

CONF 930268-1

LA-UR- 93-636

Title ESCAPAID PROJECT PLAN
(ESCAPAID=ELECTRONIC SYSTEMS CONTRACT ADMINISTRATION PAYMENT
AND INVOICING DATABASE)

LA-UR--93-636

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Submitted to ESCAPAID Project Plan Workshop,
Los Alamos, NM
Feb. 11, 1993

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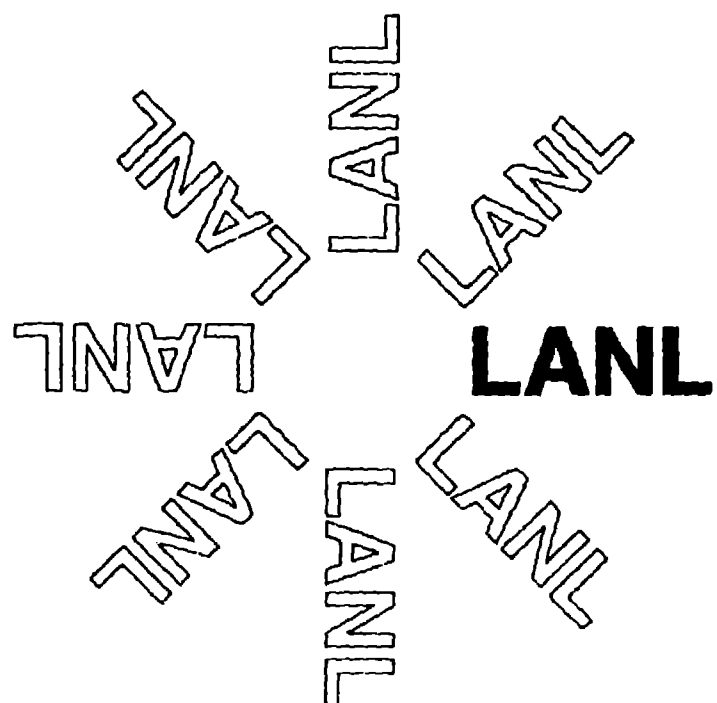
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ESCAPAID

Project Plan

February 11, 1993

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

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Chapter 1

Overview

This chapter of the ESCAPAID Project Plan contains general information that is the foundation for the preliminary project plan discussed in Chapter 2. Included are the following sections:

- Section 1, Background
- Section 2, Objectives
- Section 3, Scope
- Section 4, Assumptions
- Section 5, Constraints
- Section 6, Risks
- Section 7, Rewards
- Section 8, Future Consideration
- Section 9, Measures for Success

Section 1 Background

The Electronic Systems Contract Administration Payment And Invoicing Database (ESCAPAID) project is a cooperative effort to simplify and automate the contracting and billing of services between Digital Equipment Corporation (Digital) and Los Alamos National Laboratory (LANL)

The ESCAPAID project is intended to improve productivity in both organizations by reducing the inaccuracies and the amount of manual effort in the current system. Within LANL, the project is intended to streamline operations for purchasing (MAT Division), finance (FIN Division), and Laboratory personnel requesting maintenance contract services from Digital

In October 1992, Digital and LANL released a jointly developed Program Definition, which provides an overview of the proposed system and an eight-step strategy for implementing a preliminary model. The second step of this strategy calls for the development of a model plan, including a description of all high-level tasks that need to be completed and a series of Gantt and PERT charts.

In order to accomplish this step, representatives from Digital and LANL participated in a Joint Application Development (JAD) workshop on January 19 and 20, 1993. The results of the workshop are reflected in this document.

Chapter 1, Overview, contains general information about the workshop, including

- objectives, scope, assumptions, constraints, risks, and rewards as validated by the participants,
- future consideration as identified by the participants, and
- measures for success as identified by the participants.

Chapter 2, Project Plan, presents the preliminary project plan for development and implementation of the model, based on the results of the workshop.

For further background information about the project itself, please refer to the ESCAPAID Program Definition dated October 8, 1992.

Section 2 Objectives

The participants validated the objectives of the workshop.

- Develop a project plan for the model of the ESCAPAID project, including
 - processes,
 - milestones,
 - business objectives,
 - responsibilities, and
 - estimated dates.
- Identify measurements for the model's success.
- Include plan to re-engineer MAT Division's manual Purchase Request (PR) process as it relates to computer maintenance contracts (i.e., include re-engineering in the plan).

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Section 3 Scope

The participants validated the scope of the workshop.

- The workshop will focus on developing a project plan.
- A detailed process definition of the current system will be done outside the workshop.

Section 4 Assumptions

The participants validated the assumptions of the workshop.

- LANL will develop an automated system on the IBM mainframe using DB2.
- The means for sharing data with Digital will be defined later.
- The LANL system will create a payment transaction based on its equipment list, thus eliminating the need for a vendor invoice.
- The LANL system will automatically issue a check to Digital for services provided.
- The model will include a database of all Computing and Communications (C) Division hardware currently on maintenance contract with Digital, including warranty information

Section 5 Constraints

The participants validated the constraints on the project.

- Money
- Time
- Data security
- The need to accommodate multiple organizations' requirements
- The need to be able to expand the model to other vendors, LANL organizations, and other Digital customers
- Complex approval cycles

Section 6 Risks

The participants validated the risks of the project.

- May not be achievable
- May create more problems than currently exist
- May challenge the trust among partners
- May encounter funding problems
- May be sidetracked by reorganization

Section 7 Rewards

The participants validated the potential rewards of the project.

- Can offer savings within all organizations
- Can help realize initial Continuous Quality Improvement (CQI) goals
- Can improve throughput time and reduce errors
- Can lead to team success
- Can offer a sense of accomplishment

Section 8 Future Consideration

The participants determined that, in the future, when LANL implements automated funds control, ESCAPAID must accommodate it.

Section 9 Measures for Success

The participants identified measures for the success of the project.

- **Processing Time**—total time expended by employees for the following activities related to the maintenance contract:
 - requesting,
 - purchasing,
 - finance (LANL),
 - contract administration,
 - finance (DEC),
 - services sales,
 - service delivery, and
 - revenue.
- **Throughput Time**—elapsed time from initiation to first check payment.
- **Number of Adjustments**—adjustments per unit time, including retroactive adjustments, credits, rebills.
- **Number of USRs**—Unidentified Service Request (reflects the accuracy of the database)
- **Customer Satisfaction**—as measured by Digital questionnaire.
- **Days Sales Outstanding**—elapsed time between invoice creation and payment.
- **Predictability**—number of times (% of times) an event occurs when promised— exception time (needs further definition).
- **Cost**— Including personnel, paper, etc.

Chapter 2

Project Plan

This chapter of the ESCAPAID Project Plan contains the matrix and charts which comprise the preliminary project plan. Included are the following sections:

- Section 1, Overview
- Section 2, Task Matrix
- Section 3, Gantt Charts
- Section 4, PERT Charts

Section 1 Overview

During the JAD workshop, the participants identified functions, activities, and tasks involved in the ESCAPAD project. The participants then defined these items and arranged them along a time line.

Based on the results of the workshop, the following preliminary project plan has been developed, including

- a task matrix showing the name, responsible party, preliminary start and finish dates, description, and other information about each identified task;
- Gantt charts showing the arrangement of tasks along a time line; and
- PERT charts showing the predecessor-successor relationships among tasks.

