





PRODUCT MARKETING GROUP (PMG)  
CENTRAL SYSTEMS ENGINEERING

FY90 BEIGE BOOK SUBMISSION

11/1/89

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PRODUCT MARKETING GROUP (PMG)  
CENTRAL SYSTEMS ENGINEERING  
FY90 BEIGE BOOK SUBMISSION

STRATEGY:

Provide integration "building blocks" and/or products in response to market requirements for the development of customer solutions.

- o Program manage the process from Solution Specifications to the deliverables for a solutions roll-out strategy.
- o Plan and develop application integration platforms with broad applicability allowing for easy and effective integration of applications and services for solution delivery.
- o Develop market-specific products that support the major programs.

Make solutions easy to sell/buy, easy to install, and easy to maintain.

- o Characterize our systems platforms for competitive positioning, for sizing and configuring solutions, and for improving our base systems/components.
- o Develop and deliver configuration guides and tools for sizing and designing solutions.
- o Develop and deliver capacity planning and systems tuning guides and tools for managing and growing the customer's computing environment.

Assure that deliverables are developed in a framework and format that insures consistency across PMG Engineering for developing and delivering components against a solutions roll-out strategy.

- o Develop a consistent methodology for producing and delivering platforms, guides, and tools.
- o Establish a Corporate methodology for characterizing and modeling our systems platforms.

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SUMMARY of (GROUP) BUDGET REQUEST for ORGANIZATION

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 FY90 PMG Engineering Budget Summary  
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PMG	FY89 (ACT)		FY90 BOD	
	SYS ENG	PROD ENG	SYS ENG	PROD ENG
BOIS	7.9	3.7	7.5	1.5
BOSE	.0	22.5	.0	22.0
CENTSE	13.8	.0	15.0	.0
CMPD	6.1	10.9	6.2	11.9
CSG	6.7	9.6	8.7	10.1
IMAGE	.0	4.6	1.5	5.6
ESG	6.3	3.4	7.1	3.3
LDP	3.0	3.3	3.1	3.1
GSB	.0	.0	1.4	.0
TOTAL PMG	43.8	58.0	50.5	57.5
PM ADJUST		-6.6		.7
COMBINED	95.2		108.7	

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 SUB GROUP: ENTERPRISE SOLUTIONS/PROGRAMS

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Project ID	Act Ch	Loc Cde	Int Cde	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21611E00	3	ASP MRO	NA	SE DELIVERABLES PROCEDURE	NA	NA	NA	0.0	0.1	0.1	0.2		PRINDLE, HAP
21611F00	3	ABP MRO		ENTERPRISE APPLIC PLATFORM REQ	NA	NA		0.0	0.1	0.1	0.2		PRINDLE, HAP
21611M00	3	APM MRO	NA	OPERATIONS PLANNING PROGRAM	NA	NA	NA	0.0	0.2	0.3	0.4		TUCCI, AL
21611N00	3	APM MRO	NA	PLANNING, POLICIES AND COMMUNIC	NA	NA	NA	0.0	0.0	0.0	0.0		TUCCI, AL
21611O00	3	APM MRO	NA	SYSTEMS ENGIN EDUCATION PROGRA	NA	NA	NA	0.0	0.0	0.0	0.0		TUCCI, AL
21611P00	3	APM MRO		PLANNING ANAL/ORG STATUS RPT'G	NA	NA		0.0	0.0	0.0	0.0		TUCCI, AL
21611Q00	3	AAD MRO	NA	ENTERPRISE SYST INTEGRATION PG	NA	NA	NA	0.0	0.3	0.6	1.1		KAPADIA/PALMER
21611S00	3	AAD MRO	NA	ENTERPRISE INTEGRAT'N WHITE RP	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA/FREITAS
21611T00	3	AAD MRO	NA	ENTERPRISE-WIDE INFO INTEGRAT'	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA/PALMER
21611U00	3	ARP MRO	NA	JOINT PARTNERSHIPS	NA	NA	NA	0.0	0.0	0.0	0.0		PALMER/GOODENOW
21611Z00	3	ABP MRO	NA	SE OP/BUS IMPACT MEASUREMENT	NA	NA	NA	0.0	0.1	0.1	0.2		BOB YOSCA
21611X00	3	AAD MRO	NA	ENTERPRISE METHODOLOGIES/TOOLS	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA
21611Y00	3	ABP MRO	NA	ENTERPRISE APPLIC PLATFORM REQ	NA	NA	NA	0.0	0.0	0.0	0.0		PRINDLE, HAP
Chart	3	In-House Funded Proposed Project Totals						0.0	0.8	1.2	2.1		
Chart	3	Externally Funded Proposed Project Totals						0.0	0.0	0.0	0.0		
Chart	3	Proposed ENTERPRISE SOLUTIONS/PROGRAMS						0.0	0.8	1.2	2.1		
Chart	3	In-House Funded Incremental Project Totals						0.0	0.0	0.0	0.0		
Chart	3	Externally Funded Incremental Project Totals						0.0	0.0	0.0	0.0		
Chart	3	Incremental ENTERPRISE SOLUTIONS/PROGRAMS						0.0	0.0	0.0	0.0		
Chart	3	Totals for ENTERPRISE SOLUTIONS/PROGRAMS						0.0	0.8	1.2	2.1		

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In-House Funded Project Totals										0.0	0.8	1.2	2.1	
Externally Funded Project Totals										0.0	0.0	0.0	0.0	
Proposed for ENTERPRISE SOLUTIONS/PROGRAMS										0.0	0.8	1.2	2.1	
In-House Funded Incremental Project Totals										0.0	0.0	0.0	0.0	
Externally Funded Incremental Project Totals										0.0	0.0	0.0	0.0	
Incremental ENTERPRISE SOLUTIONS/PROGRAMS										0.0	0.0	0.0	0.0	
Grand Totals for ENTERPRISE SOLUTIONS/PROGRAMS										0.0	0.8	1.2	2.1	

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21611E00	3	ASP	MRO	NA	SE DELIVERABLES PROCEDURE	NA	NA	NA	0.0	0.1	0.1	0.2		PRINDLE, HAP

Provide a procedure to deliver demos, training (sales/technical) documentation, media, literature and conduct events targetting Sales and Service.

- a) Develop and implement a procedure for delivering PMG's Systems Engineering content to the Sales Force and Services.
- b) Create a pro-active dialogue between service partners and PMG/SE to influence the solutions "rollout" development.
- c) Perform an example enterprise system integration for the field to see, hear, and understand the process and players.

ADDED VALUE: Create pro-active connections to our corporate partners, establish a consistent procedure, and train people in the process.

21611F00	3	ABP	MRO		ENTERPRISE APPLIC PLATFORM REQ	NA	NA		0.0	0.1	0.1	0.2		PRINDLE, HAP
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Develop a process to generate enterprise application platform requirements.

- a) Analyze field data and generate a requirements document for enterprise integration; Get approval.

ADDED VALUE: A product.

21611M00	3	APM	MRO	NA	OPERATIONS PLANNING PROGRAM	NA	NA	NA	0.0	0.2	0.3	0.4		TUCCI, AL
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This program includes the dollars for the following projects listed after this:

- 1. PLANNING, POLICIES, AND COMMUNICATIONS
- 2. SYSTEMS ENGINEERING EDUCATION PROGRAM (SEEP)
- 3. PLANNING/ANALYSIS/ORGANIZATION STATUS RPT'G

21611N00	3	APM	MRO	NA	PLANNING, POLICIES AND COMMUNIC	NA	NA	NA	0.0	0.0	0.0	0.0		TUCCI, AL
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Publish a PMG LRP Guidelines PMG LRP Engineering Summary and Overview that insures consistency and synergy across PMG Engineering groups (Systems Engineering and Product Engineering) and rolls up major facets of each PMG Engineering groups' LRP.

ADDED-VALUE: Unifies PMG Engineering's LRP with goals and strategies supporting the common vision of systems integration.

Implement a phase review process for major programs (Solutions, AIP'S) for PMG SE that is standardized and institutionalized. Implement a forma mechanism for reviewing these major programs.

ADDED-VALUE: Provides guidance and consistency in the development of programs and permits prediction of roles with certainty.

Develop a common set of definitions for the enterprise solutions model and communicate by publishing a Systems Engineering "White Paper" that includes definitions, models, glossary of terms, and detailed SE integration activities.

ADDED-VALUE: Creates a communication vehicle by which Systems Engineering articulate its policies, methods, and procedures around systems integration cross-functional organizations.

21611000	3	APM	MRO	NA	SYSTEMS ENGIN EDUCATION PROGRA	NA	NA	NA	0.0	0.0	0.0	0.0		TUCCI, AL
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Drive the transfer of methods and technical information to enhance PMG's knowledge and expertise in Systems Engineering and integration. Sponsor presenters whose technical information enhances the knowledge and added-value of PMG Engineering. Set up a seminar series "for engineers by engineers" that addresses integration techniques/technologies. Develop a methodology forum that addresses engineering skills and tools for building and testing solutions and platforms. Develop and deliver an education plan supporting the above.

ADDED-VALUE: Develop a skilled and disciplined PMG Engineering workforce.

21611P00	3	APM	MRO		PLANNING ANAL/ORG STATUS RPT'G	NA	NA		0.0	0.0	0.0	0.0		TUCCI, AL
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Analyze and report on major SE programs/projects. Publish a list of major programs/deliverables. Report on program/deliverables status changes. Update the Product Selection charts, as necessary. Develop a process to incorporate PMG SE deliverables and delivery vehicles like SOFTBASE. Roll-up CSE's budget and headcount plans.

ADDED-VALUE: Enables PMG Engineering leaders to effectively direct by providing analysis and central focus for programs, processes, financial and organizational plans.

21611Q00	3	AAD	MRO	NA	ENTERPRISE SYST INTEGRATION	PG	NA	NA	0.0	0.3	0.6	1.1		KAPADIA/PALMER
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This program includes the dollars for the following projects listed below after this program:

1. ENTERPRISE INTEGRATION STRATEGY (WHITE PAPER)
2. ENTERPRISE-WIDE INFO INTEGRATION
3. JOINT PARTNERSHIPS
4. ENTERPRISE METHODOLOGIES AND TOOLS

21611S00	3	AAD	MRO	NA	ENTERPRISE INTEGRAT'N WHITE RP	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA/FREITAS
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Investigate, understand, identify and articulate the dimensions scope, needs, issues and problems of enterprise integration. Understand what this new business (Enterprise Integration) means to Digital and its' implications for Systems Engineering in particular. Generate a vision, strategy, and plan for "enterprise system integration" and the systems engineering work that needs to be done in support of that strategy.

ADDED VALUE: Provides mutual understanding between various parties on "enterprise integration" and a road map for future work.

21611T00	3	AAD	MRO	NA	ENTERPRISE-WIDE INFO INTEGRAT'	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA/PALMER
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Investigate, identify, define, develop and/or drive the integration technology needed (methods, tools, platforms) to allow integration of information at the enterprise level, focusing on:

1. Access, retrieval and organization of information by the user the way he wants it and as and when he needs it.
2. Information transfer within an enterprise.
3. Information transformation.

This activity is in advance development (Pre-Phase 0). At the end of this period, specific projects will be identified and will enter Phase 0.

ADDED VALUE: The information is held today in a variety of places and in variety of (data) structures spread across work groups, departments and geographies, e.g. files, compound documents, data bases, etc. There are a multitude of component products and mechanisms which already exist and work relatively narrow spaces. We will understand these products and emerging architectures, select the appropriate (standard, strategic) ones and focus "tying these products and architectures together" to achieve better information integration within the enterprise. We will focus on higher level system, methodolgies, platforms, and tools that will enable the integration of base components and technologies, and leverage them further towards providing solutions to customers.

21611U00	3	ARP	MRO	NA	JOINT PARTNERSHIPS	NA	NA	NA	0.0	0.0	0.0	0.0		PALMER/GOODENOW
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CCNY:

Investigate and document the impact of disk fragmentation on systems performance. Identify and document the problems encountered when an organization moves from a hierarcical IBM environment to a workstation base distributed processing environment. Evaluate and document the performance impact of a different operating system environment (VMS to ULTRIX) on a solution system (SDRC).

DICE:

Investigate and document the advantages and drawbacks of the encapsulation techniques used within DICE for application integration.

Stanford:

Perform a project feasibility study and if feasible establish a joint partnership between Stanford, CMU and B/EPG to develop an information system for the DICE project. The DICE environment reflects an enterprise environment: heterogenous operating systems, multivendor systems and several different networks.

ADDED VALUE: Rapid knowledge acquisition and technology transfer in system engineering and integration technology, relatively a new engineering discipline in DEC.

21611200	3	ABP	MRO	NA	SE OP/BUS IMPACT MEASUREMENT	NA	NA	NA	0.0	0.1	0.1	0.2		BOB YOSCA
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Develop and implement an SE Operational Measurement System by defining and developing SE operational measurement criteria and congruent metrics for quality, timely, appropriate AIP's and Performance Testing and Characterization, as well as developing and utilizing SE customer (Field, Marketing, Engineering) acceptance criteria for PMG SE's deliverables.

ADDED-VALUE: Provide uniform and consistent operational metrics for all the PMG SE groups which will:

- Document and communicate PMG SE's discipline and success.
- Provide input for SE investment decisions.
- Determine PMG SE's success in supporting it's business goals.

Design, develop and implement an SE Business Impact Model which will describe how PMG SE deliverables and activities fit into the System Integration Business via SE's impact on the selling and delivering of customized, integrated customer solutions through the EIS process. The model will provide sensitivity analysis capability for identifying the effect on SI profitability resulting from feasible project win rate improvements, project bidding/selling cost efficiencies, and services delivery efficiencies attributes to PMG SE platforms and deliverables.

ADDED-VALUE: This model will quantify the impact of PMG SE on SI profitability and measure SE's return on its investment, as well as facilitate the communication of ideas for profitable business approaches/strategies among Marketing, Services, and Sales.

21611X00	3	AAD	MRO	NA	ENTERPRISE METHODOLOGIES/TOOLS	NA	NA	NA	0.0	0.0	0.0	0.0		KAPADIA
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Investigate, identify, define and develop (or procure) methodologies, tools and processes to develop the solutions necessary to satisfy a given enterprise's business and information architecture, and subsequently configure systems and components to implement the solution architecture. This work will be done in co-operation with other PMG and Field groups, and will make use of the enterprise modeling work, information architecture work, (IADT) etc. It will also take advantage of the Enterprise Information Architecture (EIA) work being done in Engineering Product Strategy and Architecture group. This activity is in advanced development (Pre-Phase 0). At the end of this period, specific projects will be identified and will end at Phase 0.

ADDED VALUE: Value Added: Disciplined methodologies and tools will allow the Services to build predictable (cost, time and function) and reliable enterprise solutions cost effectively and profitably. Alternatively, ad hoc approaches would cut into corporate revenues and profits.

21611Y00	3	ABP	MRO	NA	ENTERPRISE APPLIC PLATFORM REQ	NA	NA	NA	0.0	0.0	0.0	0.0		PRINDLE, HAP
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Coordinate and manage the phase review process for enterprise systems integration deliverables. This is an extended project of #21611F00.

ADDED VALUE: A product.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart 3				In-House Funded Proposed Project Totals				0.0	0.8	1.2	2.1		
Chart 3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Proposed ENTERPRISE SOLUTIONS/PROGRAMS				0.0	0.8	1.2	2.1		
Chart 3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Incremental ENTERPRISE SOLUTIONS/PROGRAMS				0.0	0.0	0.0	0.0		
Chart 3				Totals for ENTERPRISE SOLUTIONS/PROGRAMS				0.0	0.8	1.2	2.1		
In-House Funded Project Totals								0.0	0.8	1.2	2.1		
Externally Funded Project Totals								0.0	0.0	0.0	0.0		
Proposed for ENTERPRISE SOLUTIONS/PROGRAMS								0.0	0.8	1.2	2.1		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental ENTERPRISE SOLUTIONS/PROGRAMS								0.0	0.0	0.0	0.0		
Grand Totals for ENTERPRISE SOLUTIONS/PROGRAMS								0.0	0.8	1.2	2.1		

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 SUB GROUP: CENTRAL TESTING ORGANIZATION

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21621400	3	ACM	MRO	NA	SYSTEM CHARACTERIZATION	NA	NA	NA	0.0	6.3	5.0	5.2		PATEL, V
21621500	3	ACM	MRO	NA	WORKLOADS/TOOLS DEVELOPMENT	NA	NA	NA	0.0	2.6	2.3	3.0		PATEL, V
21621600	3	ACM	MRO	NA	PROGRAM OFFICE	NA	NA	NA	0.0	0.2	0.6	0.7		JONES, W
Chart	3				In-House Funded Proposed Project Totals				0.0	9.1	7.9	8.9		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed CENTRAL TESTING ORGANIZATION				0.0	9.1	7.9	8.9		
Chart	3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental CENTRAL TESTING ORGANIZATION				0.0	0.0	0.0	0.0		
Chart	3				Totals for CENTRAL TESTING ORGANIZATION				0.0	9.1	7.9	8.9		
In-House Funded Project Totals									0.0	9.1	7.9	8.9		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for CENTRAL TESTING ORGANIZATION									0.0	9.1	7.9	8.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CENTRAL TESTING ORGANIZATION									0.0	0.0	0.0	0.0		
Grand Totals for CENTRAL TESTING ORGANIZATION									0.0	9.1	7.9	8.9		

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21621400	3	ACM	MRO	NA	SYSTEM CHARACTERIZATION	NA	NA	NA	0.0	6.3	5.0	5.2	PATEL, V

Develop, document, and deliver to Marketing, Engineering and Field organizations the application-level performance characterization results in support of product launch for PMAXII, RIGEL, AQUARIUS, MIPSfair, ISIS, WILDCAT, RIGEL/V, CIRBUS, CMAX, PELE, LODGEPOLE, Large Clusters, and Distributed Systems using the following standard end user environment workloads:

TPBatch, WIC, CDIS, A1 & A1 Clu, PDE, CommBatch, CSGmix, A1/MANMAN, CASE/DW, MACPAC, M&DODGE, PDE/COB, New SciBatch/V, Db/Cr ACMS & DECIntac, and AIM.

21621500	3	ACM	MRO	NA	WORKLOADS/TOOLS DEVELOPMENT	NA	NA	NA	0.0	2.6	2.3	3.0	PATEL, V
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Develop, enhance, and maintain a comprehensive set of standard workloads representative of Digital's strategic applications markets...specifically, the Software Development End User for VMS and U\*IX Client/Server environments; new Vector systems; Mixed workload environments; Clusters; and Commercial environments. Support and develop the performance testing tools (VAXRTE, APEX, and XTRAP) for corporate-wide use. Support SMG modeling and simulation efforts and maintain existing tools and workloads.

21621600	3	ACM	MRO	NA	PROGRAM OFFICE	NA	NA	NA	0.0	0.2	0.6	0.7	JONES, W
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Program manage and coordinate the application-level characterization efforts of CCG, PMG's, and PBU's in the characterization of PMAXII, WILDCAT, CIRBUS, CMAX, AQUARIUS, RIGEL/V, PELE, LODGEPOLE, MARIAH, CLOUDRAKER, and APEN, and in the publication and communication of the performance summaries by the most effective channels, in allocation of prototypes and in running and providing administrative resources to the Performance Characterization Review Board and associated task forces.

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION REPORT  
 SUB GROUP: CENTRAL TESTING ORGANIZATION

31-Oct-1989  
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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
Chart	3				In-House Funded Proposed Project Totals				0.0	9.1	7.9	8.9		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed CENTRAL TESTING ORGANIZATION				0.0	9.1	7.9	8.9		
Chart	3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental CENTRAL TESTING ORGANIZATION				0.0	0.0	0.0	0.0		
Chart	3				Totals for CENTRAL TESTING ORGANIZATION				0.0	9.1	7.9	8.9		
In-House Funded Project Totals									0.0	9.1	7.9	8.9		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for CENTRAL TESTING ORGANIZATION									0.0	9.1	7.9	8.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CENTRAL TESTING ORGANIZATION									0.0	0.0	0.0	0.0		
Grand Totals for CENTRAL TESTING ORGANIZATION									0.0	9.1	7.9	8.9		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 SUB GROUP: CENTRAL SYSTEMS ENG. ADMIN

31-Oct-1989  
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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
21651100	3	APD	PKO	NA	LES SE APPLICATION ENVIRONMENT	NA	NA	NA	0.0	0.7	0.7	1.6		BELANGER, D
21651200	3	ACM	PKO	NA	LES SE SERVER SIZING	NA	NA	NA	0.0	2.0	1.2	2.0		BELANGER, D
21651700	3	ABP	MRO	NA	CSE BUSINESS PLANNING/ADMMINST	NA	NA	NA	0.0	0.9	1.1	1.6		TAYLOR, M
21651300	3	ACM	PKO	NA	LES SE APPLIC PLATFORM TESTING	NA	NA	NA	0.0	0.0	0.2	0.4		BELANGER, D
21651400	3	ACM	PKO	NA	LES SE DECWINDOWS/PC CHARAC.	NA	NA	NA	0.0	0.0	0.2	0.4		BELANGER, D
21651500	3	ACM	PKO	NA	LES SE LAVC/NFS CHARACTERIZAT.	NA	NA	NA	0.0	0.0	0.9	1.4		BELANGER, D
21651600	3	ACM	PKO	NA	LES SE PCSA CHARACTERIZATION	NA	NA	NA	0.0	0.0	0.6	1.0		BELANGER, D
Chart 3					In-House Funded Proposed Project Totals				0.0	3.6	3.4	6.0		
Chart 3					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Proposed CENTRAL SYSTEMS ENG. ADMIN				0.0	3.6	3.4	6.0		
Chart 3					In-House Funded Incremental Project Totals				0.0	0.0	1.5	2.4		
Chart 3					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Incremental CENTRAL SYSTEMS ENG. ADMIN				0.0	0.0	1.5	2.4		
Chart 3					Totals for CENTRAL SYSTEMS ENG. ADMIN				0.0	3.6	4.9	8.4		
In-House Funded Project Totals									0.0	3.6	3.4	6.0		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for CENTRAL SYSTEMS ENG. ADMIN									0.0	3.6	3.4	6.0		
In-House Funded Incremental Project Totals									0.0	0.0	1.5	2.4		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CENTRAL SYSTEMS ENG. ADMIN									0.0	0.0	1.5	2.4		
Grand Totals for CENTRAL SYSTEMS ENG. ADMIN									0.0	3.6	4.9	8.4		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION REPORT  
 SUB GROUP: CENTRAL SYSTEMS ENG. ADMIN

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21651100	3	APD	PKO	NA	LES SE APPLICATION ENVIRONMENT	NA	NA	0.0	0.7	0.7	1.6		BELANGER, D
<p>Working with PMG and other application oriented groups to design base platform systems around application environments; then characterize and document examples. Output, through partner groups, will be "application platforms."</p>													
21651200	3	ACM	PKO	NA	LES SE SERVER SIZING	NA	NA	0.0	2.0	1.2	2.0		BELANGER, D
<p>Characterization of servers for LAVC and ULTRIX/NFS systems. Resulting data used to generate field-level documentation to aid in selecting, configuring, installing, and maintaining such systems. Example of output is LAVC Server Sizing Guide.</p>													
21651700	3	ABP	MRO	NA	CSE BUSINESS PLANNING/ADMMINST	NA	NA	0.0	0.9	1.1	1.6		TAYLOR, M
<p>This is the management resources directing the Systems Engineering goals and leading the efforts to our vision. It includes all Mike Taylor's direct reports from SMG, B/EPG, CCG, and his Technical Director.</p>													
21651300	3	ACM	PKO	NA	LES SE APPLIC PLATFORM TESTING	NA	NA	0.0	0.0	0.2	0.4		BELANGER, D
<p>Further, more comprehensive testing of "application paltforms".</p>													
21651400	3	ACM	PKO	NA	LES SE DECWINDOWS/PC CHARAC.	NA	NA	0.0	0.0	0.2	0.4		BELANGER, D
<p>Performance testing of DECwindows in PC environment. Investigation of parameters influencing performance.</p>													
21651500	3	ACM	PKO	NA	LES SE LAVC/NFS CHARACTERIZAT.	NA	NA	0.0	0.0	0.9	1.4		BELANGER, D

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION REPORT  
 SUB GROUP: CENTRAL SYSTEMS ENG. ADMIN

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
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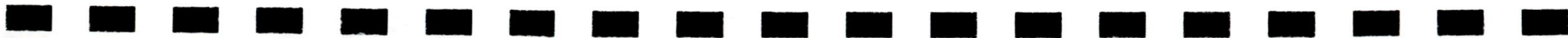
Further investigation of variables in LAVC and NFS systems, especially in a DECwindows environment. System tuning issues, variations with respect to different types of applications, and competitive issues will be addressed. Output, again, will be field documentation.

21651600	3	ACM	PKO	NA	LES SE PCSA CHARACTERIZATION	NA	NA	NA	0.0	0.0	0.6	1.0		BELANGER, D
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Characterization and measurement of PCSA systems, with respect to the variables of servers, tuning, satyellites, and applications. Output will be field documentation similar to that proposed above for LAVC and NFS.

Chart 3	In-House Funded Proposed Project Totals	0.0	3.6	3.4	6.0
Chart 3	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 3	Proposed CENTRAL SYSTEMS ENG. ADMIN	0.0	3.6	3.4	6.0
Chart 3	In-House Funded Incremental Project Totals	0.0	0.0	1.5	2.4
Chart 3	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 3	Incremental CENTRAL SYSTEMS ENG. ADMIN	0.0	0.0	1.5	2.4
Chart 3	Totals for CENTRAL SYSTEMS ENG. ADMIN	0.0	3.6	4.9	8.4
In-House Funded Project Totals		0.0	3.6	3.4	6.0
Externally Funded Project Totals		0.0	0.0	0.0	0.0
Proposed for CENTRAL SYSTEMS ENG. ADMIN		0.0	3.6	3.4	6.0
In-House Funded Incremental Project Totals		0.0	0.0	1.5	2.4
Externally Funded Incremental Project Totals		0.0	0.0	0.0	0.0
Incremental CENTRAL SYSTEMS ENG. ADMIN		0.0	0.0	1.5	2.4
Grand Totals for CENTRAL SYSTEMS ENG. ADMIN		0.0	3.6	4.9	8.4

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 SUB GROUP: SYSTEMS MODELING GROUP

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
21631100	3	ACM	MRO	NA	COMPUTATIONAL MODELING	NA	NA	NA	0.0	0.5	0.8	0.9		GERTLER, JUDITH B.
21631200	3	AAD	MRO	NA	DESCRIPTIVE MODELING	NA	NA	NA	0.0	0.1	0.2	0.2		ROY, JANE
21631300	3	ACM	MRO	NA	MODELING TECHNOLOGY	NA	NA	NA	0.0	0.0	0.0	0.1		KRAMER, LESLIE
Chart	3				In-House Funded Proposed Project Totals				0.0	0.6	1.0	1.2		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		
Chart	3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental SYSTEMS MODELING GROUP				0.0	0.0	0.0	0.0		
Chart	3				Totals for SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		
					In-House Funded Project Totals				0.0	0.6	1.0	1.2		
					Externally Funded Project Totals				0.0	0.0	0.0	0.0		
					Proposed for SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		
					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
					Incremental SYSTEMS MODELING GROUP				0.0	0.0	0.0	0.0		
					Grand Totals for SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION REPORT  
 SUB GROUP: SYSTEMS MODELING GROUP

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
21631100	3	ACM	MRO	NA	COMPUTATIONAL MODELING	NA	NA	NA	0.0	0.5	0.8	0.9		GERTLER, JUDITH B.
COMPUTATIONAL MODELING PROGRAM														

Modeling of three workloads used by CCG for performance evaluation on stand alone systems. Modeling studies for performance positioning of new product (AQUARIUS, MARIAH).

21631200	3	AAD	MRO	NA	DESCRIPTIVE MODELING	NA	NA	NA	0.0	0.1	0.2	0.2		ROY, JANE
DESCRIPTIVE MODELING PROGRAM														

Enhancement and documentation of Enterprise Business Model. Implementation of this model on graphics workstation. Application to field case studies.

21631300	3	ACM	MRO	NA	MODELING TECHNOLOGY	NA	NA	NA	0.0	0.0	0.0	0.1		KRAMER, LESLIE
MODELING TECHNOLOGY PROGRAM														

University sponsorship. Forums, meetings and publications for internal Dig coordination. Development of tools for broad internal Digital use.

These activities done as part of the Computational and Descriptive Modeling Programs in FY89 & 90. Resources planned for tool development in FY91.

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION REPORT  
 SUB GROUP: SYSTEMS MODELING GROUP

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart 3				In-House Funded Proposed Project Totals				0.0	0.6	1.0	1.2		
Chart 3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Proposed SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		
Chart 3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Incremental SYSTEMS MODELING GROUP				0.0	0.0	0.0	0.0		
Chart 3				Totals for SYSTEMS MODELING GROUP				0.0	0.6	1.0	1.2		
In-House Funded Project Totals								0.0	0.6	1.0	1.2		
Externally Funded Project Totals								0.0	0.0	0.0	0.0		
Proposed for SYSTEMS MODELING GROUP								0.0	0.6	1.0	1.2		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental SYSTEMS MODELING GROUP								0.0	0.0	0.0	0.0		
Grand Totals for SYSTEMS MODELING GROUP								0.0	0.6	1.0	1.2		

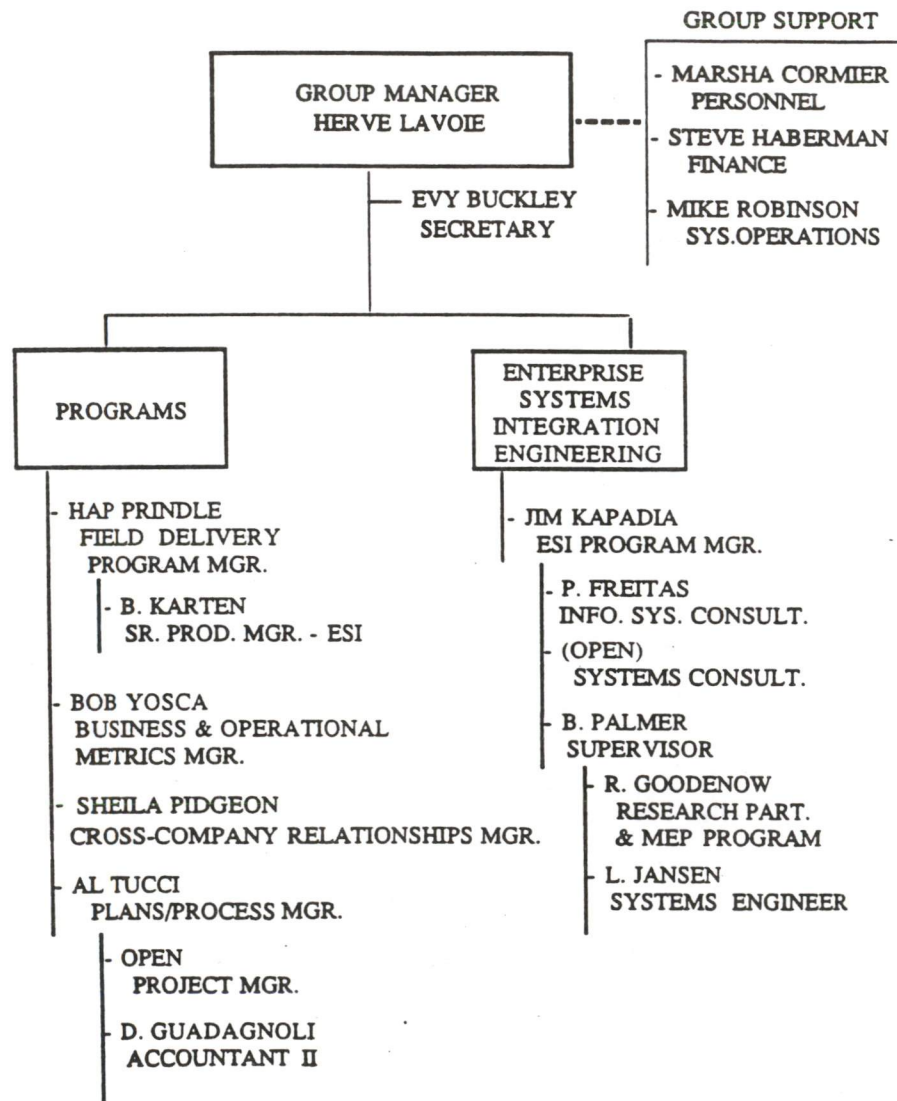
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PMG/CSE  
BUSINESS/ENGINEERING PROGRAMS GROUP  
ORGANIZATION CHART



**PRODUCT MARKETING  
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CENTRAL CHARACTERIZATION GROUP (CCG)**

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Arlene Terrasi  
[Jodi Dowd]  
- secretary

Val Patel, Manager

- [Paula Schofield], secretary  
- Al Saloky - Special Projects

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Pam Archambault  
- Personnel Assistant

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[Paula Schofield]  
- secretary

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[Jodi Dowd]  
- secretary

**TECHNICAL  
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[Jodi Dowd]  
- secretary

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Lois Sherman  
- secretary

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Management**

Ray Mascola  
Open

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Management**

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\* Dee Leonard  
\* John Clark  
- Jean Canfield

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Characterization**

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acting supervisor

Bill Morgan  
Sue Schartner  
Martha Ryan  
Ken Horton  
Linda Beach  
Open

**Workload Devel. &  
Characterization**

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supervisor  
Forough Ghahramani  
David Huang  
[Jim Sumrall]  
John Finocchiaro  
Jim Carron  
Bill Beauregard  
Open

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Howard Harriott  
[Mark Henry]  
Mark Savery

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Eric DeBarros

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Services**

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Brenda Buttrick  
Alexis Grivakis  
Saro Chinnaswamy  
Mike Robinson

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Mark Hopewell  
Ingrid Obuchon  
Pat Mulvey

- Start Date - 12/6/89  
[ ] Contract Employees  
\* CUP Technical Writers

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Secretary- Betty Veo

**FINANCE**  
Jim Stock

**PMG SYSTEMS ENG. MGRS.**  
- BOIS, Dick Loveland  
- CIM, Dee Stewart  
- CSG, Steve Davis  
- ESG, Prakash Bhalerao  
- LDP, Bill Segal

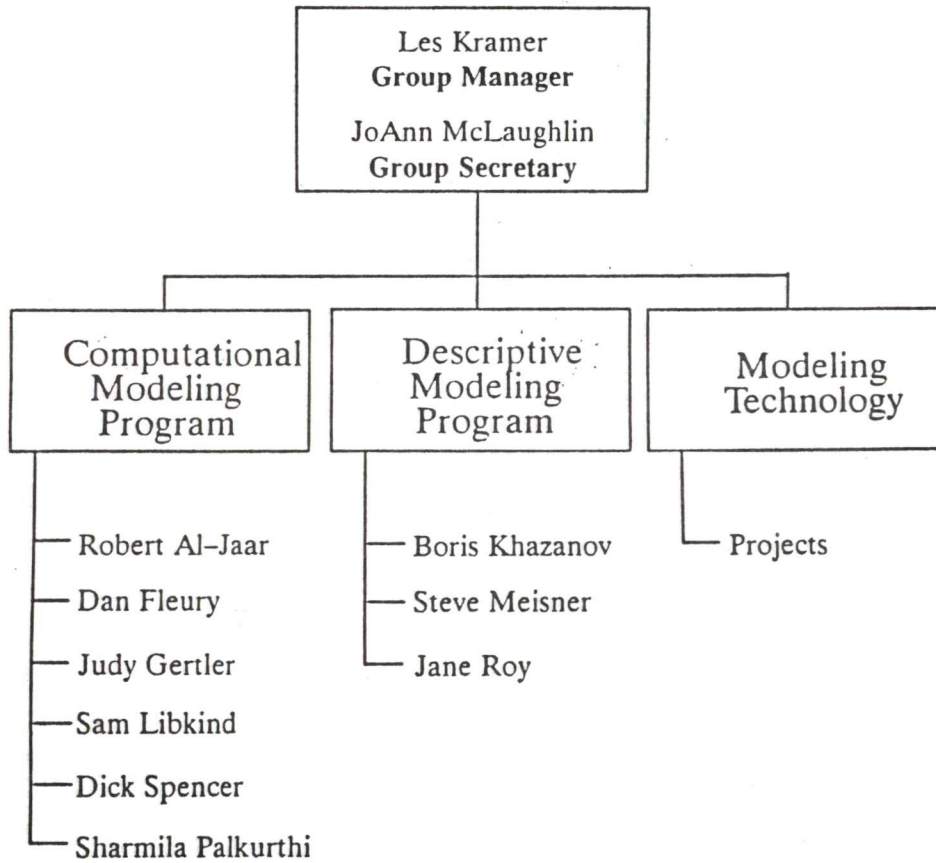
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Herve Lavoie

**CENTRAL  
CHARACTERIZATION**  
Val Patel

**SYSTEMS MODELING**  
Les Kramer

**PERSONNEL/O.D.**  
Marsha Cormier

SMG



**LABORATORY DATA PRODUCTS/SCIENCE  
ENGINEERING LRP  
FY90**

Revision/Update Information: 12  
1 November 1989

PRODUCT MARKETING GROUP (PMG)  
LDP/SCIENCE ENGINEERING  
FY90 BEIGE BOOD SUBMISSION

STRATEGY:

Provide worldwide industry leading Realtime and Scientific computing solutions through the development of products, tools, and application integration platforms.

GOALS:

- o Deliver tools, products, and application integration platforms consistent with the corporate strategy as measured by time to market and revenue.
- o Drive LDP/Science development strategies so that our products and integration tools are key components of solutions.
- o Work with other Product Marketing Groups to further define application platforms, identify common solution needs and architectures, and develop a process for the delivery of timely, high quality solutions platforms.
- o Characterize the performance of application platforms for LDP/Science markets.

RISK AND DEPENDENCIES:

- o ULTRIX Realtime facilities
- o NEW Corporate Bus - Futurebus+
- o Corporate investment in Distributed Realtime
- o Realtime performance of RISC platforms

---

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- Linda Aponte

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(See Attached)

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- Roman Pinsky, LGP
- Deb Convert, LSP/Emerald
- Kenney Chan, Emerald
- Vicky Meagher, Doc
- Wendy Shindler, Doc

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- Eleaine Milosz LIMS SW
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- Ken Roller, LIS Adv Dev
- Richard Hansen, Doc

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- Dick Landau, Perf Char

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- Roland Belanger, Supv
- Mary Mullarkey, Tech Support
- Aram Falsafi, Tech Support
- Joseph Gabriel, Tech Support
- Dek Lee, Tech Eval
- Susan Nolan, Tech Support
- Chuck Schneider, Tech Eval
- Pratish Shah, Tech Support
- Edison Tan, Tech Eval

**SYSTEM ENGINEERING**

**William Youngs: SW Eng Mgr**

- Pauline Guillemette, Sr Sec
- Ralph McNall, SW Eng Supv
- Dennis Carleton, PSC
- Ray George, NCAR
- Juliusz Richter, SW Prin Eng
- Sara Biyabani, SW Eng II
- Linda Tella, SW Sr Eng
- Joe Salem, Sw Eng II
- Bob Stetson, SW Eng Mgr
- Rich Lysakowski, Chemist
- Howard Rosenberg, Chemist

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21401100	1	PD	MRO	FC	VAXLAB SOFTWARE LIBRARY V1.4	2	9002	9001	0.0	0.2	0.1	0.0		HOFFMAN, BUREN
21401200	1	PD	MRO	FC	DECLAB V2.0	1	9009	9008	0.0	0.7	1.0	1.0		LYONS, JEANNE
21401500	1	PD	MRO	FC	ULTRIX/OSF IEEE-P1003.4 (POSIX	PRE-0	TBD	TBD	0.0	0.0	0.2	0.5		HOFFMAN, BUREN
21401600	1	PD	MRO	FC	BI CLOCK OPTION	4	8812	8811	0.0	0.1	0.0	0.0		LYONS, JEANNE
21401900	1	PD	MRO	FC	LIMS/SM V1.4	1	8906	8905	0.0	0.5	0.0	0.0		ZEMCIK, JACK
21401A00	1	PD	MRO	FC	LIMS/SM V1.5	PRE-0	9004	9003	0.0	0.1	0.1	0.0		LYONS, JEANNE
214ZZZZZ	1	PM	?		STF ADJUSTMENT	5	9012		0.0	0.0	0.0	0.0		HOFFMAN, BUREN
														LYONS, JEANNE
														STF
Chart	1				In-House Funded Proposed Project Totals				0.0	1.6	1.4	1.5		
Chart	1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Proposed LABORATORY DATA PRODUCTS				0.0	1.6	1.4	1.5		
Chart	1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Incremental LABORATORY DATA PRODUCTS				0.0	0.0	0.0	0.0		
Chart	1				Totals for LABORATORY DATA PRODUCTS				0.0	1.6	1.4	1.5		
21401C00	2	AD	MRO	NA	BUS TECHNOLOGY	NA	NA	NA	0.0	0.0	0.2	0.2		SOMES, DICK
21401D00	2	PS	MRO	NA	VSL SUPPORT & APPL. SUPPORT	NA	NA	NA	0.0	0.1	0.1	0.2		NA
21401E00	2	PS	MRO	NA	LDP HARDWARE PROD/APPL SUPPORT	NA	NA	NA	0.0	0.0	0.2	0.2		HOFFMAN, BUREN
21401G00	2	PS	MRO	NA	AEON SYSTEMS VIVA PROJECT	NA	NA	NA	0.0	0.5	0.0	0.0		NA
21401H00	2	PS	MRO	NA	LIMS/SM SUPPORT & TECH XFER	NA	NA	NA	0.0	0.3	0.1	0.3		ZEMCIK, JACK
21401I00	2	TE	MRO	NA	CMP TECHNICAL SUPPORT	NA	NA	NA	0.0	0.5	0.6	0.7	MRO	NA
21401I00	2	TE	MRO	NA	CMP TECHNICAL SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		HOFFMAN, BUREN
21401J00	2	AD	MRO	NA	REALTIME TECHNOLOGY	NA	NA	NA	0.0	0.3	0.4	0.4		NA
														ZEMCIK, JACK
														NA
														SOMES, DICK
														NA

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Chart 2					In-House Funded Proposed Project Totals				0.0	1.2	1.0	1.3		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.5	0.6	0.7		
Chart 2					Proposed LABORATORY DATA PRODUCTS				0.0	1.7	1.6	2.0		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental LABORATORY DATA PRODUCTS				0.0	0.0	0.0	0.0		
Chart 2					Totals for LABORATORY DATA PRODUCTS				0.0	1.7	1.6	2.0		
21401L00	3	APD	MRO	NA	DECLAB INSTRUMENT INTEGRATION	PRE-0	9002	8911	0.0	0.0	0.3	0.5		HOFFMAN, BUREN
21401O00	3	ARP	MRO	NA	DECLAB/DECSTATION OPTIONS EVAL	NA	NA	NA	0.0	0.0	0.2	0.2		ZEMCIK, JACK
21401Q00	3	ACM	MRO		LAB APPLICATION PERF. CHAR.	NA	NA		0.0	0.2	0.0	0.0		HOFFMAN, BUREN
21401R00	3	ARP	MRO	NA	LAB APPLI TECH PARTNERSHIP	NA	NA	NA	0.0	0.1	0.0	0.0		HOFFMAN, BUREN
21401S00	3	ACM	MRO	NA	HIPERF SIM SYS CHAR	NA	NA	NA	0.0	0.4	0.0	0.0		HOFFMAN, BUREN
21401T00	3	ACM	MRO		DIST REALTIME ENV. CHAR.	NA	NA		0.0	0.3	0.0	0.0		HOFFMAN, BUREN
21401U00	3	ACM	MRO	NA	RT APPLICATION WORKLOADS	1	NA	NA	0.0	0.0	0.2	0.7		HOFFMAN, BUREN
21401V00	3	APS	MRO	NA	STRATEGIC INTGN & ARCHITECTURE	NA	NA	NA	0.0	0.5	0.5	0.9		ZEMCIK, JACK
21401W00	3	ACM	MRO	NA	EUROPEAN LAB SYS ENGINEERING	NA	NA	NA	0.0	0.1	0.0	0.0		ZEMCIK, JACK
21401Y00	3	ARP	MRO	NA	TECH PART SCI COMP	NA	NA	NA	0.0	0.5	0.3	0.3		YOUNGS, WILLIAM
21401Z00	3	AAD	MRO	NA	CHEMIST WORKBENCH AIP	NA	NA	NA	0.0	0.0	0.3	0.6		YOUNGS, WILLIAM
21402100	3	ACM	MRO	NA	TEST/CHARACTERIZATION/TOOLS	NA	NA	NA	0.0	0.9	0.4	0.6		LYONS, JEANNE YOUNGS, WILLIAM
21402200	3	ACM	MRO	NA	SCIENTIFIC NETWORKS	NA	NA	NA	0.0	0.1	0.1	0.1		YOUNGS, WILLIAM
21402300	3	ACM	MRO	NA	SCIENTIFIC VISUALIZATION	NA	NA	NA	0.0	0.0	0.2	0.5		YOUNGS, WILLIAM
21402400	3	APD	MRO	NA	HIPERF COMP SS I	5	NA	NA	0.0	0.4	0.0	0.0		YOUNGS, WILLIAM

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21402500	3	APS	MRO	NA	HIPERF COMP SS I	5	NA	NA	0.0	0.1	0.0	0.0		YOUNGS, WILLIAM
21407000	3	ACM	MRO	NA	HPRT AIP	NA	NA	NA	0.0	0.0	0.6	0.0		ZEMCIK, JACK LYONS, JEANNE
21407100	3	APS	MRO	NA	STORAGE AND INTERCONNECTS	NA	NA	NA	0.0	0.0	0.1	0.1		YOUNGS, WILLIAM
Chart	3	In-House Funded Proposed Project Totals							0.0	3.6	3.2	4.5		
Chart	3	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Proposed LABORATORY DATA PRODUCTS							0.0	3.6	3.2	4.5		
Chart	3	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Incremental LABORATORY DATA PRODUCTS							0.0	0.0	0.0	0.0		
Chart	3	Totals for LABORATORY DATA PRODUCTS							0.0	3.6	3.2	4.5		
In-House Funded Project Totals								0.0	6.4	5.6	7.3			
Externally Funded Project Totals								0.0	0.5	0.6	0.7			
Proposed for LABORATORY DATA PRODUCTS								0.0	6.9	6.2	8.0			
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0			
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0			
Incremental LABORATORY DATA PRODUCTS								0.0	0.0	0.0	0.0			
Grand Totals for LABORATORY DATA PRODUCTS								0.0	6.9	6.2	8.0			

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21401100	1	PD	MRO FC	VAXLAB SOFTWARE LIBRARY V1.4	2	9002	9001	0.0	0.2	0.1	0.0		HOFFMAN, BUREN LYONS, JEANNE
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VAXlab Software Library V1.4 is a maintenance release that will provide support for the IEZ11 (SCSI to IEEE-488 connector) device driver for the new BI Clock (KWB), LGP support for DECwindows (via GKS V4.0), and miscellaneous bug fixes.

21401200	1	PD	MRO FC	DECLAB V2.0	1	9009	9008	0.0	0.7	1.0	1.0		HOFFMAN, BUREN LYONS, JEANNE
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DECLab is the family of realtime data acquisition and analysis offerings, destined to span multiple hardware/software platforms. This project addresses two platforms: VAX/VMS (e.g., VSL) and DECstation 3100/ULTRIX with associated product-specific performance characterization.

Emerald is the window-based graphical programmerless user interface for realtime data acquisition and analysis - providing a foundation for application integration, with initial support for existing VSL facilities. Documentation and programming utilities will be produced to assist in integrating future capabilities (Digital, customer, and third-party).

Particular emphasis will be directed toward virtualizing the IEEE-488 capability - i.e., effectively invisible, where needed. Instrumentation standards (e.g., IEEE-P981) may be incorporated.

21401500	1	PD	MRO FC	ULTRIX/OSF IEEE-P1003.4 (POSIX PRE-0 TBD TBD				0.0	0.0	0.2	0.5		HOFFMAN, BUREN LYONS, JEANNE
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Incorporate realtime functionality, as specified in the IEEE 1003.4 (POSIX) standard, into Digital's ULTRIX/OSF offering. Work will entail not only the development of the POSIX specified functionality, it will also include the tailoring and extension of the OSF/1 reference code. Tailoring and development of device drivers will also be required.

21401600	1	PD	MRO FC	BI CLOCK OPTION	4	8812	8811	0.0	0.1	0.0	0.0		ZEMCIK, JACK LYONS, JEANNE
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Resulting from an advanced development effort, a BI Clock (KWB32) will be manufactured and productized through a third party. The product will be handled via a product referral program.

