



# PCS-9700

## HMI Software

PCS-9700 HMI software (abbreviated as PCS-9700) is developed by NR based on years of SAS research achievements and site operation experiences. It is the achievement of elaborate design and devoted in-depth development. It is fully compatible with multiple international standards. Advanced distributed network technology, object-oriented database technology and cross-platform visualization technology are integrated. PCS-9700 can meet the requirements for HMI system in conventional substations, digital substations, power plants and etc.

PCS-9700 can be installed on computers with different operating systems (e.g.: Linux, Windows).

PCS-9700 adopts distributed and expandable system framework that can accommodate different structures. Applications and databases can be flexibly configured on each computer node without modification of applications. System functions can be easily expanded according to user requirements.

## Functions

- PCS-9700 HMI software
  - Basic functions:
    - . Graphic user interface
    - . Database management
    - . Report & Statistics
    - . History event retrieval
    - . Topological analysis
    - . Self-diagnosis
    - . Authority management
    - . Fully comply with IEC61850
    - . Trending
    - . Customization
    - . Remote control for CB/DS/ES & tap position
    - . Real-time alarm

- Advanced functions:
  - . Protection management
  - . Anti-maloperation
  - . Web
  - . Network Management System (NMS)
  - . Sequential control
  - . IEC61850 Edition 2.0

## Features

High reliability, extensibility, easy maintenance, friendly user interface and excellent system performance are integrated in PCS-9700 HMI system.

Features of PCS-9700 are listed as below:

- Fully comply with IEC61850
- Adopt object-oriented modular technology
- Conform to international standards, e.g.: C++, TCP/IP, ODBC, SQL, ActiveX and etc.
- Support flexible network structure to ensure convenient connection to other systems
- Able to be installed on computers with different operating systems (e.g.: Linux, Windows)
- Adopt unified commercial database and real-time database. The equipment-oriented database management system supports online equipment configuration and real-time database verification.
- Adopt network/node redundant configuration to ensure switchover of redundant equipment without disturbance
- Provide online self-diagnosis to detect system failure continuously
- Provide system self-restoration

