



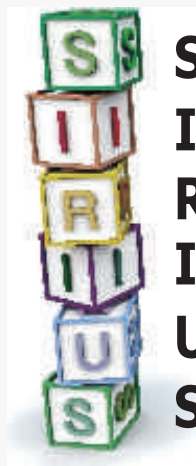
# INTEGRATED PROCESS MANAGEMENT & CONTROL SYSTEM



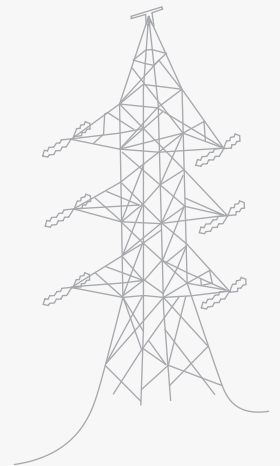
Meeting the challenges of the dynamic global market requires one to have efficient, reliable and, cost-effective process management system. Synergy Systems & Solutions, an ISO 9000 company, provides you with SIRIUS as the industrial automation software solution.

SIRIUS is an integrated process management and control system Software that can be adapted to almost any real time process. Based on Windows Technology, it is a user-friendly system that can be easily integrated with other business applications.

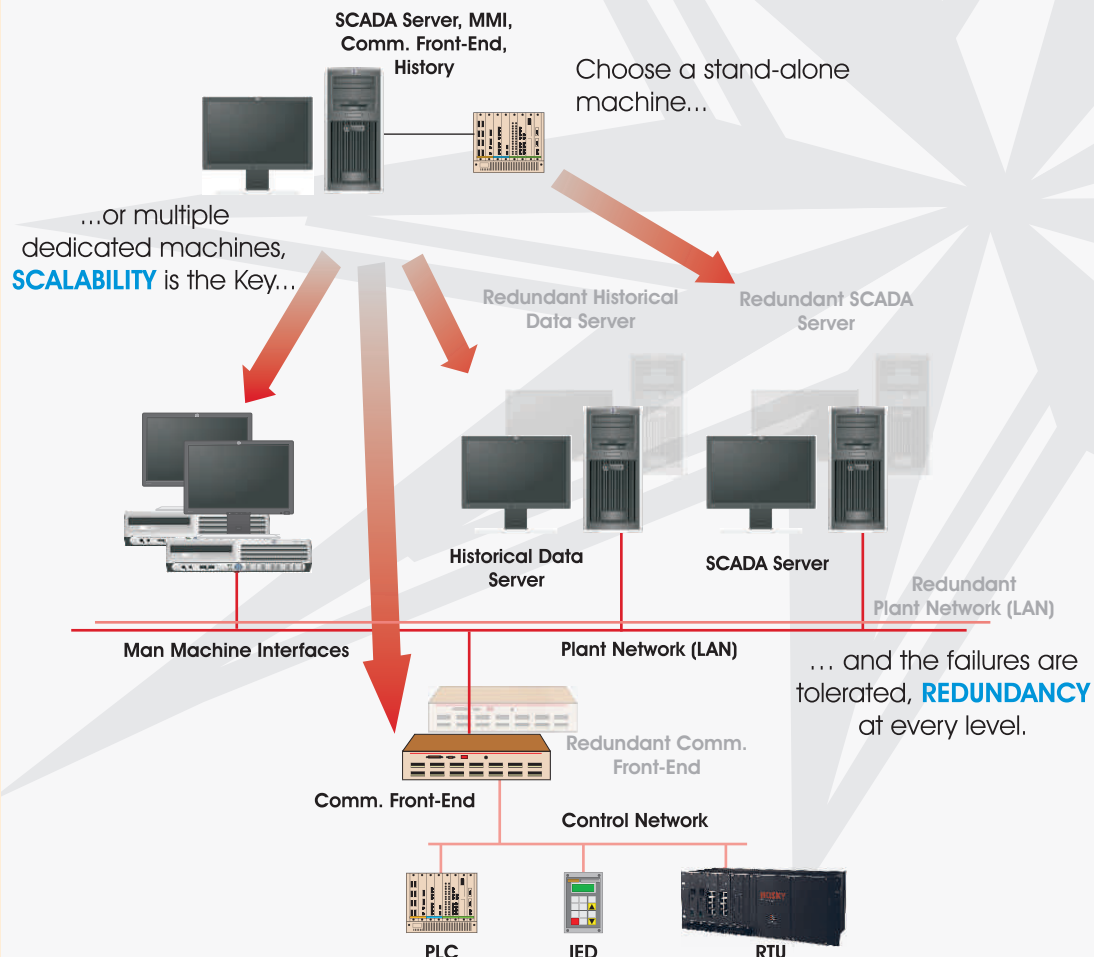
The system is modular in design and expandable in stages, thereby resulting in protection of customer's capital investment and extending the product life cycle.



