



### ***CSP-PMO BENEFITS***

By providing large project support for the DIGITAL Educational Services Sales effort, we are able to:

- Provide a business perspective to support the technical training solution;
- Act as a single point Educational Services contact for creation of the total solution;
- Access worldwide programs and activities, expanding our experience, database and visibility;
- Standardize automated systems and processes for all CSP-PMO activities.

### ***QUESTIONS COMMONLY ASKED OF CSP-PMO***

- Q.** Why was the CSP-PMO group formed?
- A.** The amount and complexity of large project opportunities is increasing, requiring a more formalized approach and dedicated, highly-skilled staff support.
- Q.** If you focus on providing project management for our largest accounts, aren't you in effect duplicating the efforts of the Area Educational Services' businesses?
- A.** Most large projects have the need for dedicated focus and a variety of specialized support resources not always available in the Field locations. We do not duplicate the efforts of the area businesses; rather, we supplement them.
- Q.** Once the sale is made, how is the proposed solution delivered?
- A.** The Area Training Manager in conjunction with the assigned program implementation manager works with CSP-PMO to implement the program.
- Q.** How do I contact CSP-PMO?
- A.** Call the Customer Support Programs-Project Management Office at:  
**DTN: 249-4972 or DTN: 249-1698**  
**(617) 276-4972 or (617) 276-1698**

# ***CSP-PMO***

***CUSTOMER SUPPORT PROGRAMS  
PROJECT MANAGEMENT OFFICE***

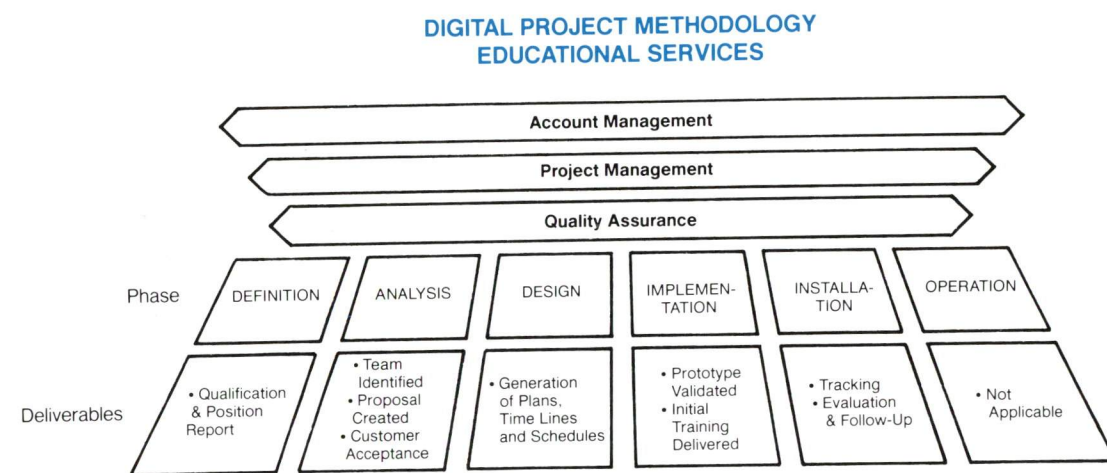
***EDUCATIONAL SERVICES  
Turning Potential into Performance***

### CUSTOMER SUPPORT PROGRAMS-PROJECT MANAGEMENT OFFICE

The Customer Support Programs-Project Management Office (CSP-PMO) supports Educational Services' business within the United States, Europe, and GIA by providing project/program management services in response to customer RFIs/RFPs. We have also established the systems and processes necessary to deliver unsolicited proposals to corporate, national and major accounts.

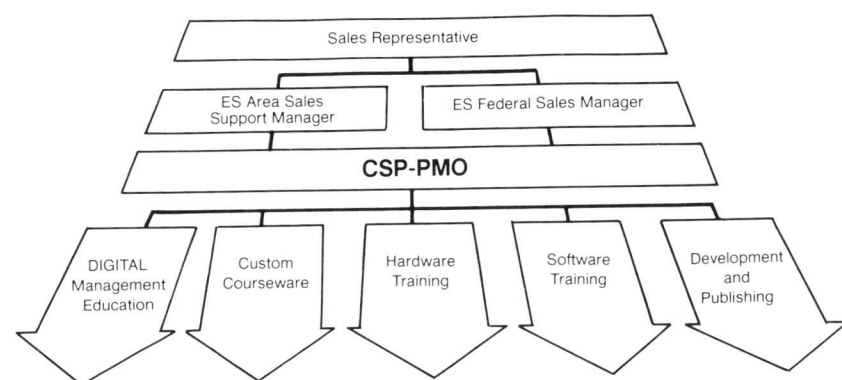
### CSP-PMO METHODOLOGY

We have developed program management tools and systems in support of the DIGITAL Program Methodology (DPM) to assist the Educational Services Area Sales Support Managers in pre-sales activities and in developing Educational Services' training proposals. The methodology is a framework that consistently encompasses and defines all the elements of the project, dividing the project life cycle into specific phases in which discrete activities occur that produce tangible results.



### HOW DOES CSP-PMO RELATE TO OTHER EDUCATIONAL SERVICES GROUPS?

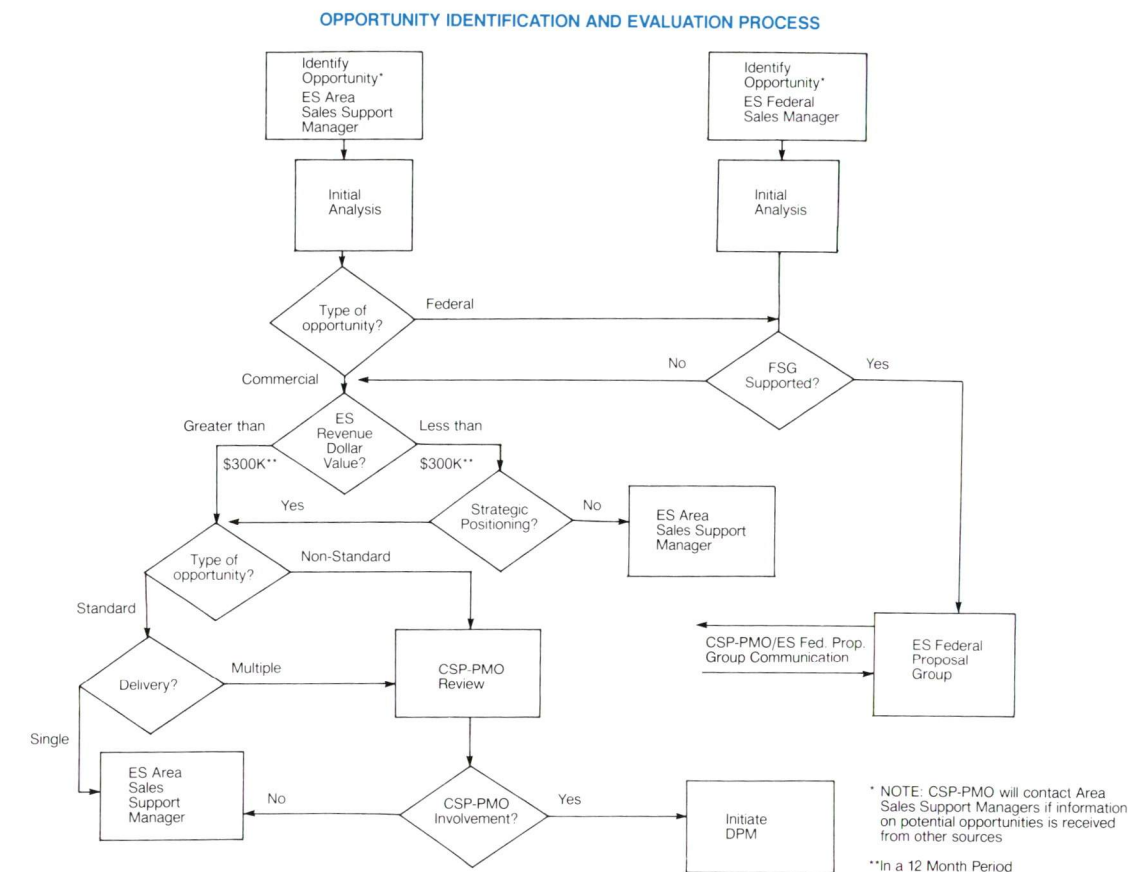
Educational Services' training opportunities for corporate, national and major accounts are identified by the Sales Account Representative. Once identified, the appropriate account team contacts the Educational Services Area Sales Support Manager and/or the Federal Sales Manager who then directs the opportunity to CSP-PMO.



We act as the liaison in support of large projects to access expertise within Educational Services and other DIGITAL and/or vendor groups. CSP-PMO coordinates all the activities necessary resulting in a "total training solution" proposal for the customer.

### CSP-PMO ROLE IN THE EDUCATIONAL SERVICES' BID OPPORTUNITY

CSP-PMO evaluates requests for assistance based on the established criteria of the revenue value, the type of opportunity (standard off-the-shelf courses or non-standard customized courses) and the delivery relative to single or multiple geographies as referenced in the following flow diagram:



### CSP-PMO RESPONSIBILITIES

CSP-PMO is responsible for the continuity and content of the Educational Services' component of the proposals we generate by:

- Providing a corporate focus on large pre-sales Educational Services' opportunities;
- Identifying customer requirements;
- Coordinating the expertise needed for the proposal response;
- Reviewing the requirements for response and customizing a proposal to meet specific needs;
- Providing word and graphic layout for proposal composition using desk-top publishing;
- Developing the implementation plan for post-award deliverables.

### CSP-PMO TEAM

CSP-PMO utilizes a team approach in developing its proposals. All members of the CSP-PMO Team have direct experience in program management and/or customer consulting. Each individual also has a primary specialty in one or more of the following areas:

- Business Management
- Organizational Development
- Educational Design & Development
- Training Operations
- Sales Support
- Commercial & Government Markets
- Educational Measurement & Evaluation

Our team approach offers the finest combination of program management and customer consulting skills available.

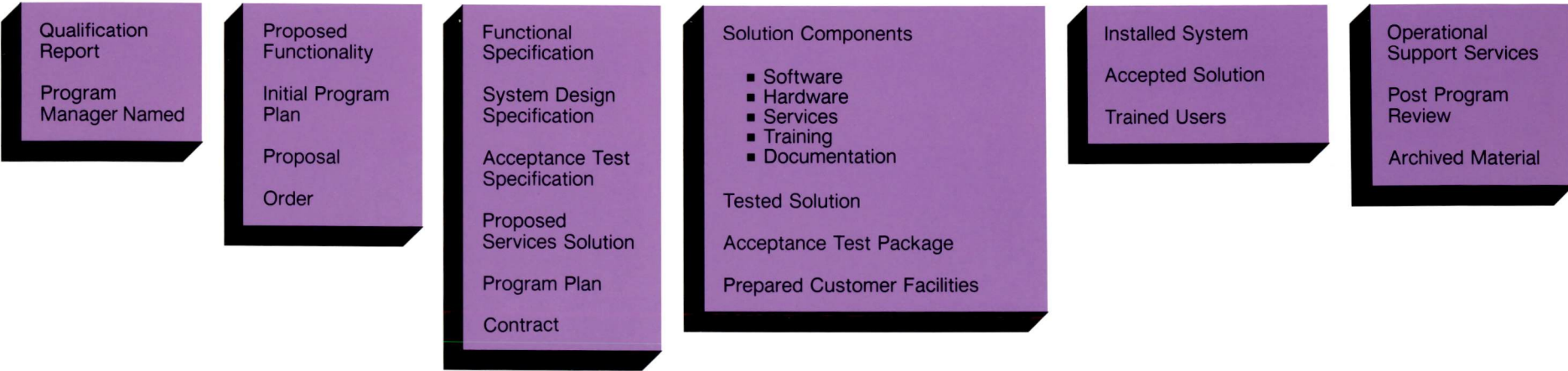
# DIGITAL PROGRAM METHODOLOGY



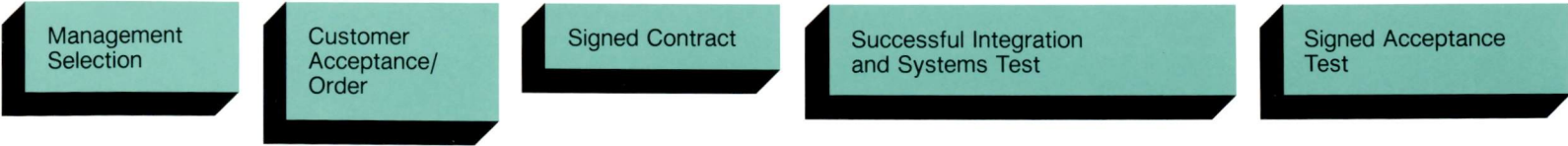
Phase



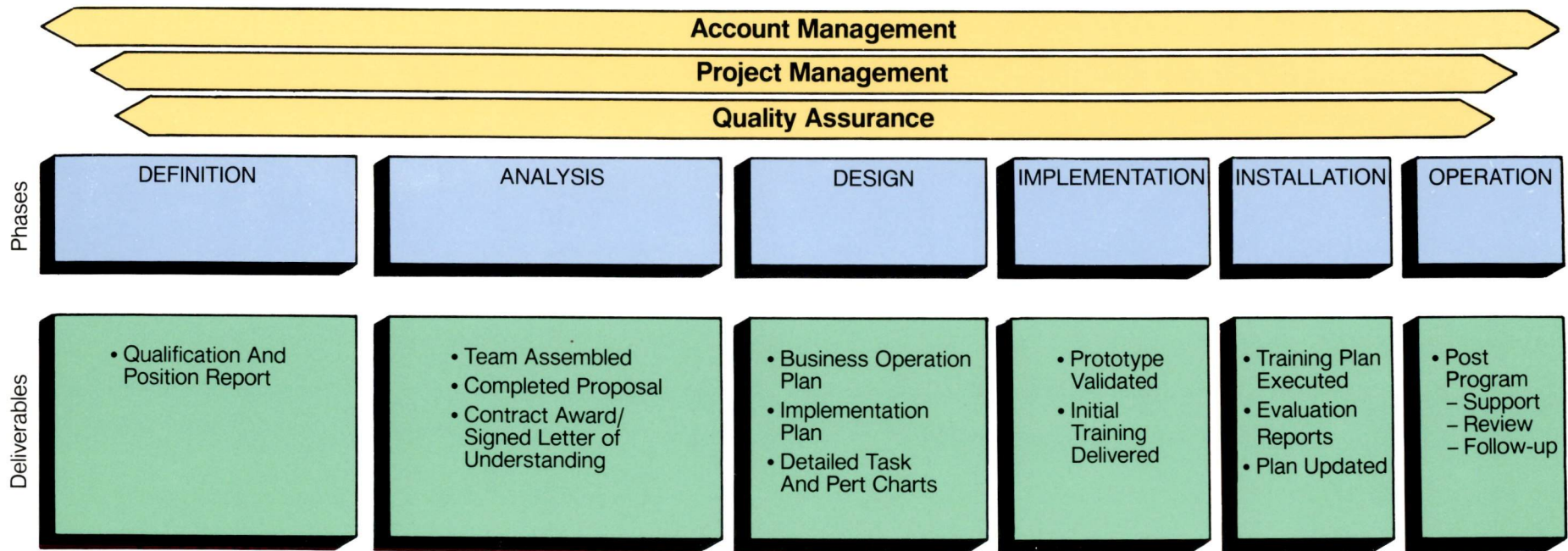
Deliverables



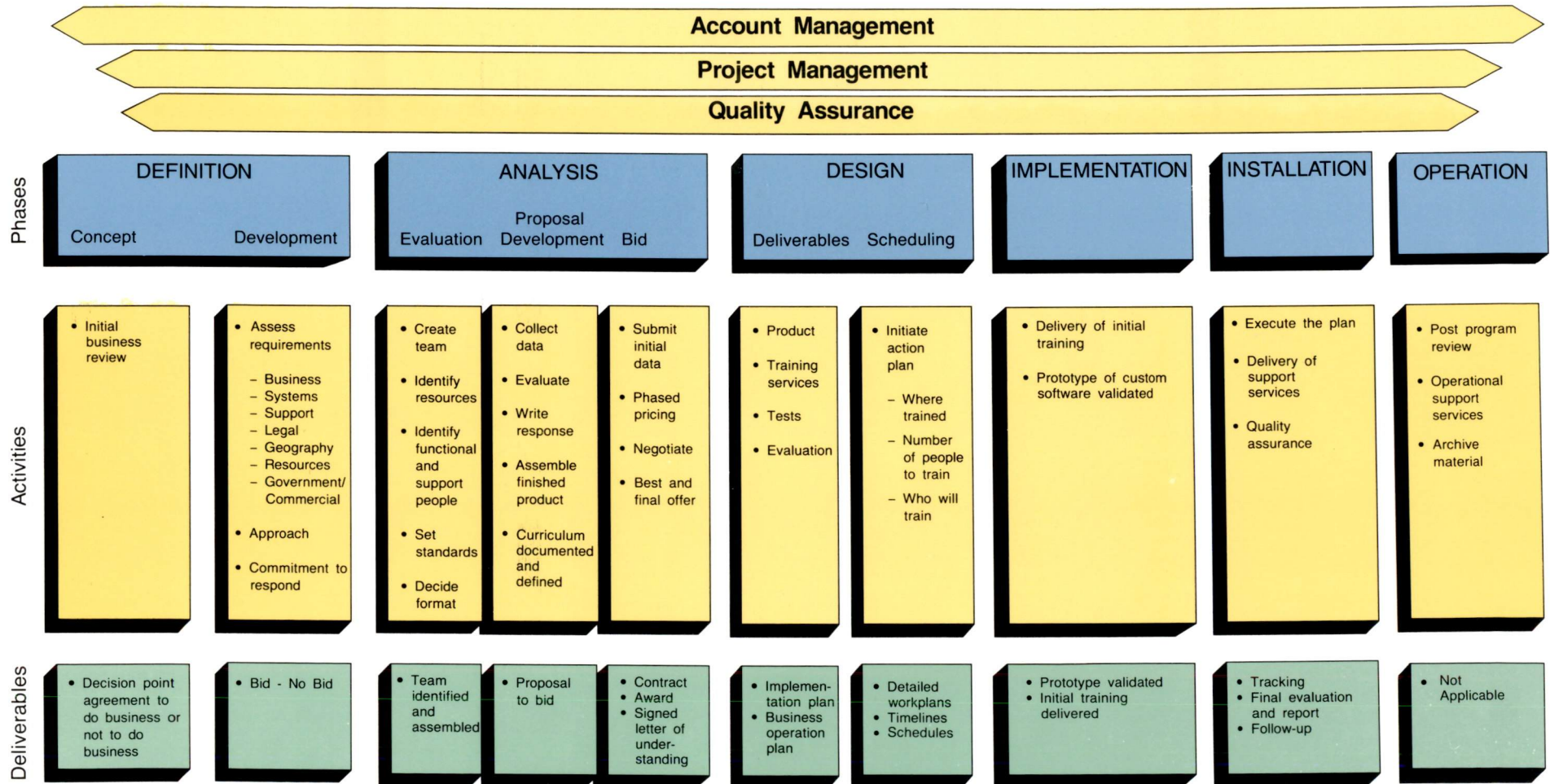
Exit Criteria



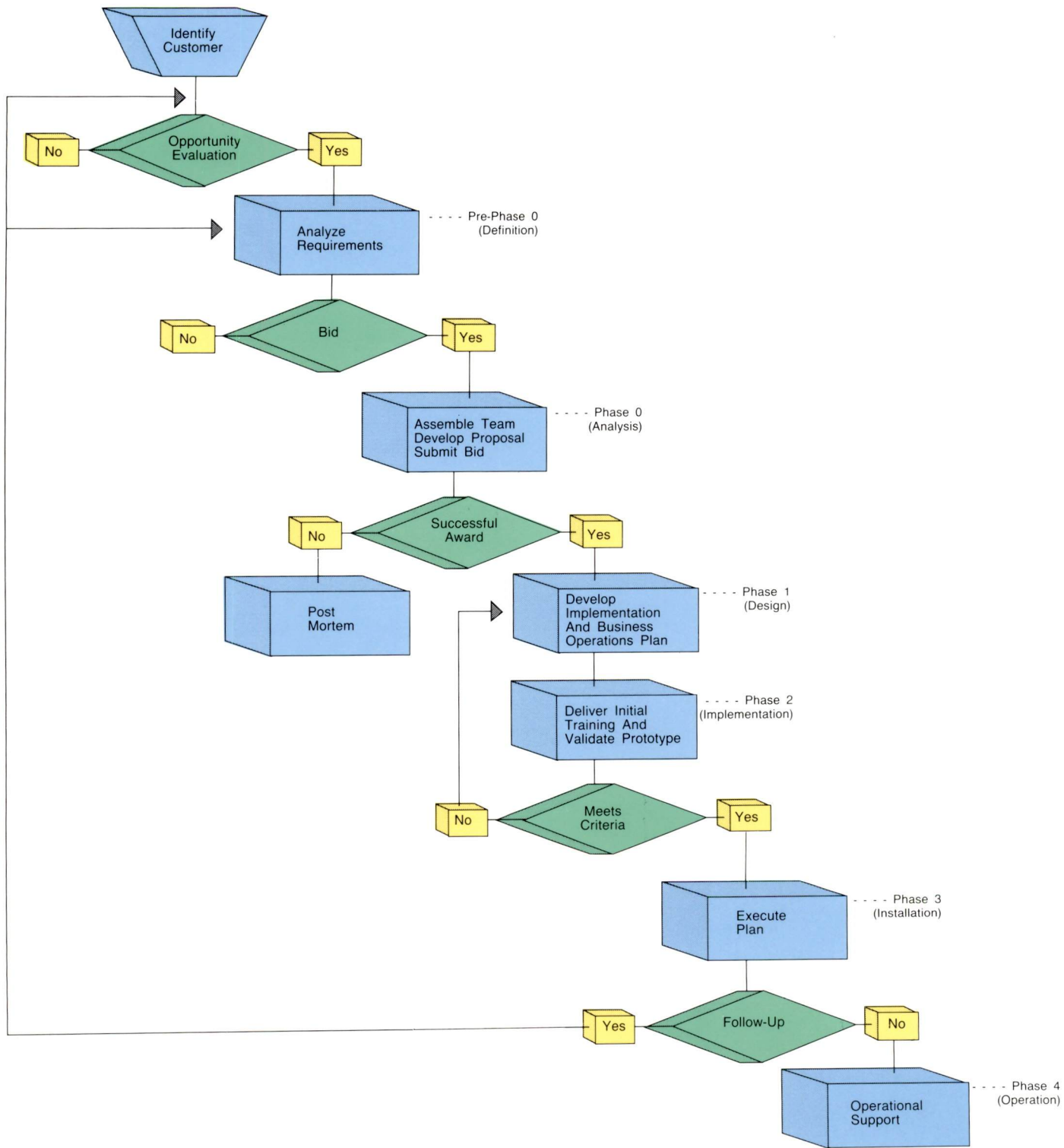
# DIGITAL PROJECT METHODOLOGY EDUCATIONAL SERVICES



# DIGITAL PROJECT METHODOLOGY EDUCATIONAL SERVICES



# DIGITAL PROJECT METHODOLOGY EDUCATIONAL SERVICES FLOW CHART



*note  
cost  
collection  
Methods*

**EDUCATIONAL SERVICES  
PROGRAM MANAGEMENT  
OFFICE**

**"The most important thing  
with computers is training  
people to use them."**

**...comments by Ken Olsen at  
DecWorld 88, Cannes, France**

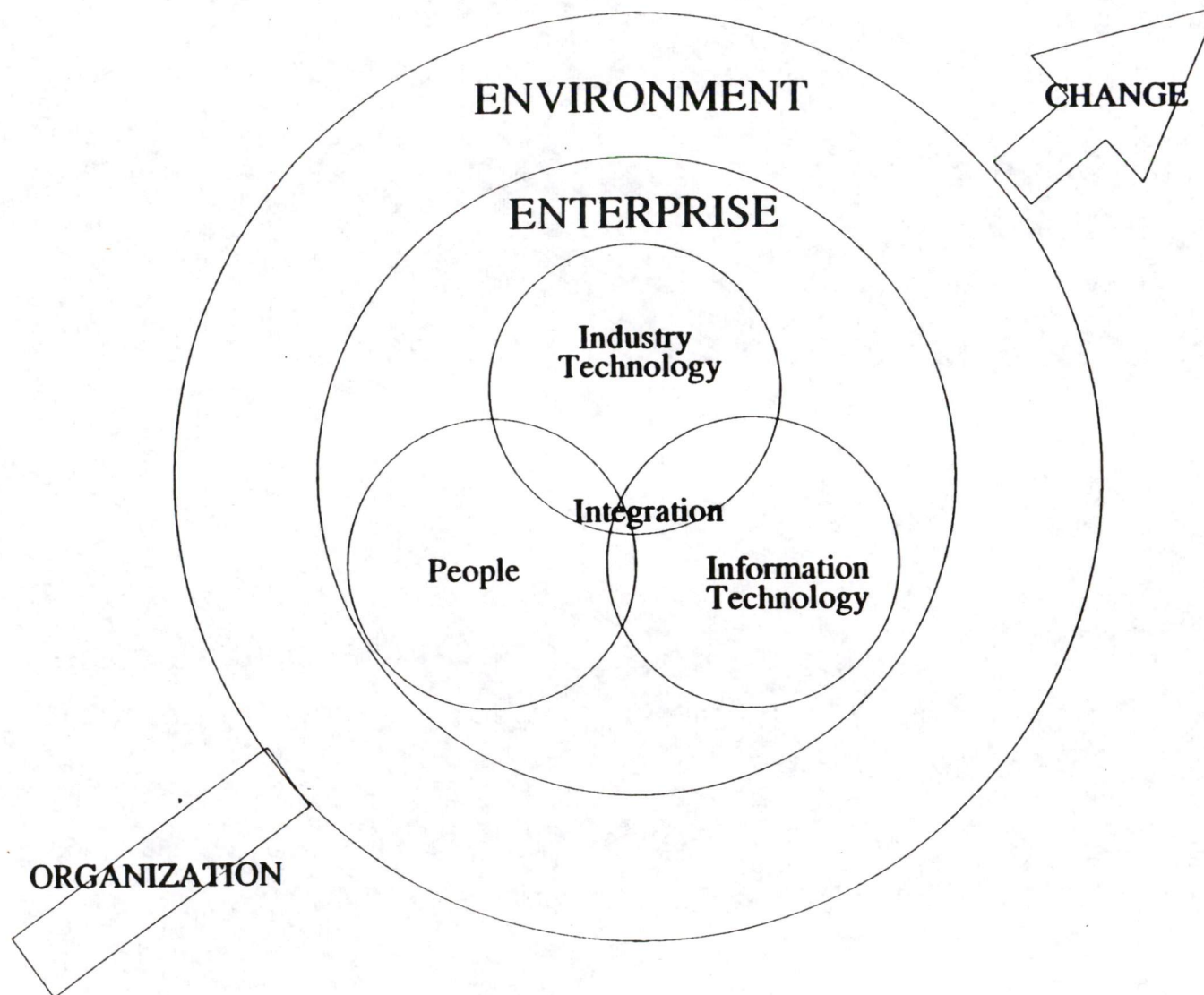


# CSP-PMO CHARTER

"... provide project/program management services to respond to customer RFI/RFPs and to establish the systems and process to deliver unsolicited proposals to ..."

\*LRP FY88

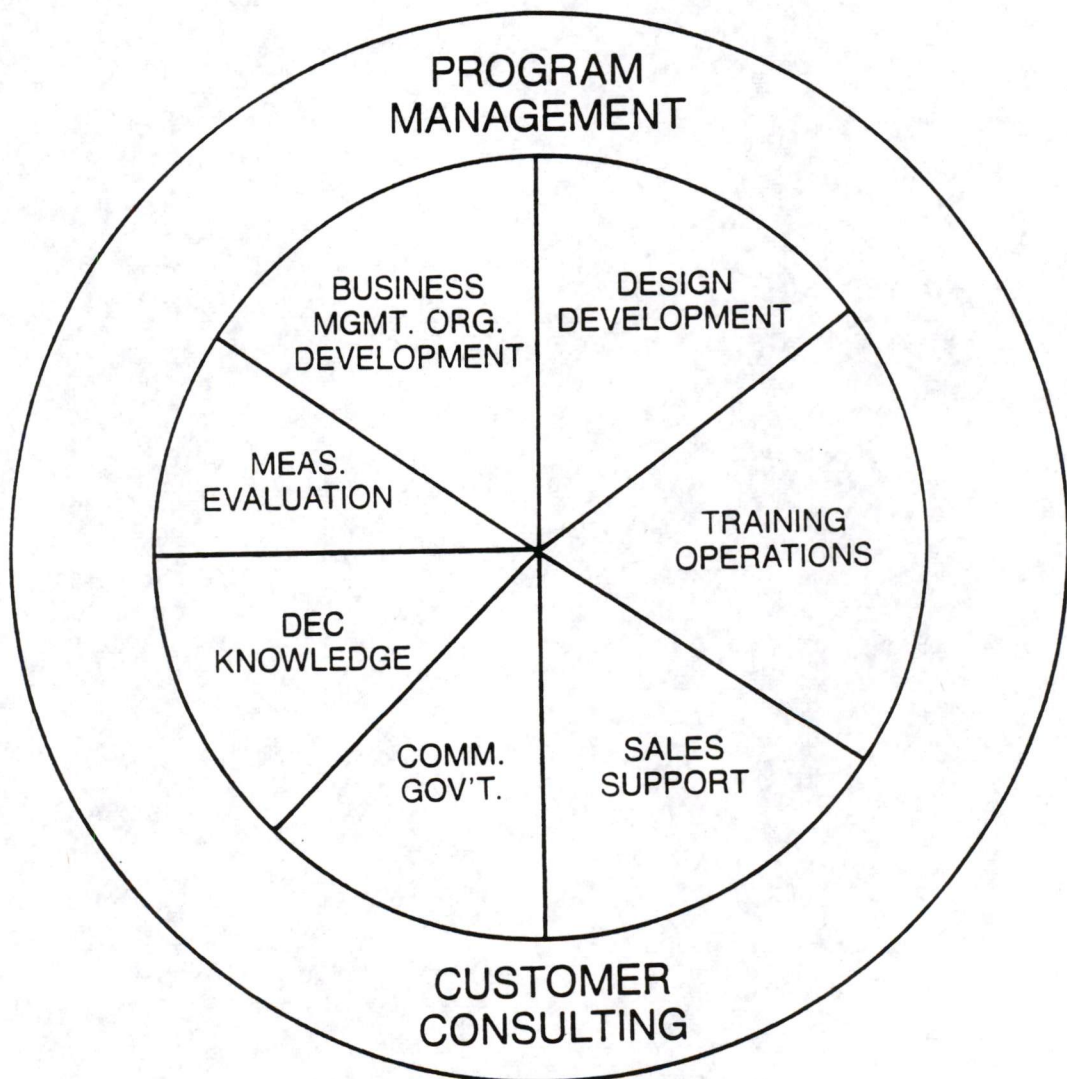
# ENTERPRISE PLANNING AND INTEGRATION HUMAN SYSTEMS DESIGN TEAM



# LARGE PROJECTS OFFICE

## SKILLS INVENTORY PLANNING

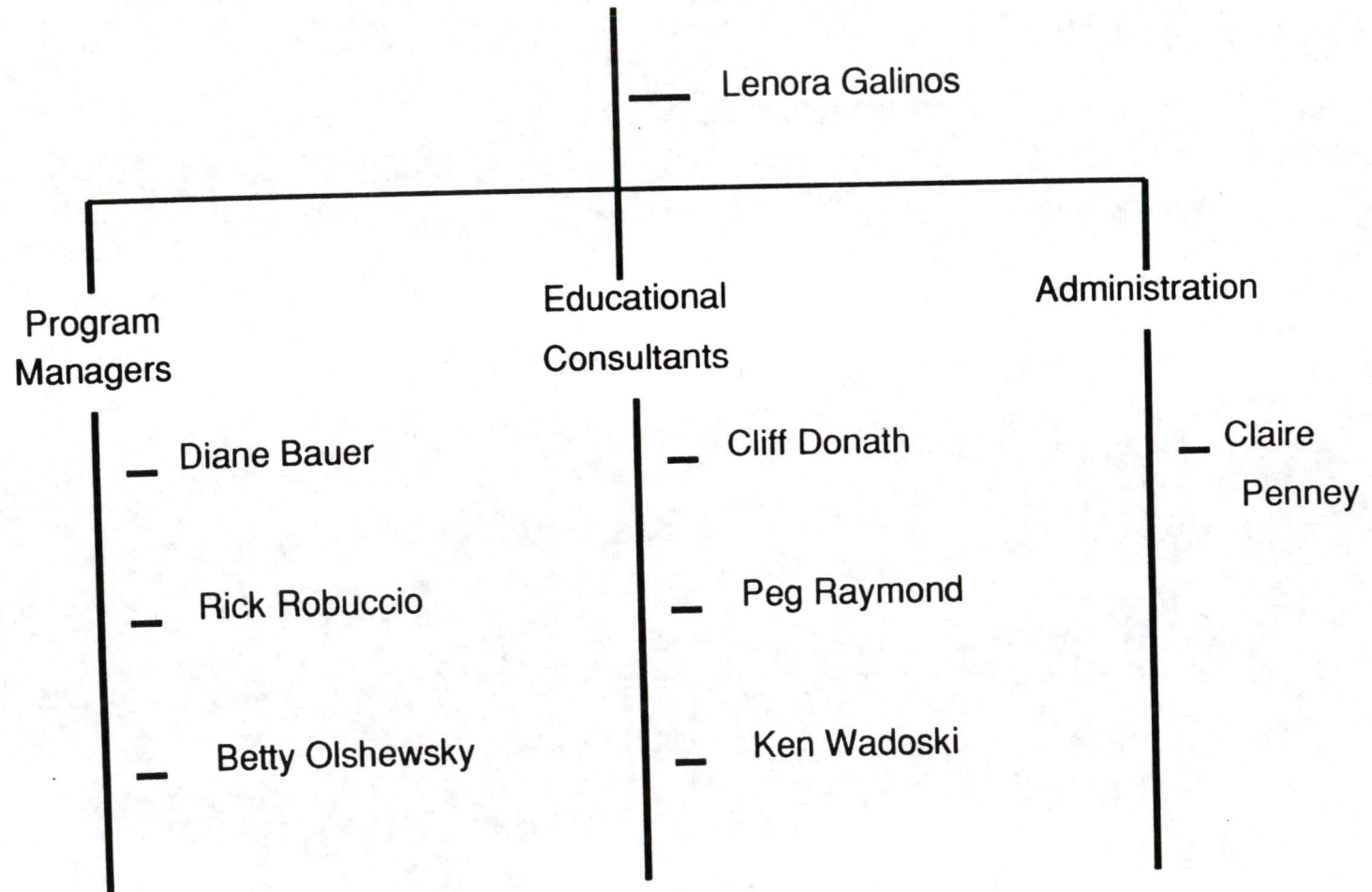
- CORE SKILLS
- SPECIALTY



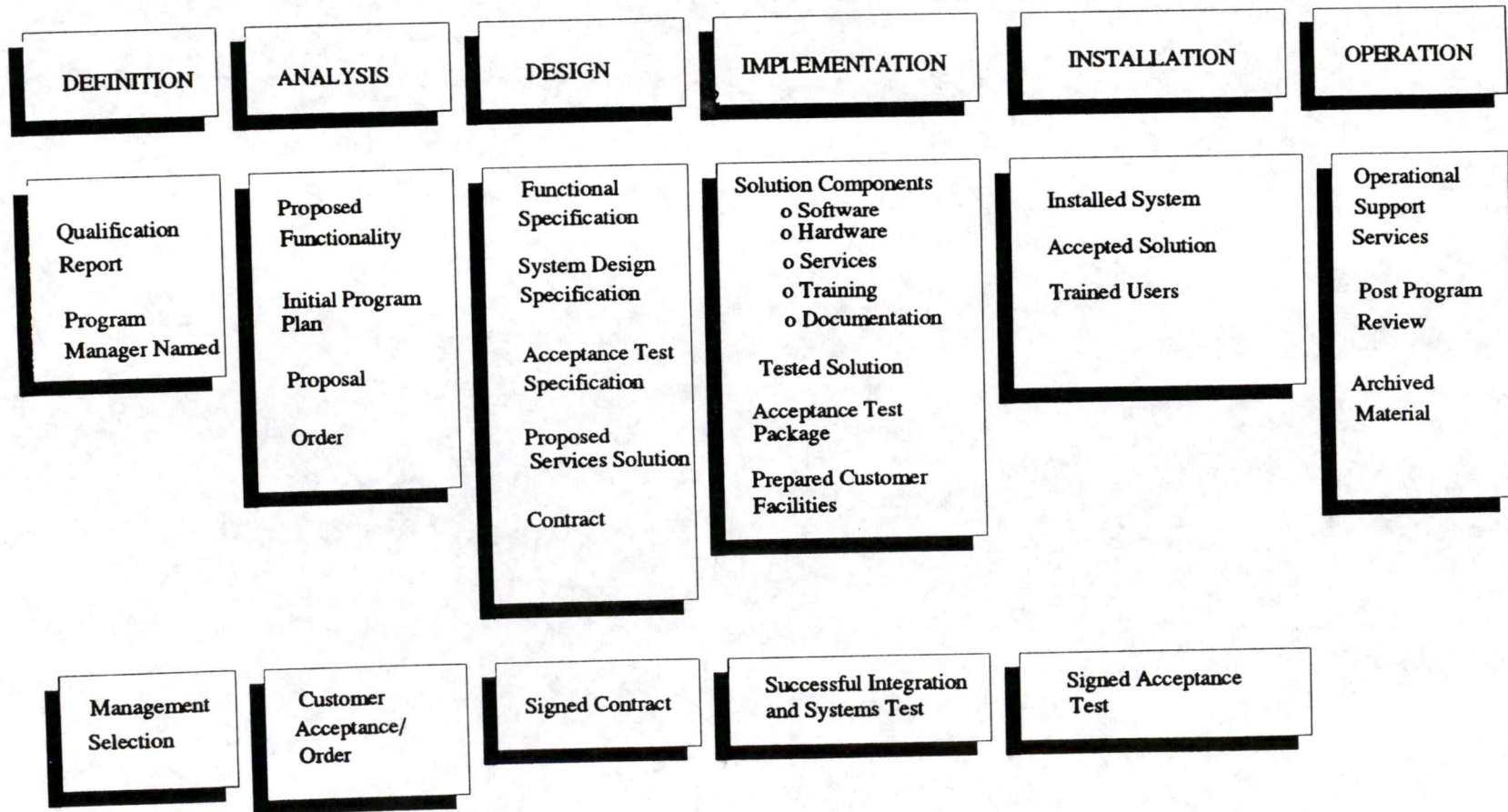
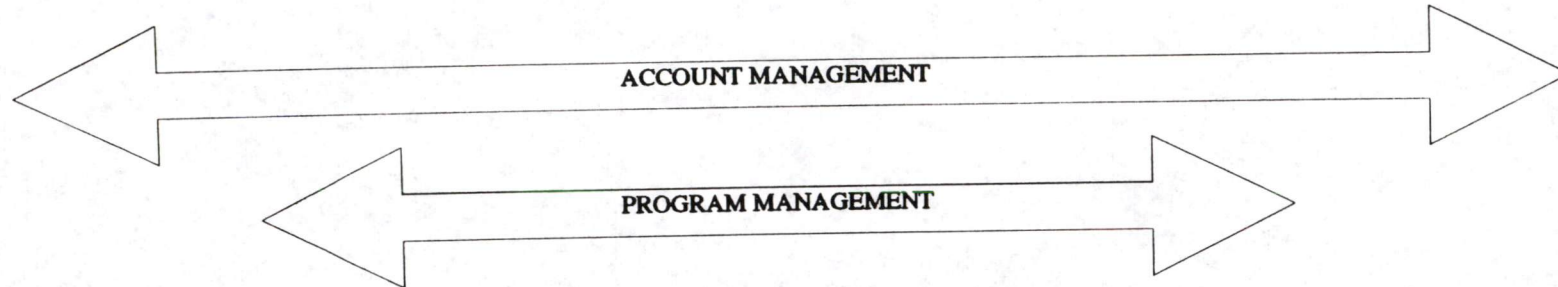
# CUSTOMER SUPPORT PROGRAMS