To develop the preliminary project plan, the first step was to organize the identified items into four general classifications:

- **Joint Activities**—activities performed by both Digital and LANL for both systems at the same time;
- **Digital Activities**—activities directed specifically toward the development and implementation of the Digital system (sometimes with participation from LANL);
- **Laboratory Activities**—activities directed specifically toward the development and implementation of the LANL system (sometimes with participation from Digital); and
- **Milestones**—those milestones identified by the participants.

Most of the activities in the second and third classifications parallel each other.

Within each of the first three classifications of activities, tasks were then distributed among ongoing activities, definition activities, analysis activities, design activities, and implementation activities, depending upon their placement by participants along the time line.

As reflected in the Gantt and PERT charts, the resulting project plan allows Digital and LANL to develop their systems along separate schedules, while still maintaining links between the development efforts and communication between the partners.

All dates and relationships are tentative, intended as a starting point for further refinement by the project teams. For current information, contact the Digital and LANL project teams. In order to assist in this process, diskette copies of the preliminary project plan have been provided to the project teams in Microsoft® Excel and Microsoft® Project formats.

Section 2 Task Matrix

The following matrix lists the tasks identified by the workshop participants. Included are seven columns:

- **ID**—the ID number assigned to the line by Microsoft® Project.
- **Outline Number**—the outline number assigned to the line by Microsoft® Project. The first digit indicates the classification (1=Joint Activities, 2=Digital Activities, etc.). Two-digit numbers indicate summary groups (1.1=Joint Ongoing Activities, 1.2=Joint Definition Activities, etc.). Three-digit numbers indicate the tasks themselves.
- **Name**—the name of the task.
- **Party**—the party or parties participating in the task.
- **Predecessors**—the tasks that are predecessors for the task. The numbers in this column refer to the ID number in the first column of the matrix. SS indicates a start-to-start relationship (i.e., both tasks start at the same time). FF indicates a finish-to-finish relationship (i.e., both tasks finish at the same time). A number by itself indicates a finish-to-start relationship (i.e., the current task begins when the predecessor task ends). All predecessor-successor relationships are tentative, included to drive the project management software but expected to change as the project teams refine the project plan.
- **Start**—the start date for the task. All dates are tentative, intended to show the relationship among tasks but expected to change as the project teams refine the project plan.
- **Finish**—the end date for the task. Again, all dates are tentative.
- **Area**—the general area of the task, as classified by the workshop participants (Technology, Business, or Personnel). Not all tasks have an area identified.
- **Description**—the description of the task, as formulated by the workshop participants. Not all tasks have descriptions.

In addition to the tasks listed in the matrix, workshop participants identified and defined a number of technology activities that were not included in the time line. A list of these activities is presented in Appendix B of this document.

Outline ID	Number	Name	Party	Predecessors	Start	Finish	Area	Description
1	1	Joint Activities			12/1/92	8/23/93		
2	1.1	Joint Ongoing Activities			1/21/93	8/23/93		
3	1.1.1	Perform Management Briefings	LANL/Digital	7SS	1/21/93	8/23/93	Personnel	Keep management apprised of project status.
4	1.2	Joint Definition Activities			12/1/92	3/15/93		
5	1.2.1	Define Business Objectives	LANL/Digital		12/1/92	12/15/92	Business	Describe the desired outcome of the project.
6	1.2.2	Write ESCAPAID Program Definition	LANL/Digital	5	12/15/92	12/31/92		
7	1.2.3	Define Business Requirements	LANL/Digital	6	1/21/93	1/22/93	Business	Describe what must happen for the project to succeed. Examples: LANL should not pay for unwanted service; Digital should not provide uncovered service; service should not be duplicated; government reporting requirements must be met.
8	1.2.4	Identify Functional Business Responsibilities	LANL/Digital	7	1/25/93	1/25/93	Business	Identify business responsibilities by organizational function within Digital and LANL.
9	1.2.5	ESCAPAID Review Digital Requirements Specification	LANL/Digital	34	3/2/93	3/15/93		Review by ESCAPAID committee of Digital Requirements Specification, prior to submission of document to Digital management.
10	1.3	Joint Analysis Activities			5/14/93	5/14/93		
11	1.3.1	Identify Pricing Mechanism	LANL/Digital	42.73	5/14/93	5/14/93	Business	Identify the current mechanism for determining and implementing pricing. Examples: how base prices are communicated; how discounts are applied; how level of service affects pricing.
12	1.4	Joint Design Activities			5/17/93	5/17/93		
13	1.4.1	Develop Manual Workflow for New Process	LANL/Digital	11	5/17/93	5/17/93	Business	Identify and streamline the existing system for both Digital and LANL.
14	1.4.2	Simplify Pricing Mechanism	LANL/Digital	11	5/17/93	5/17/93	Business	Simplify the pricing mechanism identified in 1.3.1, above.
15	1.5	Joint Implementation Activities			7/27/93	8/23/93		
16	1.5.1	Merge Business Process	LANL/Digital	52.86	7/27/93	8/2/93	Business	Ensure that the business practices of the business partners are compatible.
17	1.5.2	Perform Integrated Test	LANL/Digital	16	8/3/93	8/9/93		
18	1.5.3	Complete Model	LANL/Digital	17	8/10/93	8/16/93		
19	1.5.4	Perform Joint Management Review	LANL/Digital	18	8/17/93	8/23/93		
20								

Outline		Predecessors			Party		Start	Finish	Area	Description
D. Number	Name									
21.2	Digital Activities						1/21/93	8/23/93		
22.2.1	Digital Ongoing Activities						1/21/93	8/23/93		
23.2.1.1	Program Management			7SS	Digital/LANL		1/21/93	8/23/93		
24.2.1.2	Generate Documentation			92	Digital/LANL	Personnel	3/31/93	8/23/93		Develop appropriate documentation, including user guides for each type of user, reference cards, system documentation, policies and procedures, and other documentation determined to be needed for successful implementation.
25.2.1.3	Personnel Training			47	Digital/LANL	Personnel	5/18/93	8/23/93		Develop and deliver training to Digital contract administrators, services sales force, and information systems resources.
26.2.1.4	Gather Metrics			98	Digital/LANL	Business	8/20/93	8/23/93		Measure throughput time and level of effort in entire process on an ongoing basis to assess the impact of the "improvement."
27.2.2	Digital Definition Activities						1/26/93	3/31/93		
28.2.2.1	Perform Digital Technical Definition Activities			29SS,35FF	Digital	Technology	1/26/93	3/31/93		Achieve a conceptual agreement on what needs to be done, including business issues, deliverables, scope, and objectives.
29.2.2.2	Develop Change Management Process			3	Digital/LANL	Business	1/26/93	1/28/93		Document the requirements and procedures for managing and communicating changes affecting system and application design, application data, and the vendor-customer interface.
30.2.2.3	Develop Baseline Measure			29	Digital/LANL	Business	1/29/93	2/2/93		Measure throughput time and level of effort in entire current process.
31.2.2.4	Define Business "Triggers"			30	Digital/LANL	Business	2/3/93	2/5/93		Define what action takes place when a "trigger" is activated and who takes appropriate action to act on the "trigger."
32.2.2.5	Define a Quality Plan			31	Digital/LANL	Business	2/8/93	2/10/93		Ensure that appropriate methodologies are used in the project; incorporate industry "standards."
33.2.2.6	Define Digital Internal Controls			32	Digital	Business	2/11/93	2/15/93		Define those aspects of the project, internal and external, needed to ensure proper documentation, follow established procedures, and comply with established business practices.