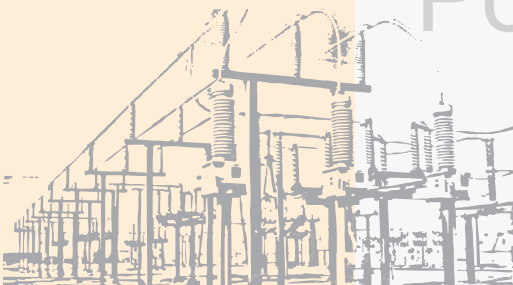
## Scalable Intelligent Robust Indigenous User-Friendly Solution



# Transmission



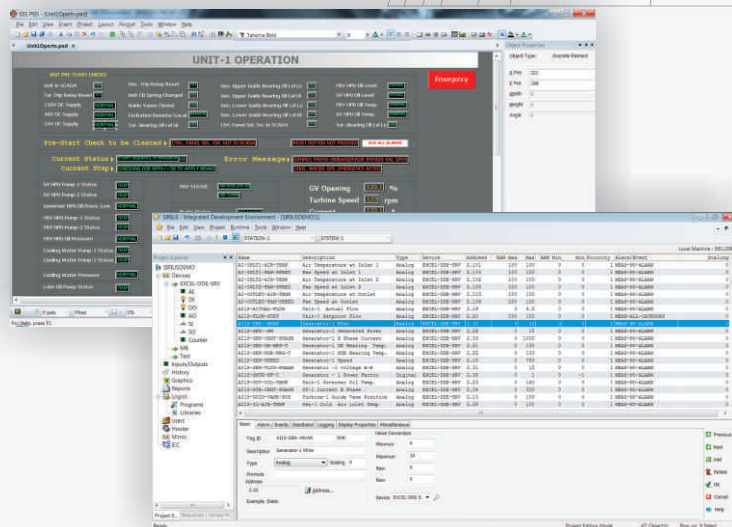
# Power Distribution



## INTEGRATED DEVELOPMENT ENVIRONMENT

From an abstract idea to a concretely engineered system, easy configuration tools make it possible...

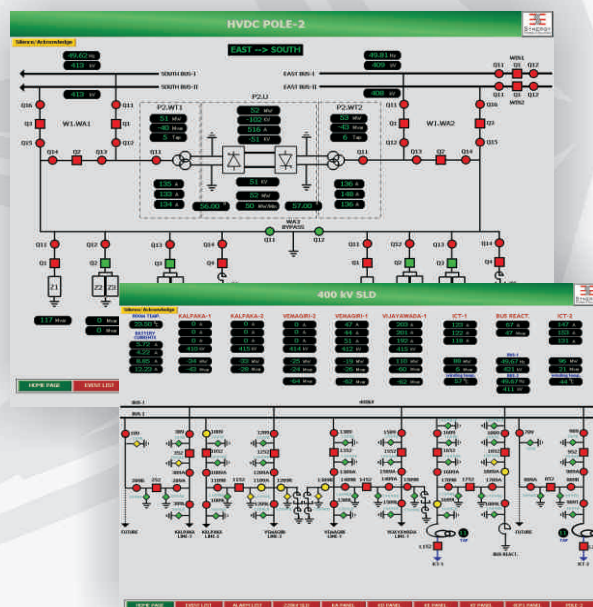
- ♦ Integrated Development Environment
- ♦ Unique Device Wizard for system configuration
- ♦ Configuration divided into pre-defined aspects for 'Walk-through' configuration
- ♦ Data Entry guided by help and selection lists
- ♦ Direct database import from Excel, OPC Server
- ♦ Context Sensitive Help
- ♦ Comprehensive Error Checking, display and lookup
- ♦ Import/Export of Configuration from other projects
- ♦ Automatic Generation of Project Documentation
- ♦ Browser to view, insert objects into other objects
- ♦ Unique device specific addressing mechanism
- ♦ Cross-reference manager
- ♦ Integrated graphics editor
- ♦ Single click backup and restore options
- ♦ Single Point of configuration download to all nodes