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21401900	1	PD	MRO	FC	LIMS/SM V1.4	1	8906	8905	0.0	0.5	0.0	0.0		HOFFMAN, BUREN LYONS, JEANNE
This release enhances LIMS/SM in response to customer requests, including: LMF compliance, native template sample login, change location by location, password edit, user edit by function, and manual sample login enhanced to include template sample.														
21401A00	1	PD	MRO	FC	LIMS/SM V1.5	PRE-0	9004	9003	0.0	0.1	0.1	0.0		HOFFMAN, BUREN LYONS, JEANNE
This LIMS release provides ongoing maintenance and enhancements for LIMS/SM. We will address areas of performance improvement, database changes, editable limits, and problem fixes.														
214ZZZZZ	1	PM	?		STF ADJUSTMENT	5	9012		0.0	0.0	0.0	0.0		STF

Chart 1	In-House Funded Proposed Project Totals	0.0	1.6	1.4	1.5
Chart 1	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 1	Proposed LABORATORY DATA PRODUCTS	0.0	1.6	1.4	1.5
Chart 1	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Incremental LABORATORY DATA PRODUCTS	0.0	0.0	0.0	0.0
Chart 1	Totals for LABORATORY DATA PRODUCTS	0.0	1.6	1.4	1.5

21401C00	2	AD	MRO	NA	BUS TECHNOLOGY	NA	NA	NA	0.0	0.0	0.2	0.2		SOMES, DICK NA
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Track Futurebus+ and VME bridge technology as the standard is developed by the Futurebus+ working group. Assess bandwidth potential of backplane technology and protocols. Also track internal VMEbus adapter work to provide evaluation and feedback. Present technical and general information on these technologies, other system and bus issues, and market position and shares as a sales and marketing training support tool.

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21401D00	2	PS	MRO	NA	VSL SUPPORT & APPL. SUPPORT	NA	NA	NA	0.0	0.1	0.1	0.2		HOFFMAN, BUREN NA
<p>VSL product support includes software problem resolutions, technical training and consulting, and customer assistance. Application support includes technical support for trade shows and conferences.</p>														
21401E00	2	PS	MRO	NA	LDP HARDWARE PROD/APPL SUPPORT	NA	NA	NA	0.0	0.0	0.2	0.2		ZEMCIK, JACK NA
<p>LDP/Science will continue to provide a level of hardware support for both existing, and past LDP/Science product offerings. This support will identify Engineering's responsibility for problem resolution and technical consulting; however, due to product life cycles and ownership transfers, no platform migrations, product enhancements, or ECO implementations are planned. This effort also includes technical application support to assist in programs, i.e., sales shows and training, literature, demo assistance, and technical consulting.</p>														
21401G00	2	PS	MRO	NA	AEON SYSTEMS VIVA PROJECT	NA	NA	NA	0.0	0.5	0.0	0.0		ZEMCIK, JACK NA
<p>The VAXBI Interconnect to the VME (VIVA) project is a continuation of hardware and software problem resolution, technical training and consulting, documentation and diagnostics enhancements to the Aeon Systems VIVA product. This effort will resolve a number of outstanding QARs and provide technical assistance through the product warranty period.</p>														
21401H00	2	PS	MRO	NA	LIMS/SM SUPPORT & TECH XFER	NA	NA	NA	0.0	0.3	0.1	0.3		HOFFMAN, BUREN NA
<p>LIMS/SM product support includes backup support to the CAPS organization (CAPS directly handles all SPR's). This activity also includes those that are required for Corporate certification. Technology transfer includes providing technical guidance to SWS and third parties on components of LIMS/SM kernel, Communication Subsystem, and future application integration utilities.</p>														
21401I00	2	TE	MRO	NA	CMP TECHNICAL SUPPORT	NA	NA	NA	0.0	0.5	0.6	0.7	MRO	ZEMCIK, JACK NA
21401I00	2	TE	MRO	NA	CMP TECHNICAL SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		ZEMCIK, JACK NA

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This effort is for technical evaluations of potential CMP application products for ARB readiness. The evaluations follow a standardized set of technical criteria consistent across the PMG's. A report, with technical recommendations, is published with each evaluation. This effort also includes an annual report of existing CMPs to determine if the products have maintained a level of quality and DEC architectural compatibility during the year. The funding level includes LDP/Science's European CMP technical evaluations conducted through the Munich DCC Organization.

21401J00	2	AD	MRO	NA	REALTIME TECHNOLOGY	NA	NA	NA	0.0	0.3	0.4	0.4	SOMES, DICK NA
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Define the hardware and software components of a scalable computing environment for the execution of Distributed Realtime Applications.

Assess performance of FDDI operated at the datalink layer (which is all FDDI defines) as a dedicated data path and as broadcast medium emulating shared memory.

Prototype LIO interface for DEXFA, XMI FDDI Adapter. Performance measurements on DEXFA using prototype LIO software.

Chart 2	In-House Funded Proposed Project Totals	0.0	1.2	1.0	1.3
Chart 2	Externally Funded Proposed Project Totals	0.0	0.5	0.6	0.7
Chart 2	Proposed LABORATORY DATA PRODUCTS	0.0	1.7	1.6	2.0
Chart 2	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Incremental LABORATORY DATA PRODUCTS	0.0	0.0	0.0	0.0
Chart 2	Totals for LABORATORY DATA PRODUCTS	0.0	1.7	1.6	2.0

21401L00	3	APD	MRO	NA	DECLAB INSTRUMENT INTEGRATION	PRE-0	9002	8911	0.0	0.0	0.3	0.5	HOFFMAN, BUREN
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This project includes identifying key instrument vendors (primarily IEEE-488), integrating the instruments with DEClab platforms, and supplying documentation and standards to guide further integration efforts. The goal is to provide the customer a complete IEEE-488 instrument set to choose from. We will direct and encourage their participation. Note that this effort should be effective in integrating existing PCs into our distributed realtime model. Included in this effort is work to define a canonical-form data storage standard.

21401000	3	ARP	MRO	NA	DECLAB/DECSTATION OPTIONS EVAL	NA	NA	NA	0.0	0.0	0.2	0.2		ZEMCIK, JACK
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This effort is to maintain and increase technical awareness of the VAX and MIPS CO product families to enable migration of the DEClab application platform. This effort will be concentrated on the I/O and packaging characteristics of these platforms with third party VME options compatibility. Positioning papers and technical feasibilities and third party recommendations will be documented to provide technical guidance and third party consulting for DEClab's future product mix.

21401Q00	3	ACM	MRO		LAB APPLICATION PERF. CHAR.	NA	NA		0.0	0.2	0.0	0.0		HOFFMAN, BUREN
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Evolve laboratory systems engineering methodology and tool set for use in characterizing both solution systems environments and base platforms for process industries applications and realtime systems. For FY90, this activity is incorporated in "Realtime Application Workloads".

21401R00	3	ARP	MRO	NA	LAB APPLI TECH PARTNERSHIP	NA	NA	NA	0.0	0.1	0.0	0.0		HOFFMAN, BUREN
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Technical partnership with a high performance realtime customer (Bell Helicopter Textron) - with the aim of developing understanding within Digital of the system requirements and application techniques for high performance simulation systems. For FY90, this activity is incorporated in "Realtime Application Workloads".

21401S00	3	ACM	MRO	NA	HIPERF SIM SYS CHAR	NA	NA	NA	0.0	0.4	0.0	0.0		HOFFMAN, BUREN
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Provide characterized systems for research workgroup development of applications in aircraft simulation and similar closed-loop simulations. These combine both Digital and third party products. For FY90, this activity is incorporated in "Realtime Application Workloads".

21401T00	3	ACM	MRO		DIST REALTIME ENV. CHAR.	NA	NA			0.0	0.3	0.0	0.0	HOFFMAN, BUREN
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Advanced development and specification to define a Distributed Realtime Environment and Realtime Base Platforms for science, and provide the characterization effort needed to understand the performance properties to the Environment in both open-loop and closed-loop realtime scientific applications. For FY90, this activity is incorporated in "Realtime Application Workloads".

21401U00	3	ACM	MRO	NA	RT APPLICATION WORKLOADS	1	NA	NA		0.0	0.0	0.2	0.7	HOFFMAN, BUREN
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Characterize and document realtime systems for development of applications in simulations and laboratory applications. The workloads will incorporate both Digital and third party products.

Deliverables include specifications and performance results obtained by applying the workloads. Application notes will be generated, as appropriate, to communicate useful technical hints and helps to the field and customers.

21401V00	3	APS	MRO	NA	STRATEGIC INTGN & ARCHITECTURE	NA	NA	NA		0.0	0.5	0.5	0.9	ZEMCIK, JACK
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This activity will provide CMP/ISV technical support on unannounced products on a variety of levels. Included are application implementation and verification support, application design or event actual coding of critical functions or subroutines, and limited logistical support (software kits and distribution) to accomodate partners needs. Programs presently in place include: VMS, ULTRIX, DECWindows, PVAX, CDA, and DDIF/TDIF. Programs planned for FY90 include: Version upgrades of existing programs PC/MS DOS, MS-Windows, DECTop, RISC and Vector Machines. In addition, this activity includes CMP technical liasion to Central Engineering, design support to facilitate product migrations to key hardware platforms, and component performance testing. The funding level included LDP/Science's European CMP Integration and Architecture activity conducted through the Munich DCC Organizations.

21401W00	3	ACM	MRO	NA	EUROPEAN LAB SYS ENGINEERING	NA	NA	NA	0.0	0.1	0.0	0.0	ZEMCIK, JACK
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Provide startup funding for European LDP/Science Systems Engineering on a three year (FY88 - FY90) declining basis. For FY90, this activity will include CMP technical evaluation (lab partners), and realtime CASE.

21401Y00	3	ARP	MRO	NA	TECH PART SCI COMP	NA	NA	NA	0.0	0.5	0.3	0.3	YOUNGS, WILLIAM
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This investment supports engineering residents at NCAR, PSC, and the public sector DCC (Geneva) to develop and test prototype tools which support scientific visualization and distributed computing. Insights into products, information, and tools which will make it easier to develop, position, and sell Digital solutions to scientists will be provided through this investment.

21401Z00	3	AAD	MRO	NA	CHEMIST WORKBENCH AIP	NA	NA	NA	0.0	0.0	0.3	0.6	YOUNGS, WILLIAM LYONS, JEANNE
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DIGITAL EQUIPMENT CORPORATION  
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 SUB GROUP: LABORATORY DATA PRODUCTS

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Development of a workstation-based application integration platform which supports chemical research is the goal of this investment. Deliverables will include an integration architecture, third party integration, integration tools, characterization, configuration guidelines, and a service definition for the platform. Investments will be made to develop and drive standards for data interchange among the hardware and software components of the environment as a strategic part of this development effort.

21402100	3	ACM	MRO	NA	TEST/CHARACTERIZATION/TOOLS	NA	NA	NA	0.0	0.9	0.4	0.6	YOUNGS, WILLIAM
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This is a multi-faceted function which delivers performance data on Digital and key third party computing platforms, providing configuration, tuning, and porting guidelines for Digital systems, and supporting new system announcements (e.g., vector VAX, DECstation) through application porting and optimization. In addition, this function is responsible for developing scientific workload descriptions and functional specifications for Scientific CASE and Scientific Computing. Major effort will be focused this year on making workloads portable and extensible to diverse system platforms. Deliverables of this activity include:

- o Workload specifications
- o Application ports/optimization
- o Performance reports, and
- o Configuration/tuning/porting guideline documents

21402200	3	ACM	MRO	NA	SCIENTIFIC NETWORKS	NA	NA	NA	0.0	0.1	0.1	0.1	YOUNGS, WILLIAM
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This program will define networking solutions for the Computational Science community which is characterized by its large scale computing and high performance networking needs. The program is being implemented to provide an architectural context for a marketing program focused on Scientific Networks in high performance computing environments. The engineering program will focus on four areas:

- o Basic network directions to include interoperation of TCP/IP and special protocols as required,
- o Distributed system services transparent of the hosting/using system and,
- o Distributed support for applications with high end computing requirements.

Deliverables from this project will be a technical report which will be used to guide engineering/marketing integration efforts in Science. The project will evolve current CRAY-VAX integration toward the integration of high performance Digital compute servers for Science (especially vector VAX).

21402300	3	ACM	MRO	NA	SCIENTIFIC VISUALIZATION	NA	NA	NA	0.0	0.0	0.2	0.5	YOUNGS, WILLIAM
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Scientific visualization gives the scientist ways to view and interact with data - using graphics, animation, and the visual representative of data that may not be inherently visual (e.g., molecular bonding propensity) to visually analyze data and facilitate creative thought in science. This project will define and develop an Application Integration Platform for scientific data analysis which utilize scientific visualization technology. The project will leverage needs analyses and scientific visualization prototyping efforts done at the "Living Labs" (reference project 21401Y00) to develop configuration templates for Digital and third party products in order to address the analysis needs of targeted applications in Computational Science.

21402400	3	APD	MRO	NA	HIPERF COMP SS I	5	NA	NA	0.0	0.4	0.0	0.0	YOUNGS, WILLIAM
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Development of VAX SDE/Science which provides a software development environment on VAX/VMS that supports a Cray supercomputer running COS or UNICOS, as selected at installation. System provides Cray language syntax prompting, HELP, and VAX-Cray system integration as well as installation service.

21402500	3	APS	MRO	NA	HIPERF COMP SS I	5	NA	NA	0.0	0.1	0.0	0.0	YOUNGS, WILLIAM
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Maintenance of VAX SDE/Science, an integrated software development environment on VAX/VMS which supports a Cray supercomputer running COS or UNICOS.

21407000	3	ACM	MRO	NA	HPRT AIP	NA	NA	NA	0.0	0.0	0.6	0.0	ZEMCIK, JACK LYONS, JEANNE
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Development of a high performance realtime based application integration platform (AIP) which supports engineering simulation as a target application area. Deliverables will include a needs assessment, AIP architecture, performance data (platform and workload), tools that include new or modified drivers/example code, and coherent documentation for Digital's service and support organizations.

21407100	3	APS	MRO	NA	STORAGE AND INTERCONNECTS	NA	NA	NA	0.0	0.0	0.1	0.1	YOUNGS, WILLIAM
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This project provides technical evaluation and integration support to third parties offering storage and interconnect products which complement Digital offerings and support high performance scientific computing. Special emphasis will be place on hierarchical storage management software, archival storage hardware, and high speed interconnect hardware and software.

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Chart 3				In-House Funded Proposed Project Totals				0.0	3.6	3.2	4.5		
Chart 3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Proposed LABORATORY DATA PRODUCTS				0.0	3.6	3.2	4.5		
Chart 3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Incremental LABORATORY DATA PRODUCTS				0.0	0.0	0.0	0.0		
Chart 3				Totals for LABORATORY DATA PRODUCTS				0.0	3.6	3.2	4.5		
In-House Funded Project Totals								0.0	6.4	5.6	7.3		
Externally Funded Project Totals								0.0	0.5	0.6	0.7		
Proposed for LABORATORY DATA PRODUCTS								0.0	6.9	6.2	8.0		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental LABORATORY DATA PRODUCTS								0.0	0.0	0.0	0.0		
Grand Totals for LABORATORY DATA PRODUCTS								0.0	6.9	6.2	8.0		

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## High performance base platforms supported under ULTRIX and VMS

Table 5: ORGANIZATION/PRODUCT MANAGEMENT LIST

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Jeanne Lyons	297-3286	LDP::LYONS	VSL LIMS/SM BI Clock Option DEClab DRQ32

Table 6: PRODUCT DELIVERABLES/ANNOUNCEMENT CALENDAR

PRODUCT NAME	PROJ. ANNOU.	PROJ. FRS	PHASE 1 FRS	PRODUCT MANAGER	DTN	COMMENT
VSL 1.4	8807	8808	8807	J. Lyons	297-3286	
BI Clock Option	N/A	8812	8812	J. Lyons	297-3286	
LIMS/SM 1.4	N/A	8906	N/A	J. Lyons	297-3286	New Project
LIMS/SM 1.5	N/A	9004	1	J. Lyons	297-3286	New Project
DEClab 1.0	9008	9009	1	J. Lyons	297-386	New Project
DRQ32	Q4FY90	Q4FY90	TBD	D. Cox	297-3286	New Project

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ESG

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SYSTEMS ENGINEERING/PRODUCT DEVELOPMENT

NOVEMBER 1, 1989

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5 ESGSE STRATEGIES  
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The Systems Engineering strategy is a refinement and re-affirmation of our previously stated strategies. The goal of this chapter is to describe the Systems Engineering strategy for engineering integration and then show how the Integrated Engineering Systems and Infrastructure Support combine and work together in support of that strategy. The Systems Engineering strategy is to:

- \* Continue to focus our activities in FY89 and FY90 on building successful implementations of Application Integration Platforms at the workgroup level.
- \* Begin putting in place the necessary technology and linkages for building successful solutions at the Engineering Department level. Use the initial workgroup-focused solutions to learn about and leverage department level requirements.
- \* In FY89, have in place the necessary experience and organizational structure to successfully address Engineering Department solutions.
- \* Continue to work with other corporate groups to address the issues surrounding Enterprise Integration. Take the lead in defining requirements and architectures to make such integration successful. Assist in the creations of other necessary structures outside Systems Engineering.
- \* Target FY91 and beyond as the time frame for offering the marketplace true complete solutions at the enterprise level.

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Product Development has set the following goals for both the framework being developed and the methodology being used by the development group:

- \* Support a Heterogeneous Environment
- \* Target specific markets
- \* Support for industry standards
- \* Open and customizable
- \* Increase technological transfers
- \* Meet corporate goals for engineering investments
- \* Adhere to the corporate Phase Review process and guidelines - use the same NOR models as all VMS layered products and follow all standard VMS SQM guidelines.
- \* Follow guidelines set forth by the international Products Group for developing software products for international markets.

In order to meet the above goals, we have adopted the following strategies:

- \* Make, buy or take from internal groups, tools to deliver the necessary functionality, performance and platform support.
- \* Use the client-server model to provide time to market support for heterogeneous environments.
- \* Do not develop base technologies (e.g. languages, operating systems, etc.)
- \* Wherever possible our tools build on and are compatible with corporate products.
- \* Over time, transfer appropriate ideas and concepts from ESG products into Corporate base products and services (e.g. SSG)
- \* Work closely with Systems Engineering to ensure the ESG Architecture and ESG Tools meet the target market needs.
- \* Work with ESG, CIM, OIS, consultants, internal users and customers to develop new product functional requirements.

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*** Sub Group Code: ESG						Sub Group: ENGINEERING SYSTEMS GROUP								
21702C00	1	PD	MRO	NA	EDCS II V2.0	4	8911	8904	4.4	1.1	0.9	0.4		MCNAMARA, KAREN TAMY LOCKHART
21702F00	1	PD	MRO	NA	DECVIEW 3D V2.0	3	9003	8911	0.6	0.2	0.3	0.1		MCNAMARA, KAREN F. SANDERSON
21702H00	1	PD	MRO	NA	CIMI	2	TBD	TBD	1.1	0.5	0.1	0.0		MCNAMARA, KAREN
21702I00	1	PD	MRO	NA	SQUARE	2	TBD	TBD	0.9	0.2	0.2	0.2		MCNAMARA, KAREN
21702K00	1	PM	MRO	NA	PRODUCT MANAGEMENT	0	TBD	TBD	1.1	0.2	0.2	0.4		MCNAMARA, KAREN LOCKHART SANDERSON
21703200	1	PD	MRO	NA	EDCS II V2.1	2	9007	8911	0.6	0.0	0.3	0.3		MCNAMARA, KAREN TAMY LOCKHART
21703300	1	PD	MRO	NA	EDCS II V2.2	0	9012	9011	0.8	0.0	0.2	0.3		MCNAMARA, KAREN TAMY LOCKHART
21703400	1	PD	MRO	NA	DECVIEW 3D V2.1	0	TBD	TBD	0.5	0.0	0.2	0.3		MCNAMARA, KAREN F. SANDERSON
21703500	1	PD	MRO	NA	DECVIEW 3D V2.2	0	TBD	TBD	0.7	0.0	0.1	0.3		MCNAMARA, KAREN F. SANDERSON
21703600	1	PD	MRO	NA	DEC VIEW 3D V3.0	0	TBD	TBD	0.6	0.0	0.1	0.1		MCNAMARA, KAREN F. SANDERSON
21702D00	1	PD	MRO	NA	WORKFLOW MANAGER V1.0	0	8909	8906	2.5	0.8	0.4	0.6		MCNAMARA, KAREN F SANDERSON
21702E00	1	PD	MRO	NA	BASEVIEW/CIMI MAINT. V1.2	4	TBD	TBD	0.3	0.0	0.1	0.1		MCNAMARA, KAREN
21702G00	1	PD	MRO	NA	SPATIAL/II MAINTENANCE V1.2	4	8810	8808	1.0	0.2	0.0	0.0		MCNAMARA, KAREN F. SANDERSON
217ZZZZZ	1	PM	?	NA	STF ADJUSTMENT	5	TBD	TBD	0.0	0.0	0.0	0.0		STF
Chart 1					In-House Funded Proposed Project Totals				15.1	3.2	3.1	3.1		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Proposed ENGINEERING SYSTEMS GROUP				15.1	3.2	3.1	3.1		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental ENGINEERING SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 1					Totals for ENGINEERING SYSTEMS GROUP				15.1	3.2	3.1	3.1		

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21702L00	2	AD	MRO		ESG PRODUCT INTEGRATION	NA	NA		0.0	0.2	0.0	0.0		MCNAMARA, KAREN
21702N00	2	AD	MRO	NA	IPSE FON NON-CASE APPLICATIONS	NA	NA	NA	0.9	0.0	0.2	0.7		MCNAMARA, KAREN NA
Chart	2				In-House Funded Proposed Project Totals				0.9	0.2	0.2	0.7		
Chart	2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Proposed ENGINEERING SYSTEMS GROUP				0.9	0.2	0.2	0.7		
Chart	2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Incremental ENGINEERING SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart	2				Totals for ENGINEERING SYSTEMS GROUP				0.9	0.2	0.2	0.7		
21702X00	3	APD	MRO	NA	DECFRAME-AERO ARCH SEL & IMPL	PRE-0	9006	9006	0.6	0.1	0.2	0.3		ED TANG ED TANG
21702P00	3	APD	MRO	NA	DATA & APPLIC. INTEGR. TOOL KI	PRE-0	9006	9006	0.5	0.2	0.1	0.2		TANG, ED ED TANG
21702Q00	3	APD	MRO	NA	DECFRAME-AERO CONCEP DSGN/CAE	PRE-0	9006	9006	1.8	0.6	0.7	0.5		TANG, ED ED TANG
21702Q00	3	APD	MRO	NA	DECFRAME-AERO CONCEP DSGN/CAE	PRE-0	9006	9006	0.0	0.0	0.0	0.0	PMG	TANG, ED ED TANG
21702R00	3	APD	MRO	NA	DECFRAME-AERO DSGN & RELEASE	PRE-0	9006	9006	1.7	0.4	0.5	0.8		TANG, ED ED TANG
21702R00	3	APD	MRO	NA	DECFRAME-AERO DSGN & RELEASE	PRE-0	9006	9006	0.0	0.0	0.0	0.0	PMG	TANG, ED ED TANG
21702T00	3	APD	MRO	NA	DECFRAME-AERO DEL/TEST/IMPLEMT	PRE-0	9006	9006	1.9	0.0	0.6	0.9		TANG, ED ED TANG
21702Y00	3	APD	MRO	NA	DECFRAME-AERO CONC DSGN ULTRIX	PRE-0	9006	9006	1.1	0.2	0.4	0.5		TANG, ED ED TANG
21702Z00	3	APD	MRO	NA	INTEGRATION PROGRAMS	PRE-0	9006	9006	0.5	0.1	0.2	0.2		ED TANG ED TANG
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	6.7	1.4	1.8	2.3		CHOW, CHAN YOU CHAN YOU CHOW
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	0.0	0.0	0.0	0.0	USER	CHOW, CHAN YOU CHAN YOU CHOW
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	0.0	0.0	0.0	0.0	E97	CHOW, CHAN YOU CHAN YOU CHOW
21701M00	3	APD	MRO	NA	INTEG. ENG. SYS. FOR UTILITIES	2	8904	NA	2.2	0.7	0.1	0.1		JOHNSON, CHUCK CHUCK JOHNSON
21701M00	3	APD	MRO	NA	INTEG. ENG. SYS. FOR UTILITIES	2	8904	NA	0.0	0.0	0.0	0.0	SWS/E	JOHNSON, CHUCK CHUCK JOHNSON

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21701Q00	3	APD	MRO	NA	DECFRAME-SERVICES FOR DOC MGMT	1	8909	NA	2.3	0.8	0.5	0.7		
21701Q00	3	APD	MRO	NA	DECFRAME-SERVICES FOR DOC MGMT	1	8909	NA	0.0	0.0	0.0	0.0	SWS/E	JOHNSON, CHUCK CHUCK JOHNSON JOHNSON, CHUCK CHUCK JOHNSON MCGRATH, MARY
21702600	3	ARP	MRO	NA	DESIGN SERVICES	NA	NA	NA	1.7	0.4	0.5	0.6		
21701U00	3	APD	MRO	NA	PLATFORM INTEGRATION	NA	NA	NA	3.1	0.9	1.0	1.2		GREENFIELD, MIKE
21701V00	3	ACM	MRO	NA	PERFOR. CHARACT. OPTIM. & TOOL	NA	NA	NA	2.1	0.5	0.5	0.7		GREENFIELD, MIKE
Chart	3				In-House Funded Proposed Project Totals				26.2	6.3	7.1	9.0		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed ENGINEERING SYSTEMS GROUP				26.2	6.3	7.1	9.0		
Chart	3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental ENGINEERING SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart	3				Totals for ENGINEERING SYSTEMS GROUP				26.2	6.3	7.1	9.0		
In-House Funded Proposed Project Totals									42.2	9.7	10.4	12.8		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental ENGINEERING SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Totals for ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		

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In-House Funded Project Totals									42.2	9.7	10.4	12.8		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental ENGINEERING SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Grand Totals for ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		

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*** Sub Group Code: ESG					Sub Group: ENGINEERING SYSTEMS GROUP								
21702C00	1	PD	MRO NA	EDCS II V2.0	4	8911	8904	4.4	1.1	0.9	0.4		MCNAMARA, KAREN TAMY LOCKHART
DATA MANAGEMENT SOFTWARE. UNLIMITED HIERARCHIES DEPENDENCIES, ALL IN ONE SPPT, CONFIG. REVIEW MGR., CUSTOM REPORTS													
21702F00	1	PD	MRO NA	DECVIEW 3D V2.0	3	9003	8911	0.6	0.2	0.3	0.1		MCNAMARA, KAREN F. SANDERSON
MERGER OF BASEVIEW, VAXDOC AND VAXCADVIEW FUNCTIONALITY. OPEN ARCHITECTURE/PROGRAMMERS INTERFACE. EPIC/WRITER INTEGRATION. DECWINDOWS INTERFACE. LIVE LINK TO DECWRITE.													
21702H00	1	PD	MRO NA	CIMI	2	TBD	TBD	1.1	0.5	0.1	0.0		MCNAMARA, KAREN
CIMI IS A COMMOM USER INTERFACE CAPABILITY FOR STARVIEW, WORKFLOW MANAGER, EDCS AND SPATIAL/II. IT HAS THE SAME FRS DATE AND CURRENT PHASE AS THE PRODUCTS WHICH UTILIZE IT.													
21702I00	1	PD	MRO NA	SQUARE	2	TBD	TBD	0.9	0.2	0.2	0.2		MCNAMARA, KAREN
SOFTWARE QUALITY AND RELEASE ENGINEERING (SQUARE) PROVIDES PROCESSOR CERTIFICATION, RELEASE ENGINEERING, ETC. FOR EDCS, STARVIEW, SPATIAL II AND WORKFLOW MANAGER. IT HAS THE SAME FRS AND CURRENT PHASE AS THESE PRODUCTS.													
21702K00	1	PM	MRO NA	PRODUCT MANAGEMENT	0	TBD	TBD	1.1	0.2	0.2	0.4		MCNAMARA, KAREN LOCKHART SANDERSON
PRODUCT MANAGEMENT FOR SPATIAL/II, EDCS, DECVIEW 3D AND WORKFLOW MANAGER.													
21703200	1	PD	MRO NA	EDCS II V2.1	2	9007	8911	0.6	0.0	0.3	0.3		MCNAMARA, KAREN TAMY LOCKHART
DATA MANAGEMENT SOFTWARE - V2.1 ADDS ULTRIX CLIENT SOFTWARE.													

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21703300	1	PD	MRO	NA	EDCS II V2.2	0	9012	9011	0.8	0.0	0.2	0.3		MCNAMARA, KAREN TAMY LOCKHART
DATA MANAGEMENT SOFTWARE - V2.1 ADDS MULTIPLE RELEASE LEVELS, DISTRIBUTED FILE MANAGEMENT, GRAPHICAL INTERFACE AND TCP/PCLIENT														
21703400	1	PD	MRO	NA	DECVIEW 3D V2.1	0	TBD	TBD	0.5	0.0	0.2	0.3		MCNAMARA, KAREN F. SANDERSON
CALC COMPLIANCE. BUG FIXES														
21703500	1	PD	MRO	NA	DECVIEW 3D V2.2	0	TBD	TBD	0.7	0.0	0.1	0.3		MCNAMARA, KAREN F. SANDERSON
RISC PORT. BUG FIXES														
21703600	1	PD	MRO	NA	DEC VIEW 3D V3.0	0	TBD	TBD	0.6	0.0	0.1	0.1		MCNAMARA, KAREN F. SANDERSON
SOILDS, PDES IMPLEMENTATION.														
21702D00	1	PD	MRO	NA	WORKFLOW MANAGER V1.0	0	8909	8906	2.5	0.8	0.4	0.6		MCNAMARA, KAREN F SANDERSON
WORKFLOW MANAGER WILL INTEGRATE THIRD PARTY CAD TOOLS USED ON VMS, ULTRIX AND MSDOS. V1.0 IS TARGETED FOR ENGINEERING CAD.														
21702E00	1	PD	MRO	NA	BASEVIEW/CIMI MAINT. V1.2	4	TBD	TBD	0.3	0.0	0.1	0.1		MCNAMARA, KAREN
RESPOND TO BASEVIEW SPR'S UNTIL STARVIEW IS RELEASED.														
21702G00	1	PD	MRO	NA	SPATIAL/II MAINTENANCE V1.2	4	8810	8808	1.0	0.2	0.0	0.0		MCNAMARA, KAREN F. SANDERSON
BUG FIXES. VMS V5.0 SUPPORT RETIREMENT														
217ZZZZZ	1	PM	?	NA	STF ADJUSTMENT	5	TBD	TBD	0.0	0.0	0.0	0.0		STF

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Chart 1					In-House Funded Proposed Project Totals				15.1	3.2	3.1	3.1		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Proposed ENGINEERING SYSTEMS GROUP				15.1	3.2	3.1	3.1		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental ENGINEERING SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 1					Totals for ENGINEERING SYSTEMS GROUP				15.1	3.2	3.1	3.1		
21702L00	2	AD	MRO		ESG PRODUCT INTEGRATION	NA	NA		0.0	0.2	0.0	0.0		MCNAMARA, KAREN
21702N00	2	AD	MRO	NA	IPSE FON NON-CASE APPLICATIONS	NA	NA	NA	0.9	0.0	0.2	0.7		MCNAMARA, KAREN NA
Chart 2					In-House Funded Proposed Project Totals				0.9	0.2	0.2	0.7		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Proposed ENGINEERING SYSTEMS GROUP				0.9	0.2	0.2	0.7		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental ENGINEERING SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 2					Totals for ENGINEERING SYSTEMS GROUP				0.9	0.2	0.2	0.7		
21702X00	3	APD	MRO	NA	DECFRAME-AERO ARCH SEL & IMPLE PRE-0 9006 9006				0.6	0.1	0.2	0.3		ED TANG ED TANG
Select base technologies to be the platform for IESA solutions. Influence, modify or extend the base technologies to specifically fit the Aerospace platform requirement.														
21702P00	3	APD	MRO	NA	DATA & APPLIC. INTEGR. TOOL KI PRE-0 9006 9006				0.5	0.2	0.1	0.2		TANG, ED ED TANG

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Working with Matra and develop application tool kit for tightly integrated vertical applications. Validate tool kit with one vertical application for the Aerospace Industry with General Dynamics as the initial target. PDES/PDDB prototype will be developed to examine future product feasibility.														
21702Q00	3	APD	MRO	NA	DECFRAME-AERO CONCEP DSGN/CAE	PRE-0	9006	9006	1.8	0.6	0.7	0.5		TANG, ED ED TANG
21702Q00	3	APD	MRO	NA	DECFRAME-AERO CONCEP DSGN/CAE	PRE-0	9006	9006	0.0	0.0	0.0	0.0	PMG	TANG, ED ED TANG
Integrate a set of applications for the conceptual design engineers and mechanical analysts. For internal Digital users, Unigraphics, Pro-Engineer will be used as the core applications. For external users, specifically General Dynamics, Euclid will be the core application.														
21702R00	3	APD	MRO	NA	DECFRAME-AERO DSGN & RELEASE	PRE-0	9006	9006	1.7	0.4	0.5	0.8		TANG, ED ED TANG
21702R00	3	APD	MRO	NA	DECFRAME-AERO DSGN & RELEASE	PRE-0	9006	9006	0.0	0.0	0.0	0.0	PMG	TANG, ED ED TANG
Integrate a pre-release configuration management tool with the mechanical design applications. Parts list will be extracted from Euclid and EDCS or other file management applications will be used to release engineering data.														
21702T00	3	APD	MRO	NA	DECFRAME-AERO DEL/TEST/IMPLEMT	PRE-0	9006	9006	1.9	0.0	0.6	0.9		TANG, ED ED TANG
Provide Euclid and Decframe/Aero productization technical support. Test and deliver solutions to SWS and internal Digital groups. Support Decframe/Aero customization through direct development or														
21702Y00	3	APD	MRO	NA	DECFRAME-AERO CONC DSGN ULTRIX	PRE-0	9006	9006	1.1	0.2	0.4	0.5		TANG, ED ED TANG
Encapsulate PROEngineer, Unigraphics/Parasolids, Patran, and Ansys to DECframe on a MIPS/Ultrix platform. Provide workgroup application integration and data management.														
21702Z00	3	APD	MRO	NA	INTEGRATION PROGRAMS	PRE-0	9006	9006	0.5	0.1	0.2	0.2		ED TANG ED TANG
Support major account integration programs such as General Dynamics' IMS Program and Sikorski's data management program.														

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	6.7	1.4	1.8	2.3		CHOW, CHAN YOU CHAN YOU CHOW
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	0.0	0.0	0.0	0.0	USER	CHOW, CHAN YOU CHAN YOU CHOW
21701A00	3	APD	MRO	NA	DECFRAME - ELECTRONICS	2	8912	8912	0.0	0.0	0.0	0.0	E97	CHOW, CHAN YOU CHAN YOU CHOW

DECframe-Electronics will provide integrated solutions addressing Electronic Industry CAD applications, conceptual design, detail design, at ASIC level and PCB level, design release process. These solutions will target Digital electronics customers as well as Digital internal users.

21701M00	3	APD	MRO	NA	INTEG. ENG. SYS. FOR UTILITIES	2	8904	NA	2.2	0.7	0.1	0.1		JOHNSON, CHUCK CHUCK JOHNSON
21701M00	3	APD	MRO	NA	INTEG. ENG. SYS. FOR UTILITIES	2	8904	NA	0.0	0.0	0.0	0.0	SWS/E	JOHNSON, CHUCK CHUCK JOHNSON

The Integrated Engineering System for Utilities is designed to meet the needs of transmission/distribution engineering and other related workgroups in electric and gas utility companies. IESU will integrate engineering applications for automated mapping/facilities management (AM/FM), conceptual design (CAD), network flow analysis and electronic technical publishing.

21701Q00	3	APD	MRO	NA	DECFRAME-SERVICES FOR DOC MGMT	1	8909	NA	2.3	0.8	0.5	0.7		JOHNSON, CHUCK CHUCK JOHNSON
21701Q00	3	APD	MRO	NA	DECFRAME-SERVICES FOR DOC MGMT	1	8909	NA	0.0	0.0	0.0	0.0	SWS/E	JOHNSON, CHUCK CHUCK JOHNSON

The Integrated Engineering System for Document Management integrates electronic access, management, and distribution of released engineering drawings on Digital networked workstations. Decframe/Documentation can be utilized in the aerospace, automotive, electronic, and utility industries.

Decframe/Documentation is built on Digital's Compound Document Architecture and complements DECwrites small format image capabilities.

21702600	3	ARP	MRO	NA	DESIGN SERVICES	NA	NA	NA	1.7	0.4	0.5	0.6		MCGRATH, MARY
21701U00	3	APD	MRO	NA	PLATFORM INTEGRATION	NA	NA	NA	3.1	0.9	1.0	1.2		GREENFIELD, MIKE

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
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Platform Integration is a prerequisite activity for application integration and integrated solutions development. We need to integrate applications from our Technical Partners with DIGITAL base platforms and new technologies, in preparation for use in engineering solutions.

21701V00	3	ACM	MRO	NA	PERFOR. CHARACT. OPTIM. & TOOL	NA	NA	2.1	0.5	0.5	0.7		GREENFIELD, MIKE
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The Performance Characterization, Optimization and Tools function supports performance characterization of IES and new Digital products, performance tools and workload development, competitive work system analysis and Application Performance Optimization (APOP).

Chart 3	In-House Funded Proposed Project Totals							26.2	6.3	7.1	9.0		
Chart 3	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart 3	Proposed ENGINEERING SYSTEMS GROUP							26.2	6.3	7.1	9.0		
Chart 3	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart 3	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart 3	Incremental ENGINEERING SYSTEMS GROUP							0.0	0.0	0.0	0.0		
Chart 3	Totals for ENGINEERING SYSTEMS GROUP							26.2	6.3	7.1	9.0		
In-House Funded Proposed Project Totals								42.2	9.7	10.4	12.8		
Externally Funded Proposed Project Totals								0.0	0.0	0.0	0.0		
Proposed ENGINEERING SYSTEMS GROUP								42.2	9.7	10.4	12.8		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental ENGINEERING SYSTEMS GROUP								0.0	0.0	0.0	0.0		
Totals for ENGINEERING SYSTEMS GROUP								42.2	9.7	10.4	12.8		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
In-House Funded Project Totals									42.2	9.7	10.4	12.8		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental ENGINEERING SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Grand Totals for ENGINEERING SYSTEMS GROUP									42.2	9.7	10.4	12.8		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR  
 Group: ENGINEERING SYSTEMS GROUP

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
21702C00	EDCS II V2.0	8904	8911	8901	TAMY LOCKHART
21702F00	DECVIEW 3D V2.0	8911	9003	8911	F. SANDERSON
21702H00	CIMI	TBD	TBD	TBD	
21702I00	SQUARE	TBD	TBD	TBD	
21702K00	PRODUCT MANAGEMENT	TBD	TBD	TBD	LOCKHART SANDERSON
21703200	EDCS II V2.1	8911	9007	9007	TAMY LOCKHART
21703300	EDCS II V2.2	9011	9012	TBD	TAMY LOCKHART
21703400	DECVIEW 3D V2.1	TBD	TBD	TBD	F. SANDERSON
21703500	DEC VIEW 3D V2.2	TBD	TBD	TBD	F. SANDERSON
21703600	DECVIEW 3D V3.0	TBD	TBD	TBD	F. SANDERSON
21702D00	WORKFLOW MANAGERV1.0	8906	8909	8908	F SANDERSON
21702E00	BASEVIEW/CIMI V1.2	TBD	TBD	TBD	
21702G00	SPATIAL/II MAINV1.2	8808	8810	8810	F. SANDERSON
217ZZZZZ	STF ADJUSTMENT	TBD	TBD	TBD	
21702X00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702P00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702Q00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702R00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702T00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702Y00	DECFRAME-AERO	9006	9006	9006	ED TANG
21702Z00	DECFRAME-AERO	9006	9006	9006	ED TANG
21701A00	DECFRAME-ELECTRONICS	8912	8912	8912	CHAN YOU CHOW
21701M00	IESU	NA	8904	NA	CHUCK JOHNSON
21701Q00	DECFRAME-DOC MGMT	NA	8909	NA	CHUCK JOHNSON
21702600		NA	NA	NA	
21701U00		NA	NA	NA	
21701V00		NA	NA	NA	

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CIM MARKETING AND PRODUCT  
DEVELOPMENT (CMPD)

FY90 Beige Book


CIM Marketing & Product Development (CMPD) FY90 Beige Book

- I. Engineering Strategy Statement
- II. Budget Summary
- III. Project Charts I, II, and III
- IV. Product Deliverable/Announcement Calendar

Prepared by: Ruth Gleba / Mark Olsen  
Date: November 1, 1989

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I. ENGINEERING STRATEGY STATEMENT

CIM MARKETING & PRODUCT DEVELOPMENT (CMPD) - FY90 BEIGE BOOK

CMPD MISSION & GOALS

Cause DIGITAL to be the leading worldwide supplier of manufacturing information management solutions to the CIM market by:

- Establishing DIGITAL'S distributed computing technology as the basis for integration in Manufacturing.
- Being the cross-functional catalyst for the development and delivery of strategies and actions that strengthen DIGITAL'S solution capabilities.
- Continuously identifying, creating, and exploiting new opportunities.

CIM DEVELOPMENT ENGINEERING (CDE):

- Delivers unique products or specially adapted base products which suit the specific needs of industrial users.
- Engages in joint engineering activities with leading automation vendors aimed at delivering integrated systems with distinct competitive advantage.
- Pursues advanced development and influences standards activities towards advantageous differentiation of DIGITAL'S products.
- Maintains a worldwide strategic perspective.

CIM SYSTEMS ENGINEERING (CIMSE):

- Develops tools and methodologies to extend DIGITAL'S current VAX/VMS/DECnet architectural advantages to the application integration level.
- Works with third parties to develop integrated solutions for business functions based on current DIGITAL and third party's products.
- Engages in activities aimed at understanding the customer environment translating this understanding into system requirements and communicating this understanding to DIGITAL'S product developers to deliver system solutions.
- Maintains a worldwide strategic perspective.

PRODUCT/SOLUTION STRATEGY

CDE STRATEGIES:

- Integrate DIGITAL'S Product Architecture with systems from leading Industrial Control and Equipment vendors.
- Establish DIGITAL as the premier industrial network solution vendor, worldwide.
- Develop and enhance existing products to better penetrate the industrial realtime market and permit operation on the factory floor.
- Support the development of applications integration, both within manufacturing and across the enterprise.

CIMSE STRATEGIES:

- Establish DIGITAL as the premier supplier of integrated systems and enterprise integration in the manufacturing market.
- Use standards to drive the DIGITAL difference.
- Establish DIGITAL'S competitive position via competitive analysis, processor characterization, positioning and system modeling.
- Maintain a worldwide strategic perspective.

RISKS AND DEPENDENCIES

CIM Development Engineering (CDE):

- Control Vendor Partnerships - Over one half of CDE's engineering investments will be directed at joint development opportunities with control and equipment vendors. The success of these partnerships will depend heavily upon our ability to:
  - Develop a joint marketing/sales/service posture in front of customers.
  - Define a successful service strategy for hybrid products.
  - Transfer sufficient knowledge to allow a partner (Allen-Bradley) to successfully manufacture the MicroVAX product line.
  - Successfully leverage resources within the corporation to gain assistance for design and test.

These dependencies include:

MSD - rtVAX development  
HPS & MSD - hardware consulting support  
LSEE - system test support  
VMS - VMS test suites, test consulting  
SQM - layered product testing  
ECAD - hardware simulation  
SaSE - test support  
NaC - hardware testing  
LEDs - diagnostic support

- Industrial Networking - Development of DEC/MAP V3.0 will require close cooperation with NaC in order to produce network management compatibility and ultimate migration from DEC/MAP V3.0 to DECnet phase 5. CDE is also dependent upon NaC for continued support of the VOTS and OSAK products and the FTAM product upon which DEC/MAP is built.
- Realtime Program - To provide applications portability between VMS and VAX ELN, CDE has been working with both VIP and MSD engineering to incorporate the IEEE 1003.4 (POSIX) realtime extensions in future releases. CIM realtime customers will expect a consistent introduction of POSIX features on both VMS and VAXELN. Within OSF, a proactive stance with respect to adoption of the POSIX realtime extensions (over the HP proposal) is also needed to further establish a leadership market position.
- Applications Integration - CDE continues to drive the Manufacturing Messaging Specification (MMS) in areas advantageous to DIGITAL. As companion standards to MMS emerge, we anticipate widespread adoption by control vendors and will utilize the protocol for enhancing solutions with our control vendor partners. Widespread adoption of this protocol within the context of OSI networks is eminently reasonable but somewhat a risk due to well entrenched proprietary interests.

RISKS AND DEPENDENCIES (continued)

CIM Systems Engineering (CIMSE):

- Applications Integration Architecture: To provide the foundation architecture for the integration of applications in manufacturing environments.
- CIM International Engineering in Munich: To provide the deliverables outlined in their plan.
- Low End Systems and MSD: To provide base platforms that meet manufacturing market needs.
- Database Systems Group: To provide manufacturing specific data management requirements.
- Product Marketing Systems Engineering Group: To provide overall Systems Engineering policies and procedures.
- DIGITAL'S Service Organizations: To deliver solution systems to the field.
- Selected DIGITAL Customers: To participate in the establishment of working relationships in which to do joint projects.



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 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 GROUP: CIM MARKETING/PRODUCT DEVMT.

