



3630

Subsystem

PRODUCT DESCRIPTION

The 3630 Plant Data Communication Subsystem consists of a programmable communications control unit and associated terminals providing Input/Output (I/O) functions to the manufacturing floor. The terminals include keyboard display, control terminal, magnetic encoder printer, magnetic scanner, magnetic reader, and automatic data unit. The subsystem is designed to meet requirements of the Manufacturing Industry.

The terminals are attached to the controller via local and/or remote loops using Synchronous Data Link Control (SDLC) transmission protocols. The 3630 Subsystem is supported by DOS/VS, OS/VS1, and OS/VS2.

The Host to subsystem communication is via a 3704/3705 Communications Controller using SDLC transmission protocols over common carrier or user-owned transmission facilities.

The individual units of the 3630 Subsystem are:



3631 Plant Communication Controller - A programmable controller available in two models that allow attachment or 3630 Subsystem terminals. The models are:
Model 1A - incorporates a one-sided diskette (250K bytes)
Model 1B - incorporates a one or two-sided diskette (500K bytes)

The functional sections of the controller are:

- Control Logic - Arithmetic Logic Unit (ALU), Storage Address Register (SARs), Data Registers (DRs), Program Interrupts (PLs)
- Read Only Storage (ROS)
- Random Access Memory (RAM)
- Diskette - either one or two-sided
- Communications interface to Host - SDLC line discipline
- Local Loop Adapter - allows attaching terminals to controller

The loop operates at speeds up to 9600 bps. A maximum of two local loops per controller is available with each loop consisting of two lobes.

- Remote loop - two adapter per controller; loops are driven by an attached 3842 or 3843 Loop Control Unit which connects point-to-point or multipoint and operates at 2400bps.

A 3604 Model 6 Keyboard Display is required as a control station and is connected directly to the 3631 Controller.

3632 Plant Communication Controller - The functional sections of the controller are similar to the 3631 with the exception of:

Model 1A - incorporates two-sided diskette (500K bytes) and five megabyte disk file

Model 1B - incorporates two-sided diskette (500K bytes) and ten megabyte disk file.

3641 Reporting Terminal, Models 1 and 2 - A keyboard display terminal designed to function in an industrial environment. Standard features for both models are:

- Twenty-two character alphanumeric display
- Thirty-five key numeric or seventy key alphanumeric keyboard.

Optional Features are:

- Digital Input/Digital Output (DI/DO) - thirty-two input and eight output points
- Magnetic Reader Attachment - allows attaching Magnetic Hand Scanner or Magnetic Slot Reader

Additionally, the Model 2 offers an eighty-column card reader and ten-column punched badge reader.



3642 Encoder Printer - Models 1 and 2 - The 3642 is a printer and magnetic stripe encoder. Both models are capable of printing up to ten lines and encoding a magnetic stripe on the same document.

The printer technology is wheel (drum) with back-to-front method of printing.

The Model 1 accepts hand-fed single documents. The Model 2 accepts continuous forms from a hopper.



3643 Keyboard Display - The Models 2,3 and 4 provide 240, 480, and 1024 positions of display capability with either a seventy-four or ninety-four key alphanumeric keyboard. Additionally, a Magnetic Reader Attachment feature allows the Magnetic Hand Scanner or Magnetic Slot Reader to be attached.





3644 Automatic Data Unit - A Programmable terminal, packaged for industrial environments, that provides the capability of attaching a variety of sensors, actuators, production, and laboratory equipment to the 3631/3632 controller. The highlights of the 3644 are:

- Powers and houses up to eight customer purchased sensor I/O cards. These cards provide DI/DO, analog to digital conversion, analog multiplexor and current loop adapter functions, and allow the 3644 to interface to a wide variety of equipment.

A manual I/O feature provides a twenty-two character display and a thirty-five key numeric/function keypad.



3646 Scanner Control Unit - A terminal packaged for industrial environments that allows attaching two Magnetic Hand Scanners or Magnetic Slot Readers. An optional feature allows attachment of two additional magnetic readers.

3842 Loop Control Unit - The 3842 controls the operation of a single lobe loop and interfaces to a common carrier provided voicegrade private line channel (nonswitched) that is terminated at a 3631/3632 controller via an IBM 3872 Modem.

3843 Loop Control Unit - The 3843 controls the operation of a single lobe loop and interfaces to a common carrier provided telephone line via an externally attached modem.

Magnetic Hand Scanner - A hand-held magnetic reader that reads encoded information from a magnetic stripe.

Magnetic Slot Reader - A free-standing magnetic reader that reads encoded information from a magnetic stripe.

7430 Document Printer - A Serial printer that provides hard copy output on a variety of cut forms. Printing is accomplished by a rotating disk.

The 3641, 3642, 3643, 3644, and 3646 attach to the 3631/3632 controller via customer-owned and installed loops. A variety of hardware is available from IBM for the construction of the loops.

Technology

- Electronic
 - LSI
 - PLA
- Electromechanical
 - Wheel (Drum) Printing
 - Card Reader
 - Badge Reader
 - Magnetics

Maintenance Features

- Hardware bring-up tests at power-on
- Problem recovery procedures to assist the customer in identifying the failing unit within the system
- Maintenance Analysis Procedure (MAP) charts
- Terminal Exercisers
- Automatic checkout routines verify controller operation at each Initial Program Load (IPL)
- Error recording, error messages
- Communications and loop adapter wrap tests
- No scheduled PM

CE Career Path

The 3630 Subsystem is a "Data Recording" CE Career Path product.

IBM World Trade Corporation
DP Customer Engineering
EHQ - Paris, France
Printed in Western Germany