## Large Projects Office

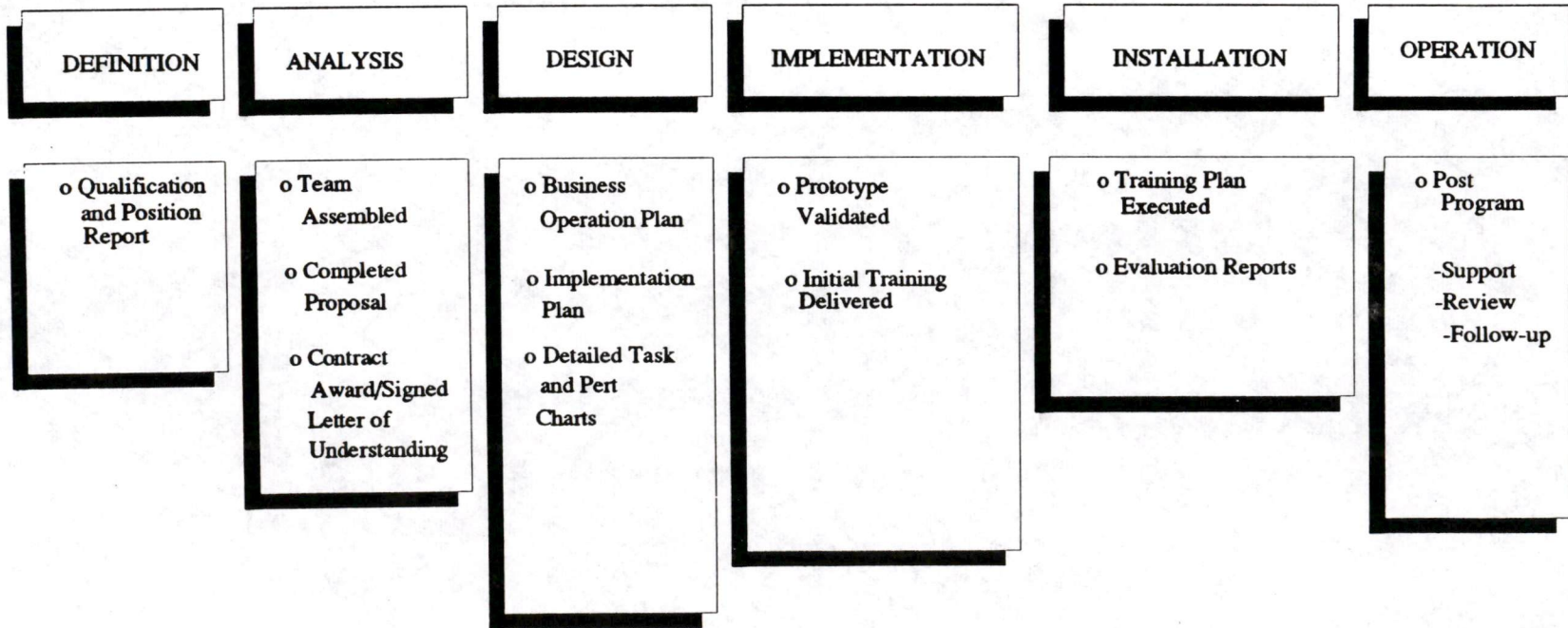
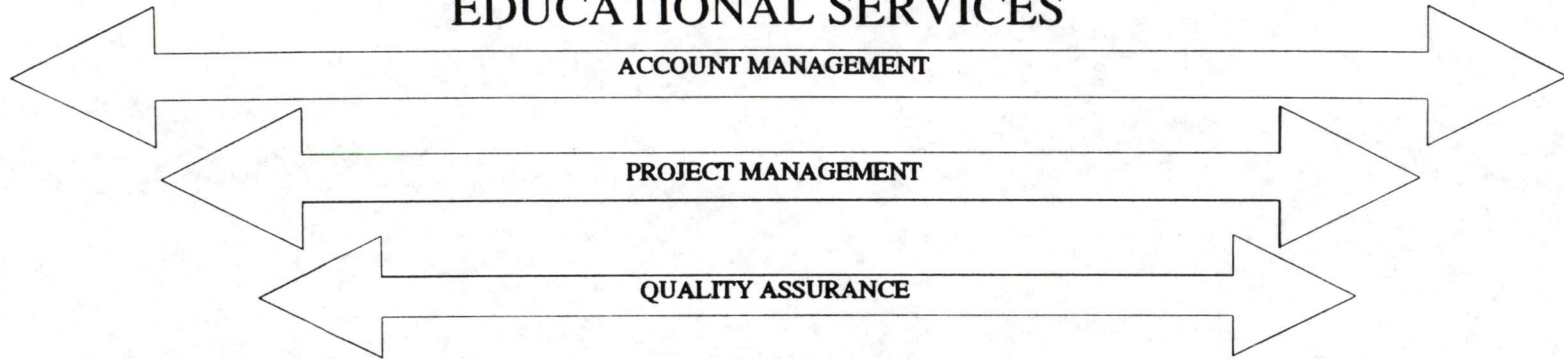
Diane Bauer (Manager)



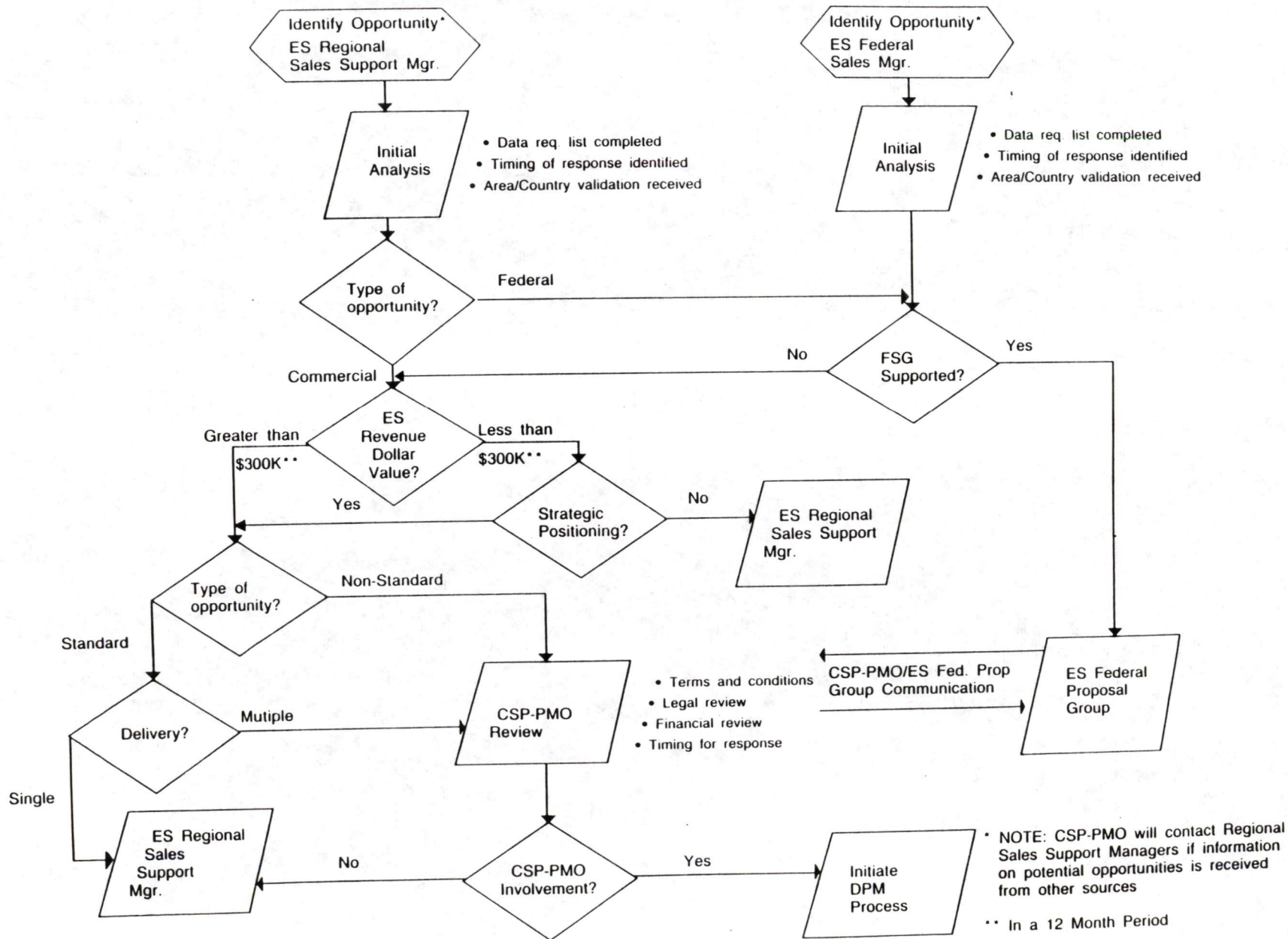
# DIGITAL PROGRAM METHODOLOGY



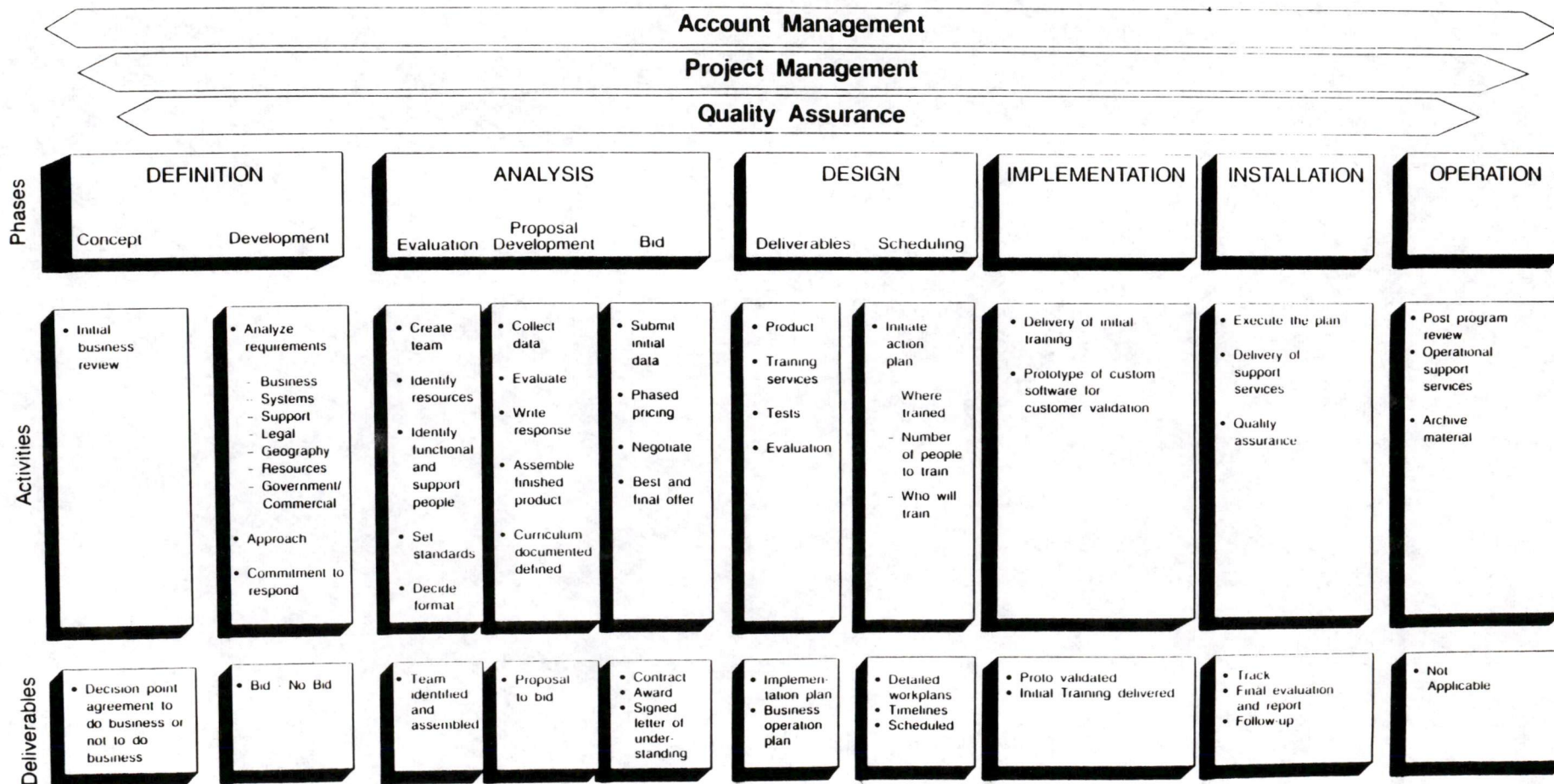
# DIGITAL PROJECT METHODOLOGY EDUCATIONAL SERVICES



## OPPORTUNITY IDENTIFICATION AND EVALUATION PROCESS RFI/RFP AND UNSOLICITED SYSTEMS PROPOSALS

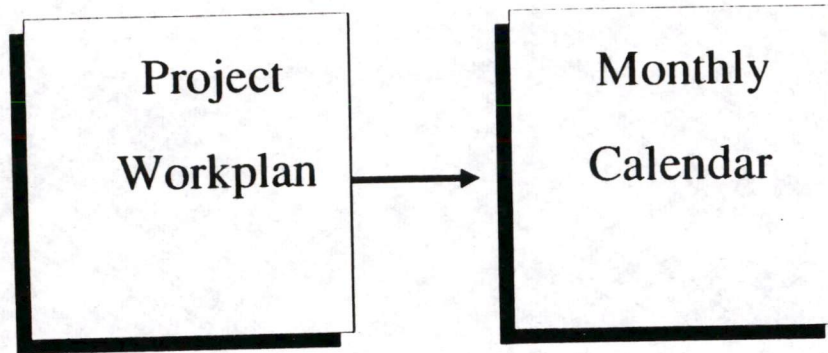


# DIGITAL PROJECT METHODOLOGY EDUCATIONAL SERVICES

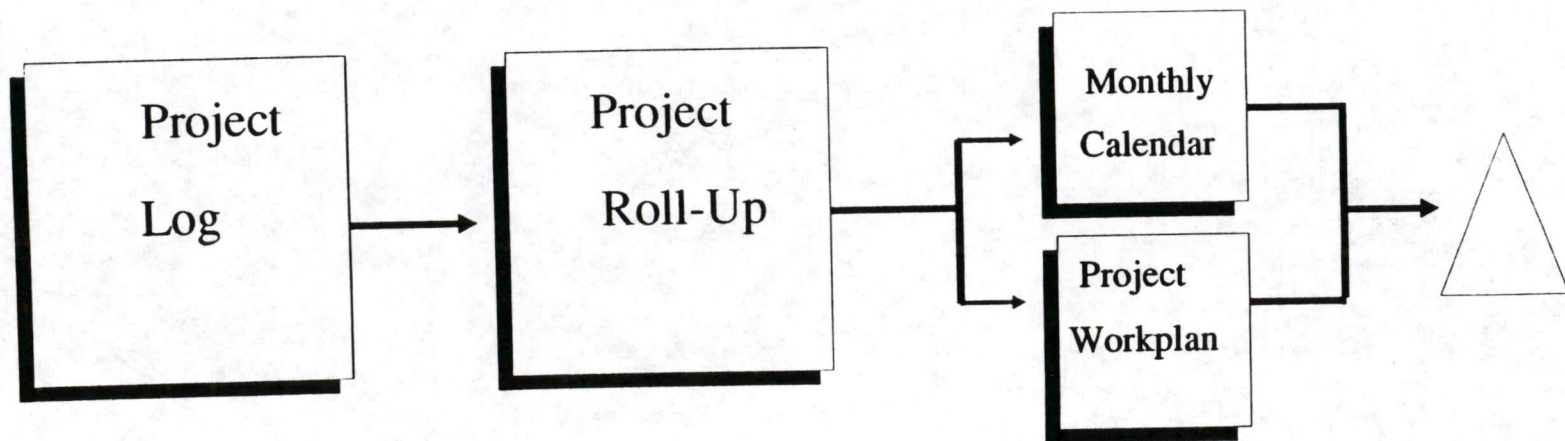




## Planning



## Monitoring and Tracking



# CSP-PMO Planning and Tracking Forms

- Data Requirements List
- Project Workplan
- Project Overview
- Project Log
- Project Roll-Up
- Project Planned Monthly Calendar
- Monthly Project Status
- CSP-PMO Team Capacity Plan
- Trip Report
- Proposal/Project Wrap-Up Report
- Customer Call Log
- Contact List

# PROPOSAL/PROJECT WRAP-UP REPORT

PROPOSAL/PROJECT NAME: United States Postal Service

## HOURS

### 1. ANALYSIS OF TIME SPENT ON PROPOSAL/PROJECT

Actual Duration (Lapsed Time) versus Planned: (include review cycle)	7 weeks/ 280 hours
Total Project Hours Expended by Educational Services:	675
Total Actual CSP-PMO Hours versus Planned:	458
Total Cross Functional/Support Hours:	217
CSP-PMO Staff Utilization: (as a percent of total project hours expended)	
● Administrative	32%
● Consultant/Program Manager	68%
Work Breakdown by Activity: (as a percent of total project hours expended)	
● Researching/Interviewing/Data Collection	42%
● Data Analysis/Organizing/Interpreting	7%
● Writing/Editing/Proofreading	35%
● Physical Assembly of Document	16%

### 2. INCREMENTAL COSTS

(Include costs for travel, typesetting, slide preparation)

Travel (one trip to Landover for presentation)	\$ 750	
Typesetting	\$ 3380	
Proofreading	\$ 1752	
Xeroxing	\$ 150	
Binders	\$ 210	
Packaging and Handling	\$ 85	
		Total \$6,327
		Total Cost \$33,807

3. **FOR PROPOSAL WRAP-UP:**

Phase: Design

Time Estimate to Complete Next Phase:

15 work days

Duration for Next Phase:

30 work days

**Activities**

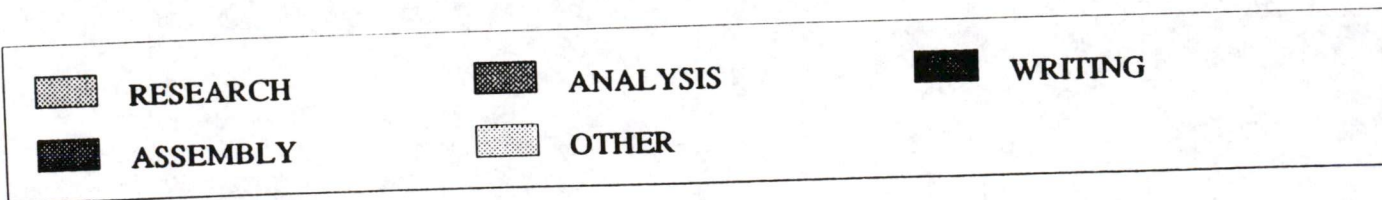
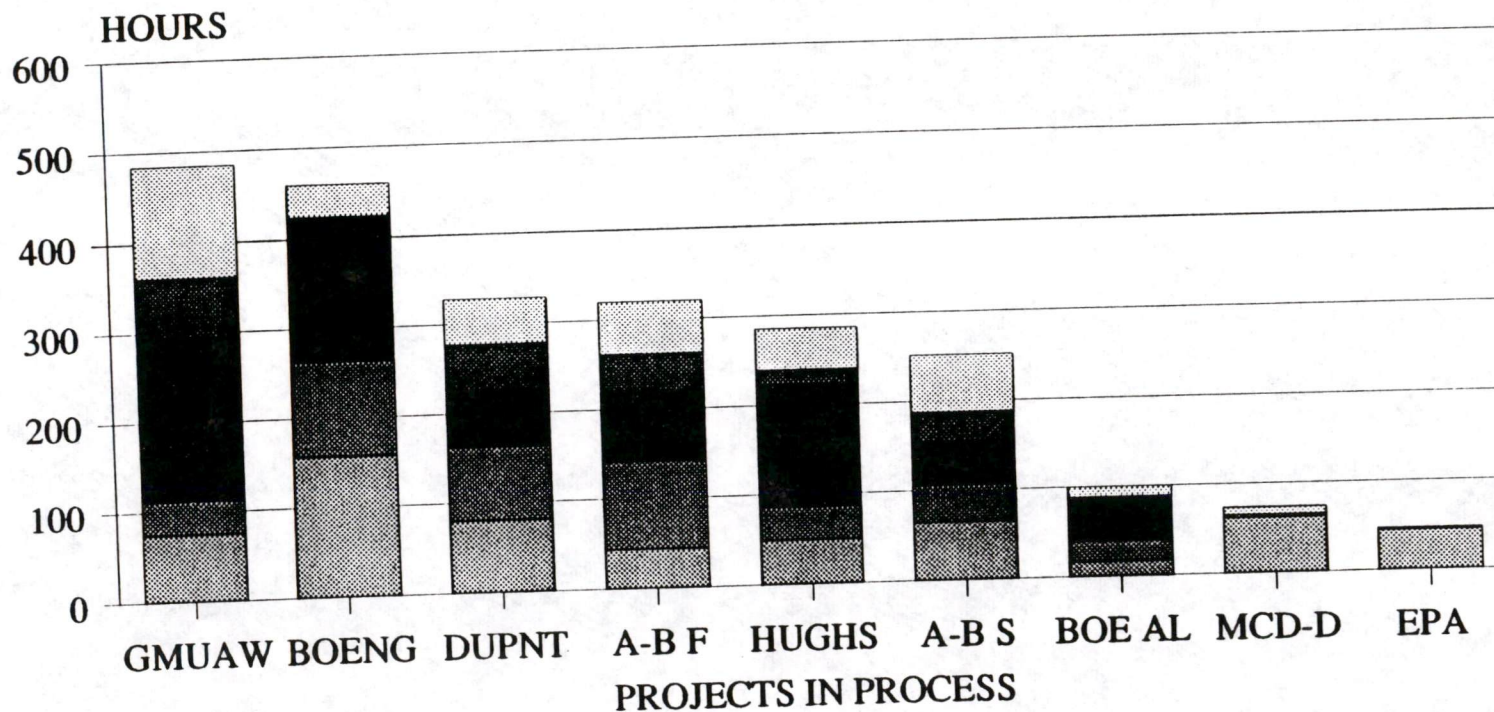
**Estimated Work Days to Complete**

Creation of Work Breakdown  
Structure for proposed tasks

15 work days

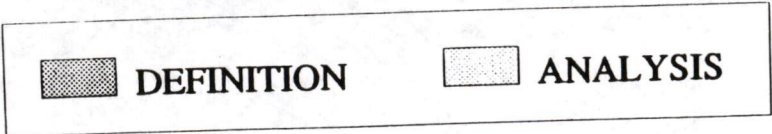
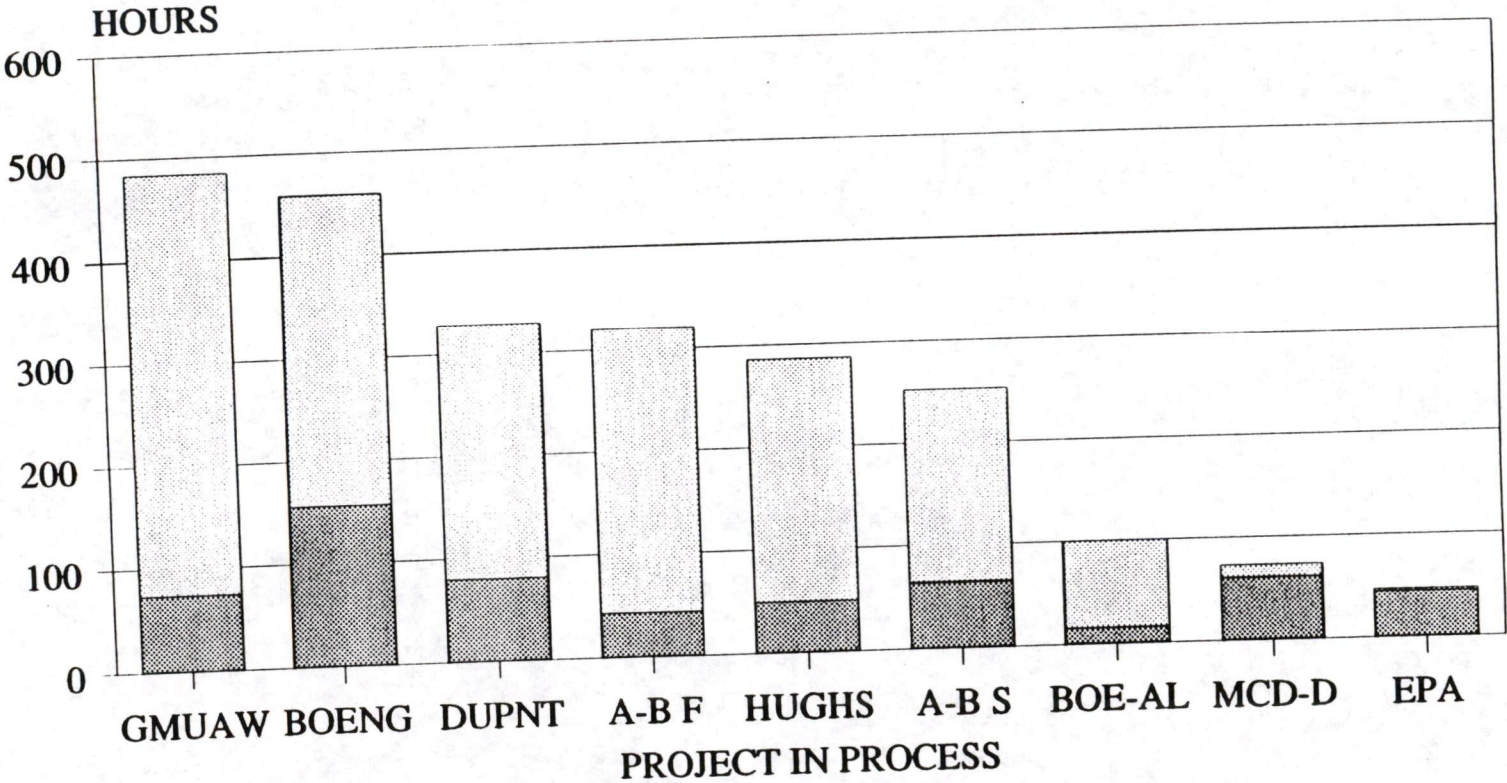
# PROJECT RESOURCE UTILIZATION

## HOURS WORKED PER ACTIVITY



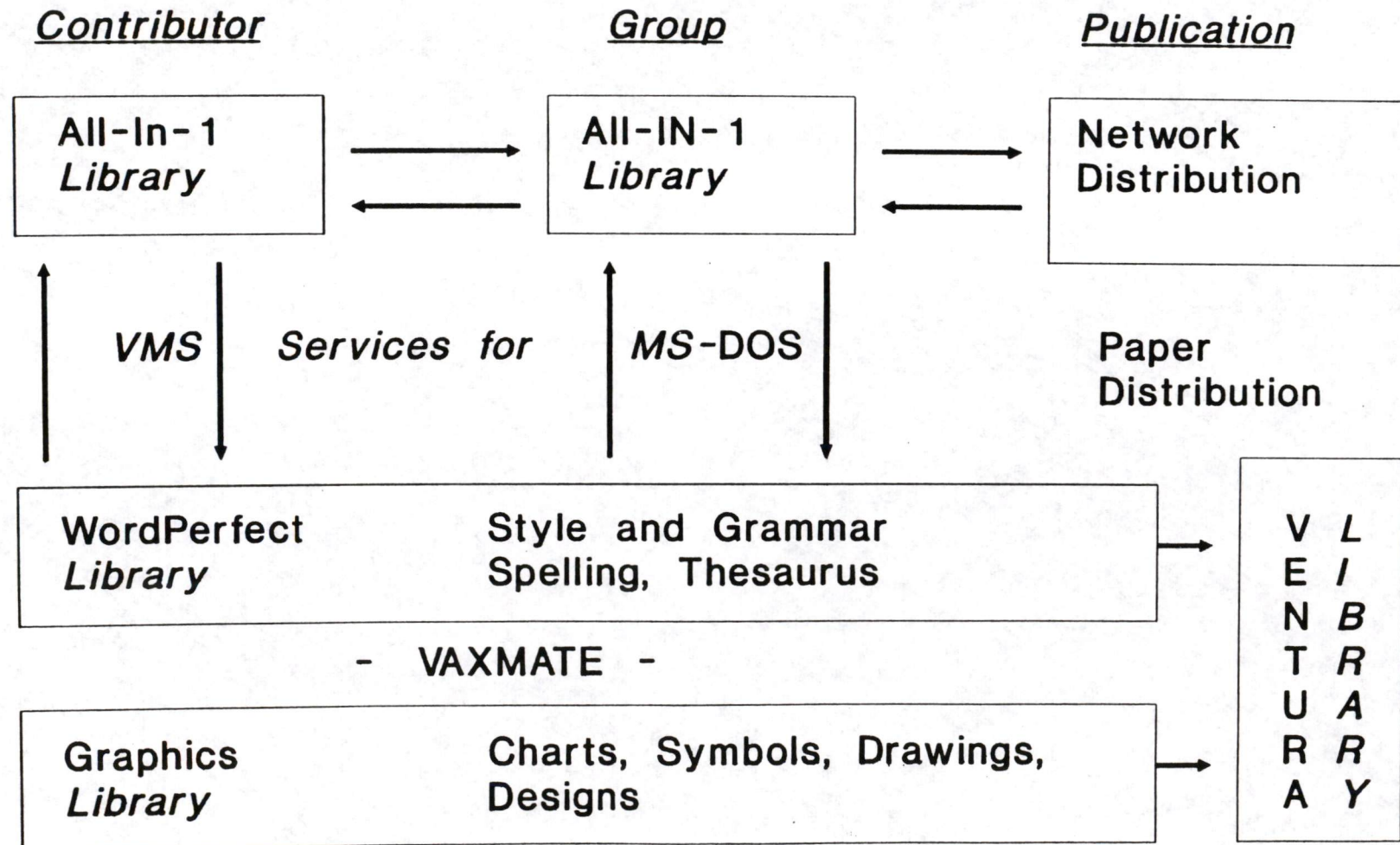
# PROJECT RESOURCE UTILIZATION

## HOURS WORKED PER PHASE



# Customer Support Programs

## Distributed Document Processing



# CUSTOMER SUPPORT PROGRAMS

## Active Project List

Summary as of 10/28/88

\*Won

PROJECT NAME	CUSTOMER	POTENTIAL REVENUE
GM-UAW	*GM/UAW	\$300K over 1 year
Boeing Sheetmetal	Boeing	\$1.9M over 21 mos.
Pyramid Integrator	*Allen-Bradley Technical Maint. Sales Training	\$354K over 1 year \$540K over 1 year
ATO	Australian Tax Office	\$10M over 5 years
E.I. du Pont	E.I. du Pont	\$2.8M over 1 year
CAATS	Hughes/Trans. Canada	\$7.5M over 9 years
Double Eagles	EPA	\$1.1M over 1 year
CAET/POET	DND Canada	\$3.5M



# CHALLENGES

Early Notification

Field Resources

Commercial/Government

Common

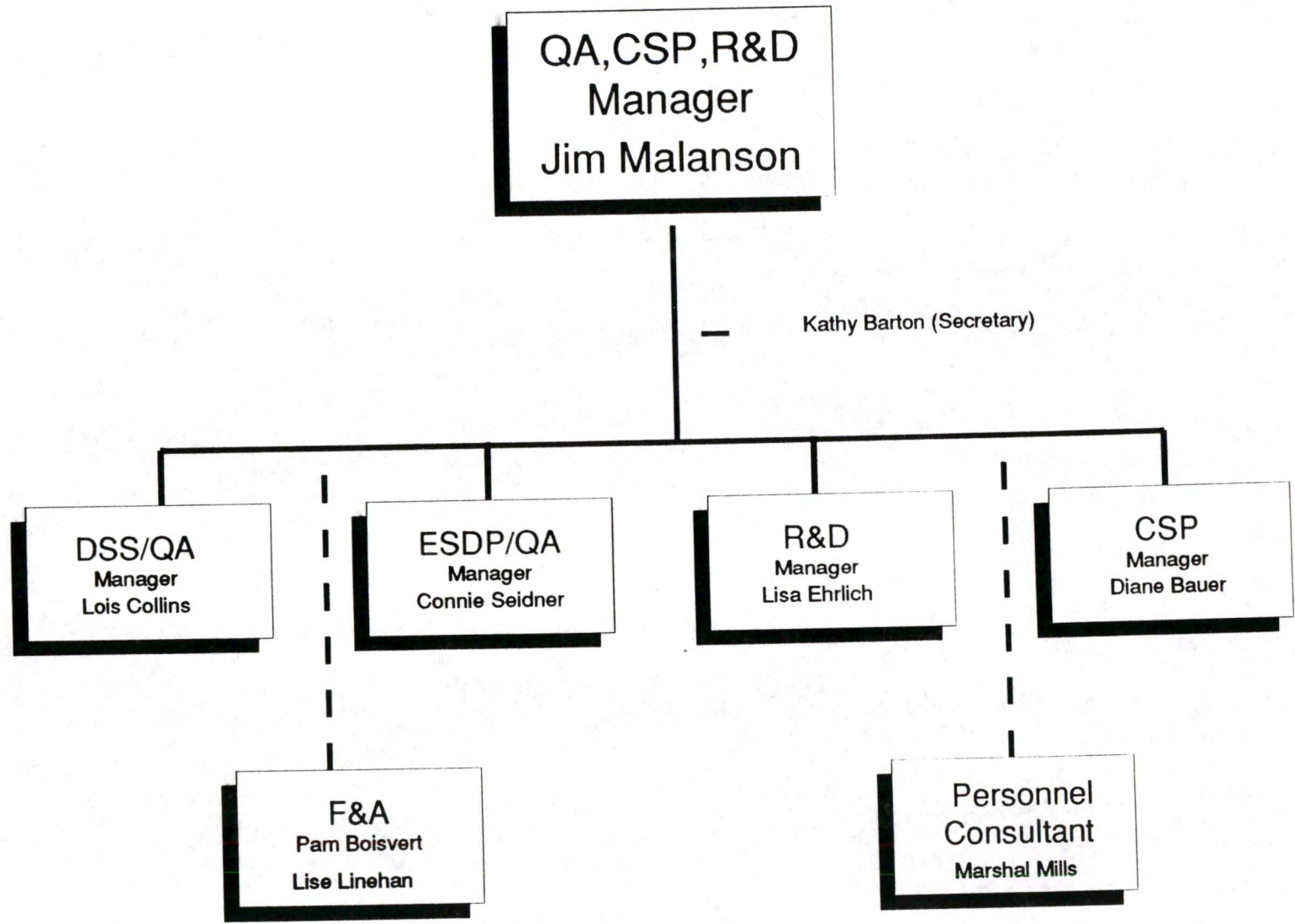
R&D  
OVERVIEW  
FY89

November, 1988

Jim Malanson

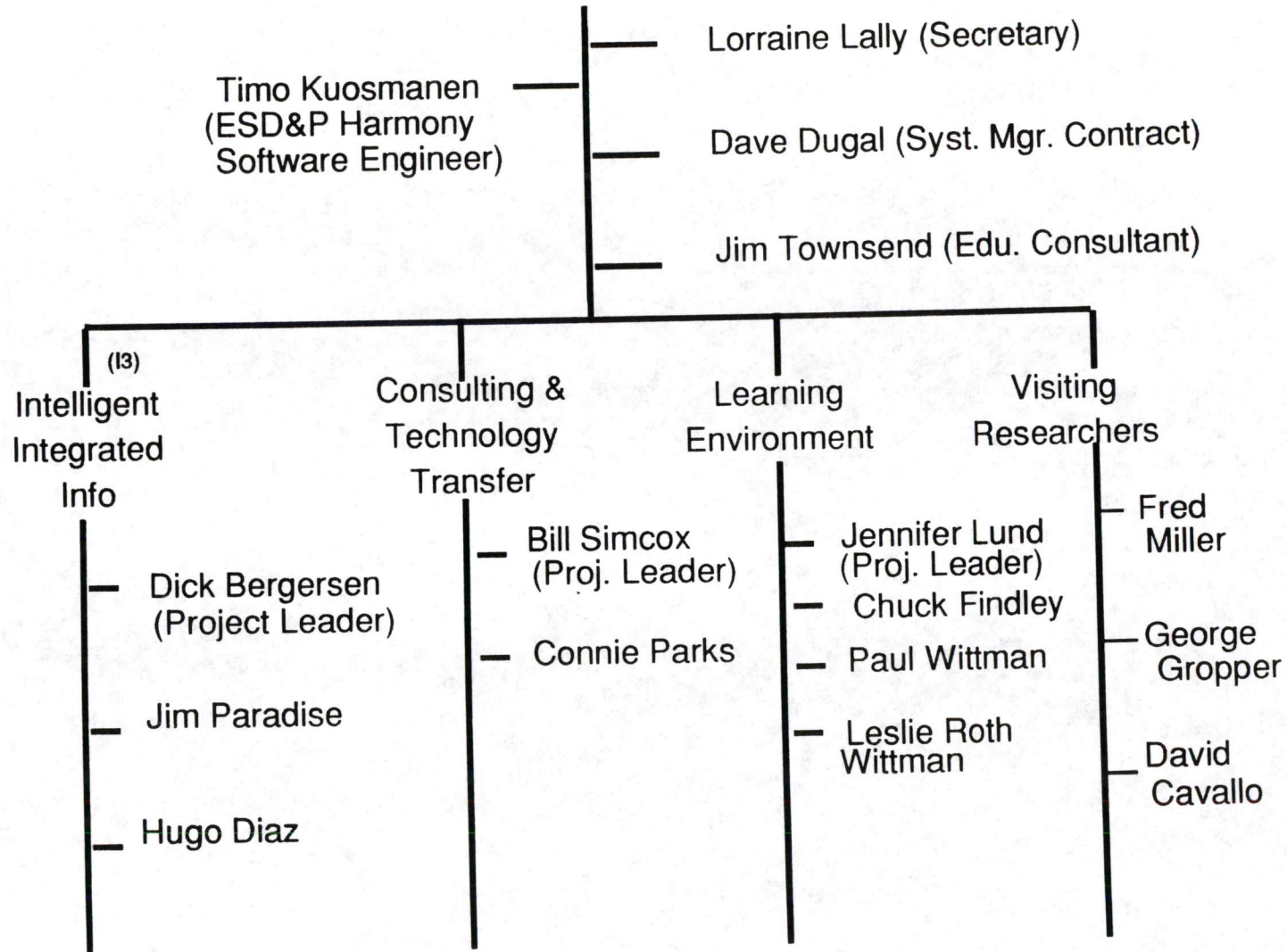
# OBJECTIVE:

To provide ESMC an overview  
of the structure, process,  
organization and projects  
of R&D.