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Project ID	Act Ch	Loc Cde	Int Cde	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
*** Sub Group Code: CDE				Sub Group: CIM DEVELOPMENT ENGINEERING									
21302Y00	1	PD	MET NA	DEV,QUAL,SPT ENTERPRISE I	4	8905	8810	2.1	1.8	0.3	0.0		BILLMAIER, JOE
21303600	1	PD	MET NA	HONEYWELL II	2	9012	9102	0.7	0.2	0.2	0.3		BERGER, BILL SHIH, JOE NA
21311100	1	PD	MET WA	VAX DEC/MAP V3.0 & V2.0SUPPORT	3	8912	8910	3.2	1.6	1.3	0.1		MCCROREY, JACK NADDEO, GENE
21311E00	1	PD	MET NA	ENTERPRISE II	0	9101	TBD	3.0	0.0	1.5	1.5		BILLMAIER, JOE BERGER, BILL
21311F00	1	PD	MET NA	MODICON	PRE-0	9009	TBD	1.6	0.0	0.7	0.9		BILLMAIER, JOE CALDWELL, ALICE
21311H00	1	PD	MET NA	DIST. CTRL. SYST. INTERCONNECT	PRE-0	TBD	TBD	4.2	1.7	0.5	1.7		SHIH, JOE NA
21311I00	1	PD	TNO FC	OSAP (OMNI FOR SIEMENS AP)	1	9009	TBD	1.5	0.9	0.6	0.5		STIRPE, DARIO PENGO, LORENZO
21311I00	1	PD	RTO FC	OSAP (OMNI FOR SIEMENS AP)	1	9009	TBD	0.0	0.0	0.0	0.0		STIRPE, DARIO PENGO, LORENZO
21311J00	1	PD	MET FC	MMS TOOLKIT & STANDARDS	1	9006	9004	4.3	0.8	1.1	1.0		BARATZ, JIM BASS, TERRY
21311J00	1	PD	TNO FC	MMS TOOLKIT & STANDARDS	1	9006	9004	0.0	0.2	0.3	0.4		BARATZ, JIM BASS, TERRY
Chart	1			In-House Funded Proposed Project Totals				20.6	7.2	6.5	6.4		
Chart	1			Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1			Proposed CIM DEVELOPMENT ENGINEERING				20.6	7.2	6.5	6.4		
Chart	1			In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1			Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1			Incremental CIM DEVELOPMENT ENGINEERING				0.0	0.0	0.0	0.0		
Chart	1			Totals for CIM DEVELOPMENT ENGINEERING				20.6	7.2	6.5	6.4		
21302X00	2	PS	MET NA	LOW END SYSTEMS & PACKAGING	NA	NA	NA	0.0	1.0	0.6	0.1		STANLEY, DICK NA
21311300	2	AD	RTO NA	APPLICATIONS WITH OBJECTS	NA	NA	NA	0.0	0.3	0.2	0.0		BAUER, ALFRED NA
21311400	2	BPM	MET NA	CIM BASE PRODUCT MARKETING	NA	NA	NA	0.0	0.9	0.9	0.9		LOSACANO, PETER NA
21311500	2	AR	MET NA	CIM ARCHITECTURE DEVELOPMENT	NA	NA	NA	0.0	0.2	0.1	0.4		SCHAUWEKER, BILL NA

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21311600	2	PS	MET	NA	LOW-END APPLICATION INTEGRATIO	NA	NA	NA	0.0	0.0	0.1	0.1		SCHAUWEKER, BILL
21311700	2	AD	MET	NA	APPLICATION INTEGRATION A/D	NA	NA	NA	0.0	0.0	0.1	0.0		NA KUKLA, CHUCK
21311800	2	AD	MET	NA	POSIX REALTIME INTERFACES	NA	NA	NA	0.0	0.3	0.8	0.2		NA KEEGAN, JOHN
21311D00	2	AR	MET	NA	INTERCONNECT ARCHITECTURES	NA	NA	NA	0.0	0.0	0.5	0.5		NA ASCHER, DAVE
21311G00	2	AD	TNO	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.0	0.0		NA THOMPSON, JIM
21311G00	2	AD	RTO	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.3	0.7		NA THOMPSON, JIM
21311G00	2	AD	MET	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.8	1.3		NA THOMPSON, JIM
21311200	2	AD	MET	NA	INDUSTRIAL NETWORK TECHNOLOGIE	NA	NA	NA	0.0	1.0	0.7	0.2		NA LELBLANC, DAN
21311200	2	AD	TNO	NA	INDUSTRIAL NETWORK TECHNOLOGIE	NA	NA	NA	0.0	0.0	0.0	0.0		NA LELBLANC, DAN
21302Z00	2	PS	MET	NA	PYRAMID I/O SCANNER	NA	NA	NA	0.0	0.4	0.0	0.0		NA THOMPSON, JIM
21303100	2	PS	ENO	NA	BASEWAY PRODUCT SUPPORT (SWS-E	NA	NA	NA	0.0	0.6	0.2	0.0		NA STARTSMAN, T.
21303200	2	BPM	MET	NA	PERF COMP ANALYSIS, OTHER PROD	NA	NA	NA	0.0	0.6	0.0	0.0		NA NEUBURGER, WARREN
21303500	2	ST	WRO	NA	SEMI COND INDUST APPLIC (ASAP)	NA	NA	NA	0.0	0.1	0.0	0.0		NA STARTSMAN, T.
21303400	2	AD	TNO	NA	CASE TOOLS FOR SHOP FLOOR	NA	NA	NA	0.0	0.2	0.0	0.0		NA ZABOT, MARCO
21311900	2	AR	MET	NA	REALTIME TECHNOLOGY	NA	NA	NA	0.0	0.3	0.0	0.0		NA NEUBURGER, WARREN
Chart	2				In-House Funded Proposed Project Totals				0.0	5.4	5.3	4.4		
Chart	2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Proposed CIM DEVELOPMENT ENGINEERING				0.0	5.4	5.3	4.4		
Chart	2				In-House Funded Incremental Project Totals				0.0	0.5	0.0	0.0		
Chart	2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Incremental CIM DEVELOPMENT ENGINEERING				0.0	0.5	0.0	0.0		
Chart	2				Totals for CIM DEVELOPMENT ENGINEERING				0.0	5.9	5.3	4.4		

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In-House Funded Proposed Project Totals									20.6	12.6	11.8	10.8		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed CIM DEVELOPMENT ENGINEERING									20.6	12.6	11.8	10.8		
In-House Funded Incremental Project Totals									0.0	0.5	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CIM DEVELOPMENT ENGINEERING									0.0	0.5	0.0	0.0		
Totals for CIM DEVELOPMENT ENGINEERING									20.6	13.1	11.8	10.8		

\*\*\* Sub Group Code: CIMSE

Sub Group: COMP. INTEGRATED MFG. SYS. ENG

21301E00	3	ARP	MET	NA	DFM TECHNICAL JOINT PROJECT	NA	NA	NA	0.0	0.9	0.2	0.0		PIERCE, STEVE
21301F00	3	ARP	TNO	NA	FIAT TECHNICAL JOINT PROJECT	NA	NA	NA	0.0	1.7	0.3	0.0		STIRPE, DARIO
21301G00	3	ACM	MET	NA	PERFORM CHARACTERIZATION & TES	NA	NA	NA	0.0	0.3	0.3	0.3		QUINLIVAN, KEVIN
21301H00	3	APD	MET	NA	PROCESS APPLICA INTEGR PLATFOR	NA	NA	NA	0.0	0.0	0.2	0.8		PIERCE, STEVE
21301I00	3	APD	MET	NA	DECQIP: PROCESS/LAB	NA	NA	NA	0.0	0.9	0.2	0.1		PIERCE, STEVE
21301J00	3	APD	MET	NA	DISCRETE APPLIC INTEGR PLATFOR	NA	NA	NA	0.0	0.4	0.9	1.2		EGGIMANN, PETER
21301K00	3	APD	MET	NA	PLATFORM INTEGRATION	NA	NA	NA	0.0	0.6	0.7	0.7		QUINLIVAN, KEVIN
21301L00	3	APD	MET	NA	MANUFACTURING RESOURCE MGT	NA	NA	NA	0.0	0.6	1.2	1.5		MASSEY, KEN
21301M00	3	AAD	MET	NA	MFG PROCESS DATA MANAGEMENT	NA	NA	NA	0.0	0.0	0.1	0.4		KYZIVAT, PAUL
21301N00	3	ARP	RTO	NA	CMP TECH APPLICATION SUPPORT	NA	NA	NA	0.0	0.3	0.9	0.9		GRUHNWALD, WINFRIED
21301O00	3	AAD	RTO	NA	EUROPEAN CIM ARCHITECTURE	NA	NA	NA	0.0	0.1	0.3	0.4		FLATAU, ULI
21301P00	3	ARP	TNO	NA	APPLICATION ARCH & DEVELOPMENT	NA	NA	NA	0.0	0.0	0.5	0.8		STIRPE, DARIO
21301R00	3	AAD	MET	NA	WORKSTATION ADVANC DEVELOPMENT	NA	NA	NA	0.0	0.0	0.3	0.3		KUKLA, CHUCK
21301X00	3	ARP	MET	NA	INTEGRATED MFG PLAN & CTRL SYS	NA	NA	NA	0.0	0.0	0.2	0.3		BAUER, ALFRED

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21301200	3	ARP	MET	NA	M&M MARS TECHNICAL JOINT PROJ	NA	NA	NA	0.0	0.3	0.0	0.0		MASSEY, KEN
21302100	3	ARP	RTO	NA	CAP-MDI TECHNICAL JOINT PROJEC	NA	NA	NA	0.0	0.6	0.0	0.0		GRUHNWALD, WINFRIED
21302200	3	APM	MET	NA	CIM COMMUNICATIONS	NA	NA	NA	0.0	0.3	0.0	0.0		OLSEN, MARK
Chart 3					In-House Funded Proposed Project Totals				0.0	5.8	6.3	7.7		
Chart 3					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Proposed COMP. INTEGRATED MFG. SYS. ENG				0.0	5.8	6.3	7.7		
Chart 3					In-House Funded Incremental Project Totals				0.0	1.2	0.0	0.0		
Chart 3					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Incremental COMP. INTEGRATED MFG. SYS. ENG				0.0	1.2	0.0	0.0		
Chart 3					Totals for COMP. INTEGRATED MFG. SYS. ENG				0.0	7.0	6.3	7.7		
									0.0	5.8	6.3	7.7		
									0.0	0.0	0.0	0.0		
									0.0	5.8	6.3	7.7		
									0.0	1.2	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	1.2	0.0	0.0		
									0.0	7.0	6.3	7.7		

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In-House Funded Project Totals									20.6	18.4	18.1	18.5		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for CIM MARKETING/PRODUCT DEVMT.									20.6	18.4	18.1	18.5		
In-House Funded Incremental Project Totals									0.0	1.7	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CIM MARKETING/PRODUCT DEVMT.									0.0	1.7	0.0	0.0		
Grand Totals for CIM MARKETING/PRODUCT DEVMT.									20.6	20.1	18.1	18.5		

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\*\*\* Sub Group Code: CDE

Sub Group: CIM DEVELOPMENT ENGINEERING

21302Y00	1	PD	MET	NA	DEV,QUAL,SPT ENTERPRISE I	4	8905	8810	2.1	1.8	0.3	0.0		
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BILLMAIER, JOE  
 BERGER, BILL

Provide technical resources to support the transfer of a major industrial automation product line to a VAX platform. Emphasize "rearchitecting" the vendor's system solutions around VAX VMS and DECnet/ETHERNET. Project includes: 1) development of a MicroVAX Enterprise processor, 2) simulation, software, diagnostic and documentation support. Support for Enterprise I will end at Enterprise II FCS.

21303600	1	PD	MET	NA	HONEYWELL II	2	9012	9102	0.7	0.2	0.2	0.3		
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SHIH, JOE  
 NA

Joint project with vendor of process control systems. Resulting product will be sold by the vendor.

Replace existing gateway software, running in point-to-point via SIMPAC, HDLC interfaces. Build a Honeywell-to-DECnet, 1-many interface, using an embedded VAXELN system and/or using rtVAX 300. FRS 9012.

21311100	1	PD	MET	WA	VAX DEC/MAP V3.0 & V2.0SUPPORT	3	8912	8910	3.2	1.6	1.3	0.1		
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MCCROREY, JACK  
 NADDEO, GENE

The VAX DEC/MAP V3.0 product is being developed as an industrial networking product which will interoperate with implementations of the MAP V3.0 specification, and provide a migration path for MAP users to DECnet Phase 5 implementations. The VAX DEC/MAP V3.0 product implements only OSI IS standards, and does not implement any MAP specific proprietary protocol. The VAX DEC/MAP V3.0 product will attempt to provide a migration path for some MAP users to the DECnet phase 5 products. IEEE 802.4 (Token Bus) data links will only be supported on Q bus machines, while IEEE 802.3 (CSMA/CD) will be supported on other DIGITAL busses (this is not a part of the MAP V3.0 specification). In addition, the program includes:

- support costs for past releases of the VAX DEC/MAP hardware and software (PS)
- architecture efforts for the migration of some users from MAP to DECnet phase 5 (PS and AR)
- standards activities for MAP, OSI, and others (ST)
- and limited interoperability testing with other vendors to insure conformance of the OSI protocols (ATP)

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21311E00	1	PD	MET	NA	ENTERPRISE II	0	9101	TBD	3.0	0.0	1.5	1.5		BILLMAIER, JOE BERGER, BILL

Follow-on to joint development project (See project 21302Y00), with Allen-Bradley (A-B). Modify VS3100 design, including color graphics, to operate in A-B Pyramid Integrator chassis and communicate with programmable controllers via PI backplane. Enterprise will be software compatible with PVAX, and will undergo appropriate testing (RQT, SE, DECnet, VMS) by DIGITAL. Enterprise II will be manufactured and sold by A-B.

21311F00	1	PD	MET	NA	MODICON	PRE-0	9009	TBD	1.6	0.0	0.7	0.9		BILLMAIER, JOE CALDWELL, ALICE
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Work with Modicon Controls, a part of AEG, to provide a high speed Q-bus connection to their new proprietart industrial network, called MODBUS-Plus. MODBUS-Plus will provide 1 megabit connection to their 984 family of programmable logic controllers. Will also support a new Modicon PLC that plugs directly into the Q-bus. Digital's activities will be to develop device drivers, participate in the overall software architecture design and perform system level testing. Modicon to develop all hardware and upper level software.

21311H00	1	PD	MET	NA	DIST. CTRL. SYST. INTERCONNECT	PRE-0	TBD	TBD	4.2	1.7	0.5	1.7		SHIH, JOE NA
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Joint projects with vendors of process control systems aimed at increasing the speed and enhancing the capabilities of existing schemes. Resulting products will be sold by the vendors. Projects include:

Foxboro I - Modify Foxboro's Lan interface module firmware to provide OSI transport level connection with OSAK and DECNET/OSI. Also provide a high level API and interoperability testing. FRS = 9006

Bailey I - Existing Bailey Computer Interface Unit translates 10M Plant Loop to 19.2, RS232 connection. Upgrade the CIU to IEEE 802.3 and ISO Transport. Provide API. FRS = 9003.

TI - IA Division is replacing their redundant ring network with redundant 802.3. Creating an Ethernet class driver for the VS3100 SCSI port will enable TI to have a redundant connection, using a third party, SCSI-Ethernet converter. FRS 9004. Includes AD effort to embed a redundant solution in our low-end workstations; e.g., dual Ethernet ports in PVAX2.

21311I00	1	PD	TNO	FC	OSAP (OMNI FOR SIEMENS AP)	1	9009	TBD	1.5	0.9	0.6	0.5	
21311I00	1	PD	RTO	FC	OSAP (OMNI FOR SIEMENS AP)	1	9009	TBD	0.0	0.0	0.0	0.0	

STIRPE, DARIO  
 PENGO, LORENZO  
 STIRPE, DARIO  
 PENGO, LORENZO

Develop OSAP (OMNI for Siemens AP) as a Corporate Product, with the following basic requirements:

- Support of AP devices, for the "step 0" Technological Functions (both "open" and "not open").
- Callable interface compatible with OMNI (see project No. 21311J00, MMS Toolkit & Standards, in Chart 1).

At the same time continue to provide Engineering back-up support to the ASSETS team in Munich, for VSH1 V1.1 (PASS providing the VAX/VMS Services for Siemens H1).

Deliverables:

- OSAP V1.0 FCS in Q1 FY91

The expenses refer to the OSAP product only (without the figures of VSH1 releases)

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21311J00	1	PD	MET	FC	MMS TOOLKIT & STANDARDS	1	9006	9004	4.3	0.8	1.1	1.0		BARATZ, JIM BASS, TERRY
21311J00	1	PD	TNO	FC	MMS TOOLKIT & STANDARDS	1	9006	9004	0.0	0.2	0.3	0.4		BARATZ, JIM BASS, TERRY

An MMS toolkit will be created to assist in the development of the strategic alliance partners program. This toolkit allows for the integration of various classes of manufacturing devices via the ISO 9506 standard MMS, Manufacturing Message Specification, and the various companion standards, Robot, Numerical Control, Programmable Control, and Process Control. The toolkit will be developed to run in conjunction with DECNET/OSI and with DEC/MAP V3.0 products.

The toolkit will be designed to go beyond the standard and address the requirements for integrating data from the devices into the VAX/VMS CASE and VIA environments. The AD work will design and prototype an MMS server.

Also included will be the following efforts:

- MMS Standards (ST)
- MMS Advanced Development of MMS and Companion Standards (AD)
- Interoperability testing with alliance partners (ATP)

Note: The work to be done in Torino is a part of the AD and STDs work.

Chart 1	In-House Funded Proposed Project Totals	20.6	7.2	6.5	6.4
Chart 1	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 1	Proposed CIM DEVELOPMENT ENGINEERING	20.6	7.2	6.5	6.4
Chart 1	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Incremental CIM DEVELOPMENT ENGINEERING	0.0	0.0	0.0	0.0
Chart 1	Totals for CIM DEVELOPMENT ENGINEERING	20.6	7.2	6.5	6.4

21302X00	2	PS	MET	NA	LOW END SYSTEMS & PACKAGING	NA	NA	NA	0.0	1.0	0.6	0.1		STANLEY, DICK NA
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Support the development of a low end factory workstation platform. This development involves CSS or third party designed and produced packaging enclosures, and hardened alternate input devices.

Get Nematron and Xycom listed as DECWindows PC's by certifying that vendor PC equipment is compatible with PCSG's PC Integration tools. Repeat process for follow on vendor products. Build a network of heterogeneous DECWindows clients and servers to write and test representative CIM applications. Conduct performance and behavioral tests on CIM applications.

Provide technical product support of IVAX packaged systems to Field Service, Sales and customers. Resolve any design related problems. Begin early Q3 FY90 to investigate feasibility of developing a rugged DECwindows terminal product, through an Alliance partner or CSO.

21311300	2	AD	RTO	NA	APPLICATIONS WITH OBJECTS	NA	NA	NA	0.0	0.3	0.2	0.0	BAUER, ALFRED NA
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The goal of this project is to develop an object oriented design methodology for CIM requirements analysis. Object oriented systems analysis and design is a novel approach for requirements analysis. Recently, many projects have attempted to apply to OO paradigm for requirements analysis, however, with difficulties because of lack of methodologies and rules. Currently there is no definition of an object oriented methodology suitable for the design of manufacturing systems. Providing such a methodology as well as conventions for their graphical representation is a big opportunity for Digital to establish the leadership position in advanced software design for CIM systems. This project is partially funded by EERP grants.

Deliverables:

- 1) FY89 Q3; State of the art report on Object Oriented Design.
- 2) FY89 Q4; Functional Specification
- 3) FY90 Q1; Design Specification and Prototype implementation on top of ADT.
- 4) FY90 Q2; Draft Methodology Handbook and support tools.

21311400	2	BPM	MET	NA	CIM BASE PRODUCT MARKETING	NA	NA	NA	0.0	0.9	0.9	0.9	LOSACANO, PETER NA
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This project will provide technical input to marketing with respect to 3rd party applications. There are two kinds of tasks which are performed:

- Technical evaluations of 3rd party applications which are to be jointly marketed by Digital.
- Technical projects which demonstrate usefulness or facilitate the incorporation of Digital products in manufacturing applications.

21311500	2	AR	MET	NA	CIM ARCHITECTURE DEVELOPMENT	NA	NA	NA	0.0	0.2	0.1	0.4	SCHAUWEKER, BILL NA
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This project covers four distinct activities, all with a goal of providing robust, long-lived solutions for manufacturing. The activities include:

- Coordination of, and participation in, the development of comprehensive CIM architecture.
- Defining architecture and requirements to make an ISA symbol gallery part of the DECWindows offering.

21311600	2	PS	MET	NA	LOW-END APPLICATION INTEGRATIO	NA	NA	NA	0.0	0.0	0.1	0.1	SCHAUWEKER, BILL NA
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This project is aimed at getting PC-based functions either firmly linked to Digital systems via our networks, or migrating onto Digital platforms. Activities include:

- Investigating the use of window servers in manufacturing applications. (AD)
- Competitive evaluation of low-end systems aimed at defining growth paths for Digital, either through better platforms or through networked services. (BPM)
- Providing technical support to vendors who are porting PC-based "entry-level" applications to Digital platforms. (PD)
- Provide associated Product Management.

21311700	2	AD	MET	NA	APPLICATION INTEGRATION A/D	NA	NA	NA	0.0	0.0	0.1	0.0	KUKLA, CHUCK NA
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The development of consistent and highly functional user-interfaces is necessary for the operation, control and management of large manufacturing systems. The goal of this activity is to apply workstation, windowing, and multi-media technology to develop an advanced manufacturing workstation. Concepts of collaboration, coordination technology, and hypertext will be utilized. Application and assessment of the workstation will be done in a real manufacturing environment to provide direction for further product development. This activity is dependent on the companion Workstation Project being done in CIM System Engineering.

FY90 deliverables include:

-development and demonstration of individual workstation station applications with multi-media technology

-demonstration and assessment of an integrated set of applications

21311800	2	AD	MET	NA	POSIX REALTIME INTERFACES	NA	NA	NA	0.0	0.3	0.8	0.2		KEEGAN, JOHN NA
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As per Realtime task force recommendations, POSIX IEEE 1003.4 is being developed to provide consistent realtime applications interfaces between DIGITAL platforms, and to provide VAXELN consistency with AIA. Specifically the following projects are being developed:

- creation of the Posix IEEE 1003.4 system services as a part of the VMS VIP product (PS)
- creation of the Posix IEEE 1003.1 and IEEE 1003.4 services within VAXELN (AD)
- standards work at IEEE 1003.4 POSIX meetings (ST)

21311D00	2	AR	MET	NA	INTERCONNECT ARCHITECTURES	NA	NA	NA	0.0	0.0	0.5	0.5		ASCHER, DAVE NA
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Focused on the identification of techniques which are common across a number of projects/vendors/control systems, and for proposing general solutions with staged implementations.

At the level 1/level 2 interface, a reference model for distributed control systems will be created. The types of data (realtime, historical, graphics, ...) to be exchanged will be categorized, and the role of existing communications protocols defined, including proposed extensions (companion standards) to MMS.

Categorize the types of data to be exchanged between level 1 control systems and higher level systems by studying the applications. Work with the various applications providers: end users in chemical, oil and gas, systems engineering and various ACTs (solution systems), SWS/E (Basestar, etc.), CMPs in industrial automation.

Characterize the behavior of cell control applications running on Enterprise I and II by defining typical loads for screen update, realtime data capture and data base recording.

21311G00	2	AD	TNO	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.0	0.0		THOMPSON, JIM NA
21311G00	2	AD	RTO	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.3	0.7		THOMPSON, JIM NA
21311G00	2	AD	MET	NA	NEW VENTURES - WORLDWIDE	NA	NA	NA	0.0	0.0	0.8	1.3		THOMPSON, JIM NA

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The goal of these activities is to identify new opportunities for working with control and equipment vendors worldwide. Such opportunities include follow-ons to current projects; projects similar to those we have already done, but with new vendors, and work in new areas with any of the vendors.

Continue to create and maintain studies of the vendor's control systems. For process, this will include Yokogawa Electric, Combustion Engineering, and Measurex. For discrete, the important targets are GEF, Mitsubishi, and Omron.

Make specific proposals to the vendors for enhancements, once the initial projects are complete. Targets are Honeywell and Foxboro.

Initiate discussions in new areas with Honeywell and A-B in particular, regarding the use of common naming schemes across VMS programs and programs resident in vendor equipment.

Provide engineering support and direction to the development of an European strategic alliance with APRIL as defined by DCC Marketing. Work will be done to develop technical proposals, provide technical evaluations, and support APRIL in the engineering of selected projects.

Deliverables:

- Proposal development and evaluation (Date: TBS)
- Project management and technical consulting (ongoing)
- Analysis, proposals and project management (FY90-FY91)

To compliment the VSH1 Development activity in TNO, provide Engineering direction to the DCC Marketing in order to investigate various opportunities (i.e. Siemens Integrator I) to the development of strategic alliance with SIEMENS. Work will be done to provide technical evaluations and propose various scenarios based on the Alliance framework as defined by DCC.

Deliverables:

- Proposal development and evaluation (Date: TBS)
- Program Management and technical consulting (ongoing)

Start the technical study of the architectures and products of the leading European based automation vendors. DCC Process Application Marketing is currently identifying potential vendors in Europe and setting priorities (e.g. Siemens, Sattcontrol)

Deliver a proposal for a Joint investigation with the most strategic partner. In case of agreement, start joint development, otherwise, prepare a proposal for the second most important vendor.

Deliverables:

- Technical reports on the first 2 targeted vendors - TBD
- Proposal for a joint investigation with the targeted vendor - TBD

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21311200	2	AD	MET	NA	INDUSTRIAL NETWORK TECHNOLOGIE	NA	NA	NA	0.0	1.0	0.7	0.2		LELBLANC, DAN NA
21311200	2	AD	TNO	NA	INDUSTRIAL NETWORK TECHNOLOGIE	NA	NA	NA	0.0	0.0	0.0	0.0		LELBLANC, DAN NA

The purpose of this project is to expand the work done last year on Ethernet noise immunity in manufacturing environments. This year we will be centering on Ethernet performance at levels 2-3 of the manufacturing hierarchy. The intent is to convince users through simulation models and data, that standard Ethernet is suitable for today's performance workloads within manufacturing, and that future application changes (such as the use of DECwindows) will not push utilization near the upper Ethernet bounds. We will also be starting work on understanding FDDI and IEEE 802.5 and suitability for manufacturing (risks & opportunities). The potential need for CMPD to be pro-active in pushing Ethernet at the level 1-2 will be explored in that there is no dominant technology at that level. Is there threat from other technologies or is there opportunity. Parts of this project include:

- performance of IEEE 802.3 for levels 2-3 (PS)
- competitive analysis of IEEE 802.3 variations used by controls vendors (BPM)
- evaluate 802.3/802.4 bridge for migration (BPM)
- evaluation of FDDI (AD)
- evaluation of 802.5 (AD)
- Ethernet at Factory Level 1-2 (AD)

21302Z00	2	PS	MET	NA	PYRAMID I/O SCANNER	NA	NA	NA	0.0	0.4	0.0	0.0		THOMPSON, JIM NA
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Systems integration, field test, support, qualification, product introduction support and maintenance for the DIGITAL/ALLEN-BRADLEY Q-BUS Scanner module and related software. The vendor has assumed full responsibility for continuing support.

21303100	2	PS	ENO	NA	BASEWAY PRODUCT SUPPORT (SWS-E	NA	NA	NA	0.0	0.6	0.2	0.0		STARTSMAN, T. NA
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Provide funding to SWS-E for BASEWAY support and enhancements and back up current BASEWAY customers and the support group. Fix problems, provide work-arounds, visit sites as required. Support kernel code and device vendor support. Keep vendor specific code current with BASEWAY and other Digital vendor products. (During FY88, this product transitioned to SWS-E) BASEWAY V1.2 successfully transferred to ASSETS Program and FY'90 funds are for end-of-life maintenance.

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21303200	2	BPM	MET	NA	PERF COMP ANALYSIS, OTHER PROD	NA	NA	NA	0.0	0.6	0.0	0.0		NEUBURGER, WARREN NA

Evaluate the industrial products of leading competitors (e.g. IBM, HP) through functional and performance testing, in order to build our competitive knowledge base and assist in formulating customer strategies. This activity is carried forward into INDUSTRIAL NETWORK TECHNOLOGIES (See project 21311200)

21303500	2	ST	WRO	NA	SEMI COND INDUST APPLIC (ASAP)	NA	NA	NA	0.0	0.1	0.0	0.0		STARTSMAN, T. NA
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Provide funding for furthering the semiconductor standards (SECS I and SECS II). This activity is carried forward into NEW VENTURES - WORLDWIDE (See Project 21311G00).

21303400	2	AD	TNO	NA	CASE TOOLS FOR SHOP FLOOR	NA	NA	NA	0.0	0.2	0.0	0.0		ZABOT, MARCO NA
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CASE Tools for Shop Floor Design & Control  
 In line with EERP/442 IT-012 and with CIM Application Marketing strategy :

- \* Coordinate CMP/OEM (tbd) development of quality "Shop Floor EMULATOR"
- \* Evaluate feasibility of total CASE tools
- \* Implement prototyping of such CASE-TOOL
- \* Support use of both SFE and SFTC within our MANUFACTURING group

FY'89 project title: "APPL OF AI TOOLS FOR SF AUTOMA"

21311900	2	AR	MET	NA	REALTIME TECHNOLOGY	NA	NA	NA	0.0	0.3	0.0	0.0		NEUBURGER, WARREN NA
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This project is to develop an understanding of leading-edge end user realtime requirements. Leading-edge end users do not typically use CMP packages or outside consultants for the development of new product and technologies; this project is to work with selected end users to understand where their manufacturing architectures are directed, and to feed this information into the product development cycles. As an example, we want to understand the suitability of such techniques as expert sytems, neural nets, and AI programming languages to realtime problems. Knowledge is potentially available from the following sources:

- customer visits
- literature reviews
- internal DEC consultants
- university research
- external research programs

- We will be covering the following areas:
- functional extensions to VAX DECISION EXPERT (PS)
  - the knowledge of AI techniques to realtime environments. (AR)

Chart 2	In-House Funded Proposed Project Totals	0.0	5.4	5.3	4.4
Chart 2	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 2	Proposed CIM DEVELOPMENT ENGINEERING	0.0	5.4	5.3	4.4
Chart 2	In-House Funded Incremental Project Totals	0.0	0.5	0.0	0.0
Chart 2	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Incremental CIM DEVELOPMENT ENGINEERING	0.0	0.5	0.0	0.0
Chart 2	Totals for CIM DEVELOPMENT ENGINEERING	0.0	5.9	5.3	4.4

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In-House Funded Proposed Project Totals									20.6	12.6	11.8	10.8		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed CIM DEVELOPMENT ENGINEERING									20.6	12.6	11.8	10.8		
In-House Funded Incremental Project Totals									0.0	0.5	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CIM DEVELOPMENT ENGINEERING									0.0	0.5	0.0	0.0		
Totals for CIM DEVELOPMENT ENGINEERING									20.6	13.1	11.8	10.8		

\*\*\* Sub Group Code: CIMSE

Sub Group: COMP. INTEGRATED MFG. SYS. ENG

21301E00 3 ARP MET NA DFM TECHNICAL JOINT PROJECT NA NA NA 0.0 0.9 0.2 0.0 PIERCE, STEVE

Complete the work begun in support of Monsanto's "Plant of the 90's" program. The focus is on the control rooms of the intermediate production areas. The work will involve:

- the definition of a platform to support Monsanto's applications
- the use of collaborative work stations between various manufacturing control rooms and between the Process Engineers and management
- making decision support information available to resolve conflicting requirements

Learnings and technology transfer are anticipated in the following areas:

- platform definition
- User Interface (Workstation)
- Complex System Design

The project will be complete in Q2.

21301F00 3 ARP TNO NA FIAT TECHNICAL JOINT PROJECT NA NA NA 0.0 1.7 0.3 0.0 STIRPE, DARIO

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Continue and complete the SFI joint project with FIAT/Auto and COMAU started during FY88. This project is focused on the area/cell controller level of the automotive industry with the aim of producing product requirements for marketing and Digital PBUs and useful methodologies for the field. The joint project includes in depth analysis and requirement of Application Communication between level II and level III based on the production project in the transmission assembly area of FIAT/Auto Termoli plant.

FY90 deliverables include:

- a prototype of an area level control system using an Object Oriented approach by August 1990
- a Technology Transfer Report by October 1990
- a series of technology transfer seminars during Sep and Oct 1990

21301G00	3	ACM	MET	NA	PERFORM CHARACTERIZATION & TES	NA	NA	NA	0.0	0.3	0.3	0.3		QUINLIVAN, KEVIN
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This project is composed of a number of activities which focus on product and application characterization, tools, and workloads. CIM application workloads are used to characterize the performance of new products and technologies. The information is used to help the PBUs position products within our product family, by application marketing to position applications within our computing models, and by the CMPs as a tool to help configure and test their application solution.

FY90 deliverables include:

- Rigel multiprocessor and vector characterization study in Q1
- Aquarius multiprocessor characterization study in Q1/Q2
- Cirrus fault tolerant characterization study in Q2/Q3
- Pele characterization study in Q3/Q4
- Arthur Andersen MACPAC/D, and Regen workload development in Q1/Q2
- ESCA power simulator, and DECwindows MMI workload workload in Q1/Q2
- SPM/Epic graphics post processor reporting tools in Q3
- CIM application I/O profiling study in Q3/Q4

21301H00	3	APD	MET	NA	PROCESS APPLICA INTEGR PLATFOR	NA	NA	NA	0.0	0.0	0.2	0.8		PIERCE, STEVE
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Develop the marketing requirements, architectural specification, and third party integration strategy leading to the definition, development, and deployment of an Applications Integration Platform for process industries. This effort will be done in conjunction with the Process Industry DCC, SWS/E, Process Industry Marketing, and other appropriate Digital organizations and third parties.

FY90 deliverables include:

- business plan
- market requirements
- engineering plan
- prototype(s) specification and design
- completion of Phase 0

21301I00	3	APD	MET	NA	DECQIP: PROCESS/LAB	NA	NA	NA	0.0	0.9	0.2	0.1	PIERCE, STEVE
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The project management part of this activity will provide a liaison between the various Digital groups that are working to develop, deliver, install or support DEQIP: Process/Lab Solution System (PLASS). The primary role of the activity is to organize the phase review process for PLASS, to make sure that a schedule is agreed upon and communicated to all interested parties, and to support, contribute, and monitor all activities to completion.

The engineering part of this activity will provide the engineering resources needed to integrate and characterize PLASS.

The support part of this activity will provide the engineering resources needed to support PLASS and the Quality Solution System (QSS). Support will include:

- Software Problem Report (SPR) support
- recertifications with new versions of Digital and third party products
- consulting to software specialists

FY90 deliverables include:

- a Process Lab Solution System (PLASS), which is scheduled to enter Phase 2 in Q3 of FY90
- ongoing support of PLASS and QSS

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21301J00	3	APD	MET	NA	DISCRETE APPLIC INTEGR PLATFOR	NA	NA	NA	0.0	0.4	0.9	1.2		EGGIMANN, PETER

Input to and influence the marketing requirements, architectural specification, and third party integration strategy leading to the definition, development, and deployment of an Applications Integration Platform for the discrete industries. This effort will be done in conjunction with the Discrete Industry DCC, SWS/E, Discrete Industry Marketing, and other appropriate Digital organizations and third parties.

FY90 deliverables include:

- DARP product and marketing requirements
- DARP V1.0 delivery
- common platform messaging strategy
- BASEstar Application Programming Interface (API) evaluation
- CMP migration program plan
- DECwindows Man/Machine Interface (MMI) prototype specification and design

21301K00	3	APD	MET	NA	PLATFORM INTEGRATION	NA	NA	NA	0.0	0.6	0.7	0.7		QUINLIVAN, KEVIN
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This project is composed of activities which are "front ends" to the applications integration platforms engineering projects. They are typically conversions or certifications of existing applications to exploit new products or applications before they are used in an application integration platform. An example would be the certification of all the CIM applications on a major version of VMS prior to announcement or the conversion of targeted applications in the portfolio to Rdb or DECwindows.

Activities will focus on two major technology streams; the desktop and information/data management.

FY90 deliverables include:

- DECwindows SPC Quality prototype study with Salerno in Q1
- DECwindows process control/factory objects modeling in Q1/Q2
- DECwindows workgroup characterization study with ESCA in Q1/Q2
- Targeted CDA/DDIF prototyping and feasibility studies in Q3/Q4
- Rdb/Sql design and prototyping; EMS, A/A, ASK, WDS, CSD in Q1-Q4
- DBMS/RMS to Rdb application conversion guide in Q2/Q3
- Rdb performance characterization study in Q3/Q4

21301L00	3	APD	MET	NA	MANUFACTURING RESOURCE MGT	NA	NA	NA	0.0	0.6	1.2	1.5		MASSEY, KEN
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Develop business requirements, functional models and architectural specifications to support the implementation of Distributed Manufacturing Resource Management (MRM) systems. These systems will be the next generation of manufacturing software that incorporate existing MRP II and SFM functionality, add multi-dimensional resource management, real time feedback and control, and provide integrated, distributed functions. CIM requirements for the ADDS/CIM project will be provided to the Database Systems PBU.

FY90 deliverables include:

- a description of the business requirements needed for information management systems to support manufacturing companies in the '90s
- a functional model of the desired system including Shop Floor Management, MRP, Master Planning, and Final Assembly Planning modules
- detailed data models covering the interfaces between Material Planning and Shop Floor Management
- protocol specifications and service interface specifications covering the interfaces between Material Planning and SFM in a distributed DECnet environment reviewed and approved by one or more potential implementors
- prototype specifications and design

21301M00	3	AAD	MET	NA	MFG PROCESS DATA MANAGEMENT	NA	NA	NA	0.0	0.0	0.1	0.4		KYZIVAT, PAUL
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Develop a standard approach to collection, representation, indexing, storage, and access of historical data about the execution of manufacturing processes in a distributed environment.

Determine data naming and representation requirements and appropriate data storage methods, including special requirements on base products.

Determine data access requirements such as selection methods, frequency of access, and required performance.

FY90 deliverables include:

- a data model for the inputs, outputs, and stored data in the system
- base product database system requirements for support of the data storage access, and distribution functions
- architectural definition of a standard-interface for access to historical process data

21301N00	3	ARP	RTO	NA	CMP TECH APPLICATION SUPPORT	NA	NA	NA	0.0	0.3	0.9	0.9		GRUHNWALD, WINFRIED
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Provide technical support to CMPs and evaluate CMP supplied applications in the area of Manufacturing Resource Management (MRM). The technical support is to ensure that strategic CMPs are migrating toward the Digital style of computing as defined by standards (AIA, CDA, DNA, etc), and/or toward base products (DECwindows, DECnet, RdB, CDD+, etc). This will enable Digital to provide customers with better integrated solutions and to better define requirements for application interfacing and integration and for Application Integration Platforms (AIP). The technical evaluations will follow a standardized set of technical criteria consistent across all the Product Marketing Groups and will supply the necessary input to the decision process of the Applications Review Board (ARB). The work will be closely coordinated with the work being done in CMPD, the European ACTs (which will perform the functional evaluation), and the DCC Marketing organization.

FY90 deliverables include:

- reports on the interactions with CMPs
- feedback on base products to PBUs and to field organizations (SWAS, ACTs, Marketing, etc)
- reports on technical evaluation of CMPs

21301000	3	AAD	RTO	NA	EUROPEAN CIM ARCHITECTURE	NA	NA	NA	0.0	0.1	0.3	0.4	FLATAU, ULI
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This program will have a primary focus on business function and information technology architecture in order to support the MPCS (MRM) program. It will provide inputs to the CIM Information Systems Architecture being developed by CMPD. It will also provide European inputs on MRM requirements and the tailoring of the MRM architecture for the European market. The secondary focus will be on AIA, NAS, ODA, and CDA conformance of the CMP application packages and feedback as to the applicability of AIA and NAS in the MPCS (MRM) space.

FY90 deliverables include:

- market and product requirement definitions
- business function and information flow architecture
- architecture testing and verification
- active support for CMP application redesign
- reports on Digital's standard product applicability in the MRM space
- technical strategy definition for DCC engineering

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21301P00	3	ARP	TNO	NA	APPLICATION ARCH & DEVELOPMENT	NA	NA	NA	0.0	0.0	0.5	0.8		STIRPE, DARIO

Architect and prototype a set of generic application elements that system integrators could use to build machining, assembly, and flexible manufacturing system applications. These elements, structured as objects, would include cells, product definition data, schedules, orders, and other common CIM components. These, together with the device, event, data, and other objects planned for the SWS/CMPD/NEXT generation integration platform, would form a comprehensive manufacturing application base. Meanwhile, these application elements would impose an architecture that would ease customer and CMP migration to AIA, future databases, and object-oriented programming technology.

FY90 deliverables:

(defined in the project plan)

21301R00	3	AAD	MET	NA	WORKSTATION ADVANC DEVELOPMENT	NA	NA	NA	0.0	0.0	0.3	0.3		KUKLA, CHUCK
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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
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The development of consistent and highly functional user interfaces is necessary for the operation, control and management of large manufacturing systems. The goal of this activity is to bring together new workstation, windowing, and multi-media technology in a state-of-the-art workstation for complex manufacturing environments that provides previously unattainable levels of user collaboration and coordination.

Emerging system engineering technologies will be identified and evaluated for use in the analysis, design, and implementation of CIM systems in a real manufacturing environment. Collaboration, coordination, and concurrent engineering technology being developed in various research environments around the world, including MCC in Texas, Stanford University in California, Aarhus University in Denmark, Oslo University in Norway, and Digital Corporate Research, will be utilized. The workstation will be demonstrated and evaluated in a real manufacturing environment. The collective assessment of various systems engineering and workstation technologies, and their utilization in a real application environment, will provide important information to product and system designers as to what technology and products are useful to our customers.

The activity will also involve participation in the Application Sponsored Research Board (ASRB) and CIM University Task Force. Deliverables are dependent on the companion Workstation Advanced Development project being done in CIM Development Engineering (CDE).

FY90 deliverables include:

- establishment of on-going formal relationships with various research consortia
- identification of a number of new Concurrent Engineering Technologies
- assessment of the technologies in a real customer environment
- development of system design strategies to support complex system design
- demonstration of an integrated set of workstation applications

21301X00	3	ARP	MET	NA	INTEGRATED MFG PLAN & CTRL SYS	NA	NA	NA	0.0	0.0	0.2	0.3		BAUER, ALFRED
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DIGITAL RESTRICTED DISTRIBUTION

DIGITAL EQUIPMENT CORPORATION  
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 GROUP: CIM MARKETING/PRODUCT DEVMT.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
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The Integrated Manufacturing Planning and Control System (IMPACS) activity is a partnership project with ALCATEL, PA Consulting, Comau, and CGE with the purpose of investigating and developing an architecture and platforms for future MRM applications. The project is closely tied into the corporate sponsored MRM activity. IMPACS is expected to set the industry direction with respect to business and technical structures of future MRP II applications. Digital is a leading partner in this activity. IMPACS will enable the accessing of a large, industry-oriented knowledge-base and the migrating of Digital's style of developing and using MRM applications into the manufacturing environment.

FY90 Deliverables include:

- a state-of-the-art survey and positioning of the technology within the framework of IMPACS and MRM
- a market survey of current and desired use of MRM applications
- a specification and prototypes of MRM platforms with emphasis on the Master Production Scheduling (MPS) generation process

21301Z00	3	ARP	MET	NA	M&M MARS TECHNICAL JOINT PROJ	NA	NA	NA	0.0	0.3	0.0	0.0		MASSEY, KEN
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This activity was ended in Q3 FY89.

21302100	3	ARP	RTO	NA	CAP-MDI TECHNICAL JOINT PROJEC	NA	NA	NA	0.0	0.6	0.0	0.0		GRUHNWALD, WINFRIED
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This activity was completed in Q3 FY89.

21302200	3	APM	MET	NA	CIM COMMUNICATIONS	NA	NA	NA	0.0	0.3	0.0	0.0		OLSEN, MARK
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These activities are being integrated into the various CIMSE activities in FY90 and beyond.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart	3				In-House Funded Proposed Project Totals				0.0	5.8	6.3	7.7		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed COMP. INTEGRATED MFG. SYS. ENG				0.0	5.8	6.3	7.7		
Chart	3				In-House Funded Incremental Project Totals				0.0	1.2	0.0	0.0		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental COMP. INTEGRATED MFG. SYS. ENG				0.0	1.2	0.0	0.0		
Chart	3				Totals for COMP. INTEGRATED MFG. SYS. ENG				0.0	7.0	6.3	7.7		
In-House Funded Proposed Project Totals									0.0	5.8	6.3	7.7		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed COMP. INTEGRATED MFG. SYS. ENG									0.0	5.8	6.3	7.7		
In-House Funded Incremental Project Totals									0.0	1.2	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental COMP. INTEGRATED MFG. SYS. ENG									0.0	1.2	0.0	0.0		
Totals for COMP. INTEGRATED MFG. SYS. ENG									0.0	7.0	6.3	7.7		
In-House Funded Project Totals									20.6	18.4	18.1	18.5		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for CIM MARKETING/PRODUCT DEVMT.									20.6	18.4	18.1	18.5		
In-House Funded Incremental Project Totals									0.0	1.7	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental CIM MARKETING/PRODUCT DEVMT.									0.0	1.7	0.0	0.0		
Grand Totals for CIM MARKETING/PRODUCT DEVMT.									20.6	20.1	18.1	18.5		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR  
 Group: CIM MARKETING/PRODUCT DEVMT.

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
21302Y00	PYRAMID INTEGRATOR I	8810	8905	8905	BERGER, BILL
21303600	CM50N-HONEYWELL	9102	9012	9103	NA
21311100	VAX DEC/MAP V3.0	8910	8912	8912	NADDEO, GENE
21311E00	PYRAMID INTEGRATORII	TBD	9101	TBD	BERGER, BILL
21311F00	SQ85 & Q984-MODICON	TBD	9009	TBD	CALDWELL, ALICE
21311H00	TI, FOXBORO, BAILEY	TBD	TBD	TBD	NA
21311I00	DEC/OSAP	TBD	9009	TBD	PENGO, LORENZO
21311J00	VAX DEC/OMNI V1.0	9004	9006	TBD	BASS, TERRY
21301E00		NA	NA	NA	
21301F00		NA	NA	NA	
21301G00		NA	NA	NA	
21301H00		NA	NA	NA	
21301I00		NA	NA	NA	
21301J00		NA	NA	NA	
21301K00		NA	NA	NA	
21301L00		NA	NA	NA	
21301M00		NA	NA	NA	
21301N00		NA	NA	NA	
21301O00		NA	NA	NA	
21301P00		NA	NA	NA	
21301R00		NA	NA	NA	
21301X00		NA	NA	NA	
21301Z00		NA	NA	NA	
21302100		NA	NA	NA	
21302200		NA	NA	NA	

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TELECOMMUNICATIONS SYSTEMS GROUP (TSG)

FY90 BEIGE BOOK ENTRIES

(HARDCOPY)

1.0 STRATEGY

The Telecommunications Systems Group's (TSG) Engineering strategy is to direct, develop and support products, solution systems, application integration platforms and third party applications for the following segments of the public and corporate network market worldwide:

- o Intelligent Networks
- o Multi-Vendor Network Management
- o Public Network Operations/Billing.

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2.0 TSG BUDGET SUMMARY

DIGITAL EQUIPMENT CORPORATION  
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21231B00	1	PD	VBE	FC	VAX SS7 V1.0	2	8912	9004	2.7	1.3	0.3	0.1		GERBAUD, CLAUDE LEBRIS, HERVE
21231C00	1	PD	VBE	FC	VAX SS7 V2.0	0	9010	9004	1.8	0.1	0.9	0.8		GERBAUD, CLAUDE LEBRIS, HERVE
21231G00	1	PD	VBE	FC	SMS V1.0	1	9012	9004	1.4	0.2	0.6	0.6		GERBAUD, CLAUDE BARRY, SEAN
Chart	1				In-House Funded Proposed Project Totals				5.9	1.6	1.8	1.5		
Chart	1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Proposed TELECOM SYSTEMS GROUP				5.9	1.6	1.8	1.5		
Chart	1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Incremental TELECOM SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart	1				Totals for TELECOM SYSTEMS GROUP				5.9	1.6	1.8	1.5		

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21232I00	2	TE	PDM	NA	IN/MVNM/OSS CSO SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		VOTAVA, JIM
21232I00	2	TE	MKO	NA	IN/MVNM/OSS CSO SUPPORT	NA	NA	NA	0.0	0.4	0.4	0.5		NA VOTAVA, JIM NA
Chart	2				In-House Funded Proposed Project Totals				0.0	0.4	0.4	0.5		
Chart	2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Proposed TELECOM SYSTEMS GROUP				0.0	0.4	0.4	0.5		
Chart	2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Incremental TELECOM SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart	2				Totals for TELECOM SYSTEMS GROUP				0.0	0.4	0.4	0.5		

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21231F00	3	ACM	PDM	NA	VAXSS7 US TECH SUPPORT	NA	NA	NA	1.0	0.2	0.0	0.0		SZCZEPANSKI, TOM LEBRIS, HERVE
21231F00	3	ACM	MKO	NA	VAXSS7 US TECH SUPPORT	NA	NA	NA	0.5	0.1	0.2	0.4		SZCZEPANSKI, TOM LEBRIS, HERVE
21231U00	3	APD	PDM	FC	ENHANCED SERVICES BILLING PLAT	PRE-0	TBD	TBD	1.2	0.2	0.2	0.6		ROGERS, RICK AROIAN, RICH
21231V00	3	ARP	PDM	NA	EMA THIRD PARTY SUPPORT	NA	NA	NA	1.8	0.0	0.0	0.0		MCCLARREN, DON MEIDELL, STEVE
21231V00	3	ARP	MKO	NA	EMA THIRD PARTY SUPPORT	NA	NA	NA	0.0	0.8	0.4	0.6		MCCLARREN, DON MEIDELL, STEVE
21231W00	3	APD	VBE	NA	EUROPEAN OSS PLATFORM	PRE-0	9012	TBD	0.8	0.0	0.2	0.5		GERBAUD, CLAUDE JULLIEN, VINCENT
21231X00	3	APD	PDM	NA	OSS US TECHNICAL STRATEGY	PRE-0	TBD	TBD	1.2	0.7	0.1	0.4		ROGERS, RICK MERRIMAN, DAN
21231Y00	3	ABP	PDM	NA	ITEMIZED BILLING TECH STRATEGY	PRE-0	TBD	TBD	0.0	0.0	0.2	0.3		ROGERS, RICK AROIAN, RICH
21231Z00	3	APD	PDM	FC	MVNM INTERIM PLATFORM	0	9006	TBD	0.7	0.0	0.0	0.0		MCCLARREN, DON MEIDELL, STEVE
21231Z00	3	APD	MKO	FC	MVNM INTERIM PLATFORM	0	9006	TBD	0.0	0.3	0.2	0.2		MCCLARREN, DON MEIDELL, STEVE
21232E00	3	ASP	MKO	NA	US VAXSMS SUPPORT	NA	NA	NA	0.0	0.1	0.1	0.3		SZCZEPANSKI, TOM BARRY, SEAN
21232E00	3	ASP	PDM	NA	US VAXSMS SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		SZCZEPANSKI, TOM BARRY, SEAN
21232F00	3	APD	MKO	FC	VAXSCP APPLICATION INT PLATFOR	0	TBD	TBD	3.5	0.6	0.4	1.5		SZCZEPANSKI, TOM DEIGHTON, NIGEL
21232F00	3	APD	PDM	FC	VAXSCP APPLICATION INT PLATFOR	0	TBD	TBD	0.0	0.0	0.0	0.0		SZCZEPANSKI, TOM DEIGHTON, NIGEL
21232G00	3	APD	VBE	NA	ENOP V2.0 PLATFORM	0	9006	TBD	0.5	0.1	0.2	0.2		GERBAUD, CLAUDE BIONDI, ANTOINE

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Chart 3				In-House Funded Proposed Project Totals				11.2	3.1	2.2	5.0		
Chart 3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Proposed TELECOM SYSTEMS GROUP				11.2	3.1	2.2	5.0		
Chart 3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Incremental TELECOM SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 3				Totals for TELECOM SYSTEMS GROUP				11.2	3.1	2.2	5.0		
In-House Funded Project Totals								17.1	5.1	4.4	7.0		
Externally Funded Project Totals								0.0	0.0	0.0	0.0		
Proposed for TELECOM SYSTEMS GROUP								17.1	5.1	4.4	7.0		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental TELECOM SYSTEMS GROUP								0.0	0.0	0.0	0.0		
Grand Totals for TELECOM SYSTEMS GROUP								17.1	5.1	4.4	7.0		

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3.0 PROJECT CHARTS

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21231B00	1	PD	VBE	FC	VAX SS7 V1.0	2	8912	9004	2.7	1.3	0.3	0.1		GERBAUD, CLAUDE LEBRIS, HERVE	
Development of the Signaling System #7 communications layered product corresponding to CCITT Blue Book recommendations. Includes qualification with a first customer.															
21231C00	1	PD	VBE	FC	VAX SS7 V2.0	0	9010	9004	1.8	0.1	0.9	0.8		GERBAUD, CLAUDE LEBRIS, HERVE	
Develop an enhanced version of VAX SS7 with improved performance. Enhancements also include compliance with ANSI specifications and qualification with first ANSI customer and sustaining engineering.															
21231G00	1	PD	VBE	FC	SMS V1.0	1	9012	9004	1.4	0.2	0.6	0.6		GERBAUD, CLAUDE BARRY, SEAN	
Develop a kernel SMS platform which would be the basis for a SMS solution system necessary to support the DSC Modular Node, VAXscp AIP, France Telecom SCP and Bellcore IN1+ ISMS requiremnts. Program includes qualification with first customer (DSC) and sustaining engineering.															
Chart	1	In-House Funded Proposed Project Totals							5.9	1.6	1.8	1.5			
Chart	1	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0			
Chart	1	Proposed TELECOM SYSTEMS GROUP							5.9	1.6	1.8	1.5			
Chart	1	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	1	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	1	Incremental TELECOM SYSTEMS GROUP							0.0	0.0	0.0	0.0			
Chart	1	Totals for TELECOM SYSTEMS GROUP							5.9	1.6	1.8	1.5			

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21232I00	2	TE	PDM	NA	IN/MVNM/OSS CSO SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		VOTAVA, JIM NA
21232I00	2	TE	MKO	NA	IN/MVNM/OSS CSO SUPPORT	NA	NA	NA	0.0	0.4	0.4	0.5		VOTAVA, JIM NA

Technical evaluations and support of Intelligent Network, Multi-Vendor Network Management and Operations Support Systems CSOs and third party applications. Planned for the year are: IN - 3, MVNM - 28, OSS - 6 for a total of 37.