Outline		Name			Party		Pred- cessors		Start	Finish	Area	Description
ID Number		Name			Party		Pred- cessors		Start	Finish	Area	Description
34 2.2.1		Write Digital Requirements Specification			Digital		33		2/16/93	3/1/93		Develop the Requirements Specification, including executive overview, business objectives, current business, proposed system, scope of hardware and software environment, and strategy.
35 2.2.2		Management Review of Digital Requirements Specification			Digital		34		3/17/93	3/31/93		
36 2.3		Digital Analysis Activities					41 193		4/1/93	5/7/93		
37 2.3.1		Perform Digital Technical Analysis Activities			Digital/LANL		38SS,39FF		4/1/93	5/7/93	Technology	Build project plan; perform high-level data analysis; generate context diagram.
38 2.3.2		Analyze People Impact			Digital		92		4/1/93	4/20/93	Personnel	Evaluate the impact of the system on people's jobs and responsibilities. Manage and communicate the change in a positive fashion.
39 2.3.3		Define Process for Indirect Purchases			Digital/LANL		38		4/21/93	5/7/93	Business	Ensure that products purchased through both direct and indirect channels are made known to the system.
40 2.4		Digital Design Activities					51 093		5/10/93	6/16/93		
41 2.4.1		Perform Digital Technical Design Activities			Digital		42SS,48FF		5/10/93	6/16/93	Technology	Develop database design, including process specifications, interfaces, security, and physical environment. Assign implementation responsibilities. Generate system design specification. Determine acceptance test criteria.
42 2.4.2		Refine Digital Process			Digital		39		5/10/93	5/13/93	Business	Define and document a simplified Digital process that meets ESCAPAD business objectives.
43 2.4.3		Establish Integrator Requirements			Digital/LANL		42		5/14/93	5/19/93	Business	Define points where Digital systems interface to each other and to LANL systems. Design systems to meet interface requirements.
44 2.4.4		Generate Digital Functional Specification			Digital		43		5/20/93	5/25/93		
45 2.4.5		Generate Implementation Plan Human Resources			Digital/LANL		44		5/26/93	5/31/93	Personnel	Develop overall plan for training, documentation, outreach, troubleshooting, ongoing support, and human impact.
46 2.4.6		Generate Implementation Plan Business			Digital/LANL		45		6/1/93	6/4/93	Business	Ensure that acceptable business practices are defined, documented, and followed.

Outline IC Number	Name	Party	Predecessors	Start	Finish	Area	Description
47 2.4.1	Define Policies and Procedures	Digital, LANL	46	5/7/93	6/10/93	Business	Document the policies in both companies that relate to the ESCAPAD activities, and document the procedures associated with ESCAPAD.
48 2.4.2	Perform Joint Walk Through - Digital System	Digital, LANL	47	6/11/93	6/16/93		
49 2.5	Digital Implementation Activities			6/17/93	7/26/93		Build and test the Digital system in accordance with Digital standards.
50 2.5.1	Build Digital System	Digital	96	6/17/93	6/30/93		
51 2.5.2	Test Digital System	Digital	50	7/1/93	7/13/93		
52 2.5.3	Test Digital Business Processes	Digital, LANL	51	7/14/93	7/26/93		
53							
54 3	Laboratory Activities			1/21/92	8/23/93		
55 3.1	Laboratory Ongoing Activities			1/21/93	8/23/93		
56 3.1.1	Program Management	LANL, Digital	755	1/21/93	8/23/93		
57 3.1.2	Generate Documentation	LANL, Digital	61	1/26/93	8/23/93	Personnel	Develop appropriate documentation, including user guides for each type of user, reference cards, system documentation, policies and procedures, and other documentation determined to be needed for successful implementation.
58 3.1.3	Perform Training	LANL, Digital	80	2/22/93	8/23/93	Personnel	Develop and deliver training to LANL requestors, FINI, ADP, and MAT.
59 3.1.4	Gather Metrics	LANL, Digital	98	8/9/93	8/23/93	Business	Measure throughput time and level of effort in entire process on an ongoing basis to assess the impact of the "improvement."
60 3.2	Laboratory Definition Activities			1/26/93	1/29/93		
61 3.2.1	Perform Laboratory Technical Definition Activities	LANL	62SS, 65FF	1/26/93	1/29/93	Technology	Perform technical definition in accordance with ADP standards.
62 3.2.2	Develop Change Management Process	LANL, Digital	8	1/26/93	1/26/93	Business	Document the requirements and procedures for managing and communicating changes affecting system and application design, application data, and the vendor-customer interface.
63 3.2.3	Develop Baseline Measure	LANL, Digital	62	1/27/93	1/27/93	Business	Measure throughput time and level of effort in entire current process.
64 3.2.4	Define Business Triggers	LANL, Digital	63	1/27/93	1/28/93	Business	Define what action takes place when a "trigger" is activated and who takes appropriate action to act on the "trigger."

Outline		Predecessors				Party		Start		Finish		Area		Description	
ID Number	Name														
55 3.2.5	Define a Quality Plan				64	LANL Digital		1/29/93		1/29/93		Business		Ensure that appropriate methodologies are used in the project; incorporate industry "standards."	
56 3.3	Laboratory Analysis Activities							2/1/93		2/3/93					
57 3.3.1	Perform Laboratory Technical Analysis Activities				65SS.70FF	LANL Digital		2/1/93		2/3/93		Technology		Perform technical analysis in accordance with ADP standards.	
58 3.3.2	Define Requestor MAT Interface				65	LANL		2/1/93		2/1/93				Define those aspects of the project, internal and external, needed to ensure proper documentation, follow established procedures, and comply with established business practices.	
59 3.3.3	Define Audit Requirements				68	LANL		2/2/93		2/2/93		Business		Ensure that products purchased through both direct and indirect channels are made known to the system.	
60 3.3.4	Define Process for Indirect Purchases				69	LANL Digital		2/3/93		2/3/93		Business		Perform technical design in accordance with ADP standards.	
61 3.4	Laboratory Design Activities							1/22/93		2/25/93				Define and document a simplified procurement process that meets the ESCAPAD business requirements and is consistent with existing policies and procedures.	
62 3.4.1	Perform Laboratory Technical Design Activities				73SS.81FF	LANL		2/4/93		2/25/93		Technology		Review FIN business procedures to assure that the LANL SMART system will work with ESCAPAD.	
63 3.4.2	Re-engineer MAT Process				70	LANL		2/4/93		2/5/93		Business		Simplify procedure for placing purchase requests, while still adhering to procurement policies.	
64 3.4.3	Review FIN Business Procedures				73	LANL		2/8/93		2/9/93		Business		Define points where LANL systems interface to each other and to Digital systems. Design systems to meet interface requirements.	
65 3.4.4	Structure Process to Replace PR				74	LANL		2/10/93		2/11/93		Business		Develop overall plan for training, documentation, outreach, troubleshooting, ongoing support, and human impact.	
66 3.4.5	Establish Integration Requirements				75	LANL Digital		2/12/93		2/15/93		Business		Ensure that acceptable business practices are defined, documented, and followed.	
67 3.4.6	Generate LANL Functional Specification				85S	LANL		1/22/93		2/15/93					
68 3.4.7	Develop Implementation Plan Human Resources				76	LANL Digital		2/16/93		2/17/93		Personnel			
69 3.4.8	Develop Implementation Plan Business				78	LANL Digital		2/18/93		2/19/93		Business			