# R&D

Lisa Ehrlich (Manager)



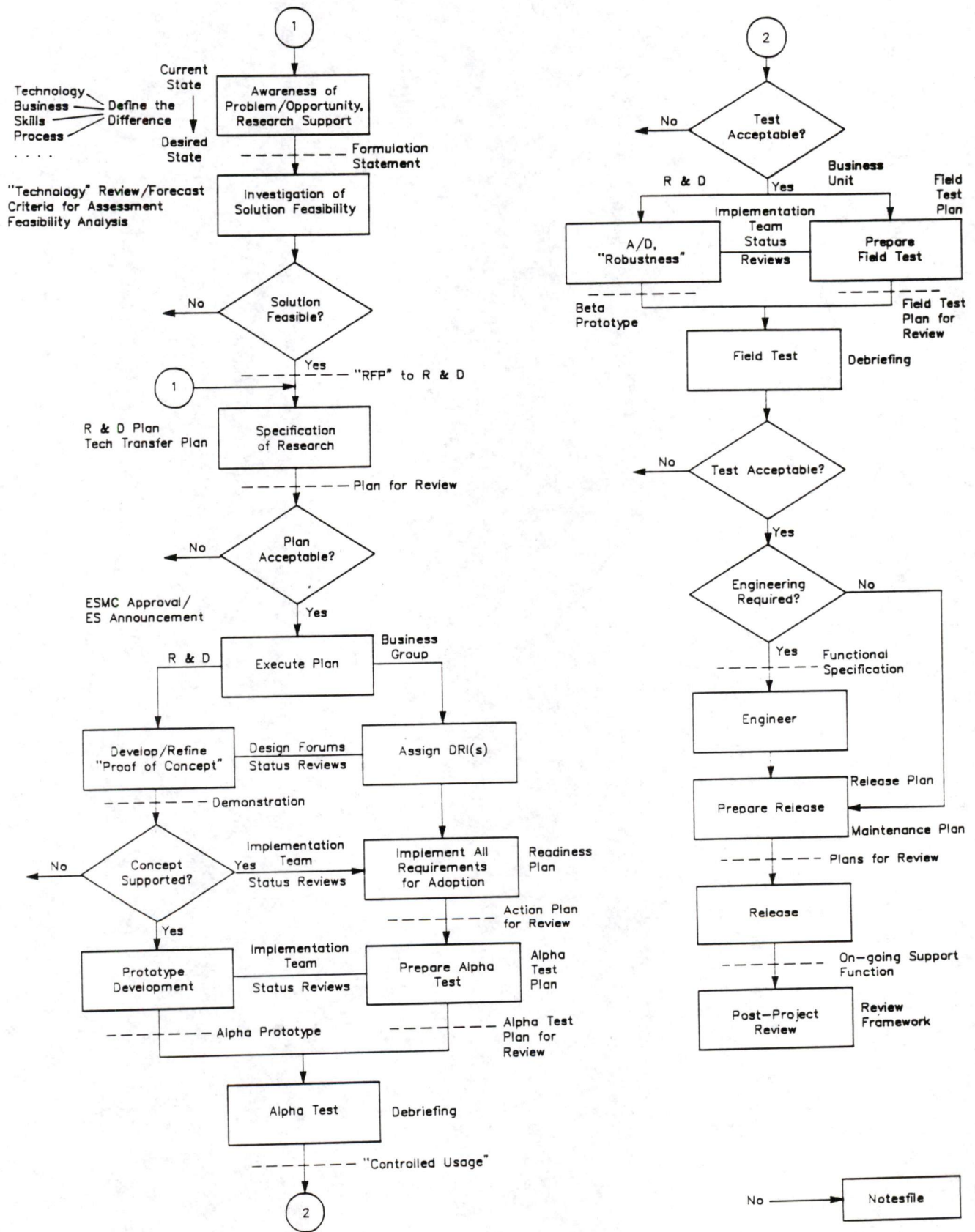
## CHARTER

To support Educational Services in being the industry leader in training and communication services through research and the timely development of reports, process and technology in the areas of development and delivery of education and information.

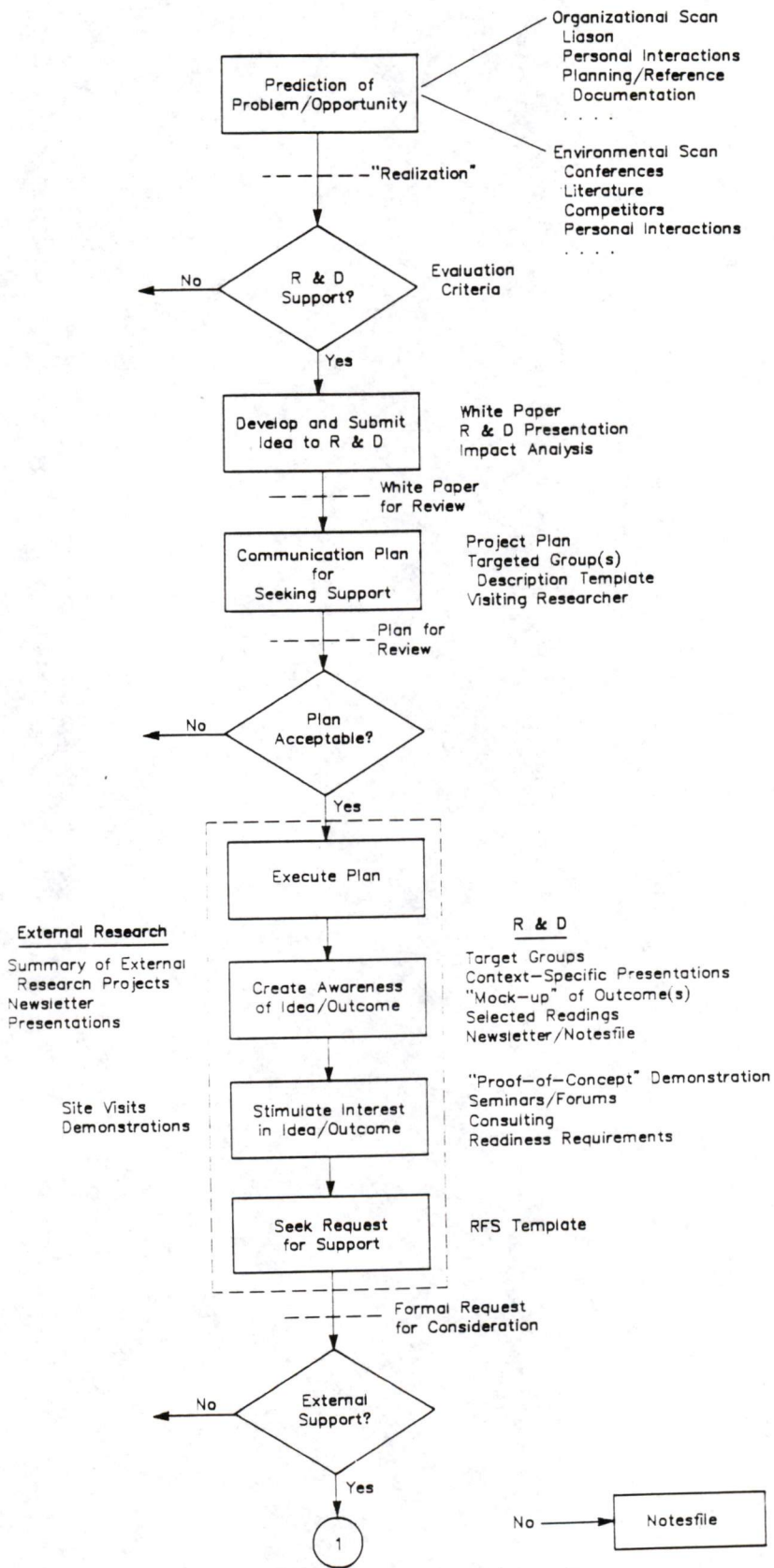
### OBJECTIVES:

- Establish standards and strategies that communicate the results of work by R&D and facilitate technology transfer within Educational Services.
- Insure the relevancy of research efforts through responsive working partnerships with Educational Services business groups.
- Research, develop and implement technologies within Educational Services consistent with Digital Engineering and product directions as solutions to recognized business problems.
- Evaluate impacts of advancements in educational technology and applicability to Educational Services.
- Provide tools and process to enhance the effectiveness of training and information delivery.
- Provide tools to improve the productivity of course and information developers.
- Develop staff to insure meeting Educational Services needs and support individual growth.

# CLIENT DRIVEN SCENARIO



# R & D "REALIZATION" SCENARIO





# ENGINEERING

# CURRENT SCOPE OF PROJECTS

---

- AUTHORIZING
- ENVIRONMENT
- TECHNICAL ADVISORY
- INFORMATION
- AUDIENCE RESPONSE
- XTRAIN
- VISITING RESEARCHER
- UNIVERSITY RELATIONSHIP

# Issues With Authoring Tools

*FORMATS:	L/L	DVN	TBI & DOC	CBI	IVD	VIDEO	AUDIO
<b>Tools in Use</b>	Document - Not WYSIWYG		Document - Not WYSIWYG	Producer - Character cell	▶		
	Text Editors - Not Compound		Text Editors - Not Compound	Workbench - OK, UIS	▶	▶	
	EPIC Writer - OK, DECwindows		▶	▶	▶	▶	▶
	VAXnotes - Slow	▶	▶	▶	▶	▶	▶
	VTX - Cumbersome	▶	▶	▶	▶	▶	▶
	AutoTrol - CAD graphics		▶	▶			
	VAXsight - OK, UIS		▶	▶			
	RAGS - OK, DECwindows		▶	▶			
	Document Templates - Added efficiency		▶	DW CBI Language - OK, DECwindows Coursebuilder/AIS - Character cell			
<b>Work in Progress</b>	MEMEX Hypermedia	▶	▶	▶		▶	▶
	Automated testing - Donath	Automated testing - Donath	Info Access - I-cubed	Automated testing - Donath	Automated testing - Donath	Automated testing - Donath	Automated testing - Donath
	ABCDE - Gropper	Audience Response Systems	Bookreader - Harmony	ABCDE - Gropper	ABCDE - Gropper	ABCDE - Gropper	ABCDE - Gropper
				Object oriented simulation editor - ISU	Session Recording - Miller		
				Expert tutor shell - URI	Athena MUSE - Hodges		
				Intelligent Tutor Tool Kit - Cavallo			
				I-cubed - R&D			
				Session Recording - Miller			
				Bookreader - Harmony			
				Authoring system - NESTOR			
<b>Current Directions</b>	Merging documentation & training On-line information exchange (VAXnotes, VTX, MEMEX) Efficient mass distribution (CD ROM, Electronic Publishing)		▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶	▶ ▶ ▶
<b>Gaps</b>	Information architecture & standards VOSPE More templates	▶	▶ ▶	▶ ▶ ▶ ▶	▶ ▶ ▶ ▶	▶ ▶ ▶	▶ ▶
				Saleable tools Visual programming Rapid prototyping Animation		Visual programming Rapid prototyping Animation Hardware solution DW software solution	
				Portable delivery across Character cell and windowed devices			
<b>Recommendations/ Focus Areas</b>	Easier updates & modifications	More individual participation	Better information access	Better development tools	Lack of HW & SW		

# Product & Authoring Tools Status

**\*FORMATS:**

Name & Status  
of Tools in Use

	L/L	DVN	TBI & DOC	CBI	IVD	VIDEO	AUDIO
	Document - Product		Document Product	Product - Mature product	Product Mature product		SOLO 3rd party
	Text Editors - Products		Text Editors - Products	Workbench - Prototype	Workbench Prototype	Workbench Prototype	
	EPIC Writer - Field test		▶	▶	▶	▶	▶
	MEMEX - Field test	▶	▶	▶	▶	▶	▶
	VAXnotes - Product	▶	▶	▶	▶	▶	▶
	VTX - Product	▶	▶	▶	▶		
	AutoTrol - 3rd Party		▶	▶	▶		
	VAXsight - Product		▶	▶	▶		
	RAGS - Internal tool		▶	▶			
				DW CBI language - Prototype	DRAW Mature product		
					DESIGN Mature product		
Work in Progress	Automated testing - Prototype	▶		▶	▶		
	ABCDE Prototype 10/88			▶	▶		
			Leubed Fieldtest 1/89	▶	▶	MUSE - Fieldtest 9/88	
			Bookreader Prototype 12/88	▶	▶		
				Object-oriented editor - Prototype 2/89			
				Expert tutor shell - Field test 9/88			
				Intelligent Tutor Tools - Prototype 9/88			
				NESTOR Prototype 1/90	▶		

# Contribution of Authoring Tools to Learning

*FORMATS:	L/L	DVN	TBI & DOC	CBI	IVD	VIDEO	AUDIO
<b>Name &amp; Impact of Tools in Use</b>	Document Text Editors EPIC Writer MEMEX VAXsight RAGS - Improve timeliness of materials VAXnotes - Extends learning beyond classroom VTX - Increases information access Document Templates - Standard high quality - Improve timeliness	VAXnotes - Increases individual involvement	Document Text Editors EPIC Writer MEMEX VAXsight RAGS VAXnotes - Adds individual interaction	EPIC Writer MEMEX VAXnotes Producer - Self-paced learning - Learner feedback Workbench - Better design - Standardization DW CBI Language - Multi-window	VAXnotes Producer - Self-paced learning - Learner feedback IVISnet - Ease of access MUSE - Easier access	VAXnotes	VAXnotes
<b>Work in Progress</b>			Bookreader - Easier access I-cubed - Easier access - Reusability	Bookreader - Easier access Object-oriented simulation - More simulations Expert Tutor Shell Intelligent Tutor Tools - More expert tutors Session Recording - Realistic CBI - Student Review NESTOR - Flexibility in delivery systems			
<b>Current Directions</b>	Merging work & learning On line information exchange			Integrated CBI			
<b>Gaps</b>	Better tools for on-line information exchange VOSPE			Hyperinfo links Windowed delivery			
<b>Recommendations/ Focus Areas</b>	Easier updates & modifications	More individual participation	Better information access	Better development tools	Lack of HW & SW		

# Resultant Learning Environment Impacts

Any technology which decreases time of development or increases information accessibility will contribute to improvements in the learning environment through one or more of the following:

- Improved availability/time-to-market
- Increased sophistication or adaptability
- Richer access to associated learning materials
- Increased accuracy of materials
- Increased accessibility of learning materials
- Better information maintenance through centralized data stores.

Increased accessibility of on-line learning resources increases relevance by bringing the instruction into the learner's workstream.

## Technology in Classroom

Accommodating the lowest common denominator of delivery systems (VT100 compatible) prevents incorporation of state-of-the-art delivery technologies.

Increased ease of use, ease of development, and accessibility of hardware and software will increase the perceived need for technology in classrooms, such as on-line information, simulations and games.

Increased use of pre- and post-course networked communication will increase learning without increasing time in class.

## CBI

Taking advantage of the multi-tasking software learning environment of workstations implies relinquishing considerable control over the learner's responses.

Session recording software will reduce the need to create mock-up simulations for instructing in the use of software. This will increase the realism of the instructional environment.

## Interactive Video

Authoring solution must solve the need for an IVIS hardware replacement within 2 years.

# Resultant Business Impacts of Authoring Tools

## Productization

Incorporating internal prototypes and university-developed software into ES's development environment precludes sale to customers

BUT

Productization of prototypes and externally developed software will result in a product approximately 2 years behind what is technically feasible.

## Increased Information Access

Increased accessibility of information will increase productivity of development and accuracy of information.

ALSO

It will decrease the need for learning and remembering data and procedures. Both changes will affect the process and content of course creation.

Increased use of pre- and post-course networked communication will increase learning with minimal cost increase.

## Shift to Workstations

A shift to multi-tasking workstation-based software environments will exacerbate the workstation shortage at development and delivery sites.

Standardizing on workstation technologies will accelerate the depreciation of character cell terminals in that environment.

## Shift to DECwindows

Standardization on DECwindows will make many valuable development tools built on UIS obsolete.

## Increasing Development Productivity

Incorporating artificial intelligence techniques into materials development implies increased complexity of course development process.

Designing integrated CBI into software development will increase the accuracy of the instruction through enforced increased communication between course developers and software engineers.

Increased ease of use and accessibility of hardware and software will increase the perceived need for on-line learning in non-technical areas.

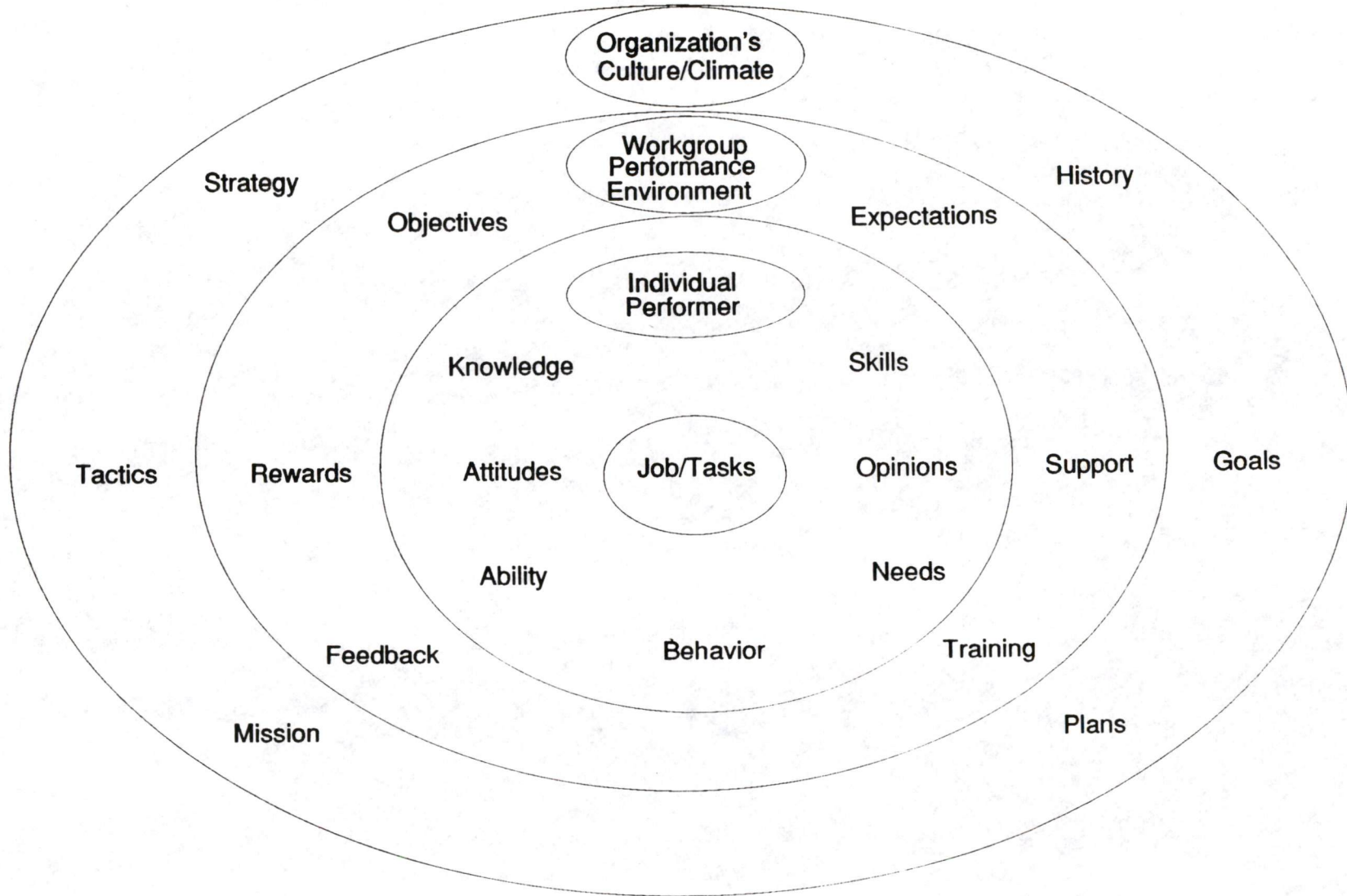
Increased use of templates will promote faster development and closer adherence to standard formats and styles.

	PVAX/ Video Board	VAXstation/ VMS/ DECwindow/ Producer & EPIC/Writer	VAXstation/ VMS/ DECwindow/ MEMEX & EPIC/Writer	VAXstation/ VMS/ DECwindow/ Parallax Board	VAXstation/ VMS/ DECwindow/ CBI Authoring Language	VAXstation/ VMS/ DECwindow/ Authoring Toolkit	VAXstation/ VMS/ (DAL)Digital Authoring Language	VAXstation/ UNIX/ X-window/ Parallax Board	VAXstation/ VMS/ UIS/ Workbench	VAXstation/ VMS/ UIS/ Autotrol/ Document	VAXStation/ VMS/ DECWindows/ "Course of Action"	VAXStation/ VMS/ DECWindows/ "IconAuthor"
<b>General Characteristics</b>												
DECwindows Compliance	■	■	■	■	■	■	■	■	■	■	■	■
Portable Delivery	■	■	■	■	■	■	■	■	■	■	■	■
High Reusability	■	■	■	■	■	■	■	■	■	■	■	■
Requires little training	■	■	■	■	■	■	■	■	■	■	■	■
Requires No Programmer	■	■	■	■	■	■	■	■	■	■	■	■
Support	■	■	■	■	■	■	■	■	■	■	■	■
Availability	Proposal	Proposal	Proposal	Proposal	Prototype	Proposal	Product	Field Test	Prototype	Product	3rd Party Product	3rd Party Proposal
Development Cost Estimate	High	Medium	Medium	High	Low	High	Low	Low	Zero	Zero	\$1M	\$50K
<b>Specific Capabilities</b>												
Visual Programming	■	■	■	■	■	■	■	■	■	■	■	■
Rapid Prototyping	■	■	■	■	■	■	■	■	■	■	■	■
Hyperinformation Links	■	■	■	■	■	■	■	■	■	■	■	■
WYSIWYG Compound Document Editor	■	■	■	■	■	■	■	■	■	■	■	■
WYSIWYG Graphics Editor	■	■	■	■	■	■	■	■	■	■	■	■
Storyboard Editor	■	■	■	■	■	■	■	■	■	■	■	■
Animation Editor	■	■	■	■	■	■	■	■	■	N/A	■	■
Simulation Editor	■	■	■	■	■	■	■	■	■	N/A	■	■
Interactive Video	■	■	■	■	■	■	■	■	■	N/A	■	■
Data-base Driven	■	■	■	■	■	■	■	■	■	N/A	■	■
Answer Handling	■	■	■	■	■	■	■	■	■	N/A	■	■
Callable Language	■	■	■	■	■	■	■	■	■	N/A	■	■
Templates	■	■	■	■	■	■	■	■	■	N/A	■	■
Student Management	■	■	■	■	■	■	■	■	■	N/A	■	■
Session Recorder	■	■	■	■	■	■	■	■	■	N/A	■	■

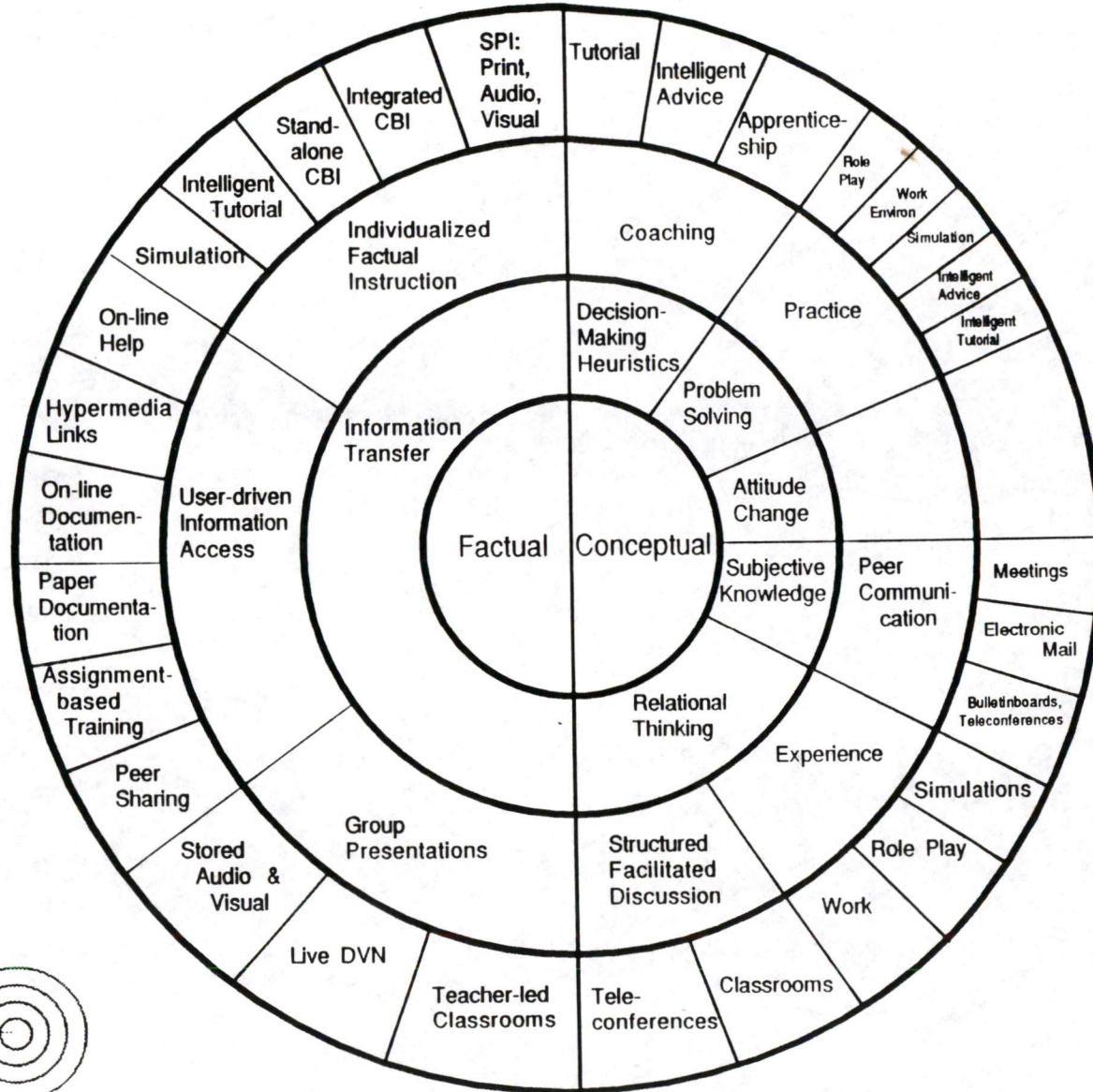
Excellent	■
Good	■
Fair	■
Poor	■



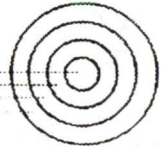
# MODEL OF HUMAN PERFORMANCE



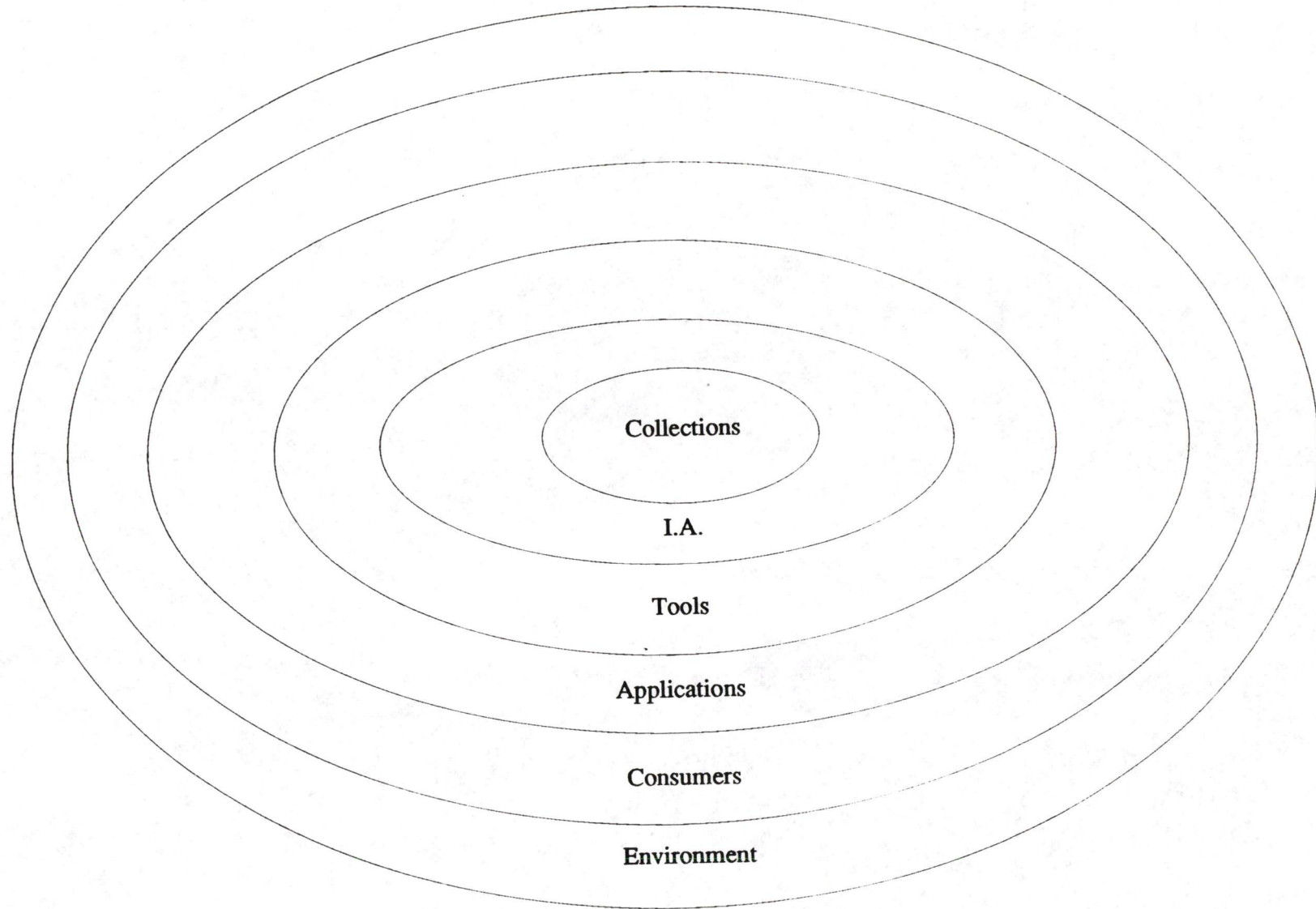
# Educational Services' Learning Environments



Learning Content  
 Learning Objectives  
 Learning Environment  
 Learning Resources



# POSITIONING INFORMATION ARCHITECTURE



# VISITING RESEARCHERS

## IN PROGRESS:

- TEST AUTHORIZING PROJECT
- INTELLIGENT TUTOR TOOL KIT
- TRANSCRIPTING SOFTWARE TOOLS

## COMPLETED:

- DEC WINDOWS CBI
- DEC WINDOWS INTEGRATED TRAINING PROPOSAL

# UNIVERSITY RELATIONSHIPS

- PROJECT ATHENA, MIT
- CHEM TUTOR, UNIV. OF R.I.
- LISP TUTOR, CMU
- COINS PROGRAM, UMASS
- VOILA, IOWA STATE UNIV.
- BEYOND 2000, GEORGIA STATE UNIV.
- NESTOR, KARLSRUHE

Date: Oct. 3, 1988  
From: Jennifer Lund  
Dept: Educational Services R&D  
M/S: FPO-1/A5  
Phone: 283-7484

To: Jim Malanson

CC: Lisa Ehrlich

Subject: PRELIMINARY REPORT on AUDIENCE RESPONSE SYSTEMS

PROBLEM STATEMENT:

DVN training broadcasts historically have a low rate of returns of Q/A forms. Implementation of an automated remote Audience Response System may increase the amount of data collected from remote DVN sites.

PROPOSED SOLUTION SUMMARY:

Third party software and learner keypads, developed for IBM PC-compatibles, such as the VAXmate, can collect data from learners and then transmit the data to a VAX in Bedford.

A single VAXmate at each DVN site would display the questions and collect the student responses. Learners would input responses with small keypads cabled to the VAXmate. Data could be either

- a) Transported instantaneously and stored in Bedford, using a VAX in Bedford as a virtual disk for the remote VAXmates,
- b) Stored on the remote VAXmates and transported later for storage in Bedford.

ADVANTAGES:

Advantages over present system:

- a) This solution would reduce data-entry.
- b) Data transmitted electronically would arrive more quickly, possibly immediately.
- c) Student testing could extend beyond SOFs.

Non-advantages over present system:

- a) Testing would not be centrally administered or enforced.
- b) Transmission of data to central site may require incremental effort from DVN site administrators.

# XTRAIN

---

- PL31 FOCUS
- AI DRIVEN PTP SYSTEM/CURRICULUM PLANNING TOOL
- 6 DEMOS GIVEN LAST MONTH
- COMPLETED PILOT TEST IN OCTOBER

# CONSULTING



# TECHNICAL ADVISORY

---

- JIM TOWNSEND
- UNDERSTANDING THE IMPACT OF DEC'S CHANGING PRODUCTS AND TECHNOLOGY ON OUR BUSINESS.

- **COMMUNICATION STRATEGY  
AND CLIENT RELATIONSHIPS**

# FUNDING PROCESS

## FUNDERS

DME

OA

DIS

S/ST

ESDP

MCG

FST

U.S. CUST.

GIA

EUR

CORP. MKTG.

\$K

FUNCTION

FY89

FY90

DME

50

75

OA

50

75

DIS

0

50

S/ST

200

250

ESDP

660

600

MCG

540

300

FST

0

100

US CUST.

0

200

GIA

0

100

EUR

NESTOR

NESTOR

CORP. MKTG.

0

250

1,500

2,000

**digital**<sup>TM</sup>

# Educational Services Strategic Plan

FY89 - FY93

Digital Restricted Distribution

Digital Restricted Distribution

# Educational Services Strategic Plan

FY89 - FY93

Digital Restricted Distribution

### Digital Restricted Distribution

This document is provided on a need-to-know basis. The material contained herein is proprietary to Digital and Educational Services management. The person whose name appears below accepts full responsibility for maintaining the confidentiality of the material contained in this document. If this document is passed on to anyone else, contact the Educational Services Strategic Planning Office with the name, location, and badge number of the individual currently in possession of it.

