Citrix.
* Click “Nodel iTest”
* Click the icon “Upgrade SOTE EMS” to launch EMS Upgrade SOTE EMS WebFG Display.

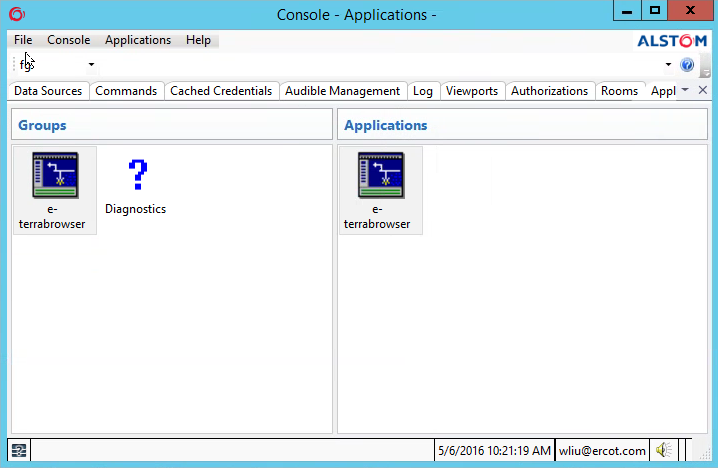


* + Please note that Current SOTE EMS icon is still available for TSP Operations STNET Studies until EMS Upgrade Program Go Live date.

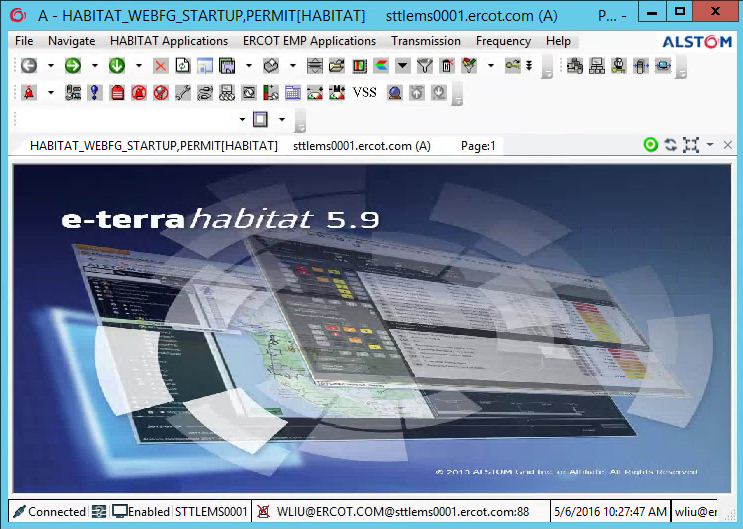


* The login window will be opened, enter the user name and the right password.

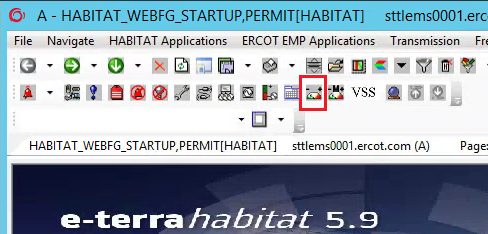




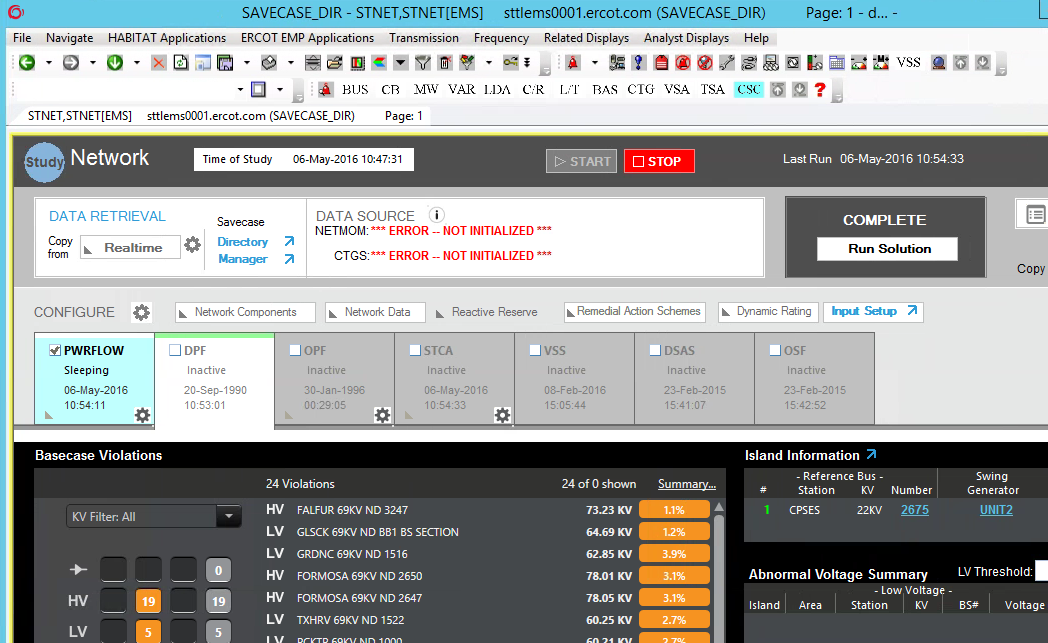
* Click the e-terrabrowser icon in the Apllications tab, to open WebFG view port.