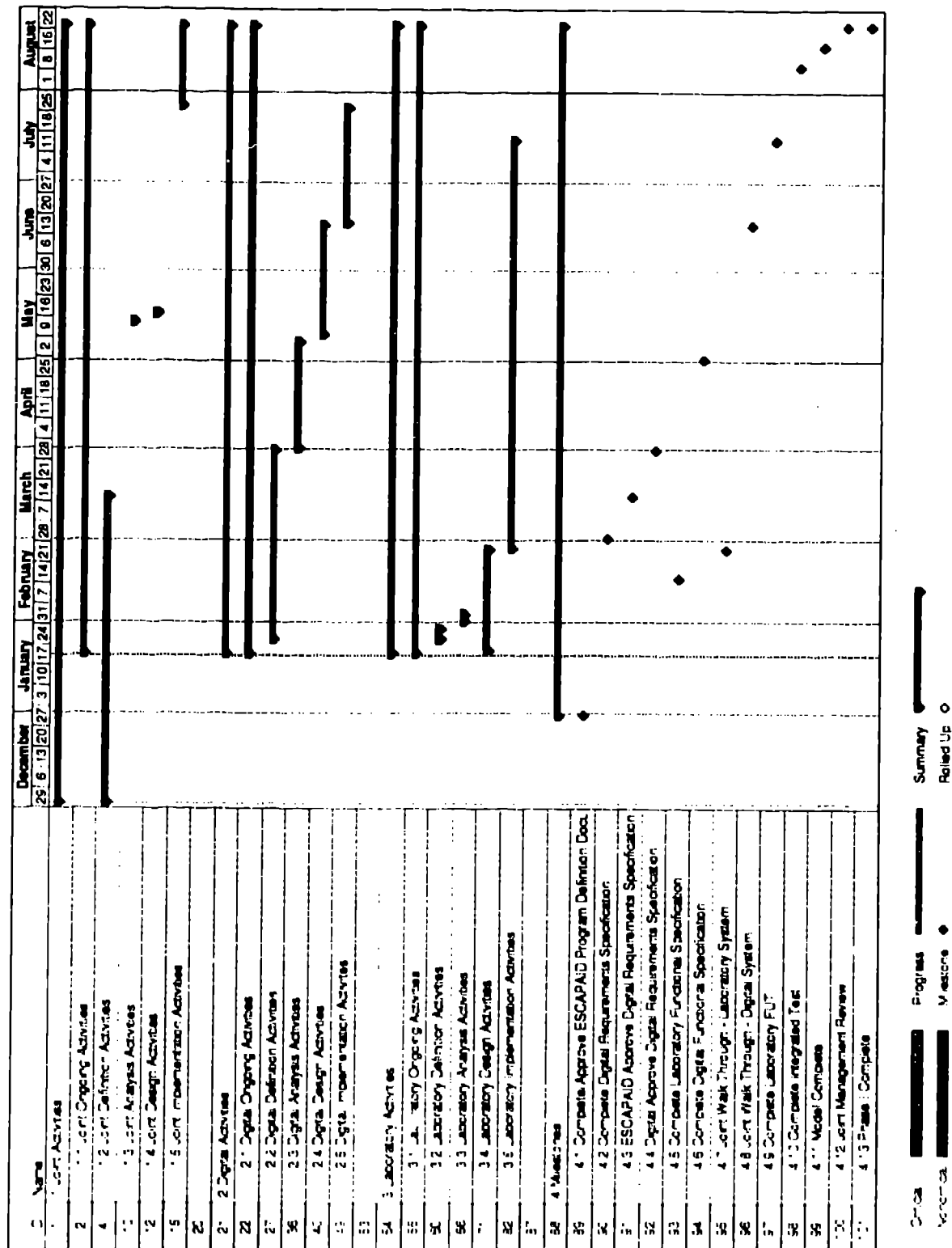
Outline ID Number	Name	Party	Predecessors	Start	Finish	Area	Description
SC 3.4.1	Define Policies and Procedures	LANL Digital	79	2/22/93	2/23/93	Business	Document the policies in both companies that relate to the ESCAPAD activities, and document the procedures associated with ESCAPAD
SC 3.4.2	Perform Joint Walk Through Lab System	LANL Digital	80	2/24/93	2/25/93		
SC 3.5	Laboratory Implementation Activities			2/26/93	7/15/93		
SC 3.5.1	Build Laboratory System	LANL	81	2/26/93	6/3/93		
SC 3.5.2	Test Laboratory System	LANL	83	6/4/93	6/17/93		
SC 3.5.3	Test Business Processes	LANL Digital	84	6/18/93	7/1/93		
SC 3.5.4	Perform Laboratory PUT	LANL	85	7/2/93	7/15/93		
SC 4	Milestones			12/31/92	8/23/93		
SC 4.1	Complete Approve ESCAPAD Program Definition Document		6	12/31/92	12/31/92		
SC 4.2	Complete Digital Requirements Specification		34	3/1/93	3/1/93		
SC 4.3	ESCAPAD Approve Digital Requirements Specification		9	3/15/93	3/15/93		
SC 4.4	Digital Approve Digital Requirements Specification		35	3/31/93	3/31/93		
SC 4.5	Complete Laboratory Functional Specification		77	2/15/93	2/15/93		
SC 4.6	Complete Digital Functional Specification		44	5/1/93	5/1/93		
SC 4.7	Joint Walk Through Laboratory System		81	2/25/93	2/25/93		
SC 4.8	Joint Walk Through Digital System		48	6/15/93	6/15/93		
SC 4.9	Complete Laboratory PUT		86	7/15/93	7/15/93		
SC 4.10	Complete Integrated Test Model Computer		17	8/9/93	8/9/93		
SC 4.11	Joint Management Review		18	8/16/93	8/16/93		
SC 4.12	Joint Management Review		19	8/23/93	8/23/93		
SC 4.13	Phase 1 Complete		100	8/23/93	8/23/93		