Name: *Russ Burkotti*  
No.: *79*

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IBM	International Business Machines Corporation
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OS/2	Microsoft Corporation
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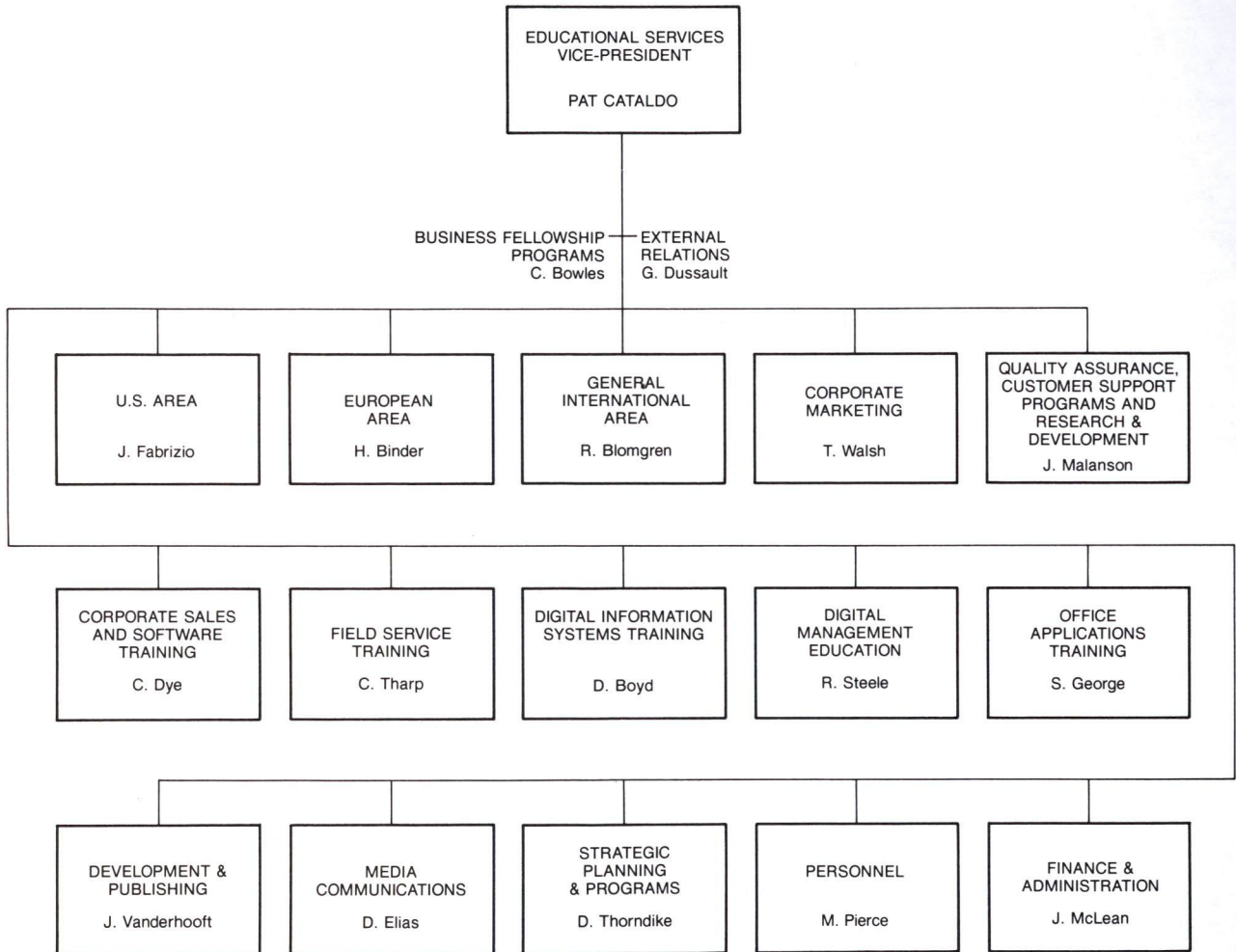
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DECwindows  
DIGITAL  
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RISC  
VAX  
VMS  
VT  


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### Educational Services Organization Chart





Every day, Digital creates more and more of the future. The solutions Digital delivers to the world enable people to think in new ways, to work in new ways, and to look at opportunities in a completely new light. These solutions are not just technology oriented; they are comprehensive, composed of technologies, skills training, and technical support. Without all of these parts, the solution is incomplete, the usefulness less clear, and the future that can be created more uncertain.

As educators, trainers, and communicators, our job within the context of an overall total solution has become critically important. We enable people to master the technologies at their disposal. We can help them liberate their imaginations and take advantage of the power of technology to accomplish their goals.

As you look through our Strategic Plan, you will see how Educational Services is working to contribute to Digital's ability to deliver leadership solutions to our customers and clients. We are dedicated to creating the instructional and communications tools that will most effectively contribute to our customers' competitive advantage. We are working closely with our customers throughout the world and closely with our clients inside the company — all with the aim of developing educational solutions that are customized to meet their specific implementation needs.

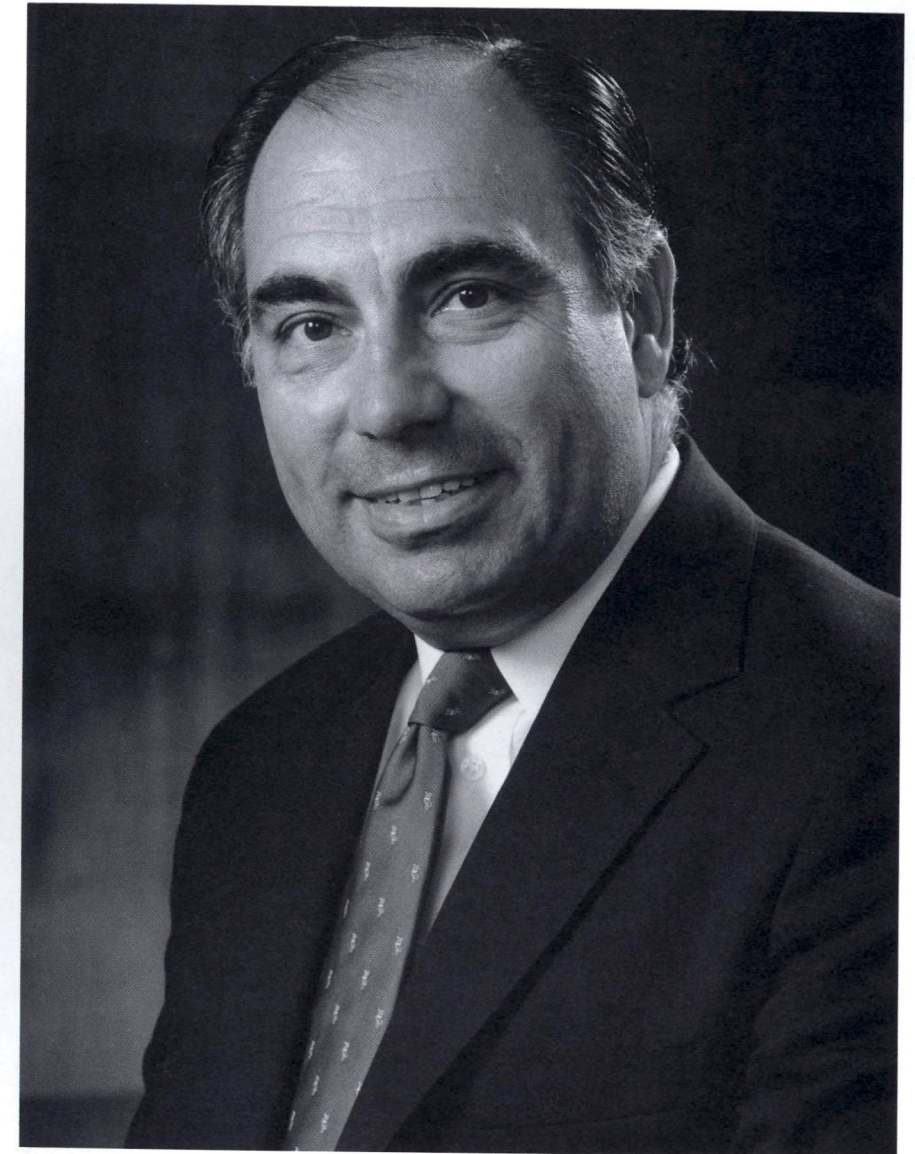
Programs such as the Business Fellowship Program and our External Relations Program are leading-edge investments in developing high-level strategic relationships with Digital's customers. Educational Services is committed to not only education, but also to carrying our strategic corporate messages to the marketplace. The wide variety of instruction offered by our customer training organizations develops the competencies required by people to do their jobs, contribute to their companies, and advance their careers. The solutions developed by our internal training organizations enable Digital employees to contribute more efficiently and effectively to the corporation. And our communications organizations are supporting the corporate messages through a wide variety of media which enhances the impact of the "One Company, One Strategy, One Message" philosophy.

---

*"The best way to predict the future is to create it."*

Peter Drucker

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All these efforts flow together to create an organization in Educational Services that is dedicated to creating total solutions that will dramatically shape the world of the future. On the pages that follow, you will find our vision of what the future will be like, our vision of how Digital will operate in that world, and our vision of how Educational Services will further contribute to the strength of the corporation.

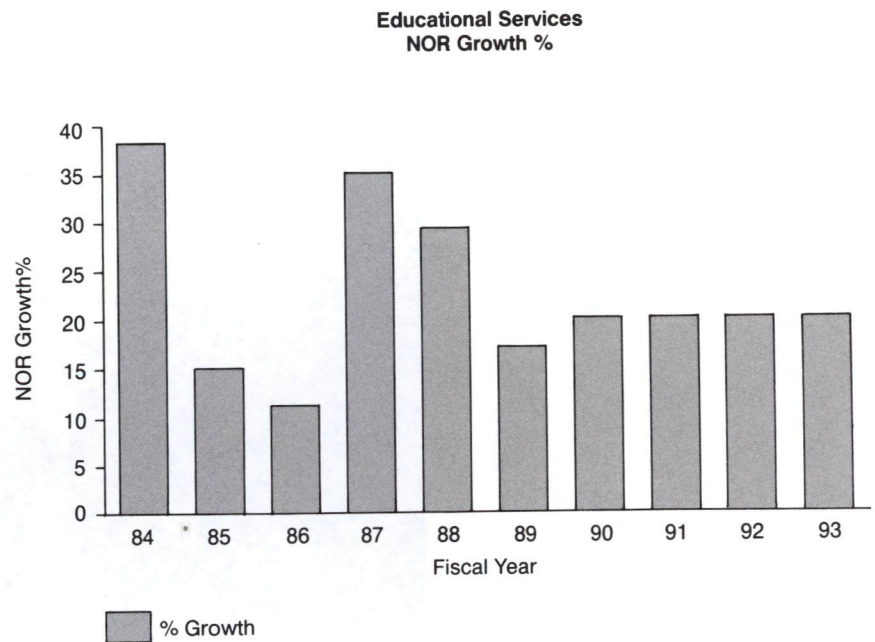
*Pat Cataldo*

Vice-President, Educational Services

## Vision and Strategic Directions

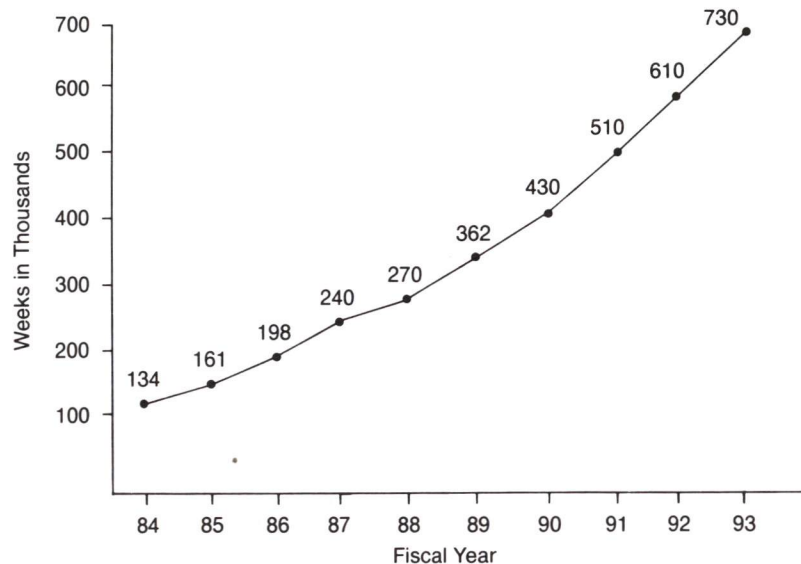
For seven consecutive quarters, Educational Services has exceeded its revenue goals. There are two ways of interpreting this success: we are performing extremely well, and we have the support of our customers and clients. The value we add to a total Digital solution has become apparent.

These indicators of success are not new. Our Net Operating Revenues have grown from \$83.5 million in FY84 to an expected \$189 million in FY88. Anticipated NOR growth for FY89 is 16%, with an additional 20% each year from FY90-FY93.



Demand for Educational Services has enabled us to grow into a worldwide education, training, and communications organization that employs more than 3,800 individuals in more than 200 locations. We delivered 12,200 course weeks in FY84; in FY88, the course weeks will total more than 24,000. In terms of student weeks, the numbers have climbed from 134,200 in FY84 to more than 270,000 in FY88. This puts Digital's Educational Services on a par with a university of 25,000 students.

**Educational Services  
Total Student Weeks (Customer & Employee)**



We currently offer more than 500 different courses of study, and we provide instruction in 16 languages. Lecture/labs and seminars are not the only format with which we meet this increasing demand for training. We also offer more than 90 interactive video courses, 130 audiocassette programs, and 300 self-paced instruction courses; we have produced in excess of 500 video programs and 4,000 slide presentations. Digital Press is currently marketing 80 publications, and ESDP has produced more than 350 manuals for the corporation. Our Digital Video Network has downlinks in 67 sites in North America. As a whole, Educational Services provides training in at least as many different formats — if not more — than any of our competitors. And, in such areas as satellite broadcasting, we are becoming recognized as the industry leader.

The quality of our services has increased along with the quantity of courses, formats, and students. The latest figures indicate that the worldwide Quality Assurance rating has risen to 89%. In accordance with our vision and as a result of our strategic directions, those numbers will rise even higher in the future.

Clearly we have established a strong presence in the industrial education marketplace. Our numbers keep rising, exceeding even the challenging goals we have set for ourselves. As you will discover upon reading our vision and strategic directions, all our efforts are focused upon further establishing our presence and securing our position in the marketplace, for by doing that we will further secure Digital's position in the information systems marketplace.

**The Educational Services Vision**

*Educational Services is to be the recognized leader in industrial training, education, and communications services for Digital's employees and customers.*

The quest for leadership is a common one in any endeavor. The reason is obvious: the world bestows benefits of significant value on its leaders. In business, the leader is the preferred choice with whom to do business. Leadership and its benefits spell success for a computer company, and such leadership is determined by an increasingly complex portfolio of variables. Leadership in the computer industry is no longer based upon the strength of hardware and software products. It is based upon a vendor's ability to provide a complete, customized business solution composed of hardware, software, and support services.

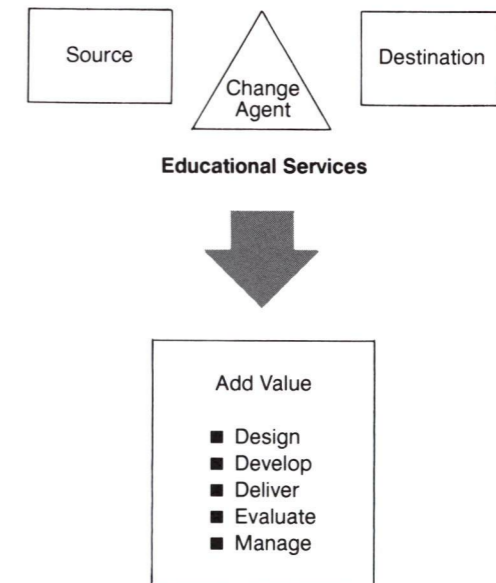
As the competitive value of maintaining employees' skills and increasing the efficiency of work groups becomes more apparent, one of the factors that will determine the computer industry leader will be the strength and reputation of its educational offerings. As Digital's Educational Services organization, we are obligated not only to achieve and maintain our leadership position, but also to be recognized as the innovative leader. With this recognition comes the best assurance of instilling in the minds of the computer industry marketplace that the vendor-of-choice is, indeed, Digital Equipment Corporation.

**Educational Services' Strategic Directions**

*Position Educational Services to become the total learning solutions provider to employees and customers.*

The marketplace of the world will be growing and changing rapidly between now and the end of the century. New technologies will evolve. Hardware and software will become commodity items, and the enhanced power and functionality of computing will change the relationship between workers and the work they do. New workers will encounter more sophisticated ways of doing business; older workers will need to be retrained or reskilled in order to stay ahead of the changes in the way business is done.

Education serves to pull people together; it acts as a catalyst for positive growth and development. In becoming recognized as the industry leader, Educational Services will develop and promote effective educational solutions that are required by both our external customers and internal clients. This means that we understand their changing requirements, stay ahead of those changes, and ensure that those customers and clients know that Educational Services can provide the innovative educational solutions they need. It becomes increasingly important that we tailor our solutions to the cultural environment in which the solutions are to be provided. We will become increasingly flexible. We will learn and employ the educational techniques appropriate to the cultures in which we are operating. We will enhance our ability to provide training and materials in languages other than English. Operating in a diversified international environment will become the norm for Educational Services; therefore, issues such as language and culture will not slow us down. We will channel our resources to respond — with the appropriate training, language, and in the appropriate cultural manner — quickly and comprehensively.



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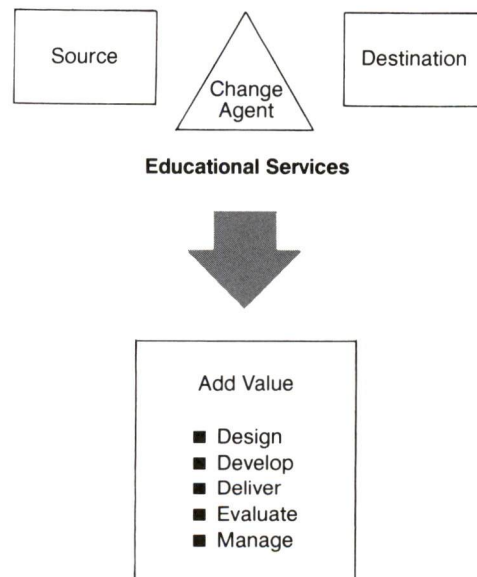
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Part of this effort takes place within Educational Services: building the right solutions, building them quickly and effectively, and tailoring them to meet the needs of the customers and clients. Part of this effort takes place without: forging cooperative educational relationships between Educational Services and the customers and clients; getting to know their needs and getting them to think “Digital’s Educational Services” when an education or training situation arises. Finally, part of the effort is linking the internal and the external; creating the processes whereby customer and client input can be quickly and effectively incorporated into the solutions we create, whether that input be a suggestion leading toward a whole new curriculum or a suggestion leading toward a more effective educational experience.

*Maximize the collective strengths and capabilities of Educational Services to achieve synergistic utilization of resources and investments.*

The efficient delivery of customer solutions will be enhanced as Educational Services develops closer relationships with other organizations within Digital. Product announcements become richer when Educational Services Development and Publishing (ESDP) prepares documentation in advance of the announcement, when the Media Communications Group (MCG) works with product groups to develop the announcement materials, and when Sales/Software Training and Field Service Training team up to educate our internal resources. Implementation of corporate strategies becomes more effective when Management Education brings Digital’s managers from across functions into training events that focus on customer solutions. The organizations of Educational Services provide internal support to the corporation, and that support furthers the corporation’s ability to provide solutions to the customer. As part of a complete Digital solution, Educational Services will be focusing its efforts in two directions. We will be decentralizing our operations to be closer to our customers and our internal clients, thus making it easier for them to learn from Educational Services, and making it easier for Educational Services to learn from them. We will be streamlining the internal process of contributing our knowledge and expertise to Digital solutions. As a member of the Sales Account Team, Educational Services will be positioned to focus its resources upon real customer needs. As a supplier of education, training, and communications resources to the corporation, Educational Services will be positioned to focus its resources on the efficient delivery of corporate messages, both internally and externally.

In terms of programs, both these directions are well supported. Educational Services Information Architecture, Electronic Publishing, and Digital Video Network strategies are streamlining the process of developing communications. These programs enable the corporation to disseminate messages to the field and to customers with dramatically increased efficiency. The new Corporate Education Center (CEC) in Boylston will enable Educational Services to consolidate its Greater Maynard Area resources for a more effective and efficient delivery of services. The corporation will find that the Boylston facility provides its own kind of one-stop shopping. Customers and clients, relying upon Educational Services to provide state-of-the-art learning programs, will find the Boylston facility to be the most advanced training environment yet created. As such, it will provide Digital with a unique opportunity to set a leadership standard against which other educational environments will be measured.

*Supply added value by ensuring integration with corporate product and market strategies.*

As services become an increasingly important part of a total business solution, the Educational Services solution must be developed in parallel with the company's products and marketing strategies. Prior to the Digital Transaction Processing and Data Management announcement in the summer of 1988, Educational Services developed numerous education and training solutions. DECwindows software is another example for which we have developed solutions in conjunction with the company's products and marketing strategies. These educational solutions will actually employ the product when it becomes available. Integrating the educational portion of the total solution with the hardware or software portion becomes the way in which we will announce and market a total solution in the future.

*Use state-of-the-art technologies, innovative communication techniques, and instructional design to ensure the greatest learning experiences for our customers and employees.*

In order to become the recognized leaders in the field, we must further develop our skills as educators. The techniques we employ to educate and teach our students will always be the most effective, the most appropriate, and the most comprehensive. As new technologies become available, we must constantly test, evaluate, and employ these technologies whenever appropriate, in the educational solutions we provide to our customers and employees.



To ensure that our skills remain where the industry leader's skills have to be — on the cutting edge of theory and practice — we will remain informed about the most current work in education, and we will also incorporate the work being done in such associated disciplines as cognitive psychology, communications theory, and instructional design. Educational Services' internal organizations, including Research and Development, Media Communications Group, Digital Management Education, and Educational Services Development and Publishing, are working actively in the frontiers of these fields. The industry leader will put theory into practice and will do so in a manner that yields tangible results, so Educational Services will continue to develop the processes by which student progress is factored into the development of the courses.

#### Summary

Leadership in the field of computing solutions will be determined by a combination of factors: hardware, software, and support services. All of these components, rolled together in a comprehensive customer- and client-focused business solution, must be superior in order for any single vendor to emerge as a leader. Within Digital, this means that Educational Services will develop recognized superiority in the field of industrial training, education, and communications.

To that end, Educational Services is positioning itself to anticipate and respond to the needs of both Digital's customers and Digital's employees. We are reaching further out into the field to gather information on local customer and client needs. Simultaneously, our overall methods of operating are becoming more flexible and streamlined. Information about customer and client needs is more effectively turned into educational solutions, and those educational solutions are more effectively delivered back to the clients and customers. We are working closely with engineering, product marketing, and sales to create comprehensive Digital solutions that will be deliverable upon announcement. We are also working with the latest developments in all fields that are applicable to education (e.g., new educational technologies, new developments in cognitive psychology, and new developments in instructional design), to create delivery solutions for Digital's customers and employees that will secure in their minds the belief that Educational Services is the leader in the field of comprehensive educational solutions. This leadership will further Digital's position in an environment in which vendor leadership is determined by the superiority of its hardware, software, and service solutions.

Educational Services will be serving the needs of a different world as the end of the century draws near. Changes in the economic characteristics of both the industrialized and developing nations will necessitate an expansion of the role of education within Digital's product and service offerings. Changes in the

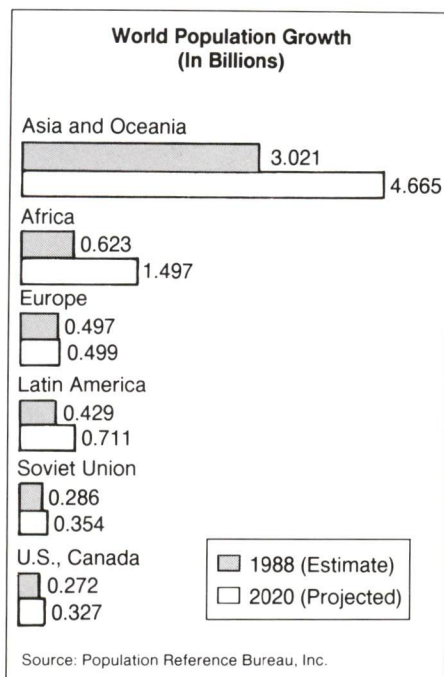
world's demographic composition will necessitate a review of the techniques by which Educational Services trains its customers. And changes in technology will provide Educational Services with both new requirements for education and new technologies for educating.

Within the industrialized nations there will be dramatic changes in the composition of the economy: the workplace will continue the trend away from manufacturing and toward the service industries. Within those service industries, competition will bring about increased pressure to deliver those services efficiently. Competition will also bring about an increased emphasis on tailored and customized service offerings.

The future will also bring an increased globalization of business. Already the financial services marketplaces are global — financial instru-

ments are being traded somewhere, every hour of the day — and all financial institutions are responding to the opportunities and challenges that this globalization affords. The globalization of business is reflected in the relative decline in the manufacturing segments of the U.S. economy: While manufacturing output is expected to remain constant in the U.S., few, if any, new manufacturing jobs will be created. The new manufacturing jobs will be created in the emerging industrialized communities of the world. The predicted rate of international economic growth is slightly higher than the rate of U.S. economic growth through the end of the century.

As the century draws to a close, the economic community of interest and concern will be international rather than national in character. Goods will be manufactured and services will be provided globally; instead of the manufacturing taking place in such traditional manufacturing centers as Detroit, Michigan, or Manchester, England, it may take place in newly industrialized Latin and South American nations or in the Pacific basin. The services supporting those manufacturing concerns may originate in New York, London, or Sydney.



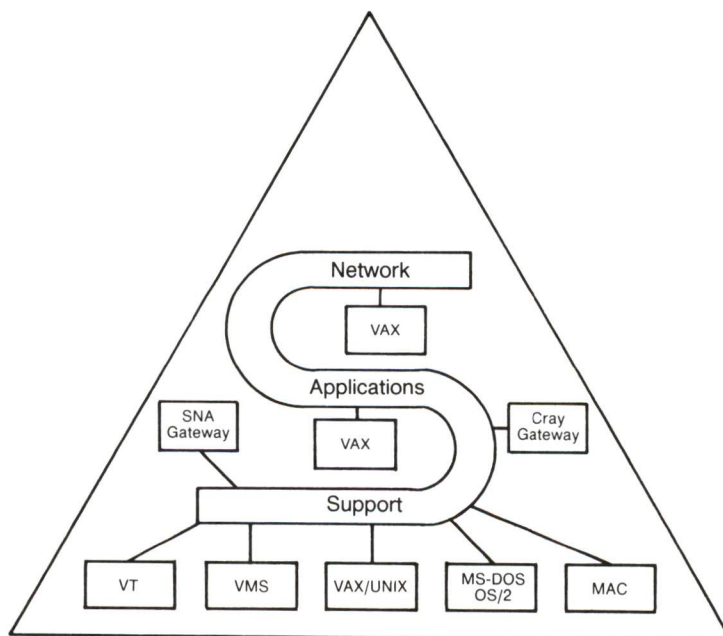
Within this changing work environment there are two components that are changing in their own right: the work force (the individuals employed in these changing workplaces) and the technology. These components are not true subsets of the workplace, for the work force and the technology play important roles in determining the character of the workplace itself. More women will be participating in the world's work force. There will be a greater participation of "minority" workers. In many parts of the world, the average age of the worker will be older than it is today. In most developing nations there is a tremendous emphasis on improving the educational systems, and graduates of those systems will create a much more competitive work force than the ones that currently exist; in other nations, the educational systems appear to be faltering, and the graduates of those systems may require additional or specialized training in order to compete in the workplace. These changes will have varying degrees of impact upon the cultures of the workplaces, which in turn will have varying degrees of impact upon the methods and tools employed in the provision of education and training to customers in those workplaces.

Technology will continue along well-established trends. Information systems technologies will get smaller, faster, and cheaper. Networks will provide multisystem and multivendor integration at increasingly deeper layers of the overall information architecture. Very Large Scale Integration (VLSI) and Appli-

cations Scale Integrated Circuit (ASIC) technologies will put more functionality in a smaller area. Open operating systems, RISC architectures, symmetrical multiprocessing, and parallel processing will dramatically alter the face of computing. New user interfaces, such as DECwindows, will create a whole new approach to the interaction of people and systems.

As the end of the century draws near there will be a wider distribution of functionality across the "system," here taken to mean an organization's overall investment in information technologies. There will be dramatic increases in storage capacity, power, and reliability. There will be a proliferation of devices at the desktop workstation level, increasingly sophisticated development and productivity tools. In all, there will be an increased ability to configure a highly flexible

and dynamic solution in a manner defined by the needs of the changing organizations. Inevitably, there will be a dramatic increase in the amount of raw data



circulating in the "system," and tools such as Artificial Intelligence will play an increasing role in the process of massaging the data into meaningful and communicable information.

Educational Services will play an important role for Digital in this future marketplace. As the overall "system" becomes more complex and comprehensive, organizations will place an increased emphasis on the integration of its people, processes, and technology, and this provides an opportunity for Digital to act as a consultant and a purveyor of services — solutions, education, and support.

The service industries are one of the largest purchasers of communications and data management solutions. They rely on complex technological solutions, Transaction Processing (TP) in particular, to bring them strong competitive advantages. Technological breakthroughs rapidly relegate today's technologies to obsolescence, and the service industries are constantly evolving their solutions in order to remain competitive. From Educational Services' standpoint, this has profound implications. The high demand for training will increase as a function of the rate of technological obsolescence. Among the purchasers, both internal support teams and system users must be trained in order to utilize the new solutions to the maximum advantage. Among the vendors of those solutions (i.e., Digital) the sales reps, as well as the field and software service reps, will require training to sell and support the new technologies and services. Educational Services will be prepared to train users of the new technologies as soon as those technologies are released.

Organizations in this changing workplace will continue to strive for increased productivity and efficiency throughout their operations, be that organization a manufacturing concern in the Pacific basin or a service concern in Geneva. They will be investing in technology to help bring about these productivity increases. As organizations invest in technology, opportunities for business ventures that never before appeared feasible often open up before them. As firms take advantage of these opportunities, they purchase more technology, which may open up new possibilities. Organizations will increasingly invest in the training and retraining of their workers in order to profit from the opportunities made possible by the technologies.

Training techniques and materials will evolve in response to the changes in the composition of the work force. The skills that mature workers possess will differ from those of younger workers, and the most effective techniques for training each age group may differ. Training will require tailoring to accommodate differences in cultural backgrounds and expectations. Training will be increasingly solutions-oriented rather than systems-oriented.

Customers will demand more flexibility. Not all who need training will either desire or be able to travel to a course. They will look for training locally; or, they will look for training on a disk or in the window on a workstation screen, via interactive video or interactive satellite broadcast; they will look for network delivery, and they will look for it in languages that are more familiar to them than English. Point product training will become incorporated into a more customer-oriented solutions training; training will take on an increasingly customized character. Just as the service industries in general are working to establish internal performance economies in which a custom-designed, one-time-only service can be profitably created, education providers will need to develop the ability to create profitable, custom-designed, one-time-only training products.

In as much as the changing work environment means an opportunity for Digital's services groups, it means opportunities for competitive service organizations also. Competition for training dollars will come from other large information systems vendors, from training and financial organizations, and from small start-up organizations, especially in GIA, where loosely enforced international copyright laws leave small companies free to resell Digital training at substantially reduced prices (some vendors and resellers even give first-level training away free). Our advantage over these start-up organizations is twofold: many of our customers are international and want the kind of international support that Digital can provide; and, customers are interested in one-stop shopping, working with a vendor that can provide everything from hardware and software to education and support — a goal to which Digital is already committed. As an integral part of Digital's total strategy, Educational Services will continue to develop and deliver timely, high-quality solutions.

### Summary

As the character of the workplace evolves, as more service-oriented companies come into being, and as more companies change the way they operate, there will be greater need for employee development, and a greater need for management education. The company that invests in its employees' skills will soon find itself in a powerful position in an increasingly competitive world.

All these developments indicate opportunities for Digital's Educational Services. By taking advantage of our technological strengths we can develop training materials that better meet the diverging delivery needs of our customers (e.g., networked delivery, workstation-based delivery, video and satellite delivery). These media will supplement our traditional educational formats (e.g., lecture/lab and seminars, which themselves will be decentralized and delivered locally, in local languages and within local cultural parameters) to provide our customers with the most flexible solutions available.

Moreover, by taking advantage of Digital's experiences in this changing environment — both our experiences as a manufacturing company that is placing an increasing emphasis on delivering services, and our experiences as a large company implementing comprehensive technological solutions — Educational Services will be better prepared to provide solutions to the customer's long-range strategic needs. We can provide customers with education and training solutions that will enable them to make a more effective transition into the more competitive world of the future.

Finally, we must move into this new working world with an eye on the skills of the employees of Digital itself. All the needs we satisfy for our customers are also the needs we satisfy for our internal clients. Only by maintaining our internal skills at the highest level can we ensure our ability to provide the most competitive solutions to our customers.

In all, Digital's Educational Services has numerous opportunities to provide comprehensive educational solutions to the workplaces of the future. By taking advantage of these opportunities, by working closely with the other organizations within Digital to provide a complete, customer-oriented solution composed of hardware, software, and services, Educational Services will further secure Digital's leadership position in those same workplaces.

## Educational Services: An Integration of Efforts

The key words for the world described in the Environmental Scan are *change* and *integration*. They apply to software and hardware systems, to people and technology, and to the efforts of any organization that intends to compete in the markets of the future. As Digital molds itself into a customer-focused, service-oriented company of the future, much of its success will have to do with the integration of changing activity within the organization. Educational Services has an opportunity to act as the change agent for employees and customers. Product organizations will integrate their activities with the service organizations and both will integrate with the field organizations. Sales will be selling services as an integrated part of the hardware and software solution; no proposal will be complete without all three components. The representatives of Software Services, Field Service, Educational Services, and Computer Special Systems will have become so integrated that customers will always receive complete, comprehensive solution recommendations. Sales representatives will employ an integrated portfolio of tools to satisfy customer requirements, a portfolio designed to accommodate needs that go far beyond product maintenance. Administrative and corporate support organizations will thread their operations transparently throughout the company, binding everything together in an apparently seamless web of networked systems, data, and services.

Educational Services is a leading-edge element in the Digital of the future. The activities of its integrated organizations are focused on the future; they are working together to develop and deliver customized solutions that will be demanded by customers and internal clients alike. All the groups within Educational Services are moving further into the field to create solutions aimed at meeting customer and employee needs. Some of Educational Services' solutions for the future (listed below) will produce results that showcase the competitive advantages of Educational Services.

### **Educational Services' Solutions in the 1990s**

#### **Major Areas of Training**

Office Market  
Management Training  
Commercial Market  
Technical (FS, DIS)  
Sales and Software  
Reskilling

#### **Customer Satisfaction**

Personalized Training Plans  
Training Analysis Plan (TAP)  
Large Program Management  
Customer & Credit Satisfaction  
Surveys  
Customized Training

**Educational Services' Solutions in the 1990s (continued)**

**Tools**

Information Architecture  
 Developers' Workstations  
 Intelligent Integrated Information  
 Authoring Tools  
 Electronic Publishing  
 Translation Processing  
 Imaging Network  
 Automated Tests  
 On-line Illustrations

**Quality/M Measurement**

Control Process during  
     Development and Delivery  
 Quality Assurance (QUEST)  
 Pre- and Post-testing (QUEST)  
 Standardized Processes  
 On-line (Follow-up) Survey  
 Audience Response Systems  
 On-line Test Development,  
     Delivery, and Tabulation  
 On-line Needs Assessment

**Technologies**

Satellite  
 CDROM  
 Interactive Video  
 DECwindows  
 Audio  
 CBI  
 SPI  
 Network-based learning  
 Video  
 AI

**Delivery**

Decentralization  
 Satellite  
 CDROM  
 Electronic Distribution  
 Lecture/Lab  
 Interactive Technologies  
 CEC  
 Seminar  
 Simulations

Educational Services' Corporate Marketing organization is establishing education-oriented relationships with its central engineering and product management customers. These relationships will further Educational Services' ability to develop solutions in parallel with the development efforts of product engineering. The strategic value of these relationships becomes apparent when Digital announces both the product and the Educational Services support for that product simultaneously, thus creating a more comprehensive solution for the customer.

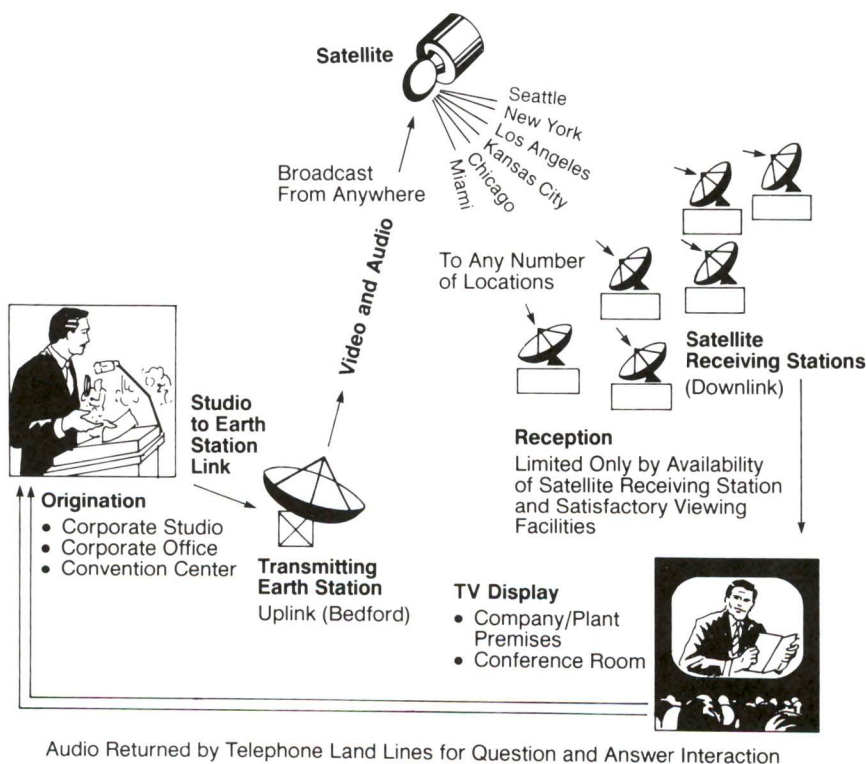
Within U.S. Area Customer Training, the Technology and Solutions Group (TSG) has a program in place for further developing their expertise in vertical markets. TSG will turn their expertise into educational products to give their customers a unique competitive advantage. They are also taking their expertise and making it available to other groups within Educational Services and Digital, so that the communication of information and education within the company is complete, eliminating redundancy of effort.



Digital is expanding beyond the boundaries of its traditional science and engineering markets, and is moving into the commercial and office applications marketplaces. There are currently more than 16 programs in the segment plans of this document that position training as a source of competitive advantage for the customer. As the marketplace grows more and more emphatic about the levels of service and support it demands of a vendor, these programs will already have positioned Digital as a leader in providing customer-focused solutions.

At the same time, numerous groups within Educational Services are furthering the "Service the Customer" attitude by collaborating to develop training solutions that can be delivered to the customer. Ten groups within Educational Services are working on delivering network-based solutions. Some of these are DECnet-based, others are based upon the Digital Video Network (DVN), which will be expanding into more Digital sites, as well as into our customers' sites.

