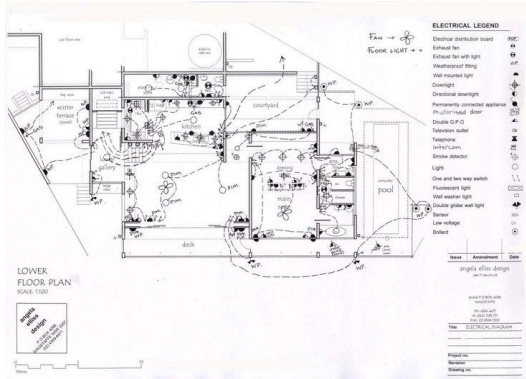
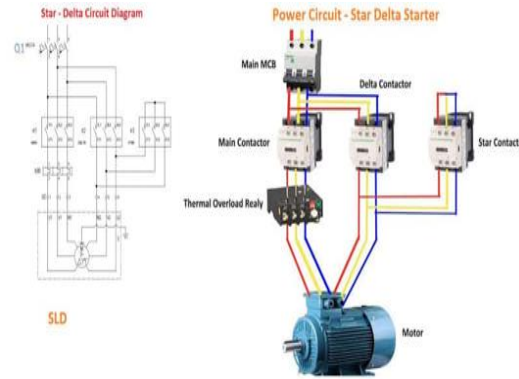