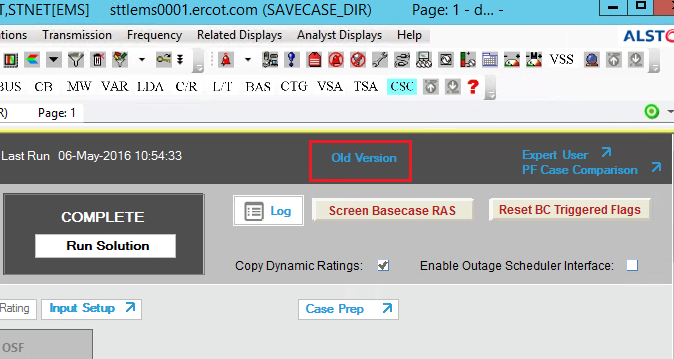


To initiated your Snapshot Study session, select the meter icon to get to the main STNET application display.

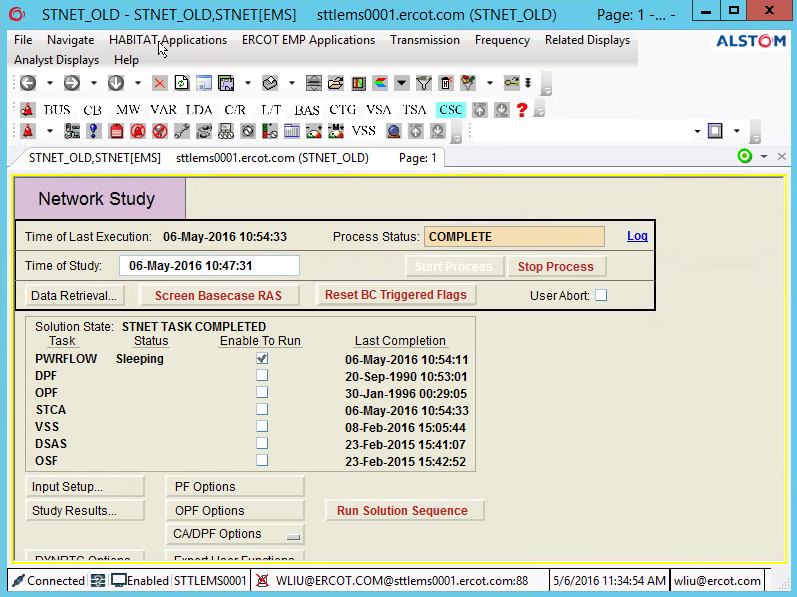


STNET main display is shown as below.



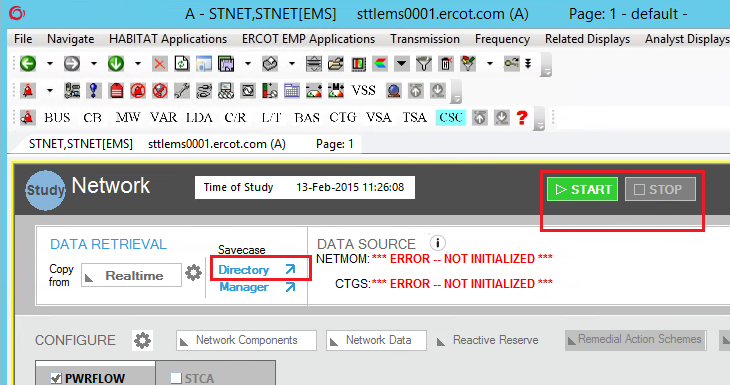


Click the “Old Version” will bring the old stnet main display.

