



TRAINING UNIVERSITY

Network ProTime[®] to an EMR System



Integration Technology Terms

- **EMR:** Electronic Medical Records
 - Refers to a healthcare organizations official legal record, used for accounting and medical purposes. The records contain everything that happens to a patient while they are at a particular hospital, clinic or visit with a physician. A patient may have several EMRs, not usually linked.
- **EHR:** Electronic Health Record
 - A record of everything that happens to a patient regardless of where it occurs. Designed to be more robust, with regional and national information from a variety of sources, all coming together.
- **LIS/HIS/CIS:** Laboratory/Hospital/Clinical Information System
 - An information system that manages specimen data from requisition entry through specimen tracking to billing and final cumulative report production.



Integration Technology Terms

- **HL-7:** Health Level 7
 - Protocol for formatting, transmitting, and receiving data in the healthcare environment from an Ethernet port.
- **ASTM:** American Society for Testing and Materials
 - Protocol used by clinical analyzers to exchange information with laboratory information systems, generally through a serial port.
- **HIMSS:** Healthcare Information and Management Systems Society
 - The healthcare industry's membership organization exclusively focused on providing leadership for the optimal use of healthcare information technology (IT) and management systems for the betterment of human health.
 - http://www.himss.org/ASP/topics_ehr.asp



Integration Technology Terms

- **Mapping:**
 - Process by which ProTime data is assigned to a specific field within the EMR system.
 - This process is handled by information technology specialist and EMR vendor.
- **LAN:** Local Area Network
 - Network infrastructure within a single building or facility.
- **WAN:** Wide Area Network
 - Network infrastructure which connects multiple buildings or facilities.



Integration Technology Terms

- **TCP/IP:** Transmission Control Protocol/Internet Protocol
 - This is the basic communication language or protocol of the internet. It can also be used as a communications protocol in a private network (intranet).
- **FTP:** File Transfer Protocol
 - Protocol that is the simplest way to exchange files between computers on the internet.
- **NFS:** Network File System
 - A protocol developed by Sun Microsystems that allows a computer system to access files over a network as if they were on its local disks.



Trends Point Toward Increase in EMR Adoption Both In & Out of Hospital

	2004	2005	In Two Years
Reduce Medical Errors/Promote Patient Safety	47%	53%	42%
Upgrade Security/HIPPA Compliant	48%	44%	7%
Replace/Upgrade Inpatient Clinical Systems	44%	38%	33%
Implement Wireless Systems	37%	35%	18%
Process/Workflow Redesign	32%	32%	32%
Connecting IT at Hospital and Remote Locations	N/A	32%	21%
Implement EMR	33%	29%	54%
Train Personnel to Use Systems	26%	25%	16%

Source: 10th Annual HIMSS Survey, February 2005



EMR Adoption Gap

Studies show that 57% of large group practices are using electronic medical records, but only 13% of solo physicians are using the technology.

Source: 10th Annual HIMSS Survey, February 2005



EMR Vendors

- There are hundreds of EMR vendors. Leading vendors are:
 - Allscripts
 - Baxter
 - Cerner
 - Clinicomp
 - Eclipsys
 - GE
 - IDX
 - McKesson
 - Siemens
- Most should be HL7/ASTM compatible
- The customer's information technology specialist or EMR provider must ensure compatibility



Benefits of Connecting Your Patient's Results to the Electronic Medical Record

- Ability to save your patient's PT result to the EMR
- Save the EMR/clinic result to the EHR
- Reduce transcription errors
- EMR/EHR enables physician to follow the patient status in real time
- Archiving of all patient results to central location



New ProTime Features Make Networking Possible

- Two features enable connectivity:
 - Patient ID
 - Auto-send
- Operator ID optional
- PROCABLE to connect for data transfer
- JavaLin 300 box from Dawning Technologies to translate then transfer data to EMR/EHR/HIS/LIS/CIS
 - Purchased from Dawning
 - Information technology specialist required to set up JavaLin



PROCABLE



JavaLin 300



Interface Device from Dawning Translates Then Transfers ProTime Data Into HL7/ASTM Compatible Format

The JavaLin is a small footprint device designed to connect laboratory analyzers directly into the EMR using industry standard protocols including HL7 and ASTM.



JavaLin 300



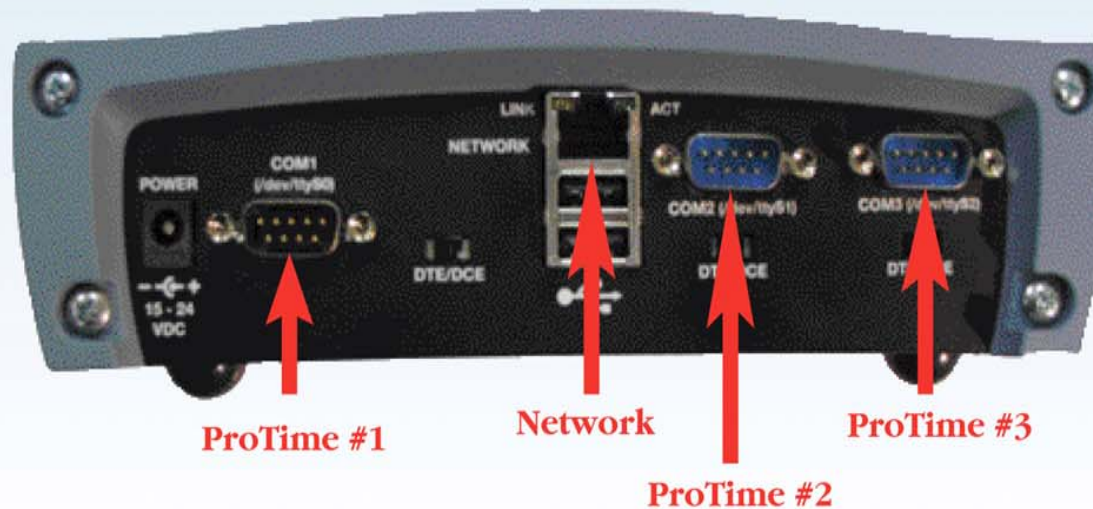
About the JavaLin

- The JavaLin device contains:
 - Instrument driver software
 - Communicates with the ProTime instrument
 - Captures:
 - Time & date
 - PID & OID
 - INR & PT results
 - Error messages
 - Translates the data
 - Permits flexibility in mapping of data
 - Transfers the data



About the JavaLin

- One to three ProTime instrument connections
- One PROCABLE for each ProTime connected
- Data is transmitted simultaneously



How the Application Works



Estimated Networking Costs

- JavaLin 300 part number E0500
 - \$1,895 includes one instrument driver module
 - Expansion driver modules cost \$1,500 each
- Order directly from Dawning
 - 1-800-332-0499 or email sales@dawning.com
- Cost to network:
 - Connect one ProTime unit:
 - 1 ProTime unit = \$1,749
 - 1 PROCABLE = \$36
 - 1 JavaLin plus driver = \$1,895
 - Total = \$3,680
 - Connect three ProTime units:
 - 3 ProTime units = \$5,247
 - 3 PROCABLES = \$108
 - 1 JavaLin plus one driver = \$1,895
 - 2 additional drivers = \$3,000
 - Total = \$10,250
- Cost of JavaLin to EMR /HIS/LIS/CIS varies by host provider (EMR vendor)