Chart 2	In-House Funded Proposed Project Totals								0.0	0.4	0.4	0.5		
Chart 2	Externally Funded Proposed Project Totals								0.0	0.0	0.0	0.0		
Chart 2	Proposed TELECOM SYSTEMS GROUP								0.0	0.4	0.4	0.5		
Chart 2	In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Chart 2	Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Chart 2	Incremental TELECOM SYSTEMS GROUP								0.0	0.0	0.0	0.0		
Chart 2	Totals for TELECOM SYSTEMS GROUP								0.0	0.4	0.4	0.5		

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21231F00	3	ACM	PDM	NA	VAXSS7 US TECH SUPPORT	NA	NA	NA	1.0	0.2	0.0	0.0		SZCZEPANSKI, TOM LEBRIS, HERVE
21231F00	3	ACM	MKO	NA	VAXSS7 US TECH SUPPORT	NA	NA	NA	0.5	0.1	0.2	0.4		SZCZEPANSKI, TOM LEBRIS, HERVE
<p>US support of VAX SS7 versions 1.0, 1.1 and 2.0. Support includes review of design specifications and implementation, systems test for US, system modeling and product performance characterization. US Product support for MCI also included.</p>														
21231U00	3	APD	PDM	FC	ENHANCED SERVICES BILLING PLAT PRE-0	TBD	TBD		1.2	0.2	0.2	0.6		ROGERS, RICK ARONIAN, RICH
<p>Development of Enhanced Services Billing platform to support emerging services in the Intelligent Network and Enhanced Services market. Implicit in this project is definition of Enhanced Services Technical Strategy.</p>														
21231V00	3	ARP	PDM	NA	EMA THIRD PARTY SUPPORT	NA	NA	NA	1.8	0.0	0.0	0.0		MCCLARREN, DON MEIDELL, STEVE
21231V00	3	ARP	MKO	NA	EMA THIRD PARTY SUPPORT	NA	NA	NA	0.0	0.8	0.4	0.6		MCCLARREN, DON MEIDELL, STEVE
<p>Jointly support 40 strategic third party vendors who intend to migrate to EMA and implement Access and Functional Modules. Joint activity is with Networks and Communications. Activities include preparing CISVG to support third parties beyond strategic 40.</p>														
21231W00	3	APD	VBE	NA	EUROPEAN OSS PLATFORM	PRE-0	9012	TBD	0.8	0.0	0.2	0.5		GERBAUD, CLAUDE JULLIEN, VINCENT
<p>Development and support of an OSS Platform suitable for the worldwide market based upon the VMS operating system and its layered products.</p>														
21231X00	3	APD	PDM	NA	OSS US TECHNICAL STRATEGY	PRE-0	TBD	TBD	1.2	0.7	0.1	0.4		ROGERS, RICK MERRIMAN, DAN
<p>Development and support of an OSS Platform suitable for the US market, based upon the SOE Platform and appropriate third party layered products.</p>														

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21231Y00	3	ABP	PDM	NA	ITEMIZED BILLING TECH STRATEGY	PRE-0	TBD	TBD	0.0	0.0	0.2	0.3		ROGERS, RICK AROIAN, RICH
Development of a technical strategy for the itemized billing market opportunities. Results of technical strategy will result in an Itemized Billing Platform.														
21231Z00	3	APD	PDM	FC	MVNM INTERIM PLATFORM	0	9006	TBD	0.7	0.0	0.0	0.0		MCCLARREN, DON MEIDELL, STEVE
21231Z00	3	APD	MKO	FC	MVNM INTERIM PLATFORM	0	9006	TBD	0.0	0.3	0.2	0.2		MCCLARREN, DON MEIDELL, STEVE
Development of Alarms Window interface for Networks and Communication's Netstation platform to allow public network management vendors to attach to Netstation platform.														
21232E00	3	ASP	MKO	NA	US VAXSMS SUPPORT	NA	NA	NA	0.0	0.1	0.1	0.3		SZCZEPANSKI, TOM BARRY, SEAN
21232E00	3	ASP	PDM	NA	US VAXSMS SUPPORT	NA	NA	NA	0.0	0.0	0.0	0.0		SZCZEPANSKI, TOM BARRY, SEAN
Provide US Technical Support for VAXsms platform as it is incorporated into the TIMG DSC-MN project and the VAXscp AIP project.														
21232F00	3	APD	MKO	FC	VAXSCP APPLICATION INT PLATFOR	0	TBD	TBD	3.5	0.6	0.4	1.5		SZCZEPANSKI, TOM DEIGHTON, NIGEL
21232F00	3	APD	PDM	FC	VAXSCP APPLICATION INT PLATFOR	0	TBD	TBD	0.0	0.0	0.0	0.0		SZCZEPANSKI, TOM DEIGHTON, NIGEL
Development of VAX Service Control Point Application Integration Platform for worldwide market. This platform is intended to integrate products such as VAXss7 and DSC-MN database products as appropriate, as well as standard Digital products to provide a standalone or switch integrated SCP.														
21232G00	3	APD	VBE	NA	ENOP V2.0 PLATFORM	0	9006	TBD	0.5	0.1	0.2	0.2		GERBAUD, CLAUDE BIONDI, ANTOINE
Development of interim network management platform based upon the Enterprise Network Services platform work currently ongoing in Valbonne.														

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Project ID	Act Ch	Loc Cde	Int St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
Chart 3				In-House Funded Proposed Project Totals				11.2	3.1	2.2	5.0		
Chart 3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Proposed TELECOM SYSTEMS GROUP				11.2	3.1	2.2	5.0		
Chart 3				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3				Incremental TELECOM SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 3				Totals for TELECOM SYSTEMS GROUP				11.2	3.1	2.2	5.0		
In-House Funded Project Totals								17.1	5.1	4.4	7.0		
Externally Funded Project Totals								0.0	0.0	0.0	0.0		
Proposed for TELECOM SYSTEMS GROUP								17.1	5.1	4.4	7.0		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental TELECOM SYSTEMS GROUP								0.0	0.0	0.0	0.0		
Grand Totals for TELECOM SYSTEMS GROUP								17.1	5.1	4.4	7.0		

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4.0 PRODUCT DELIVERABLE AND ANNOUNCEMENT CALENDAR

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
21231B00	VAX SS7 V1.0	9004	8912	8901	LEBRIS, HERVE
21231C00	VAX SS7 V2.0	9004	9010	TBD	LEBRIS, HERVE
21231G00	VAXSMS V1.0	9004	9012	9003	BARRY, SEAN
21231F00	VAXSS7 US SUPPORT	NA	NA	NA	LEBRIS, HERVE
21231U00	BINES PLATFORM	TBD	TBD	TBD	AROIAN, RICH
21231V00	EMA 3RD PARTY SUPP	NA	NA	NA	MEIDELL, STEVE
21231W00	EUR OSS PLATFORM	TBD	9012	TBD	JULLIEN, VINCENT
21231X00	OSS PLATFORM	TBD	TBD	TBD	MERRIMAN, DAN
21231Y00	ITEMIZED BILL T.S.	TBD	TBD	TBD	AROIAN, RICH
21231Z00	INTERIM PLATFORM	TBD	9006	TBD	MEIDELL, STEVE
21232E00	US VAXSMS SUPPORT	NA	NA	NA	BARRY, SEAN
21232F00	VAXSCP AIP	TBD	TBD	TBD	DEIGHTON, NIGEL
21232G00	ENOP V2.0 PLATFORM	TBD	9006	TBD	BIONDI, ANTOINE

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Chapter 1 - Strategy Statement

FGS Engineering Strategy:

Concentrate on application areas that benefit particularly from DIGITAL strengths and that offer maximum opportunity for DIGITAL revenue growth. In future years, expand into additional related application areas. Current application areas, chosen in conjunction with FSG and Industry Marketing, are:

Investments:

Build DIGITAL's reputation as complete solution provider in the investments market by system integrating the front office using the DECtrade platform and then expanding into the rest of the enterprise.

Retail Banking:

Deliver Retail Branch Processor Platform to accomodate IBM communications to hosts, teller & platform applications, branch management applications, and a diversity of specialized banking peripherals.

Corporate Banking:

Develop platforms for Funds Movement, Relationship Management functions, and International Branch Banking.

EDGE:

A generic, applications-independent platform which enhances integration through business process workflow control.

Use fully defined architectures and platforms as mechanisms to:

- Deliver the best, most complete solution to the customer.
- Foster tight integration of applications from disparate sources.
- Extend the usefulness of DIGITAL base products into industry-specific areas, thereby promoting more usage of those base products.

Concentrate resources on architectures and systems engineering, avoiding duplication of effort with other DIGITAL groups and complementary outside sources.

Build on industry standards wherever possible to maximize application availability and customer acceptance, and to minimize development costs. Participate in shaping industry standards to assure their quality and reduce DIGITAL time-to-market.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21221100	1	PD	PDM	NA	DECTRADE S1.0 FOR BANKERS TRUS	3	9001	9001	4.0	2.0	1.4	0.1		DAVIS, STEVE
21221200	1	PD	PDM	NA	DECTRADE VMS V1.0	1	9012	9009	4.2	0.4	3.4	0.5		OLSEN, LIN
21221300	1	PD	PDM	NA	DECTRADE ULTRIX	PRE-0	TBD	TBD	3.6	0.0	0.1	3.5		OLSEN, LIN
21221700	1	PD	PDM	NA	EDGE VMS DEC	1	9103	9012	3.6	0.6	0.6	2.4		OLSEN, LIN
21221K00	1	PD	PDM	NA	EDGE GRAPHICAL USER INTERFACE	PRE-0	9109	TBD	0.7	0.0	0.0	0.0		MULVEHILL, THOMAS
21221W00	1	PD	PDM	NA	EDGE VMS PML	1	9103	9012	0.0	0.0	1.6	0.0		MULVEHILL, THOMAS
21221X00	1	PD	PDM	NA	EDGE PML RELIEF	1	TBD	TBD	0.0	0.7-	1.6-	0.0		PICCOLOMINI, PAUL
Chart	1				In-House Funded Proposed Project Totals				16.1	2.3	5.5	6.5		
Chart	1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Proposed FINANCIAL INDUSTRIES SERV. GRP				16.1	2.3	5.5	6.5		
Chart	1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Incremental FINANCIAL INDUSTRIES SERV. GRP				0.0	0.0	0.0	0.0		
Chart	1				Totals for FINANCIAL INDUSTRIES SERV. GRP				16.1	2.3	5.5	6.5		
21221C00	2	TE	PDM	NA	INV. APPLICATIONS ENGINEERING	NA	NA	NA	0.0	0.3	0.6	0.6		LOFGREN, TOMAS
21221E00	2	TE	PDM	NA	CORP BANKING APPLICATIONS ENG	NA	NA	NA	0.0	0.0	0.1	0.2		NA
21221F00	2	TE	PDM	NA	RETAIL BANKING APPLICATIONS EN	NA	NA	NA	0.0	0.0	1.1	0.0		CASHMAN, PAUL
21221D00	2	TE	PDM	NA	EDGE APPLICATIONS ENGINEERING	NA	NA	NA	0.0	0.0	0.0	0.6		NA
21221G00	2	UN	PDM	NA	CROSS FUNCTIONAL	NA	NA	NA	0.0	0.0	0.3	0.0		PICCOLOMINI, PAUL
														NA
														HAWKINS, BARBARA
														NA

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Chart 2					In-House Funded Proposed Project Totals				0.0	0.3	1.8	1.4		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Proposed FINANCIAL INDUSTRIES SERV. GRP				0.0	0.3	1.8	1.4		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.3	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental FINANCIAL INDUSTRIES SERV. GRP				0.0	0.0	0.3	0.0		
Chart 2					Totals for FINANCIAL INDUSTRIES SERV. GRP				0.0	0.3	2.1	1.4		
21221Q00	3	APD	PDM	NA	CBW PILOT	1	9009	NA	1.0	0.0	0.7	0.3		CASHMAN, PAUL
21221U00	3	APD	PDM	NA	RETAIL BANKING SYSTEM/PLATFORM	1	9007	NA	0.0	0.0	1.9	0.0		MESERVE, WILLIAM
21221O00	3	AAD	PDM	NA	FUNDS MOVEMENT	NA	9005	NA	1.0	0.1	0.2	0.0		HEMMINGS, DAVE
21221R00	3	ACM	PDM	NA	CBW SOLUTION	0	NA	NA	0.1	0.0	0.2	0.0		OADES, GEOFF
21221T00	3	ACM	PDM	NA	RETAIL BANKING SOLUTION	1	9012	NA	0.0	0.0	0.6	0.0		GOFF, ALAN
21221S00	3	AAD	PDM	NA	INTERNATIONAL BANKING	NA	NA	NA	0.0	0.0	0.0	0.0		MESERVE, WILLIAM
21221I00	3	AAD	PDM	NA	INV ADVANCED DEVELOPMENT	NA	NA	NA	0.0	0.0	0.0	0.0		MESERVE, WILLIAM
Chart 3					In-House Funded Proposed Project Totals				2.1	0.1	3.6	0.3		
Chart 3					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Proposed FINANCIAL INDUSTRIES SERV. GRP				2.1	0.1	3.6	0.3		
Chart 3					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Incremental FINANCIAL INDUSTRIES SERV. GRP				0.0	0.0	0.0	0.0		
Chart 3					Totals for FINANCIAL INDUSTRIES SERV. GRP				2.1	0.1	3.6	0.3		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
In-House Funded Project Totals										18.2	2.7	10.9	8.2	
Externally Funded Project Totals										0.0	0.0	0.0	0.0	
Proposed for FINANCIAL INDUSTRIES SERV. GRP										18.2	2.7	10.9	8.2	
In-House Funded Incremental Project Totals										0.0	0.0	0.3	0.0	
Externally Funded Incremental Project Totals										0.0	0.0	0.0	0.0	
Incremental FINANCIAL INDUSTRIES SERV. GRP										0.0	0.0	0.3	0.0	
Grand Totals for FINANCIAL INDUSTRIES SERV. GRP										18.2	2.7	11.2	8.2	

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21221100	1	PD	PDM NA	DECTRade S1.0 FOR BANKERS TRUS	3	9001	9001	4.0	2.0	1.4	0.1		DAVIS, STEVE OLSEN, LIN
<p>Completion of the DECTRade project for Bankers Trust in London, including prototype versions of DECTRade Distribution and Management software. The system is expected to go live on 4 December 1989. At that time the committed support activity will start.</p>													
21221200	1	PD	PDM NA	DECTRade VMS V1.0	1	9012	9009	4.2	0.4	3.4	0.5		OLSEN, LIN LIN OLSEN
<p>Development and release of DECTRade 1.0 for VMS product based on the prototype developed for Bankers Trust plus DECTRade Workstation Services.</p>													
21221300	1	PD	PDM NA	DECTRade ULTRIX	PRE-0	TBD	TBD	3.6	0.0	0.1	3.5		OLSEN, LIN OLSEN, LIN
<p>Development of DECTRade for the ULTRIX platform.</p>													
21221700	1	PD	PDM NA	EDGE VMS DEC	1	9103	9012	3.6	0.6	0.6	2.4		MULVEHILL, THOMAS MULVEHILL, THOMAS
<p>Development of generic work flow control software that allows multiple, networked departments of organizations to process work as a single, logical unit.</p>													
21221K00	1	PD	PDM NA	EDGE GRAPHICAL USER INTERFACE	PRE-0	9109	TBD	0.7	0.0	0.0	0.0		PICCOLOMINI, PAUL
<p>An interactive graphical utility to create/maintain the workflow application system definition/environment.</p>													
21221W00	1	PD	PDM NA	EDGE VMS PML	1	9103	9012	0.0	0.0	1.6	0.0		MULVEHILL, THOMAS MULVEHILL, THOMAS
<p>Phoenix Mutual Life Insurance Company's contribution for the development of a generic workflow control software product that allows multiple, networked departments or organizations to process work as a single logical unit.</p>													
21221X00	1	PD	PDM NA	EDGE PML RELIEF	1	TBD	TBD	0.0	0.7-	1.6-	0.0		N/A
<p>This project is an accounting project to identify PML relief, to offset project number 21221W00.</p>													

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart	1				In-House Funded Proposed Project Totals				16.1	2.3	5.5	6.5		
Chart	1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Proposed FINANCIAL INDUSTRIES SERV. GRP				16.1	2.3	5.5	6.5		
Chart	1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Incremental FINANCIAL INDUSTRIES SERV. GRP				0.0	0.0	0.0	0.0		
Chart	1				Totals for FINANCIAL INDUSTRIES SERV. GRP				16.1	2.3	5.5	6.5		
21221C00	2	TE	PDM	NA	INV. APPLICATIONS ENGINEERING	NA	NA	NA	0.0	0.3	0.6	0.6		LOFGREN, TOMAS NA
DECTrade applications engineering to provide support to DECTrade development engineering, marketing, and external third parties.														
21221E00	2	TE	PDM	NA	CORP BANKING APPLICATIONS ENG	NA	NA	NA	0.0	0.0	0.1	0.2		CASHMAN, PAUL NA
Project consists of applications engineering support for third party corporate banking applications being integrated onto the CBW, Funds Movement, and International Branch banking platforms.														
21221F00	2	TE	PDM	NA	RETAIL BANKING APPLICATIONS EN	NA	NA	NA	0.0	0.0	1.1	0.0		KIVEL, GEORGE NA
CMSI port conversion of credit review from UNIX to VMS. NPRI integration which exchanges leads and customer information between a central teleprocessing function and branch platform workstations. MortgageFlex port conversion from MS/DOS to VMS. CSM port providing Cross Sell Manager under VMS. ISV, field, and customer support and training.														
21221D00	2	TE	PDM	NA	EDGE APPLICATIONS ENGINEERING	NA	NA	NA	0.0	0.0	0.0	0.6		PICCOLOMINI, PAUL NA
Development and support of EDGE layered applications via the support of ISVs.														
21221G00	2	UN	PDM	NA	CROSS FUNCTIONAL	NA	NA	NA	0.0	0.0	0.3	0.0		HAWKINS, BARBARA NA

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Chart 2				In-House Funded Proposed Project Totals				0.0	0.3	1.8	1.4		
Chart 2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Proposed FINANCIAL INDUSTRIES SERV. GRP				0.0	0.3	1.8	1.4		
Chart 2				In-House Funded Incremental Project Totals				0.0	0.0	0.3	0.0		
Chart 2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Incremental FINANCIAL INDUSTRIES SERV. GRP				0.0	0.0	0.3	0.0		
Chart 2				Totals for FINANCIAL INDUSTRIES SERV. GRP				0.0	0.3	2.1	1.4		
21221Q00	3	APD	PDM	NA	CBW PILOT	1	9009	NA	1.0	0.0	0.7	0.3	CASHMAN, PAUL MESERVE, WILLIAM
Development of the CBW prototype software based on modifications and enhancements to the FIDN corporate banking software.													
21221U00	3	APD	PDM	NA	RETAIL BANKING SYSTEM/PLATFORM 1	1	9007	NA	0.0	0.0	1.9	0.0	HEMMINGS, DAVE OADES, GEOFF
Retail banking Service Delivery Platform. Includes message handling environment to support the use and development of distributed applications for retail banking solutions; a toolbox of extendable programs used to support the delivery of the solutions; and associated documentation and field support and training.													
21221O00	3	AAD	PDM	NA	FUNDS MOVEMENT	NA	9005	NA	1.0	0.1	0.2	0.0	GOFF, ALAN MESERVE, WILLIAM
Description and characterization of funds movement platform.													
21221R00	3	ACM	PDM	NA	CBW SOLUTION	0	NA	NA	0.1	0.0	0.2	0.0	MESERVE, WILLIAM
Corporate Bankers Workbench solution comprised of hardware, system software, CBW software, and applications.													
21221T00	3	ACM	PDM	NA	RETAIL BANKING SOLUTION	1	9012	NA	0.0	0.0	0.6	0.0	KIVEL, GEORGE RAJU, SHIVA

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
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Teller and Platform applications solution for retail branch banks. Hardware, software, characterization data, installation and support documentation needed for the retail banking service delivery system functions of telling and selling.

21221S00	3	AAD	PDM	NA	INTERNATIONAL BANKING	NA	NA	NA	0.0	0.0	0.0	0.0		CASHMAN, PAUL
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Development of international branch and headquarters platform with network connectivity and migration tools.

21221I00	3	AAD	PDM	NA	INV ADVANCED DEVELOPMENT	NA	NA	NA	0.0	0.0	0.0	0.0		LATHROP, ALAN
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Establish an advanced development lab for DECTrade, third party applications, and new technologies as appropriate.

Chart 3	In-House Funded Proposed Project Totals	2.1	0.1	3.6	0.3
Chart 3	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 3	Proposed FINANCIAL INDUSTRIES SERV. GRP	2.1	0.1	3.6	0.3
Chart 3	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 3	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 3	Incremental FINANCIAL INDUSTRIES SERV. GRP	0.0	0.0	0.0	0.0
Chart 3	Totals for FINANCIAL INDUSTRIES SERV. GRP	2.1	0.1	3.6	0.3

In-House Funded Project Totals	18.2	2.7	10.9	8.2
Externally Funded Project Totals	0.0	0.0	0.0	0.0
Proposed for FINANCIAL INDUSTRIES SERV. GRP	18.2	2.7	10.9	8.2
In-House Funded Incremental Project Totals	0.0	0.0	0.3	0.0
Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Incremental FINANCIAL INDUSTRIES SERV. GRP	0.0	0.0	0.3	0.0
Grand Totals for FINANCIAL INDUSTRIES SERV. GRP	18.2	2.7	11.2	8.2

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
21221100	DECTRADE S1.0	9001	9001	9001	OLSEN, LIN
21221200	DECTRADE VMS V1.0	9009	9012	9012	LIN OLSEN
21221300	DECTRADE ULTRIX V1.0	TBD	TBD	TBD	OLSEN, LIN
21221700	EDGE VMS V1.0	9012	9103	TBD	MULVEHILL, THOMAS
21221K00		TBD	9109	TBD	
21221W00	EDGE VMS V1.0	9012	9103	TBD	MULVEHILL, THOMAS
21221X00		TBD	TBD	TBD	
21221Q00	CBW PROTOTYPE V1.0	NA	9009	NA	MESERVE, WILLIAM
21221U00	DECBANK V1.0	NA	9007	NA	OADES, GEOFF
21221O00	FUNDS MOVEMENT PLTFM	NA	9005	NA	MESERVE, WILLIAM
21221R00		NA	NA	NA	
21221T00	RETAIL BANKING SOL	NA	9012	NA	RAJU, SHIVA
21221S00		NA	NA	NA	
21221I00		NA	NA	NA	

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## 1 ENGINEERING SOLUTIONS STRATEGY

The goal of CSG-IS is to deliver solutions, services, and products that emphasize Digital's integrated, distributed, and interoperable capabilities for the commercial I.S. marketplace. CSG-IS plans are segmented into four programs and the strategy of each program is outlined below; however, it is through the integration of these strategies that CSG-IS will offer winning solutions.

In FY90 CSG-IS Engineering will be engaged in:

- managing product development by ISV's; certifying and supporting ISV's;
- developing platform systems
- advanced development and prototyping to develop future product requirements and to develop services, tools, literature, etc. using the products available today.

In all areas, important deliverables will be customer and field training material to accurately describe the methodology of Enterprise computing implementation and management.

### 1.1 Interoperability (DM - Data Management) Strategy

The goal of the Interoperability program (formerly the Data Management program) is to enhance Digital's ability to transfer, interchange, access, and manage data and databases in a multi-vendor Enterprise.

The strategy to accomplish this goal is to:

- provide technical support to marketing while the critical components (VIDA for IDMS/R, VIDA for DB2, VAXlink, DTF, Data Distributor, FLASH, LU6.2) undergo architectural development
- provide support and technical direction to selected ISV's to insure compliance with the Database Architecture (DDA2) and SQL.
- explore data access and data management in the Enterprise computing model: many production databases, on different systems and networks, with varying data periodicity, and with different or non-existent dictionaries. Through this effort CSG-IS engineering will deliver tools, services, training, and literature to assist with the practical implementation of the Enterprise computing model. ISV products and Digital internal tools will also be recruited to assist this strategy.

### 1.2 TP Applications (DPS - Distributed Production Systems) Strategy

The goal of the TP Applications program (formerly the Distributed Production Systems program) strategy is to increase the number of existing DECtp Applications.

This strategy to reach this goal is to:

- recruit ISV's and customers with large non-DEC or non-DECtp applications and migrate them to VMS; RDB or DBMS; DECforms; and ACMS or DECintact.
- CSG-IS Engineering will provide design review, technical support, training, project management, consulting etc. directly to the customer or ISV to assist with the migration.

### 1.3 System Management (DPS - Distributed Production Systems) Strategy

The goals of the System Management (formerly a component of the Distributed Production System program) are to

- increase the system management application portfolio
- define and develop a technical direction for system management that is integrated, multi-vendor, and knowledge based.

The strategy to reach these goals is to:

- Recruit and certify CSG-IS ISV and DEC internal applications that complement the application plans of VMS production systems, HPS, NAC, SWS/E and AIM.
- Develop an alliance with VMS to define and provide more structured interfaces (API's) to the data and events required by system management applications.
- CSG-IS engineering will develop and deliver platform systems based on the technical strategy and application components to deliver system management solutions that encompass center administration, data center operations, media management, network management, and security.

### 1.4 CASE/IS (DDS - Distributed Development Systems) Strategy

The goal of the CASE/IS program (formerly the Distributed Development Systems program ) is to increase Digital's market share capitalizing on the integration of tools developed under DECwindows and emphasizing that the CASE/IS tools provide solutions to problems encountered during the complete development lifecycle. In time we expect to offer AI or Knowledge Based software development tools that are leadership products.

Budget limitations require that the FY90 CSG-IS engineering strategy is limited to:

- providing field to program support to maintain the existing components of the CASE/IS program
- evaluating and providing technical support to selected CASE/IS ISV's to enhance the portion of CASE/IS application portfolio that utilizes NAS.

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Project ID	Act Ch	Loc Cde	Int Cde	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21211A00	1	PD	PDM NA	DDS - CASE REVERSE ENGINEERING	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		STRANGE, ERNIE
21211G00	1	PD	PDM NA	DPS - IMS TO DECTP MIGR TOOLS	PRE-0	TBD	TBD	0.2	0.2	0.0	0.0		ONDOVIC, LARRY
21211P00	1	PD	PDM	DM - VAXLINK DEVELOPMENT	3	8909		1.2	0.7	0.0	0.0		BRIDE, SONNY
21211I00	1	PD	PDM NA	DPS - DECINTACT TO CICS TOOLS	PRE-0	9009	TBD	0.3	0.2	0.0	0.0		ONDOVIC, LARRY
21211Q00	1	PD	PDM NA	DDS - CASE EXPERT SYSTEM	2	TBD	TBD	0.1	0.1	0.0	0.0		STRANGE, ERNIE
21211R00	1	PD	PDM	DDS - CASE IBM CODE GENERATION	3	8903		0.1	0.1	0.0	0.0		STRANGE, ERNIE
21211U00	1	PD	PDM NA	NET - 3270 TERMINAL CONNECTION	5	TBD	TBD	0.0	0.3	0.0	0.0		DIMEO, BOB
21211Z00	1	PD	PDM NA	DM - FLASH PRODUCTIZATION	PRE-0	9006	9006	0.6	0.0	0.2	0.4		BRIDE, SONNY
21211S00	1	PD	PDM NA	DDS - CASE SOLUTION SYSTEM	PRE-0	TBD	TBD	0.0	0.1	0.0	0.0		STRANGE, ERNIE
21211C00	1	PD	PDM NA	DPS - TANDEM TO DECTP TOOLS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		ONDOVIC, LARRY
21211D00	1	PD	PDM NA	DPS - SERIES 1 TO DECTP TOOLS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		ONDOVIC, LARRY
21211F00	1	PD	PDM NA	DPS - COBGEN FRONT END TO DECT	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		ONDOVIC, LARRY
21211H00	1	PD	PDM NA	DPS - DECINTACT TO DECFORMS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		ONDOVIC, LARRY
Chart 1				In-House Funded Proposed Project Totals				2.5	1.7	0.2	0.4		
Chart 1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Proposed INFO SYSTEMS MARKETING				2.5	1.7	0.2	0.4		
Chart 1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Incremental INFO SYSTEMS MARKETING				0.0	0.0	0.0	0.0		
Chart 1				Totals for INFO SYSTEMS MARKETING				2.5	1.7	0.2	0.4		
21211400	2	TE	PDM NA	DM - ISV CERT, EVAL, & SPRT	NA	NA	NA	0.4	0.1	0.1	0.2		BRIDE, SONNY NA
21211800	2	TE	PDM NA	DDS - ISV CERT, EVAL & SPRT	NA	NA	NA	0.5	0.2	0.1	0.2		STRANGE, ERNIE NA

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21211K00	2	TE	PDM	NA	DPS - TP APPLICATION MIGR	NA	NA	NA	1.7	0.1	0.8	0.8		ONDOVIC, LARRY NA
21211N00	2	PS	PDM	NA	DPS - MAINTAIN MIGRATION TOOLS	NA	NA	NA	0.4	0.2	0.0	0.0		ONDOVIC, LARRY NA
21211X00	2	TE	PDM	NA	SYS - ISV CERT, EVAL & SPRT	NA	NA	NA	0.4	0.0	0.2	0.2		MARI, LEE NA
21211Y00	2	TE	PDM	NA	PM - NEW HARDWARE EVAL	NA	NA	NA	0.4	0.0	0.2	0.2		MARI, LEE NA
Chart	2				In-House Funded Proposed Project Totals				3.8	0.6	1.4	1.6		
Chart	2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Proposed INFO SYSTEMS MARKETING				3.8	0.6	1.4	1.6		
Chart	2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Incremental INFO SYSTEMS MARKETING				0.0	0.0	0.0	0.0		
Chart	2				Totals for INFO SYSTEMS MARKETING				3.8	0.6	1.4	1.6		
21211300	3	APD	PDM	NA	DM - MVN DB SUPPORT TOOLS	PRE-0	NA	NA	1.5	0.8	0.4	0.3		BRIDE, SONNY
21211500	3	ASP	PDM	NA	DM - FIELD & PROG SUPPORT	NA	NA	NA	0.9	0.3	0.2	0.4		BRIDE, SONNY
21211900	3	ASP	PDM	NA	DDS - FIELD AND PROG SUPPORT	NA	NA	NA	0.7	0.2	0.2	0.3		STRANGE, ERNIE
21211J00	3	ACM	PDM	NA	DPS - PLATFORM CERTIFICATION	NA	NA	NA	0.7	0.7	0.0	0.0		ONDOVIC, LARRY
21211L00	3	ASP	PDM	NA	DPS - FIELD AND PROG SUPPORT	NA	NA	NA	0.6	0.2	0.2	0.2		ONDOVIC, LARRY
21211M00	3	ARP	PDM	NA	SYS - DATA CENTER MGMT TOOLS	PRE-0	NA	9009	1.1	0.1	0.2	0.8		MARI, LEE
21211V00	3	ACT	PDM		NET - PLATFORM CERT & ISV SPPR	NA	NA		0.1	0.3	0.0	0.0		DIMEO, BOB
21211W00	3	AAD	PDM	NA	ALL - ENTERPRISE DEMO	1	NA	9012	0.7	0.0	0.3	0.4		TVRDIK, TERRY
21212100	3	ASP	PDM	NA	SYS - FIELD & PROG SUPPORT	NA	NA	NA	0.4	0.0	0.2	0.2		MARI, LEE
21211600	3	ACM	PDM	NA	DM - MVN DB PLATFORM CERT	PRE-0	NA	NA	0.0	0.0	0.0	0.0		BRIDE, SONNY
21211E00	3	APD	PDM	NA	DPS - XCOST FOR MIGRATION TOOL	PRE-0	NA	NA	0.2	0.2	0.0	0.0		ONDOVIC, LARRY

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21211000	3	AAD	PDM	NA	DPS - CNTRL TO DISTR APPL MIGR	PRE-0	NA	NA	0.0	0.0	0.0	0.0		ONDOVIC, LARRY
21211T00	3	ACM	PDM	NA	DDS - CASE PRODUCTIVITY METRIC	NA	NA	NA	0.1	0.1	0.0	0.0		STRANGE, ERNIE
21211B00	3	AAD	PDM	NA	DDS - ENTERPRISE CASE PLANNING	NA	NA	NA	0.0	0.0	0.0	0.0		STRANGE, ERNIE
Chart	3	In-House Funded Proposed Project Totals							7.0	2.9	1.7	2.6		
Chart	3	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Proposed INFO SYSTEMS MARKETING							7.0	2.9	1.7	2.6		
Chart	3	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	3	Incremental INFO SYSTEMS MARKETING							0.0	0.0	0.0	0.0		
Chart	3	Totals for INFO SYSTEMS MARKETING							7.0	2.9	1.7	2.6		
In-House Funded Project Totals									13.3	5.2	3.3	4.6		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for INFO SYSTEMS MARKETING									13.3	5.2	3.3	4.6		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental INFO SYSTEMS MARKETING									0.0	0.0	0.0	0.0		
Grand Totals for INFO SYSTEMS MARKETING									13.3	5.2	3.3	4.6		

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21211A00	1	PD	PDM	NA	DDS - CASE REVERSE ENGINEERING	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		STRANGE, ERNIE
FY90 - PROJECT NOT FUNDED.														
21211G00	1	PD	PDM	NA	DPS - IMS TO DECTP MIGR TOOLS	PRE-0	TBD	TBD	0.2	0.2	0.0	0.0		ONDOVIC, LARRY
FY90 - PROJECT CANCELED.														
21211P00	1	PD	PDM		DM - VAXLINK DEVELOPMENT	3	8909		1.2	0.7	0.0	0.0		BRIDE, SONNY
FY90 - PROJECT TRANSFERRED TO DATABASE SYSTEMS														
21211I00	1	PD	PDM	NA	DPS - DECINTACT TO CICS TOOLS	PRE-0	9009	TBD	0.3	0.2	0.0	0.0		ONDOVIC, LARRY
FY90 - PROJECT TRANSFERRED TO HPS.														
21211Q00	1	PD	PDM	NA	DDS - CASE EXPERT SYSTEM	2	TBD	TBD	0.1	0.1	0.0	0.0		STRANGE, ERNIE
FY90 - PROJECT NOT FUNDED.														
21211R00	1	PD	PDM		DDS - CASE IBM CODE GENERATION	3	8903		0.1	0.1	0.0	0.0		STRANGE, ERNIE
21211U00	1	PD	PDM	NA	NET - 3270 TERMINAL CONNECTION	5	TBD	TBD	0.0	0.3	0.0	0.0		DIMEO, BOB
FY89 - PROJECT CANCELED.														
21211Z00	1	PD	PDM	NA	DM - FLASH PRODUCTIZATION	PRE-0	9006	9006	0.6	0.0	0.2	0.4		BRIDE, SONNY
21211S00	1	PD	PDM	NA	DDS - CASE SOLUTION SYSTEM	PRE-0	TBD	TBD	0.0	0.1	0.0	0.0		STRANGE, ERNIE
FY89 - PROJECT CANCELED.														
21211C00	1	PD	PDM	NA	DPS - TANDEM TO DECTP TOOLS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0		ONDOVIC, LARRY

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FY90 - PROJECT NOT FUNDED.													
21211D00	1	PD	PDM	NA	DPS - SERIES 1 TO DECTP TOOLS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0	ONDOVIC, LARRY
FY90 - PROJECT NOT FUNDED.													
21211F00	1	PD	PDM	NA	DPS - COBGEN FRONT END TO DECT	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0	ONDOVIC, LARRY
FY90 - PROJECT NOT FUNDED.													
21211H00	1	PD	PDM	NA	DPS - DECINTACT TO DECFORMS	PRE-0	TBD	TBD	0.0	0.0	0.0	0.0	ONDOVIC, LARRY
FY90 - PROJECT NOT FUNDED.													
Chart 1	In-House Funded Proposed Project Totals								2.5	1.7	0.2	0.4	
Chart 1	Externally Funded Proposed Project Totals								0.0	0.0	0.0	0.0	
Chart 1	Proposed INFO SYSTEMS MARKETING								2.5	1.7	0.2	0.4	
Chart 1	In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0	
Chart 1	Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0	
Chart 1	Incremental INFO SYSTEMS MARKETING								0.0	0.0	0.0	0.0	
Chart 1	Totals for INFO SYSTEMS MARKETING								2.5	1.7	0.2	0.4	
21211400	2	TE	PDM	NA	DM - ISV CERT, EVAL, & SPRT	NA	NA	NA	0.4	0.1	0.1	0.2	BRIDE, SONNY NA
21211800	2	TE	PDM	NA	DDS - ISV CERT, EVAL & SPRT	NA	NA	NA	0.5	0.2	0.1	0.2	STRANGE, ERNIE NA

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21211K00	2	TE	PDM	NA	DPS - TP APPLICATION MIGR	NA	NA	NA	1.7	0.1	0.8	0.8		ONDOVIC, LARRY NA	
21211N00	2	PS	PDM	NA	DPS - MAINTAIN MIGRATION TOOLS	NA	NA	NA	0.4	0.2	0.0	0.0		ONDOVIC, LARRY NA	
FY90 - PROJECT TRANSFERRED TO HPS															
21211X00	2	TE	PDM	NA	SYS - ISV CERT, EVAL & SPRT	NA	NA	NA	0.4	0.0	0.2	0.2		MARI, LEE NA	
21211Y00	2	TE	PDM	NA	PM - NEW HARDWARE EVAL	NA	NA	NA	0.4	0.0	0.2	0.2		MARI, LEE NA	
FY90 - SIEMENS, XEROX EVALUATION															
Chart	2	In-House Funded Proposed Project Totals							3.8	0.6	1.4	1.6			
Chart	2	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0			
Chart	2	Proposed INFO SYSTEMS MARKETING							3.8	0.6	1.4	1.6			
Chart	2	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	2	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	2	Incremental INFO SYSTEMS MARKETING							0.0	0.0	0.0	0.0			
Chart	2	Totals for INFO SYSTEMS MARKETING							3.8	0.6	1.4	1.6			
21211300	3	APD	PDM	NA	DM - MVN DB SUPPORT TOOLS	PRE-0	NA	NA	1.5	0.8	0.4	0.3		BRIDE, SONNY	
FY90 - DEVELOPMENT OF MANAGERS GUIDE, USERS GUIDE & PROTOTYPE															
21211500	3	ASP	PDM	NA	DM - FIELD & PROG SUPPORT	NA	NA	NA	0.9	0.3	0.2	0.4		BRIDE, SONNY	
21211900	3	ASP	PDM	NA	DDS - FIELD AND PROG SUPPORT	NA	NA	NA	0.7	0.2	0.2	0.3		STRANGE, ERNIE	

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Ann Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
21211J00	3	ACM	PDM	NA	DPS - PLATFORM CERTIFICATION	NA	NA	NA	0.7	0.7	0.0	0.0	ONDOVIC, LARRY
FY90- PROJECT NOT FUNDED													
21211L00	3	ASP	PDM	NA	DPS - FIELD AND PROG SUPPORT	NA	NA	NA	0.6	0.2	0.2	0.2	ONDOVIC, LARRY
21211M00	3	ARP	PDM	NA	SYS - DATA CENTER MGMT TOOLS	PRE-0	NA	9009	1.1	0.1	0.2	0.8	MARI, LEE
21211V00	3	ACT	PDM		NET - PLATFORM CERT & ISV SPPR	NA	NA		0.1	0.3	0.0	0.0	DIMEO, BOB
Project originally was two projects which were split and partially transferred to TSG:													
					BUDGET		XFER		SPENT				
					ISV SUPPORT	157	125		32				
					PLATFORM DEV	443	295		42				
21211W00	3	AAD	PDM	NA	ALL - ENTERPRISE DEMO	1	NA	9012	0.7	0.0	0.3	0.4	TVRDIK, TERRY
21212100	3	ASP	PDM	NA	SYS - FIELD & PROG SUPPORT	NA	NA	NA	0.4	0.0	0.2	0.2	MARI, LEE
21211600	3	ACM	PDM	NA	DM - MVN DB PLATFORM CERT	PRE-0	NA	NA	0.0	0.0	0.0	0.0	BRIDE, SONNY
FY90 - PROJECT NOT FUNDED													
21211E00	3	APD	PDM	NA	DPS - XCOST FOR MIGRATION TOOL	PRE-0	NA	NA	0.2	0.2	0.0	0.0	ONDOVIC, LARRY
FY90 - PROJECT NOT FUNDED.													
21211000	3	AAD	PDM	NA	DPS - CNTRL TO DISTR APPL MIGR	PRE-0	NA	NA	0.0	0.0	0.0	0.0	ONDOVIC, LARRY

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FY90 - PROJECT NOT FUNDED															
21211T00	3	ACM	PDM	NA	DDS - CASE PRODUCTIVITY METRIC	NA	NA	NA	0.1	0.1	0.0	0.0		STRANGE, ERNIE	
21211B00	3	AAD	PDM	NA	DDS - ENTERPRISE CASE PLANNING	NA	NA	NA	0.0	0.0	0.0	0.0		STRANGE, ERNIE	
FY90 - PROJECT NOT FUNDED															
Chart	3	In-House Funded Proposed Project Totals							7.0	2.9	1.7	2.6			
Chart	3	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0			
Chart	3	Proposed INFO SYSTEMS MARKETING							7.0	2.9	1.7	2.6			
Chart	3	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	3	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	3	Incremental INFO SYSTEMS MARKETING							0.0	0.0	0.0	0.0			
Chart	3	Totals for INFO SYSTEMS MARKETING							7.0	2.9	1.7	2.6			
In-House Funded Project Totals								13.3	5.2	3.3	4.6				
Externally Funded Project Totals								0.0	0.0	0.0	0.0				
Proposed for INFO SYSTEMS MARKETING								13.3	5.2	3.3	4.6				
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0				
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0				
Incremental INFO SYSTEMS MARKETING								0.0	0.0	0.0	0.0				
Grand Totals for INFO SYSTEMS MARKETING								13.3	5.2	3.3	4.6				

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
-----	-----	----	----	----	-----
21211A00		TBD	TBD	TBD	
21211G00		TBD	TBD	TBD	
21211P00			8909		
21211I00		TBD	9009	TBD	
21211Q00		TBD	TBD	TBD	
21211R00			8903		
21211U00		TBD	TBD	TBD	
21211Z00		9006	9006	9006	
21211S00		TBD	TBD	TBD	
21211C00		TBD	TBD	TBD	
21211D00		TBD	TBD	TBD	
21211F00		TBD	TBD	TBD	
21211H00		TBD	TBD	TBD	
21211300		NA	NA	NA	
21211500		NA	NA	NA	
21211900		NA	NA	NA	
21211J00		NA	NA	NA	
21211L00		NA	NA	NA	
21211M00		9009	NA	NA	
21211V00			NA		
21211W00		9012	NA	NA	
21212100		NA	NA	NA	
21211600		NA	NA	NA	
21211E00		NA	NA	NA	
21211O00		NA	NA	NA	
21211T00		NA	NA	NA	
21211B00		NA	NA	NA	

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IMAGE SYSTEMS GROUP

FY90 Beige Book

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Image Systems Group

Goal

Make DIGITAL a major provider of distributed systems which include image by providing architected, integrated, image-capable components and base system platforms for storage, input, viewing and processing.

OBJECTIVE / STRATEGIES / TACTICS

- BUILD IMAGING SOFTWARE TOOLS

Provide foundational capability on VMS and  
ULTRIX to input, display, manipulate, manage/store,  
distribute and print images.

- DRIVE IMAGE EXTENSIONS TO DIGITAL COMPONENTS AND APPLICATIONS

Ensure that workstations, scanners, and printers support images based upon Corporate Standards.  
Support image extensions to SSG and AMG applications

- PROGRAM MANAGE STRATEGIC ENGINEERING EFFORTS

Support external development of OCR software.

- COMPLEMENT EXITING MARKET DEVELOPMENT PROGRAMS

Promote Image marketing through established channels.  
Create a Applications Marketing Function.  
Develop third party relationships to complete the DIGITAL solution  
Make DIGITAL the recognized leader for enterprise wide imaging.

- BUILD ON DISTRIBUTED SYSTEM PLATFORMS

Drive architecture and standards ( both DIGITAL and external).

- DEVELOP PROPRIETARY ADVANTAGE

Pursue patentable improvement to display technologies.

MAJOR INVESTMENTS

- Software product development to :
  - Enhance DIGITAL'S image tools and technology.
  - Develop a system platform for document applications.
- Architecture, Advanced development and standards
- Business Management
- Product Marketing
- Third Party Relationships
- Technology expertise transfer to field organizations

INVESTMENT PRIORITIES

Product Development	46%
Advanced Development	8%
Business / Product Management	8%
Marketing	24%
Technical Support	14%
	-----
	100%

PRODUCT CALENDAR

VAXimage APPLICATION SERVICES (DAS)

- Tool kit providing VMS and ULTRIX application to develop a callable services.
- V2.0 (FCS - JAN90) provides, basic continuous tone image manipulation and view, along with Bitonal scan and print.

VAXimage SCANNING APPLICATION (DSS)

- VMS and ULTRIX DECwindows tools to scan hard copy documents.
- V2.0 (FCS - JAN90) Provides gray scale and RGB color images, on VMS, ULTRIX/ VAX and RISC.