ELECTRICAL STREAM

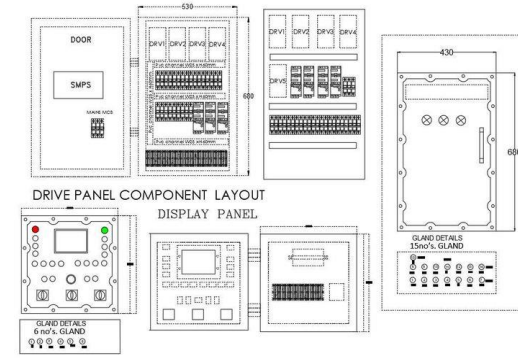
Basic Terminology in Electrical CAD



Electrical Layouts



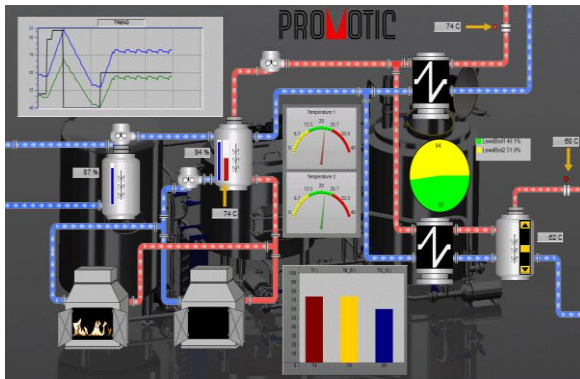
Schematic Diagram



Panel Drawings



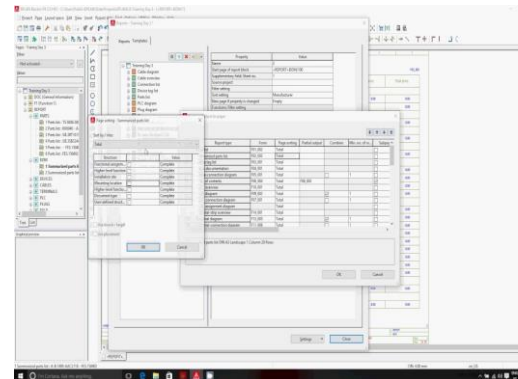
PLC Programming



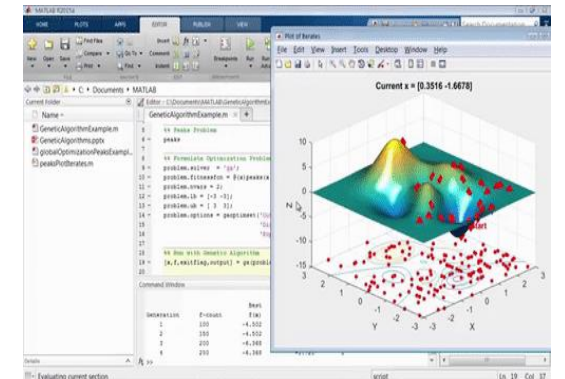
SCADA Overview



Panel Design



Reports



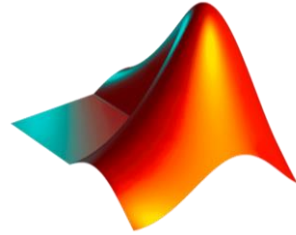
Simulation

Popular Software Technologies for Electrical Engineers

Popular Software for Electrical Engineers



AUTODESK®
AUTOCAD® ELECTRICAL



MATLAB®



ePLAN



PLC Programming



SCADA

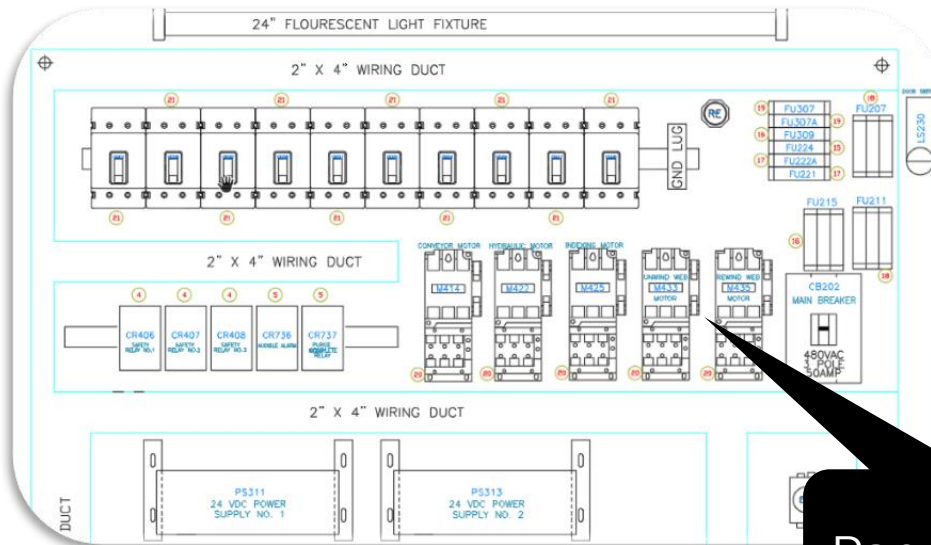


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Powering Success

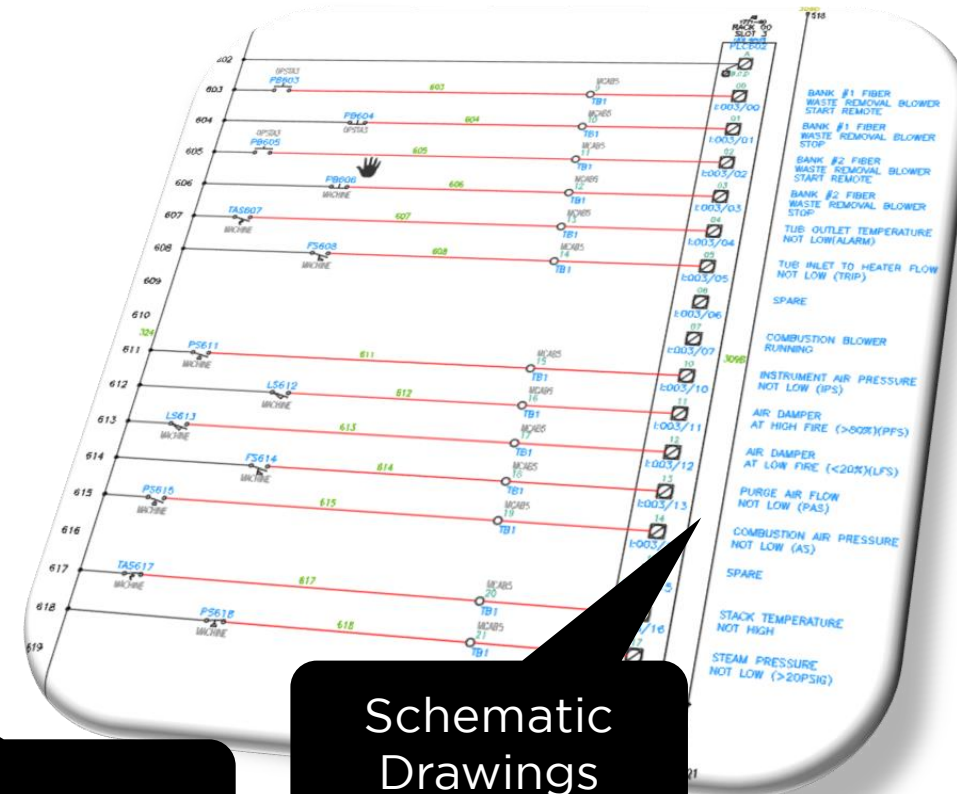


AUTODESK®
AUTOCAD® ELECTRICAL

- ✓ Most powerful programs developed by Autodesk for Electrical, Electronics and Instrumentation engineers.
- ✓ It has a complete toolset which includes a number of drafting commands like wiring, circuiting, PLC modules, panels, reports and many more.