Research and Development is exploring new technologies to deliver solutions to our customers and employees. Our Corporate Marketing Group is planning to place such technologies in Digital's Applications Centers for Technology (ACT), where customers can get a first-hand look at the types of media and courseware they can obtain for their educational requirements. Corporate Marketing and Digital Management Education are developing programs for Information System managers to leverage customer utilization of Digital solutions. In addition, there are numerous mechanisms by which the applicability of the courseware is tested and revised; concern about the quality of the educational experience, both in terms of effectiveness and personalization of the attention received, can be seen throughout the organization. All the groups are working to deliver the training that is most useful, most applicable, and most enjoyable to the customer and client.



Educational Services' new Corporate Education Center in Boylston, Massachusetts, further demonstrates our commitment to delivering the kinds of integrated training solutions customers and employees require in a total learning and living environment. The considerable resources of the Greater Maynard

area are being consolidated in one state-of-the-art educational facility, where they can apply their talents to deliver the finest education and training available.

Ultimately, Educational Services is integrating its operations in a way that supports the solutions requirements of customers and employees, the business needs of Digital, and the operational needs of the group itself. Our Information Architecture, Electronic Publishing, and Corporate Communications support strategies integrate Educational Services activities internally, as well as externally, with the activities and directions of other organizations in Digital. We provide the educational solutions that Digital's customers and employees require, and we also provide the information and communications support that Digital requires. Our commitment is ongoing to develop technologies, processes, and quality standards that result in an efficient, integrated organization and that contribute to the development of leadership solutions.

### **Summary**

The process of developing and delivering complete solutions composed of hardware, software, and services is inherently complex. The ability to deliver leadership solutions ensures that the organizations within Digital and the solutions they are developing are integrated. Educational Services is actively integrating its activities to facilitate the optimal development and delivery of educational and training solutions for Digital's customers and employees. This means these groups are both tuning their own internal processes — developing more efficient development processes, collaborating to develop a common Information Architecture, and consolidating their resources for maximum strategic effectiveness — and that they are integrating their activities with other groups inside Digital. Product support literature, documentation, and courseware are being developed in parallel with the products themselves. Our groups are working closely with Digital's representatives in the field to understand the needs of our diverse customers worldwide. They are also working closely with the organizations both in the field and closer to headquarters to develop and deliver the education and training the employees of Digital require. The role of education and training is to bring people together, to catalyze ideas and collaboration, and in this way, the integration activities of Educational Services are both furthering the development of customer-oriented solutions internally and furthering Digital's position as the leader in computing solutions in the marketplace.



“Degrees of independence and entrepreneurship are appropriate across the business units that make up Educational Services. The role of the strategic planner is to inspire collaboration, integration, and to broaden our vision beyond Educational Services while improving the quality of our interactions.

“Planning isn’t static. We’re planning in a constantly evolving system. Each tactical accomplishment is valid for the role it plays in the continuum. But as each piece is completed, we move on to the next — always looking to the future, and learning from the past.”

*Del Thorndike*

## Strategic Planning and Programs

Educational Services is a vital organization that is evolving in a way that complements Digital's corporate evolution. All individual Educational Services groups contribute to the overall success of the organization. They play different roles in the organization, and the job of Strategic Planning is to orchestrate those roles and guide those contributions for the benefit of the entire organization.

The Strategic Planning group focuses both on process and results. Each year we revise the planning process. We work with the members of the Educational Service Management Committee and their staffs to consolidate and integrate the organization's ideas of what is to come and what we will do to further Digital's ability to deliver leadership solutions both internally and externally. Strategic Planning asks questions of the Educational Services group representatives; we coordinate organizational messages and ideas with corporate messages and directions. We create the forum in which the planning process for Educational Services can take place. Then, we synthesize the information and publish it in the form you are reading.

The development of strategic plans, as well as more specific, milestone-oriented business plans, provides all the members of Educational Services with a context in which their individual contributions add value. This context is especially important because Educational Services is a large organization, made up of numerous groups around the world. Only through such integrated behavior can our organizational vision be achieved, and only through such integrated behavior can Educational Services effectively work to further Digital's corporate vision.

On the following pages you will ascertain what distinguishes each of the organizations, as well as the role each organization plays in furthering Educational Services' overall goal of becoming the recognized leader in industrial training, education, and communication services. Finally, you will learn about many of the programs that the groups are undertaking to further Educational Services in its overall organizational goals.



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*U.S. Area Customer Training provides integrated computing solutions through training, education, and communications services.*

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“There’s a major opportunity for U.S. Area Customer Training: to help the customers really appreciate Digital, the quality of the product, the quality of the technology, the quality of the service they’re getting, and the whole attitude around Digital’s desire for customer satisfaction. Our trainers are often the first people with a chance to really deliver these messages to our customers. Many of the people we train never deal with our sales representatives. They deal with our trainers. So our trainers get a great deal of respect and a great sense of consulting responsibility because of this customer contact. And that, to me, is a very valuable contribution that our people make to the company.”

*Joe Fabrizio*

## U.S. Area

U.S. Area Customer Training supports Educational Services' vision of becoming the recognized leader in industrial training, education, and communications services through a number of significant programs. We're implementing two major sales support programs for our customers. We're decentralizing, moving all our products and services closer to customers in the field. Our continued commitment to quality programs in customer and employee satisfaction, and our continued commitment to implementing technologies that make it easier for our customers to do business with us are also important projects that will help Educational Services achieve its goals.

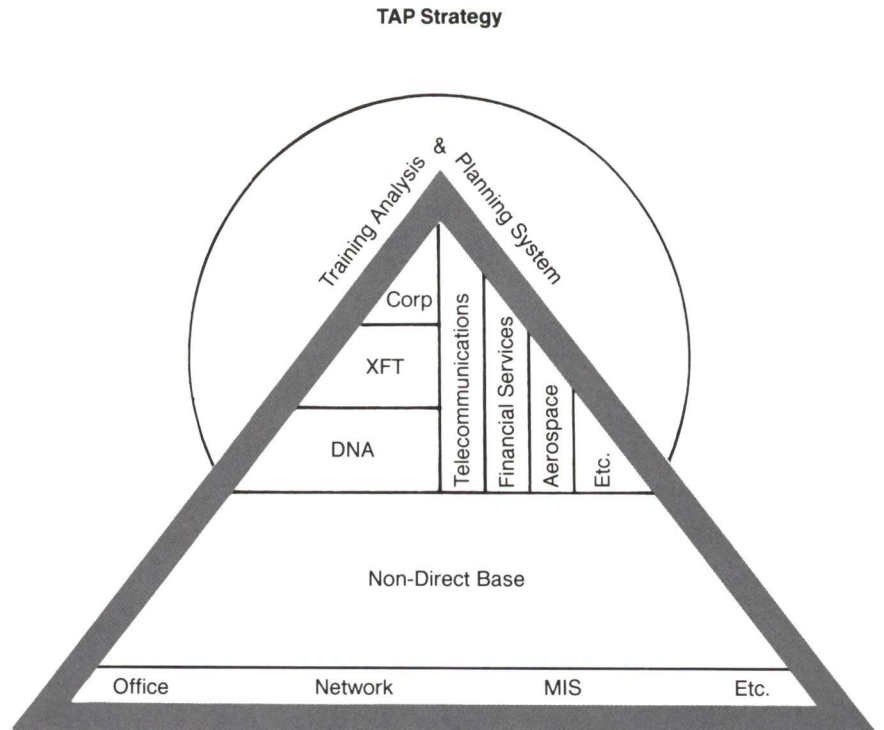
### Programs

#### **1 Sales Support Strategies**

The U.S. Area's most important sales support programs are the Training and Analysis Planning Program (TAP), which is focused on 100–200 specific U.S. customers, and the Installed-Base Support Program, which is focused on some 35,000 U.S. customers. TAP enables Educational Services to act as a business partner with specific customers to consult, plan, develop, and deliver the training that meets the customer's business needs. The Installed-Base Support Program is designed to increase the number of students and the number of courses taken for the bulk of our U.S. customers.

TAP enables U.S. Area Customer Training to understand the major business problems faced by selected customers; it enables us to understand the changing demographics, the future requirements of the labor force, their knowledge and skill requirements, their availability, and the major automation initiatives that are changing the character of each industry.

TAP positions training in terms of the customer's requirements, and in doing so it provides a point around which all of Educational Services' products and service offerings can be integrated. Accordingly, the TAP program relies heavily on expertise developed in other Educational Services organizations, including OA, DME, ESDP, Field Service Training, and Sales and Software Services Training. Moreover, TAP means that Educational Services' U.S. Area Sales Support managers are working closely with U.S. Area Sales — where knowledge of the customer's business is greatest — in order to make this program work effectively for our focused installations.



The Installed-Base Support Program consists of multiple marketing efforts aimed at increasing business across the body of U.S. accounts. In conjunction with our decentralization program, the Installed-Base Support Program will bring even Digital's smallest customers to more training and educational programs.

## 2 Field Integration

We will move the U.S. Area's customer solutions closer to the customers, in order to change, adjust, and adapt as our customers' environment transforms into the Information Age.

The Field Integration program ensures that Educational Services is capable of creating and delivering the kinds of education and training solutions that our customers need and want.

In order to provide truly integrated computing solutions to our customers, senior field managers from Sales, Sales Operations, Field Services, Software Services, Educational Services, Administration, Finance, and Personnel are consolidating into Area Teams. This will facilitate the sharing of information and ideas, and will also provide the area's customers with the opportunity for one-stop shopping. New, smaller training sites will be strategically located near our customers, and revenue responsibilities of all Educational Services' products are being placed upon the Area Teams. Finally, the implementation of a centralized scheduling system will allow U.S. Customer Training to implement the "no-cancellation" policy while maximizing each area's seat and classroom utilization.

### 3 Decentralization Program

The decentralization program distributes our resources closer to the customer.

Several distinct activities will bring training and education programs closer to our customers. We will be increasing the number of U.S. Customer Training locations at a rate of five new locations per year for each of the next five years. In many cases, these will be located with existing Digital field and sales locations in order to further the idea of one-stop shopping and to better utilize our facilities and resources.

Another aspect of the decentralization program involves collaborating with the Media Communications Group (MCG) to further use the Digital Video Network (DVN) as a training, educational, and communications medium. Via DVN, instructors from U.S. Area Customer Training will be reaching into an increasing number of Digital and customer locations simultaneously, enabling us to deliver interactive instruction to customers in a way that more easily fits their schedules. DVN broadcasts will focus on basic, product-oriented courses to be shown to large audiences (e.g., WPS, Electronic Mail, etc.). Other broadcasts, for instance, will focus on highly technical courses at the System Programmer level for multiple smaller audiences.

A third aspect of the decentralization program is our "Training in a Van" program, which brings educational courses and technology to different cities where there are no formal Digital training sites. Digital will create temporary training and education facilities, complete with the technological support one would expect to find in a Digital location, in a hotel in the host city.

Finally, our decentralization program will place Digital educational consultants on-site at our customer locations. These consultants will be there to answer customer questions and make arrangements to fill specific customer training needs.



## 4 Quality Programs

Quality programs focus on the quality of our internal resources and on our customers' perceptions of the quality of our solutions. Therefore, quality programs in U.S. Customer Training are divided into two major categories: Customer Satisfaction and Employee Satisfaction.

**Customer Satisfaction:** U.S. Area Customer Training is supplementing the ongoing Quality Assurance (QA) program with a QA Review Board, which will ensure the relevance of our QA questionnaire and background information, enabling us to respond more effectively to our customers' demands. This program also creates a Customer Hotline Support system to handle customer inquiries on a real-time basis. The program provides support for Digital's annual Educational Services customer event, FORUM, which allows our customers to visit our headquarters, and to interact with our managers and instructors. It is an invaluable opportunity for Educational Services to hear directly from our customers.

**Employee Satisfaction:** Realizing the foundation of customer satisfaction is the quality of our own people, U.S. Customer Training has made a commitment to employee satisfaction with numerous projects that emphasize the value we place on the excellence of individual contribution. U.S. Area Customer Training emphatically supports the Valuing Differences and Pay for Performance programs. We offer both formal and informal awards for instructor excellence, and we conduct regular employee satisfaction surveys.

## 5 Administration/Reporting System

In the future, the new automated administration system will enable both customers and the sales force to enroll in courses all over the U.S. at any time. The system will enable our customers to register themselves directly, on-line, in our lecture/lab and seminar courses.

U.S. Area Customer Training will be making it easy for a customer to deal with Educational Services by providing a single point of contact for all services and inquiries. Such accessibility to our products and services will be the differentiating factor between true partnership and business as usual.

A single interface between all of Educational Services and the customers will enable Educational Services to consolidate many of its customer information gathering activities. When implemented, the administration/reporting system will be complemented by an executive information system that is being developed to collect information that can be used for many purposes and reporting requirements.

**U.S. Area Statistics**

Projected revenue growth from Installed Base Strategy and TAP:

**As a Percent of Total Revenues from the Sales Support Strategies**

FY87	FY88	FY89	FY90	FY91	FY92	FY93
NA	NA	25.0%	35.0%	45.0%	50.0%	55.0%

**Percent Growth of Training Locations**

FY87	FY88	FY89	FY90	FY91	FY92	FY93
15.0%	50.0%	10.0%	20.0%	20.0%	15.0%	10.0%

**Quality Assurance Rating (100% = Best)**

FY87	FY88	FY89	FY90	FY91	FY92	FY93
91.0%	92.0%	92.0%	93.0%	93.0%	93.0%	93.0%

**Employee Satisfaction Survey (10 = Best)**

FY87	FY88	FY89	FY90	FY91	FY92	FY93
NA	NA	7.7	8.0	8.3	8.6	8.8



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*Educational Services Europe is to be the recognized leader in providing total learning solutions and services for Digital employees, customers, and the industrial training market.*

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“In the '70s, customers selected computer vendors based on hardware architectures. In the '80s, they looked for good applications software that would help them realize the potential of their hardware investments. Today our customers have discovered that by preparing their people to properly utilize those assets they will realize the true potential of their information architecture.

“Of the two kinds of training companies emerging, large financial services institutions and computer technology vendors, Digital's competitive advantage will be our ability to provide all segments of training through the application of our leading-edge technology. Information systems are the new delivery mechanism for training technology. We are in an excellent position to expand the use of technology as the educational market increases its demand for open learning methods.”

*Hermann Binder*

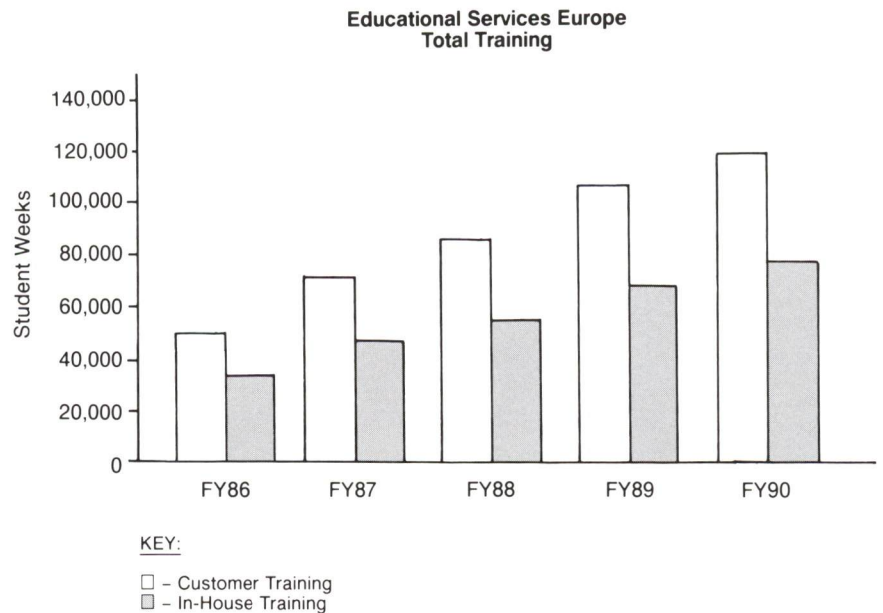
## European Area

Educational Services Europe is an established professional organization employing approximately 1,300 individuals, of whom some 600 are instructors, working in more than 30 training centers in 17 countries and supporting 60 Field Training Centers. Each day, Educational Services Europe provides training to some 3,000 students in 11 languages.

In addition to providing customer training, Educational Services Europe is responsible for all internal training, including planning and delivery, in each European country Digital serves. In order to meet the increasing demand and complexity of the training needs of our internal Digital clients, we have created Training Faculties who are focused on particular competency and skill areas. These Faculties also have an account management responsibility toward Digital functions, to ensure their complete training needs are met.

The Technical Training Faculty is mainly responsible for hardware and software product training. It also has the specific account management role for Field Service and Software and Advisory Services (SWAS). The Business Support Training Faculty focuses on providing user training for internal information systems, logistics and distribution processes, and finance and business support. This Faculty is also the account manager for Information Systems, Finance, and Administration & Logistics. The Selling and Marketing Training Faculty specifically addresses selling skills and marketing strategies, and is the functional account manager for Sales and Marketing. The Skills and Management Training Faculty is focused on management development and other professional skills training. This group also has an account management role for Engineering, Personnel, Educational Services, Manufacturing, and Computer Special Systems (CSS).

The responsibility of the Educational Services Country Manager is to ensure that the total training requirements of Digital's organization in that country are met, whether training is delivered in a Digital training center or at a European business school. The major in-house training centers are located in Reading, Evry, Munich, and Milan. Every country has an internal training organization that meets local cross-functional requirements, and is driving the decentralization of both technical and business training.



Given these factors, Educational Services Europe is a decentralized organization. Digital's European clients and customers have differing needs and desires, and meeting the needs of this diverse market requires a wide variety of approaches and solutions. Europe is responsible for an ever-increasing portion of Educational Services' overall revenues; today more of Educational Services' revenue comes from Europe than the U.S.

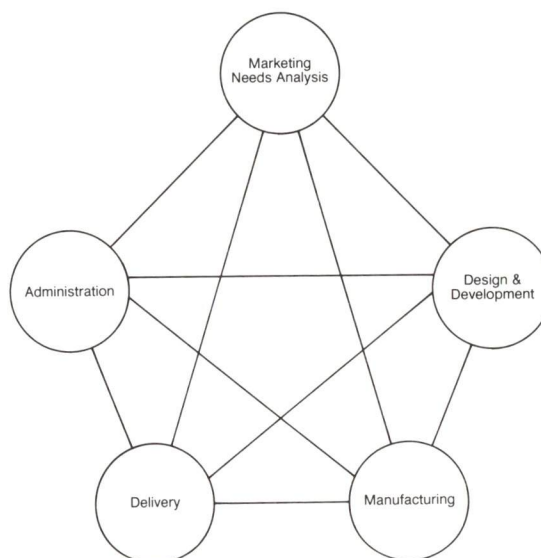
The countries in the European Area are at different stages of development; therefore, the Area-driven programs for Educational Services address issues of major strategic importance to overall organizational development and business performance. Below we describe six that are particularly important to Educational Services Europe in meeting the challenges of the future: Quality and Productivity, the Field Office Model, the Selling Model, PACE, ESDP Decentralization, and the Karlsruhe Campus-Based Engineering Center.

## Programs

### 1 Quality and Productivity

Through this program, Educational Services Europe is finding ways to improve total organizational productivity while simultaneously enhancing the quality of our products and services. We are examining the Educational Services Business Model, our operational procedures, and the organizational structure. The outcome of this program will be a series of standards and models that will assist management in building and developing the most effective and responsive Educational Services organization possible, thus enabling us to achieve even greater success in the 1990s. An integral part of this effort will be an Information Systems Architecture that will link Educational Services Europe to the Digital European business systems.

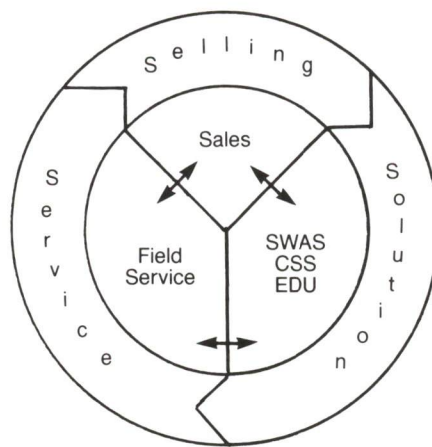
**Quality and Productivity Program**



The quality and productivity program positions Educational Services Europe to respond most effectively to the customer and client needs. Educational Services Europe depends upon five major activities: marketing, selling, design and manufacturing, delivery, and administration/communications. All activities need to work together using new technologies and methods for delivering the best solutions. We are collaborating to increase the overall efficiency of our response to customer and client needs. We are focusing on delivering the highest quality solutions to our customers and clients. And we are determining how best to operate in a multinational, multilingual environment that demands localized adaptation of the solutions we provide.

## 2 Field Office Model (FOM)

This European program clarifies, aligns, and simplifies the structures and processes through which we deal with our customers. The FOM program enables us to examine the field activities in our Sales Units, districts, and regions. We can then clarify the tasks and responsibilities of specific jobs and processes, and develop a model leading to efficient and effective means of dealing with our customers for all functions in Digital Europe.



The FOM will ensure that all of Digital's functions are organized so that the external world recognizes us as one company. Its intent is to have minimum layers of management between customers and top management in each country and to achieve operating behavior changes that focus on the customer.

The Educational Services FOM will ensure that our organization matches appropriately the rest of the Digital organization in its manner of dealing with the customer.

## 3 Selling Model Implementation

Educational Services area management recognized that the market potential for customer training could only be realized through an increased focus on selling and sales support. Educational Services' Management Team accepted a proposal to put "Customer Education Consultants" into each sales district. This program is devoted to the implementation and development of those consultant positions.

Educational Services Europe relies on the Customer Education Consultant to maximize customer training delivery, particularly at strategic accounts. As with the Training Analysis Planning program (TAP) in the U.S. Area, the goal of this program is to identify and drive large customer training opportunities, helping targeted accounts and key customers identify, define, and satisfy their total education needs. The Customer Education Consultant supports all the sales representatives in the district in order to have appropriate training content in every quote. These education experts work within the Software and Advisory Services (SWAS) organization but maintain strong, direct links to the country customer training manager.

#### 4 Program for Advanced Continuing Education (PACE)

A consortium of European industries and universities has formed a program to deliver continuing education via satellite. Digital's Educational Services Europe is a sponsor of this program, which brings to Digital state-of-the-art technological education from the world's leading universities and research institutes. We are active participants in both the technical and educational committees, as well as directly supporting the pilot program evaluation process.

In order for Digital's Educational Services to become recognized as the leader in industrial training, education, and communications, we will be associated with such international, high-visibility, leading-edge programs as PACE. The pilot program started in March 1988, and the goal is to reach a five-day-a-week transmission schedule of two programs per day in 1989. Other industry sponsors include British Telecom, Philips, IBM, Thomson, Bull, IRI Italy, Fundetec Portugal, Danish Enterprise University Systems, and NOKIA Finland. Our operational experience with this program will be of direct help in establishing and using the Digital Video Network (DVN) in Europe.

#### 5 ESDP Decentralization Program

Decentralize European ESDP into the United Kingdom, Germany, France, Sweden, Holland, and Italy to drive opportunities for custom-tailored education.

The European ESDP organization is currently centered in Reading, England. Customers and clients are demanding more individualized training solutions, especially as we move into user training (e.g., office automation). In this competitive environment, high-quality tailored education solutions will differentiate us from competitors, and from a customer's own in-house training organization, enabling us to gain market share in this fast-growing market. This program will ensure our leadership position in providing locally adapted, relevant, high-quality training to our customers and clients.

#### 6 Karlsruhe Campus-Based Engineering Center

At the University of Karlsruhe, members of Educational Services Europe will work to develop and deliver fully functional courseware authoring tools and advanced instructional design software engineering aids. Additionally, a wide range of courseware will be developed in this environment for delivery. We will create a distributed tutoring environment capable of facilitating group learning, and ensure its quality and effectiveness through detailed assessment and evaluation techniques.

This program will provide support for Educational Services resources to be located at the University of Karlsruhe CEC in Karlsruhe, West Germany, where they will work on the NESTOR Educational Workstation project. This work will extend the outcome of the ATHENA I project and closely collaborate with the ATHENA II project, both of which are being undertaken in collaboration with universities such as MIT and Brown.





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*Educational Services GIA will provide high-quality, cost-effective training to our internal and external customers in support of their strategic business and satisfaction goals.*

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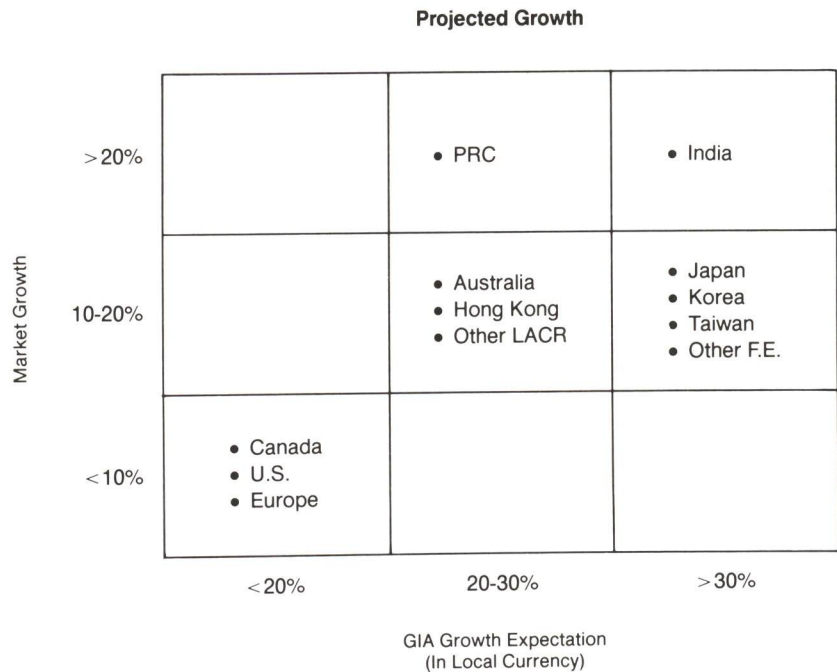
“The international market is the fastest growing area of business for Educational Services, and we expect to lead the way toward becoming a truly multinational supplier of products and services. Today, we serve 59 countries, constituting over 70% of the world’s population. In 10 years, we’ve grown from a \$36,000 business to a \$40 million business.

“Our greatest challenge is to ensure that we bring quality products and services to people in vastly different geopolitical environments. The geographical dispersion of these markets alone increases the complexity of delivery. This is compounded when you begin to adapt our offerings to accommodate so many languages and cultures. And yet, we will use our advanced technologies to continue to bring training closer to our customers.”

*Roger Blomgren*

## General International Area

Educational Services GIA is established in five discrete geographic regions: the Far East, Japan, Canada, the South Pacific Region (SPR), and the Latin American and Caribbean Region (LA/CR). A potential sixth region could be India. Even though GIA constitutes 70% of the world's population, it currently contributes only 17% of the world's GNP, and represents only 21% of the world's information system installed base. At the same time, Japan, Australia, Canada, and Brazil are four of the ten largest markets for information systems solutions, all of which means that GIA represents one of the largest opportunities for Digital and Educational Services.



In FY87, Educational Services GIA trained 23,000 external customers and 6,300 Digital employees and OEMs; by FY90, the numbers are expected to increase to more than 30,000 customers and 7,000 employees and OEMs. The GIA employee base will increase from 344 to 664 during that time. Training facilities are located in each of the regional headquarters, Hong Kong, Tokyo, Toronto, Sydney, Fort Lauderdale, FL, and in 14 other countries. GIA offers instruction in six languages, including Japanese, Mandarin, French, Spanish, Portuguese, and English. Our translation efforts are supported by Educational Services Europe for French, Spanish, and Portuguese languages.

GIA is by nature a highly diverse and decentralized organization because of the physical distances between the regions and the political and economic instability that exists. Our educational solutions are increasingly delivered at customer sites.

We are well positioned to bring advanced training techniques to bear on this complex marketplace. We have a catalogue of courseware available in a wide variety of delivery methods, which will meet a large number of training needs. GIA must also be flexible and creative in providing training solutions from third-party vendors, providing translated or customized materials as well as on-site classes.

GIA is identifying new focus areas for the 1990s. These are Enterprise-Wide Solutions, Industry Marketing, Cross-Functional Teams, and Networking. GIA has to adapt its approaches for a diverse and decentralized geography. We foresee a strong role in Educational Services in the 1990s.

The programs that follow provide the major strategic thrusts underway to deliver solutions to our customers and clients.

## Programs

### **1 Internal Training Support**

Educational Services GIA will focus attention on a variety of internal training activities to retain and develop staff in our regions. The expansion of current programs and the addition of new ones will reflect the corporation's enterprise-wide customer solution goals, promote cross-functional cooperation within the regions, and strengthen the ties between the regions, the area, and the corporation.

Numerous projects exist in the employee training organizations. There are specific projects aimed at supporting the Software and Field Service organizations in GIA; other projects aim at supporting the Sales organization, as well as the OEMs who resell in the GIA. We are working with Software Services on the Program/Project Management Development Center (PMDC), which has been established to develop the methodology, business practices, policies and procedures that will enable the corporation to analyze, qualify, bid, and deliver an enterprise-wide customer solution. Educational Services GIA will develop a GIA PMDC teaching staff. Our curricula for employee training will enable Field Service, CSS, Educational Services, and SWS personnel to obtain the necessary skills and information required to support the program.

## 2 Customer Training Solutions

Traditional customer training will continue. Capital-intensive, high-level technical training will continue to take place in the U.S. The cost of travel and the adverse impact of changing economic climates within GIA will increase on-site, customized, and local language offerings. There are several new areas of focus that will begin in FY89-90.

Increased participation in enterprise-wide solutions means that Educational Services will be part of large project proposals to support enterprise-wide training solutions. We will offer a new curriculum, Training Program Management, ranging from the factory floor to management education. Because of the diversity of equipment, industries, skills, and languages, we must identify and source a wide spectrum of third-party vendor training. We will teach our own people how to deliver third-party solutions, how to contract, and how to utilize all the training resources available in the marketplace.

Another new project within the Customer Training area is the Network University. Taking this idea from NAC Marketing, Educational Services GIA sees the need for customers to understand how networking impacts their entire business plan, and ultimately their productivity and success. We will teach them to plan, manage, and develop networks that provide a competitive advantage.

VMS Version 5 and symmetric multiprocessing will be the focus for a new generation of Digital customers, and we will be providing additional support to meet these needs.

## 3 Personalized Training Plans (PTPs)

The use of training as a tool for business planning (i.e., skill training to meet long-term needs) will increase package sales to customer organizations.

Personalized Training Plans (PTPs) will continue to play a strong role in solutions sales for Digital and in solutions planning for customers. Each region places a strong emphasis on PTPs, thus ensuring that both customers and employees will be encouraged to plan a career path that gives them job satisfaction and the ability to plan for the future. PTPs cause managers to include training in long-range plans and to create an environment for training within their organization. For Educational Services, this program provides packaged and long-term sales, and contributes to planning for growth and readiness.

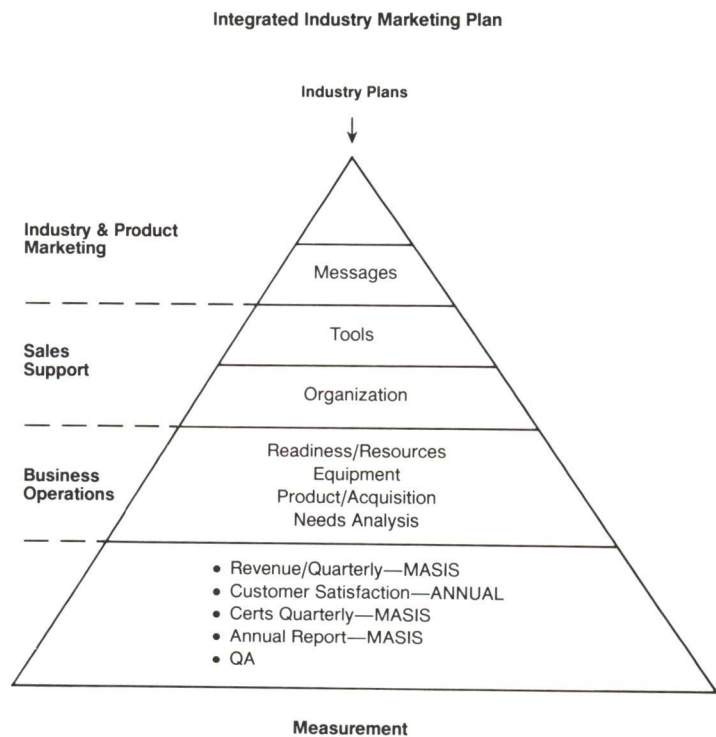
## 4 Industry Training Programs and Integrated Industry Marketing

GIA strategy is to make Industry Marketing the driving force of GIA business. Educational Services has supported this focus from the beginning and has worked closely with the GIA Industry Marketing group in Acton as it realigns Digital's offerings to meet the needs of specific industries. Educational Services again plays a strong role in training GIA's internal personnel to facilitate this restructuring.

For Industry Training, Educational Services GIA is developing Industry Training Curricula for Sales and Sales Support, Software Services, Field Service, and Educational Services professionals and managers. We are designing region-specific training programs that support regional goals and that work with local cultural requirements. We are developing instructor readiness programs that will provide the delivery capability necessary to support Industry Training. And we have implemented a program to identify seminars or courses from third-party vendors to support industry-specific messages and applications.

With regard to Industry Marketing, Educational Services GIA will continue to play a key role in integrating programs, products, and services into the area-targeted industries. We have the additional responsibility for developing industry-specific messages and sales tools for the Educational Services portion of the marketing materials, and for working cross-functionally to develop industry-specific service messages. We are responsible for developing or adapting curricula for customers, and for sourcing third-party vendors to deliver industry-specific training.

The chart below shows how the Integrated Industry Marketing Plan is designed. GIA develops the long-range strategy and the priorities for the geographies. Educational Services integrates its own messages with those of Marketing and Sales. Measurements will be made on the success of Industry Marketing by using the Marketing and Sales Information System (MASIS) now installed throughout GIA.



## 5 **The Cross-Functional Service Solution**

GIA is moving rapidly toward the enterprise-wide solution. To meet this goal will require Educational Services, Field Service, Software Services, and CSS to work together closely to provide a services solution.

This program undertakes to coordinate the services messages and to position Educational Services products and services with other services at the appropriate part of a sales cycle. We coordinate services' messages in new product introductions, and we provide cross-functional sales training and sales tools. This program will ensure that U.S. programs, marketed or adopted by GIA, provide cross-functional support and meet GIA regional sales requirements. It also ensures that GIA regional service organizations are informed and prepared to deliver cross-functional support to customers.



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*Corporate Marketing establishes and implements Educational Services' marketing strategies to provide high-quality training solutions and information services to Digital's customers.*

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“The computer industry is changing more rapidly than ever before. Customer demand, which is becoming increasingly sophisticated, is driving it; global competition is complicating it. Digital's integrated solutions are enabling customers to meet their challenges; however, designing, implementing, managing, and using these highly distributed, integrated-application solutions effectively requires training and retraining.

“Educational Services Corporate Marketing's responsibility is to look at new ways of doing business — new approaches to products and marketing — that will provide training to our customers at a lower cost and take advantage of emerging technologies. We're exploring ways to maximize our penetration of accounts using new channels and streamlining our delivery mechanism. We want to be able to seize new market opportunities, create new training solutions, and get into the marketplace with quality products that both satisfy our existing customers and create new ones.”

*Tim Walsh*

## Corporate Marketing

The Educational Services Corporate Marketing group keeps abreast of industry trends and Digital's marketing and product strategies. We have developed strong ties to the engineering and marketing organizations of Digital in order to integrate Educational Services training and information solutions with corporate product and marketing strategies. These efforts serve to present Digital as one company with one strategy and one message. Corporate Marketing is developing ties to groups within Educational Services to ensure that the organization's marketing strategies reflect customer research and area marketing experience. This process will assist groups within Educational Services to use the most appropriate and proven instructional techniques and technologies. The solutions will reflect the requirements of the different geographies and ensure implementation worldwide.

In addition to maintaining relationships with other Digital organizations, Educational Services Corporate Marketing develops and delivers comprehensive software and technical maintenance training, Digital Press publications, and Reseller Sales Training for Digital's distributors and marketing partners. Our industry marketing group is identifying and beginning to deliver new curricula to the telecommunications, engineering, and financial industries. We are also developing and implementing Personalized Training Plans (PTPs) to help our customers determine their training needs. And, we are developing new marketing strategies and products such as compact disks to deliver interactive, integrated training solutions. In the future, we will be selling our educational administrative systems to other industrial training organizations.

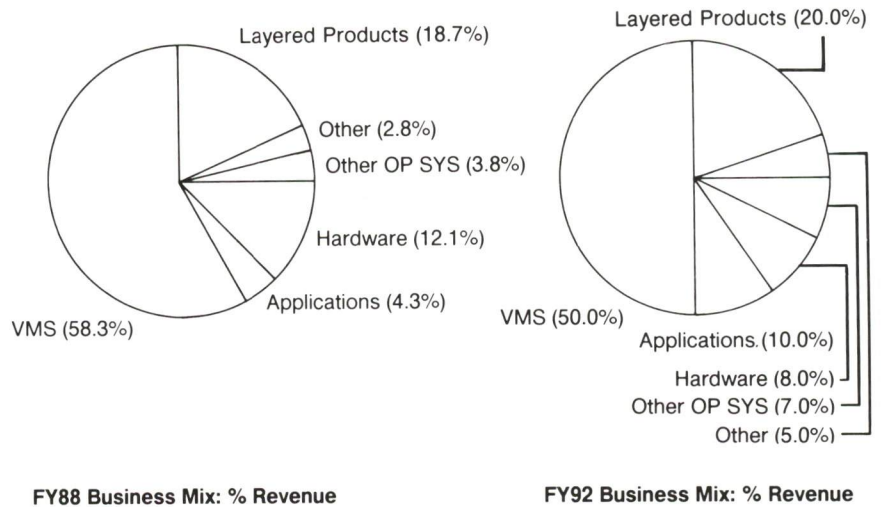
### Programs

#### **1 Professional Software and Technical Training**

This program provides customer training centers worldwide with Digital curricula and Digital Press publications. The audience is MIS management, professional software data processing personnel, and self-maintenance technicians.