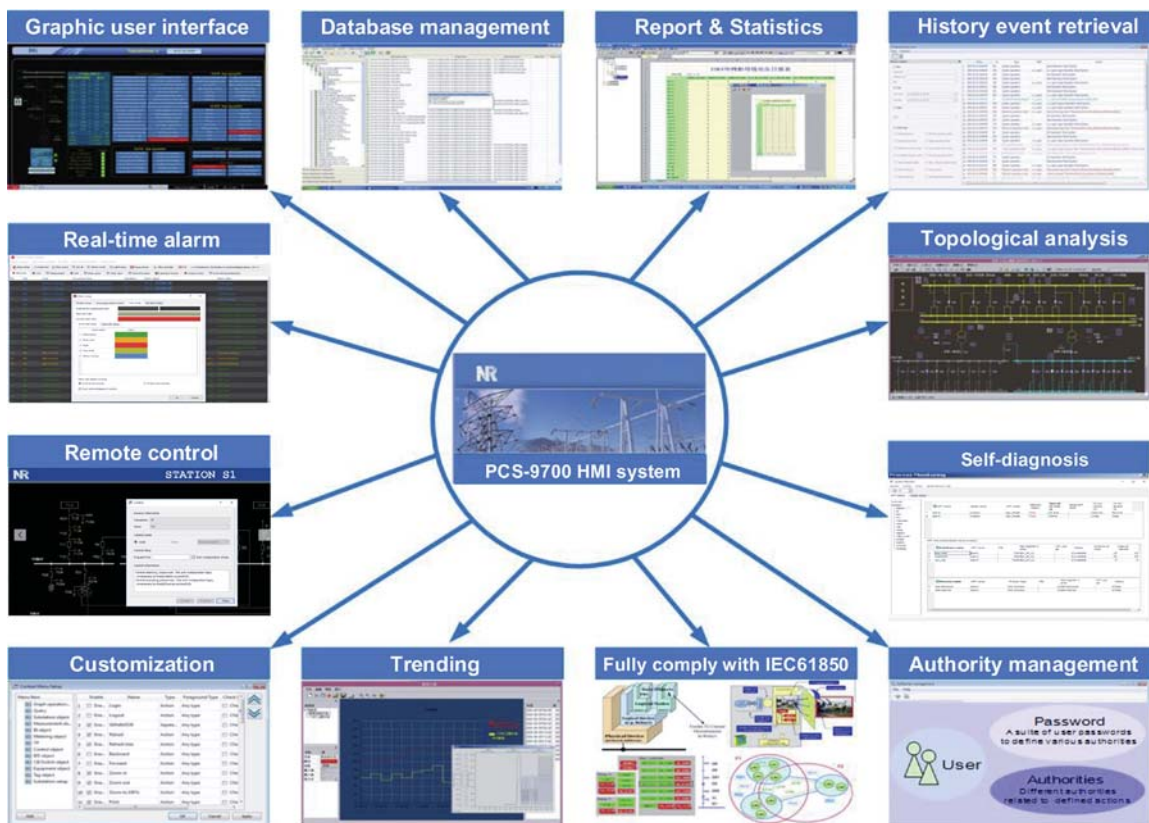


Figure 1 Basic functions of PCS-9700 HMI system

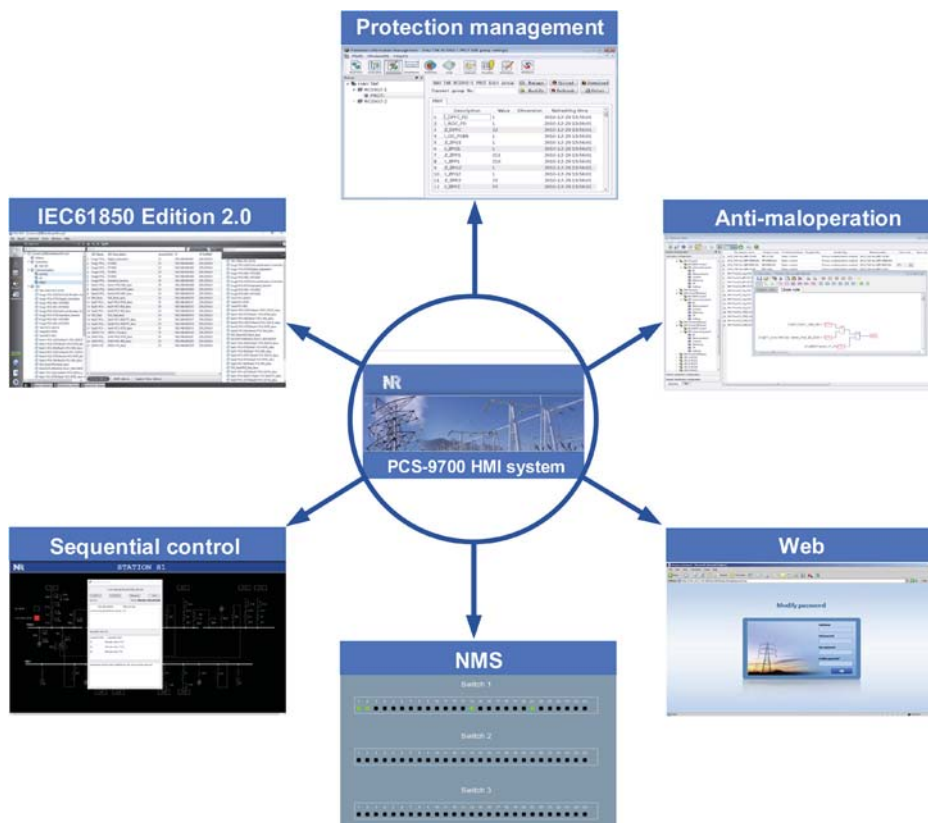


Figure 2 Advanced functions of PCS-9700 HMI system