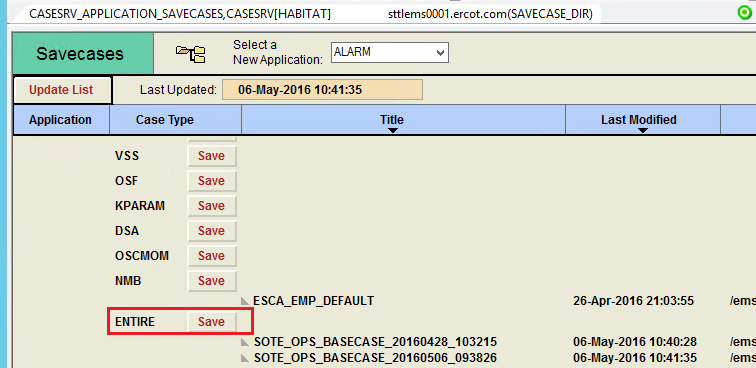


Once in STNET, perform the steps below to set up a Real-Time snap shot study:

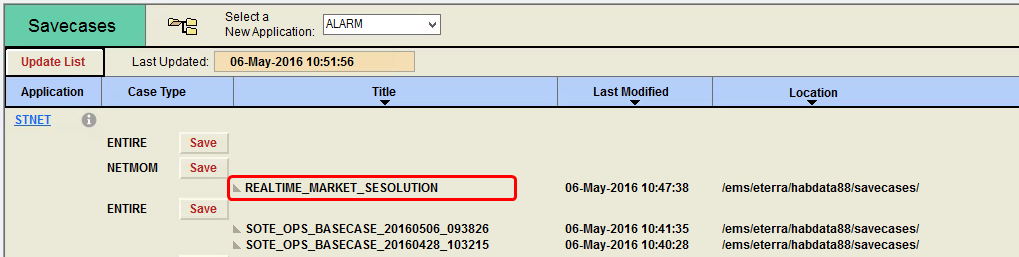
* Stop the process
* Go to the save case directory by selecting the “Savecase Directory “ link as below



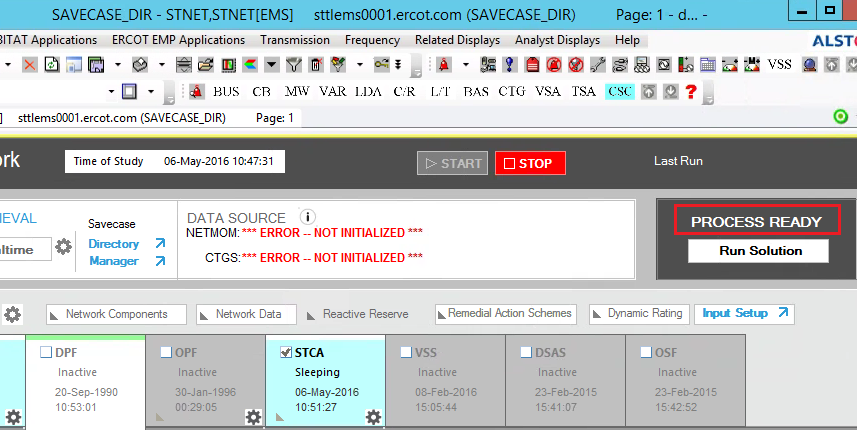
* In the Savecase Directory retrieve the latest SOTE Base case from the Entire Section:
  + For example: “SOTE\_OPS\_BASECASE\_20160506\_093826”



* This retrieves all necessary powerflow settings, contingencies, RAS definitions required for a snapshot study.
* Once you’ve received a successful retrieval conformation you can now retrieve the “REALTIME\_MARKET\_SESOLUTION” NETMOM save case.
  + This retrieves SE solution flows and topology