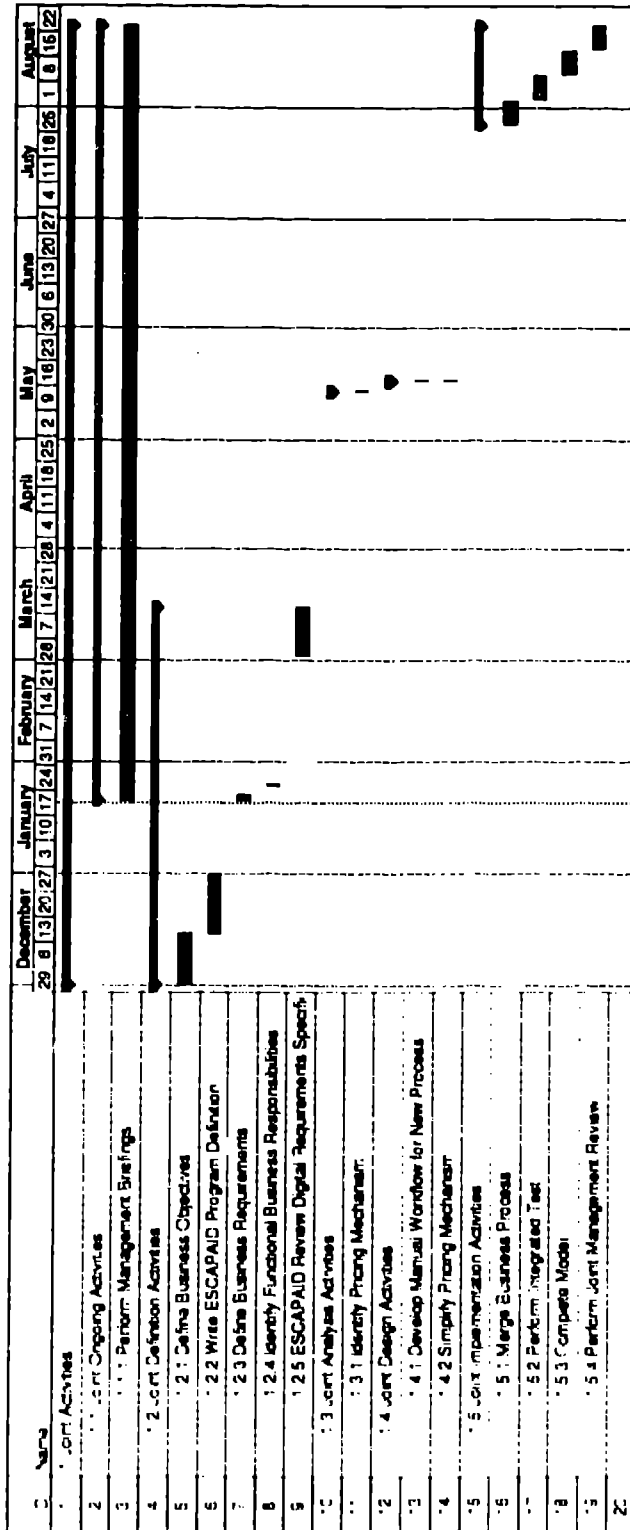
Section 3 Gantt Charts

Shown on the following pages are Gantt chart representations of the project plan. In these charts, time is shown on the horizontal axis and the duration of tasks is shown as horizontal lines. The ends of each line represent the task's start and finish dates.

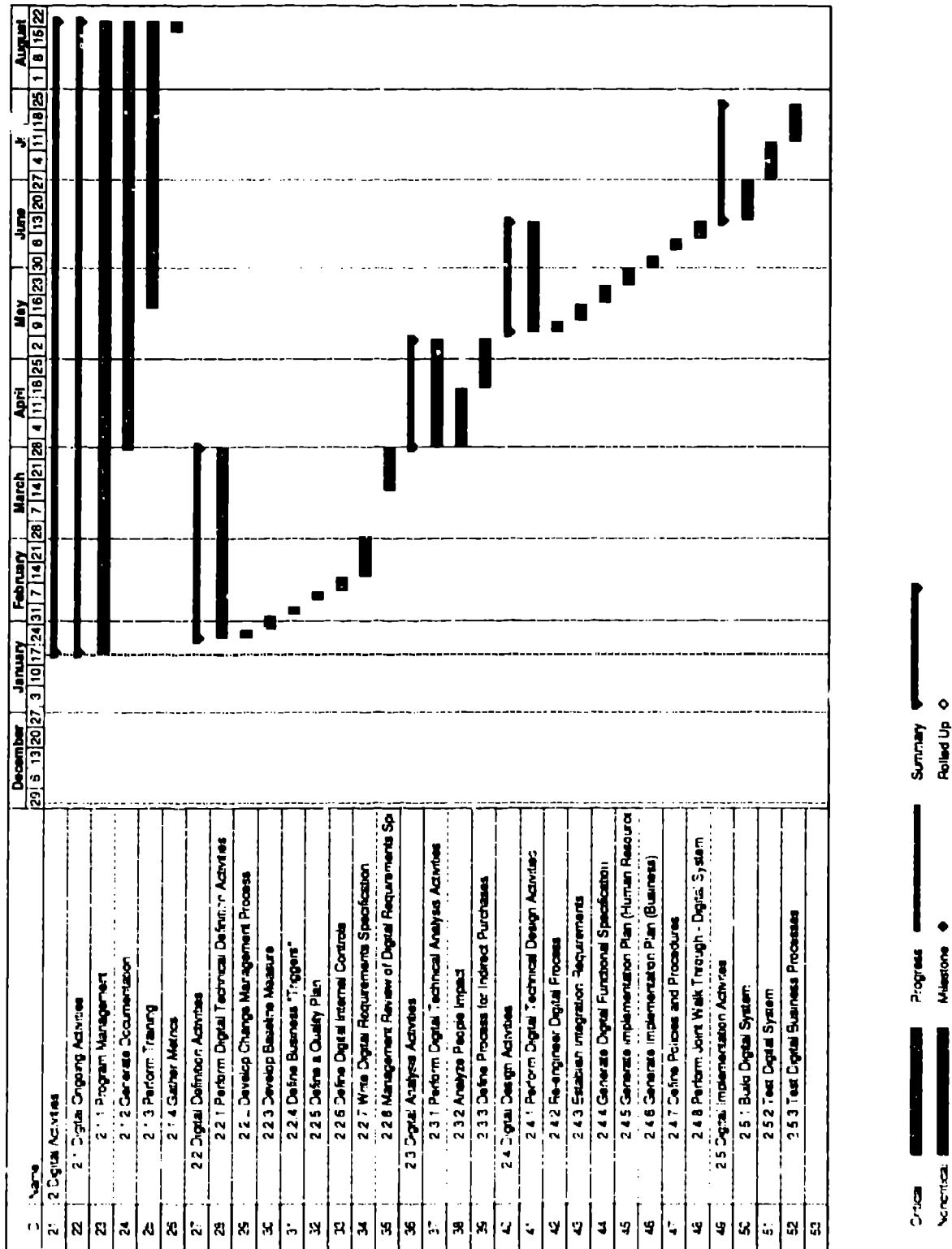
The first chart shows a summary overview of the activities. The remaining charts detail the joint activities, Digital activities, LANL activities, and milestones.