**Professional Software and Technical  
Customer Training**



More than 300 different courses, in multiple formats, as well as more than 80 Digital Press publications are available. Courseware and publications subject matter ranges from entry-level computing to the most sophisticated techniques in MIS management, network design and management, and artificial intelligence.

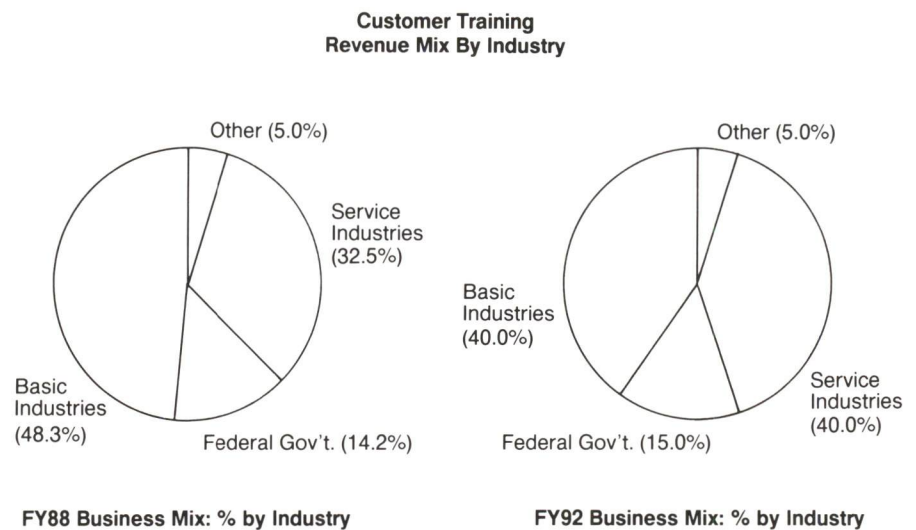
The Professional Software Training (PST) arm of this program provides MIS management with courses covering operating systems, database products, networks, and software productivity tools. It is designed to assist technical personnel to perform their software-related roles more effectively. In the next few years, Professional Software Training will be introducing new curricula to support Digital's strategy in transaction processing, Digital-to-IBM, and training for servers.

The technical Hardware Maintenance Training (HMT) program integrates training strategies with Self-Maintenance Services to ensure that Digital's customers are supported in their self-maintenance efforts. Our future strategy is to continue the training support for self-maintenance customers to aggressively market our broad range of capabilities, such as consulting, custom courseware development, and training program management.

Digital Press publishes and markets books and journals written by industry experts, customers, and employees on new technologies and strategic products. Additionally, the Press collaborates with Digital's engineering and marketing groups to repackage selected publications for sale through traditional book channels. Future publication subjects include X Window, a Computer Integrated Manufacturing series, and the new VAX/VMS series.

## 2 Industry Application Training for Professionals

Educational Services Industry Marketing Managers work with Digital's Basic and Service Industry marketing groups to develop curricula that will enable users to effectively employ Digital solutions in engineering, manufacturing, telecommunications, and financial industries.



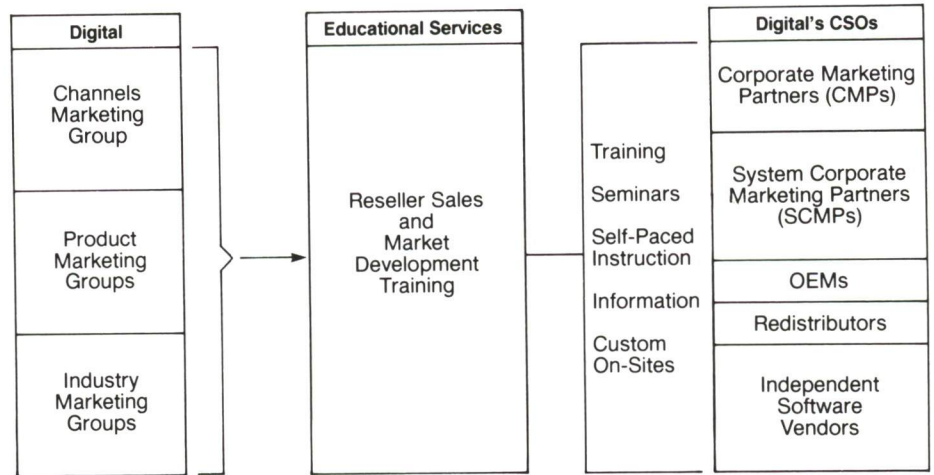
This program develops Educational Services' Industry Marketing goals, plans, and user-support strategies for the different industries that Digital serves. It enables Educational Services to integrate its products and services with Industry Marketing packages and promotions to create a complete solution for the customer.

## 3 Reseller Sales and Market Development Training

The Complementary Solutions Organizations (CSOs) program provides training to Digital's Selling and Applications solutions partners.

The principal role of the Reseller Sales and Market Development program is to provide curricula support to Digital's Product, Industry, and Channels Marketing Groups. The curricula include courses on selling skills and custom product sales training. They are available in multiple formats.

**Reseller Sales  
and  
Market Development Training**



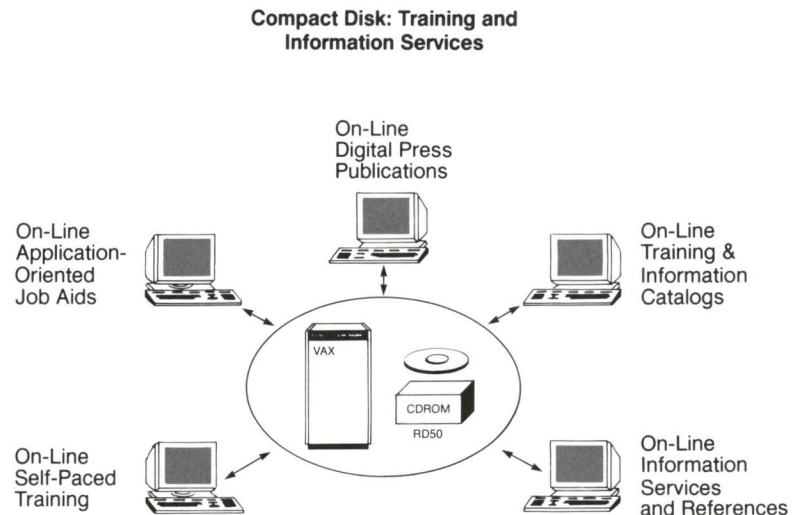
The next several years will result in:

1. Increased product sales skills and management development training to Digital's partners.
2. Nationwide broadcasts by Digital Video Network (DVN).
3. Market development training for Product and Industry Marketing Groups for independent software vendors and partners.

These activities will significantly increase the visibility of Educational Services' capabilities internally and externally, resulting in new training opportunities.

#### 4 Compact Disk-Based Training and Information Services

This program provides interactive, integrated application job aids, information services for professionals, and training on a subscription basis.

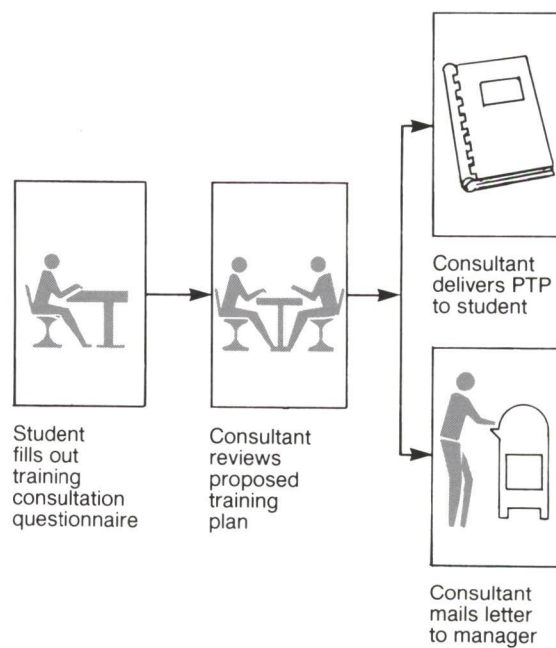


The compact disk (CD) provides Educational Services with a new means of providing customers with self-paced courses, Digital Press publications, training catalogues, and reference databases. Other services to be included are Personalized Training Plan (PTP) functions and student administration services. We will market the CDs on a multiyear subscription plan with quarterly information updates.

## 5 Personalized Training Plan Program

The Personal Training Plan (PTP) program is a system to generate customized training plans for students. The PTP will recommend appropriate training based on the student's background and needs. This program will differentiate our training from the competition's training by helping customers get the most from their training investments.

PTP Process Diagram





**“There’s an interdependency between our research and development efforts, quality assurance, and customer support programs that signifies a decided advantage in our ability to compete as a provider of educational solutions.**

**“If customer satisfaction is indeed the livelihood of Educational Services, then our large projects group will need to assess the quality and effectiveness of our training, utilizing the resources of our QA organization, and they’ll need to have access to the leading-edge technology of our Research and Development efforts in order to satisfy the needs of these strategic accounts.”**

*Jim Malanson*

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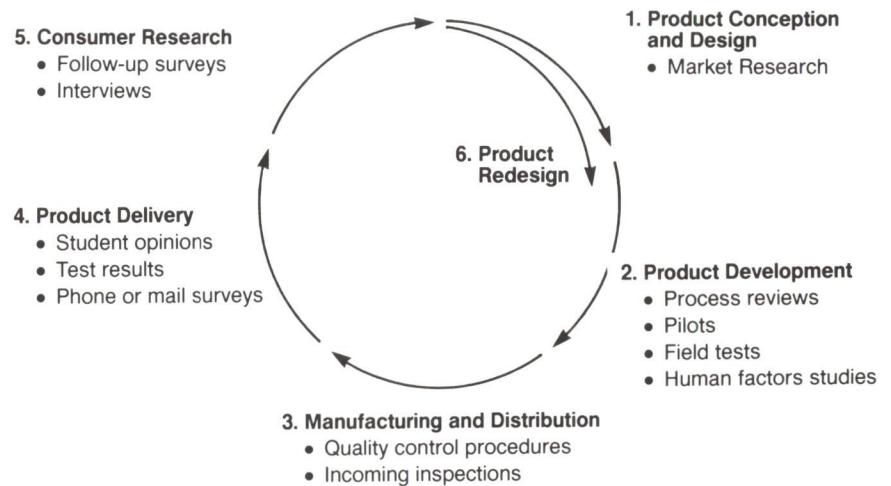
*The Quality Assurance group provides information, decision support tools, and consulting support to help Educational Services achieve and maintain excellence in product quality and customer satisfaction.*

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### Quality Assurance

The Quality Assurance organization supports efforts to ensure that the solutions Digital provides are of the caliber expected from the leader in industrial training, education, and communications. Such laurels will not be won without high-quality solutions and mechanisms in place for improving those solutions quickly. Quality Assurance brings those mechanisms and that assurance to Educational Services.

Building Quality into all Educational Services Products  
to Meet the Needs and Expectations of Our Customers



### Programs

#### 1 QUEST System Enhancements

Quality Assurance is redesigning several parts of the Quality Measurement and Analysis System.

This program allows a greater flexibility in generating field reports at the training center level and supports the networking of information from all training locations. This speeds up the rate at which data can be collected and actions taken regarding quality issues. Other improvements such as data validation and local office productivity have also been included.

## 2 Test and Measurement

Raise the level of awareness among instructors and managers regarding the role of evaluation and measurement in helping Educational Services meet its goal of becoming the leader in industrial training; and provide automation tools to support its achievement.

A presentation and a workshop has been developed for all Educational Services groups called "Opportunities for Excellence." Other activities are underway to automate the testing process. Both on-line testing and evaluation, as well as machine-readable scoring, are or will be available for testing and analysis. Specifications are currently being developed to support creation of an item bank which will allow the random generation of tests and simultaneous delivery to support field needs in prerequisite testing, information validation, and performance analysis.

## 3 Survey Support

Provide survey support to Educational Services and to Digital.

Of the services provided by the Quality Assurance Group, our Survey Support is one of the few that is extended to not only Educational Services, but all parts of Digital. Our Survey Support staff serves Digital and Educational Services in the large-scale gathering of information, and analysis of trend development and problem identification. Included among the annual surveys we support are:

- 
- Corporate Personnel Satisfaction Survey

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  - Corporate Customer F&A Survey

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  - DECUS, Pre-Symposium Service Evaluation

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  - Employee Payroll Survey (New FY88)

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The group also supports one-time and period surveys such as the Personnel Interact Survey.



#### 4 Quality Forum

Establish a Quality Forum focused on improving customer satisfaction.

The Quality Forum program provides Educational Services with a singular quality focus, enabling us to learn from the activities and programs of each group that contributes to the products and services we offer. The Quality Forum will be used to work solutions to issues identified through this process, and to expand the process into other areas of our business.

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*In support of Educational Services business within the Areas, Customer Support Programs provides project/program management services to respond to customer RFI/RFP, and establishes the systems and processes to deliver unsolicited proposals to our corporate, national, and major accounts.*

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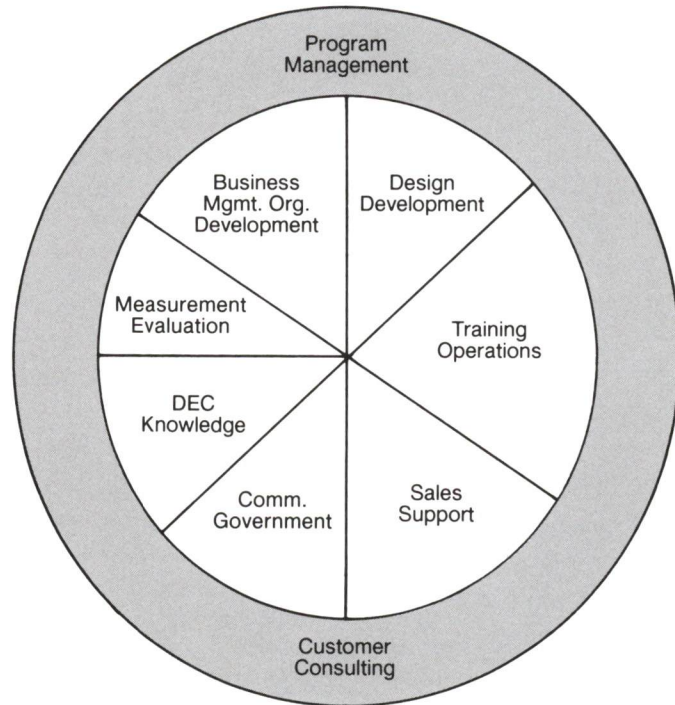
#### Customer Support Programs

Customer Support Programs (CSP) supports the efforts of Educational Services to become the recognized leader by vigorously promoting educational solutions to Digital's largest customers. CSP works with the field to identify who needs what kind of solution, and then develops the appropriate presentations and proposals to win the business.

#### Programs

- 1 Evolve the systems and processes for large project management to meet the current and future criteria of the Corporate Program Management Office (CPMO) and Educational Services while ensuring that these systems and processes can be implemented in the U.S., Europe, and GIA. Meet 100% of the requests for Educational Services input on named programs.

Digital's customers want a technological innovator with products, services, and solutions that can keep them competitive. They also want an educational partner who can work directly with them to train their people to solve today's problems and be prepared for tomorrow's challenges. The Customer Support Programs Group is an outgrowth of our focus on the overall Corporate Accounts Program. Large projects will have a more strategic impact on the long-term growth and profitability of Educational Services.



Specifically, the Customer Support Programs Group (Large Project Office) provides project and program management services to respond to customer RFIs and RFPs, and establishes the systems and processes to deliver unsolicited proposals to our corporate, national, and major accounts.

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*Educational Services Research and Development is working to create the learning environments of the 1990s. We are identifying and integrating the techniques, methodologies, and systems that enhance the learning environment within Digital through interactive involvement with Educational Services line organizations.*

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## Research and Development

Research and Development is creating the educational environment of the future, without which Digital cannot hope to provide the most appropriate educational solutions for our customers. The industry leader's solutions will be based on the latest proven technologies and techniques, and Educational Services Research and Development is currently proving the effectiveness of some of those technologies and techniques.

### R&D Programs and Projects

Learning Environments	Consulting & Support	Technology
<ul style="list-style-type: none"> <li>▪ Instructional Enhancements</li> <li>▪ Authoring Environments                             <ul style="list-style-type: none"> <li>- Advanced Productivity Tools</li> <li>- Project Athena Authoring Tools</li> <li>- Karlsruhe CEC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Technology</li> <li>▪ Customer Support</li> <li>▪ Management Decision Support</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intelligent Integrated Information</li> </ul>

### Programs

#### 1 Learning Environments

Develop enhanced, dynamic learning environments for the development and delivery of training.

The Learning Environments program manifests itself in several unique projects, all of which will assist Educational Services to become recognized as a leader in industry training and education. Much of the knowledge gained through these efforts will be used in the development of the Boylston facility, thus demonstrating Digital's commitment to employing state-of-the-art technologies and environmental design in the delivery of its educational solutions.

In one project, educational audits are conducted to assess our training environments, investigate successful learning methods, and determine how our current instructional strategies may be enhanced. Other projects assess the potential of emerging instructional technologies, pilot results, and determine the impact and application of the technology to training. The Learning Environments program also builds alternative learning environments to support learning style differences.

## 2 **Authoring Environments Project**

Improve Educational Services' capabilities for development and delivery of computer-based instruction/information.

Through the work of various groups in Educational Services (R&D, ESDP, TSG, FST) an Authoring Requirements Specification was produced in FY88. Realization of this environment is a substantial effort and requires concurrent activities in various groups and locations. Overall management is also required to support the integration of all project efforts and the introduction of these tools into Educational Services groups. Research is underway at MIT (Project ATHENA) and at Karlsruhe (Educational Workstation Project) and will be supported through close collaboration and technology transfer. Additionally, related prototype development will be managed and conducted within the Research and Development group itself.

## 3 **Consulting and Support Program**

The Consulting and Support Program is intended to leverage Research and Development expertise and resources in support of Educational Services business organizations through a set of value-added consulting services. This service will allow Research and Development to establish close links with the plans, strategies, and programs of individual Educational Services business groups, which can be used as a basis for developing our research program.

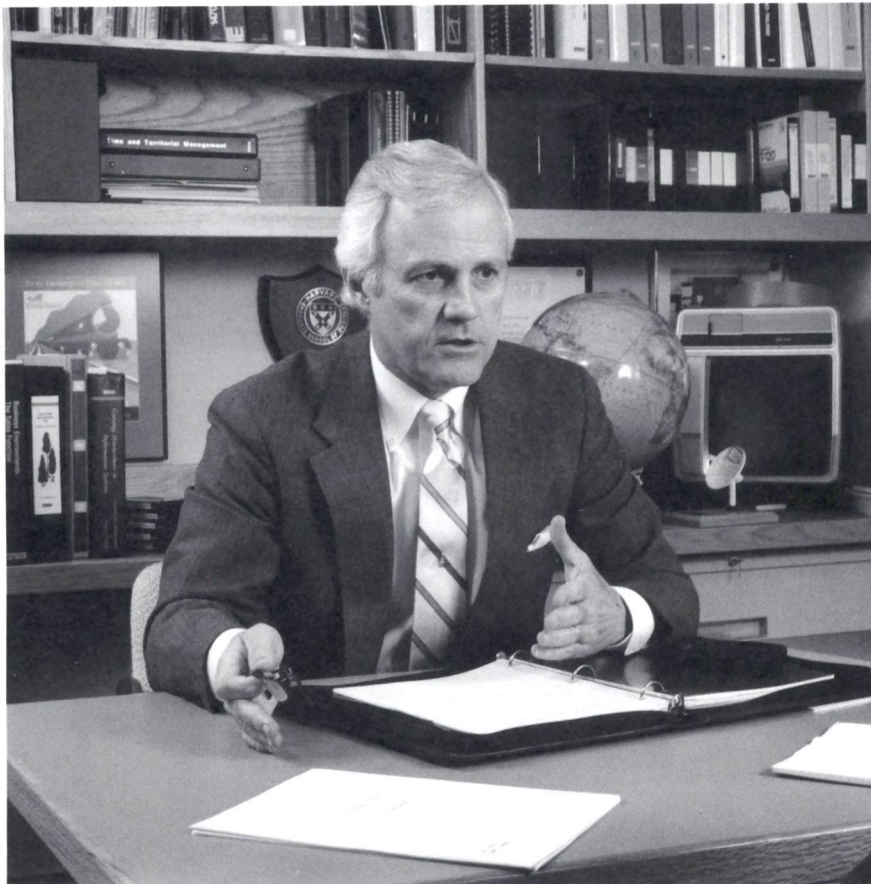
The group's efforts will be directed in the areas of technology consulting; field sales, marketing, and customer support; and management decision support. Technology Consulting Services will provide Research and Development with technical expertise in support of cross-organizational prototype development projects aimed at satisfying immediate business needs, and to facilitate the transfer of technology into business groups. Also, Research and Development workstation and windowing experience can be helpful to training development groups in support of workstation-based delivery strategies.

Management decision support will be available primarily to Educational Services managers for help in providing the information required to make technology-relevant business decisions.

#### 4 **The Intelligent Integrated Information Project (I-Cubed)**

Develop an architecture that delivers only the information/training needed by the user, at the time the information/training is needed, and in the manner in which the user would like to receive it. Provide a simple way for the user to manipulate that information, regardless of media, data type, and location.

The system developed under the I-Cubed Project may be used for designing, executing, and delivering courses; developing simulations and electronic documents; and for managing the information development, retrieval, and re-use needs of large organizations. The prototypes will be used by individuals for constructing and manipulating information architectures, and for designing and delivering information packages such as courses, simulations, and documents. Information packages, from the smallest graphic to entire courses, may be re-used by individuals employing this system.



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*Sales and Software Training plans, designs, develops, delivers, and evaluates the required training solutions and programs necessary to reinforce the skill sets that support the selling and consulting efforts of Sales, Software, and Sales Support.*

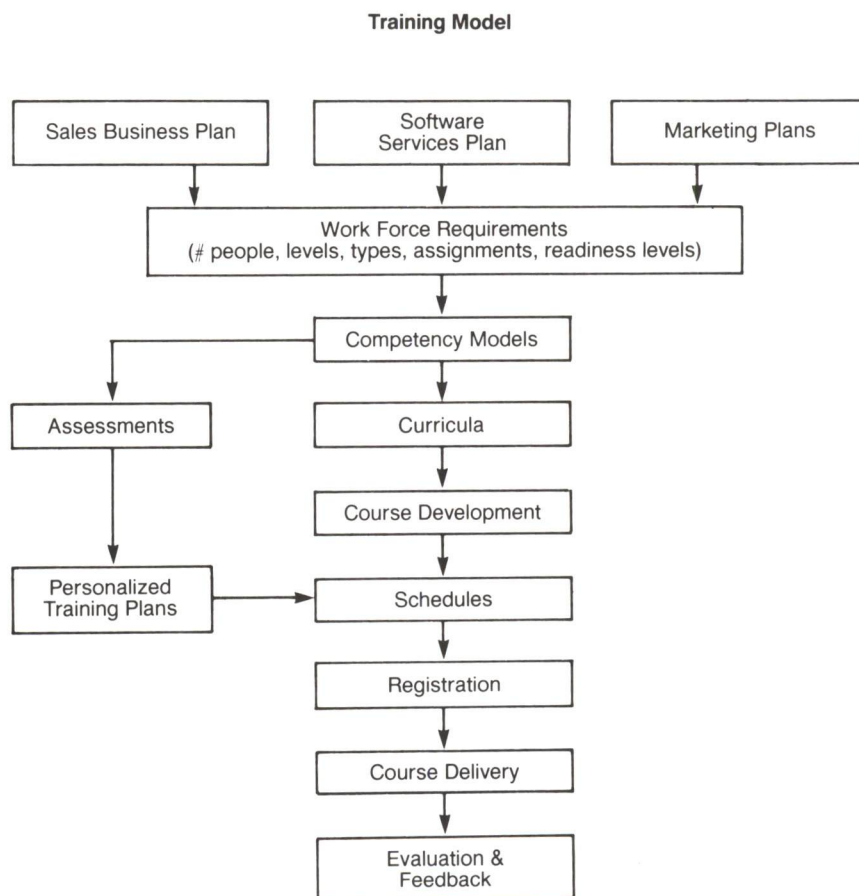
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“Today, one must ask the question, ‘What is the relationship between training and growth?’ Success in this business is dependent on our ability to capitalize on our most valuable and our most costly asset — our people. Our selling teams are Digital’s major communications vehicle to our customers and a vital link to building the relationships that will sustain our business partnerships.

“We have to maximize the effectiveness of our training programs, so we can make the best use of our people’s time. We’re employing new technologies that reduce travel time and deliver critical information in a timely manner. The challenge before us is to reduce the cost of doing business and increase the amount of business we do. That means we must make decisions about what information we choose to convey to our customers through marketing communications vehicles, and where to invest in the minds of our people.”

*Cecil Dye*

The Sales and Software Training organization in Educational Services complements the Field Service Training organization and serves a similar purpose; we assist Educational Services in reaching its goals. Through our reporting relationships with Sales, Software, and Educational Services, Sales and Software Training is positioned to provide quality training programs to support the initial and ongoing training and development of Digital's selling teams.



### Programs

#### 1 Account Management

Sales and Software Training maintains established strategic planning partnerships with Sales and Marketing to plan and provide effective training solutions for Sales and Sales Support. The organization will develop a new business partnership with Software Services to take a leadership role in the planning and development of training for the Software Services organization.

As Digital increases its focus on service delivery, Software Services will continue to play an increasingly greater role for the company, both in terms of revenue and customer satisfaction. A well-trained software organization is critical to the success of the company. It is beneficial to Digital for Sales and Software Training to establish strategic business planning partnerships with the Software Services organization in order to facilitate the planning and delivery of the right courseware.

## **2 Curriculum Development**

To ensure job relevance in training programs, Sales and Software Training will focus on developing curricula based on sales and software competency models. The programs will address skills, knowledge, and technical expertise needed at varying phases of a Sales or Software representative's growth and development. In addition, Sales and Software Training will continue to work with the Sales and Software organizations to develop and manage Personalized Training Plans (PTPs) for each Sales, Software, and Sales Support representative.

The curriculum development program ensures that our Sales and Software representatives are positioned to compete and win in an integrated, service-driven marketplace. All field representatives at Digital are encouraged to develop their personal and professional skills. Our curriculum development program provides them with a framework in which those skills and adjacent skills can be developed.

## **3 Client Satisfaction**

Sales and Software Training will continue to monitor the educational quality and client satisfaction of our courses to ensure training's contribution to the overall productivity and customer satisfaction goals of the Sales and Software Services organizations. In the future, the goal will be to monitor, to integrate, and to measure the results of the training programs with those of the business plans of the unit or selling team.

The marketplace and its demands are changing, and Digital's selling teams must be attuned to those changes. They must be responsive in new ways, provided with new skills. The Client Satisfaction Program provides the Sales and Software Training group with a means of staying ahead of and developing the appropriate courses for a changing field environment. By testing the quality and applicability of our educational products, we can continue to refine our offerings to reflect and respond to the needs of our field representatives.



#### 4 **Decentralization**

Sales and Software Training will continue to work to optimize the use of technology to address the increasing demand for alternative training delivery methods. The effective application of DVN, SPI, and emerging technologies will enhance Sales and Software Training's ability to deliver cost-effective training consistent with quality educational standards based on audience needs, location, and learning styles.

As Digital's resources are moved further into the field, it becomes increasingly important to develop new ways of reaching field representatives. We will provide equal access to educational opportunities using multimedia formats to make this possible.

#### 5 **Human Resources**

Sales and Software Training will maintain an effective Sales and Software Training Rotational Staffing Program that encourages top performing Sales, Software, and Sales Support personnel to join Sales and Software Training on a rotational, career-development basis. The rotational program, in conjunction with internal staff development, will continue to be a major factor contributing to Sales and Software Training's ability to attract and maintain a balanced mix of sales, software, and training professionals.

This program ensures that sales and software skills developed by our best representatives can be effectively shared by others. These personnel additions to our instructor staff will enable Sales and Software representatives to learn from some of their most successful peers, and it provides those representatives doing the instructing with an opportunity to expand their career directions.



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*Field Service Training supports the Field Service technological and business plan by providing training, consulting, and counseling support in areas of organizational and employee development.*

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“Field Service has entered a new business environment where customers’ critical applications are requiring us to respond with a complete systems approach to their problems. We’re now totally responsible for the support of all Digital products: hardware, software, systems, applications, and the network. That means our Field Service engineers have to understand many dynamics of the customer’s business environment.

“We’re no longer troubleshooting down to the component level. Every technician must be capable of responding to a very broad range of system problems, and capable of working as an integral part of our Customer Support Centers. Our curricula have been totally redesigned to take advantage of the features and tools built into our products, and to address the needs of the engineer who now has to understand business issues.”

*Charles Tharp*

Field Service Training educates those key individuals who most often represent Digital to the customer. Professional and well-trained service engineers will leave a good, lasting impression upon Digital's customers.

To meet the challenges of the '90s when less than 10% of Field Service revenue will come from hardware remedial maintenance, Field Service is planning to reskill its work force according to a plan now being developed. In the future, service technicians who go to the customer site will be trained to deal with the customer's application. Diagnosis of hardware and software will most often be done at remote service centers. Detailed instructions and FRUs (Field Replaceable Units) will be provided as required to the technician. The training curricula will be designed to aid the transition in the service business.

### **1 Personalized Training Plan**

Personalized Training Plans (PTPs) have been developed to ensure that the training of Field Service employees is customized to fit the individual's needs as they relate to the expectations and goals of the company in delivering customer support in changing technological and competitive environments.

Today, over 80% of the requests for support from Digital's customers relate to software issues. It is expected that the ratio of software and application service problems versus hardware service problems will continue to rise. Being competent at fixing hardware is no longer sufficient. Field Service Training is focused on bringing Field Service employees to the next level in personal and professional development so that they can meet the challenges of the service marketplace.

Core curricula, along with assessment tests and training histories for each student, are the basis for PTPs. Dedicated Field Service Training personnel assist Field Service Unit Managers in determining the correct courses for the unit's staff. Optional courses and follow-up training are considered during the PTP planning process. Emphasis is given in preparing the PTP to ensure that the student receives the prerequisite training for the core curricula.

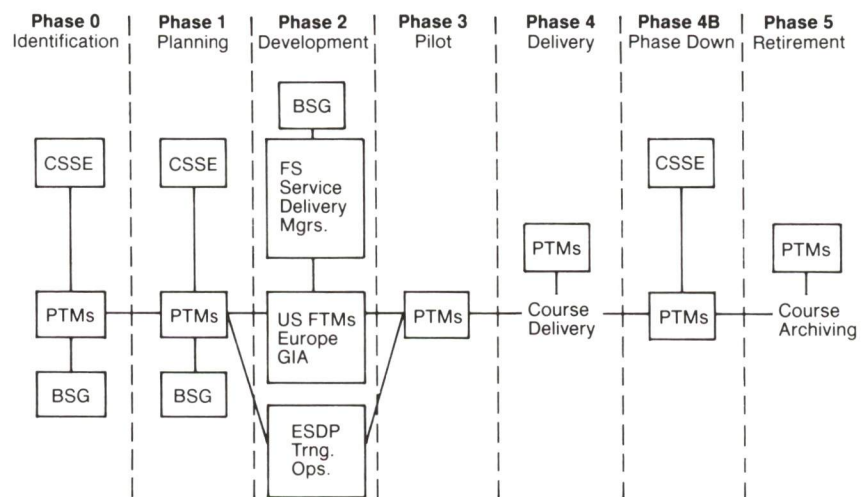
### **2 Total Training Solutions**

The Field Service support team is called upon to maintain "total solutions" for the customer. To do this, the service engineer requires an increasing level of software, applications, and business skills in addition to the hardware skills we provided in the past.

At the same time that we are changing from hardware to solution support, we are also changing from "reactive mode" to a proactive service operation, using remote diagnostics and other sophisticated tools. The service engineer also has to face multivendor networked systems which are becoming a part of the total solution that Digital markets and services.

The Field Service Training Course Development Group monitors Digital's product and marketing strategies, by providing courses as they are required. (See Product Management Chart below.) Today we offer over 250 different courses, which are constantly monitored for effectiveness and relevance. In addition, students are contacted six months after their training experience to determine if the information and techniques provided are useful in doing their jobs.

**Product Management**



Key:  
 CSSE= Customer Service System Engineering  
 PTM = Product Training Manager  
 BSG = Field Service Business Service Group  
 FTM = Field Training Manager

### 3 Measurement and Evaluation Program

Field Service Training participates in the cross-functional Measurement and Evaluation Task Force which is developing a standardized measurement and evaluation process for all Educational Services.

Prior to training, tests are used by instructors to determine whether the trainees have the required prerequisite knowledge. Tests are used again after most course material is covered to measure whether the students have achieved the learning objectives. Instructors provide immediate feedback to the students on their performance. Test results are used also to help the instructor improve course delivery.

Tests are used along with the PTP skills evaluation forms to assist the PTP process. Both the testing and PTP system are being automated to improve the planning process.

#### **4 Decentralized Training Program**

To improve the availability of high-quality training for Field Service engineers, Field Service Training is in the process of decentralizing its lecture/lab courses.

Lecture/lab training is now offered at Bedford, Atlanta, Chicago, Colorado Springs, and Santa Clara, with more training locations planned for the future. In addition, Field Service Training uses the DVN for instruction and updates on technology and business strategies.

#### **5 Future Training Media Program**

Field Service Training will enhance on-line training in the future by moving from the PRO system Interactive Video Training into a VAX/VMS solution.

The first phase of this program will utilize terminals with videodisc players at each training site through which students will access courses via a network connection to a VAX computer. The courses will continue to be interactive in nature and will continue to use video.

In the future, Field Service Training will use the VAX Personal Workstation coupled with digitized video as the hardware platform.

The benefits of on-line training are easy access, multi-user capability, easy updating, and reporting. Field Service Training is committed to continuing its success in developing and using interactive training solutions.



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*DIS Training provides a wide range of high-quality training and communications services to the information systems, general engineering, and technical communities of Digital in a timely and cost-effective fashion, and in direct support of the respective client business goals.*

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“The information systems that are such an integral part of our company create complex training needs that are technical but must be addressed in much the same way we design training for Sales, Field Service, and Software Services. Whether it be people learning new products, new employees learning their jobs, or training present employees to be more effective in their current jobs, we are involved in designing training services that cover all aspects of the development necessary to perform in an information-intense environment.

“Our challenge is to understand the requirements of our client base and add value to the ideas that are presented for solving their problems. We often play the role of synthesizer. We sense if people have a plan that is really a solution to a problem. We evaluate those plans to make sure they meet a measurable objective.

“Our biggest challenge is helping the company communicate to all employees their responsibilities for information security and raising awareness about how we can protect our valuable information assets.”

*Drew Boyd*

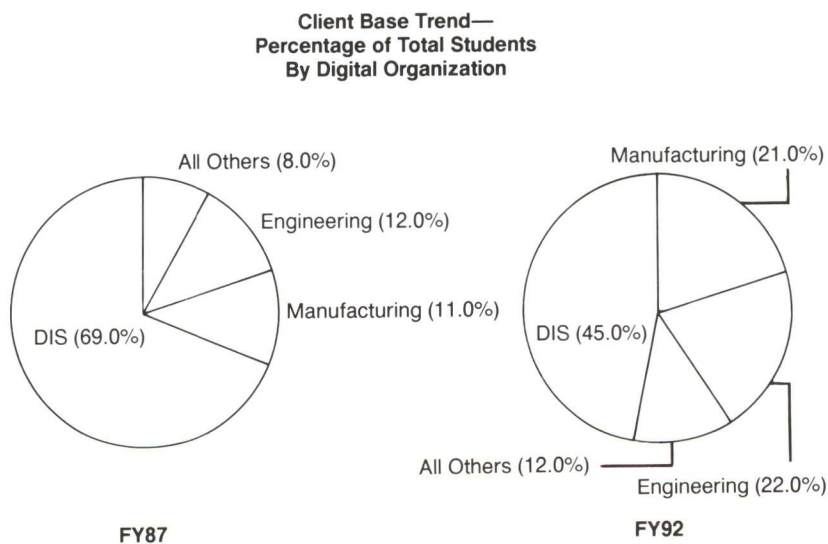
DIS Training illustrates Educational Services' commitment to servicing its clients and to promoting training as a strategic advantage. Digital gains a strategic advantage from flexible, well-trained IS professionals, and those professionals gain their training and flexibility from the DIS Training group within Educational Services. Our own internal IS organization becomes a testimonial to the efficacy of the complete solution provided by a single vendor.

### Programs

#### 1 Course Development

This program focuses on using client account management to identify and promptly deliver the courses needed by our clients.

Educational Services' internal clients have education and training requirements that are just as crucial to their successes as are the requirements of Educational Services' external customers. In some ways, our internal clients are even more important, for without maintaining the highest internal standards for quality work and the highest expectations of job proficiency, the products we develop for our external customers will suffer.



The Course Development program enables the Educational Services DIS Training group to stay abreast of the educational needs of Digital's U.S. IS community, thereby enabling them to continue to support all of Digital in the most efficient and creative manner.

## 2 Solutions Training

The Solutions Training program focuses on the use of hardware and software within the context of an overall solution, not just as point products.

The U.S. DIS employee community requires training and communications services that are easily accessible; customized; timely with new technologies and products; represent the real world; and are solutions-oriented. A continuing effort is underway to convert all point product training into solutions training that explores how the products are used in the “real world” or as part of a total solution. For students, these offerings include courses that explore the total computing environment, including security issues, deciding on a solution, and technical change management. For DIS Training instructors, the program enables participation in training partnerships with other organizations. These partnerships involve remote sites, expanded delivery and course development capabilities, and account management.

## 3 Decentralization

Several components that make training more accessible to our international client base will be supported by this program. Remote instructor resources will be located at sites where large ongoing activity is anticipated. A “Train the Trainer” certification program will enable clients with their own trainers to deliver Educational Services’ courses with the same degree of professionalism and expertise that the trainees would obtain directly through DIS Training in the U.S. Some remote delivery of overviews and targeted product technical updates will be accomplished via DVN.