- ✓ It has a comprehensive toolset, to efficiently creates, modify, and document electrical control systems.
- ✓ It helps engineers to save time and enhance productivity.



Panel Drawing

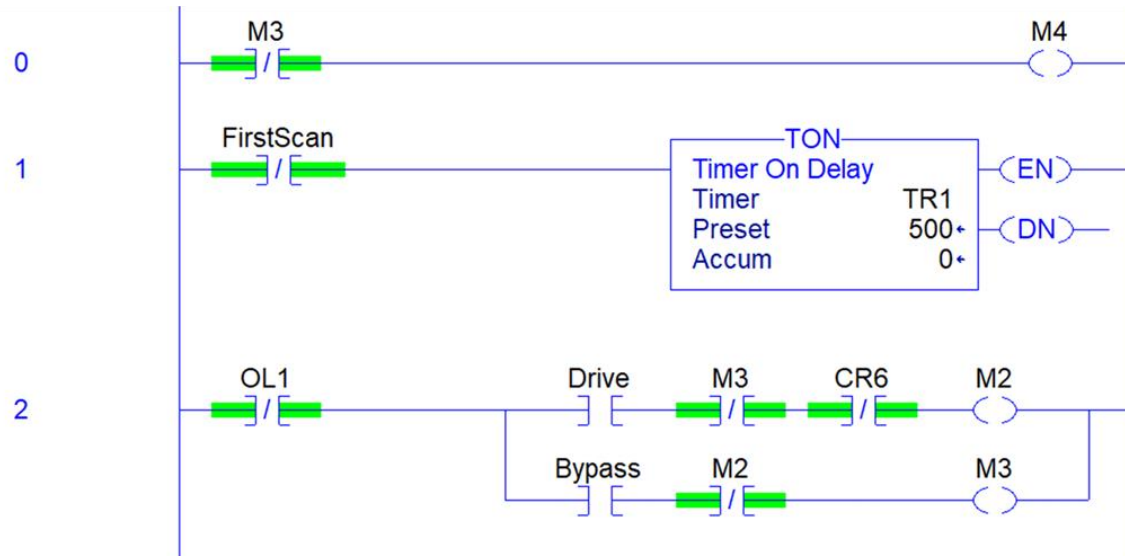


Schematic Drawings



PLC Programming

- ✓ Programmable logic controllers (PLCs) are one of the most useful technologies in the industries for automation.
- ✓ They are industrial computer systems that are used to control the electro-mechanical processes in various industries like manufacturing, plants, etc.
- ✓ PLC provides the ability to reprogram the process at very little cost.
- ✓ Programmable logic controllers are flexible and depending on the input and output



- ✓ An automation control system, which is widely used in industries like energy, oil and gas, water, power, and many more.
- ✓ SCADA consists of controllers for network interfaces, input/output, communication equipment, and software.
- ✓ SCADA systems contain both hardware and software components and it gathers data from different sensors and systems located in remote areas, and further performs the analysis.