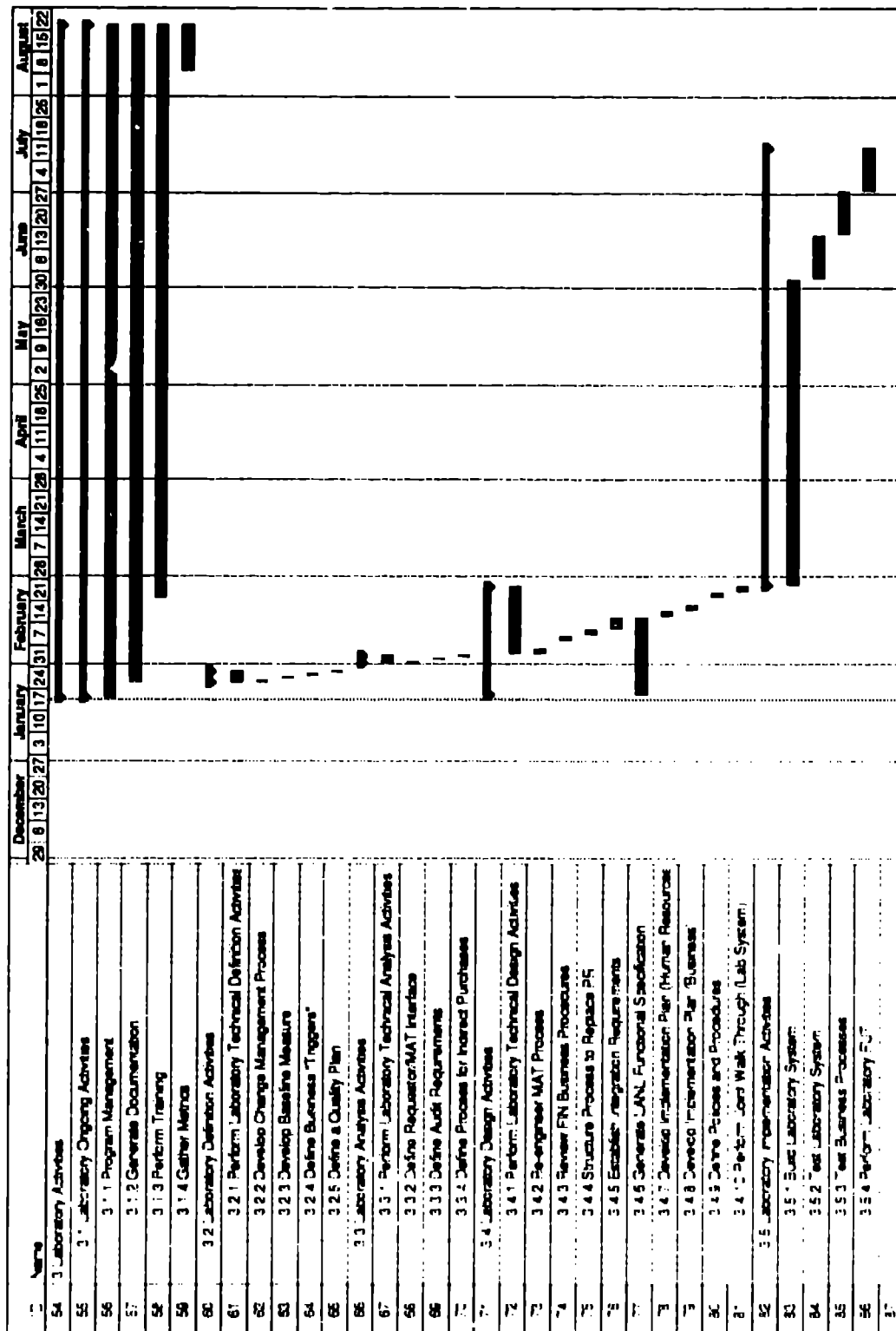
All dates and relationships are tentative. The critical path shown in the charts can be expected to change as the project teams refine the project plan. For current information, contact the Digital and LANL project teams.



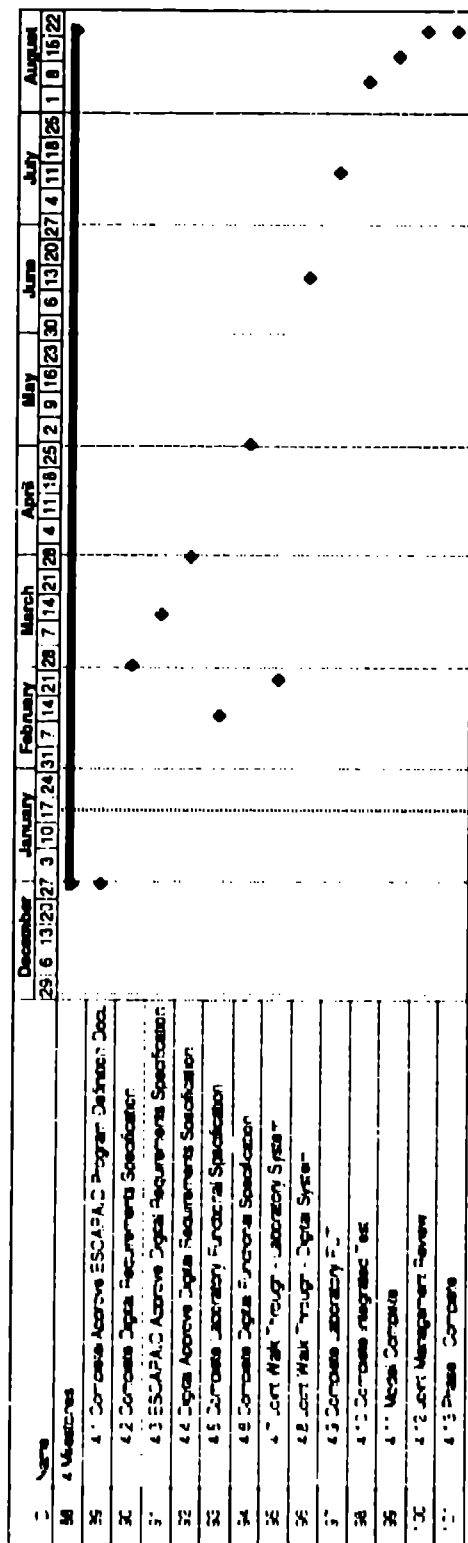


Critical: Progress: Summary: Rolled Up:
 Noncritical: Milestone:





Critical Progress Summary
 Milestones Milestone Related Up



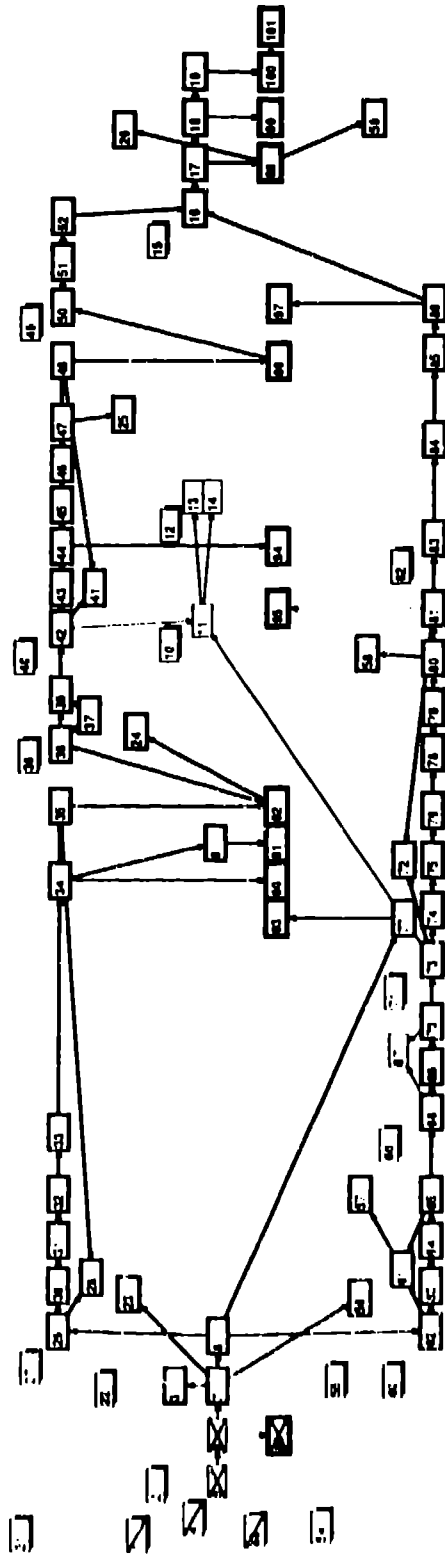
Section 4 PERT Charts

Shown on the following pages are PERT chart representations of the project plan. In these charts, each task is represented by a box, and arrows between boxes indicate the predecessor-successor relationships among tasks.