As Digital grows larger, more of its resources are located further from headquarters. It is a natural movement for Digital, but one that creates specific challenges for groups such as Educational Services, whose role, in part, is to help the company operate optimally. By pushing our operations out closer to the clients and by employing technologies such as DVN, we can both continue to serve our clients — and the company — effectively, and we can showcase Educational Services’ ability to respond innovatively to client requirements.

## 4 Personalized Training Program (PTP)

We will work closely with our client organizations to determine their training and support requirements. Our consulting services will include needs analysis, course recommendations, individual and organizational program development, and assistance in scheduling the necessary training.

Recognizing that we serve the clients, Educational Services DIS Training emphasizes the development of Personalized Training Programs for our clients. Only through such programs can we understand best what the clients need, then respond to those needs with the appropriate solutions.





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*Office Applications provides office productivity training to support Digital's Office Information Systems strategies, products, and services for external and internal customers around the world.*

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“Office Applications Training is coming of age and it presents a whole set of challenges that go beyond the traditional technical space. It requires us to develop a high-impact, comprehensive approach to skills training that encompasses business training and technical training. We’re being asked to bring that training closer to the customer — not only lecture/lab courses, but more on-line, audio and video programs that are effective for mass training of managers, secretaries, and the knowledge worker.

“One result of the decentralization of training offerings is that we’re developing training partnerships with our clients and customers to provide courses running the gamut from word processing to effective writing skills and peer-to-peer communications.”

*Susan George*

## Office Applications

The Office Applications Group has many opportunities to expand its position in the office marketplace. Research shows there will be an increasing need for training in this expanding market. A recent environmental assessment made by the Corporate Planning Group indicates that systems and software sales of the multifunction office system will increase from \$21.3 billion in 1988 to \$45.5 billion in 1992. (Anticipated marketshare of Digital and its major competitors is displayed in the table below.)

### Anticipated Marketshare

	FY87	FY88	FY89	FY90	FY91	FY92
Total Market	\$16.9B	\$21.3B	\$26.5B	\$32.2B	\$38.5B	\$45.5B
Digital	17%	18%	18%	19%	20%	21%
IBM	30%	31%	32%	33%	34%	35%
Wang	14%	13%	12%	11%	10%	10%
Others	39%	38%	38%	37%	36%	37%

Source: Corporate Planning

Much of the hardware and software in which solutions-oriented customers invest will be made more productive and effective through training provided by the Educational Services Office Applications organization. Our commitment to support the needs of our employees and customers will assist Educational Services on the path toward its goal.

### Programs

#### 1 Decentralization

The intent of this program is to move Office Applications' educational solutions closer to the customer, which does not necessarily mean getting the customer to a dedicated classroom. While a major U.S. and Greater Maynard Area activity will be to make use of existing classrooms that are close to the customer, another program is in place to establish client relationships that will allow us to bring training to their site or use satellite classrooms.

As in other Educational Services organizations, there is a recognition that Digital must make available a variety of training and educational solutions to customers. The Office Applications group understands this requirement and is instituting a program that will make its courses easily available to Digital's customers. It is anticipated that student week growth will increase by 35% in FY89 and 10% in FY90.

## **2 Improving the Quality of Products and Services**

Office Applications is developing and implementing models for classroom and self-paced products that will provide increased learning and learning satisfaction.

As the work environment changes, the standard “information-based” classroom model will no longer meet customer expectations. This program is dedicated to the creation of new types of learning environments, both classroom-oriented and self-paced. These environments will provide a wider range of productive and efficient educational solutions in which students and trainers may interact in a variety of ways for greater learning satisfaction. There are many acceptable, believable education theories, technologies, and practices (i.e., learning styles, right/left brain concepts, job relevant studies, etc.) that are not implemented which would improve customer learning satisfaction. The major objective in this program is to apply education theory and technology to develop a prototype which will result in unique courseware, teaching techniques, and consistent pre/post evaluation techniques.

## **3 Increase Visibility, Awareness, and Response to Customers**

The Office Applications group is positioning itself to be able to respond to a customer’s overall business needs, and to increase customer satisfaction by consolidating and simplifying the availability of our services.

The Personalized Training Program (PTP) office has been in place for a year in the Office Applications Training group, during which time we have experienced a positive business response to the program. The intent of this program is to simplify access of these services to the customer.

Additionally, Office Applications, in response to numerous internal and external requests, will provide an Office Applications Training consulting service in both the pre- and post-sales environments. This service will enable us to capitalize on more business opportunities through increased awareness and customer satisfaction.

We are recommending establishing a business unit called OA Information and Customized Services for management purposes. This consolidation of services will make it easier to understand our services and easier for our customers to do business with us.

#### 4 **Organizational Synergy Strategy**

It is important to involve key organizational participants — delivery, development, marketing, and operations — in the decision making and implementation activities of the Office Applications group in order to respond effectively and efficiently to customer needs.

We believe we can be more responsive to customer needs because of our experience with all of the organizations needed to define and respond to those needs. In order to ensure that this happens, this program establishes procedures to reinforce the collaborative efforts.

#### 5 **Relevancy Program**

This project focuses on developing and delivering a course content prototype that responds to specific functional audience needs by providing all the relevant product, business, and skills information in one course. We plan to apply the prototype to such courses as Developing and Delivering Effective Presentations, Cost Center Expense Management, and Calendar Management for Secretaries and Managers.

#### 6 **Portable Product Integration Program**

Design and develop alternative delivery formats for the same content area. Once developed and available as standalone multimedia products, we will propose, plan, and integrate some of these modules into a lecture/lab delivery format.

This project is designed to emphasize alternative self-paced educational methodologies (e.g., audio, video, CBI, and self-paced books). These educational media would be designed and developed primarily for use as portable, standalone, self-paced products with an intent to integrate the courseware into a lecture delivery format.

#### **Office Applications Training Statistics**

##### **Headcount**

<b>FY87</b>	<b>FY88</b>	<b>FY89</b>	<b>FY90</b>	<b>FY91</b>	<b>FY92</b>
50	79	102	117	130	150*

\* By FY92, these resources will be decentralized.



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*DME provides structured learning experiences to prepare managers at all levels to meet business goals. Additionally, DME provides professional skill development to individual contributors.*

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“By designing and delivering courses and consulting services that help managers do their jobs more effectively, training becomes a strategic tool to help organizations achieve their long-term business objectives.

“We’ve recognized that the rapid organizational growth Digital is experiencing requires each manager to develop different skill sets to address the diversity and new challenges presented by our dynamic work environment. The combination of organizational development training and human resource development has created a new approach to management training.”

*Roy Steele*

Digital Management Education (DME) leverages the strategic value of training. The performance and productivity gains across the company have been brought on in part by Digital's decision to keep its managerial edge well honed. Just as Educational Services is working to maximize its own capabilities for synergistic utilization of resources and investments, Digital is working to maximize its capabilities. One of the visible ways the corporation does that is through its utilization of DME.

Digital managers approach DME for a broad range of products and services: core management and professional curricula for basic skill development; management and professional electives for specialized skill development; customized courseware to meet business needs; consulting services related to course content; and training-related services such as assessment, course design, and evaluation.

Customized management curricula are in place and being expanded for functions across Digital including Sales, Field Service, Educational Services, Account Management, Personnel, the U.S. Team, and Corporate Quality.

### Programs

#### 1 Management Curriculum

DME is continuing to update and expand its curriculum to include core courses for all levels of management, as well as courses customized to meet specific business needs.

DME is working closely with Personnel and line management to identify course needs and course content. It is also working to garner active support in integrating the curricula into employee development and planning processes. DME is striving to keep Digital's managerial skills well developed, using state-of-the-art simulations and delivery technologies. All course projects are reviewed and evaluated using our Quality Assurance process, which includes approval by a QA team with client representation, so course relevancy and trainer effectiveness are constantly tested and reaffirmed.



## 2 Advisory Boards

The establishment of advisory boards, composed of senior managers from all over Digital, will provide direction and sponsorship for management training within each organization.

The advisory board structure will include an Executive Advisory Board of Corporate executive-level managers to review strategic plans for management training, establish priorities, and provide support. In addition, there will be curriculum boards for each major function and area. Their roles will be to review and approve overall curriculum architecture for their organization, identify needs, and review major programs at critical development and delivery milestones. Members of the curriculum boards will be senior and middle managers in each function/area along with DME account manager and personnel representation.

## 3 Expanded Training Delivery

DME is implementing a variety of programs as part of our initiative to decentralize delivery of management training, especially at the professional, pre-management, and first-level management levels.

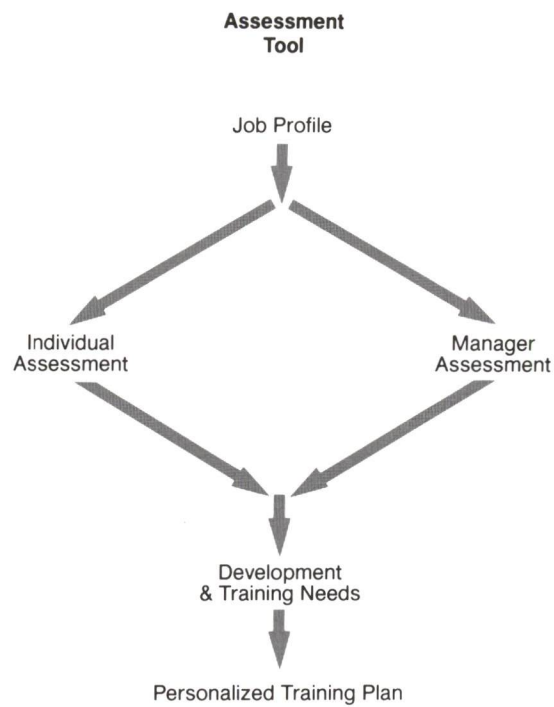
The need for decentralizing management training continues to increase. Provisions of the Expanded Training Delivery program include placing DME resources in strategic area locations. These resources will work with local personnel, training, and line management to identify the area's current needs, provide educational consulting, supply customized programs, and deliver programs locally. Moreover, these local resources will bring information on current and anticipated client needs back to central DME resources, where we will be able to respond to those needs with tailored solutions.

Another provision of the Expanded Training Delivery program is the certification of non-DME trainers to deliver DME courses in geographies where it is not feasible to place dedicated DME resources. Need for these non-DME trainers comes from areas in which the preponderance of course demand is concentrated in the subject areas of professional development, pre-management, first-level management, and the quality education curriculum.

Another key strategy for improving the accessibility and cost-effectiveness of management training is the expanded use of self-paced instructional technology. As managers experience dramatic changes in job technology, as well as in how, where, and when work gets done, they have an increasing need to enhance their skills through self-paced and other flexible-delivery learning methodologies. These methodologies will include computer-based instruction, interactive video, and DVN. These efforts will require DME to work closely and share resources with ESDP, R&D, MCG, and other Educational Services organizations to develop the optimal training formats.

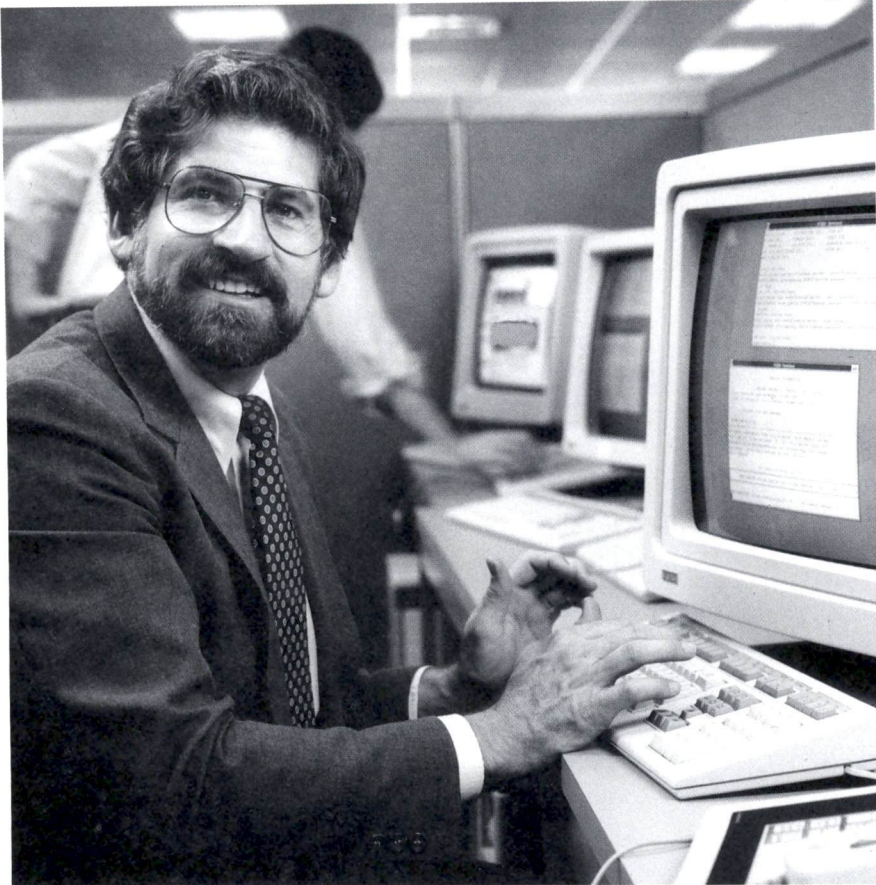
#### 4 Total Training Solutions for Clients

DME recognizes the importance of providing total training solutions to our clients, including management training and consulting, as requested by Educational Services Corporate Marketing and Customer Training. We will expand our capability to respond to these requests and be prepared with a full range of services, from needs assessment and Personalized Training Plans, to customized delivery and testing/evaluation technology.



The goal of this fourth major strategic program for DME is to add value to and leverage Educational Services' contribution to the corporation's total solution strategy. Program metrics include feedback from Digital marketing organizations, feedback from the Digital clients we serve, and the number of solutions in which we participate.





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*ESDP supports the Educational Services mission by providing quality education and communications products and services to Digital's customers and employees.*

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“Educational Services has the greatest opportunity within the corporation to effect change in a positive way. Our sights should be set on not just satisfying our customers, but stimulating them. Our goal is to increase the amount of visual material used in documentation and course materials, and significantly decrease the length and size while increasing the content.

“We are also embarking on selling our services, course development, documentation, and publishing to Digital customers, OEMs, ISVs (Independent Service Vendors), CMPs (Cooperative Marketing Partners), and others. The synergy between their applications and Digital's product set will be beneficial to all parties.

“We believe people learn best by experience. We have to create experiences that relate to people on their own terms and in their own jobs.”

*Joluit Vanderhoof*

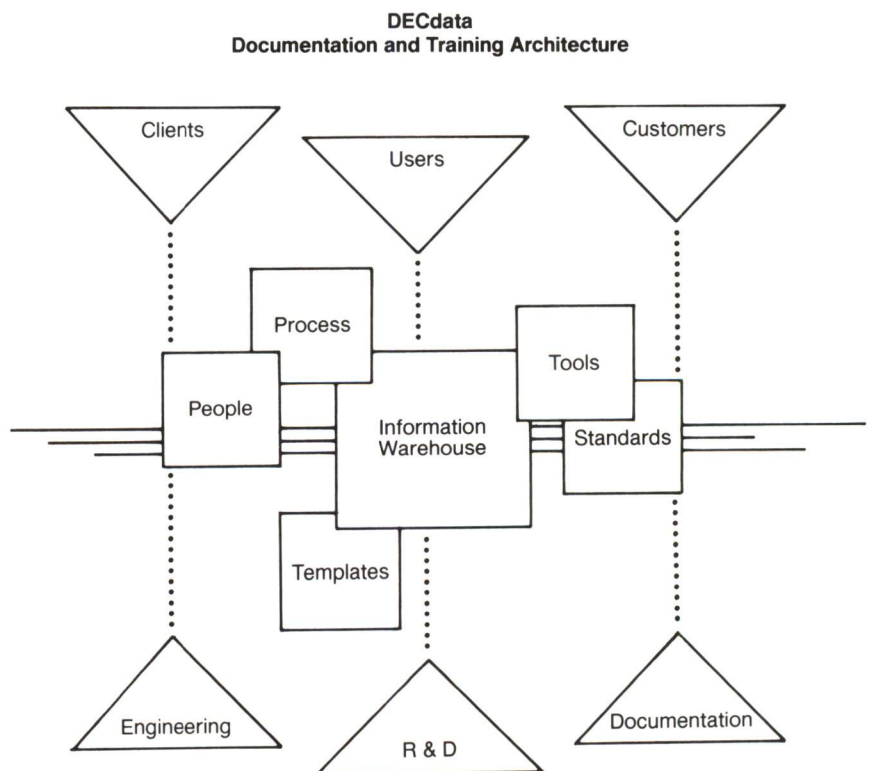
Part of becoming the recognized industry leader in industrial education means providing the complete spectrum of educational solutions to the client in a way that is unique, effective, and in demand by others. Instructional design, course development, illustration, and publishing are the types of solutions ESDP provides. Through the programs outlined below, ESDP is building an integrated information architecture that will facilitate the collection, development, and dissemination of educational solutions. This will allow ESDP to decentralize its services and expand its client base to include customers, increase productivity, and maintain quality.

### Programs

#### 1 Information Architecture

This program creates an information architecture that will support the product information flow, from raw data to educational and value-added information, in time to meet the usage demands of our clients in the 1990s.

An information architecture is a set of related processes that manages how information that is needed by ESDP enters the organization, is managed within the organization, and is made available to those outside the organization. A comprehensive information architecture combines both business and production information into a single streamlined information system.



The information architecture program is mapped to the ESDP business model for the 1990s by working closely with Educational Services R&D, Educational Services Information Systems (IS), Digital's Central Engineering groups, Corporate User Publications (CUP), and the ESDP Electronic Publishing Program.

## **2 Electronic Publishing**

Electronic Publishing is used within ESDP as a set of integrated productivity tools for the purpose of creating, managing, producing, and delivering documentation and courseware.

The Electronic Publishing strategy is closely coordinated with that of other Educational Services organizations. The evolution of Electronic Publishing tools will allow easier sharing of text and artwork among authors and illustrators. The finished documents may be networked internationally, for a closer approach to simultaneous worldwide product and training release.

Within the context of publishing, the ESDP Information Architecture is an important framework to allow a structured approach to the creation, management, and delivery of published information.

With these programs in place, ESDP is committed to the use of the best tools, technologies, and processes to bring state-of-the-art solutions to our customers. The solutions and tools are compatible with those used in MCG, R&D, BOIS, and CUP.

### 3 Decentralization of ESDP Services

ESDP will be distributing its services to the Area level, enabling it to integrate its service offerings with those of local Software Services, Sales Training, and Educational Services organizations.

ESDP is decentralizing its operations in support of new business opportunities. The first step in this program is the establishment of an ESDP business model for services being offered to customers, CMPs, and OEMs. The second step is prospecting for the best startup locations and new clients. The third is staffing to meet the business needs.

The decentralized ESDP staff will be managed by the local Educational Services organizations and will be linked with ESDP headquarters for technical and functional support. A host/satellite relationship will be established for each field site in order to provide backup for resources that are not cost-effective to decentralize. From the point of view of the clients, all locations will appear to be full-service locations.

### 4 Project Management

The project management program is designed to improve methods of project planning, estimating, monitoring, updating, and controlling. It will also provide consistency throughout the organization through the proper implementation of a project management software tool.

By maximizing the utilization of resources through technology, methods, and standards, ESDP's project management program further integrates the activities of ESDP with the activities of our clients throughout Digital. In addition to the decentralization and information architecture programs, this program addresses the need to streamline the processes within Digital that lead to educational solutions for the customer. The project management program will further improve up-front client communications and project negotiations. It will increase our ability to forecast project costs and schedules accurately, and it will enable us to improve communication of project status with vendors and customers.

## 5 ESDP Methodology Documentation and Curriculum

In order for Educational Services to be the recognized leader in industrial training, we must be sought out as experts on how education is defined, designed, developed, and delivered. This program will document the processes and methodologies that can be provided as services and define a curriculum that allows Educational Services to teach others how to do it.

With the understanding that services will be Digital's principal offering to the customer of the future, ESDP is documenting the process by which educational solutions are developed, in order to create the materials and the curricula that Digital can parlay into a revenue-generating consulting service in the future.

### ESDP Statistics

Growth Plan — The following charts depict the projected growth for ESDP in terms of service mix, market share, physical locations, and headcount.

#### Service Mix as a Percent of the Total Business

	FY88	FY89	FY90	FY91
<b>Education</b> (Course Development)	20%	20%	20%	20%
<b>Services</b>	5%	10%	15%	20%
<b>Documentation</b>	45%	45%	43%	40%
<b>Publishing</b>	30%	25%	22%	20% *

\* Electronic Publishing will integrate publishing into other services in this time frame.

#### Market Share

	FY88	FY89	FY90	FY91
<b>Field Service</b>	40%	60%	85%	100%
<b>Customer Training</b>	90%	95%	95%	95%
<b>Software Services</b>	50%	80%	100%	100%
<b>Manufacturing</b>	2%	6%	12%	18%
<b>Engineering</b>	30%	32%	34%	38%

**Locations**

	<b>FY88</b>	<b>FY89</b>	<b>FY90</b>	<b>FY91</b>
<b>Business Group</b>	5	6	6	7
<b>U.S. Areas/Countries</b>	7	12	20	40

**Headcount**

	<b>FY88</b>	<b>FY89</b>	<b>FY90</b>	<b>FY91</b>
<b>Domestic</b>	465	550	650	750
<b>Worldwide</b>	650	810	900	1070



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*Our mission is to become the leader in industrial communications by helping to reduce the overall cost of sales, focusing on profitability, earning the vendor-of-choice reputation, developing full-service capability, achieving effective use of technology, serving as catalysts for change, and committing to the success of our customers, Educational Services, and Digital.*

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“Educational Services has always recognized the requirement for excellence in communications as part of an effective educational strategy. In fact, MCG’s single largest client is Educational Services.

“Our value is not so much the services we provide as the company’s resident communications professionals, but the fact that we are integrated and synergistic with the company’s goals and are in a position to expedite the company’s communications efforts.

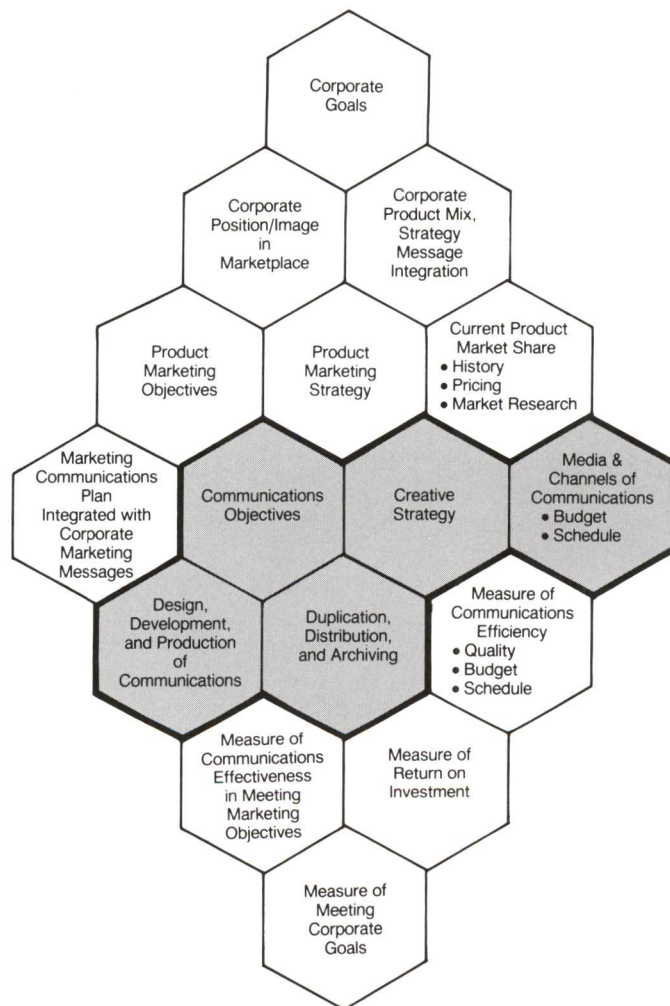
“Although we’re technically a corporate resource, we view ourselves as empathetic and congruent with the field operation and we must continue to understand and represent the customer’s point of view so we can help create the metaphors that translate Digital’s technical advantages into competitive advantages.”

*Don Elias*

## Media Communications Group

The Media Communications Group (MCG) occupies that niche of the communications business concerned with motivational communications, which is crucial to the success of both Educational Services and Digital. MCG reflects the strategic integration of Educational Services within the company: MCG forges links with the product, service, and marketing organizations, including Educational Services itself, and then develops products that effectively promote the Digital solution. Through the media produced by MCG, Digital does indeed appear as one company with one strategy and one message.

### Digital's Communication Strategy



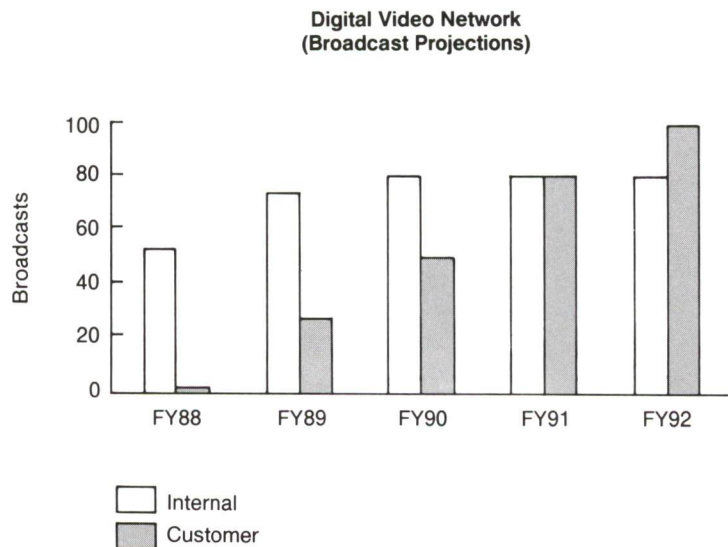


## Programs

### 1 Digital Video Network

The Digital Video Network (DVN) is an interactive educational delivery format used to communicate with and conduct training for employees and customers via satellite. As an educational format, it is used in conjunction with audio cassettes, lecture/lab, and self-paced instruction. It provides a way to further decentralize training and react quickly to changing company and marketplace conditions.

The overall DVN goal is to increase the quality and efficiency of disseminating training, information, and communication to employees and customers. Future plans for DVN include developing a training and communications service for Digital customers cross-networking with other Digital customers, thereby establishing DVN as a profit center; installing DVN in all U.S. and Canadian locations for 100% field coverage; developing a symposium series; announcing new products through DVN; and sponsoring third-party programming.



## 2 **Electronic Publishing**

MCG is committed to providing leadership, recommendations, and direction in the design of Digital Electronic Publishing products and standards, and in the evaluation and selection of vendor systems to ensure a clear, cost-effective migration to a fully integrated Corporate Electronic Publishing System.

Within the next five years, MCG will establish itself as a leader in using technology for communications services, focusing on optimizing electronic publishing, imaging, and information systems. We are developing the ability to deliver to customers on-line training and user documentation in compound document formats in the media of their choice.

Working closely with ESDP, R&D, BOIS (Business and Office Information Systems), the Media Industry Group, and CUP (Corporate Users Publications), MCG is leading the integration of electronic publishing functions, standards, tools, and migration paths to delineate clear, practical, achievable milestones to meet this goal, and to ensure compatibility with the Imaging Network and DVN.

## 3 **Quality Assurance Program**

The Quality Assurance program is designed to promote the consistent delivery of high-quality communication products that meet client expectations and satisfy end-user needs.

Noting an inverse relationship between the easy output of large quantities of information and quality in communications, it becomes imperative to establish a quality assurance program. Within the next 18 months, MCG will develop customer satisfaction metrics and measure our performance against those metrics. Within the next two years, MCG will have a measurement system framework for quality and services.

#### 4 Decentralization

Provide MCG communication resources to the Areas in support of Area Sales activities.

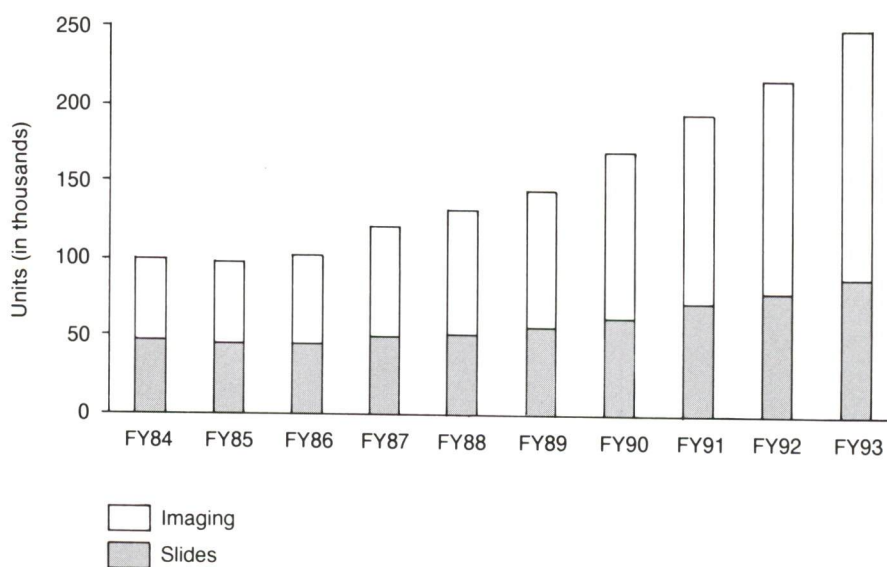
The first rule of effective communications is to know the audiences, understand their needs, and use their language. Since MCG's audiences include both Digital customers and the Digital sales force, the best way to get to know them is to distribute our resources closer to them. Currently, MCG has a staff of some 450 people, located in Bedford, Merrimack, Stow, Marlboro, Atlanta, Colorado Springs, Reading, Munich, Tokyo, Geneva, and France. Learning more about our audiences and their needs, we can provide higher-quality, more focused, and more effective communications products more efficiently.

#### 5 Computer Images Network

Provide distributed services for the purpose of developing and producing visual presentation aids, including 35mm color slides, overhead transparencies, and reproduction-quality black-and-white hard copy (laser printing).

Through this program, MCG will improve customer service by providing local access to media production services. This will enable us to manage the company's visual presentation materials. Through this program, we will also design, develop, implement, and deliver graphics standards, ensuring baseline quality for effectiveness and compatibility with companion efforts in Corporate Identity. The anticipated growth of this is shown in the graph below.

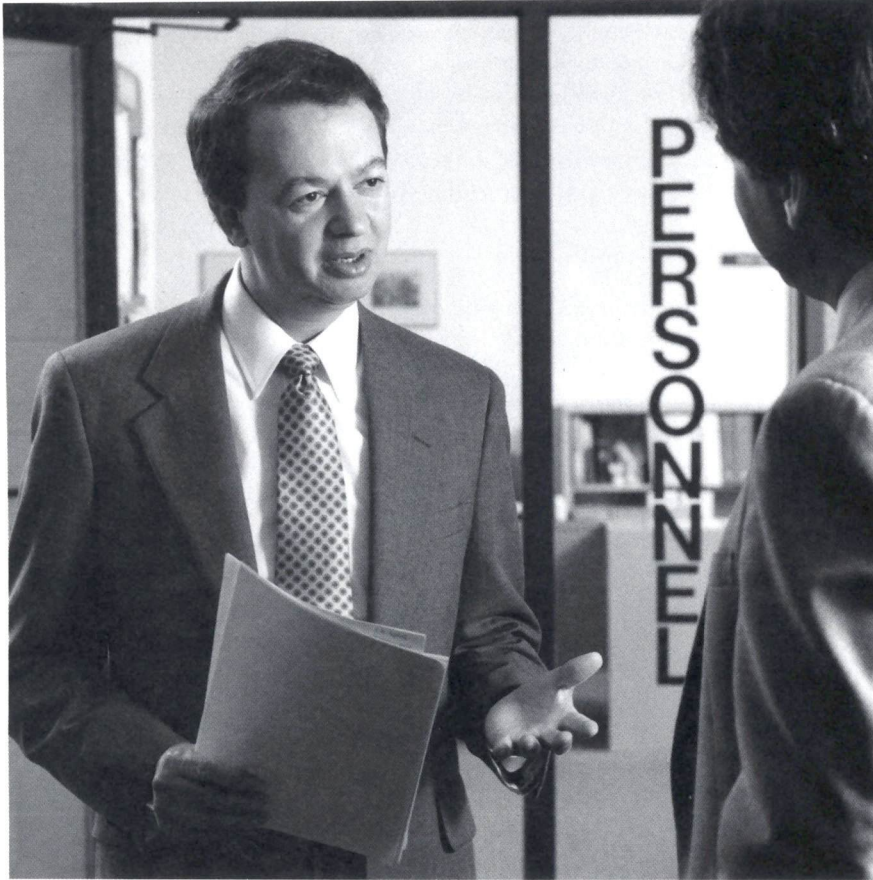
**Computer Images Production Forecast  
Imaging Network Impact**



Currently, the Computer Images group has offices in Bedford, Colorado Springs, Reading, and Geneva; within five years there will be offices in the South Pacific Region, Valbonne, Stockholm, and Canada. All these Professional Graphics Centers (PGCs) will standardize on Genigraphics™ equipment. Therefore, the Genigraphics artwork will be common throughout the network. The Imaging Network strategy specifies that a common database design be implemented to enable access to existing visual presentation materials.

### 6 **A/V Center for Expertise (CFE)**

The A/V Center for Expertise provides a focal point for the communications needs of the corporation in order to enhance the effectiveness of audio-visual communications and presentations. The center will support the general goals and responsibilities defined for a CFE, provide leadership and expertise in the A/V discipline, and offer consulting services for the delivery of all strategic messages to customers through the A/V medium.



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*Educational Services Personnel provides high-quality human resource services and products that will enable the company to maintain its competitive advantage by ensuring the optimal utilization of its human assets.*

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“Digital’s profitability and potential for growth are directly affected by how well its people are valued, developed, and utilized. Digital must attract, retain, develop, and motivate a dedicated and capable work force.

“Personnel can help the company meet the challenges of a changing world by recognizing how those dynamics affect every area of people’s work. In order to optimize our work force, we have to look at what motivates people — the content of their jobs, the quality of the work environment, and opportunities to grow and develop.

“Successful managers today are recognizing that if you take care of your people, people will take care of your business. They’re realizing that what really drives performance is the quality of the interaction between the employee and their manager.

“Digital is at the high end of the continuum in terms of our share of high achievers. We can attract and retain these individuals if we continue to be a company that is growing and succeeding while we maintain our core values and foster a caring environment.”

*Mel Pierce*

## Personnel

Educational Services' Personnel organization contributes to the overall goal of Educational Services by ensuring that the organization is staffed with the most capable, competent individuals available. It provides the very resources upon which Educational Services' solutions are ultimately based, and it acts to promote the core values upon which the company's solutions are based. In acting in both capacities, as provider and promoter of values, Educational Services Personnel links the Educational Services organization to all other organizations in the company, cementing the bond that creates one company with one strategy and one message.

### One Company, One Message, One Strategy



Our core value as a company is to value the differences of our employees. This is inherent to Digital's philosophy. We fully realize that we can only achieve our customers' satisfaction when our employees are highly valued and believe they are.

This core value extends to every aspect of Digital as a corporation. Our products are designed with an understanding of the different needs of our customers in mind. Our business goals balance the needs of customers, shareholders, employees, and the society around us. Our internal organizations and structures must reflect and respond to these needs as well.

## Programs

### 1 Employees

Enhance the commitment, capabilities, and skills of Educational Services' employees in support of Digital's goals while maintaining our core values.

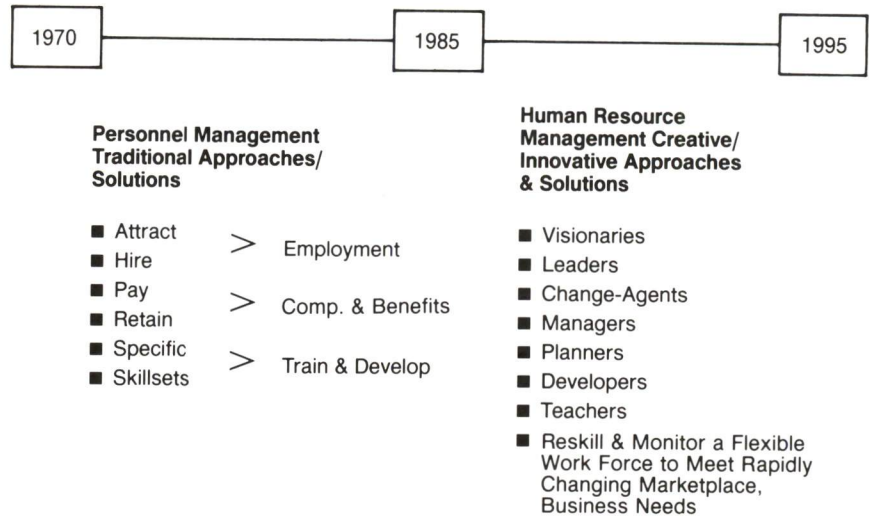
This program is designed to ensure that Educational Services' employees are happy, healthy, and well-integrated into the company — for their own personal well-being as well as for the well-being of Educational Services and Digital. Aspects of this program include the delivery and maintenance of the Orientation to Digital and Educational Services Program to facilitate the entry of new employees to Digital and Educational Services; Wellness Programs for employees; the implementation of the Corporate Smoking Policy in a way that values both smokers and non-smokers in the workplace; a common Job Performance and Review (JP&R) process in Educational Services; ongoing support for the Job Evaluation Classification (JEC) program; Salary Planning training for managers; the delivery of "Personnel Basics for Managers" modules, covering such topics as sexual harassment, equal opportunity, corrective action, and discipline training; and the provision of AIDS education to line managers and employees.

### 2 Productivity

Improve the productivity of Educational Services' work force in support of Digital's profit goals.

Motivating people so that they work together and give their best requires skilled and enlightened management. Personnel provides Valuing Differences experiences to line managers and staffs that raise the level of awareness and understanding of difference in the workplace and the business connection. The organization also provides team building and other management staff interactions that enhance the quality and effectiveness of interpersonal relationships and overall productivity. Finally, Personnel sponsors employee reward and recognition programs, so that even in the best work environment the employee can feel that his or her contribution was especially valued.