VAXimage STORAGE MANAGER (DSM)

- Provides distributed image data storage services.
- For application use with DIGITAL'S and 3th party data management tools.
- V1.0 (FCS - JAN90) Supports multiple distributed clients. Supporting both magnetic storage and RV60 optical jukebox.

VAXimage PACKAGED SYSTEM (IPS)

- First version (FCS - DEC90) will provide DECwindow interface to input, view, and store images for medium speed image capture.

OPEN SYSTEMS

- PROVIDE DAS, DSS, IPS on ULTRIX.

#### COMPETITIVE POSITIONING

-----

DIGITAL will not focus on image point-solutions. Rather ,DIGITAL is positioning to sell imaging services and base systems platform to our top 600 customers, solution vendors, application vendors and system integrators.

In the integrated images services and base system platform markets, competition comes from four major directions: IBM, Japan, Wang and open Workstation vendors/ PC vendors.

#### IBM

----

DIGITAL should consider IBM as it's major long-term competition. IBM entered the Image market in 1988 with the announcement of the ImagePlus system targeted at the commercial/financial document processing market. ImagePlus uses the System/36, AS400, or MVS/ESA370 as the host processor, with an enhanced version of the PS/2 Workstation, as the base application.

IBM is aggressively marketing its capabilities and plans to introduce an important workflow application in March 1990 to support Commercial and Government document processing applications.

IBM is also continuing to target the electronic publishing market and introduced a desktop scanner with associated software in support of this market.

#### JAPAN

-----

The Japanese written language and existing hard copy document-oriented culture is fueling the development of low cost imaging components. Several vendors sell-off-shelf document management systems, but U.S. distribution and support is weak.

Partnership marketing relationships are being sought with U.S. suppliers such as 3M, Bell and Howell, and other domestic microfilm companies.

#### WANG

----

Wang is aggressively marketing the "Wang Integrated Image System" (WIIS), a proprietary implementation using Wang office products. They are focused exclusively on letter sized document images. Their WIIS system provides the ability to capture and manage images under the control of their office products, CEC and PACE with over 200 installations. Wang sees imaging as a cornerstone of their strategy to recapture the office marketing.

#### WORKSTATIONS AND PC VENDORS

-----

Workstation vendors have been using IMAGE as a product differentiator and as a reason to justify MIPS and megabytes. SUN in particular has created a major product focus on imaging capabilities.

Companies such as Kodak, 3M, Bell and Howell, and Dupont are not considered competition. These companies are third parties who sell some of DIGITAL's (and other vendors) hardware and software in the archiving or record management marketplace.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
11301V00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V2.0	3	9001	8911	1.3	0.0	1.0	0.1		T. MCKINNEY B. LIBERTY
11301W00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V3.0	PRE-0	9009	9007	2.5	0.0	2.3	0.8		T. MCKINNEY V. MAMONE
11301X00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V4.0	PRE-0	9106	9104	6.9	0.0	0.3	0.5		T. MCKINNEY V. MAMONE
11301Y00	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V1.0	3	9001	8911	0.9	0.0	0.2	0.0		T. MCKINNEY J. CARPENTER
11301Z00	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V2.0	PRE-0	9003	9001	0.3	0.0	0.4	0.3		T. MCKINNEY J. CARPENTER
11302200	1	PD	MKO	FC	DECIMAGE PACKAGED SYSTEMS V1.0	PRE-0	9012	9011	0.3	0.0	0.6	1.0		T. MCKINNEY J. CARPENTER
11302300	1	PD	MKO	FC	DECIMAGE PACKAGED SYSTEM V2.0	PRE-0	9109	9107	1.9	0.0	0.0	1.3		T. MCKINNEY J. CARPENTER
11302400	1	PD	MKO	FC	DECIMAGE PACKAGED SYSTEM V3.0	PRE-0	9206	9204	0.4	0.0	0.1	0.3		T. MCKINNEY J. CARPENTER
11302500	1	PD	MKO	FC	DECIMAGE SCAN SOFTWARE V2.0	3	9001	8910	0.1	0.0	0.2	0.1		T. MCKINNEY V. MAMONE
11302600	1	PD	MKO	FC	DECIMAGE SCAN SOFTWARE V3.0	PRE-0	9009	9007	0.1	0.0	0.2	0.1		T. MCKINNEY B. LIBERTY
11302700	1	PD	MKO	FC	DECIMAGE CHAR. RECOG. S/W V1.0	0	9009	9007	0.0	0.0	0.3	0.2		T. MCKINNEY B. LIBERTY
11302A00	1	PD	MKO	FC	DECIMAGE III	0	9011	9009	0.0	0.0	0.6	0.0		T. MCKINNEY B. PAGE
11302B00	1	PD	MKO	FC	DECIMAGE III CT	PRE-0	9112	9110	0.0	0.0	0.3	0.0		T. MCKINNEY
11302100	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V3.0	PRE-0	9012	9010	0.0	0.0	0.2	0.6		T. MCKINNEY J. CARPENTER
11302800	1	PD	MKO	FC	DECIMAGE FAX SOFTWARE V1.0	PRE-0	9106	9104	0.0	0.0	0.0	0.3		T. MCKINNEY B. LIBERTY
11302900	1	PD	MKO	FC	DECIMAGE PORTFOLIO S/W V1.0	PRE-0	9106	9104	0.0	0.0	0.0	0.6		T. MCKINNEY B. LIBERTY
11302L00	1	PD	MKO	FC	DECIMAGE DESKTOP SOFTWARE V1.0	0	9106	9104	0.0	0.0	0.1	0.4		T. MCKINNEY B. LIBERTY
113ZZZZZ	1	PM	?		STF ADJUSTMENT	5	9012		0.0	0.0	0.0	0.0		STF

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Chart 1				In-House Funded Proposed Project Totals				14.7	0.0	6.8	6.6		
Chart 1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Proposed IMAGE SYSTEMS				14.7	0.0	6.8	6.6		
Chart 1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Incremental IMAGE SYSTEMS				0.0	0.0	0.0	0.0		
Chart 1				Totals for IMAGE SYSTEMS				14.7	0.0	6.8	6.6		
11302D00	2	ST	LKG	NA	STANDARDS	NA	NA	NA	0.0	0.0	0.1	0.1	G. WALLACE NA
11302H00	2	TR	MKO	NA	ENG.INTERN FUNDING	NA	NA	NA	0.0	0.0	0.1	0.0	R. HIGGINS NA
11302I00	2	RE	MKO	NA	ENG.RESEARCH FUNDING	NA	NA	NA	0.0	0.0	0.1	0.0	T. MCKINNEY NA
Chart 2				In-House Funded Proposed Project Totals				0.0	0.0	0.3	0.1		
Chart 2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Proposed IMAGE SYSTEMS				0.0	0.0	0.3	0.1		
Chart 2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Incremental IMAGE SYSTEMS				0.0	0.0	0.0	0.0		
Chart 2				Totals for IMAGE SYSTEMS				0.0	0.0	0.3	0.1		

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Project ID	Act Ch	Loc Cde	Int Cde	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
In-House Funded Project Totals									14.7	0.0	7.1	6.7	
Externally Funded Project Totals									0.0	0.0	0.0	0.0	
Proposed for IMAGE SYSTEMS									14.7	0.0	7.1	6.7	
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0	
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0	
Incremental IMAGE SYSTEMS									0.0	0.0	0.0	0.0	
Grand Totals for IMAGE SYSTEMS									14.7	0.0	7.1	6.7	

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
11301V00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V2.0	3	9001 8911	1.3	0.0	1.0	0.1		T. MCKINNEY B. LIBERTY
<p>Callable application services for VMS V5.3 and ULTRIX/UWS V3.2/V2.2 that provides basic continuous tone image manipulation and view, along with Bitonal scan and print.</p>													
11301W00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V3.0	PRE-0	9009 9007	2.5	0.0	2.3	0.8		T. MCKINNEY V. MAMONE
<p>Callable application services for VMS and ULTRIX that provides image pipelining, XIE image IIIM on PVAX2 and SCSI plus medium speed scanner interface support.</p>													
11301X00	1	PD	MKO	FC	DECIMAGE APPL. SERVICE V4.0	PRE-0	9106 9104	6.9	0.0	0.3	0.5		T. MCKINNEY V. MAMONE
<p>Callable application services for VMS and ULTRIX that provides full continuous tone, color image processing support, OCR services, picture editing, image recognition and continuous tone DSP support.</p>													
11301Y00	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V1.0	3	9001 8911	0.9	0.0	0.2	0.0		T. MCKINNEY J. CARPENTER
<p>Callable image storage services for VMS V5.3, supporting multiple distributed clients. Complements DIGITAL'S data management products, allowing applications to access images. Supports both magnetic storage and RV64 Optical Jukebox.</p>													
11301Z00	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V2.0	PRE-0	9003 9001	0.3	0.0	0.4	0.3		T. MCKINNEY J. CARPENTER
<p>Adds support for Kodak 5 1/4 and 14 inch Optical Jukeboxes. Callable, system management capabilities, with ULTRIX client added. VMS version uses DNS and DFS.</p>													
11302200	1	PD	MKO	FC	DECIMAGE PACKAGED SYSTEMS V1.0	PRE-0	9012 9011	0.3	0.0	0.6	1.0		T. MCKINNEY J. CARPENTER

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Project ID	Act Ch	Loc Cde	Int Cde	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
11302300	1	PD	MKO FC	DECIMAGE PACKAGED SYSTEM V2.0	PRE-0	9109	9107	1.9	0.0	0.0	1.3		T. MCKINNEY J. CARPENTER
Provides OCR support and distributed work-in-process support ( using edge) for image data.													
11302400	1	PD	MKO FC	DECIMAGE PACKAGED SYSTEM V3.0	PRE-0	9206	9204	0.4	0.0	0.1	0.3		T. MCKINNEY J. CARPENTER
Image WORK-IN-PROCESS base system toolkit intergrates packaged systems and desktop applications with workflow controllers.													
11302500	1	PD	MKO FC	DECIMAGE SCAN SOFTWARE V2.0	3	9001	8910	0.1	0.0	0.2	0.1		T. MCKINNEY V. MAMONE
Available on VMS and ULTRIX, VAX and RISC. Supports gray scale (photographic) and RGB color images viewing, but not scanning.													
11302600	1	PD	MKO FC	DECIMAGE SCAN SOFTWARE V3.0	PRE-0	9009	9007	0.1	0.0	0.2	0.1		T. MCKINNEY B. LIBERTY
SUPPORTS SCSI-CONNECTED medium speed production scanner and color scanner. Provides contrast/brightness image adjustment. Also available as callable applications.													
11302700	1	PD	MKO FC	DECIMAGE CHAR. RECOG. S/W V1.0		9009	9007	0.0	0.0	0.3	0.2		T. MCKINNEY B. LIBERTY
A DECwindows desktop application for the recognition of English text on image and the conversion of that bit map to ASCII or DDIF for use by other applications. Also available as a callable application.													
11302A00	1	PD	MKO FC	DECIMAGE III	0	9011	9009	0.0	0.0	0.6	0.0		T. MCKINNEY B. PAGE

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
<p>An image board for accelerating and enhancing a Bitonal images for display on the PVAX2. This funding is subcontracted to the Video Image And Printer Group (VIPS).</p>													
11302B00	1	PD	MKO	FC	DECIMAGE III CT	PRE-0	9112 9110	0.0	0.0	0.3	0.0		T. MCKINNEY
<p>Image board for accelerating and enhancing continuous tone image for PVAX3.</p>													
11302100	1	PD	MKO	FC	DECIMAGE STORAGE MANAGER V3.0	PRE-0	9012 9010	0.0	0.0	0.2	0.6		T. MCKINNEY J. CARPENTER
<p>Provides ULTRIX server support, open interface for intergrating storage devices, and support for additional storage devices ( eg. offline magnetic tape).</p>													
11302800	1	PD	MKO	FC	DECIMAGE FAX SOFTWARE V1.0	PRE-0	9106 9104	0.0	0.0	0.0	0.3		T. MCKINNEY B. LIBERTY
<p>A DECwindow desktop application for sending Bitonal and continuous tone images as FAX and receiving FAX as image.</p>													
11302900	1	PD	MKO	FC	DECIMAGE PORTFOLIO S/W V1.0	PRE-0	9106 9104	0.0	0.0	0.0	0.6		T. MCKINNEY B. LIBERTY
<p>A DECwindow desktop application for storing and retrieving images, includin indexing, file folders, and the ability to view the image in the directory.</p>													
11302L00	1	PD	MKO	FC	DECIMAGE DESKTOP SOFTWARE V1. 0		9106 9104	0.0	0.0	0.1	0.4		T. MCKINNEY B. LIBERTY
<p>A DECwindow desktop enhancement and editing application for bitonal and continous tone images. Available on VMS and ULTRIX (VAX and RISC) also available as a callable application.</p>													
113ZZZZZ	1	PM	?		STF ADJUSTMENT		5 9012	0.0	0.0	0.0	0.0		STF

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart 1					In-House Funded Proposed Project Totals				14.7	0.0	6.8	6.6		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Proposed IMAGE SYSTEMS				14.7	0.0	6.8	6.6		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental IMAGE SYSTEMS				0.0	0.0	0.0	0.0		
Chart 1					Totals for IMAGE SYSTEMS				14.7	0.0	6.8	6.6		
11302D00	2	ST	LKG	NA	STANDARDS	NA	NA	NA	0.0	0.0	0.1	0.1		G. WALLACE NA
11302H00	2	TR	MKO	NA	ENG.INTERN FUNDING	NA	NA	NA	0.0	0.0	0.1	0.0		R. HIGGINS NA
Transition expertise to field technical teams.														
11302I00	2	RE	MKO	NA	ENG.RESEARCH FUNDING	NA	NA	NA	0.0	0.0	0.1	0.0		T. MCKINNEY NA
Sponsor research in Universities.														
Chart 2					In-House Funded Proposed Project Totals				0.0	0.0	0.3	0.1		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Proposed IMAGE SYSTEMS				0.0	0.0	0.3	0.1		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental IMAGE SYSTEMS				0.0	0.0	0.0	0.0		
Chart 2					Totals for IMAGE SYSTEMS				0.0	0.0	0.3	0.1		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
In-House Funded Project Totals									14.7	0.0	7.1	6.7		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed for IMAGE SYSTEMS									14.7	0.0	7.1	6.7		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental IMAGE SYSTEMS									0.0	0.0	0.0	0.0		
Grand Totals for IMAGE SYSTEMS									14.7	0.0	7.1	6.7		

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
11301V00	DAS V2.0	8911	9001	8912	B. LIBERTY
11301W00	DAS V3.0	9007	9009	TBD	V. MAMONE
11301X00	DAS V4.0	9104	9106	TBD	V. MAMONE
11301Y00	DSM V1.0	8911	9001	8912	J. CARPENTER
11301Z00	DSM V2.0	9001	9003	TBD	J. CARPENTER
11302200	IPS V1.0	9011	9012	TBD	J. CARPENTER
11302300	IPS V2.0	9107	9109	TBD	J. CARPENTER
11302400	IPS V3.0	9204	9206	TBD	J. CARPENTER
11302500	DSS V2.0	8910	9001	8911	V. MAMONE
11302600	DSS V3.0	9007	9009	TBD	B. LIBERTY
11302700	DCR V1.0	9007	9009	TBD	B. LIBERTY
11302A00	DECIMAGE III	9009	9011	TBD	B. PAGE
11302B00	DECIMAGE III CT	9110	9112	TBD	
11302100	DSM V3.0	9010	9012	TBD	J. CARPENTER
11302800	DFS V1.0	9104	9106	TBD	B. LIBERTY
11302900	DPS V1.0	9104	9106	TBD	B. LIBERTY
11302L00	DDS V1.0	9104	9106	TBD	B. LIBERTY
113ZZZZZ			9012		

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BOIS SYSTEMS ENGINEERING

FY90 BEIGE BOOK SUBMISSION

NOVEMBER 2, 1989

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## BOIS SYSTEM ENGINEERING GOALS AND STRATEGY

BOIS customer environment typically have a large number of installed desktop devices (e.g. MS-DOS and MacIntosh) that require network based services and interoperability with Digital desktops and systems. Therefore NAS is a fundamental part of the strategy. Part of the Digital advantage is to provide "new technology" by NAS to motivate users to migrate to Digital desktops. Therefore it is extremely important to have Strategic Application Vendors incorporate the "new technology" (e.g. CDA) into their applications early. Traditionally, BOIS markets require systems sizing and capacity planning consistent with the business markets and users that are targeted. There are three System Engineering Goals that are reflected in the deliverables across all the BOIS Major Programs:

**GOAL:**            **VERIFY NAS INTEROPERABILITY FOR TYPICAL USERS, APPLICATIONS AND SERVICES REQUIRED WITHIN BOIS MARKETS.**

**STRATEGY:**    **BOIS will use End User Computing as the context for providing verification of NAS.**

Typical customer business problems will be the basis for defining and running verification tests.

A majority of the efforts will focus on typical users that use PC and Workstation Base Platforms.

**GOAL:**            **ENSURE THAT PERFORMANCE CHARACTERIZATION EFFORTS RESULT IN A CONSISTENT APPROACH FOR CUSTOMERS TO POSITION, SIZE AND DO CAPACITY PLANNING.**

**STRATEGY:**    **Help drive a common approach across PMG to provide performance information across different users and applications.**

Develop "RTE" based workloads for key typical users and applications and run across Digital's hardware family.

Expand to additional users/applications by working with CSO's and customer's to provide performance data based on "observation."

Develop a networking performance approach to position and size enterprise applications for mail and EDI.

Continue to develop and test production workloads for online and batch processing in support of the development of a business systems performance methodology to insure that the field can help our customers accurately choose appropriate system configurations.

Provide this methodology to our application partners to insure that their applications are optimized for the Digital environment.

**GOAL: WORK WITH STRATEGIC PARTNERS TO DEVELOP AND IMPLEMENT THE NEXT GENERATION PLATFORMS AND ENSURE THAT IT CAN BE DONE ON A BROAD SCALE**

**STRATEGY:** Work with strategic partners to prove the feasibility of re-designing existing existing applications to incorporate new distributed technology.

Within End User Computing define and test new NAS specific interfaces that would allow "predictable and easy" application integration.

Develop partnerships that will provide a focus on proving key BOIS required NAS architectures (e.g. CDA, EDI and MAILbus).

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\*\*\* Sub Group Code: BOIS

Sub Group:

211ZZZZZ	1	PM	?		STF ADJUSTMENT	5	9012		0.0	0.0	0.0	0.0			STF
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Chart 1	In-House Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 1	Proposed	0.0	0.0	0.0	0.0
Chart 1	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Incremental	0.0	0.0	0.0	0.0
Chart 1	Totals for	0.0	0.0	0.0	0.0

In-House Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Proposed	0.0	0.0	0.0	0.0
In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Incremental	0.0	0.0	0.0	0.0
Totals for	0.0	0.0	0.0	0.0

\*\*\* Sub Group Code: DMSS

Sub Group: DIST. MARKETING SALES/SERVICE

21121200	3	APD	TTB		LOGISTICS PROTOTYPE	0	9003		0.7	0.0	0.2	0.3			ROOSA,MIKE
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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr	
Develop an integrated distribution/logistics prototype of the DSS AIP. This project will use the base AIP to build a specialized version appropriate for logistics management. Enhancements will include specialized data definitions and analytical environments critical to logistics and distributions managers.														
21121100	3	APD	TTB	STI INTEGRATION	0	9006		0.8	0.4	0.2	0.2		ROOSA, MIKE	
Integrate the STI remote sales management system into the DSS AIP. This project will build on the remote sales management integration into mailbus and vtx this year. FY90 enhancements will be added functionality in report distribution and query and integration into the AIP.														
21121300	3	ARP	TTB	STRATEGIC ALLIANCES	0	9103		1.5	0.0	0.1	0.6		WILD, BRAD	
Form one or two strategic alliances with key ISV's and/or consultants in the logistics management field. This project will jointly develop and market an integrated logistics operations management system.														
21121400	3	APS	TTB	NA ALL-IN-1 SYS FOR SALES/MKT	0	NA	NA	0.0	0.0	0.1	0.0		TOUB, DAVID	
Chart	3	In-House Funded Proposed Project Totals						3.0	0.4	0.6	1.1			
Chart	3	Externally Funded Proposed Project Totals						0.0	0.0	0.0	0.0			
Chart	3	Proposed DIST. MARKETING SALES/SERVICE						3.0	0.4	0.6	1.1			
Chart	3	In-House Funded Incremental Project Totals						0.0	0.0	0.0	0.0			
Chart	3	Externally Funded Incremental Project Totals						0.0	0.0	0.0	0.0			
Chart	3	Incremental DIST. MARKETING SALES/SERVICE						0.0	0.0	0.0	0.0			
Chart	3	Totals for DIST. MARKETING SALES/SERVICE						3.0	0.4	0.6	1.1			

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In-House Funded Proposed Project Totals									3.0	0.4	0.6	1.1		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed DIST. MARKETING SALES/SERVICE									3.0	0.4	0.6	1.1		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental DIST. MARKETING SALES/SERVICE									0.0	0.0	0.0	0.0		
Totals for DIST. MARKETING SALES/SERVICE									3.0	0.4	0.6	1.1		

\*\*\* Sub Group Code: EPS

Sub Group: ELECTRONIC PUBLISHING SYSTEMS

21141100	3	APD	TTB	NA	PUB SVCS A1 SHARED FC V1	0	8912	NA	2.5	0.6	0.4	0.6		NEER, CLIFF
Integrate key PC publishing packages (text, graphics, scanners) and key formatters with the ALL-IN-1 file cabinet.														
21141500	3	ARP	TTB		ISV PUBLISHING TOOLKIT V1	0	8912		2.5	1.2	0.6	0.4		DONOVAN, JOHN
Work with key ISV's to develop the toolkit to be used by all ISV's to implement CDA across NAS.														
21141700	3	APD	TTB		PROPOSAL SYSTEM V1	0	9003		2.5	0.8	0.5	0.7		NEER, CLIFF
Plug more robust storage and management capabilities into the publishing AIP to meet a mission critical application.														
21141200	3	APD	TTB	NA	PUB SVCS A1 SHARED FC V2	0	9006	NA	1.5	0.0	0.5	0.6		NEER, CLIFF
Integrate key MAC publishing packages (text, graphics, scanners) and key formatters with the ALL-IN-1 file cabinet.														
21141300	3	APD	TTB		PUB SVCS VMS SERVICES V1	0	8912		2.0	0.4	0.4	0.6		NEER, CLIFF

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Integrate key PC publishing packages (test,graphics, scanners) and key formatters with VMS services for MS-DOS.													
21141400	3	APD	TTB	PUB SVCS VMS SERVICES V2	0	9006		1.5	0.0	0.4	0.6		NEER,CLIFF
Integrate key MAC publishing packages (text,graphics, scanners) and key formatters with VMS services for MS-DOS.													
21141600	3	ARP	TTB NA	BERTELSMANN TECHNICAL DOC	0	9006	NA	0.7	0.0	0.1	0.3		MILLER,BRUCE
Work with European systems engineering and Bertelsmann on their joint technical documentation project.													
21141800	3	APD	TTB NA	HIGH END PRINTER SUPPORT	0	9006	NA	1.5	0.0	0.2	0.4		NEER,CLIFF
Add high end printer (Xerox,Kodak) support to the publishing AIP.													
21141900	3	ARP	TTB	ISV PUBLISHING TOOLKIT V2	0	9006		2.7	0.0	0.2	0.0		DONOVAN,JOHN
Working with key ISV's to update the ISV publishing toolkit allowing the ISV masses to implement "live links" and ISL.													
21141A00	3	APD	TTB NA	PROPOSAL SYSTEM - BOILERPLATE	0	9006	AN	2.7	0.0	0.0	0.0		NEER,CLIFF
Add limited boilerplate capability to the document management system.													
21141B00	3	APD	TTB	AIP TYPESETTER SUPPORT	0	9006		1.5	0.0	0.0	0.4		NEER,CLIFF
Add typesetter support to the publishing AIP.													

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Chart	3				In-House Funded Proposed Project Totals				13.2	3.0	2.9	3.8		
Chart	3				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Proposed ELECTRONIC PUBLISHING SYSTEMS				13.2	3.0	2.9	3.8		
Chart	3				In-House Funded Incremental Project Totals				8.4	0.0	0.4	0.8		
Chart	3				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	3				Incremental ELECTRONIC PUBLISHING SYSTEMS				8.4	0.0	0.4	0.8		
Chart	3				Totals for ELECTRONIC PUBLISHING SYSTEMS				21.6	3.0	3.3	4.6		

In-House Funded Proposed Project Totals	13.2	3.0	2.9	3.8
Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Proposed ELECTRONIC PUBLISHING SYSTEMS	13.2	3.0	2.9	3.8
In-House Funded Incremental Project Totals	8.4	0.0	0.4	0.8
Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Incremental ELECTRONIC PUBLISHING SYSTEMS	8.4	0.0	0.4	0.8
Totals for ELECTRONIC PUBLISHING SYSTEMS	21.6	3.0	3.3	4.6

Sub Group Code	Sub Group	Finance/Admin	Bus. Systems	Other	Proj Owner/ Prod Mgr	
*** Sub Group Code: FABS	Sub Group: FINANCE/ADMIN BUS. SYSTEMS					
21111100 3 ACM TTB NA	PERFORMANCE CHARACTERIZATION	0	8912 NA	1.0	0.2 0.2 0.3	DITTMER, VAN
Develop a consistent methodology for providing performance characterization of the functional components of Distributed Business Systems Networks. Provide the sizing and configuration guidelines for the FABS market specific applications, including accounting, payroll and financial analysis.						
21111200 3 APD TTB NA	SYSTEMS PLANNING	0	9003 NA	1.0	0.1 0.2 0.3	DITTMER, VAN

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Develop a cohesive Distributed Business Systems network design guide which leverages Digital's investments in the development of application integration platforms and Digital's investments in business applications performance.														
21111300	3	ARP	TTB	NA	STRATEGIC ALLIANCES	0	9103	NA	0.9	0.2	0.1	0.3		DITTMER, VAN
Develop and manage programs to facilitate integration of business applications into Digital's Distributed Business Systems Network.														
21111400	3	ACT	TTB	NA	COMPETITIVE COST OF OWNERSHIP	0	9103	NA	1.1	0.0	0.1	0.4		DITTMER, VAN
Develop a methodology for comparing the cost of owning a Digital DBSN to IBM's business solutions.														
Chart 3					In-House Funded Proposed Project Totals				2.9	0.5	0.5	0.9		
Chart 3					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Proposed FINANCE/ADMIN BUS. SYSTEMS				2.9	0.5	0.5	0.9		
Chart 3					In-House Funded Incremental Project Totals				1.1	0.0	0.1	0.4		
Chart 3					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 3					Incremental FINANCE/ADMIN BUS. SYSTEMS				1.1	0.0	0.1	0.4		
Chart 3					Totals for FINANCE/ADMIN BUS. SYSTEMS				4.0	0.5	0.6	1.3		
In-House Funded Proposed Project Totals														
Externally Funded Proposed Project Totals														
Proposed FINANCE/ADMIN BUS. SYSTEMS														
In-House Funded Incremental Project Totals														
Externally Funded Incremental Project Totals														
Incremental FINANCE/ADMIN BUS. SYSTEMS														
Totals for FINANCE/ADMIN BUS. SYSTEMS														

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*** Sub Group Code: OIS				Sub Group: OFFICE INFO SYSTEMS									
21131100	3	ACM	TTB	NA	DSS NAS INTEROPERABILITY	0	9006	NA	1.0	0.2	0.3	0.2	WILD, BRAD
Define and test the interoperability of the appropriate NAS components to be used to build the DSS application integration platform.													
21131200	3	APD	TTB		DSS DATA FILTERS DEVELOPMENT	0	9003		0.4	0.0	0.2	0.2	MISCHIK, JOHN
Develop data translation filters across applications, both DEC and third party, necessary to insure transparent data exchange.													
21131700	3	APD	TTB	NA	DESKTOP MAIL	0	9003	NA	0.8	0.3	0.1	0.3	YOUNG, DON
As part of the business communications application integration platform develop configuration, performance and positioning characterization information for enduser desktop mail systems. Although the VT model work will continue, the emphasis will shift to the client/server model. Clients to be investigated include MSDOS, OS/2 and UNIX both Digital and third parties (e.g., OATmail, Odesta, Microsoft, Alisa, Pacer, Uniplex only given as examples). The deliverable will be a document (application design guide) that will be part of the platform (Q3 FY90).													
21131800	3	ARP	TTB	NA	DESKTOP MAIL/TECH PARTNERSHIP	0	9103	NA	1.1	0.3	0.1	0.5	YOUNG, DON
Technical joint project with strategic MUAS client providers. Work closely to understand their needs and ensure they understand and implement our product offerings. Consulting/testing/certify MUAS with our server (select 5-8 total, e.g. OATmail, Odesta, Microsoft, ALisa, Pacer, Uniplex only given as examples)(Q1 FY90 start).													
21131900	3	APD	TTB	NA	BACKBONE MAIL	0	9006	NA	1.4	0.0	0.2	0.5	YOUNG, DON

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Ann Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
<p>As part of the business communications platform document how Digital's products can be interconnected and configured to provide a supportable multivendor enterprise wide mail backbone or hub. In these networks system wide management and IBM interconnect are of particular emphasis. The deliverable (Q4 FY90) will be an applications design guide for backbone mail containing:            How to configure and manage            Performance            Heterogenous interconnect            Positioning</p>														
21131A00	3	APD	TTB		EDI	0	NA		4.0	2.3	0.7	0.5		BENDLE, NEIL
<p>As we move into the age of extending the enterprise, EDI becomes a more and more important part of the business comms platform.            Applications design/integration guide            Standards integration            Joint project            IBM integration            Strategic Alliances</p>														
21131E00	3	APD	TTB	NA	ALL-IN-1 ITC	0	NA	NA	2.0	0.2	0.3	0.3		PERLMAN, ELI
<p>Provide feasibility studies of third party and ALL-IN-1 integration possibilities. Develop integration tools to assist third party software integration.</p>														
21131F00	3	APD	TTB	NA	ALL-IN-1 INTEROPERABILITY	0	NA	NA	1.5	0.3	0.6	0.4		PERLMAN, ELI
<p>Provide engineering effort on interoperability and performance between ALL-IN-1 VT services and ALL-IN-1 workstation services with key third party applications.</p>														
21131I00	3	AAD	TTB	NA	SYSTEM FOR EXECUTIVE SERVICES	NA	NA	NA	0.2	0.0	0.2	0.0		KIRCHOFF

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<p>The ALL-IN-1 System for Executive Services is a set of tools targeted at the Executive Offices. The project is designed to address the needs of the administrative personnel based on the new ALL-IN-1 V2.4</p>														
21131J00	3	APS	TTB	NA	INTEGRATION TECHNOLOGY CENTER	NA	NA	NA	0.2	0.0	0.2	0.0		KIRCHOFF
<p>Deliver training and support expertise to 3rd parties and the field focusing on the internal integration capability within ALL-IN-1 on a worldwide basis</p>														
21131K00	3	APS	TTB	NA	ISV UNIVERSITY	NA	NA	NA	0.1	0.0	0.1	0.0		KIRCHOFF
<p>Provide consulting and support to, up to, 4 key (identified by BOIS) ISV's for integrating their product(s) with ALL-IN-1 Client For MS-DOS, on the PC</p>														
21131L00	3	AAD	TTB	NA	DDIF BRIDGE IN ZIRCON	NA	NA	NA	0.1	0.0	0.1	0.0		KIRCHOFF
<p>This project covers providing ALL-IN-1 V2.4 with the capability to perform a limited number of functions with DDIF documents</p>														
21131M00	3	AAD	TTB	NA	OAT ENGINEERING	NA	NA	NA	0.2	0.0	0.2	0.0		KIRCHOFF
<p>This project will assist the OAT engineering staff in bringing some of their more critical ALL-IN-1 code up to ALL-IN-1 V2.3 levels</p>														
21131N00	3	ARP	TTB	NA	CARDINAL TEMPLATES	NA	NA	NA	0.2	0.0	0.2	0.0		KIRCHOFF

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The ISV-U Cardinal tools research and development project implements the Cardinal tools effectively as templates													
21131300	3	ASP	TTB	DSS APPLICA/INTEGRATION GUIDES	0	9006		0.7	0.0	0.1	0.1		ROOSA,MIKE
Develop application design guides which define key AIP components and how to put them together to construct the AIP. Develop integration guidelines to document for strategic third party application providers the adherence standards to seamlessly integrate their applications into the AIP.													
21131600	3	ARP	TTB	NA DSS STRATEGIC ALLIANCES	0	NA	NA	1.5	0.5	0.1	0.6		MISCHIK,JOHN
Develop strategic development alliances with key ISV's to insure appropriate base application functionality within the DSS AIP.													
21131G00	3	AAD	TTB	NA LAN MAIL	NA	NA	NA	0.2	0.0	0.2	0.0		COPP
Provide interconnection solutions for the most common PC LAN Mail Packages. To define characterize, and make available to the field, proven and implementable Enterprise PC LAN mail solutions.													
21131H00	3	ACM	TTB	NA UNIX OFFICE	NA	NA	NA	0.1	0.0	0.1	0.0		KLEIN
Testing and evaluation of UNIX Office Product for RISC ULTRIX (Alis, Uniplex, Odesta, Affinity, WINGS)													
21131000	3	AAD	TTB	NA WANG MIGRATION TOOL KIT	NA	NA	NA	0.1	0.0	0.1	0.0		KIRCHOFF
Finish building a tool kit and cover the cost of hardware to provide Wang Migration Services													
21131400	3	ACM	TTB	DSS PLATFORM CHARACTERIZATION	0	9006		0.5	0.2	0.1	0.3		MISCHIK,JOHN

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Develop performance characterization models for the AIP and test across appropriate base platforms.															
21131500	3	APS	TTB		DSS PLATFORM MAINTENANCE	0	NA		0.6	0.0	0.0	0.1		WILD, BRAD	
21131B00 3 ARP TTB NA TECH PROJ LG MAIL															
Technical partnership with large mail users, system management, and evolution to intelligent desk tops.															
21131C00	3	ACM	TTB	NA	PC 2000 CHARACTERIZATION	0	9003	NA	0.4	0.0	0.2	0.0		PERLMAN, ELI	
Characterization of PC LAN server 2000.															
21131D00	3	AAD	TTB	NA	BUSINESS COMMS INTEGRATION	0	9006	NA	1.2	0.0	0.1	0.2		YOUNG, DON	
Define architecture, specification and prototype for total integration (same user interface, data access and management ) of Mail, Notes, VTX, EDI, EBD.															
Chart 3	In-House Funded Proposed Project Totals								16.3	4.3	4.2	3.9			
Chart 3	Externally Funded Proposed Project Totals								0.0	0.0	0.0	0.0			
Chart 3	Proposed OFFICE INFO SYSTEMS								16.3	4.3	4.2	3.9			
Chart 3	In-House Funded Incremental Project Totals								3.9	0.0	0.3	0.8			
Chart 3	Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0			
Chart 3	Incremental OFFICE INFO SYSTEMS								3.9	0.0	0.3	0.8			
Chart 3	Totals for OFFICE INFO SYSTEMS								20.2	4.3	4.5	4.7			

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In-House Funded Proposed Project Totals									16.3	4.3	4.2	3.9			
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0			
Proposed OFFICE INFO SYSTEMS									16.3	4.3	4.2	3.9			
In-House Funded Incremental Project Totals									3.9	0.0	0.3	0.8			
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0			
Incremental OFFICE INFO SYSTEMS									3.9	0.0	0.3	0.8			
Totals for OFFICE INFO SYSTEMS									20.2	4.3	4.5	4.7			
In-House Funded Project Totals									35.4	8.2	8.2	9.7			
Externally Funded Project Totals									0.0	0.0	0.0	0.0			
Proposed for BUSINESS/OFFICE INFO SYSTEMS									35.4	8.2	8.2	9.7			
In-House Funded Incremental Project Totals									13.4	0.0	0.8	2.0			
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0			
Incremental BUSINESS/OFFICE INFO SYSTEMS									13.4	0.0	0.8	2.0			
Grand Totals for BUSINESS/OFFICE INFO SYSTEMS									48.8	8.2	9.0	11.7			

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HEALTH CARE INDUSTRY GROUP

FY90 Beige Book

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BEIGE BOOK

CHART I

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PREPARER  
Leslie Harrison

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PROJ ID	ACT LOC CODE	PROJECT/PRODUCT DESCRIPTION	CURR PH	FRS DATE	LIFE EXP	EXPSE IN \$ MILLIONS			EXT'NL FUNDER	NAME OF PROJECT OWNER
						FY 88	FY 89	FY 90		
100000	PD MRO	VAX DECrad V4.0	3	9002		.200	.200	.200		Leslie Harrison

Radiology Information Management System. New version adds Quality Assurance, Teaching File, Software Query Language (SQL), and extensive enhancements to all modules.

PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR

GROUP/ORGANIZATION NAME Health Care Industry Group DATE 11/1/89 PREPARER Leslie Harrison page 1 of 1

PRODUCT NAME	PROJ. ANNOU.	PROJ. FRS	PHASE 1 FRS	PRODUCT MANAGER	DTN	COMMENTS
VAX DECrad V4.0	8911	9002	8909	Leslie Harrison	297-2354	

FIELD ENGINEERING  
PRODUCTS



# COMPUTER SPECIAL SYSTEMS

FY90 Beige Book

## COMPUTER SPECIAL SYSTEMS

## CSS MISSION:

CSS is Digital's worldwide, customer driven, quick response, engineering and marketing organization. CSS provides custom projects, standard products and third-party hardware for Digital's system integration capabilities.

## STRATEGIC ROLE:

## Projects Business

Working closely with its Enterprise Integration Services partners, CSS provides the following system integration services to help customers; create custom hardware, tailor Digital solutions, and integrate third party hardware.

- o Custom Design Services
- o Custom Configuration Service
- o Consulting Services in the areas of Systems Engineering, Design Engineering, and Project Management

## Products Business-

Working in close partnership with Product Business Units (PBU), Product Marketing Groups (PMG) and Geographic areas, CSS develops standard products and systems which are complementary to Digital's strategic product architecture. These products may be either worldwide or geography-specific. CSS will sell third party hardware in support of our PBU partners using our Digital Distributed Hardware (DDH) process.

CSS Products and systems fit into the following market segments and engineering competencies:

- o Industrial and Scientific Group
  - Real-time Systems
  - Environmental
  - Packaging
- o International Secure Technologies (TEMPEST)
- o Network Systems Group
  - Bridges
  - Remote Terminal Interconnect Products
  - Intelligent Communications Processors
  - High Availability Systems
  - Voice Products
- o Peripherals and Graphics Group
  - Mass Storage Products
  - Printers
  - Video Displays
  - Imaging Products

CSS considers the following parameters before deciding to internally fund engineering development:

- Fit with PBU, PMG, Industry Marketing and CSS Strategies.
- Active support from a PBU, PMG, Industry Marketing or Geographic Area
- Market and Profit potential for Digital and CSS
- Fit with CSS skills and resources.
- Technical and Economic feasibility.
- Business Risks.

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*** Group Code: ISG						Group: INDUSTRIAL SCIENTIFIC GROUP								
3M240000	1	PD	KAO	FC	B SERIES PVAX	2	9001	8912	0.6	0.3	0.3	0.0		WIENS, DAVE
3M220000	1	PD	UFC	FC	SUNFLOWER I	3	8911	8911	0.5	0.3	0.2	0.0		FORBES, DAVE
3M220200	1	PD	UFC	FC	SUNFLOWER II	0	9006	9006	1.2	0.2	1.0	0.0		VIGNONI, DICK
3M210000	1	PD	MKO	FC	GRASSHOPPER-VME	1	9006	9002	3.5	0.3	2.7	0.5		HELMER, ERWIN
3M210100	1	PD	MKO	FC	RACKMOUNT 6XXX PLATFORM	2	8910	8909	0.6	0.4	0.2	0.0		LANE, DAVID
3M210200	1	PD	MKO	NA	ULTRIX DRIVERS	0	9003	9003	0.2	0.2	0.4	0.0		KETTNER, ERWIN
3M210300	1	PD	MKO	FC	RACKMOUNT 3XXX	3	8912	8912	0.4	0.1	0.3	0.0		IVERSEN, RICH
3M220100	1	PD	UFC	NA	DECSICON	2	8910	8910	0.2	0.1	0.1	0.0		HILMAN, ERIC
3M230300	1	PD	DEK	FC	DICKCAT - VT382K	3	8908	8907	0.6	0.5	0.1	0.0		HEBERT, DAVE
3M230400	1	PD	DEK	NA	THAICAT (VT382-THI)	2	8908	8907	0.1	0.1	0.0	0.0		BEMPKINS, SCOTT
3M230500	1	PD	DEK	NA	FISHCAT	0	9009	9007	0.5	0.0	0.5	0.0		SCHAEPE, BILL
Totals for INDUSTRIAL SCIENTIFIC GROUP									8.4	2.5	5.8	0.5		

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*** Group Code: ISTG                      Group: INTERNATIONAL SEC. TECH. GROUP														
3M411100	1	PD	SBP	FC	FIBER OPTIC LAN	0	9006	9006	0.2	0.0	0.2	0.0		KOMOROWSKI, ROB BENNETT, JOHN
3M421100	1	PD	KAO	FC	RF-CALYPSO (6400)	2	9003	9003	0.4	0.0	0.4	0.0		WRIGHT, TREVOR HOOPER, DAVE
3M411300	1	PD	SBP	FC	RF-PVAX	0	9006	9006	0.2	0.0	0.2	0.0		KOMOROWSKI, ROB BENNETT, JOHN
3M411200	1	PD	SBP	FC	RF-LJ250	0	9003	9003	0.1	0.0	0.1	0.0		KOMOROWSKI, ROB BENNETT, JOHN
Totals for INTERNATIONAL SEC. TECH. GROUP									0.9	0.0	0.9	0.0		

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*** Group Code: NSG						Group: NETWORK SYSTEMS GROUP								
3M120000	1	PD	AEO	FC	DSH32/PVAX (VS3100 SYNC)	1	9003	9003	3.0	0.1	0.2	0.0		RENAUDEAU, HERVE
3M120500	1	PD	AEO	FC	DIV32 (ISDN CONTROLLER)	2	8912	8912	2.7	2.0	0.7	0.0		MERCIER, SYLVAIN
3M110300	1	PD	SNO	FC	FOAL (MUXSERVER 310)	3	9001	8912	0.2	0.0	0.2	0.0		PETRICOLA, RHINO
3M110700	1	PD	MKO	FC	TRM NODEL PROCESSOR	0	9006	9006	0.6	0.0	0.6	0.0		FONSALE, PATRICK
3M110200	1	PD	MKO	NA	VITALINK TRANSLAN 320 BRIDGE	2	8911	8911	0.2	0.0	0.2	0.0		AMOS, ANDREW
3M120300	1	PD	AEO	FC	MIRA II (S-BOX)	2	9005	9003	0.9	0.2	0.7	0.0		PICK, ALAN
3M110G00	1	PD	MKO	FC	FATBOX MV3000	2	8912	8912	0.5	0.3	0.2	0.0		TBD
3M110000	1	PD	MKO	NA	V.32 MODEM	3	8912	8912	0.8	0.6	0.1	0.0		WHITEHEAD, GEORGE
3M110C00	1	PD	MKO	FC	SYBIL	2	9006	9006	0.3	0.3	0.0	0.0		LEMAY, LOUISE
Totals for NETWORK SYSTEMS GROUP									9.2	3.5	2.9	0.0		

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*** Group Code: PGG                      Group: PERIPHERALS AND GRAPHICS GROUP													
3M310B00	1	PD	MKO FC	FINBACKS	2	9001	8912	0.3	0.1	0.2	0.0		FREEMAN, DICK
3M320600	1	PD	SBP FC	REMOVABLE DISK PEDESTAL-RF30	3	8911	8906	1.7	1.0	0.7	0.0		HAYES, SUSAN
3M320700	1	PD	SBP FC	REMOVABLE DISK PEDESTAL- RF71	3	8911	8909	0.0	0.0	0.0	0.0		LITTEN, DAVE
3M320400	1	PD	SBP FC	REMOVABLE DISK RACKMOUNT- RF71	1	9004	9003	0.0	0.0	0.0	0.0		CORTE, ROGER
3M310500	1	PD	MKO FC	GAPLESS TAPE SUBSYSTEM	3	8910	8910	0.6	0.3	0.3	0.0		MANTON, CLIFF
3M310100	1	PD	MKO FC	COMPRINT 1	2	8912	8912	0.1	0.0	0.1	0.0		CORTE, ROGER
3M310900	1	PD	MKO NA	MERCURY (FAX-VAX-FAX)	0	TBD	TBD	0.1	0.0	0.1	0.0		SATKO, JIM
3M310800	1	PD	MKO NA	SAAVY	PRE-0	9006	9006	0.3	0.0	0.0	0.3		BOHN, RICH
3M310C00	1	PD	MKO FC	GYPSY	0	TBD	TBD	0.8	0.0	0.8	0.0		VAIL, NANCY
3M310E00	1	PD	MKO FC	CADAM PERIPHERALS- DDH	2	9001	9001	0.1	0.0	0.1	0.0		BROWN, ROD
3M330200	1	PD	JSO NA	KPS20	1	9003	9003	0.3	0.2	0.1	0.0		FREEMAN, DICK
3M330300	1	PD	JSO NA	VIOLET	1	9003	9003	0.6	0.1	0.5	0.0		PELAVIN, LARRY
3M330400	1	PD	JSO FC	BELLADONNA (LA280-J)	0	9004	9003	0.3	0.0	0.0	0.0		TBD
3M330500	1	PD	JSO NA	MAXINE-M (J-DWT)	0	9004	9004	0.3	0.0	0.3	0.0		PELAVIN, LARRY
3M310J00	1	PD	MKO FC	TSZ05	0	9002	9002	0.2	0.0	0.2	0.0		COMBS, GREG
Totals for PERIPHERALS AND GRAPHICS GROUP								5.7	1.7	3.4	0.3		
Grand Totals for COMPUTER SPECIAL SYSTEMS								24.2	7.7	13.0	0.8		

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*** Group Code: ISG                      Group: INDUSTRIAL SCIENTIFIC GROUP														
3M240000	1	PD	KAO	FC	B SERIES PVAX	2	9001	8912	0.6	0.3	0.3	0.0		WIENS, DAVE FORBES, DAVE
LIGHTLY INDUSTRIALIZED VERSIONS OF PVAX, TEAMMATE II, AND PVAX INDUSTRIAL MONITORS.														
3M220000	1	PD	UFC	FC	SUNFLOWER I	3	8911	8911	0.5	0.3	0.2	0.0		VIGNONI, DICK HELMER, ERWIN
SCSI-TO-IEEE 488 OPTION FOR VAX WORKSTATIONS. PROVIDES INTERCONNECT TO LABORATORY INSTRUMENTATION. SUPPORTED BY VSL SOFTWARE LIBRARY.														
3M220200	1	PD	UFC	FC	SUNFLOWER II	0	9006	9006	1.2	0.2	1.0	0.0		LANE, DAVID KETTNER, ERWIN
PC-AT BASED I/O SERVER. CONNECTS AT BUS I/O OPTIONS TO VAX VIA ETHERNET OR SCSI.														
3M210000	1	PD	MKO	FC	GRASSHOPPER-VME	1	9006	9002	3.5	0.3	2.7	0.5		IVERSEN, RICH HILMAN, ERIC
VME I/O BUS EXPANDER BOX TO BE CONFIGURED ON A MIPSFAIR II AND 3MAX WORKSTATION.														
3M210100	1	PD	MKO	FC	RACKMOUNT 6XXX PLATFORM	2	8910	8909	0.6	0.4	0.2	0.0		HEBERT, DAVE BEMPKINS, SCOTT
19 INCH RACK MOUNTABLE CONFIGURATIONS FOR CURRENT 6XXX SYSTEMS.														
3M210200	1	PD	MKO	NA	ULTRIX DRIVERS	0	9003	9003	0.2	0.2	0.4	0.0		SCHAEPE, BILL TBD
ULTRIX DRIVER SUPPORT FOR Q-BUS I/O OPTIONS SUCH AS IEQ11, DRV11-WA.														
3M210300	1	PD	MKO	FC	RACKMOUNT 3XXX	3	8912	8912	0.4	0.1	0.3	0.0		TBD SALERNO, PAUL
19 INCH RACK MOUNTABLE CONFIGURATION FOR CURRENT 3XXX SYSTEMS.														
3M220100	1	PD	UFC	NA	DECSICON	2	8910	8910	0.2	0.1	0.1	0.0		ROTH, STEPHAN KETTNER, ERWIN
PRODUCTIZATION OF A VAX TO SIEMENS PLC5 INTERFACE AS A CAT B EUROPE PRODUCT. A MICROVAX WITH KXT11 FRONT-END PROCESSORS AND SIEMENS DUST PROTOCOL.														