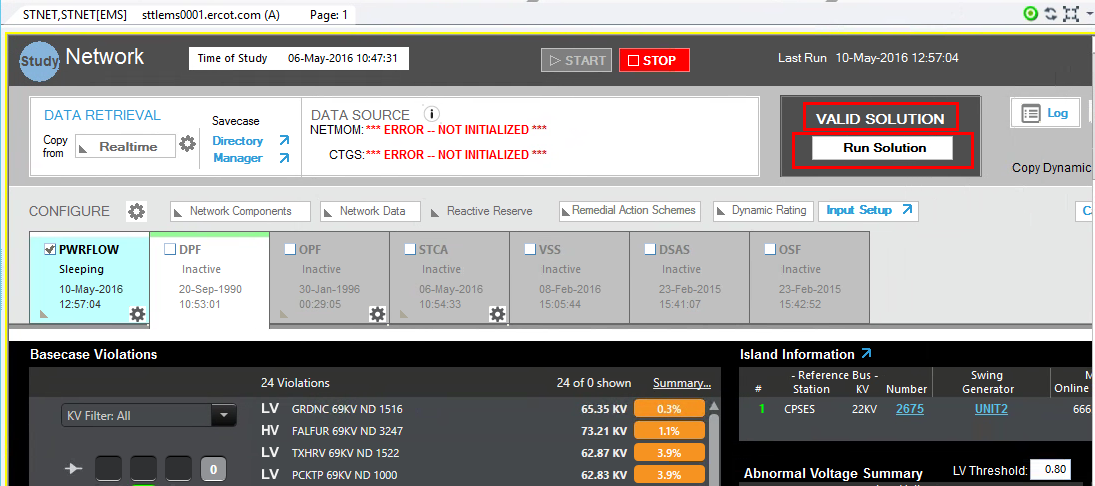


* Now that the “SOTE\_OPS\_BASECASE” and “REALTIME\_MARKET\_SESOLUTION” have been retrieved, return to the main STNET display by selecting the meter icon as before.
* Once in the main STNET display, you can proceed by Starting the Process. You will know that that it has been started when the application status says “Process Ready” as shown below.

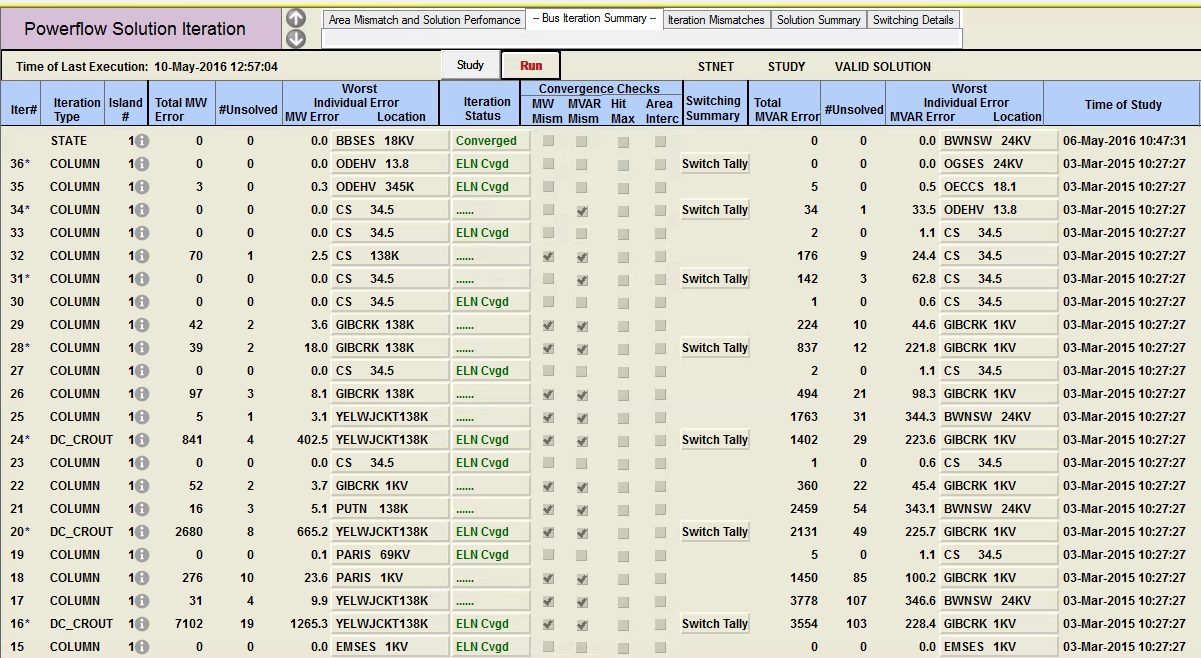


Now you are ready to perform you real-time snap shot.

