General Description

COMPEND 2000 is a PC compatible sequence programmable control and data acquisition system with software running under Windows 98, 2000, NT4 or XP. COMPEND is compatible with the Phoenix SUPERSLIM Serial Link Interface Module and a range of other digital devices include Froude Texcel V4 dynamometer controller, SSD digital drives (ac and dc), the HBM MGC torque transducer amplifier, the Coherent 3AXIS motion controller and the Data Translation DT3010 & DT300 series high-speed data acquisition cards. A maximum of four SUPERSLIM units plus an unlimited number of other digital devices may be connected to form a single system.

Features

Software configurable, sequence programmable control and data acquisition

Common platform providing open systems architecture and connectivity

Code free configuration/programming of Definition, Calibration and Sequence files

System Editor

Allows user to configure the system to meet current requirements. Involves defining input and output channels, identifying units and scaling, creating derived channels and defining in which box and on which page of the multi-layer screen display information is to be displayed. Multiple boxes connected to a single common channel are permitted on multiple pages. Box sizes automatically adjust to fit the user defined screen area thus permitting high visibility displays of selected channels.

Test Sequence File

Allows user to program continuous or sequence control. Steady state, ramped and software PID controlled outputs may be programmed. Data collection on analogue inputs may be programmed with up to eight data collections modes user selectable.

Alarm System

Allows user to program high and low level warning and shut down alarms on all analogue, pulse counting and derived channels on step-by-step or global basis.

Data Files

Data recorded in a format that may be read by PC compatible machines. Data files are comma separated variable (csv) or TAB separated variable (tsv). May be imported directly into most spreadsheet software packages for post processing and report generation.

Specification

Direct Set-points	YES
Direct Digital Control	YES
Software PIDs	YES
Number of Logical Steps	Unlimited
Number of Physical Steps	Up to1000
Control Step Rate	up to 10 Hz
Internal Control Frequency:	1 kHz
External Control Frequency:	10 Hz
Data Acquisition Rate:	10 Hz (up to 2 SUPERSLIM) 5 Hz (up to 4 SUPERSLIM)
Resolution:	12 bit
System Maximum Capacity:	SUPERSLIM x 4
Data channels:	Base System/Maximum
Analogue In	8/32
Analogue Out	4/16
Digital In	4/16
Digital Out	4/16
Pulse Counting Inputs	2/8
Minimum System Configuration:	Pentium II 233 MHz 32 Mbytes RAM

Interface Hardware

SUPERSLIM Serial Link Interface Modules
Froude Texcel V4 Dynamometer Controller
SSD Digital Drives (ac, dc and ac servo)
HBM MGC Torque Transducer Amplifier
Custom Configured Digital Devices
Data Translation 3010/300 Series High-Speed Multifunction Boards
Coherent Motion Controller
TTI TG1010 Function Generator

Facilities

Resident Editor
Active Test File Viewer
Programmable Data Collection:
- 1 Hz Sample Rate Single Average
- 10 Hz Sample Rate Peak Value
- Continuous 1 Sample per 1 Minutes
- Continuous 1 Sample per 1 Second

Conditional Stepping:

Manual Stepping
User Definable Standby Set-points
Analogue Channel Alarms
Derived Channel Alarms
Real Time Auto Scaling Trending
Data Transfer to Networked Devices

Run Time Editing
Pick from List File Selection

10 Hz Sample Rate Single Average
Continuous 1 Sample per 10 Minutes
Continuous 1 Sample per 10 Seconds
Continuous 1 Sample per 0.1 Seconds
Direction Sensitive
Derived Channels
Pause/Restart
Manual Data Channels
Pulse Counting Channel Alarms
Complex Derived Channels
History Graph Buffer
High Speed Data Acquisition Option