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3M230300	1	PD	DEK	FC	DICKCAT - VT382K	3	8908	8907	0.6	0.5	0.1	0.0		TSURUI, SHINYA OGISHIMA, MITSUO
CHINESE LANGUAGE TERMINAL														
3M230400	1	PD	DEK	NA	THAICAT (VT382-THI)	2	8908	8907	0.1	0.1	0.0	0.0		TBD KIM, Y.M.
LOCAL LANGUAGE TERMINAL FOR THAILAND														
3M230500	1	PD	DEK	NA	FISHCAT	0	9009	9007	0.5	0.0	0.5	0.0		TSURUI, SHINYA NANBA, HIROMI
LOCAL LANGUAGE HIGH RESOLUTION 14 IN MONOCHROME TERMINAL FOR TAIWAN.														
Totals for INDUSTRIAL SCIENTIFIC GROUP									8.4	2.5	5.8	0.5		
*** Group Code: NSG                      Group: NETWORK SYSTEMS GROUP														
3M120000	1	PD	AEO	FC	DSH32/PVAX (VS3100 SYNC)	1	9003	9003	3.0	0.1	0.2	0.0		RENAUDEAU, HERVE MERCIER, SYLVAIN
CUSTOM PLATFORMS PROVIDING 1-SYNC AND 2-ASYNC LINES ON VAXSTATION 3100 AND 2-SYNC LINES ON MICROVAX 3100.														
3M120500	1	PD	AEO	FC	DIV32 (ISDN CONTROLLER)	2	8912	8912	2.7	2.0	0.7	0.0		PETRICOLA, RHINO FONSALE, PATRICK
Q-BUS ISDN NETWORK ADAPTER. PROVIDES BASIC RATE ACCESS AS A TERMINAL EQUIPMENT (TE) FOR SYSTEMS CONFIGURED WITH Q-BUS.														
3M110300	1	PD	SNO	FC	FOAL (MUXSERVER 310)	3	9001	8912	0.2	0.0	0.2	0.0		AMOS, ANDREW PICK, ALAN
16 USER MUXSERVER 300 WITH LOW SYNCH LINK SPEEDS ADDED														

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3M110700	1	PD	MKO FC	TRM NODEL PROCESSOR	0	9006	9006	0.6	0.0	0.6	0.0		TBD WHITEHEAD, GEORGE
TRANSMISSION RESOURCE MANAGER FOR TRANSMITTING INTEGRATED DATA AND VOICE VIA HIGH SPEED COMMUNICATION LINES USING STRATACOM IPX PRODUCT.													
3M110200	1	PD	MKO NA	VITALINK TRANSLAN 320 BRIDGE	2	8911	8911	0.2	0.0	0.2	0.0		LEMAY, LOUISE TAGLIAFERRO, JIM
DATA LINK LAYER SYNCHRONOUS LINE REMOTE BRIDGE FOR ETHERNET/IEEE 802.3 LOCAL AREA NETWORKS. QUALIFICATION OF VITALINK TRANSLAN 320 BRIDGE USING DDH PROCESS.													
3M120300	1	PD	AEO FC	MIRA II (S-BOX)	2	9005	9003	0.9	0.2	0.7	0.0		FICHTER, J DAVIN, MICHEL
BA2XX BASED MICROVAX DUAL HOST WITH ENHANCED ERROR DETECTION													
3M110G00	1	PD	MKO FC	FATBOX MV3000	2	8912	8912	0.5	0.3	0.2	0.0		CRITSER, JIM SLUZ, GEORGE
EXPANSION CAB CONTAINING BA23 EXPANSION CHASSIS FOR EXISTING MICROVAX 3600 SYSTEMS.													
3M110000	1	PD	MKO NA	V.32 MODEM	3	8912	8912	0.8	0.6	0.1	0.0		KAPOOR, A PALMER, CAROL
9600 BPS DIAL-UP MODEM WITH SCHOLAR PLUS FUNCTIONALITY													
3M110C00	1	PD	MKO FC	SYBIL	2	9006	9006	0.3	0.3	0.0	0.0		TBD TBD
VOICE CUSTOM PLATFORM AIMED AT TELECOMMUNICATIONS INDUSTRY. WILL INCLUDE A T1 INTERFACE USEFUL IN IMPLEMENTING LARGE-SCALE VOICE PROCESSING APPLICATIONS AND AN ENHANCEMENT TO ALLOW 32 CHANNELS OF DIGITIZED VOICE PER Q-BUS SYSTEM. FORMERLY CALLED DECVOICE TELECOM. ALSO KNOWN AS DECVOICE CUSTOM PLATFORM.													
Totals for NETWORK SYSTEMS GROUP								9.2	3.5	2.9	0.0		

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*** Group Code: PGG                      Group: PERIPHERALS AND GRAPHICS GROUP													
3M310B00	1	PD	MKO FC	FINBACKS	2	9001	8912	0.3	0.1	0.2	0.0		FREEMAN, DICK HAYES, SUSAN
FULL SET OF PERIPHERALS DESIGNED TO COMPLEMENT TELLER TERMINALS AND PLATFORM TERMINALS USED IN RETAIL BRANCHES OF A BANK. DDH- NORTH AMERICA ONLY.													
3M320600	1	PD	SBP FC	REMOVABLE DISK PEDESTAL-RF30	3	8911	8906	1.7	1.0	0.7	0.0		LITTEN, DAVE CORTE, ROGER
TWO RF30 DRIVES WITHIN INDIVIDUAL SHOCK-MOUNTED CANNISTERS WHICH CAN BE REMOVED FROM ENCLOSURE. SOLD AS A PEDESTAL. WILL SUPPORT A NUMBER OF DEC CONTROLLERS. THIS PROJECT INCLUDES FUNDING FOR RF71 PEDESTAL AND RACKMOUNT.													
3M320700	1	PD	SBP FC	REMOVABLE DISK PEDESTAL- RF71	3	8911	8909	0.0	0.0	0.0	0.0		LITTEN, DAVE CORTE, ROGER
TWO RF71 DRIVES WITHIN INDIVIDUAL SHOCK-MOUNTED CANNISTERS WHICH CAN BE REMOVED FROM ENCLOSURE. SOLD AS A PEDESTAL.													
3M320400	1	PD	SBP FC	REMOVABLE DISK RACKMOUNT- RF71	1	9004	9003	0.0	0.0	0.0	0.0		MANTON, CLIFF CORTE, ROGER
TWO RF71 DRIVES WITHIN INDIVIDUAL SHOCK-MOUNTED CANNISTERS WHICH CAN BE REMOVED FROM ENCLOSURE. SOLD IN RACKMOUNT CONFIGURATION.													
3M310500	1	PD	MKO FC	GAPLESS TAPE SUBSYSTEM	3	8910	8910	0.6	0.3	0.3	0.0		SATKO, JIM BOHN, RICH
CONTROLLER FOR SEISMIC INDUSTRY GAPLESS TAPE APPLICATION													
3M310100	1	PD	MKO FC	COMPRINT 1	2	8912	8912	0.1	0.0	0.1	0.0		VAIL, NANCY BROWN, ROD
SOFTWARE ALLOWING FORMS MANAGEMENT IN LINE PRINTERS. BENEFITS ARE FASTER THROUGHPUT BASED ON ABILITY TO "SKIP" OVER BLANK SPACES THROUGH VERTICAL ATBBING AND EASIER FORM SETUP. PRIMARY USE IN HIGH VOLUME COMMERCIAL PRINTING APPLICATIONS. WILL BE CALLED VAX VERTICAL FORMS PRINTING (VFP).													
3M310900	1	PD	MKO NA	MERCURY (FAX-VAX-FAX)	0	TBD	TBD	0.1	0.0	0.1	0.0		FREEMAN, DICK PELAVIN, LARRY
CONNECTS FACSIMILE MACHINES TO VAX CPU ALLOWING VAX CPU TO SEND OR RECEIVE FAX MESSAGES.													

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3M310800	1	PD	MKO NA	SAAVY	PRE-0	9006	9006	0.3	0.0	0.0	0.3		TBD PELAVIN, LARRY
HIGH END AND INTELLIGENT CHARACTER RECOGNITION DEVICE. THE INTELLIGENCE WILL BE ON A HARDWARE BOARD SUPPLIED BY CALERA SYSTEMS.													
3M310C00	1	PD	MKO FC	GYPSY	0	TBD	TBD	0.8	0.0	0.8	0.0		COMBS, GREG KEAVENY, BRIAN
ADAPTER TO CONNECT STORAGETEK TAPE SILO TO VAX WITH TRANSFER SPEED TO 2 MB/SEC.													
3M310E00	1	PD	MKO FC	CADAM PERIPHERALS- DDH	2	9001	9001	0.1	0.0	0.1	0.0		PORTER, STAN HAYES, SUSAN
LIGHTED PROGRAMMABLE FUNCTION KEYBOARD AND 8-DIAL DIAL BOX PERIPHERALS FOR CADAM AND CAD APPLICATIONS.													
3M330200	1	PD	JSO NA	KPS20	1	9003	9003	0.3	0.2	0.1	0.0		SHINGOU, HIDEO NAKAGAWA, HIDEHIRO
20 PPM CUT SHEET KANJI LASER PRINTER SERVER													
3M330300	1	PD	JSO NA	VIOLET	1	9003	9003	0.6	0.1	0.5	0.0		OHASHI, SHINOBU OGISHIMA, MITSUO
8 PAGE PER MINUTE DESKTOP LASER PRINTER FOR JAPAN AND FER. CAPABLE OF PRINTING COMPOUND DOCUMENTS.													
3M330400	1	PD	JSO FC	BELLADONNA (LA280-J)	0	9004	9003	0.3	0.0	0.0	0.0		SHINGOU, HIDEO TAKANASHI, MIKINORI
400 LPM LA280 IMPACT LINE PRINTER FOR JAPANESE, PRC, AND KOREAN MARKETS.													
3M330500	1	PD	JSO NA	MAXINE-M (J-DWT)	0	9004	9004	0.3	0.0	0.3	0.0		OHASHI, SHINOBU NANBA, HIROMI
DECWINDOWS TERMINAL FOR JAPANESE MARKET. COMPATIBLE WITH VT382 AND VT284.													
3M310J00	1	PD	MKO FC	TSZ05	0	9002	9002	0.2	0.0	0.2	0.0		VAIL, NANCY FISCHER, BOB
SCSI VERSION OF INDUSTRY STANDARD, 1600 BPI TAPE DRIVE (CIPHER TS05). SUPPORTED UNDER VMS AND ULTRIX ON VAX AND RISC ENGINES. WILL BE BOTH TABLETOP AND FLOOR CABINET.													
Totals for PERIPHERALS AND GRAPHICS GROUP								5.7	1.7	3.4	0.3		
Grand Totals for COMPUTER SPECIAL SYSTEMS								24.2	7.7	13.0	0.8		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR  
 Major Organization: COMPUTER SPECIAL SYSTEMS

1-Nov-1989  
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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
3M320600	REM DISK- RF30 PDSTL	8906	8911	8911	CORTE, ROGER
3M230300	VT382K (DICKCAT)	8907	8908	8908	OGISHIMA, MITSUO
3M230400	VT382-THI (THAICAT)	8907	8908	8908	KIM, Y.M.
3M210100	RACKMOUNT 6XXX	8909	8910	8910	BEMPKINS, SCOTT
3M320700	REM DISK PDSTL RF71	8909	8911	8911	CORTE, ROGER
3M310500	GAPLESS TAPE	8910	8910	8909	BOHN, RICH
3M220100	DECSICON	8910	8910	8910	KETTNER, ERWIN
3M220000	SUNFLOWER I	8911	8911	8911	HELMER, ERWIN
3M110200	VITALINK TRANSLAN	8911	8911	8911	TAGLIAFERRO, JIM
3M240000	B SERIES PVAX	8912	9001	8911	FORBES, DAVE
3M310B00	FINBACKS	8912	9001	9001	HAYES, SUSAN
3M120500	DIV32 (ISDN CONTROL)	8912	8912	8912	FONSALE, PATRICK
3M110G00	FATBOX MV3000	8912	8912	8912	SLUZ, GEORGE
3M210300	RACKMOUNT 3XXX	8912	8912	TBD	SALERNO, PAUL
3M310100	COMPRINT 1	8912	8912	8912	BROWN, ROD
3M110300	MUXSERVER 310	8912	9001	TBD	PICK, ALAN
3M110000	V.32 MODEM	8912	8912	8910	PALMER, CAROL
3M310E00	CADAM PERIPHERALS	9001	9001	9001	HAYES, SUSAN
3M310J00	TSZ05	9002	9002	TBD	FISCHER, BOB
3M210000	GRASSHOPPER-VME	9002	9006	TBD	HILMAN, ERIC
3M330400	BELLADONNA (LA280-J)	9003	9004	TBD	TAKANASHI, MIKINORI
3M421100	RF-CALYPSO (6400)	9003	9003	9003	HOOPER, DAVE
3M120300	MIRA II (S-BOX)	9003	9005	9005	DAVIN, MICHEL
3M320400	REM DISK RACKMT-RF71	9003	9004	TBD	CORTE, ROGER
3M120000	DSH32/PVAX	9003	9003	TBD	MERCIER, SYLVAIN
3M330300	VIOLET	9003	9003	TBD	OGISHIMA, MITSUO
3M330200	KPS20	9003	9003	TBD	NAKAGAWA, HIDEHIRO
3M411200	RF-LJ250	9003	9003	TBD	BENNETT, JOHN
3M210200	ULTRIX DRIVERS	9003	9003	TBD	TBD
3M330500	MAXINE-M (J-DWT)	9004	9004	TBD	NANBA, HIROMI
3M220200	SUNFLOWER II	9006	9006	TBD	KETTNER, ERWIN
3M110700	TRM NODEL PROCESSOR	9006	9006	TBD	WHITEHEAD, GEORGE
3M411300	RF-PVAX	9006	9006	TBD	BENNETT, JOHN
3M411100	FIBER OPTIC LAN	9006	9006	TBD	BENNETT, JOHN
3M310800	SAAVY	9006	9006	TBD	PELAVIN, LARRY
3M110C00	SYBIL	9006	9006	9006	TBD
3M230500	FISHCAT	9007	9009	TBD	NANBA, HIROMI
3M310900	MERCURY	TBD	TBD	TBD	PELAVIN, LARRY
3M310C00	GYPSY	TBD	TBD	TBD	KEAVENY, BRIAN

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GOVERNMENT SYSTEMS GROUP

FY90 Beige Book

GOVERNMENT SYSTEMS GROUP  
SECURE PRODUCTS ENGINEERING

MISSION

- o Be the leading supplier of secure platforms in the Government marketplace.
  - TEMPEST
  - CMW
  - Physical Security
  - Government-grade Encryption
- o Set and manage Digital's TEMPEST and TEMPEST-related strategy and standards worldwide. Ensure Digital's TEMPEST compliance worldwide.

GOALS

- o Implement the GSG Secure Products mission consistent with the overall GSG and Secure Systems Marketing Strategy.
- o Carry out Government product support function
  - Support the field
  - Remove burden of bidding, configuring, delivery of secure products from sales person.
- o Continue to integrate plans and activities with Central Engineering, with emphasis on:
  - Low-End Systems - Dom LaCava
  - ULTRIX Engineering Group - Bill Heffner
  - Secure Systems Group - Bill Strecker
  - Storage Systems Information Mgmt - Grant Saviers

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GOVERNMENT SYSTEMS GROUP  
SECURE PRODUCTS ENGINEERING

GOALS (cont.)

TEMPEST & Reduced-TEMPEST

- o Develop the mix of full-TEMPEST and Reduced-TEMPEST products necessary to support the worldwide demand.
  - Be guided by concrete, specific customer requirements and commitments.
- o Establish a stronger business focus, with emphasis on:
  - Solid understanding of the marketplace directions and requirements
  - Forecasts backed up by real demand from field
  - Solid product marketing and field support to achieve business forecasts
  - Regular reporting and analysis of actual business performance and projections (CERTS, Ships, GM%, PBT)
  - Responsibly manage Secure Products inventory (materials, WIP, Finished Goods)
- o Establish capability for "Zone" testing of Digital's commercial products and relationship with a major government agency for listing results.
- o Grow worldwide TEMPEST products CERTS.
- o Be the highest volume supplier of TEMPEST Terminals.
- o Strengthen ties with CSS Engineering on TEMPEST products.
  - Use CSS to complement GSG's TEMPEST standard products with custom and occasional pull-through products in the U.S.
  - Use CSS as GSG's agent to deliver finished, local-country, TEMPEST products in Canada, UK, Australia, and Germany.
- o Ensure that all groups in Digital involved with TEMPEST development, manufacturing, service, marketing, sales, and distribution are aware of and implement appropriate standards and controls.

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GOVERNMENT SYSTEMS GROUP  
SECURE PRODUCTS ENGINEERING

GOALS (cont.)

Compartmented Mode Workstation

- o Be recognized as the industry leader in providing a family of Government-approved Secure Workstations by FY91.
- o Integrate ULTRIX Kernel with secure applications, secure networking, secure hardware, performance evaluation to deliver secure workstation platforms.

Removable Drives

- o Continue to drive and somewhat subsidize corporate removable disk program.
- o Deliver DSSI & SDI-based products.

Fiber Optic/Encryption

- o Conduct requirements analysis and feasibility study for Government-unique encryption, leading to third-party relationship or buyout.
- o Identify and establish third-party or buyout relationships necessary to bridge the gap between Digital networking products and government requirements.

Customer Unique/Program Specific

- o Invest in special efforts to penetrate key accounts or programs.
  - Wang Interoperability for Dept. of State and others.
- o Be driven by needs specifically identified by account teams.
- o Be responsive to needs/opportunities to close FY90 business and to meet strategic account goals.

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 MAJOR ORGANIZATION: GOVERNMENT SYSTEMS GROUP

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
*** Group Code: GSG                      Group: GOVERNMENT SYSTEMS GROUP														
34004300	1	PD	MKO	NA	COMPLETE PRIOR YEAR'S PROJECTS	3	8912	8909	0.0	1.6	1.2	0.0		DAVID ANDERSON
34004400	1	PD	MKO	NA	RX-LK401 KEYBOARD	0	9006	9003	0.7	0.0	0.7	0.0		DICK MORENCY
34004500	1	PD	MKO	NA	RX-DELNI TERMINAL CONCENTRATOR	1	9004	9001	0.4	0.0	0.4	0.0		DAVID ANDERSON
34004600	1	PD	MKO	NA	RX-H4005 ETHERNET TAP	0	9010	9007	0.4	0.0	0.3	0.1		FRANK NOVAK
34004700	1	PD	MKO	NA	RX-VR320 MONITOR	PRE-0	9012	9009	1.0	0.0	0.6	0.4		DAVID ANDERSON
34004800	1	PD	YKO	NA	RX-PVAX2 WORKSTATION	PRE-0	9012	9009	0.5	0.0	0.2	0.3		FRANK NOVAK
34004900	1	PD	MKO	NA	RX-3MAX WORKSTATION	PRE-0	9012	9009	0.6	0.0	0.2	0.4		DAVID ANDERSON
34004B00	1	PD	SBP	NA	RF30 REMOVABLE DRIVE	3	8911	8908	0.1	0.0	0.0	0.0		LOUISE BRANDWEIN
34004C00	1	PD	MKO	NA	RF71 REMOVABLE DRIVE	3	8911	8908	0.6	0.5	0.3	0.0		TOM BEAUDET
34004D00	1	PD	MKO	NA	SA705 REMOVABLE RA70 ARRAY	3	8910	8906	0.6	0.0	0.6	0.0		TOM BEAUDET
34004E00	1	PD	BXB	NA	COMPARTMENT MODE WRKST (CMW)	1	9012	9009	7.2	2.5	1.5	1.0		TOM BEAUDET
34004F00	1	PD	BXB	NA	CMW - BASIC NETWORK INTEGRATIO	0	9012	9009	0.6	0.0	0.1	0.4		BILL ZIMMER
34004G00	1	PD	MKO	NA	RX-DISK PEDESTAL	3	9001	8911	0.9	0.0	0.5	0.4		BILL NAAS
34004H00	1	PD	MKO	NA	SCSI REMOVABLE DRIVE	0	9012	9009	0.6	0.0	0.0	0.6		DAVID ANDERSON
														LOUISE BRANDWEIN
														TOM BEAUDET
														TOM BEAUDET
Chart 1					In-House Funded Proposed Project Totals				14.2	4.6	6.6	3.6		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Proposed GOVERNMENT SYSTEMS GROUP				14.2	4.6	6.6	3.6		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental GOVERNMENT SYSTEMS GROUP				0.0	0.0	0.0	0.0		
Chart 1					Totals for GOVERNMENT SYSTEMS GROUP				14.2	4.6	6.6	3.6		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
34004I00	2	BPM	MKO	NA	PROD MKTG, MGMT, FIELD SUPPORT	NA	NA	NA	0.0	0.7	0.8	0.9		DOUG MACLEAN NA
34004J00	2	PS	MKO	NA	SUSTAINING ENGINEERING	NA	NA	NA	0.0	1.0	0.8	0.8		DAVID ANDERSON NA
34004K00	2	AD	MKO	NA	ADVANCED DEVELOPMENT	NA	NA	NA	0.0	1.3	0.2	0.3		PHIL BECKER NA
34004L00	2	PS	MKO	NA	TEMPEST POLICY & TOOLS	NA	NA	NA	1.0	0.0	0.0	1.0		PHIL BECKER NA
34004M00	2	PS	MKO	NA	RELAXED-TEMPEST TEST CMCL PROD	NA	NA	NA	2.0	0.0	0.3	0.3		JOHN GLEESON NA
34004N00	2	PS	MKO	NA	SPCL WANG INTEROPERABILITY	NA	NA	NA	0.3	0.0	0.1	0.2		JOHN GLEESON NA
34004O00	2	PS	MKO	NA	FIBER OPTICS	NA	NA	NA	0.5	0.0	0.1	0.2		JOHN GLEESON NA
34004P00	2	PS	MKO	NA	CUSTOMER-UNIQUE	NA	NA	NA	2.5	0.0	0.7	0.7		JOHN GLEESON NA
34004Q00	2	AR	BXB	NA	CMW - SEC WRKST NTRK INTERFAC	NA	NA	NA	1.6	0.0	0.3	0.6		BILL ZIMMER NA
34004R00	2	AR	BXB	NA	CMW - SECURE APPLICATIONS	NA	NA	NA	2.5	0.3	0.6	0.7		BILL ZIMMER NA
34004S00	2	AD	BXB	NA	CMW - SECURITY FEATURES	NA	NA	NA	0.2	0.0	0.2	0.0		BILL ZIMMER NA
34004T00	2	PS	BXB	NA	CMW - TRACK ULTRIX CHANGES	NA	NA	NA	2.0	0.3	0.4	0.4		BILL ZIMMER NA
34004U00	2	AD	MKO	NA	ENCRYPTION	NA	NA	NA	1.0	0.0	0.2	0.2		JOHN GLEESON NA
Chart	2	In-House Funded Proposed Project Totals							13.6	3.6	4.7	6.3		
Chart	2	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Proposed GOVERNMENT SYSTEMS GROUP							13.6	3.6	4.7	6.3		
Chart	2	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Incremental GOVERNMENT SYSTEMS GROUP							0.0	0.0	0.0	0.0		
Chart	2	Totals for GOVERNMENT SYSTEMS GROUP							13.6	3.6	4.7	6.3		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext 'nl Funder	Proj Owner/ Prod Mgr
									27.8	8.2	11.3	9.9		
In-House Funded Proposed Project Totals									27.8	8.2	11.3	9.9		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental GOVERNMENT SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Totals for GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		
In-House Funded Project Totals									27.8	8.2	11.3	9.9		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental GOVERNMENT SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Grand Totals for GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
*** Group Code: GSG                      Group: GOVERNMENT SYSTEMS GROUP													
34004300	1	PD	MKO NA	COMPLETE PRIOR YEAR'S PROJECTS	3	8912	8909	0.0	1.6	1.2	0.0		DAVID ANDERSON DICK MORENCY
34004400	1	PD	MKO NA	RX-LK401 KEYBOARD	0	9006	9003	0.7	0.0	0.7	0.0		DAVID ANDERSON FRANK NOVAK
[Relaxed]TEMPEST version of the commercial product.													
34004500	1	PD	MKO NA	RX-DELNI TERMINAL CONCENTRATOR	1	9004	9001	0.4	0.0	0.4	0.0		DAVID ANDERSON FRANK NOVAK
[Relaxed]TEMPEST version of the commercial product.													
34004600	1	PD	MKO NA	RX-H4005 ETHERNET TAP	0	9010	9007	0.4	0.0	0.3	0.1		DAVID ANDERSON FRANK NOVAK
[Relaxed]TEMPEST version of the commercial product.													
34004700	1	PD	MKO NA	RX-VR320 MONITOR	PRE-0	9012	9009	1.0	0.0	0.6	0.4		DAVID ANDERSON FRANK NOVAK
[Relaxed]TEMPEST version of the commercial product.													
34004800	1	PD	YKO NA	RX-PVAX2 WORKSTATION	PRE-0	9012	9009	0.5	0.0	0.2	0.3		DAVID ANDERSON LOUISE BRANDWEIN
[Relaxed]TEMPEST version of the commercial product.													
34004900	1	PD	MKO NA	RX-3MAX WORKSTATION	PRE-0	9012	9009	0.6	0.0	0.2	0.4		DAVID ANDERSON LOUISE BRANDWEIN
[Relaxed]TEMPEST version of the commercial product.													
34004B00	1	PD	SBP NA	RF30 REMOVABLE DRIVE	3	8911	8908	0.1	0.0	0.0	0.0		TOM BEAUDET TOM BEAUDET
34004C00	1	PD	MKO NA	RF71 REMOVABLE DRIVE	3	8911	8908	0.6	0.5	0.3	0.0		TOM BEAUDET TOM BEAUDET

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
34004D00	1	PD	MKO	NA	SA705 REMOVABLE RA70 ARRAY	3	8910	8906	0.6	0.0	0.6	0.0		TOM BEAUDET TOM BEAUDET
34004E00	1	PD	BXB	NA	COMPARTMENT MODE WRKST (CMW)	1	9012	9009	7.2	2.5	1.5	1.0		BILL ZIMMER BILL NAAS
Ultrix-based VAX & RISC Secure Workstation Family.														
34004F00	1	PD	BXB	NA	CMW - BASIC NETWORK INTEGRATIO	0	9012	9009	0.6	0.0	0.1	0.4		BILL ZIMMER BILL NAAS
Secure Workstations communicating via NFS.														
34004G00	1	PD	MKO	NA	RX-DISK PEDESTAL	3	9001	8911	0.9	0.0	0.5	0.4		DAVID ANDERSON LOUISE BRANDWEIN
[Relaxed]TEMPEST version of the commercial product.														
34004H00	1	PD	MKO	NA	SCSI REMOVABLE DRIVE	0	9012	9009	0.6	0.0	0.0	0.6		TOM BEAUDET TOM BEAUDET
Chart 1 In-House Funded Proposed Project Totals 14.2 4.6 6.6 3.6														
Chart 1 Externally Funded Proposed Project Totals 0.0 0.0 0.0 0.0														
Chart 1 Proposed GOVERNMENT SYSTEMS GROUP 14.2 4.6 6.6 3.6														
Chart 1 In-House Funded Incremental Project Totals 0.0 0.0 0.0 0.0														
Chart 1 Externally Funded Incremental Project Totals 0.0 0.0 0.0 0.0														
Chart 1 Incremental GOVERNMENT SYSTEMS GROUP 0.0 0.0 0.0 0.0														
Chart 1 Totals for GOVERNMENT SYSTEMS GROUP 14.2 4.6 6.6 3.6														
34004I00	2	BPM	MKO	NA	PROD MKTG, MGMT, FIELD SUPPORT	NA	NA	NA	0.0	0.7	0.8	0.9		DOUG MACLEAN NA
TEMPEST Product Marketing, Product Management, & Field Support.														
34004J00	2	PS	MKO	NA	SUSTAINING ENGINEERING	NA	NA	NA	0.0	1.0	0.8	0.8		DAVID ANDERSON NA

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
34004K00	2	AD	MKO	NA	ADVANCED DEVELOPMENT	NA	NA	NA	0.0	1.3	0.2	0.3		PHIL BECKER NA
General technology advancement & communication & early application to emerging products.														
34004L00	2	PS	MKO	NA	TEMPEST POLICY & TOOLS	NA	NA	NA	1.0	0.0	0.0	1.0		PHIL BECKER NA
Track & influence government electromagnetic security policy & develop novel approaches to address it.														
34004M00	2	PS	MKO	NA	RELAXED-TEMPEST TEST CMCL PROD	NA	NA	NA	2.0	0.0	0.3	0.3		JOHN GLEESON NA
Relaxed-TEMPEST tested Commercial products.														
34004N00	2	PS	MKO	NA	SPCL WANG INTEROPERABILITY	NA	NA	NA	0.3	0.0	0.1	0.2		JOHN GLEESON NA
Alliance to VAX connectivity.														
34004O00	2	PS	MKO	NA	FIBER OPTICS	NA	NA	NA	0.5	0.0	0.1	0.2		JOHN GLEESON NA
Third-party fiber Optic LAN Interconnect.														
34004P00	2	PS	MKO	NA	CUSTOMER-UNIQUE	NA	NA	NA	2.5	0.0	0.7	0.7		JOHN GLEESON NA
Government special projects.														
34004Q00	2	AR	BXB	NA	CMW - SEC WRKST NTRK INTERFAC	NA	NA	NA	1.6	0.0	0.3	0.6		BILL ZIMMER NA
Secure Workstation Network Interfaces.														
34004R00	2	AR	BXB	NA	CMW - SECURE APPLICATIONS	NA	NA	NA	2.5	0.3	0.6	0.7		BILL ZIMMER NA
Labeled Mail, Secure Database, Secure W.P.														
34004S00	2	AD	BXB	NA	CMW - SECURITY FEATURES	NA	NA	NA	0.2	0.0	0.2	0.0		BILL ZIMMER NA
Applicability of security features to VMS.														

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
34004T00	2	PS	BXB	NA	CMW - TRACK ULTRIX CHANGES	NA	NA	NA	2.0	0.3	0.4	0.4		BILL ZIMMER NA
Ratings & maintenance.														
34004U00	2	AD	MKO	NA	ENCRYPTION	NA	NA	NA	1.0	0.0	0.2	0.2		JOHN GLEESON NA
Government Grade Wide Area Network Encryption Feasibility.														

Chart 2	In-House Funded Proposed Project Totals	13.6	3.6	4.7	6.3
Chart 2	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 2	Proposed GOVERNMENT SYSTEMS GROUP	13.6	3.6	4.7	6.3
Chart 2	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Incremental GOVERNMENT SYSTEMS GROUP	0.0	0.0	0.0	0.0
Chart 2	Totals for GOVERNMENT SYSTEMS GROUP	13.6	3.6	4.7	6.3
In-House Funded Proposed Project Totals		27.8	8.2	11.3	9.9
Externally Funded Proposed Project Totals		0.0	0.0	0.0	0.0
Proposed GOVERNMENT SYSTEMS GROUP		27.8	8.2	11.3	9.9
In-House Funded Incremental Project Totals		0.0	0.0	0.0	0.0
Externally Funded Incremental Project Totals		0.0	0.0	0.0	0.0
Incremental GOVERNMENT SYSTEMS GROUP		0.0	0.0	0.0	0.0
Totals for GOVERNMENT SYSTEMS GROUP		27.8	8.2	11.3	9.9

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In-House Funded Project Totals									27.8	8.2	11.3	9.9		
Externally Funded Project Totals									0.0	0.0	0.0	0.0		
Proposed GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental GOVERNMENT SYSTEMS GROUP									0.0	0.0	0.0	0.0		
Grand Totals for GOVERNMENT SYSTEMS GROUP									27.8	8.2	11.3	9.9		

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DIGITAL EQUIPMENT CORPORATION  
BEIGE BOOK FY90 PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR  
Group: GOVERNMENT SYSTEMS GROUP

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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
34004300	PRIOR YRS PROJECTS	8909	8912	8912	DICK MORENCY
34004400	RX-LK401 KEYBOARD	9003	9006	9006	FRANK NOVAK
34004500	RX-DELNI TERM CONCEN	9001	9004	9004	FRANK NOVAK
34004600	RX-H4005 ETHERNET TA	9007	9010	9010	FRANK NOVAK
34004700	RX-VR320 MONITOR	9009	9012	9012	FRANK NOVAK
34004800	RX-PVAX2 WRKST	9009	9012	9012	LOUISE BRANDWEIN
34004900	RX-3MAX WRKST	9009	9012	9012	LOUISE BRANDWEIN
34004B00	RF30 REMOV. DRIVE	8908	8911	8911	TOM BEAUDET
34004C00	RF71 REMOV. DRIVE	8908	8911	8911	TOM BEAUDET
34004D00	SA705 REM RA70 ARRAY	8906	8910	8910	TOM BEAUDET
34004E00	COMPART MODE WRKST	9009	9012	9012	BILL NAAS
34004F00	CMW-BASIC NETWRK INT	9009	9012	9012	BILL NAAS
34004G00	RX-DISK PEDESTAL	8911	9001	9001	LOUISE BRANDWEIN
34004H00	SCSI REMOVABLE DRIVE	9009	9012	9012	TOM BEAUDET

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# SOFTWARE SERVICES ENGINEERING

FY90 Beige Book



CORPORATE SOFTWARE SERVICES ENGINEERING STRATEGY IS:

To build on the strengths of Digital's backbone network products and systems architecture by developing applications products, tools and methodologies for selected markets. The markets to be addressed are: Manufacturing, Office, Network Management, Security, Porting Tools and Services, Financial Systems, and Systems Performance Analysis/Capacity Planning. Our efforts are designed to support and compliment the goals and direction of Professional Services and the EIS organization. SWS/E, with CSS, is evolving to become the engineering and support arm of EIS. This integration of purpose and direction position us well to be integral to Digital's success in delivering Enterprise-wide systems integration.

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*** Group Code: ATS                      Group: ADVANCED TECHNOLOGY & SERVICES													
33401200	1	PD	GSF NA	VMS SECURITY ENHANCEMENT SERV	2	8912	8911	3.0	0.7	0.9	0.9		MILLER, WALT FRENCH, ROGER
33401D00	1	PD	GSF NA	VAX SOFTWARE PERFORMANCE MONIT	2	9002	8908	3.7	0.7	0.7	0.7		COBB, BILL SMITH, JERRY
33401E00	1	PD	GSF NA	DECCP	2	9001	8908	1.6	0.7	0.7	0.8		COBB, BILL TAYLOR, GAIL
33401B00	1	PD	GSF NA	SECURITY TOOL KIT	0	8910	8909	0.3	0.0	0.1	0.1		MILLER, WALT FRENCH, ROGER
Chart 1				In-House Funded Proposed Project Totals				8.6	2.1	2.4	2.5		
Chart 1				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Proposed ADVANCED TECHNOLOGY & SERVICES				8.6	2.1	2.4	2.5		
Chart 1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1				Incremental ADVANCED TECHNOLOGY & SERVICES				0.0	0.0	0.0	0.0		
Chart 1				Totals for ADVANCED TECHNOLOGY & SERVICES				8.6	2.1	2.4	2.5		
33401G00	2	PS	GSF NA	PERFORMANCE SERVICES	NA	NA	NA	0.7	0.3	0.4	0.1		MILLER, WALT NA
33401H00	2	PS	GSF NA	CAPACITY PLANNING TECH CENTER	NA	NA	NA	0.0	0.0	0.2	0.0		MILLER, WALT NA
Chart 2				In-House Funded Proposed Project Totals				0.7	0.3	0.6	0.1		
Chart 2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Proposed ADVANCED TECHNOLOGY & SERVICES				0.7	0.3	0.6	0.1		
Chart 2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Incremental ADVANCED TECHNOLOGY & SERVICES				0.0	0.0	0.0	0.0		
Chart 2				Totals for ADVANCED TECHNOLOGY & SERVICES				0.7	0.3	0.6	0.1		

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In-House Funded Proposed Project Totals									9.3	2.4	3.0	2.6		
Externally Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Proposed ADVANCED TECHNOLOGY & SERVICES									9.3	2.4	3.0	2.6		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental ADVANCED TECHNOLOGY & SERVICES									0.0	0.0	0.0	0.0		
Totals for ADVANCED TECHNOLOGY & SERVICES									9.3	2.4	3.0	2.6		

\*\*\* Group Code: ME                      Group: MANUFACTURING ENGINEERING

33101200	1	PD	UCS	NA	VSAP	1	9006	9005	0.0	0.7	0.3	0.0	CMPD	ERDEN, BO JONES, CRAIG
33101300	1	PD	EVT	NA	DISTRIBUTED NUMERICAL CONTROL	4	8911	8910	7.5	0.4	0.5	0.5		GANSSE, KLAUS MCCREADY, MIKE
33101800	1	PD	BMF	NA	BASESTAR	1	9009	9007	0.0	4.7	5.9	5.3		ERDEN, BO MAHONEY, LOUIS
Chart	1	In-House Funded Proposed Project Totals							7.5	5.1	6.4	5.8		
Chart	1	Externally Funded Proposed Project Totals							0.0	0.7	0.3	0.0		
Chart	1	Proposed MANUFACTURING ENGINEERING							7.5	5.8	6.7	5.8		
Chart	1	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Incremental MANUFACTURING ENGINEERING							0.0	0.0	0.0	0.0		
Chart	1	Totals for MANUFACTURING ENGINEERING							7.5	5.8	6.7	5.8		
33101500	2	PM	BIO	NA	PMS	NA	NA	NA	0.0	0.7	4.5	0.0		BARDELL, D NA
33101700	2	PS	BMF	NA	BASEWAY MIGRATION	NA	NA	NA	0.0	0.7	0.3	0.0	CMPD	STARTSMAN, TERRY NA

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Chart 2					In-House Funded Proposed Project Totals				0.0	0.7	4.5	0.0		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.7	0.3	0.0		
Chart 2					Proposed MANUFACTURING ENGINEERING				0.0	1.4	4.8	0.0		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental MANUFACTURING ENGINEERING				0.0	0.0	0.0	0.0		
Chart 2					Totals for MANUFACTURING ENGINEERING				0.0	1.4	4.8	0.0		
									7.5	5.8	10.9	5.8		
In-House Funded Proposed Project Totals									7.5	5.8	10.9	5.8		
Externally Funded Proposed Project Totals									0.0	1.4	0.6	0.0		
Proposed MANUFACTURING ENGINEERING									7.5	7.2	11.5	5.8		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental MANUFACTURING ENGINEERING									0.0	0.0	0.0	0.0		
Totals for MANUFACTURING ENGINEERING									7.5	7.2	11.5	5.8		

\*\*\* Group Code: NETACE      Group: NETWORK ACES

33201100	1	PD	GSF	NA	NETCONSULT WORKBENCH	1	9008	9008	1.3	0.4	0.4	0.5		BECKLEY, NANCY GAROFOLI, PAT
33201300	1	PD	GSF	NA	LTM-REPORTS	3	8910	8909	0.3	0.2	0.0	0.0		KORNS, DAVE GAROFOLI, PAT
33201600	1	PD	GSF	NA	ACT NETWORK MANAGEMENT DEMO	3	8911	8910	0.0	0.0	0.1	0.0	NAC	BECKLEY, NANCY GAROFOLI, PAT

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
	Chart 1			In-House Funded Proposed Project Totals				1.6	0.6	0.4	0.5		
	Chart 1			Externally Funded Proposed Project Totals				0.0	0.0	0.1	0.0		
	Chart 1			Proposed NETWORK ACES				1.6	0.6	0.5	0.5		
	Chart 1			In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
	Chart 1			Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
	Chart 1			Incremental NETWORK ACES				0.0	0.0	0.0	0.0		
	Chart 1			Totals for NETWORK ACES				1.6	0.6	0.5	0.5		
33201C00	2	PM	GSF	NA	DECNET/OSI PHASE V SERVICES	NA	NA	NA	0.2	0.0	0.1	0.1	LANOUE, DON NA
	Chart 2			In-House Funded Proposed Project Totals				0.2	0.0	0.1	0.1		
	Chart 2			Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
	Chart 2			Proposed NETWORK ACES				0.2	0.0	0.1	0.1		
	Chart 2			In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
	Chart 2			Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
	Chart 2			Incremental NETWORK ACES				0.0	0.0	0.0	0.0		
	Chart 2			Totals for NETWORK ACES				0.2	0.0	0.1	0.1		
				In-House Funded Proposed Project Totals				1.8	0.6	0.5	0.6		
				Externally Funded Proposed Project Totals				0.0	0.0	0.1	0.0		
				Proposed NETWORK ACES				1.8	0.6	0.6	0.6		
				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
				Incremental NETWORK ACES				0.0	0.0	0.0	0.0		
				Totals for NETWORK ACES				1.8	0.6	0.6	0.6		

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*** Group Code: OP                      Group: OFFICE PUBLISHING														
33301S00	1	PD	OPA	NA	SYSTEM FOR SALES & MARKETING	4	8905	8904	0.0	0.4	0.2	0.2	BOIS	BOOTH, JANE
33301T00	1	PD	OPA	NA	A1 & INTERLEAF INTEGRATION SOL	4	8905	8905	0.0	0.1	0.0	0.0	BOIS	BAILEY-KNIGHT, L.
33301U00	1	PD	OPA	NA	A1 DESKTOP DECWINDOWS	2	9006	9005	0.0	0.1	0.7	0.2	BOIS	BOOTH, JANE
33301V00	1	PD	OPA	NA	SALES & DISTRIBUTION SYSTEMS	1	9004	9002	0.0	0.0	0.6	0.5	BOIS	CAMP, TONY
33301200	1	PD	CEO	NA	SYSTEM FOR BUSINESS OPERATIONS	4	8910	8905	0.0	0.0	0.0	0.0	BOIS	BOOTH, JANE
														BAILEY-KNIGHT, L.
														ROSA, PAT
														PHILLIPS, L
Chart	1				In-House Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Proposed Project Totals				0.0	0.6	1.5	0.9		
Chart	1				Proposed OFFICE PUBLISHING				0.0	0.6	1.5	0.9		
Chart	1				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	1				Incremental OFFICE PUBLISHING				0.0	0.0	0.0	0.0		
Chart	1				Totals for OFFICE PUBLISHING				0.0	0.6	1.5	0.9		
In-House Funded Proposed Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Proposed Project Totals									0.0	0.6	1.5	0.9		
Proposed OFFICE PUBLISHING									0.0	0.6	1.5	0.9		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental OFFICE PUBLISHING									0.0	0.0	0.0	0.0		
Totals for OFFICE PUBLISHING									0.0	0.6	1.5	0.9		

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*** Group Code: SSP                      Group: STRATEGIC SOFTWARE PRODUCTS														
33501100	1	PD	GSF	NA	VAX WORKSTATION SOFTWARE	4	9005	9005	0.0	1.0	0.9	0.9		FRIEDRICHS, JEFF VILLANDRY LARRY
33501300	1	PD	GSF	NA	INTERACTIVE APPLICATION SYSTEM	4	9004	9004	0.0	0.6	0.6	0.6	MSPG	AUPPERLEE, BILL STUDIVAN, LAURIE
Chart	1	In-House Funded Proposed Project Totals							0.0	1.0	0.9	0.9		
Chart	1	Externally Funded Proposed Project Totals							0.0	0.6	0.6	0.6		
Chart	1	Proposed STRATEGIC SOFTWARE PRODUCTS							0.0	1.6	1.5	1.5		
Chart	1	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Incremental STRATEGIC SOFTWARE PRODUCTS							0.0	0.0	0.0	0.0		
Chart	1	Totals for STRATEGIC SOFTWARE PRODUCTS							0.0	1.6	1.5	1.5		
33501200	2	PS	GSF	NA	VWS MIGRATION	NA	NA	NA	0.0	1.0	0.9	0.9	SWS/SSG	JEGLINSKI, SALLY NA
33501500	2	PS	GSF	NA	DECALC	NA	NA	NA	0.0	0.0	0.6	0.0	MSPG	FRIEDRICHS, JEFF NA
Chart	2	In-House Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Externally Funded Proposed Project Totals							0.0	1.0	1.5	0.9		
Chart	2	Proposed STRATEGIC SOFTWARE PRODUCTS							0.0	1.0	1.5	0.9		
Chart	2	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	2	Incremental STRATEGIC SOFTWARE PRODUCTS							0.0	0.0	0.0	0.0		
Chart	2	Totals for STRATEGIC SOFTWARE PRODUCTS							0.0	1.0	1.5	0.9		

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In-House Funded Proposed Project Totals									0.0	1.0	0.9	0.9		
Externally Funded Proposed Project Totals									0.0	1.6	2.1	1.5		
Proposed STRATEGIC SOFTWARE PRODUCTS									0.0	2.6	3.0	2.4		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental STRATEGIC SOFTWARE PRODUCTS									0.0	0.0	0.0	0.0		
Totals for STRATEGIC SOFTWARE PRODUCTS									0.0	2.6	3.0	2.4		

\*\*\* Group Code: SWSETP      Group: TRANSACTION PROCESSING

33001B00	1	PD	DSE	NA	3D SOFTWARE BUS	0	9007	9006	0.0	0.0	0.6	0.2		BARBARA PRINCE BARBARA PRINCE
Chart	1	In-House Funded Proposed Project Totals							0.0	0.0	0.6	0.2		
Chart	1	Externally Funded Proposed Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Proposed TRANSACTION PROCESSING							0.0	0.0	0.6	0.2		
Chart	1	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0		
Chart	1	Incremental TRANSACTION PROCESSING							0.0	0.0	0.0	0.0		
Chart	1	Totals for TRANSACTION PROCESSING							0.0	0.0	0.6	0.2		

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In-House Funded Proposed Project Totals								0.0	0.0	0.6	0.2		
Externally Funded Proposed Project Totals								0.0	0.0	0.0	0.0		
Proposed TRANSACTION PROCESSING								0.0	0.0	0.6	0.2		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental TRANSACTION PROCESSING								0.0	0.0	0.0	0.0		
Totals for TRANSACTION PROCESSING								0.0	0.0	0.6	0.2		
In-House Funded Project Totals								18.6	9.8	15.9	10.1		
Externally Funded Project Totals								0.0	3.6	4.3	2.4		
Proposed SOFTWARE SERVICES ENGINEERING								18.6	13.4	20.2	12.5		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental SOFTWARE SERVICES ENGINEERING								0.0	0.0	0.0	0.0		
Grand Totals for SOFTWARE SERVICES ENGINEERING								18.6	13.4	20.2	12.5		

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\*\*\* Group Code: ATS                      Group: ADVANCED TECHNOLOGY & SERVICES

33401200	1	PD	GSF	NA	VMS SECURITY ENHANCEMENT SERV	2	8912	8911	3.0	0.7	0.9	0.9	
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MILLER, WALT  
 FRENCH, ROGER

The VMS Security Enhancement Service consists of both software that adds new security features to VAX/VMS as well as advisory services to assist customers in employing these features. VMS SES is sold as Packaged Applications Software. The software drives the latent security features of the reference monitor in VMS to provide both Mandatory Access Control and enhanced auditing of security events. It also provides a secure Print Symbiont. The advisory services provide an initial security review, the mapping of the customers security policy into SEVMS (VMS SES software), installation, and both user and manager orientation.

In FY90 we will build VMS SES V5.2 and V5.3 to include the B1 required features. We will also begin the FT/FT effort. This is a new and riskier engineering method of building an SEVMS Field Test on a VMS Field Test, a requirement for meeting the NCSC schedule for a combined C2/B1, VMS/SEVMS certification.

Further engineering will build options into SEVMS as dictated by the MACE tools and European Security Model projects.

33401D00	1	PD	GSF	NA	VAX SOFTWARE PERFORMANCE MONIT	2	9002	8908	3.7	0.7	0.7	0.7	
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COBB, BILL  
 SMITH, JERRY

The VAX SPM V3.4 development will be a maintenance release of the product. The release will contain bug fixes and documentation changes and updates. This release will also contain new hardware support.

33401E00	1	PD	GSF	NA	DECPC	2	9001	8908	1.6	0.7	0.7	0.8	
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COBB, BILL  
 TAYLOR, GAIL

DECcp is a capacity planning and management software product for VAX and VAXcluster systems. DECcp collects, reduces, characterizes, validates, and reports performance and workload data useful in performing capacity planning studies. DECcp models and sizes VAX and VAXcluster systems. DECcp is useful in predicting system performance based on projected workload, in optimizing workloads across CPUs, in sizing of system configurations, and in saturation analysis.