The Development of Personnel

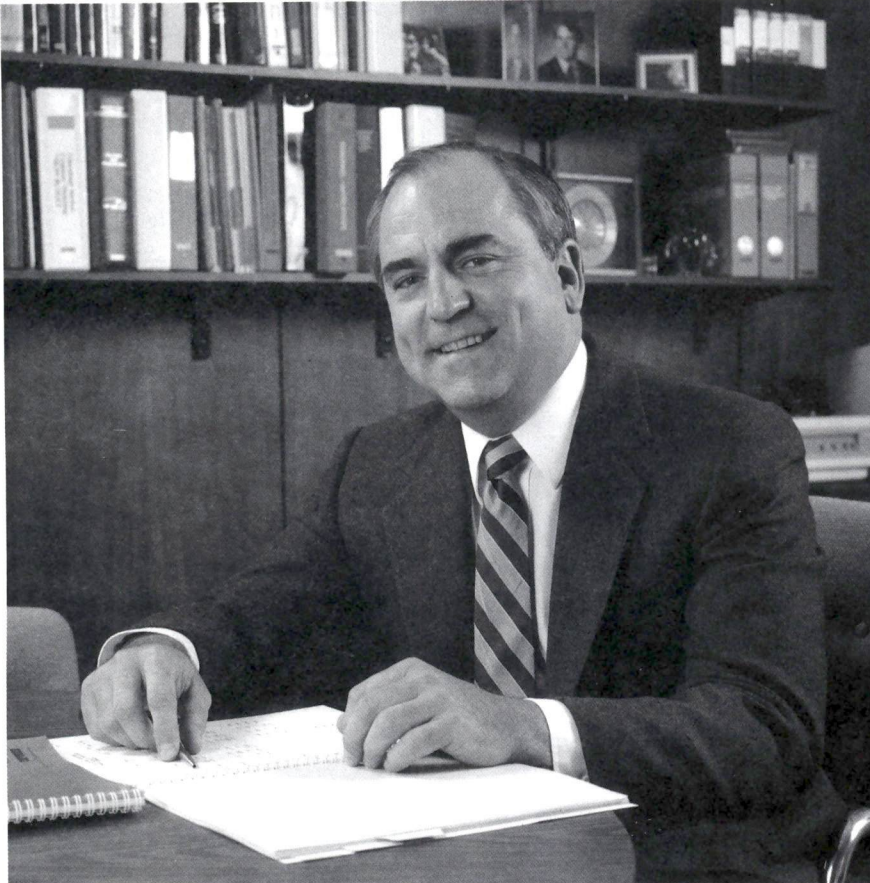


### 3 The Personnel Organization

Develop and enhance the capabilities of the Educational Services' Personnel organization to facilitate the employee and productivity programs that they run.

This program drives the other programs and activities that focus on customer service and satisfaction resulting in measurable improvement. It enables Personnel to develop and execute personalized employee development and support plans to enhance the skills, knowledge, and experience of its staff. It ensures the delivery of functional training for the Personnel staff so that high-quality programs, direction, and counsel are delivered to the organizations they support.





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*Finance and Administration has the responsibility to manage and monitor the financial and administrative condition of the organization, to provide the framework and structure that enables operating units to achieve their goals, and to ensure that Educational Services conducts its business in a sound, ethical manner while maintaining good financial control.*

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**“We perform an integration role across the management team by providing information to enable operating management to understand clearly the trade-off impact of their decisions on our financial condition. We are most successful when we can operate as financial partners to operating management while maintaining effective business controls, balancing profitability and operational issues, and lending a business logic perspective to the decision-making process.**

**“Finance has to balance the short- and long-term impact of corporate investments while providing a current return that is in the best interest of the shareholders. With customer revenue of over \$220M, and an internal business activity that is two and one-half times that, we represent a significant segment of Digital’s business. The most effective way to manage this complex financial portfolio is to ensure that all operating management has accurate, timely information to address the most critical business issues.**

**“The job of Finance is not to justify or support the decision, but to evaluate it.”**

*John McLean*

Educational Services represents both a profit center for Digital and a significant financial investment in employee training. We must operate efficiently and effectively, or we cannot maintain our competitive edge. Educational Services' Finance and Administration organization helps us keep that edge, thus ensuring that financial constraints will not cause us to miss our goal of becoming the recognized industry leader.

### Programs

#### **1 Organizational Development**

Improve the efficiency of the organization through the consolidation of functions with common development, delivery, and overhead infrastructures.

Integrating and consolidating the activities of the groups within Educational Services is necessary if Digital is to compete effectively in a marketplace that demands rapid response and customer-oriented solutions. Finance and Administration must continue to manage its human resources effectively. We will maintain a resource plan that identifies both current and future skill requirements for each of its groups, as well as maintaining a sound succession plan and career development path for all employees. We must examine ways to improve the efficiency of the organization while continuing to provide high-quality financial and administrative support to the organization.

#### **2 The Finance and Administration Organization of the '90s**

Create an environment of paperless, on-demand management reporting.

The information architecture of Educational Services will enable groups to interact with one another on-line. The information and analysis necessary to run, understand, and improve our business — provided by Finance and Administration — will be available over the network and reside on databases rather than paper. This creates a responsive and efficient organization, where financial and analytical information will be easily accessible to financial people and operating management.

### 3 Analytical Decision-Making

Improve the quality of Educational Services decision-making by providing value-added financial analysis that focuses on complete evaluation of all alternatives.

Finance and Administration will improve decisions by ensuring proper analysis and alternatives via financial analysis. Finance and Administration will work with all groups to ensure that their analytical tools are conceptually sound. Finance and Administration will be integrated into the business environment, and will work with management to ensure the establishment of appropriate financial targets and measures of success on all business segments. Systems will provide management with reports and data by which they can measure their results against plans.

### 4 Organization Program Context

Improve the financial planning and control discipline through management awareness, through clear and pertinent policies and procedures, and through a program of compliance testing.

By conducting regular Internal Controls Seminars for both financial and operating personnel, Finance and Administration will encourage management to maintain consistent levels of planning and discipline in the measurement of resources and programs. An annual review and update of Internal Controls Questionnaires, the conducting of compliance tests on business units, the issuance of corrective action plans, and follow-up reviews on corrective actions, will encourage sound business practices and fiscal responsibilities.

### 5 Information Systems

Leverage the investment in Information Systems (IS) and ensure compatibility with Corporate IS directions and strategies which support Educational Services' business requirements.

We must ensure the compatibility of Educational Services' information architecture with the overall Digital IS architecture. We will identify and reduce redundant development costs and efforts where feasible, and provide quality on-line management reporting systems.

## **6 Boylston Development**

Coordinate the consolidation of various Educational Services sites/functions to the Corporate Education Center in Boylston.

The Corporate Education Center in Boylston will showcase Digital's commitment to employee and customer education and training. It will provide a state-of-the-art environment that is conducive to the educational experience. The residential aspect of this facility will produce operating efficiencies while allowing for better cross-functional and immersion-type training. This program will reduce operating costs and greatly improve quality. Our goal is to ensure a smooth, cost-effective transition to Boylston with the least amount of disruption to business.

## **7 Manufacturing and Distribution**

Provide the highest-quality course materials to be distributed in the most cost-effective manner throughout the world.

The Manufacturing and Distribution operations will continue to identify and implement programs to further improve worldwide customer satisfaction through attention to quality and reliability. We will continue to focus on inventory management and operate with a "just-in-time" goal. We will continue to maximize productivity, minimize costs, and be an organization with which it is easy to do business.



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*The Business Fellowship Program develops and delivers executive and senior management training programs in the area of strategic application of information technology. Our programs will provide the highest levels of training excellence, and will position Digital and Educational Services as the leading supplier of comprehensive industry training and education solutions.*

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“Through education, knowledge transfer, and the sharing of technology, the Digital Business Fellowship Programs will develop and maintain strategic business relationships with selected existing and potential customers.

“The goal of the program is to enable participants to make more informed business decisions in the rapidly evolving area of information technology.”

*Chet Bowles*

## Business Fellowship Program

The Business Fellowship Program for Digital customers was developed and introduced in FY88. Three major programs were conceived, researched, and developed. These programs are Networks, Artificial Intelligence, and Executive Education.

Three additional programs for managers and supervisors are being investigated for the future: The new Artificial Intelligence Fellowship will be for managers who supervise knowledge engineers working on AI projects. The new Network Fellowship will be for individuals who have responsibilities for managing networks, and the new CIM Fellowship will be for our customers who are in the planning or implementation phase of a CIM project.

### Programs

#### **1 Executive Business Fellowship**

The Executive Business Fellowship provides senior executives with the background needed to better understand technology-related problems and how to solve them.

This forum stresses peer interaction and the sharing of experiences in using information technology to accomplish the overall mission of the organization. The Executive Program was offered once in FY88 to 24 participants. The program will be offered five times in FY89.

#### **2 Network Business Fellowship Program**

The Network Business Fellowship Program is designed for senior business managers and key MIS telecommunications professionals who influence their organization's use of information technology.

This seminar stresses major networking technology and select communications technologies that best fit the current and future needs of the organization. The Networking Fellowship was offered three times in FY88 and will be offered six times in FY89.

#### **3 Artificial Intelligence Fellowship Program**

The Artificial Intelligence Fellowship is a six-month program designed for senior technologists who will provide leadership in applying artificial intelligence to solve mainstream business problems.

This extensive training program combines classroom and laboratory experiences with a prototype-building apprenticeship. Twenty-four people started the program in FY88. We are planning for 30 people in FY89.



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*To create the awareness and visibility that Educational Services requires to be recognized as the leader in industrial training, education, and communications.*

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“Digital’s service organization is one of the largest in the industry; services account for more than 33% of corporate revenues and are becoming increasingly important as hardware and software costs decrease.

“Though services are critical to Digital’s success, the media doesn’t yet appreciate this; therefore, editorial interest is limited, but growing steadily.

“The goal of External Relations is to promote awareness of Digital’s Educational Services as a leader in training, education, and communication services; to position Educational Services as most responsive to customer needs, an integral component of the total computing solution, and a key differentiator in the market, enabling customers to gain optimal productivity, maximum uptime, and a competitive advantage.”

*Gael Dussault*

## External Relations

The External Relations group works with the media, both external and internal, to create an awareness of, and increase the visibility of, the leadership activities of Educational Services. These efforts include the establishment of relationships with select training publications, key industry-focused publications, and strategic publications.

### Programs

#### **1 Media Awareness**

To assist with the preparation of media information related to Educational Services' products and programs, and to manage and review the dissemination of all media releases.

This program ensures that the right messages are disseminated to the media regarding Educational Services. Through this program, the External Relations group is building an image of excellence, innovation, leadership, and success, both internally and externally, for Educational Services.

#### **2 Media Assessment**

To provide assistance to Educational Services' Vice President and management regarding the implications of media activities.

This program enables the External Relations group to keep abreast of Educational Services' position in the media. The perceptions of Educational Services are tracked and noted, and management remains informed as to how their decisions are being taken by the industry watchers.

#### **3 Coordination with Corporate Public Relations**

To participate in and support Corporate Public Relations programs and activities and to integrate corporate messages with Educational Services' messages.

Because Educational Services is such a crucial part of Digital, it is important that the messages we put forth are consistent with and complementary to those put forth on behalf of the entire corporation through the efforts of the Corporate Public Relations organization. This program ensures that the messages are synchronized.

#### **4 College and University Alliance**

To promote stronger alliances between Educational Services and the academic community.

This program links Digital Educational Services to those academic resources in allied fields. Through this program, Educational Services can draw upon the latest academic developments in the fields of education and educational technology. We can also establish joint development projects, such as the NESTOR and ATHENA projects, that will lead to new knowledge for both Digital and the academic communities.



Prosperity depends upon evolution. We observe the signs of change in Digital's marketplaces, and we direct our efforts to further developing and enhancing the solutions we offer to the customers in those changing markets.

Within Educational Services there are clear signs of evolution. Efforts are under way to consolidate our Greater Maynard Area operations in the new Boylston Corporate Education Center, where a state-of-the-art total learning and living environment is under construction. At the same time, those consolidation efforts are complemented by efforts among the groups that compose Educational Services to decentralize their operations. The groups are moving their operations further into the field, closer to their customers and internal clients, where they will be better able to service those customer and client needs.

Each of the groups within Educational Services is implementing Personalized Training Programs (PTPs). These programs, facilitated by the decentralization activities, enable the groups to better identify, develop, and deliver the most appropriate solutions to their customers and clients, thus making the process of designing, developing, and delivering solutions a more precise and effective one. These efforts to improve that process are supported by ongoing, organization-wide efforts to develop a comprehensive information architecture.

A further evolution of Educational Services can be seen in our Electronic Publishing and Electronic Imaging programs. Not only are these designed to support the corporation's information and communications strategies, but they will also enable Educational Services to disseminate the corporation's messages, documentation, and other materials directly to the points where individuals can use them.

Our use of technology to deliver our solutions to customers and clients does not stop with publishing. Our research and development efforts are exploring new technologies and exciting new educational environments. We are employing technology to develop alternative learning formats and media. Our plans for use of the Digital Video Network, DECwindows, and CDROM; our plans for network-based course delivery; and our involvement in the European PACE program (for just a few examples) all point to an attitude in the delivery of our solutions that emphasizes flexibility and customer satisfaction. Our investments in educational formats to supplement lecture/labs and seminars — in self-paced instruction, in audio and video media — as well as our investments in developing course materials in languages other than English, enhance Digital's ability to provide the right solution to meet the customer's needs. We are working to improve our already high quality assurance (QA) ratings, and to improve the QA system to become a better measure of effectiveness.

In the area of educational solutions themselves, we are increasing our commitment to the Office and Commercial computing markets. As service organizations make up an increasing proportion of customers, our programs will enable us to collaborate with them, to provide consulting services, and to develop the appropriate educational and training materials they require.

All these organization-wide efforts are aimed at one goal: providing the finest education, training, and communications services to Digital's customers and employees. We are coordinating our educational solutions with the corporation's hardware and software solutions, thus creating a comprehensive solution that will be fully integrated and available to meet the needs of the markets we serve. Within the company whose motto is "One Company, One Strategy, One Message," our efforts are thoroughly integrated and complementary.

We are part of a world in which change is rampant. The technologies are evolving rapidly. Users are growing more sophisticated, more demanding. The skills an organization will require to succeed in this increasingly competitive world are changing with each new development in the marketplace. Educational Services will succeed because we are aware of the magnitude of the changes taking place, because we understand the reasons for the changes taking place, and because we are prepared to provide others with the training and the education that they will require in order to take advantage of the opportunities these changes afford.

The Digital Equipment Corporation that we are fast becoming will be recognized as the vendor of choice through such integrated efforts on the part of groups like Educational Services. Education and training, which will become increasingly important as we move into the future, will play a crucial part in the total solutions that the marketplace demands. And our own vision, to be recognized as the leaders in industry training, education, and communications, will fortify Digital's leadership position in that marketplace.

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Loc.: RKA

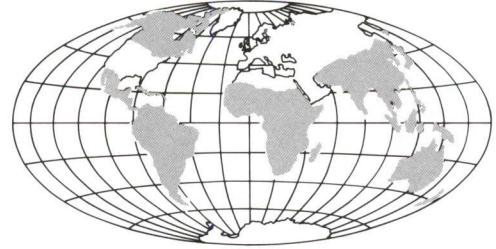
Digital Equipment Co. Limited  
Educational Services  
Shire Hall  
Shinefield Park  
GB-Reading/Bershire RG2 9XU  
United Kingdom  
Tel.: [44]-(734)-868711  
DTN: 830-3111  
Lecture/Lab, ILC  
Customer Training  
Employee Training  
Technical Training  
ILC  
Selling and Marketing Training  
Skills and Management Training

Bob Webber  
Country Manager

Jim Tuck, Manager

David Beardmore, Manager  
David East, Manager  
David Rycroft, Manager  
Jo Orr, Manager





**Headquarters**

**Massachusetts**

Acton  
Loc.: AKO

Digital Equipment Corporation  
General International Area  
Educational Services  
100 Nagog Park  
Acton, MA 01720-3499  
Tel.: (508) 264-6780  
DTN: 244-6780

Roger Blomgren  
Educational Services  
General International  
Manager

**Canadian Region**

**Alberta**

Calgary  
Loc.: CGO

Digital Equipment of Canada Ltd.  
6815-8th Street N.E.  
Suite 200  
Calgary, Alberta, Canada  
Employee Training  
FTC-A, FTC-C  
Tel.: (403) 295-4337  
DTN: 635-4337

Mike Erdelyi  
Training Center Manager

**British Columbia**

Vancouver  
Loc.: VAO

Digital Equipment of Canada Ltd.  
Suite 130, 10711 Cambie Road  
Richmond, B.C., V6X 3C9  
Canada  
Lecture/Lab, SPI  
Customer Training  
Tel.: (604) 276-6901  
DTN: 638-6901  
  
Employee Training  
Tel.: (604) 276-6902  
DTN: 638-6902

Roy McCullough  
Training Center Manager

Mike Erdelyi  
Employee Training Manager

**Ontario**

Ottawa  
Loc.: OTO

Digital Equipment of Canada Ltd.  
Educational Services, 5th Floor  
2 Constellation Crescent  
Nepean, Ontario K2G 5J9  
Canada  
Lecture/Lab, FTC, SPI  
Customer Training  
Tel.: (613) 723-3912  
DTN: 633-3912  
  
Employee Training  
Tel.: (613) 723-3600  
DTN: 633-3600

Judy Knowles  
Training Center Manager

Mike Erdelyi  
Employee Training Manager

Toronto  
Loc.: TRC

Digital Equipment of Canada Ltd.  
505 University Avenue  
Toronto, Ontario M5G 2H2  
Canada

Tel.: (416) 597-3241  
DTN: 637-3241  
Customer and Employee Training  
Lecture/Lab, FTC, SPI  
Technical Training  
Tel.: (416) 597-3429  
DTN: 637-3429

Hardware Training  
Tel.: (416) 597-3444  
DTN: 637-3444

Software Training  
Tel.: (416) 597-3506  
DTN: 637-3506

John DeBruijn  
Regional Manager

Mike Erdelyi  
Technical Training Manager

Don Hayes  
Hardware Training Manager

Fern Marques  
Software Training Manager

Toronto  
Loc.: TRO

Digital Equipment of Canada Ltd.  
165 Attwell Drive  
Rexdale, Ontario M9W 5Y5  
Canada

Employee Training  
FTC  
Tel.: (416) 675-4126  
DTN: 631-4126

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Employee Training Manager

**Nova Scotia**  
Halifax  
Loc.: HXO

Digital Equipment of Canada Ltd.  
Queens Square, Suite 904  
45 Alderney Drive,  
Dartmouth, Nova Scotia B2Y 2N6  
Canada

FTC-C  
Tel.: (416) 597-3429  
DTN: 637-3241

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Saint-Laurent, Quebec H4T 1V3  
Canada  
Lecture/Lab, FTC, SPI  
Customer Training  
Tel.: (514) 340-7810  
DTN: 632-7810

Lyne Depatie  
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Tel.: (514) 340-7961  
DTN: 632-7961

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Employee Training Manager

**Far East Region**

**China**  
Beijing

Digital Equipment PRC Ltd.  
XI Yuan Hotel  
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Beijing, People's Republic of China  
ILC, FTC  
Customer and Employee Training  
Tel.: [86]-(1)-890721 Ext. 424

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Training Center Manager

**Hong Kong**  
Wanchai  
Loc.: HGO

Digital Equipment Hong Kong Ltd.  
19-21 Fleet House  
38 Gloucester Road  
Wanchai, Hong Kong  
Tel.: [852]-(5)-861-4306  
Lecture/Lab, FTC, SPI  
Customer and Employee Training  
Tel.: [852]-(5)-861-4884

Dave Smethers  
Regional Manager

Derek Tse  
Training Center Manager  
Joseph Leung  
Employee Training Manager

**Singapore**  
Singapore  
Loc.: ZPO

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NTI Campus  
Nanyang Avenue  
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Republic of Singapore  
SPI  
Customer Training  
Tel.: [65]-2653712

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Training Center Manager  
Kevin Ng  
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Singapore  
Loc.: ZPO

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73 Bukit Timah Road  
No. 06 Tong Nam Building  
Singapore 0922,  
Republic of Singapore  
FTC  
Employee Training  
Tel.: [65]-3363588

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Training Center Manager  
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**Taiwan**  
Taipei  
Loc.: TPO

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FTC, SPI  
Customer and Employee Training  
Tel.: [886]-(2)-776-8888

SJ Huang  
Training Center Manager

#### **Japan Region**

**Japan**  
Osaka  
Loc.: TKO

---

Nihon Digital Equipment Corporation  
Osaka Training Center  
Nichimen Building  
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Osaka, Japan 530  
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Customer and Employee Training  
Tel.: [81]-(6)-222-9088

Hiroshi Tanaka  
Training Center Manager  
Schunichi Miyahara  
Employee Training Manager

Tanashi  
Loc.: TKT

Nihon Digital Equipment Corporation  
1-7-12, Honcho  
Tanashi, Tokyo 188 Japan  
FTC  
Employee Training  
Tel.: [81]-(424)-683020

Akira Watanabe  
Employee Training Manager

Tokyo  
Loc.: TKO

Nihon Digital Equipment Corporation  
Educational Services  
Sunshine 60 Building, 55th Floor  
1-1 Higashi Ikebukuro 3-shome  
Toshima-ku, Tokyo 170 Japan  
Tel.: [81]-(3)-989-7280

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Regional Manager

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Sunshine 60 Building, 37th Floor  
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Customer and Employee Training  
Tel.: [81]-(3)-989-7460

Takayasu Iwamoto  
Training Center Manager  
Shunichi Miyahara  
Employee Manager

Educational Services Development  
and Publishing Site  
Tel.: [81]-(3)-989-7183

Yoshiko Owaga  
Manager

#### Latin American/Caribbean Region

---

**Brazil**  
Rio de Janeiro  
Loc.: DJO

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20030 Rio de Janeiro, RJ  
Brazil  
Lecture/Lab  
Customer and Employee Training  
Tel.: [55]-(21)-262-5755

Jaoa Tromkos  
Training Center Manager  
Dale Inman  
Employee Training Manager

Sao Paulo  
Loc.: BZO

Digital Equipemnt do Brazil Ltda.  
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2033 13th Floor  
04029 Sao Paulo, SP  
Brazil  
Lecture/Lab  
Customer and Employee Training  
Tel.: [55]-(11)-575-0088

Guillermo Barrera  
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Dale Inman  
Employee Training Manager

**Mexico**  
Juarez  
Loc.: MXO

Digital Equipment de Mexico,  
S.A. de C.V.  
Nueva York No. 115-5  
Col. Napoles  
03810 Mexico, D.F.  
Lecture/Lab, FTC  
Tel.: (905) 687-6671  
  
Customer and Employee Training  
Tel.: (905) 660-4481

Laura Rodriguez  
Training Center Manager  
  
Dale Inman  
Employee Training Manager

**Puerto Rico**  
Santurce  
Loc.: CRO

Digital Equipment Caribben, Inc.  
Mercantil Plaza Building  
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Hato Rey, Puerto Rico 00918  
Lecture/Lab  
Customer and Employee Training  
Tel.: (809) 754-7575  
DTN: 723-2007 or 723-2100

Armando Irizarry  
Training Center Manager  
Dale Inman  
Employee Training Manager

**United States**  
Florida  
Ft. Lauderdale  
Loc.: FLA

Digital Equipment Corporation  
2101 W. Commercial Boulevard  
Suite 3000  
Ft. Lauderdale, FL 33309  
Tel.: (305) 497-2337  
DTN: 392-2337

Dale Inman  
Regional Manager

#### **South Pacific Region**

---

**Australia**  
Adelaide  
Loc.: ADO

Digital Equipment Corporation  
(Australia) Pty. Ltd.  
Greenhill Road  
Wayville, Adelaide,  
South Australia  
Tel.: [61]-(2)-412-5252  
ILC  
Customer Training

Contact:  
Colin Lathwell  
Sydney

Brisbane  
Loc.: BBO

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(Australia) Pty. Ltd.  
57-69 Coronation Drive  
Brisbane, Queensland 4000  
Australia  
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Customer Training  
Tel.: [61]-(2)-412-5252

Contact:  
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Sydney

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Loc.: CAO

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Turner, A.C.T. 2601  
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Customer Training  
Tel.: [61]-(2)-412-5252

Contact:  
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Sydney

Melbourne  
Loc.: MEO

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Customer Training  
Tel.: [61]-(2)-412-5252

Contact:  
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Sydney

Sydney  
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Australia  
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Customer and Employee Training  
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John Baker  
Regional Manager

Colin Lathwell  
Training Center Manager

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Auckland  
Loc.: NZO

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(New Zealand) Limited  
162-164 Grafton Road  
Auckland 3 New Zealand  
Lecture/Lab  
Customer Training  
Tel.: [61]-(2)-412-5252

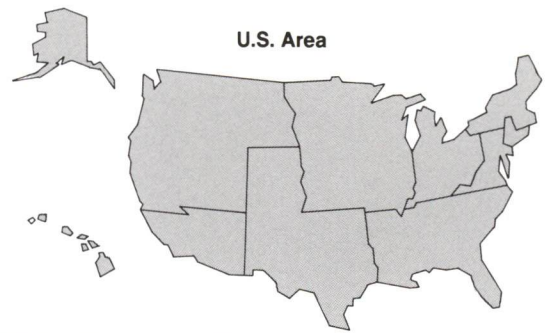
Contact:  
Colin Lathwell  
Sydney

Wellington  
Loc.: WEO

Digital Equipment Corporation  
(New Zealand) Limited  
163 The Terrace  
Wellington, New Zealand  
Lecture/Lab  
Customer Training  
Tel.: [61]-(2)-412-5252

Contact:  
Colin Lathwell  
Sydney

## U.S. Area



### Headquarters

Bedford  
Loc.: BUO

Digital Equipment Corporation  
Educational Services Corporate  
Headquarters  
12 Crosby Drive  
Bedford, MA 01730  
Tel.: (617) 276-4200  
DTN: 249-4200

Patrick Cataldo  
Vice President

### Arizona

Phoenix  
Loc.: PNO

Digital Equipment Corporation  
2500 W. Union Hills Drive  
Phoenix, AZ 85027  
Field Service Training  
FST  
Tel.: (213) 937-7047

Chuck Hunter  
Training Center Manager

Phoenix  
Loc.: TFO

Digital Equipment Corporation  
Educational Services  
1901 West 17th Street  
Tempe, AZ 85281  
Customer Training  
Lecture/Lab  
Tel.: (213) 937-3870

Matt Williams  
Training Center Manager

### California

Los Angeles  
Loc.: IVO

Digital Equipment Corporation  
Educational Services  
24 Executive Parkway, Suite 100  
Irvine, CA 92714-6726  
Sales Training  
Tel.: (714) 261-4395

Gary Mitchell  
Area Sales Training Manager

Los Angeles  
Loc.: LQO

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4311 Wilshire Boulevard  
Los Angeles, CA 90010-3779  
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Lecture/Lab  
Customer Training  
Tel.: (213) 937-3870

Matt Williams  
Training Center Manager

Office Applications  
Tel.: (213) 937-3870

Contact:  
Matt Williams

Field Service Training  
FTC  
Tel.: (213) 937-7047

Chuck Hunter  
Training Center Manager



San Diego  
Loc.: SDO

Educational Services  
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San Diego, CA 92123  
Customer Training  
Lecture/Lab  
Tel.: (213) 937-3870

Matt Williams  
Training Center Manager

Santa Clara  
Loc.: WRA

Digital Equipment Corporation  
Employee Training Center  
4800 Great America Parkway  
Suite 301  
Santa Clara, CA 05054-1213  
Office Applications  
Lecture/Lab  
Tel.: (508) 493-4721  
DTN: 223-4721

Contact:  
John Dischinger

Sales Training  
Tel.: (408) 748-4671  
DTN: 521-4671

Julie Yozamp  
Area Sales Training Manager

Digital Management Education  
Tel.: (408) 748-4202  
DTN: 521-4202

Contact:  
Tom Pitmon

Field Service Training  
Tel.: (408) 748-4404  
DTN: 521-4404

Steve Stearn  
Training Center Manager

Santa Clara  
Loc.: WRO

Digital Equipment Corporation  
Educational Services  
2525 Augustine Drive  
Santa Clara, CA 95054  
Customer Training  
Lecture/Lab  
Tel.: (408) 748-4048  
DTN: 521-4048

Gary White  
Training Center Manager

**Colorado**

Colorado Springs  
Loc.: CXO

---

Digital Equipment Corporation  
Employee Training Center  
301 Rockrimmon Boulevard  
Colorado Springs, CO 80919  
Field Service Training  
Tel.: (719) 548-4420  
DTN: 522-4420

Steve Byrd  
Training Center Manager

Colorado Springs  
Loc.: CXO

Digital Equipment Corporation  
305 Rockrimmon Boulevard South  
Colorado Springs, CO 80919-2398  
Development and Publishing  
Tel.: (719) 548-7000  
DTN: 522-3939

Ron Brown  
Manager

Denver  
Loc.: DVO

Digital Equipment Corporation  
8085 S. Chester Street  
Englewood, CO 80112  
Customer Training  
Lecture/Lab  
Tel.: (303) 649-3300  
DTN: 553-3300

John Clark  
Training Center Manager

**Connecticut**

Hartford

---

Aetna Institute Corporation  
Education Center  
151 Farmington Avenue  
Hartford, CT 06156  
Customer Training  
Tel.: (617) 276-4380  
DTN: 249-4380

Jack McCord  
Training Center Manager

**District of Columbia**

Washington, D.C.  
Loc.: EKO

---

Digital Equipment Corporation  
Educational Services  
8100 Corporate Drive  
Landover, MD 20785  
Customer Training  
Tel.: (301) 577-4300  
DTN: 339-4300

Larry Sears  
Training Center Manager

**Florida**

Orlando  
Loc.: ORO

---

Digital Equipment Corporation  
Educational Services  
2300 Maitland Center Parkway  
100 Lincoln Place  
Maitland, FL 32751-4186  
Customer Training Center  
Lecture/Lab  
Tel.: (404) 392-4771  
DTN: 353-4771

Cheryl Groover  
Training Center Manager

**Georgia**

Atlanta  
Loc.: IPO

---

Digital Equipment Corporation  
Employee Training Center  
360 Interstate North Parkway  
Suite 600  
Atlanta, GA 30339-2103  
Field Service Training  
Tel.: (404) 953-2863  
DTN: 435-2863

Tom Dresen  
Manager

Employee Training  
FTC  
Office Applications  
Tel.: (404) 953-2863  
DTN: 435-2863

Gus Gamby  
Training Center Manager

Contact:  
Tom Dresen

Atlanta  
Loc.: RHQ

Digital Equipment Corporation  
Educational Services  
1455 Lincoln Parkway, 8th Floor  
Atlanta, GA 30346  
Customer Training  
Lecture/Lab  
Tel.: (404) 392-4771  
DTN: 351-4771

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Atlanta  
Loc.: RHQ

Digital Equipment Corporation  
Educational Services  
5775 Peachtree Dunwoody Road  
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Sales Training  
Tel.: (404) 257-2605  
DTN: 351-2605

Mary Ellen Brantley  
Area Sales Training Manager

**Illinois**

Chicago  
Loc.: ACI

---

Application Center for Technology  
Educational Services  
100 Northwest Point Boulevard  
Elk Grove Village, IL 60007  
Customer Training  
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DTN: 474-5500

Lise Gorajski  
Training Center Manager

Chicago  
Loc.: RLO

Digital Equipment Corporation  
Educational Services Training Center  
5600 Apollo Drive  
Rolling Meadows, IL 60008-4063  
Sales Training  
Tel.: (312) 640-2820  
DTN: 421-2820

Tina Hochstetter  
Area Sales Training Manager

Field Service Training  
FTC  
Tel.: (312) 640-5451  
DTN: 421-5451

Jacki Baum  
Training Center Manager

**Iowa**

Des Moines  
Loc.: DEO

---

Digital Equipment Corporation  
Educational Services  
Capitol Center III  
400 E. Court Avenue  
Des Moines, IA 50309-2017  
Customer Training  
Tel.: (312) 806-5500  
DTN: 473-5500

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Training Center Manager

**Maryland**

Washington, D.C.  
Loc.: EKO

---

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FTC  
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DTN: 339-4347

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**Massachusetts**

---

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Loc.: ACO1

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Development and Publishing  
Tel.: (508) 264-6283  
DTN: 244-6283

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Loc.: BUO

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12 Crosby Drive  
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Tel.: (617)276-4111  
DTN: 249-4111

U.S. Area Customer Training  
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DTN: 249-4213

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Corporate Marketing  
Tel.: (617) 276-1847  
DTN: 249-1847

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Quality Assurance,  
Customer Support Programs,  
Research and Development  
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DTN: 249-1455

Jim Malanson, Manager

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Roy Steele, Manager

Development and Publishing  
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DTN: 249-1411

Joluit Vanderhooft, Manager

Media Communications Group  
Tel.: (617) 276-1400  
DTN: 249-1400

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Strategic Planning and Programs  
Tel.: (617) 276-1446  
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Del Thorndike, Manager

Personnel  
Tel.: (617) 276-1451  
DTN: 249-1451

Mel Pierce, Manager

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Tel.: (617) 276-4206  
DTN: 249-4206

John McLean, Manager

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Customer Training

Lecture/Lab

Tel.: (617) 276-4380

DTN: 249-4380

Jack McCord

Training Center Manager

Employee Training

Lecture/Lab

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Tel.: (617) 276-1351

DTN: 249-1351

FTC

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Lou Kobbs, Manager

DIS Training

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DTN: 249-4735

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Quality Assurance — DSS

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DTN: 249-1791

Lois Collins, Manager

Quality Assurance — ESDP

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DTN: 249-1771

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Publishing Services

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DTN: 249-4361

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DTN: 249-4463

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DTN: 249-4739

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DTN: 249-4327

Chris Ball, Manager

Computer Images

Tel.: (617) 276-1894

DTN: 249-1894

Bob Morey

Personnel

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DTN: 249-4225

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Bedford Site Manager

Billerica  
Loc.: BKO

Digital Equipment Corporation  
Educational Services Distribution Center  
12A Esquire Road  
N. Billerica, MA 01862-2587  
Tel.: (508) 276-4980  
DTN: 249-4980  
Tel.: (508) 276-4166  
DTN 249-4166

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Boylston  
Loc.: BYO

Digital Equipment Corporation  
215 Main Street, Route 70  
Boylston, MA 01505-2099  
Sales Training Center  
New Hire Product Training  
Tel.: (508) 869-5246  
DTN: 245-5246

John Maxwell  
Training Center Manager

Training Development  
Tel.: (508) 869-5332  
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Burlington  
Loc.: FPO

Digital Equipment Corporation  
30 North Avenue  
Burlington, MA 01803  
DIS Training  
Tel.: (617) 273-6210  
DTN: 283-6210

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Corporate Manager

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Tel.: (617) 273-7600  
DTN: 283-7600

Charles Tharp  
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Development and Publishing  
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DTN: 283-6292

Maureen Wilson, Manager

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Micro Media  
Tel.: (617) 273-7400  
DTN: 283-7400

Jerry Bourque, Manager

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Tel.: (617) 273-7479  
DTN: 249-7479

Lisa Ehrlich, Manager

Burlington  
Loc.: UFO

Digital Equipment Corporation  
5 Burlington Woods Drive  
Burlington, MA 01803-4539  
Sales Training  
Tel.: (617) 229-7091  
DTN: 277-7091

Don Curns  
Area Sales Training Manager

Hudson  
Loc.: HLO2

Digital Equipment Corporation  
77 Reed Road  
Hudson, MA 01749-3895  
Development and Publishing  
Tel.: (508) 568-4963  
DTN: 225-4963

Robert Johnson, Manager

Littleton  
Loc.: LJO2

Digital Equipment Corporation  
30 Porter Road  
Littleton, MA 01460-1446  
Development and Publishing  
Tel.: (508) 486-2292  
DTN: 226-2292

Steve Cordeiro, Manager

Littleton  
Loc.: LKG

Digital Equipment Corporation  
550 King Street  
Littleton, MA 01460-1289  
Business Fellowship Program  
Business Fellowship in Networking  
Tel.: (508) 486-8320  
DTN: 226-8320

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Training Center Manager

Marlboro  
Loc.: DLB

Digital Equipment Corporation  
Business Fellowship Programs  
500 Donald Lynch Boulevard  
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Tel.: (508) 490-8315  
DTN: 291-8315

Chester Bowles  
Corporate Manager

Business Fellowship in Artificial Intelligence  
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DTN: 291-8319

Ajayinder Berman  
Training Center Manager

Executive Business Fellowship  
Tel.: (508) 486-8320  
DTN: 226-8320

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Training Center Manager

Marlboro  
Loc.: MRO

Digital Equipment Corporation  
Two Results Way  
Marlboro, MA 01752-3011  
Office Applications  
Customer and Employee Training  
Tel.: (508) 493-6258  
DTN: 223-6258

Contact:  
Ron Pieciul

Development and Publishing  
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DTN: 297-5972

Pat Baker, Manager

Media Communications  
Design and Development  
Tel.: (508) 467-5111  
DTN: 297-5111

Diane Pitochelli, Manager

Maynard  
Loc.: PKO3

Digital Equipment Corporation  
129 Parker Street  
Maynard, MA 01754  
Office Applications  
Tel.: (508) 493-1676  
DTN: 223-1676

Susan George  
Corporate Manager

Office Applications  
Customer and Employee Training  
Lecture/Lab  
Tel.: (508) 493-4895  
DTN: 223-4895

Contact:  
Brigitte Redinger

Development and Publishing  
Tel.: (508) 897-2487  
DTN: 223-2487

Clem Daems, Manager

Media Communications  
Corporate Photography  
Tel.: (508) 897-5111  
DTN: 223-5111

Phil Bailey, Manager

Maynard  
Loc.: MLO5

Digital Equipment Corporation  
146 Main Street  
Maynard, MA 01754-2571  
Development and Publishing  
Tel.: (508) 897-7197  
DTN: 223-7197

Susan Field-Tamker, Manager

Shrewsbury  
Loc.: SHR1

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333 South Street  
Shrewsbury, MA 01545-4112  
Development and Publishing  
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DTN: 237-3642

Jerry Kasten, Manager

Stow  
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