## MAN MACHINE INTERFACE

View the process from your own view-point...

- ♦ Vector Graphics-based display
- ♦ Unparalleled graphics quality with high resolution
- ♦ Multiple windows support
- ♦ Multiple VDU support
- ♦ Functional keyboard support
- ♦ User configurable symbol, video libraries
- ♦ Event triggered and periodic graphics update
- ♦ Unlimited zoom without loss in clarity
- ♦ Real-time Animation
- ♦ Unlimited process graphics
- ♦ Configurable Dynamic keys for easy & fast navigation
- ♦ "Always on Top" picture for display of important data
- ♦ Tag Searching in run-time
- ♦ Historical view of process data
- ♦ Multiple Clutter/Declutter levels
- ♦ Comprehensive security features



## ALARMS & EVENTS

Be notified of critical alarms, wherever you are...

- ♦ Central processing of alarms
- ♦ Acknowledge alarms over the network
- ♦ Acknowledge alarms by group, priority, station etc.
- ♦ Variable data in alarm messages
- ♦ Online configuration of alarms
- ♦ Acknowledge alarms from alarm list or from the object
- ♦ Acknowledge all alarms on a point with a click
- ♦ Hooter triggered in field and on individual MMI
- ♦ Alarm/Events via e-mail, fax and phone
- ♦ Acknowledge alarms over the phone

DATE	TIME	TAG ID	DESIGNATION	DESCRIPTION	STATUS	ALARM GROUP
17-09-2010	06:23:34.184	I-001-0005	S2.P1-AK-A1(A2)	EXECUTED	- OK	OPERATOR-LOG
17-09-2010	06:23:39.641	I-001-1110	S2.P1-AK-A1(A2)	OPERATOR-LOG	- OK	OPERATOR-LOG
17-09-2010	06:23:35.672	I-044-0162	S2.P2-AK-A21	CYCLIC FANS	- OK	RTI
17-09-2010	06:22:15.117	I-027-0044	S2.P2-AK-A21	FAULT RECORDER 1 IN OPERATION	- OFF	FAULT-RECORDER
17-09-2010	06:22:15.117	I-027-0045	S2.P2-AK-A21	FAULT RECORDER 1 NEEDS SERVICE	- OFF	FAULT-RECORDER
17-09-2010	06:22:15.115	I-027-0048	S2.P2-AK-A21	FAULT RECORDER 1	- OK	FAULT-RECORDER
17-09-2010	06:22:15.060	I-007-0044	S2.P1-AK-A21	FAULT RECORDER 2 IN OPERATION	- OFF	FAULT-RECORDER
17-09-2010	06:22:15.058	I-007-0048	S2.P1-AK-A21	FAULT RECORDER 2	- OK	FAULT-RECORDER
17-09-2010	06:22:10.171	I-021-0304	S2.P2-T1	NO LOAD CONTROL	- OFF	NORMAL-EVENT
17-09-2010	06:22:06.200	I-021-0065	S2.P2-AK-A1(A2)	EXECUTED	-	OPERATOR-LOG
17-09-2010	06:22:05.415	I-027-0026	S2.P2-WP-T1	NO BEAC CILLOW	- OK	DC-YARD
17-09-2010	06:22:05.369	I-027-0026	S2.P2-WP-T1	NO BEAC CILLOW	- FAULT	DC-YARD
17-09-2010	06:22:05.221	I-027-0026	S2.P2-WP-T1	NO BEAC CILLOW	- OK	DC-YARD
17-09-2010	06:22:05.210	I-021-0179	S2.P2-AK-A1(A2) (-US)	CHANDRAPUR READY FOR OPERATION	- OFF	NORMAL-EVENT
17-09-2010	06:22:05.210	I-021-0163	S2.P2-AK-A1(A2) (-US)	CHANDRAPUR READY FOR OPERATION	- OFF	NORMAL-EVENT
17-09-2010	06:22:05.192	I-027-0048	S2.P1-AK-A21	FAULT RECORDER 1	- FAIL	FAULT-RECORDER
17-09-2010	06:22:05.161	I-027-0040	S2.P1-AK-A21	FAULT RECORDER 1 NEEDS SERVICE	- OK	FAULT-RECORDER
17-09-2010	06:22:05.161	I-027-0046	S2.P1-AK-A21	FAULT RECORDER 1	- FAIL	FAULT-RECORDER