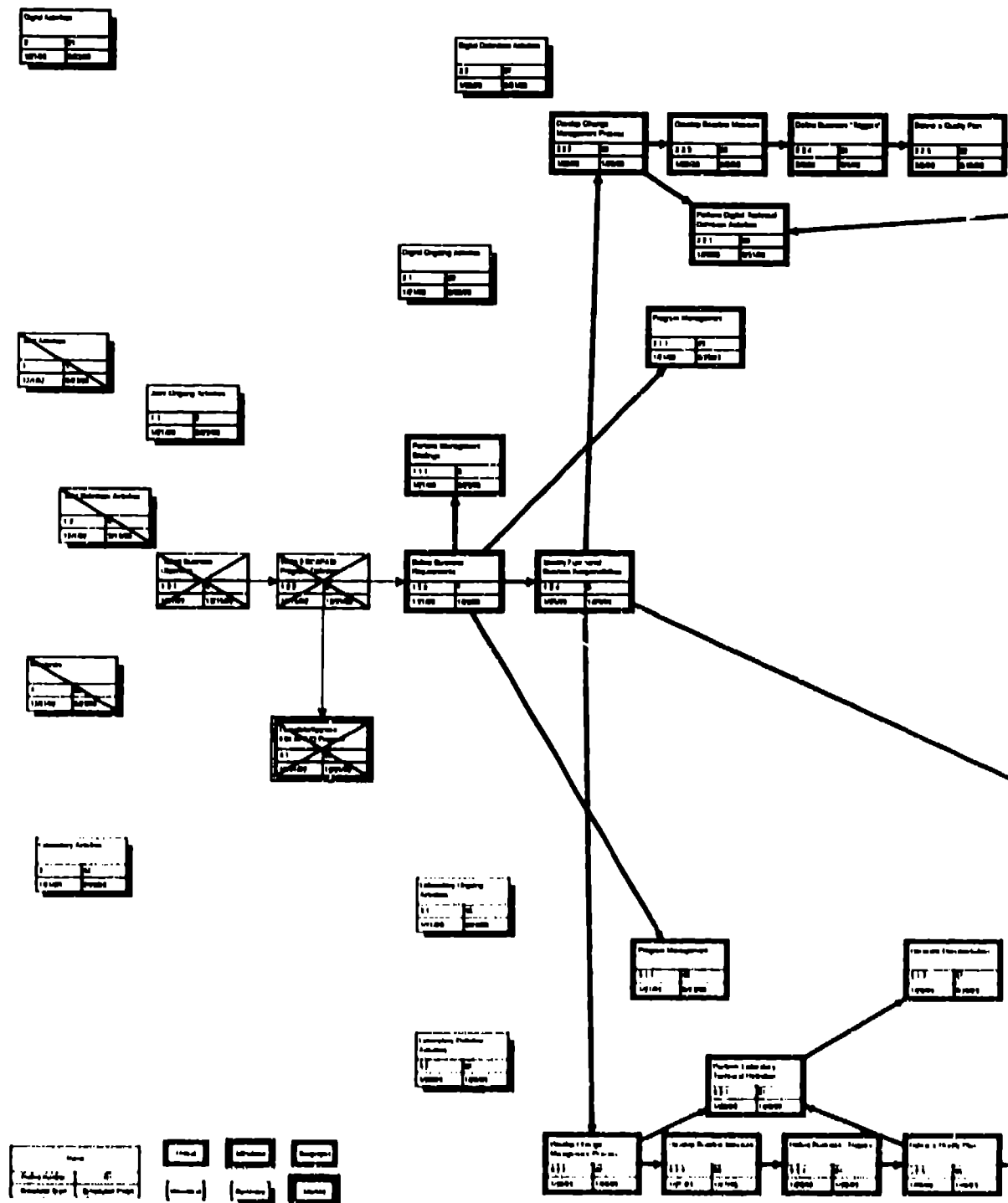
In general, there is a left-to-right flow of time through the chart. For clarity, Digital activities are shown in the upper portion of the chart, LANL activities are shown in the lower portion of the chart, and joint activities and milestones are arranged through the middle portion of the chart.

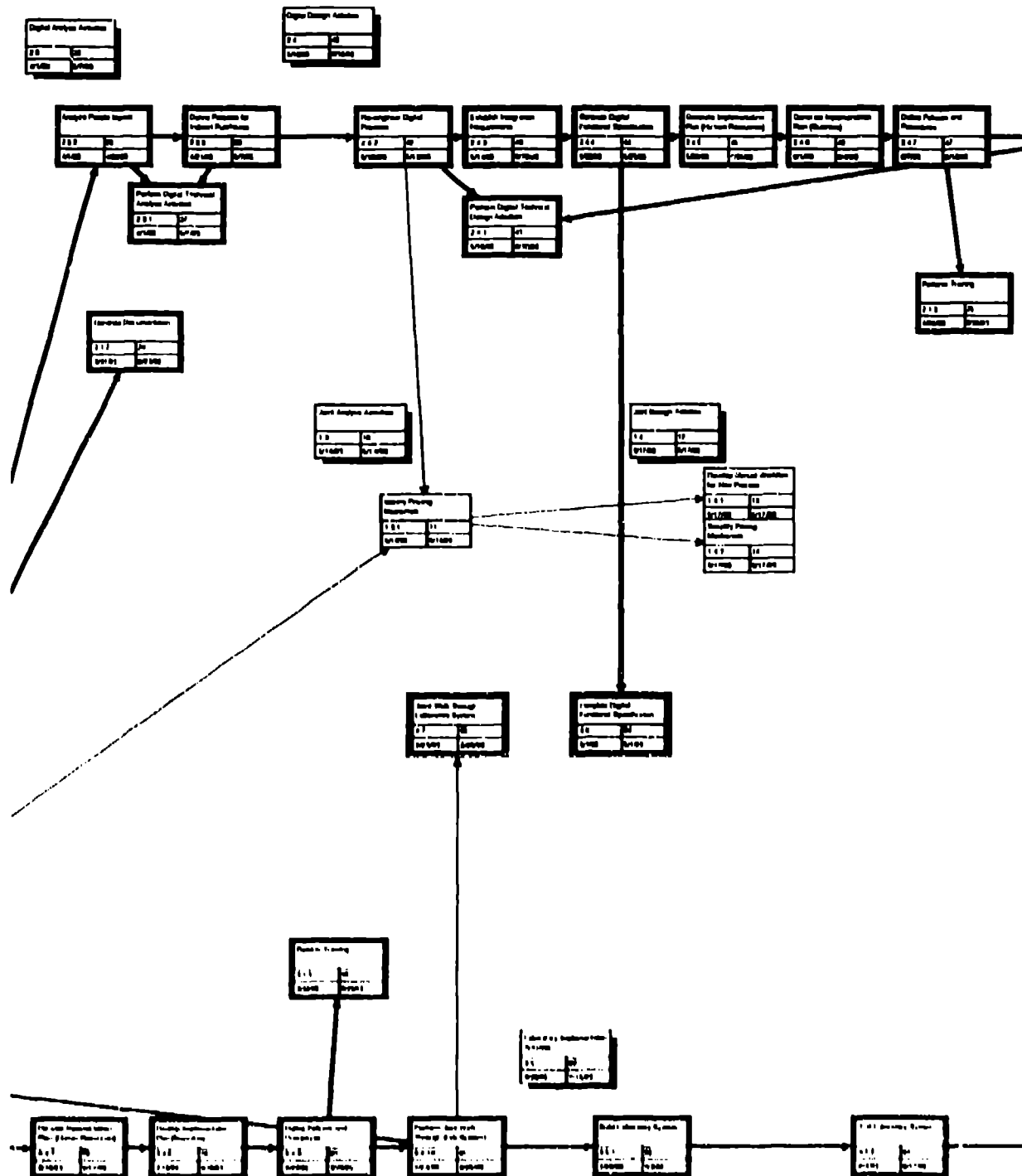
In the summary PERT chart on the facing page, the numbers are the ID numbers for the tasks (i.e., column 1 in the task matrix). The larger PERT chart following the summary provides more detailed information about each task.