SCADA

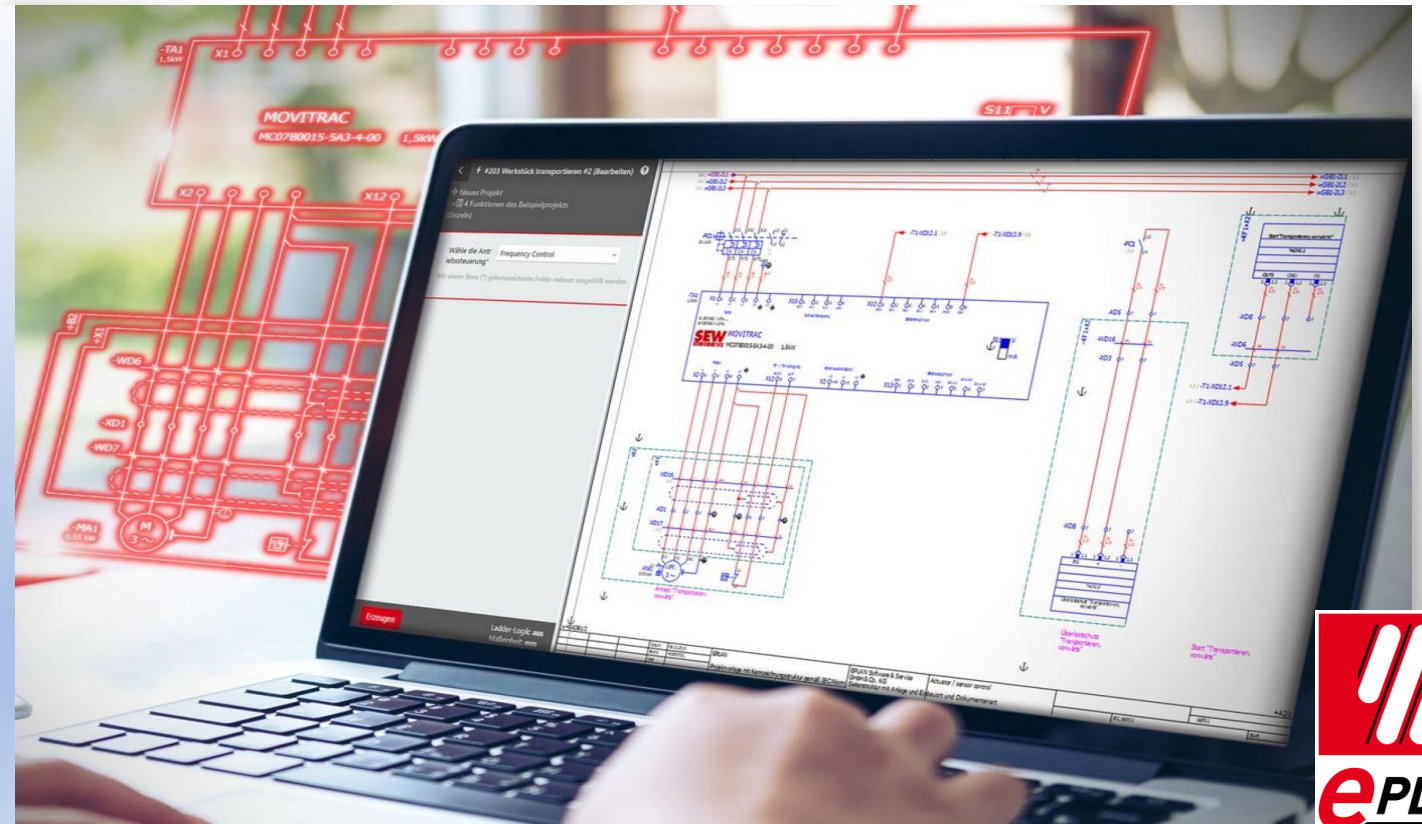
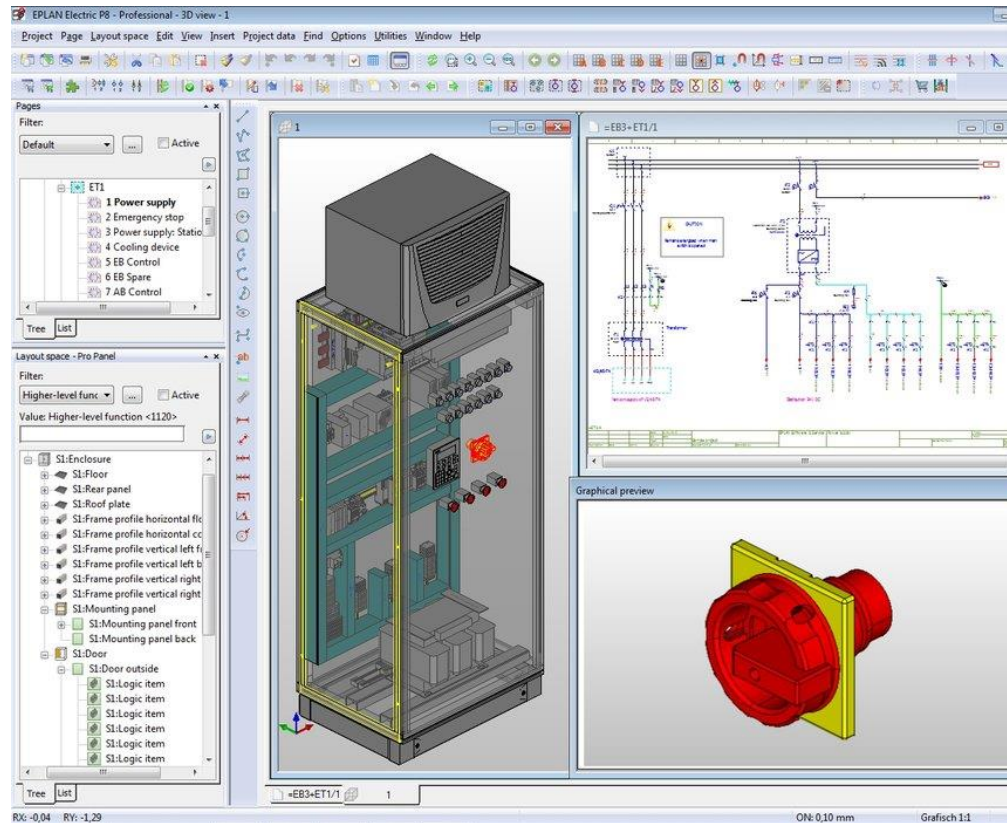
stands for

