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 dis-
play, control terminal, magnetic encoder printer, magnetic
scanner, magnetic reader, and automatic data unit. The
subsystem is designed to meet requirements of the Manu-
factoring 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 (PIs)
- 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.