

≡ ELECTRICAL POWER SYSTEM SIMULATOR SCADA PACKAGE

PSS2

Remotely controls and monitors TecEquipment's Electrical Power System Simulator (PSS1) and optional Second Generator (PSS3). Teaches students how to control and supervise modern power systems.



KEY FEATURES

- Industry-standard supervisory control and data acquisition (SCADA) software for realistic experience of power system control
- For use with TecEquipment's Electrical Power System Simulator (PSS1) to increase students' understanding of power systems
- Can connect to TecEquipment's optional Second Generator (PSS3) for remote control and supervision of embedded and central generation
- Displays and stores alarms and logged data for detailed analysis
- Communicates with the instruments, circuit-breakers and relays of the Electrical Power System Simulator to control and collect information from the power system
- Includes high-specification computer
- Remotely controls the prime mover of the Electrical Power System Simulator and optional Second Generator

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DESCRIPTION

The Electrical Power System Simulator SCADA Package (PSS2) connects to TecQuipment's Electrical Power System Simulator (PSS1) to train students in supervision and control of power systems.

The package includes industrial-standard SCADA software, a computer and communications hardware. It will also connect to TecQuipment's optional Second Generator (PSS3) for supervision and control of embedded and central generation.

TecQuipment supplies the software already installed on the high-specification computer. The software does several jobs, including remote control and data display and logging. All of the SCADA screens were designed by TecQuipment to augment the experiments provided.

The user interface shows real-time data from the hardware including: circuit breaker states, fault conditions and generator speeds, as well as the voltage, current and power at points throughout the system.

Students select the correct screen for the experiment they want to perform. The user is then able to use the software to close circuit-breakers and connect the grid supply (or start the generator).

NOTE: For safety reasons, students can only do generator synchronisation at the Electrical Power System Simulator and not with the software.

Students can use the software to log data from the simulator and analyse it. They can then compare conditions before and after faults, and see the effects of faults. They can use this information to predict power system problems and change the power system protection to prevent future problems.

LEARNING OUTCOMES

The software includes the experiments already given with the Electrical Power System Simulator (PSS1), except for synchronisation (for safety reasons).

The experiments include:

- Generator characteristics and performance
- Transformers
- Transmission, distribution and utilisation
- Power system protection

ESSENTIAL BASE UNIT

- Electrical Power System Simulator (PSS1)

RECOMMENDED EXPERIMENT

- Second Generator (PSS3)

SPECIFICATIONS

SOFTWARE:

- Industry-standard supervisory control and data acquisition (SCADA)
- Full colour, compatible with Microsoft® Windows®
- Real-time display of voltages, currents and powers
- Event logging and alarm functions

HARDWARE:

- High-specification computer, keyboard and mouse
- Large full-colour, high-resolution LCD monitor

COMMUNICATIONS STANDARD:

- Modbus over ethernet
- IEC61850

STANDARD FEATURES

- Supplied with comprehensive user guide
- Five-year warranty
- Made in accordance with the latest European Union directives
- An ISO 9001 certified company