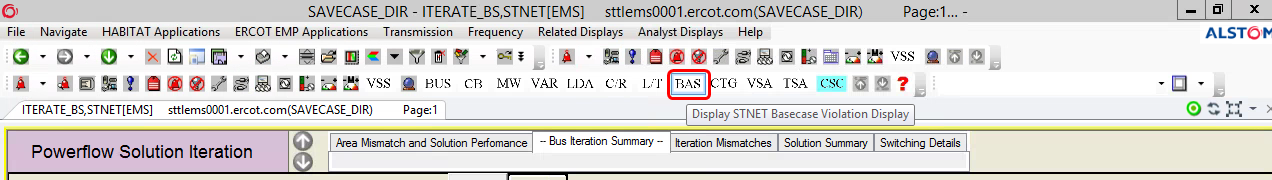
* Begin by running the solution with powerflow enabled, you should get a Valid Solution in the application status.



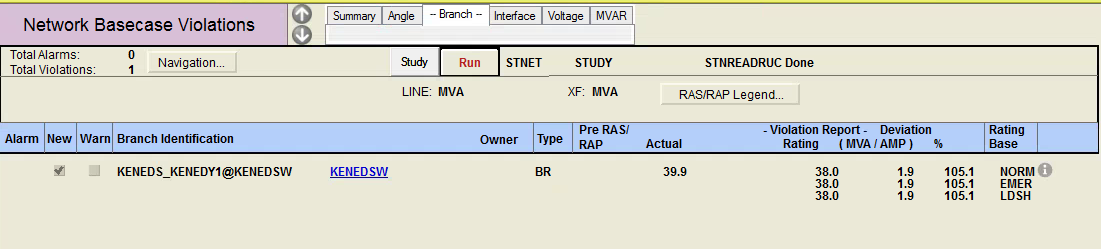
* Powerflow Solution iterations can be found from Analyst Displays 🡪 Powerflow Solution Iterations



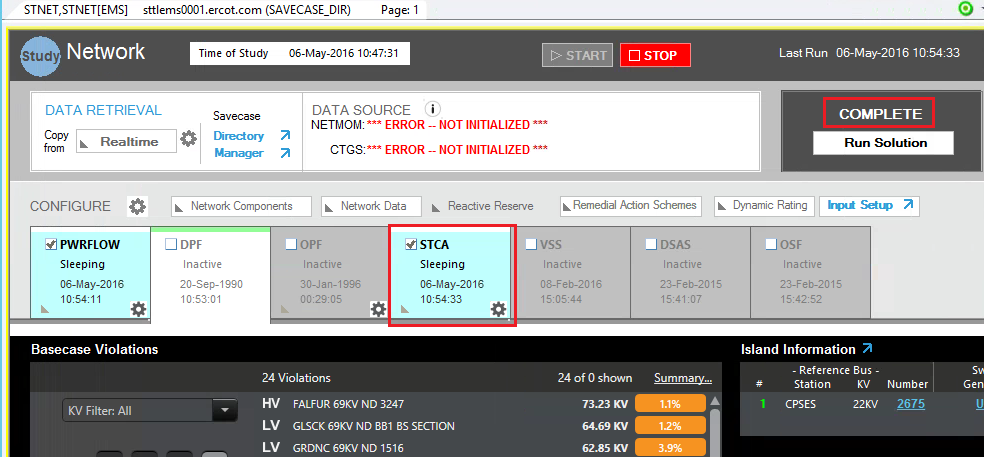
* To View Basecase violations, select the BAS icon from the tool bar



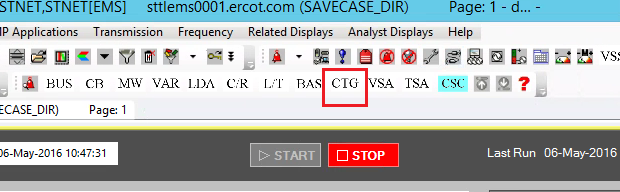
* Branch view on the Network Basease Violations display shows the Branch violations, and the Voltage view shows the Voltage violations