**Supervisory Control And
Data Acquisition**



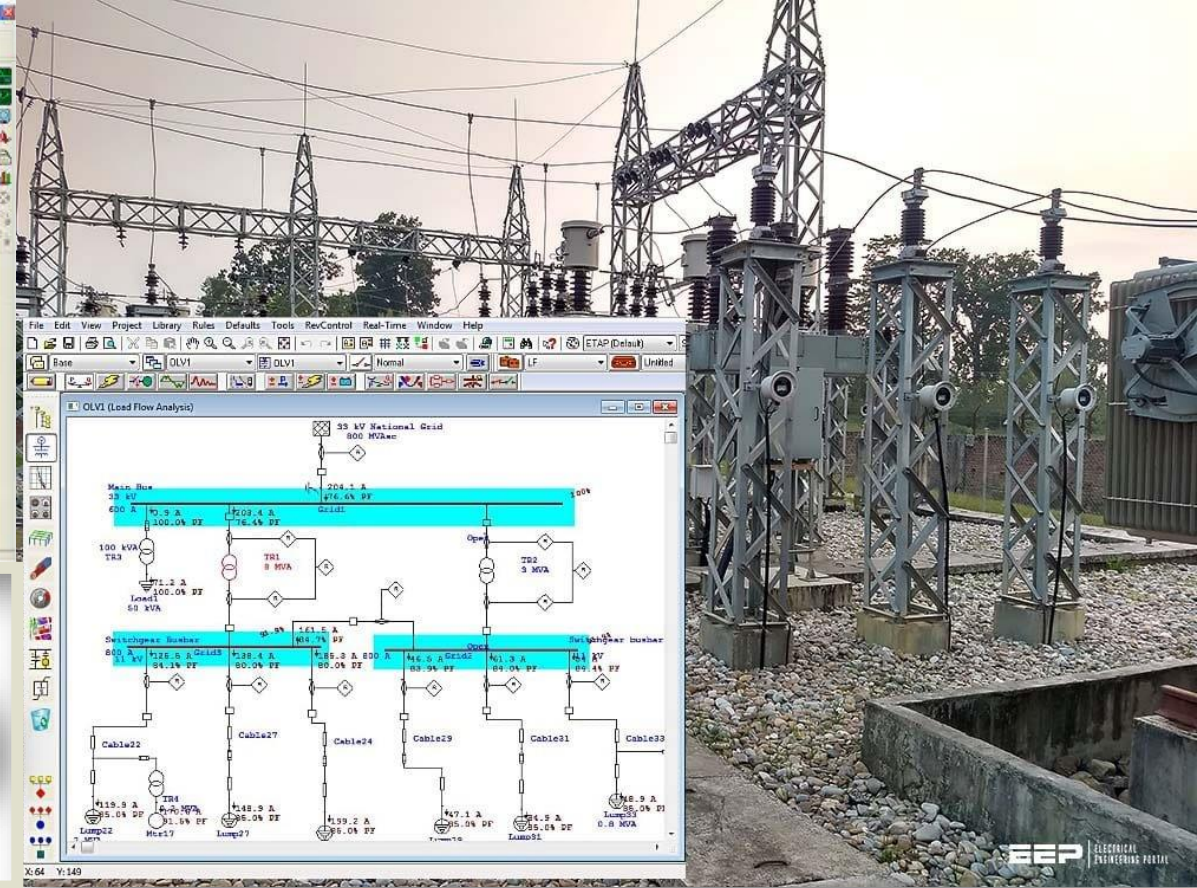
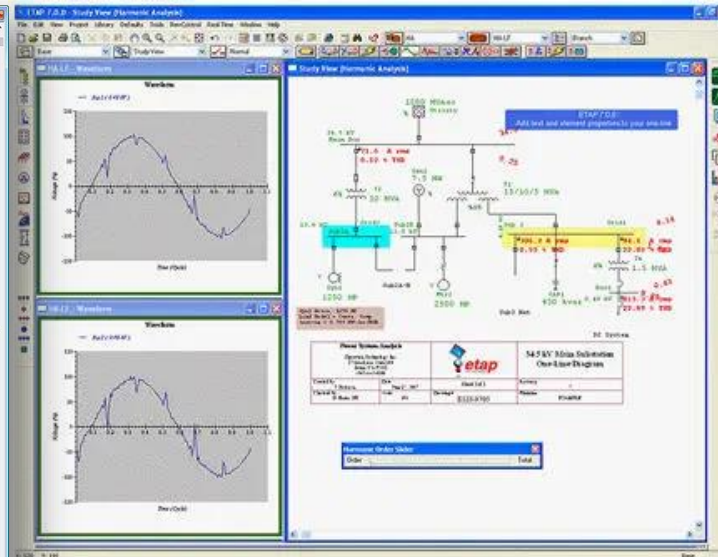
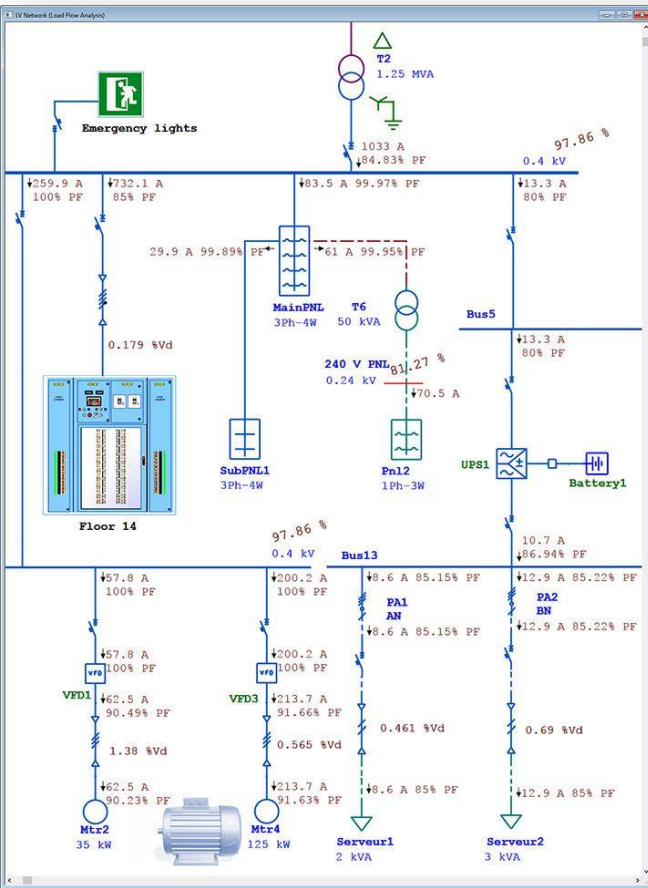


- ✓ EPLAN Electric P8 is an electrical engineering design software program that offers unlimited possibilities for project planning, documentation, and management.
- ✓ It generate automatic detailed reports based on wiring diagrams.
- ✓ EPLAN offers an integrated engineering solution, which saves both time and cost and helps in avoiding errors, and increases productivity over the long term.