## HISTORY

Offline Analysis and MIS requirements are fulfilled by the Historical Data Server ...

- ♦ Cyclic, or on-change logging
- ♦ Triggered on timer, event or user-action
- ♦ Logging of Alarm/Events
- ♦ Custom/Application Specific logging
- ♦ Configurable capacity per log
- ♦ Microsoft SQL Server-based RDBMS database
- ♦ ADO, OLE DB, ODBC, SQL Access for custom applications
- ♦ Automatic disk-backup

## PROTOCOLS SUPPORTED

Protocol	Master/ Client	Slave/ Server
MODBUS RTU/TCP	⊙	⊙
MODBUS Plus	⊙	
IEC 870-5-101	⊙	⊙
IEC 870-5-103	⊙	
IEC 870-5-104	⊙	⊙
IEC 61850-8-1	⊙	
DNP 3.0 Serial (Level 3)	⊙	⊙
DNP 3.0 TCP (Level 3)	⊙	⊙
RP-570	⊙	
Proteus 2000	⊙	
Sinaut ST1	⊙	
EQUINODE	⊙	
SPORT	⊙	
Alstom Courier	⊙	
SPA Bus	⊙	
LON Bus	⊙	
PD Bus	⊙	
WorldFIP Sycoway	⊙	
Bitbus	⊙	
Indactic 33	⊙	
Indactic 625	⊙	
SEL ASCII	⊙	
3964 R	⊙	
IEC 1107	⊙	
GE-Fanuc SNP	⊙	
Allen-Bradley DF1	⊙	
SNMP	⊙	
OPC DA	⊙	

# Hydro Power



## THIRD PARTY INTERFACES

Through third-party interfaces, the choice of connectivity crosses all limits...

- ♦ OPC client
- ♦ DDE (Server/Client)
- ♦ NETDDE
- ♦ ODBC
- ♦ OLEDB
- ♦ SQL

## TIME SYNCHRONIZATION

- ♦ Master Clock / GPS Receiver:
  - Absolute time (NMEA 0183, SNTP, Custom)
  - Minute/second pulse
- ♦ Synchronization Method:
  - Absolute time adjustment
  - Clock frequency adjustment to arrest drift
- ♦ Devices Synchronized:
  - SCADA Servers
  - Communication Front Ends
  - RTUs
  - MMI Clients
  - HDS

## SUPPORT

With the following support services at your disposal, SIRIUS is your ideal business partner...

- ♦ Comprehensive training programs
- ♦ Technical Support right from concept to project commissioning
- ♦ Remote Debugging
- ♦ Software development for customized solutions
- ♦ Technical Support Help Line over telephone, fax, e-mail

# SIRIUS



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