33401B00	1	PD	GSF	NA	SECURITY TOOL KIT	0	8910	8909	0.3	0.0	0.1	0.1	
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MILLER, WALT  
 FRENCH, ROGER

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The Security Review Delivery Toolkit (SRDT) is an advanced development project designed to automate the labor intensive aspects of delivering VMS SRS, the security Review Service. The initial product, SRDT-D, will allow for the doubling of delivery (and the doubling of revenue) of VMS SRS with existing resources. Extensions of SRDT, SRDT-D and SRDT-E, will make further inroads into the effort while expanding the scope the SRS, keeping the service competitive and keeping Digital the service leader.

Chart	1	In-House Funded	Proposed Project Totals											
Chart	1	Externally Funded	Proposed Project Totals							8.6	2.1	2.4	2.5	
										0.0	0.0	0.0	0.0	
										8.6	2.1	2.4	2.5	
Chart	1	Proposed ADVANCED TECHNOLOGY & SERVICES												
Chart	1	In-House Funded	Incremental Project Totals							0.0	0.0	0.0	0.0	
Chart	1	Externally Funded	Incremental Project Totals							0.0	0.0	0.0	0.0	
										0.0	0.0	0.0	0.0	
Chart	1	Incremental ADVANCED TECHNOLOGY & SERVICES												
Chart	1	Totals for ADVANCED TECHNOLOGY & SERVICES												
										8.6	2.1	2.4	2.5	

33401G00	2	PS	GSF	NA	PERFORMANCE SERVICES	NA	NA	NA							MILLER, WALT NA
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In support of SWS, APTS engineering supports the Technology (software tools, training, and support) used in the delivery of the VAX/VMS Performance and Capacity Services, (VPCS) available in the U.S. and Canada, the VAX Optimization and Analysis Services (VOA) available in Europe, and the the VAX Performance Analysis Services (VPA) available in the United Kingdom (using the VOA kit). The service kits contain delivery guides, worksheets, the Software Performance Monitor (VAX SPM) saveset, and users guide.

33401H00	2	PS	GSF	NA	CAPACITY PLANNING TECH CENTER	NA	NA	NA							MILLER, WALT NA
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The need for more trained Capacity Planning specialists in the field has required the SWS/E ATPS group to increase its ability to provide technical support and training to SWS specialists.

The Capacity Planning Technical Center is the focal point for the development and enhancement of Digital's Capacity Planning Methodology.

The Center will support Capacity Planning studies performed by SWS specialists and undertake some studies for customers involving sizing and prediction of performance of VAX and VAXcluster systems.

The center will be the repository for a database of workloads used in some customer studies and will provide startup and technology transfer capabilities to Specialists in the form of on the job (mentor) training.

Chart 2	In-House Funded Proposed Project Totals	0.7	0.3	0.6	0.1
Chart 2	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 2	Proposed ADVANCED TECHNOLOGY & SERVICES	0.7	0.3	0.6	0.1
Chart 2	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 2	Incremental ADVANCED TECHNOLOGY & SERVICES	0.0	0.0	0.0	0.0
Chart 2	Totals for ADVANCED TECHNOLOGY & SERVICES	0.7	0.3	0.6	0.1
	In-House Funded Proposed Project Totals	9.3	2.4	3.0	2.6
	Externally Funded Proposed Project Totals	0.0	0.0	0.0	0.0
	Proposed ADVANCED TECHNOLOGY & SERVICES	9.3	2.4	3.0	2.6
	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
	Incremental ADVANCED TECHNOLOGY & SERVICES	0.0	0.0	0.0	0.0
	Totals for ADVANCED TECHNOLOGY & SERVICES	9.3	2.4	3.0	2.6

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\*\*\* Group Code: ME                      Group: MANUFACTURING ENGINEERING

33101200	1	PD	UCS	NA	VSAP	1	9006	9005	0.0	0.7	0.3	0.0	CMPD	ERDEN, BO JONES, CRAIG
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VAX Semiconductor Automation Platform - VSAP is a system to build/integrate automation applications using semiconductor equipment which implements the SECS protocol.

33101300	1	PD	EVT	NA	DISTRIBUTED NUMERICAL CONTROL	4	8911	8910	7.5	0.4	0.5	0.5		GANSSE, KLAUS MCCREADY, MIKE
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Digital's Direct Numerical Control (DNC V2.0) is a Packaged Application Software Solution (PASS) offering:

- The Capability to integrate VAX computers with many foreign vendor NC (Numerical Control) machine tools and any CAD system.
- a library system for the NC programs used on the NC machine tools.

V2.0 provides additional functionality:

- Relational library (part -programs and set-up, tool-files, graphic files)
- Device server for multi-node systems
- BASEstar-like User Interface.

33101800	1	PD	BMF	NA	BASESTAR	1	9009	9007	0.0	4.7	5.9	5.3		ERDEN, BO MAHONEY, LOUIS
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The BASEstar program is a collection of Packaged Applications Software Solution (PASS) and Solution Tool which facilitate the development, integration, and management of distributed manufacturing applications.

BASEstar Kernel provides tools and application components which facilitate the integration of distributed manufacturing solutions. Services are provided for the application developer that serve as a common mechanism for messaging, point management, event logging, session control and user interface.

Device Connect Management (DCM) is the device access and control module for the BASEstar system. It links a variety of shop-floor devices with VAX processor(s) and with BASEstar Kernel's data management.

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Chart 1					In-House Funded Proposed Project Totals				7.5	5.1	6.4	5.8		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.7	0.3	0.0		
Chart 1					Proposed MANUFACTURING ENGINEERING				7.5	5.8	6.7	5.8		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental MANUFACTURING ENGINEERING				0.0	0.0	0.0	0.0		
Chart 1					Totals for MANUFACTURING ENGINEERING				7.5	5.8	6.7	5.8		

33101500 2 PM BIO NA PMS

NA NA NA

0.0 0.7 4.5 0.0

BARDELL, D  
 NA

PMS is Packaged Application Software Solution dedicated to the process industry. It provides an application platform to set-up/maintain common reference data, to communicate from application to application and to the shop floor. Application packages for material management, production planning and scheduling, quality information management, production management, plant data collection and factory cost control.

33101700 2 PS BMF NA BASEWAY MIGRATION

NA NA NA

0.0 0.7 0.3 0.0

CMPD

STARTSMAN, TERRY  
 NA

This software has been retired as a product at V1.1. Version 1.2 is released to a limited customer base through the ASSETS library. All BASEWAY accounts are to be migrated to BASEstar by FY91.

Chart 2					In-House Funded Proposed Project Totals				0.0	0.7	4.5	0.0		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.7	0.3	0.0		
Chart 2					Proposed MANUFACTURING ENGINEERING				0.0	1.4	4.8	0.0		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental MANUFACTURING ENGINEERING				0.0	0.0	0.0	0.0		
Chart 2					Totals for MANUFACTURING ENGINEERING				0.0	1.4	4.8	0.0		

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In-House Funded Proposed Project Totals									7.5	5.8	10.9	5.8		
Externally Funded Proposed Project Totals									0.0	1.4	0.6	0.0		
Proposed MANUFACTURING ENGINEERING									7.5	7.2	11.5	5.8		
In-House Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals									0.0	0.0	0.0	0.0		
Incremental MANUFACTURING ENGINEERING									0.0	0.0	0.0	0.0		
Totals for MANUFACTURING ENGINEERING									7.5	7.2	11.5	5.8		

\*\*\* Group Code: NETACE      Group: NETWORK ACES

33201100	1	PD	GSF	NA	NETCONSULT WORKBENCH	1	9008	9008	1.3	0.4	0.4	0.5		BECKLEY, NANCY GAROFOLI, PAT
Network design application providing graphic user interface and network database. Functional enhancements include modeling of DECnet Phase V networks and SNA gateway connections.														
33201300	1	PD	GSF	NA	LTM-REPORTS	3	8910	8909	0.3	0.2	0.0	0.0		KORNS, DAVE GAROFOLI, PAT
Upgrade to V1.0 to improve existing graphics, adding pie charts and the ability to report on known protocol-types, sources and multicast destinations.														
33201600	1	PD	GSF	NA	ACT NETWORK MANAGEMENT DEMO	3	8911	8910	0.0	0.0	0.1	0.0	NAC	BECKLEY, NANCY GAROFOLI, PAT
Follow-on upgrade release to V1.0 ACT Demo Tool. This version adds the ability to run slides and tools in multiple windows in a DECwindow environment in addition to the VT340 environment; adds ability to operate multiple live-tools simultaneously; expands the number of live-tools supported to run under the demo environment.														

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Chart 1					In-House Funded Proposed Project Totals				1.6	0.6	0.4	0.5		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.1	0.0		
Chart 1					Proposed NETWORK ACES				1.6	0.6	0.5	0.5		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental NETWORK ACES				0.0	0.0	0.0	0.0		
Chart 1					Totals for NETWORK ACES				1.6	0.6	0.5	0.5		
33201C00	2	PM	GSF	NA	DECNET/OSI PHASE V SERVICES	NA	NA	NA	0.2	0.0	0.1	0.1		LANOUE, DON NA

This project will analyze OSI/Phase V complexities from a technical view point; develop an understanding of the significant impacts on existing customers; identify new service opportunities afforded by DECnet/OSI environment; develop a proposal which recommends appropriate service delivery strategies, packaging and service delivery materials and service and tool engineering projects; support Solutions Roll-out process.

Chart 2					In-House Funded Proposed Project Totals				0.2	0.0	0.1	0.1		
Chart 2					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Proposed NETWORK ACES				0.2	0.0	0.1	0.1		
Chart 2					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2					Incremental NETWORK ACES				0.0	0.0	0.0	0.0		
Chart 2					Totals for NETWORK ACES				0.2	0.0	0.1	0.1		

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In-House Funded Proposed Project Totals								1.8	0.6	0.5	0.6		
Externally Funded Proposed Project Totals								0.0	0.0	0.1	0.0		
Proposed NETWORK ACES								1.8	0.6	0.6	0.6		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental NETWORK ACES								0.0	0.0	0.0	0.0		
Totals for NETWORK ACES								1.8	0.6	0.6	0.6		

\*\*\* Group Code: OP                      Group: OFFICE PUBLISHING

33301S00 1 PD OPA NA SYSTEM FOR SALES & MARKETING 4 8905 8904 0.0 0.4 0.2 0.2 BOIS BOOTH, JANE BAILEY-KNIGHT, L.

ALL-IN-1 Systems for Sales and Marketing, V1.2 based on ALL-IN-1 and using ALL-IN-1s development environment, SSM includes modules for tracking, reporting, graphing leads, accounts, contacts, opportunities, sales calls, expenses, labor and personnel.

33301T00 1 PD OPA NA A1 & INTERLEAF INTEGRATION SOL 4 8905 8905 0.0 0.1 0.0 0.0 BOIS BOOTH, JANE PHILLIPS, L.

ALL-IN-1 and Interleaf Integration Solutions V1.0 provides ALL-IN-1 users to interface to the Interleaf Publishing Services & allows Interleaf Users to access ALL-IN-1 File Cabinet and Electronic Mail Services.

33301U00 1 PD OPA NA A1 DESKTOP DECWINDOWS 2 9006 9005 0.0 0.1 0.7 0.2 BOIS BOOTH, JANE CAMP, TONY

ALL-IN-1 Desktop Services for VMS DECwindows V1.0 is a product to provide initial ALL-IN-1 Client for DECwindows. Functions will include capability to use window/mouse technology in the ALL-IN-1 environment.

33301V00 1 PD OPA NA SALES & DISTRIBUTION SYSTEMS 1 9004 9002 0.0 0.0 0.6 0.5 BOIS BOOTH, JANE BAILEY-KNIGHT, L.

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Sales and Distribution Systems Software Tools is a program of various software and services deliverables targeted at distribution, sales, marketing and services market segments. Potential tools include: on-line presentation system, proposal system, sales communication system and management worksystem.

33301200	1	PD	CEO	NA	SYSTEM FOR BUSINESS OPERATIONS	4	8910	8905	0.0	0.0	0.0	0.0	BOIS	ROSA, PAT PHILLIPS, L
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The ALL-IN-1 System for Business Operations is an application to aid in the forecasting, planning, and budgeting process throughout an organization. SBO V1.3 is a maintenance release specially designed to be compatible with ALL-IN-1 V2.3, which is a prerequisite software.

Chart 1	In-House Funded Proposed Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Proposed Project Totals	0.0	0.6	1.5	0.9
Chart 1	Proposed OFFICE PUBLISHING	0.0	0.6	1.5	0.9
Chart 1	In-House Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Externally Funded Incremental Project Totals	0.0	0.0	0.0	0.0
Chart 1	Incremental OFFICE PUBLISHING	0.0	0.0	0.0	0.0
Chart 1	Totals for OFFICE PUBLISHING	0.0	0.6	1.5	0.9
In-House Funded Proposed Project Totals		0.0	0.0	0.0	0.0
Externally Funded Proposed Project Totals		0.0	0.6	1.5	0.9
Proposed OFFICE PUBLISHING		0.0	0.6	1.5	0.9
In-House Funded Incremental Project Totals		0.0	0.0	0.0	0.0
Externally Funded Incremental Project Totals		0.0	0.0	0.0	0.0
Incremental OFFICE PUBLISHING		0.0	0.0	0.0	0.0
Totals for OFFICE PUBLISHING		0.0	0.6	1.5	0.9

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*** Group Code: SSP                      Group: STRATEGIC SOFTWARE PRODUCTS															
33501100	1	PD	GSF	NA	VAX WORKSTATION SOFTWARE	4	9005	9005	0.0	1.0	0.9	0.9		FRIEDRICHS, JEFF VILLANDRY LARRY	
Graphical and programming interface to VWS for workstation hardware.															
33501300	1	PD	GSF	NA	INTERACTIVE APPLICATION SYSTEM	4	9004	9004	0.0	0.6	0.6	0.6	MSPG	AUPPERLEE, BILL STUDIVAN, LAURIE	
PDP-11 Operating System															
Chart	1	In-House Funded Proposed Project Totals							0.0	1.0	0.9	0.9			
Chart	1	Externally Funded Proposed Project Totals							0.0	0.6	0.6	0.6			
Chart	1	Proposed STRATEGIC SOFTWARE PRODUCTS							0.0	1.6	1.5	1.5			
Chart	1	In-House Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	1	Externally Funded Incremental Project Totals							0.0	0.0	0.0	0.0			
Chart	1	Incremental STRATEGIC SOFTWARE PRODUCTS							0.0	0.0	0.0	0.0			
Chart	1	Totals for STRATEGIC SOFTWARE PRODUCTS							0.0	1.6	1.5	1.5			
33501200	2	PS	GSF	NA	VWS MIGRATION	NA	NA	NA	0.0	1.0	0.9	0.9	SWS/SSG	JEGLINSKI, SALLY NA	
Tools for migration to DECwindows environment															
33501500	2	PS	GSF	NA	DECALC	NA	NA	NA	0.0	0.0	0.6	0.0	MSPG	FRIEDRICHS, JEFF NA	
DECalc V3.1 is a VMS based character cell terminal spreadsheet application.															

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Chart	2				In-House Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Externally Funded Proposed Project Totals				0.0	1.0	1.5	0.9		
Chart	2				Proposed STRATEGIC SOFTWARE PRODUCTS				0.0	1.0	1.5	0.9		
Chart	2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart	2				Incremental STRATEGIC SOFTWARE PRODUCTS				0.0	0.0	0.0	0.0		
Chart	2				Totals for STRATEGIC SOFTWARE PRODUCTS				0.0	1.0	1.5	0.9		
									0.0	1.0	0.9	0.9		
									0.0	1.6	2.1	1.5		
									0.0	2.6	3.0	2.4		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	2.6	3.0	2.4		

\*\*\* Group Code: SWSETP      Group: TRANSACTION PROCESSING

33001B00 1 PD DSE NA 3D SOFTWARE BUS      0      9007 9006      0.0      0.0      0.6      0.2

BARBARA PRINCE  
 BARBARA PRINCE

Internationalization of code, enhanced bus management services, PC version or adapter, UN\*X version or adapter.

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Chart 1					In-House Funded Proposed Project Totals				0.0	0.0	0.6	0.2		
Chart 1					Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Proposed TRANSACTION PROCESSING				0.0	0.0	0.6	0.2		
Chart 1					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 1					Incremental TRANSACTION PROCESSING				0.0	0.0	0.0	0.0		
Chart 1					Totals for TRANSACTION PROCESSING				0.0	0.0	0.6	0.2		
									0.0	0.0	0.6	0.2		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.6	0.2		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.6	0.2		
									18.6	9.8	15.9	10.1		
									0.0	3.6	4.3	2.4		
									18.6	13.4	20.2	12.5		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									0.0	0.0	0.0	0.0		
									18.6	13.4	20.2	12.5		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90 PRODUCT DELIVERABLE/ANNOUNCEMENT CALENDAR  
 Major Organization: SOFTWARE SERVICES ENGINEERING

7-Nov-1989  
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PROJECT ID	PRODUCT NAME	ANNC DATE	FRS DATE	PHASE 1 FRS	PRODUCT MANAGER
33101200	VSAP	9005	9006	9006	JONES, CRAIG
33101300	DNC	8910	8911	8911	MCCREADY, MIKE
33101800	BASESTAR	9007	9009	9009	MAHONEY, LOUIS
33201100	NETCONSULT WORKBENCH	9008	9008	9008	GAROFOLI, PAT
33201300	LTM-REPORTS	8909	8910	8909	GAROFOLI, PAT
33201500	DECMCC-REPORTS	8909	8912	8909	GAROFOLI, PAT
33201600	ACT NETWORK MGMT DEMO	8910	8911	8910	GAROFOLI, PAT
33301F00	SHARED FILE CAB PROT	8906	8906	8906	PHILLIPS, L.
33301S00	SYSTEM /SALES & MKT	8904	8905	8904	BAILEY-KNIGHT, L.
33301T00	A1 & INTERLEAF	8905	8905	8905	PHILLIPS, L.
33301U00	A1 DESKTOP DECWINDOW	9005	9006	9005	CAMP, TONY
33301V00	SALES & DISTRIBUTION	9002	9004	9002	BAILEY-KNIGHT, L.
33401200	VMS SES	8911	8912	8912	FRENCH, ROGER
33401D00	VAX SPM	8908	9002	9002	SMITH, JERRY
33401E00	DECCP	8908	9001	9001	TAYLOR, GAIL
33501100	VWS	9005	9005	9005	VILLANDRY LARRY
33501300	IAS	9004	9004	9004	STUDIVAN, LAURIE
33001B00	3D	9006	9007	9007	BARBARA PRINCE
33301200	A1 SBO	8905	8910	8905	PHILLIPS, L
33401B00	SRDT	8909	8910	8910	FRENCH, ROGER

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# Corporate Research FY90 Beige Book

## Mission

Provide the research, technical leadership, and the technical foundations necessary for the development of leadership products for Digital.

### LEAD in Research Critical to Digital

- DO applied research in high leverage, high return, but often high risk areas that will be the foundation for leadership products in five to ten years.
- DESIGN, build and use computer systems five to ten years before they become commonplace.
- PROMOTE, sponsor and fund strategic technology opportunities.
- SPONSOR, via universities, the basic, leading edge research that is of strategic importance to Digital.

### INTEGRATE and TRANSFER Technology Across Digital

- Effectively INFLUENCE the decisions about future products and technologies.
- TRANSFER ideas, research prototypes and tools to development groups.
- COORDINATE research and advanced development across engineering and the corporation.

### CULTIVATE Technical Excellence Within Digital

- PROMOTE technical excellence to establish Digital as an innovator and technical leader to our customers.
- STRENGTHEN the technical career ladder and help ensure that we have the needed range and depth of technical skills for future research and development.
- DEVELOP technical experience in areas new to Digital or requiring unusual expertise.

## Strategy

### Investment Strategy

CRA is dedicated to research, engineering and analysis that will strengthen Digital's base of leadership technologies required to develop successful information processing systems. Initial ideas for research problems come from CRA researchers who have exposure and interaction with Digital's engineering organization and the worldwide computer science community. CRA ensures that these research topics are of strategic importance to Digital by communicating with a wide range of Digital groups including engineering, marketing, manufacturing, research, sales and service; committees and boards such as STF, RAD, TSC and EIRB; and customers through the Engineering Interface Program, the External Research Program and technical seminars.

Digital's investment in research is accomplished through work in in-house laboratories, university laboratories and research consortia. The agendas of the laboratories are chosen to reflect areas of major opportunity, both in terms of progress on computer science engineering problems and people with ideas to apply to those problems. Our sponsored research activities give us the flexibility to move into quickly developing areas of interest or areas of specific Digital engineering focus. The internal laboratories are: Systems Research Center (SRC) which focuses on high-performance distributed personal computing: workstations, networks and servers; Western Research Laboratory (WRL) which focuses on research relevant to the design and application of high-performance computers; Paris Research Laboratory (PRL) which focuses on interactive application environments and programming technology, both in the framework of a distributed personal computing architecture; and Cambridge Research Lab (CRL) which focuses on applications technology for the end user. Our university research program provides Digital access to research personnel and advances in engineering and computer science throughout the world. Through highly-leveraged research consortia, we facilitate the formation of sponsored research and projects across a wide range of technology domains. Another investment area is through the Research and Advanced Development (RAD) committee which funds proposals for engineering work that does not fall naturally into ongoing Engineering plans.

Investments are made in our internal research labs on problems and topics that are ripe for solution. For some important areas, the potential payoff may be large, but the knowledge base upon which the problem sits is often too small to pursue internally. In these cases, we use a leveraged approach to our investments by sponsoring research important to Digital. Investment in basic and applied research in information systems is approximately five billion dollars per year in the United States alone. Much of it is done at universities and to a lesser extent government laboratories and industrial consortiums. We use a "depth" and "breadth" strategy to follow this research and establish specific contracts and other links when the research is of particular interest to Digital.

In the "depth" category, we seek research partners in areas where Digital already has a significant internal investment, for example, distributed networks of workstations. In such areas, the external personnel interact with Digital experts to help us extend our knowledge and to understand the applications of our ideas. In the "breadth" category, we use these projects to track

areas where we currently have little or no work underway but in which we expect Digital to need the knowledge or results in the future.

### Operating Strategy

Our primary focus is on applied research that holds commercial promise in three to five plus years. We look for emerging ideas, work with universities and consortia on basic research and consult with product groups on product and pre-product development programs.

Selecting researchers is of primary importance to the success of any research lab. We hire people with exceptional abilities in their field to lead and explore new, unconventional, and unexplored ideas that are in support of Digital's long range business.

Linking research and sponsored research programs to development efforts is critical to our strategy and effectiveness. Ongoing consulting work by research staff members to appropriate product groups is an effective mechanism for sharing the results of our work. However, transferring ideas to the development groups (and to the research groups) is difficult and requires a multi-faceted and multi-level approach. Other methods include: technical reports, seminars, prototypes, joint projects, consulting, visitors, transfer of people, visiting scientist program, formal review, and, of course, good communication.

### Technology Strategy

CRA has identified a list of important research domains for Digital. In addition, through the Technology Strategy Council (TSC), CRA works to ensure a balanced and integrated research and technology development strategy for the corporation. These are:

- Distributed Systems, including

- New architectures supporting workstation/server model of computing for heterogeneous environments
  - Dynamic performance modeling and analysis for balanced systems design
  - Specification, design and verification methodologies for complex systems
  - Reliability/availability

- Database systems, including

- Advanced models/structures/languages for acquiring, storing and retrieving information
  - Distributed system environments
  - Large OLTP environments

Large knowledge bases  
High-performance I/O architectures  
Reliability/availability

- Approaches to computationally intensive tasks/applications

Decomposition of applications for parallel architectures and distributed system  
Unautomated tasks/procedures that may be automated/enabled by advanced distributed systems and high-performance components

- Approaches to interactive user interfaces and use models

Customization of user interfaces/functionality dynamically by user  
Seamless integration of applications  
User-designed applications (HyperCard)  
Hyper-documents  
Visualization of information  
Effective use of graphics, color, speech.

- (Non-keyboard) sensor input capabilities for acquiring/recognizing/understanding information rapidly, such as

Scanners/recognizers, OCRs....  
Speeching processing/recognition subsystems  
Multi-media I/O subsystems

- Technologies for high-performance components and systems

New architectures (processors, I/O, communications)  
Optics (communications, interconnects)  
Non-silicon based technologies for VLSI components (GaAs)  
High-temperature superconducting materials

- Engineering processes/technologies

Reuseability of designs/components (hardware and software)

- Manufacturing processes/technologies

- Organizational management technology

Theory and models for successful organization management  
Information and knowledge-based systems requirements  
Product and service applications

## Changes From Last Year

The Network Systems Lab (NSL), sponsored by Customer Services and Corporate Research, was recently created to focus on multi-vendor distributed systems. This joint effort will channel important information and tools directly from CRA to Customer Services. Leveraging CRA's experience in TCP/IP (Transmission Control Protocol/Internet Protocol) and distributed systems, NSL will encompass network operations, training, adaptation and development of software for a heterogeneous environment. One key research issue is how to design tools for effective remote operation of a heterogeneous network. David Crocker has been hired to manage this activity. He will report to both Richard Swan, Director of the Western Research Lab, and to Steve Teicher of the Advanced Service Delivery Systems Group in Customer Services.

## Corporate Research - Organization Chart

Vice President, Engineering, Manufacturing, and Marketing (Jack Smith)

- | - Vice President, Research (Sam Fuller)
  - | | - Secretary (Iris DeLuca)
- | - Research
  - | - Cambridge Research Lab (CRL) (Victor Vyssotsky)
    - | | - AI Research Group (AIRG)
    - | | - Cambridge Research Lab (CRL)
    - | | - Computational Quality Group (CQG)
    - | | - Digital Technical Journal (DTJ)
  - | - Paris Research Lab (PRL) (Patrick Baudelaire)
  - | - Systems Research Center (SRC) (Robert Taylor)
  - | - Western Research Lab (WRL) (Richard Swan)
    - | | - Network Systems Lab (NSL)
  - | - External Research Program (ERP) (Jack McCredie)
    - | | - European External Research Program
  - | - Technology Planning & Development (TP&D) (Tom Gannon)
    - | | - Technology Strategy Council (TSC)
    - | | - Technology Assessment & Planning (TAP)
    - | | - Engineering Interface Program (EIP)
    - | | - Technology Development Programs (TDP)
  - | - Research and Advanced Development Committee (RAD) (Don Nelsen)
  - | - Management Systems Research (MSR) (Ron Smart)
- | - Business Operations
  - | - Finance & Administration (Agnes Connors)
  - | - Personnel (Jenny Watson)

## Chart II Summary

### Expense (\$ Millions)

	FY89 Budget	FY90 Budget	Program Manager
Research			
Cambridge Research Lab	3.5	5.2	V. Vyssotsky
AI	.9	1.1	J. McDermott
Paris Research Lab	4.4	4.3	P. Baudelaire
Systems Research Center	13.5	14.0	R. Taylor
Western Research Lab	<u>5.9</u>	<u>7.3</u>	R. Swan
Sub-Total	28.2	31.9	
External Research	4.8	4.7	J. McCredie
Technology Planning & Development	2.3	2.4	T. Gannon
MCC/Austin	4.9	2.1	T. Gannon
RAD	<u>1.9</u>	<u>2.1</u>	D. Nelsen
Business Operations	<u>2.4</u>	<u>2.9</u>	A. Connors/ J. Watson
Management Adjustment		(2.3)	S. Fuller
Total Corporate Research	<u>44.5</u>	<u>43.8</u>	





PCP

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 SUB GROUP: PCP

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
12341200	2	PM	PKO	NA	CORP. PRODUCT CHGE PROCESS OFC	NA	NA	NA	0.0	0.8	0.8	0.9		DAVENPORT CARLTON NA
<p>Drive the corporate effort to develop and implement meaningful improvement in the area of world wide product change management, processes and related activities; act as the central focus to manage common policies, standards and data specifications for hardware, software, firmware and documentation. Work with Engineering, Manufacturing and Customer Services management to investigate, analyze, develop and implement needed policy and process improvement changes.</p> <p>Work across Engineering, Manufacturing, and Customer Services groups to ensure both international product change requirements and standards are understood and accepted by management and product implementers through training and awareness programs.</p> <p>Develop/influence long range product change management strategies to assure compatible architectures of processes, systems, and automated tools across the Corporation.</p> <p>Investigate, analyze, and propose functional architecture specifications for product change process automated data management tools and systems.</p> <p>Own, improve and maintain DEC STD 100.</p> <p>Ensure standard owners have up-to-date change management information, maintain their respective DEC standards accordingly and upgrade related product change processes to remain compatible and supportive.</p>														
12341300	2	TL	PKO	NA	CORP PROD CHGE PROC MGMT SYSTE	NA	NA	NA	0.0	0.0	0.0	1.3		MASCARI, LUCIANO NA

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
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Develop/implement meaningful standardized automated management tools in the are of worldwide product change management.

Develop an integrated automated information environment which satisfies operational requirements of the "change product" activity, including changes to hardware, software, and firmware products.

Develop system specification for company-wide integrated automated product change control system of the future.

Test and implement prototypes with selected locations.

Install operable product change management systems in all businesses worldwide.

The company-wide benefits of this program are:

- Improves the integrity of product change information.
- Reduces implementation time for product changes.
- Provides a common system architecture and automated (product) change management tool for use by groups which must collaborate in the support of existing products. This includes problem/solution identification, impact assessment, validation, implementation, tracking and cost analysis. Eliminates the need for international and inter-group users to deal with multiple systems with varying protocols.
- Renders product change a measurable and predictable activity.
- Reduces product support cost.
- Provides consistent computer integrated change management tools and DEC standards.
- Provides integrated closed-loop processes for those who manage product change, including product management activities, engineering, engineering services, manufacturing and field.
- Standardizes procedural and technical data requirements of changing products; identifies responsibilities and approvers.
- Provides central source for enhancements and development of product change process automated systems, both existing and future; includes today's PCA, ECO, and FCO processes.

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Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
Chart 2				In-House Funded Proposed Project Totals				0.0	0.8	0.8	2.2		
Chart 2				Externally Funded Proposed Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Proposed PCP				0.0	0.8	0.8	2.2		
Chart 2				In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0		
Chart 2				Incremental PCP				0.0	0.0	0.0	0.0		
Chart 2				Totals for PCP				0.0	0.8	0.8	2.2		
In-House Funded Project Totals								0.0	0.8	0.8	2.2		
Externally Funded Project Totals								0.0	0.0	0.0	0.0		
Proposed for PCP								0.0	0.8	0.8	2.2		
In-House Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Externally Funded Incremental Project Totals								0.0	0.0	0.0	0.0		
Incremental PCP								0.0	0.0	0.0	0.0		
Grand Totals for PCP								0.0	0.8	0.8	2.2		

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CAD/CAM TECHNOLOGY CENTER

FY90 Beige Book

## CTC STRATEGY STATEMENT

### GOALS

CTC'S general goal is to provide state of the art CAD/CAM tools, integrated with each other and compatible with the evolving CAD/process architecture.

For Electrical Design, the goal is to continue to upgrade the VLS physical layout systems to meet the requirements of existing and emerging interconnect technologies and in parallel to develop the next generation VANTAGE system to accommodate the persistent growth in circuit densities and the growing inter-dependency among the logical, chip level and mechanical design tools.

For mechanical design, the goal is to make substantial reductions in conceptual design time and to integrate the mechanical design and analysis tools with electrical design systems.

For manufacturing, the goal is to achieve a unified plant level product data access, supporting parallel product and process development (i.e., simultaneous engineering) and including both design and corporate library data.

### STRATEGY

The strategy to meet design needs for physical layout is to gradually downsize the VLS program and divert resources to VANTAGE, the next generation system. Designed for product complexity in the 1990's, VANTAGE will have a new hierarchical architecture enabling logical and physical as well as electrical, thermal and geometric constraints to be defined and used in defining different physical entities in a product.

The next generation mechanical design program, entitled Integral, will produce a hybrid internal and vendor system integrated via CTC's group wide environment strategy.

The INTEGRAL program has been established as the mechanical counterpart to VANTAGE and it will share several common CAD system elements with the new electrical application.

The strategy to achieve a more unified, plant level, product data access is to integrate the product data transfer programs, MIDAS and DATALINK with Corporate product library integration efforts. This work is aided by a cross PBU program to develop a single product data transfer strategy.

RISKS AND DEPENDENCIES

Risks

-----  
There are risks in the CAD/CAM strategy but none are high or without backup. The three main risks are:

- o The growth in the use of CTC's systems will outstrip our ability to provide effective support.
- o Failure to agree on a Corporate data management strategy and the proliferation of Engineering to Manufacturing data transfer systems increases the overall process cost.
- o The rise of ULTRIX in Digital increases the cost of support or standard use of major CAD tools.

Dependencies

-----  
This multi-year CAD/CAM development plan depends on both a year to year and PBU to PBU consistency in the funding process. Major processes in all the PBU's depend on the CTC core tool development but that dependency is only partially reflected in the funding process.

CTC ORGANIZATION

MEM IM&T - DAN INFANTE, V.P.

|  
CAD/CAM TECHNOLOGY CENTER - DICK ANDERSON

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Function:	Individual:
CAD/CAM Framework Services (CFS)	Bill Wehring
CAD Systems Engineering (CADSE)	Bill Wehring
CAD For Mechanical Engineering (CADME)	Sunil Bhalla
Product Information & Process Engineering Services	Leo Crosby
CTC Support	Fred Haefner
Technical Operations	Nick Wells
Communications	Pat Bright
Fianance	Ray Giard
Personnel	Paul Saschuk

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 BEIGE BOOK FY90 SUBMISSION SUMMARY REPORT  
 SUB GROUP: CAD/CAM TECHNOLOGY CENTER

24-Oct-1989

Project ID	Act Ch	Loc Cde	Int St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
12321100	2	PE	CTC	NA	ADVANCED MODULES TECHNOLOGY	NA	NA	NA	0.0	0.0	0.5	0.5	WEHRING, BILL
12321300	2	PE	CTC	NA	CROSS PRODUCT DATA ACCES	NA	NA	NA	0.0	1.1	1.1	1.1	NA
12321300	2	PE	CTC	NA	CROSS PRODUCT DATA ACCES	NA	NA	NA	0.0	1.7	0.9	2.8	E97
12321400	2	PE	CTC	NA	ELEC CAD(VANTAGE & VLS)	NA	NA	NA	0.0	4.8	5.1	5.3	WEHRING, BILL
12321400	2	PE	CTC	NA	ELEC CAD(VANTAGE & VLS)	NA	NA	NA	0.0	0.6	0.0	0.0	E97
12321500	2	TL	CTC	NA	MECHANICAL CAD	NA	NA	NA	0.0	2.7	2.4	3.1	NA
					Chart 2 In-House Funded Proposed Project Totals				0.0	8.6	9.1	10.0	
					Chart 2 Externally Funded Proposed Project Totals				0.0	2.3	0.9	2.8	
					Chart 2 Proposed CAD/CAM TECHNOLOGY CENTER				0.0	10.9	10.0	12.8	
					Chart 2 In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0	
					Chart 2 Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0	
					Chart 2 Incremental CAD/CAM TECHNOLOGY CENTER				0.0	0.0	0.0	0.0	
					Chart 2 Totals for CAD/CAM TECHNOLOGY CENTER				0.0	10.9	10.0	12.8	
					In-House Funded Project Totals				0.0	8.6	9.1	10.0	
					Externally Funded Project Totals				0.0	2.3	0.9	2.8	
					Proposed for CAD/CAM TECHNOLOGY CENTER				0.0	10.9	10.0	12.8	
					In-House Funded Incremental Project Totals				0.0	0.0	0.0	0.0	
					Externally Funded Incremental Project Totals				0.0	0.0	0.0	0.0	
					Incremental CAD/CAM TECHNOLOGY CENTER				0.0	0.0	0.0	0.0	
					Grand Totals for CAD/CAM TECHNOLOGY CENTER				0.0	10.9	10.0	12.8	

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Project ID	Act Ch	Loc Cde	Int Cde	Project St	Project Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'nl Funder	Proj Owner/ Prod Mgr
12321100	2	PE	CTC	NA	ADVANCED MODULES TECHNOLOGY	NA	NA	NA	0.0	0.0	0.5	0.5		WEHRING, BILL NA
<p>Continuation of work started for and in partnership with the SCO/PTG organization in APO over the last three years centered on the VLS ECAD tool suite. The work in this program is tightly coupled to the electrical and physical aspects of packaging and interconnect technologies within the MicroAssembly program.</p>														
12321300	2	PE	CTC	NA	CROSS PRODUCT DATA ACCES	NA	NA	NA	0.0	1.1	1.1	1.1		CROSBY, LEO NA
12321300	2	PE	CTC	NA	CROSS PRODUCT DATA ACCES	NA	NA	NA	0.0	1.7	0.9	2.8	E97	CROSBY, LEO NA
<p>This program is a multi-year effort which addresses integrating the corporate information warehouses that exist in DEC today. This effort will include the possible re-architecture of some existing databases to eliminate redundancy, clarify data responsibility, and unify information management mechanisms. Information managed by these systems include part, parts list, document, document set, design files and engineering change information. A program goal is to complete the implementation plan for the new product data standard that is addressing a 'singular' way to represent engineering product data. This work will then complement the requirements of our Manufacturing Engineers' work environment as it relates to and depends on product data as sourced from the 'corporate' systems(s).</p>														
12321400	2	PE	CTC	NA	ELEC CAD (VANTAGE & VLS)	NA	NA	NA	0.0	4.8	5.1	5.3		WEHRING, BILL NA
12321400	2	PE	CTC	NA	ELEC CAD (VANTAGE & VLS)	NA	NA	NA	0.0	0.6	0.0	0.0	E97	WEHRING, BILL NA
<p>This program represents the combined development needs for VLS and Vantage. VLS is the current physical layout system of choice in use within Digital and is currently installed in over 35 Engineering and Manufacturing locations around the world. The Vantage Program is aimed at providing Physical Layout solutions to Digital for the problems that will be confronting Digital in the 1990's.</p>														
12321500	2	TL	CTC	NA	MECHANICAL CAD	NA	NA	NA	0.0	2.7	2.4	3.1		BHALLA, SUNIL NA

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24-Oct-1989

Project ID	Act Ch	Loc Cde	Int Cde	Project St Name	Curr Phas	FRS Date	Annc Date	Life Exp	FY89 Budg	FY90 Prop	FY91 Prop	Ext'n'l Funder	Proj Owner/ Prod Mgr
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This program provides mechanical design engineering and simulation CAD/CAE tools to the Mechanical Design Engineering community in Digital and represents the combined needs of INTEGRAL and UG/CAD/CAE, in the areas of Mechanical Conceptual Design, Mechanical Simulation, Detailed Design, and Prototyping. The UG/CAD/CAE activity will provide tools and processes for the on-going activity in mechanical design engineering and simulation. Key areas addressed in INTEGRAL are Tolerance Analysis, Electro-Mechanical Producibility, Conceptual Design and Simulation.

Chart 2	In-House	Funded	Proposed	Project Totals	0.0				8.6	9.1	10.0		
Chart 2	Externally	Funded	Proposed	Project Totals	0.0				2.3	0.9	2.8		
Chart 2	Proposed	CAD/CAM TECHNOLOGY CENTER			0.0				10.9	10.0	12.8		
Chart 2	In-House	Funded	Incremental	Project Totals	0.0				0.0	0.0	0.0		
Chart 2	Externally	Funded	Incremental	Project Totals	0.0				0.0	0.0	0.0		
Chart 2	Incremental	CAD/CAM TECHNOLOGY CENTER			0.0				0.0	0.0	0.0		
Chart 2	Totals for	CAD/CAM TECHNOLOGY CENTER			0.0				10.9	10.0	12.8		
In-House Funded Project Totals					0.0				8.6	9.1	10.0		
Externally Funded Project Totals					0.0				2.3	0.9	2.8		
Proposed for CAD/CAM TECHNOLOGY CENTER					0.0				10.9	10.0	12.8		
In-House Funded Incremental Project Totals					0.0				0.0	0.0	0.0		
Externally Funded Incremental Project Totals					0.0				0.0	0.0	0.0		
Incremental CAD/CAM TECHNOLOGY CENTER					0.0				0.0	0.0	0.0		
Grand Totals for CAD/CAM TECHNOLOGY CENTER					0.0				10.9	10.0	12.8		

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DIGITAL EQUIPMENT CORPORATION  
 BEIGE BOOK FY90  
 ORGANIZATION/PRODUCT MANAGEMENT REPORT

ORGANIZATION: HIGH PERFORMANCE SYSTEMS SEGMENT

GROUP PRODUCT MANAGER: Rich Whitman (acting)

TELEPHONE: 297-7498                      NODE: HYEND::

GROUP: Large VAX Systems  
 -----

MANAGER: Peter Ross            TELEPHONE: 297-4471/6760            NODE: GWYNED::  
 -----

PRODUCT MANAGER -----	TELEPHONE -----	NODE ----	PRODUCTS -----
Dick Bruce	297-4352	HYEND::	AQUARIUS PROTOS, FIELD TEST
Dick Greeley	297-2127	HYEND::	AQUARIUS SYSTEMS
Jim McAndrew	297-6207	HYEND::	ARIDUS SYSTEMS
Frank Pugliese	297-7472	HPSRAD::	CENTAURUS
Jerry Haigh	297-5704	CASSAN::	DXML

GROUP: VAXcluster Systems  
 -----

MANAGER: Steve Zagame        TELEPHONE: 297-5026/4768        NODE: HYEND::  
 -----

PRODUCT MANAGER -----	TELEPHONE -----	NODE ----	PRODUCTS -----
Dave Burque	297-4642	HYEND::DB	XCD
Laura Farnham	297-7443	HYEND::LF	SYSTEM MANAGEMENT
Gailyn Casaday	297-6520	MVPS::	VAXCLUSTER SYSTEMS
Aireen De Peralta	297-4112	HYEND::AD	VAXCLUSTER CONSOLE SYSTEM VAX PERFORMANCE ADVISOR
Lillian Simmons	297-5404	MVPS::	MSB CI PRODUCTS
Luis Fernandez	297-2437	HYEND::LF	MULTI-STAR

GROUP: Systems Integration Software

MANAGER: Roy Rezac TELEPHONE: 297-4620 NODE: THEBUS::  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
Ray Thackeray	297-5622	KEEPER::	DATABUS

GROUP: Fault Tolerant Systems

MANAGER: Howie Synder TELEPHONE: 297-6850 NODE: HYEND::PP  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
Laurie Peck	297-7949	HYEND::LP	CIRRUS I
Faten Ramaden	297-6878	HYEND::FR	CIRRUS II
Howie Synder (acting)	297-6850	HYEND::HS	HA/FT SYSTEMS PDT. MGR.

GROUP: TP Systems

MANAGERS: Larry Vifquain TELEPHONE: 227-4461 NODE: TPSYS::  
----- Jim Casey (TP West) 415-691-4570 CALDEC::

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
Jerry Hershey	227-4130	TPSYS::JH	DECintact
Penny Scharfman	227-4124	TPSYS::	ACMS
Lance Simon	227-4133	TPSYS::LS	TP Workbench
Gail Ferreira	227-4131	TPSYS::	DECTp MONITOR
Jim Casey	415-691-4570	CALDEC::	DECxtp

GROUP: VAX 86XX Systems

MANAGER: Connie Davis TELEPHONE: 297-4291/7413 NODE: MVPS::CDAVIS  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
Bob Hamelin	297-7680	MVPS::	VAX 8600/8650
Paul Tourigny	297-5392	HYEND::	VAX 8600/8650

-----  
ORGANIZATION: LOW END SYSTEMS  
-----

GROUP: VIDEO, IMAGE AND PRINTER SYSTEMS GROUP

GROUP MANAGER: LARRY CABRINETY  
----------  
BUSINESS PROGRAM MANAGER (VIDEO PRODUCTS): GEORGE WRIGHT (235-8362)  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Vic Bellemare	235-8076	ROYALT::	DECwindows Terminal - Monochrome (DWT-M)
Bob Ducey	235-8072	ROYALT::	VR297 (17" Sony buyout), VR299, VRT16, VRT19
John Gaucher	235-8079	ROYALT::	VT330/340, VT330/340CR, VR295, Keyboards, Mouse, Tablet
Peter Joy	235-8077	ROYALT::JOYP	VT320, VT420
Dan Maher (Valbonne)	828-5520	BONNET::	LA70
Bill Page	235-8071	ROYALT::	KAPRI, Image III-M, DWT-Image, DWT-Color
Win Quigley (Albuquerque)	552-2566	ABLE::	Supercomputer Interconnects
Dennis Witts	235-8073	ROYALT::	VR300, VRE01

-----  
BUSINESS PROGRAM MANAGER (DESKTOP PRINTER PRODUCTS): FRANK ORLANDO (235-8021)  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Dave Belliveau	235-8077	ROYALT::	LA120, LA210, LN03, LNZZ, Scanners
Gene Chin	235-8025	ROYALT::	LA75, LA324, LQP45, LJ250, LJ252
Roy McCall	235-8022	ROYALT::	LJYY, LNXX
Dave Urbanus	235-8074	ROYALT::	LNYY

-----  
ORGANIZATION: LOW END SYSTEMS  
-----

GROUP: VIDEO, IMAGE AND PRINTER SYSTEMS GROUP

GROUP MANAGER: LARRY CABRINETY  
-----BUSINESS PROGRAM MANAGER (PRINTSERVER & SYSTEMS PRODUCTS): Mike Zwolinski-Acting (235-8024)  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Ron Lanning	235-8028	ROYALT::	LPS20
Robin Tobin	235-8027	ROYALT::	LPS40, LPS40 Enhancements
Mike Zwolinski	235-8024	ROYALT::	Production Printing

BUSINESS PROGRAM MANAGER (SOFTWARE & AFTERMARKETS PRODUCTS): JUSTIN KELLEHER (235-8201)  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Sherri Brown	235-8023	ROYALT::	DECprint Print Services (Common Print Symbiont), RETOS, SSU, VAXpac, Tektronix 4125 Emulator, DECprint Utility For PostScript to Sixels (PSprint)
Marge Hicks	235-8026	ROYALT::	DECwindows Terminal Emulators, Fonts, DECprint Program (Round-89, -90)
Janet Smith	235-8126	ROYALT::	Aftermarket Products, Consumables



Beige Book FY90  
Low End Systems  
Workstations Engineering Group

1 NOV 1989

WORKSTATIONS ORGANIZATION/PRODUCT MANAGEMENT CHART

EFFECTIVE DATE:

1 NOV 1989

PREPARER: Y S McCredie

-----  
ORGANIZATION: Low End Systems  
-----

GROUP: Workstations Engineering Group  
-----

GROUP PRODUCT MANAGER: TBD  
-----

GROUP MANAGER: Don Gaubatz  
-----

PRODUCT MANAGER  
-----

TELEPHONE  
-----

NODE  
-----

PRODUCTS  
-----

Ron Ginger	223-6860	ADVAX::	VS3100, (model 30 and 40)
Jim Hom	223-7044	ADVAX::	VS3520/3540, VS35/3800 VAXstation 3200/3500, Licensing Policy
Tim Miller/ Steve Severson	223-2995	ADVAX::	PVAX2, PMariah
Jim Kovac	223-5685	PVX::	PVAX1, (VS3100 model 38 and 48)
Richard Woods	223-1392	JACOB::	Worksystems VMS and PC DOS
TBD			ULTRIX Network and Communication
Mike Savello	415-691-4481	RANCHO::	3MAX
Melanie Fulton	415-691-4458	DECWSE::	DECstation 3100 (PMA), DECstation 2100, DECsystem 3100
Mike Gallagher	415-691-4457	RANCHO::	3MIN, 4MAX, 4MIN

FORMAT FOR ORGANIZATION/PRODUCT MANAGEMENT TEMPLATE

ORGANIZATION: SUBMISSION DATE:09/01/89 PREPARER:Ed Sawyer PAGE n of n

-----  
 ORGANIZATION: Low End Systems Group  
 -----

GROUP: Personal Computing Systems Group  
 -----

GROUP PRODUCT MANAGER: Bill Stowe  
 -----

-----  
 GROUPMANAGER:John Rose  
 -----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	-----	-----
Bill Stowe	226-2176	SPCTRM	Manager of Prod. Mgrs.
Jane Murphy	226-2494	SPCTRM	NAS-PCSA Server V2.2
Anita Uhler	226-2397	SPCTRM	NAS-PCSA Server V3.0
Beth Joseph	226-2391	SPCTRM	NAS-PCSA Server V4.0
Dave Glasson	226-2418	SPCTRM	VMS SERVICES FOR MAC V1.0
Ron Gemma	226-2347	SPCTRM	PCLAN 3100
Ron Gemma	226-2347	SPCTRM	NAS-PCSA PACKAGED SERVERSV2.2
DECNET/NAS-PCSA CLIENTS:			
Jane Murphy	226-2176	SPCTRM	DOS CLIENT V2.2
Anita Uhler	226-2494	SPCTRM	DOS CLIENT V3.0
Beth Joseph	226-2391	SPCTRM	DOS CLIENT V4.0
M. Steger	226-2515	SPCTRM	OS/2 CLIENT V1.0
PC DECWINDOWS COMPONENTS:			
J. Gorczyca	226-2449	SPCTRM	MS/DOS X SERVER
J. Gorczyca	226-2449	SPCTRM	OS/2 X SERVER



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ORGANIZATION MVB

SUBMISSION DATE 1-NOVEMBER-89

PREPARER: Joe Scala

-----  
ORGANIZATION: LES

-----  
GROUP: MVB  
-----

-----  
GROUP PRODUCT MANAGER: L. Philippon  
-----

-----  
GROUP MANAGER: J Lipcon  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
----- Stew Beckley	223-5938	AXIS	----- MicroVAX 35/36/38/3900 (Mayfair I/III)
Nicole Benecasa	223-8155	PSDVAX	Pele
Susan Blount	223-6165	PSDVAX	DECsystem 5400 (MIPSfair I)
Kathleen Connors	223-5426	PSDVAX	MicroVAX 33/3400 (Mayfair II) Spitfire
Ann Hablanian	223-8891	CHODOR	MicroVAX 2000, MicroVAX II
Bill Hanley	223-5284	AXIS	MicroVAX 3100
Lois Musser	223-2474	PSDVAX	MicroVAX Field Test Mgr.
Tim Resker	223-4719	PSDVAX	MIPSfair II
Joe Scala	223-7128	DZIGN	Planning Manager
Larry Twaits	223-6203	AXIS	Storage Options
Denise Vanelli	223-4238	PSDVAX	Asst. Field Test Mgr.