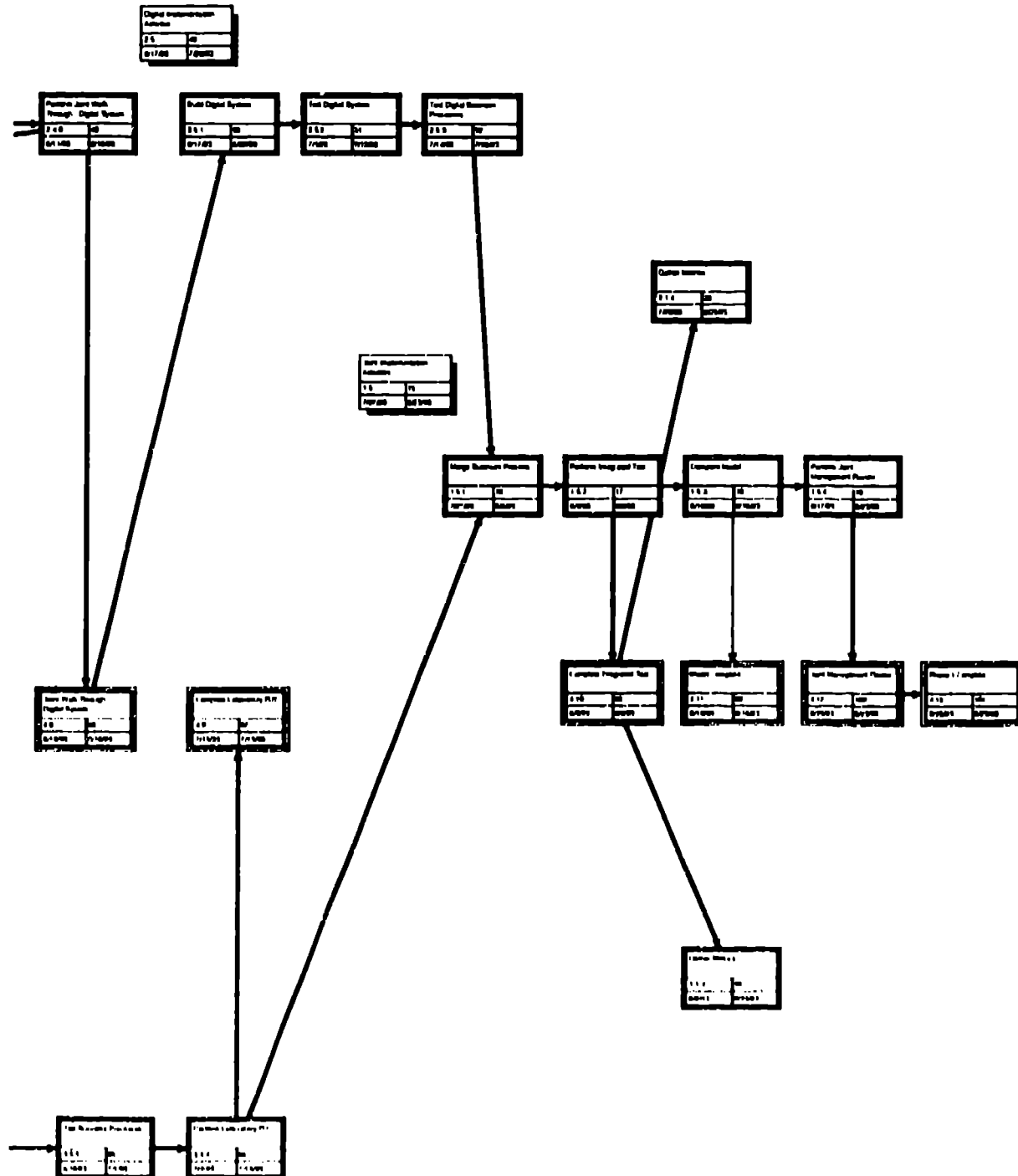
All dates and relationships are tentative. The critical path shown in the charts can be expected to change as the project teams refine the project plan. For current information, contact the Digital and LANL project teams.



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Appendix A

Glossary

ADP Division	Administrative Data Processing Division, LANL
business function	A group of processes that together further one aspect of the enterprise's mission
C Division	Computing and Communications Division, LANL
CIPP	Customer Inventory Payment Process, Digital
CQI	Continuous Quality Improvement
DB2	Relational database management system used by LANL
DFD	Data Flow Diagram
Digital	Digital Equipment Corporation
ESCAPAID	Electronic Systems Contract Administration Payment And Invoicing Database
FIN Division	Financial Operations Division, LANL
FUT	Friendly User Testing, LANL
JAD	Joint Application Development
JIT	Just In Time, a method for purchasing and receiving goods
LANL	Los Alamos National Laboratory
MAT Division	Materials Management Division (purchasing), LANL
MP	Medium Energy Physics Division, LANL
PAID	Purchasing, Accepting, Invoicing, Disbursing System, LANL
PR	Purchase request
SMARTS	LANL Supply Management Acquisition Requirement Tracking System (JIT automatic invoicing system)
SMART	Digital Service Management And Resource Tracking System
TQM	Total Quality Management
"Triggers"	Electronic events that initiate other events and take the place of paper flow

Appendix B

Additional Technology Activities

In addition to the tasks listed in Chapter 2, Project Plan, the workshop participants identified and defined a number of technology activities that were not included in the timeline. In order to capture these activities for future inclusion in the project plan, a list of the activities and their definitions is presented on the following pages.

Define Current System	Identify current work flow; describe the current business process. This must drive development of future systems and work flows.
Define Audit Requirements	Identify transactions that must be recorded. The system must identify who made changes when, and retain historical data.
Define "Triggers"	Determine what new activities will trigger an action (e.g., contract renewal, payment, equipment change).
Develop Change Management Plan	Develop a method to change process, database, business practices, or documentation. Management and communications are involved.
Define User Interface	Identify user interfaces that will be involved, including screens and reports; determine who the users are and how they will use the system.
Define All System-to-System Interfaces	Define the ESCAPAID-PAID interface, including management of the funding process and tracking of funds paid out; define the Digital-LANL interface, including what data is fed from one to the other and how it is transferred.
Define Security Requirements	Define security/access to the new system, including controls to put in place, a method to ensure integrity of data fed to Digital, partitioning between vendors, protection of confidentiality of pricing, etc.
Establish Integration Requirements	No definition developed.
Develop System Design Documentation	No definition developed.
Develop DID for New Process	No definition developed.
Define Data Dictionary	No definition developed.
Design Database	No definition developed.
Design Pricing Mechanism	No definition developed.
Develop a Security Plan	No definition developed.

Appendix B**Additional Technology Activities**

Validate Data	No definition developed.
Develop Implementation Plan	No definition developed.
Develop Process Design	No definition developed.
Build Database	No definition developed.
Populate Data	No definition developed.

Appendix C

List of Participants

List of Participants**Appendix C**

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Appendix C**List of Participants**

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