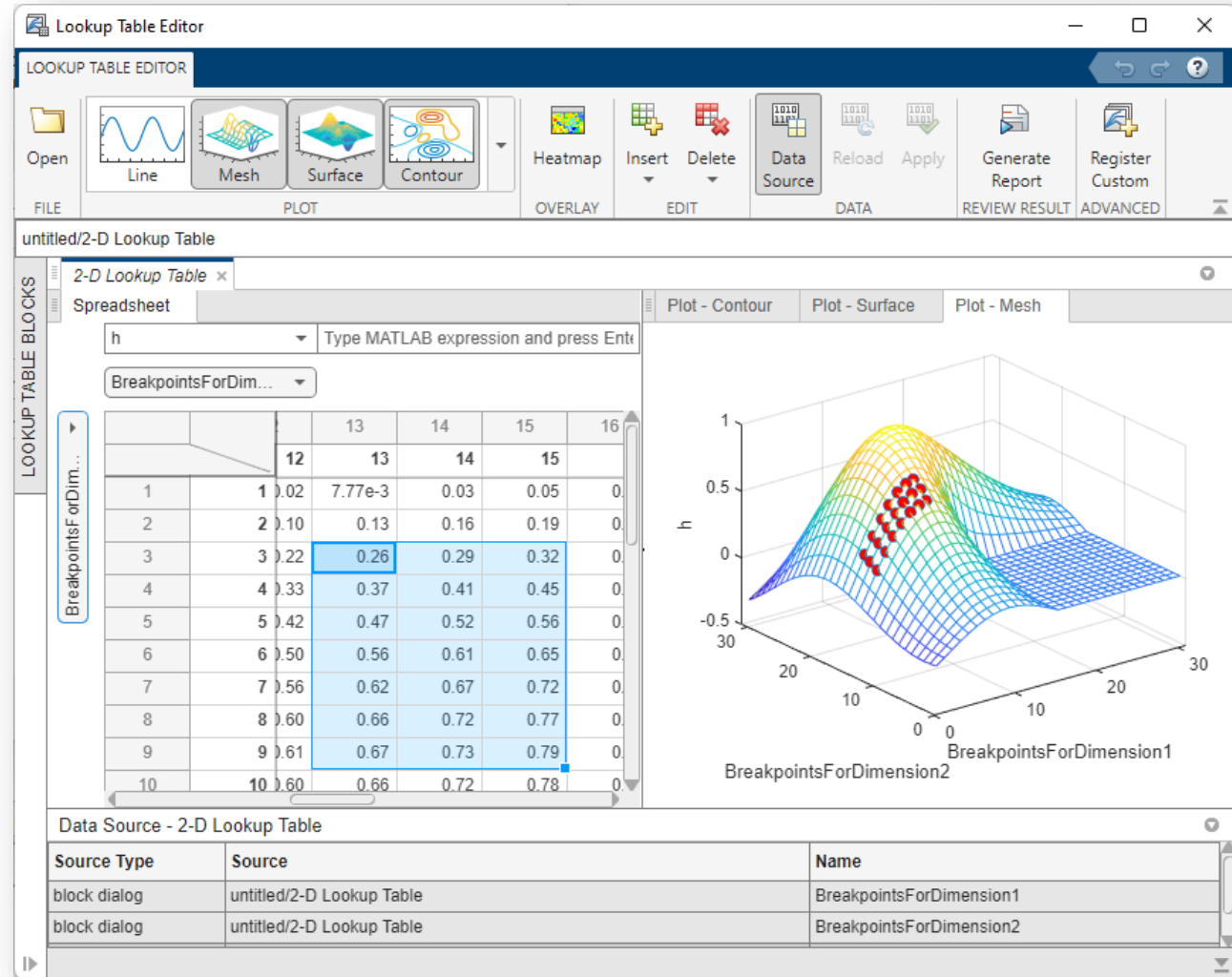


- ✓ ETAP is a unique software that performs simulations, analysis, and design of power systems.
- ✓ It has very vast capabilities such as Load flow analysis, Arc flash, Protection coordination studies, cable pulling, etc.
- ✓ This course covers fundamentals of conducting analysis in power systems, thus it makes it very easy and for beginners to follow the course.





- ✓ MATLAB is an abbreviation of Matrix Laboratory which is developed by MathWorks for providing a platform to engineers and scientists to perform numerical computing.
- ✓ MATLAB has a worldwide presence and is highly used in various backgrounds of engineering, science, and economics.
- ✓ MATLAB provides an easy-to-use environment for math and computation, algorithm development, data analysis, scientific and engineering graphics, and exploration and visualization.



Thank
you