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MSD ORGANIZATION/PRODUCT MANAGEMENT LIST

ORGANIZATION Micro Systems Development (MSD) EFFECTIVE DATE NOVEMBER 1, 1989 PREPARER Dick Palm  
-----

ORGANIZATION: Micro Systems Development (MSD)  
-----

GROUP: Hardware Product Management  
-----

GROUP PRODUCT MANAGER: Bill Andrus (223-0430)  
-----

GROUP MANAGER: Dick Mollin (223-2506)  
-----

PRODUCT MANAGER -----	TELEPHONE -----	NODE -----	PRODUCTS -----
Kathy Breda	223-5133	FIVE5	Chips, J11 ASIC
Chip Charlot	223-2054	FIVE5	Strategic Programs, Faster PDP-11
Doug Goldhush	223-5319	FIVE5	Allan Bradley, rtVAX300, KA800
Carol Hamblin	223-8432	FIVE5	PDP-11/53, 11/73
Clem Hartley	223-3655	FIVE5	KA620 Systems, rtVAX Systems Program Management
Art Lane	223-6399	FIVE5	PDP-11/83, KDJ11-BF, Upgrades
Cathy Mikkola	223-1548	FIVE5	16 bit Boards, SBox Handles & Options
George Paquin Jr.	223-4505	FIVE5	PDP-11/84 Products
Noreen Piazza	223-6649	FIVE5	Enclosures

ORGANIZATION Micro Systems Development (MSD) EFFECTIVE DATE NOVEMBER 1, 1989 PREPARER Dick Palm

ORGANIZATION: Micro Systems Development (MSD)

GROUP: Software Product Management

GROUP PRODUCT MANAGER: Connie Pawelczak (223-2664)

GROUP MANAGER: Dick Mollin (223-2506)

PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS

Drew Comstock

223-4792

HELIX

VAXELN, VAX RTA

Bryan Cothran

223-0072

HELIX

RT-11, MP/P, Rdb/ELN

Pat Czerny

381-1152

ALIEN

RSX-11M, M+, S; Micro/RSX, RSX Program Management

Joe Dale

223-3171

HELIX

VAXELN, VAXELN DECWindows

Jeanne Davis

264-0206

ATSE

RSTS/E, DECNET/E

Janis Horn

381-1180

ALIEN

VAX CoProcessor/RSX, VAX-11 RSX, Distributed Realtime

Frank Kupchunas

381-1232

WHYVAX

PDP-11 Languages & Layered Products

FORMAT FOR ORGANIZATION/PRODUCT MANAGEMENT TEMPLATE

ORGANIZATION: DESIGN & PROCESS ENGINEERING      SUBMISSION DATE:11/01/89      PREPARER: D. LIPTAK      PAGE n of n

-----  
 ORGANIZATION: LOW END SYSTEMS  
 -----

GROUP: Design & Process Engineering  
 -----

GROUP PRODUCT MANAGER:  
 -----

GROUP MANAGER: Bill Picott  
 -----

PROJECT MANAGER  
 -----

TELEPHONE  
 -----

NODE  
 -----

PROJECT NUMBER  
 -----

Dick Belanger	223-5857	BLIVIT::	1B801J00; 1B801F00; 1B801N00
Jim King	223-5903	ECAD::	1B801A00;
Jeff Katziff	223-1156	LEDDEV::	1B801800;
Paul Kruger	223-9161	OLDTMR::	1B801N00;
Dan Deknis	223-4163	EMIRFI::	1B801900;
Joe Cannizzaro	223-4383	MILRAT::	1B801C00.
Denis Liptak	223-0927	DEPFIN::	FINANCE
Mary Ann Joyce	223-3495	LEDDEV::	PERSONNEL

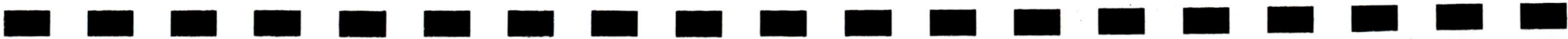


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November 1, 1989



ORGANIZATION

SUBMISSION DATE

PREPARER

PAGE 1 of 1

EMD&S

11/02/89

Dan Scavezze

-----  
ORGANIZATION: EMD&S/LENAC  
-----

GROUP: LENAC  
-----

GROUP PRODUCT MANAGER: Dan Scavezze  
-----

GROUP MANAGER: Jim Liu  
-----

PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS

-----  
Alice Hassey

223-6211

MILPND::

Workgroup Bidge

Pat Horgan

227-3139

DELNI::

DEMMR  
Low Cost Terminal Server  
DEMMR TPE

Jon Lewandowski

227-3145

DELNI::JLEWANDOWSKI

DECconnect System II  
Backplane  
Fiber Optic Backbone

Joe Yanushpolsky  
(reports to PCI PBU)

226-2087

SPCTRM::JOEY

DEPCA II  
DEPCA III  
DEMCA

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-----  
ORGANIZATION: Distributed Systems  
-----GROUP: Nac  
-----GROUP PRODUCT MANAGER: Mike Thurk  
-----GROUP MANAGER: Mike Thurk  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Goyal, Deepak	226-5461	DELNI::	Net Mgmt SBU Mgr
Holland, Dan	226-5464	DELNI::	SNA & Fault Mgmt.
Dhilla, Hakim	226-5465	DELNI::	DECmcc System
Lane, Steve	226-5067	DELNI::S_LANE	Perf. Mgmt.
Faucher, Cornel	226-5501	DELNI::	Wide Area SBU Mgr.
Puma, John	226-5479	DELNI::	DECnet Mgr
Greenfield, Carole	226-5475	DELNI::	OSI Applic.
Murphy, Debra	226-5481	SMAUG::D_MURPHY	DECnet Ultrix
Hatfield, Cathy	226-5480	DELNI::	IBM Mgr
Donovan, Bill	226-5482	DELNI:: B_DONOVAN	DECnet/SNA GW-CT, Gateway Management
McGregor, Michele	226-5483	DELNI::	DECnet/SNA GW-ST, Gateway Management, 3270 Connectivity
Debbie Mangan	226-5447	DELNI::D_MANGAN	3270 TE (VMS,Ultrix, MS-DOS), API
Elms, Frank	226-7917	DELNI::	DECnet/SNA VM-DTF
Gunn, Ian	226-5485	DELNI::	MR/S, MR/P, MR/FAX
Graff, Joyce	381-0267	KOALA::	X.400, Mail
Picard-Kelley, Nicole	381-1817	KOALA::	X.400
Smith, Iain	226-7847	DELNI::SMITHI	OSAK, OSI Applications
Keyworth, Bill	226-5463	DELNI::	WAC Mgr
Root, Donald	226-5512	DELNI::D_ROOT	Internet Portal, DECRouter 250
Burger, Bill	226-5011	DELNI::	CIT,WAN Trans/ISDN
Lloyd Atkinson	226-5472	DELNI::	Local Area SBU Mgr.
Slane, Jim	226-5504	DELNI::	Terminal Server, Horizontal Dist. Mgr
Pappas, Ken	226-7378	DELNI::	DECserver 550, 3270 Terminal Server, LATPLUS
Humphrey, Stacy	226-5519	DELNI::	PC LANs
Hyer, Celeste	226-5503	DELNI::	Phase Down/EOL
Raderman, Alan	226-5507	DELNI::	Extended LAN Mgr.
Collett, Mark	226-7375	DELNI::	FDDI Net Mgt. Software (ELMS)
Capobianco, James	226-5509	DELNI::	DEBET, DEBAM, RBMS, FDDI 10/100, 100/100 Bridges
Parikh, Anand	226-7091	DELNI::	DEREN, FDDI Wiring Concentrator, SCSI/3MAX/FDDI Adapters
Nielsen, George	226-5510	DELNI::G_NIELSEN	XMI/FDDI Adapter
Haddock, Luis	226-5243	DELNI::L_HADDOCK	LAN Transmission, DSF32
Rosen, Daryl	226-5297	DELNI::DROSEN	LAT, DECserver 200, Terminal Server SW



ORGANIZATION Distributed Systems

SUBMISSION DATE

PREPARER G. Poulter

PAGE 2 of 2

-----  
ORGANIZATION: Distributed Systems  
-----

GROUP: NaC  
-----

GROUP PRODUCT MANAGER:  
-----

GROUP MANAGER: Mike Thurk  
-----

PRODUCT MANAGER  
-----

TELEPHONE

NODE  
-----

PRODUCTS  
-----

Price, Steve  
Edwards, Brian  
Robson-Kemble, Alison  
Thomas, Mike  
Fleet, Neville  
Paul Keating  
Holland, George  
Benwell, Richard  
Lehmkuhl, Chris

830-6139  
830-3624  
830-6404  
830-3561  
830-4759  
830-3628  
  
830-3515  
(61)(2)412-6514

JANUS::  
JANUS::  
JANUS::  
VOGON::MTHOMAS  
JANUS::  
JANUS::  
JANUS::  
MARVIN::  
OZROCK::

Wide Area, UK  
VAX WAN Drivers, Ulysses H/W  
MRIF, MR/VMS/X.400 Gateways  
CIT  
OSIrouter 100/500, Hastings/Ulysses Program  
Hastings H/W, DR250  
X2500 Router, X.25 Portal, VAX P.S.I.  
Hastings S/W  
Ultrix X.25 Access/Native, Ultrix WAN Device Drivers

Product Management Organization

---

INTERNATIONAL ENGINEERING

---

ORGANIZATION/PRODUCT MANAGEMENT

---

ORGANIZATION: INTERNATIONAL ENGINEERING

PRODUCT MANAGER: Jim MILLS

---

GROUP MANAGER: David STONE

---

GROUP: IED/REO Reading, UK

---

GROUP PRODUCT MANAGER: John KAPPLER

---

GROUP MANAGER: John KAPPLER

---

PRODUCT MANAGER

---

TELEPHONE NODE

---

PRODUCTS

---

Mike OUGHTON	830-4281	VOGON	VMS & Layered Products
Mike OUGHTON	830-4281	VOGON	OS/SB Products
Andy VOWLES	830-4348	VOGON	Arabic Products
Julie SLADE	830-4501	VOGON	LESG Hardware Documentation Products (DSG, MVB, MSD, WSE)
Gill TROTMAN	830-3303	VOGON	BOSE Products (ALL-IN-1/ALL-IN-1 Starter after V1.0)

GROUP: IED/VBO Valbonne

---

GROUP PRODUCT MANAGER: Jean Christian VILLAT/Tord Larsson

---

GROUP MANAGER: Piero BALLADELLI

---

PRODUCT MANAGER

---

TELEPHONE NODE

---

PRODUCTS

---

Marc SEGOND	828-5391	ULYSSE	Mica & PC Products
Cica KRESTIC	828-5033	ULYSSE	ALL-IN-1 Starter V1.0
Serge MARIN	828-5190	ULYSSE	SDT Business Communications Products
Myriam MARTIN	828-5216	ULYSSE	WPS-Plus Products
Jacques SORNAY	828-5422	ULYSSE	DECwindows Layered Applications
Paul NAYLOR	828-5469	ULYSSE	NaC Mail Products
Dave Flynn	828-5084	ULYSSE	Linguistics

GROUP: Israel LEG

---

GROUP PRODUCT MANAGER: Aharon GOLDMAN

---

GROUP MANAGER: Aharon Goldman

---

PRODUCT MANAGER

---

TELEPHONE NODE

---

PRODUCTS

---

Gilles Sebah	882-8476	TAVENG	all Office products
Aharon Goldman	882-8236	TAVENG	all non-Office products

ORGANIZATION: SEG                      EFFECTIVE DATE: 10/1/89                      PREPARER: LYNNE PARKER  
-----

ORGANIZATION: SEG

GROUP: SEMICONDUCTOR ENGINEERING GROUP

GROUP PRODUCT MANAGER: William Babcock

GROUP MANAGER: Lawrence Walker  
-----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Evelyn Balch	225-4463	ORACLE::BALCH	RMC, TRAINS, PBB, CMIST
Bill Bidermann (**ACTING**)	225-5049	NULL::BIDERMANN	QSAC, CIVIC
Rick Chumsae	225-7020	SHORTY::CHUMSAE	Rigel Processors
Rick Devlin	225-6693	PERIOD::DEVLIN	MPP
Rick Friedman	225-5468	RICKS::FRIEDMAN	Mariah, NVAX, SGEC, SHAC
Marie Griffin	225-5304	RGB::GRIFFIN	Graphics
John Jakubowski	225-5029	RICKS::JAKUBOWSKI	RSSC, GHIDRA, MSSC, NVAX Periphs

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ORGANIZATION/PRODUCT MANAGEMENT REPORT

ORGANIZATION ----- SUBMISSION DATE PREPARER ----- PAGE 1 of 1

ORGANIZATION: SCIT 25 October 1989 Anna Gorski

GROUP: PTG

GROUP PRODUCT MANAGER: John Bartoszek

GROUP MANAGER: Rob Hannemann

PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS

Bartoszek, John

225-5102

RICKS::

Rigel, Mariah, NVax, Raven, and  
Kestrel.

/agp 25 October 1989

ORGANIZATION: SDT

NOVEMBER 1, 1989

Kay Patterson

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-----  
ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
-----

GROUP PRODUCT MANAGER: BILL JAMES  
-----

-----  
GROUP MANAGER: CELESTE LAROCK  
-----

PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS

-----  
GROUP: Business Planning

Trish Guthrie

381-2312

TLE::

-----  
Reporting, Administration

GROUP: Design Environments

Liz Freburger

381-2669

TLE::

Manager

Ed Earle

381-2342

CLT::

DECdesign, A/D, Technology

Catherine Epperson

381-1919

CLT::

DECdesign, COBOL, COBOL Generator

Marie Murphy

381-1918

TLE::MMURPHY

Rally, ADT Assoc., LT DECUS Counterpart, Case I18N

John Wood

381-0242

DRIFT::

C (VMS/ULTRIX), C++, FORTRAN (VMS/ULTRIX),  
Vector Program

GROUP: Programming Environments

Chris Shaver

381-0425

KOBAL::

Manager

Larry Pearl

381-2254

TLE::

Portability Plans and Tools, CASE Announcement

Mike Smith

381-2828

TLE::MSMITH

VAXset Package, MEMEX, MMS, PCA

Liz Sooho

381-0908

IDE::

LSE/PDS, SCA, LISP (VMS, RISC/ULTRIX)

GROUP: Project Support Environments

Bob Abramson

381-2338

TLE::

Manager

Ed Cuoco

381-2145

TLE::

Ada, VAXeln Ada, XD Ada

Mike Pinette

381-2558

CLT::

Software Project Manager, DECplan, DECvuit

Bob Abramson (Acting)

381-2338

TLE::

OPS 5, IPSE Core Services (Future)

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-----  
ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
-----GROUP PRODUCT MANAGER: BILL JAMES  
-----GROUP MANAGER: BASIL HARRIS  
-----PRODUCT MANAGER  
-----TELEPHONE  
-----NODE  
----PRODUCTS  
-----

GROUP: Business Programs

Bill Bernson

381-0045

IDE::

Training Programs Planning Manager, Product Curriculum Dev., Internal Training Planning

Nancy Gouveia

381-1938

DSSDEV::

Business Programs Product Manager, International-ization Manager

Judy Giger

381-0281

DSSDEV::

Business Programs Product Manager, Aquisitions Mgr. Linguistics.

GROUP: Technical Programs

Wendy Herman

381-2494

TLE::

Dictionary Program Product Manager, CDD/+, Dictionary Tools (future), Rosetta (aka DDL)

Linda Nallett

381-0260

BOSEPM::

Groupware Program Product Manager

Schirley Schneider

381-1892

WEREOK::SSCHNEIDER

DECwindows Program Product Manager

Sue Harris

381-2483

TOOLS::SHARRIS

Datatrieve Technical Transition Manager

GROUP: Business Communications Product Management

Linda Nallett

381-0260

BOSEPM::

Manager

Bill Carey

381-1618

BOSEPM::

Integrated Voice Messaging (IVM), VTX, Electronic Business Document (EBD), DTMA

Gerry Therrien

381-1770

DFCON1::

Teamware A/D, BOSE A/D, Notes

ORGANIZATION: SDT

NOVEMBER 1, 1989

Kay Patterson

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-----  
ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
-----

GROUP PRODUCT MANAGER: BILL JAMES  
-----

GROUP MANAGER: COLLEEN GOLEMAN  
-----

PRODUCT MANAGER  
-----

TELEPHONE  
-----

NODE  
-----

PRODUCTS  
-----

GROUP: Core Applications - Publishing Product Management

Gina Clark	381-0041	SARAH::GCLARK	Manager
Jill Browne	381-2672	SARAH::JBROWNE	DECwrite (VMS, RISC/ULTRIX, OS/2)
Judy Giger*	381-0281	DSSDEV::	Linguistics Services, DECspell, Grammar Checker, International Lexicons (VMS, RISC/ULTRIX, OS/2), Language and Specialized Lexicons (VMS/ULTRIX)
John Ogrodowczyk	381-0048	MAGIC::	DECpage, WPS-PLUS
Linda Storm	381-2248	DSSDEV::	CDMS, DECstyle
*Dotted Line			
GROUP: Core Applications - Decision Support			
Mary Ann Fitzhugh	381-2329	2HOT::	Manager
Ann McQuaid	381-2692	VIA::	DECdecision (VMS/ULTRIX), Teamdata
Marcia Roland	291-8035	AITG::	Decision Expert, DAF
GROUP: Core Applications - CDA/Graphics			
Don Hedman	381-0038	DDIF::	Manager, CDA Program, CDA Licensing/Business Management
Jim Flatten	381-0049	DSSDEV::	GKS, GKS-3D (VMS, RISC/ULTRIX), Phigs (VMS, RISC/ULTRIX)
Eirikur Hallgrimsson	381-0044	DDIF::EH	CDA Converter Library (VMS, RISC/ULTRIX), CDA System Services, LiveLink, ACA (Application Control Architecture)
Don Harbison	381-2408	SARAH::	DECchart (VMS/ULTRIX), DECpresenter (VMS, RISC/ULTRIX) Graphics Applications Technologies

-----  
ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
-----PRODUCT MANAGER: BILL JAMES  
-----GROUP MANAGER: MARY LEARY  
-----

PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS  
-----

GROUP: Core Applications - Publishing Technology

Gerry Lynch	890-2101	ILO::	Manager
Jim Hodnett	890-2264	ILO::	ODA/ODIF
Brendan Noonan	890-2166	ILO::	DLS (Distributed Library System)
Felim O'Neill	890-2445	ILO::	NROFF/DITROFF/TROFF, SGML/CALS, AFS
GROUP: Core Applications - Core Services and Tools			
Bruce Webster	381-2251	DSSDEV::	Manager, DECforms, FMS, TDMS
Stan Burrows	381-2465	VIA::	CBR Services, Finder, Developer's Toolkit

GROUP: All-In-1 Product Management

Karl Barth	381-0927	BOSEPM::	ALL-IN-1 Index Server, ALL-IN-1 DECwindows and MS/DOS Tool Kits
Gerry Campkin	381-2260	A1VAX::	ALL-IN-1 Starter, Zircon, Customer Support
Bill Colquitt	381-2778	A1VAX::	ALL-IN-1 Technical Consultant, Large Systems, System Mgmt Performance, Security
Phil Gabree	381-0774	BCSE::	ALL-IN-1 DESKtops for MS/DOS, MAC, OS/2 (Cardinal) ALL-IN-1 PC Server for VMS
Meg Lustig	381-2333	A1VAX::	ALL-IN-1 Diamond, All-In-1 Emerald, ALL-IN-1 Pricing



ORGANIZATION: SDT

NOVEMBER 1, 1989

Kay Patterson

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ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
-----

GROUP PRODUCT MANAGER: BILL JAMES  
-----

GROUP MANAGER: Marcy Kenah  
-----

PRODUCT MANAGER  
-----

TELEPHONE  
-----

NODE  
-----

PRODUCTS  
-----

GROUP: AIA Product Management

Marcy Kenah

381-2513

IDE::

Manager, AIA, APA, ACA

-----  
 ORGANIZATION: SOFTWARE DEVELOPMENT TECHNOLOGIES (SDT)  
 -----

GROUP PRODUCT MANAGER: BILL JAMES  
 -----

GROUP MANAGER: SUSAN AZIBERT  
 -----

PRODUCT MANAGER  
 -----

TELEPHONE  
 -----

NODE  
 -----

PRODUCTS  
 -----

GROUP: Business Operations

Susan Azibert	381-2341	TLE::	Cost Center Manager, 8Q Vol. Planning,
Bill Bernson*	381-0045	IDE::	Mature Product Management and Migration
Dana Chabot	381-0805	DFCON1::	System Automation, DECUS Scheduling
Ann LeBlanc	381-0043	IDE::	Royalty Tracking, Product Phase Down, DTR
Jim Kelly	381-2507	IDE::	System Management
*Dotted Line			

GROUP: Product Administration

Mary Anne Moquin	381-2344	TLE::	Manager
Terry Duguay	381-1771	BOSEPM::	All-In-1 Products, CLT Products
Kay Patterson	381-2490	IDE::	Core Applications Products, DTR, Rally, CDD/+
Claire Thompson	381-2923	MANANA::	EBD, IVM, Notes, DTMA, VIX, TLE Products

GROUP: ARTIFICIAL INTELLIGENCE TECHNOLOGY GROUP  
 -----

GROUP PRODUCT MANAGER: BILL JAMES  
 -----

GROUP MANAGER: NORMA ABEL  
 -----

PRODUCT MANAGER  
 -----

TELEPHONE  
 -----

NODE  
 -----

PRODUCTS  
 -----

LIZ SOOHO	291-8034	AITG::	VAX LISP (VMS, RISC/ULTRIX)
MARCIA ROLAND	291-8035	AITG::	VAX DECISION EXPERT, DECISION SUPPORT PROD.SHELL, SCHEDULING PROD. SHELL, SIMULATION PROD. SHELL, CONTROL/MONITOR PROD.SHELL

DIGITAL EQUIPMENT CORPORATION  
BEIGE BOOK FY90  
ORGANIZATION/PRODUCT MANAGEMENT REPORT

ORGANIZATION:                  GIA ENGINEERING  
GROUP:                          ABSS  
GROUP PRODUCT MANAGER:        OPEN                  GROUP MANAGER:          CLAUDE PESQUET

<u>Product Manager</u>	<u>Telephone</u>	<u>Node</u>	<u>Product</u>
Lilian Lai		HANZI::	All Chinese/Korean Language products
Kenji Sugiyama		JRDV04::	Japanese RDB, Junoff, Cobol, Cobol Gen, DTR DICT UTI, FMS, GJKS, PHIGS
Kiichi Kawamoto		JRDV04::	Japanese VWS, ULTRIX, VMS, DECwindows
Hidehiro Nagagawa		JSOV10::	Japanese LPS

ORGANIZATION: DSSG  
 GROUP: OSG  
 GROUP PRODUCT MANAGER: BERZLE, RICK

GROUP MANAGER: HEINEN, ROGER

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
ALLES, GARY	415-688-6838	GILROY::	UWS 4.0, SECURITY
APPELLOF, KATHY	206-865-8729	DECWET::	OZIX V2.0
AUGERG, SUSAN	381-0520	FLUME::	RISC/COBOL, RISC/PL1, VAX/RISC ADA
BERZLE, RICK	381-2441	XIRTLU::	OSG PRODUCT MGMT.
BOWMAN, TOM	381-0537	FLUME::	DATA MGMT., RTI INTERFACE
BULLER, LAURIE	381-0534	FLUME::	OPERATING SYSTEM & RELEASE STRATEGY
CACCIOLA, MARYANNE	381-0523	FLUME::	NEW AWK (INFORMIX), RCS, SBROWSE
CHMIELEWSKI, TOM	381-1849	FLUME::	ULTRIX V4.0, V4.1, ISIS, MIPSFAIR, TEAMATE
DADOLY, KEVIN	381-0538	FLUME::	ULTRIX FT MGMT., HW FT MGMT.
DESPAHY, JIM	381-0521	FLUME::	COMMON COMPONENTS
DORMAN, DARCIÉ	381-0531	FLUME::	LAYERED PRODUCT FT, EARLY RELEASE MGMT.
DOYLE, MARY	381-0529	FLUME::	DOCUMENTATION TOOLS, INTERNAL CASE
DURANT, JUDY	830-3482	WESSEX::	ULTRIX MAIL CONNec., X-400 MAIL
DUSLING, DEBBIE	381-0532	FLUME::	PRODUCT DELIVERY GROUP
FLECCHIA, KAREN	381-0188	FLUME::	SPD ADMIN., NPF/SSB, OSG LAYERED PRODUCTS
GILLIS, CLAUDETTE	381-0395	FLUME::	MAGIC CHARTS, MLP FORM SUBMISSION, PART NUMBERING, SOURCE LICENSE, NPF/SSB 3RD PARTY PRODUCTS
GLASSCOCK, TESS	381-0524	FLUME::	RISC/C, RISC/FORTRAN, RISC/PASCAL
HALL, JON	415-853-6555	GILROY::	UWS 2.2, GRAPHICAL SHELLS
HOLDING, JULIE	415-688-6804	GILROY::	DESK-TOP SYSTEM, MULTI-MEDIA
HOLD, DAVID		WESSEX::	PC INTEGRATION, DIST PRINTING
JOHNSON, HERRICK	381-0526	FLUME::	NETWORKING, NAC INTERRACE
MACDONALD, SHARON	381-0528	FLUME::	HW PROTOTYPE, DECUS COUNTERPART
MCINTOSH, STEVE	381-0650	FLUME::	ULTRIX V4.2, 4.NEXT
MORRIS, TERRY	206-865-8783	DECWET::	OZIX V1.0
PARKER, MIKE	206-865-8795	DECWET::	PRODUCTION SYSTEMS
PIPER, CHUCK	381-1156	FLUME::	CASE STRATEGY, SDT INTERFACE
PUSHEE, DAVE	381-0526	FLUME::	V4.0 PACKAGING, AT&T CONTRACT MGMT.
RICHARDSON, CATHIE	206-865-8723	DECWET::	C/C++ COMPILERS, OZIX APPLICATIONS
SAVIGNANO, STEVE	381-2962	XIRTLU::SJS	INTERNATIONALIZATION, STANDARDS
SCHOTT, ERIC	381-0522	FLUME::	SYSTEMS MGMT., 1159
SLACK, JOHN	381-0523	FLUME::	SW ASSET MGMT., CONSOLIDATED DIST, SSI
YEATON, TIM	381-0539	FLUME::	ULTRIX BASE SYSTEM
YELGIN, LOU	381-0523	FLUME::	VMS/ULTRIX CONNECTION

ORGANIZATION: BOSE

NOVEMBER 1, 1989

-----  
ORGANIZATION: BUSINESS AND OFFICE SYSTEMS ENGINEERING (BOSE)  
-----GROUP PRODUCT MANAGER: BILL JAMES  
-----GROUP MANAGER: LINDA NALLETT  
-----PRODUCT MANAGER  
-----TELEPHONE  
-----NODE  
-----PRODUCTS  
-----

GROUP: Business Communications Product Management

Linda Nallett

381-0260

BOSEPM::

Manager

Bill Carey

381-1618

BOSEPM::

Integrated Voice Messaging (IVM), VTX, Electronic  
Business Document (EBD), DTMA

Gerry Therrien

381-1770

DFCON1::

Teamware A/D, BOSE A/D, Notes

GROUP PRODUCT MANAGER: BILL JAMES  
-----GROUP MANAGER: MARY LEARY  
-----PRODUCT MANAGER  
-----TELEPHONE  
-----NODE  
-----PRODUCTS  
-----

GROUP: All-In-1 Product Management

Karl Barth

381-0927

BOSEPM::

ALL-IN-1 Index Server, ALL-IN-1 DECwindows  
and MS/DOS Tool Kits

Gerry Campkin

381-2260

A1VAX::

ALL-IN-1 Starter, Zircon, Customer Support

Bill Colquitt

381-2778

A1VAX::

ALL-IN-1 Technical Consultant, Large Systems,  
System Mgmt Performance, Security

Phil Gabree

381-0774

BCSE::

ALL-IN-1 DESKtops for MS/DOS, MAC, OS/2 (Cardinal)  
ALL-IN-1 PC Server for VMS

Meg Lustig

381-2333

A1VAX::

ALL-IN-1 Diamond, All-In-1 Emerald, ALL-IN-1 Pricing

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G. ORGANIZATION/PRODUCT MANAGEMENT LIST  
 =====

ORGANIZATION : SIMG  
 -----

GROUP: Disks and Subsystems Group - High End  
 -----

GROUP MANAGER: Ed Barron  
 -----

GROUP PRODUCT MANAGER: Larry Huber (Acting)  
 -----

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
David Banks	522-2045	GENRAL::BANKS	Manager of Subsystems Product Management.
Tracey Bernett	522-3782	GENRAL::T_BERNETT	RB-Aspen
Kathy Cara	522-2398	GENRAL::CARA	HSC Products
Mike Cohen	522-3439	GENRAL::COHEN	KDA50, KDB40, UDA50
Larry Huber	522-3681	GENRAL::HUBER	Manager of Disk Product Management
Sharon Lewis	522-3809	GENRAL::SLEWIS	RA90, SA600
Alan Longshore	522-2791	GENRAL::LONGSHORE	Cedar
Jay Norman	522-3124	GENRAL::J_NORMAN	SA482 and RA82 and RA81, RA60
Dan Park	522-3475	GENRAL::PARK	SA550 and SA650
Clare Russ	522-6469	GENRAL::RUSS	KDM70
JoAnn Schmitz	522-3445	GENRAL::SCHMITZ	RA70 and BA27, SA705
Rob Spence	522-2962	GENRAL::SPENCE	TOOTHPICK
Nigel Webb	522-3372	GENRAL::WEBB	Monarch/Arapahoe

D I G I T A L R E S T R I C T E D D I S T R I B U T I O N

G. ORGANIZATION/PRODUCT MANAGEMENT LIST

ORGANIZATION : SIMG

GROUP: Disks and Subsystems Group - Low End

GROUP MANAGER: Ed Barron

GROUP PRODUCT MANAGER: K. Srivastava

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
*LYNN AZEVEDO	291-7055	LEDS::	RD52, RL02, RC25, RD31, RD32, RX33
BOB GRAY	291-7054	LEDS::	KFMSA (formally DASH) DSSI 60" Storage Array SF200 DSSI Storage Array Building Blocks SF31/72 SUBSYSTEMS MANAGER
*ACE LOPEZ	291-7053	LEDS::	RZ57I, RZ31, WORKSTATIONS
MARY MEEKER	291-7365	LEDS::	RD53, RD54, RZ22, RZ23, RZ24, RX23
DONNA MUNDY	291-7057	LEDS::	RF30, RF71, RF31, RF72, RX50, RX02 Internal Disks
ADRIAN PICCOLO	291-7058	LEDS::	RZ55, RZ56 Buyputs Product Manager
SUSAN ZANEY	291-7059	LEDS::	KFQSA, Removable Storage Element

\* Denotes new Product Manager

D I G I T A L R E S T R I C T E D D I S T R I B U T I O N

## 2.0 Organization/Product Management List

PRODUCT MANAGER -----	TELEPHONE -----	NODE ----	PRODUCTS -----
Rick Angelica	291-9627	Elwood	TX80/81, TX78/79
Anne Blanchard	291-9624	Elwood	RRD50, RRD40/41, Zephyr
Jayne Damesek	291-9622	Elwood	TA90, Mohawk
Normando Diaz	291-9891	Elwood	TZ30, TX70, Maya Family
Chet Jacobs	291-9890	Elwood	Quabbin, Schooner
Mary Lasky	291-9893	Elwood	TK50
Ed McCarren	291-9628	Elwood	SLS, Guardian Backup
Deanna Michaelson	291-9625	Elwood	RV20, RV64



ORGANIZATION: STORAGE AND INFO. MANAGEMENT  
-----

SUBMISSION DATE: OCT 1989  
-----

PREPARER: JANET BOVAIRD  
-----

GROUP: Electronic Storage Development  
-----

GROUP PRODUCT MANAGER: Frank Sebastian  
-----

GROUP MANAGER: Tom Frederick  
-----

PRODUCT MANAGER -----	TELEPHONE -----	NODE -----	PRODUCTS -----
Lois Anagerami	237-2196	Memory	LES: Mayfair, PELE, Mipsfair, Spitfire, Microvax II
Connie Doyle	237-2910	Memory	PVAX, PMAX, FIREFOX
Geoff Hogan	237-3682	Memory	Silverbolt SSD
Frank Lazgin	237-3435	Memory	Laser, Nautilus, Calypso, Mariah
James Yim	237-3378	Memory	Aquarius, Cirrus, Venus

ORGANIZATIONAL CHART OF PRODUCT MANAGEMENT GROUP

ORGANIZATION: Storage Systems  
-----

GROUP: Database Systems  
-----

GROUP PRODUCT MANAGER: Chuck Rozwat  
-----

GROUP MANAGER: Hans Gyllstrom  
-----

PRODUCT MANAGER -----	TELEPHONE -----	NODE -----	PRODUCTS -----
Chuck Armatys	523-2751	COOKIE::ARMATYS	RdbStar/OzIX, RdbStar/Ref. OSF
Lydia Bennett	381-2893	PBSVAX::BENNETT	Object Based Systems
Wendy Caswell	264-2833	CLYPPR::CASWELL	DDA2 Program
Marco Emrich	381-2366	CREDIT::EMRICH	Distributed and Interoperability Program
Steve Horn	264-2835	CLYPPR::HORN	Rdb/VMS, VAX SQL, SE-Rdb/VMS
Abe Mathew	264-2838	CLYPPR::MATHEW	VAX DBMS, ULTRIX-SQL, ULTRIX/SQL Rdb/VMS Access
Terri McKeever	381-0221	CREDIT::MCKEEVER	ADDS Program, Tools Program DECdesign
Mike O'Connell	381-2374	CREDIT::OCONNELL	DECtrace, DEC RdbExpert
Cyndi Peddigree	343-0572	CSCOA5::PEDDIGREE_C	ADDS/Image
Marya Praxmarer	523-2969	COOKIE::M_PRAXMARER	RdbStar
Garth Reid	523-2788	COOKIE::G_REID	RdbStar, DDA2 Migration Aids
Alan Simon	523-2796	COOKIE::SIMON	RdbStar/VMS, SE-RdbStar/VMS
Anne Thomas	381-0281	CREDIT::THOMAS	VIDA with IDMS/R, VIDA for DB2 Rdb:Link to DB2, VAXlink, RdbStar:Link to DB2, RdbStar:Link to ORACLE, RdbStar/OZIX:Link to DB2, RdbStar/OSF:Link to DB2
R.J. Thomas	523-2791	COOKIE::RJTHOMAS	DBS Planning Administrator
Debra Wasserman	264-1863	CLYPPR::WASSERMAN	VAX SQL Services, VAX ESQ L Services
Andrew Watson	381-2373	CREDIT::WATSON	VAX Data Distributor, Star

DIGITAL EQUIPMENT CORPORATION

BEIGE BOOK FY90

ORGANIZATION/PRODUCT MANAGEMENT REPORT

ORGANIZATION: ESG

GROUP: SYSTEMS ENGINEERING

GROUP PRODUCT MANAGER: PRAKASH BHALERAO

GROUP MANAGER: PRAKASH BHALERAO

PRODUCT MANAGER -----	TELEPHONE -----	NODE ----	PRODUCTS -----
TANG, ED	297-3472	CURIE::	DECFRAME/AERO
CHOW, CHAN	297-3510	ELMST::	DECFRAME/ELECTRONICS
JOHNSON, CHUCK	297-4606	CURIE::	DECFRAME/UTILITIES DECFRAME/DOCUMENTATION

FORMAT FOR ORGANIZATION/PRODUCT MANAGEMENT TEMPLATE

ORGANIZATION

EFFECTIVE DATE

PREPARER

PAGE n of n

-----  
 ORGANIZATION: ENGINEERING SYSTEMS GROUP  
 -----

GROUP: ESG PRODUCT MARKETING AND DEVELOPMENT  
 -----

GROUP PRODUCT MANAGER: ROD HODGMAN  
 -----

GROUP MANAGER: RICH LEWAN  
 -----

PRODUCT MANAGER  
 -----

TELEPHONE  
 -----

NODE  
 -----

PRODUCTS  
 -----

FIONA SANDERSON

297-5766

CURIE::

DECview3D V2.0

SPATIAL V1.2

WORKFLOW MANAGER V1.0

TAMY LOCKHART

297-2659

CURIE::

EDCS II V2.0

EDCS II V2.1

EDCS II V2.2

DIGITAL EQUIPMENT CORPORATION  
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ORGANIZATION/PRODUCT MANAGEMENT REPORT

1-NOV-1989

ORGANIZATION: CMPD

GROUP: CIM DEVELOPMENT ENGINEERING  
GROUP PRODUCT MANAGER: BILL SCHAUWEKER

GROUP MANAGER: BOB ANDERSEN

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
GENE NADDEO	291 - 7751	CIMNET::	VAX DEC/MAP 3.0
GENE NADDEO	291 - 7751	CIMNET::	VAX DEC/MAP 2.0
TERRY BASS	291 - 7909	CIMNET::	VAX DEC/OMNI V1.0

GROUP: CONTROL VENDOR INTEGRATION

GROUP MANAGER: MARTY SCARPATI

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
ALICE CALDWELL	291 - 7710	CIMNET::	STRATEGIC ALLIANCES
BILL BERGER	291 - 7669	CIMNET::	STRATEGIC ALLIANCES

GROUP: CIM PRODUCT MARKETING

GROUP MANAGER: TONI LEE RUDNICKI

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
LAURA STARTZENBACH	291 - 7734	CIMNET::	IVAX

ORGANIZATION: CIM INTERNATIONAL ENGINEERING

GROUP MANAGER: JEM SCANLAN

GROUP: CIMIE

PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
-----	-----	----	-----
LORENZO PENGO	871-7464	CESARE::	VAX/VMS SERVICES for SIEMENS SINEC H1 (VSH1)
LORENZO PENGO	871-7464	CESARE::	DEC/OSAP

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5.0 PRODUCT MANAGER LISTING

CORPORATE SYSTEMS GROUP

13-NOV-89

TOM SZCZEPANSKI

PAGE 1 OF 1

-----  
ORGANIZATION: CORPORATE SYSTEMS GROUP  
-----

GROUP: TELECOM SYSTEMS GROUP  
-----

GROUP PRODUCT MANAGER: N/A  
-----

GROUP MANAGER: BILL KANIA  
-----

PRODUCT MANAGER:  
-----

TELEPHONE:  
-----

NODE:  
-----

PRODUCTS:  
-----

AROIAN, RICH	291-0227	CSGDEC::	BINES PLATFORM, ITEMIZED BILLING TECH ST.
BARRY, SEAN	828-5058	TAEC::	VAXSMS V1.0
BIONDI, ANTOINE	828-5779	TAEC::	ENOP V2.0 PLATFORM
DEIGHTON, NIGEL	828-5695	TAEC::	VAXSCP AIP V1.0
JULLIEN, VINCENT	828-6151	TAEC::	EUR OSS PLATFORM
LEBRIS, HERVE	828-5396	TAEC::	VAXSS7 V1.0, V2.0
MEIDELL, STEVE	291-0414	CSGDEC::	INTERIM PLATFORM, EMA THIRD PARTY SUPPORT
MERRIMAN, DAN	291-0326	CSGDEC::	US OSS PLATFORM

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Chapter 5 - Organization/Product Management

ORGANIZATION	SUBMISSION DATE	PREPARER
Organization: Corporate Systems Group	11/3/89	L. Sanders
Group: Financial Systems Group		
Group Product Manager: Linda Sanders		
Group Manager: Norm Goldberg		

Product Manager	Telephone #	Node	Products
John McAtee	291-0276	DEALIN	EDGE Program
Bill Meserve	291-0145	DEALIN	CBW
Tom Mulvehill	291-0259	DEALIN	EDGE V1.0
Geoff Oades	774-6044	SIEVAX	RTB Platform
Lin Olsen	291-0302	DEALIN	DECTrade

ORGANIZATION/PRODUCT MANAGEMENT LIST

ORGANIZATION Image Systems Group SUBMISSION DATE November 1,1989 PREPARER: Paul Krysiak Page of

---

ORGANIZATION: Image Systems Group

---

Product Manager	Telephone	Node	Products
Vince Mamone	264-2065	VISUAL	DECimage SCAN SOFTWARE
Barbara Liberty	264-1174	VISUAL	VAXimage APPLICATION SOFTWARE
John Carpenter	264-2443	VISUAL	DECimage STORAGE MANAGER



ORGANIZATION Health Care Industry Group EFFECTIVE DATE 11/1/89 PREPARER Leslie Harrison

-----  
ORGANIZATION: Health Care Industry Group

-----  
GROUP: Health Care Industry Group Engineering

-----  
GROUP PRODUCT MANAGER: Mary Fox

GROUP MANAGER: Dick Corley

-----  
PRODUCT MANAGER

TELEPHONE

NODE

-----  
PRODUCTS

-----  
Leslie Harrison

-----  
297-2354

-----  
NIMBUS

-----  
VAX DECrad

DIGITAL EQUIPMENT CORPORATION  
BEIGE BOOK FY90  
ORGANIZATION/PRODUCT MANAGEMENT REPORT

ORGANIZATION: GOVERNMENT SYSTEMS GROUP  
GROUP: PRODUCT MANAGEMENT

GROUP PRODUCT MANAGER: DOUG MACLEAN (264-5204)

GROUP MANAGER: SURESH MASAND (264-4701)

<u>PRODUCT MANAGER</u>	<u>TELEPHONE</u>	<u>NODE</u>	<u>PRODUCTS</u>
TOM BEAUDET	264-4047	STEREO::	RF30 Removable Drive RF71 Removable Drive SA705 Removable RF70 Array SCSI Removable Drive
LOUISE BRANDWEIN	264-4497	STEREO::	Rx-3MAX Workstation Rx-PVAX2 Workstation Rx-Disk Pedestal
FRANK NOVAK	264-4643	STEREO::	Rx-LK401 Keyboard Rx-DELNI Terminal Concentrator Rx-H4005 Ethernet Tap Rx-VR320 Monitor
BILL NAAS	264-4499	STEREO::	Compartmented Mode Workstation (CMW)

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ORGANIZATION: SWS/E MANUFACTURING

EFFECTIVE DATE  
NOVEMBER 1, 1989

PREPARER:  
SANDRA BROWN

PAGE  
1 OF 6

-----  
ORGANIZATION: Software Services Engineering  
-----

GROUP: MANUFACTURING APPLICATION CENTER FOR ENGINEERING AND SUPPORT  
-----

GROUP PRODUCT MANAGER: BO ERDEN  
-----

GROUP MANAGER: TERRY STARTSMAN  
-----

PRODUCT MANAGER  
-----

TELEPHONE  
-----

NODE  
-----

PRODUCTS  
-----

MIKE HUMPHRIES  
MIKE MCCREADY  
CRAIG JONES  
LOUIS MAHONEY  
JEAN PAUL CHAUTEMPS

264-2125  
773-3025  
264-2578  
264-2585  
779-1173

GSFSWS::HUMPHRIES  
UFHIS::MMCCREADY  
GSFSWS::JONES  
GSFSWS::MAHONEY  
@MUS

BASEway  
DNC  
VSAP  
BASESTAR  
PMS

ORGANIZATION

SUBMISSION DATE  
NOVEMBER 1, 1989

PREPARER  
SANDRA BROWN

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ORGANIZATION: Software Services Engineering (SWS/E)  
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GROUP: Office and Publishing Application Center for Engineering and Support  
-----

GROUP PRODUCT MANAGER: JANE BOOTH  
-----

GROUP MANAGER: PAT ROSA  
-----

PRODUCT MANAGER  
-----

TELEPHONE  
-----

NODE  
-----

PRODUCTS  
-----

Linda Bailey Knight	264-1808	UPNTH::BAILEY	A1 Systems for Sales and Marketing
Linda Bailey Knight	264-1808	UPNRTH::BAILEY	A1 System/DMM
Linda Bailey Knight	264-1808	UPNRTH::BAILEY	A1 System for Executive Services
Leah Phillips	393-7577	SHALOT::PHILLIPS	A1 Systems for Business Operations
Leah Phillips	393-7577	SHALOT::PHILLIPS	A1 & Interleaf Integration Solution
Leah Phillips	393-7577	SHALOT::PHILLIPS	A1 Shared File Cabinet Services
Tony Camp	264-2456	UPNRTH::CAMP	A1 Service for VMS DECwindows

ORGANIZATION  
SWS/E ATPS

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ORGANIZATION: SOFTWARE SERVICES ENGINEERING (SWS/E)

GROUP: ADVANCED TECHNOLOGY PRODUCTS AND SERVICES (ATPS)

GROUP PRODUCT MANAGER:

GROUP MANAGER: WALT MILLER

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PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
ROGER FRENCH	DTN 264-2528	GSFSWS:FRENCH	VMS SECURITY ENHANCEMENT SERVICE
JERRY SMITH	DTN 264-3032	ATPS::JSMITH	VAX SPM
GAIL TAYLOR	DTN 264-5218	ATPS::TAYLOR	VAX DECcp V1.0
CHRIS JANSON	DTN 264-5216	ATPS::JANSON	VPCS
CHRIS JANSON	DTN 264-5216	ATPS::JANSON	CP TECHNOLOGY CENTER

ORGANIZATION: SWS/E NETWORK ACES

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ORGANIZATION: Software Services Engineering  
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GROUP: Network ACES - Application Center for Engineering and Support  
-----

GROUP PRODUCT MANAGER: Karl Molander  
-----

GROUP MANAGER: IRENE NAGLER  
-----

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PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
Pat Garofoli	264-2559	NWACES::	ACT Demo, NCW, LTM-Reports, MCC-Reports,

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ORGANIZATION: STRATEGIC SOFTWARE  
PRODUCTS ENGINEERING

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ORGANIZATION: Software Services Engineering

GROUP: STRATEGIC SOFTWARE PRODUCTS ENGINEERING (SSPE)

GROUP PRODUCT MANAGER:

GROUP MANAGER: JOHN ONEAL

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PRODUCT MANAGER

TELEPHONE

NODE

PRODUCTS

Larry Villandry  
Laurie Studivan

264-2503  
223-1224

SSPENG::VILLANDRY  
SPGOPS::STUDIVAN

VWS  
DECalc, IAS-11

ORGANIZATION: FINANCIAL ACES

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ORGANIZATION: Software Services Engineering  
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GROUP: FINANCIAL ACES  
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GROUP PRODUCT MANAGER:  
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GROUP MANAGER: FRANK JANSEN  
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PRODUCT MANAGER	TELEPHONE	NODE	PRODUCTS
BARBARA PRINCE	338-6310	NAIRA::PRINCE	3D

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