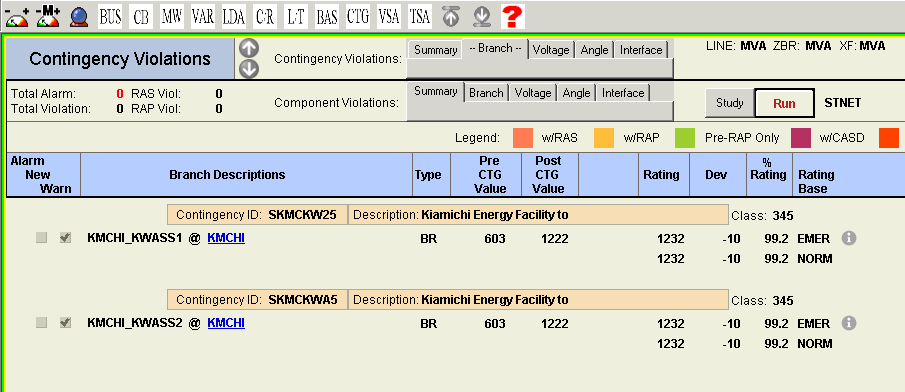
* To run Contingency Analysis select the STCA check box to enable as show below



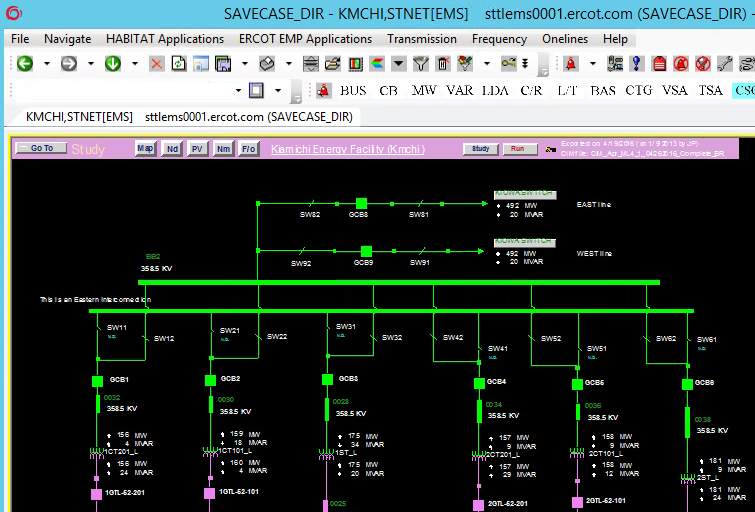
* To view Contingency Result Violations select the “CTG” radio button at the top of the display



* This brings you to the Contingency Violations display which show:
  + Contingency ID
  + Contingency Description
  + Overloaded Element
  + Pre Contingency flow in MVA
  + Post Contingency flow in MVA
  + Overloaded Elements Ratings
  + Percentage of overload



* By clicking blue hyperlink “**KMCHI**” it will take you the station oneline. You can also go to the oneline by typing the station name into the white dialog box at the top right corner of the display.
* Doing one or the other will take you to the Oneline below



* Other key display are located on the top shortcut bar



* The “BUS” button will direct you to the Network Bus Summary which display:
  + BUS diagram view of station oneline
* The “CB” button will direct you to the Network Breaker Summary which display:
  + All station breakers and disconnects
  + Actual and Normal statuses of breaker and disconnects
* The “MW” button will direct you to the MW Network Unit Summary which displays:
  + Unit MW output
  + AGC status
  + MW max and min capabilities
* The “MVAR” button will direct you to the MVAR Network Unit Summary which display:
  + Unit MVAR output
  + AVR status
  + MVAR max and min capabilities
  + Regulated and Target bus voltages
* The “LDA” button will direct you to the Network Load Summary which display:
  + ERCOT, Zone, and individual level load
* The “C/R” button will direct you to the Network Capacitor/Reactor Summary which display:
  + Capacitors/Reactors at each station
  + Connected KV
  + Regulating KV
  + MVAR output
* The “L/T” button will direct you to the Network Line/Transformer Summary which display:
  + From and To stations for lines
  + MW, MVAR, MVA flow
  + Owner
  + Transformers at each station
  + Tap range and actual tap
  + Transformer MW, MVAR, MVAR
  + Transformer AVR status
* The “BAS” button will direct you to the Network Basecase Violations which display:
  + Branch and Voltage Basecase Violations