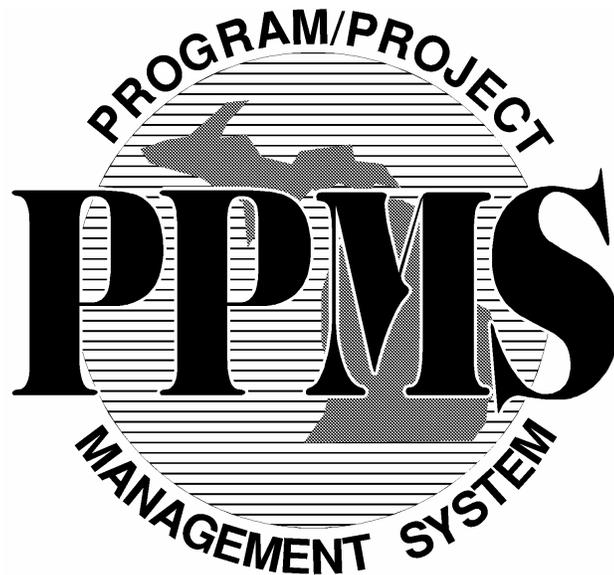


Quick Reference/Learning Guide For Application Administrators



PROGRAM/PROJECT MANAGEMENT SYSTEM



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Chapter 1 OVERVIEW

Section A - An Introduction to Job Scheduling

The Program/Project Management System (P/PMS) was designed and built to assist the Department in planning and scheduling the pre construction design process for trunk line road and bridge projects. Once a project is selected, the project manager enters the characteristics describing the project into the system. The system then creates a scheduling network using those characteristics, and using the standards provided by the Department's operational and supporting units, to determine which tasks will be included in the network and what the durations should be. At the same time, the people required to perform the task are identified and added to the schedule. Following this generation process, project managers may need to further refine the schedule since all projects are unique in some way.

When schedules have been created and refined, they can be pulled together to summarize, analyze, and report on jobs, tasks, resources, and costs throughout the Department. Project schedules are brought together in the system's Program Area where system and program managers can assess the impacts of progress, changing schedules and organizational changes. Some information from the project schedules is automatically rolled together and presented in the Executive Information System where users can quickly review and evaluate what's going on with all projects. Please refer to the EIS Users Guide for more details on that application.

This document is intended to be an informal guide that explains how to DO each of the steps described above, and more. The following chapters were pulled from the Combined Quick Reference/Learning Guide to deal specifically with how to perform some of the more common tasks in the P/PMS Administrative Area (for Application Administrators). This guide will sometimes assume a certain minimal level of knowledge about P/PMS and its usage and functionality. It is recommended that the user take the P/PMS Training Course before utilizing this manual, especially for the Project Manager and Program/System Manager portions. If you have more questions, please call the P/PMS Hotline at (517) 373-9020.

Throughout the document, reference will be made to other familiar P/PMS manuals. Many P/PMS manuals exist to cover system functions, menu structures, task standards, job characteristics and much more. The intent of this manual is to provide answers to most questions in a concise, easy to find way. In many cases, one of the other manuals will provide detail that will not be reproduced here. Current manuals can be found on the intranet at <http://interchange/computing/design/ppms.htm>

Section B - Conventions

Throughout this document information will be presented using the following basic standards:

Menu options will appear in bold with initial upper case letters (e.g. **File**, **New**, **Job** where underlined letters are hot keys and menu selections are separated by commas). Items of special note will be preceded by Note: and/or will be underlined or italicized. Figures are identified by number, and the figure numbers start over for each chapter

Chapter 2 APPLICATION ADMINISTRATORS

Section A - How to Get Into P/PMS

Purpose: The purpose of this section is to detail the steps for getting into P/PMS to start working with jobs.

Before You

Begin: If you do not have P/PMS, contact the P/PMS Support Team to get the software installed and a login password. You will be notified when your login is available. If it is desired, Support Team personnel can set up your PC to bypass the login/password screen. Please contact us with any questions regarding P/PMS!

<u>P/PMS Support Team Personnel:</u> HOTLINE: (517) 373-9020		
Dennis Kelley	(517) 373-4614	User/Printer Administration & Technician
Norm Kieliszewski	(517) 335-1913	Design Expert/engineering Technician
Lenny Robinson	(517) 335-3291	Consultant
Scott Habetler	(517) 335-3278	Consultant
Kelly Rogers	(517) 335-2065	Consultant
Ellie Parker	(517) 241-0384	Student Help

Procedure: Follow these steps to get started with P/PMS.

Step	Action						
1	Double-click the P/PMS icon on your desktop.						
	<table border="1"> <thead> <tr> <th>If...</th> <th>Then...</th> </tr> </thead> <tbody> <tr> <td>A. A login screen appears</td> <td>Type in your login name, ENTER, and your password, and proceed to the next step.</td> </tr> <tr> <td>B. The Main Menu appears</td> <td>Proceed to the next step.</td> </tr> </tbody> </table>	If...	Then...	A. A login screen appears	Type in your login name, ENTER, and your password, and proceed to the next step.	B. The Main Menu appears	Proceed to the next step.
	If...	Then...					
A. A login screen appears	Type in your login name, ENTER, and your password, and proceed to the next step.						
B. The Main Menu appears	Proceed to the next step.						
2	Click the P/PMS button on the Main Menu window, like the one in the figure 1 below.						

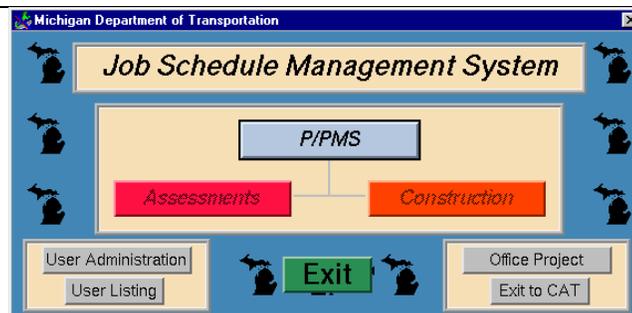


Figure 1

Section B - How to Provide User Access or Updates

Purpose: This section provides information and steps about how to add and update users to P/PMS.

Before You Begin: Users are provided access to the system in a two part process. First, the user’s name and login information is given to the P/PMS System Administrator to be allowed access to the server on which P/PMS resides. Second, the Application Administrator (AA) needs to provide the user with access to the various portions of the PPMS system as required. Information is provided by the user via the System Access Form. With this information, the AA can work in the User Administration Area, accessed from the Main Menu.

Procedure: To add a new user, perform steps 1-9. To update a user, perform steps 10-14 (next page).

Step	Action
1	New user fills out System Access Form and sends it to Application Administrator.
2	AA notifies System Administrator (SA) of user=s name and login to be added, plus a default password.
3	SA notifies AA once the user is added.
4	AA enters User Administration Area through Main Menu. See Figure 2 below.
5	Click on Add User.
6	The Administrator will be presented with a pop menu list of all users who have been added to the system, but not granted access to the various areas of P/PMS. Click on the user to give access to and click OK. This will now fill in their name and log name.
7	Fill in the remaining information from the P/PMS Request for System Access form or based on personal communications with the user.
8	Repeat the procedure for all users to be added.
9	When finished, click Done. Data will be updated, and you will be returned to the Main Menu.

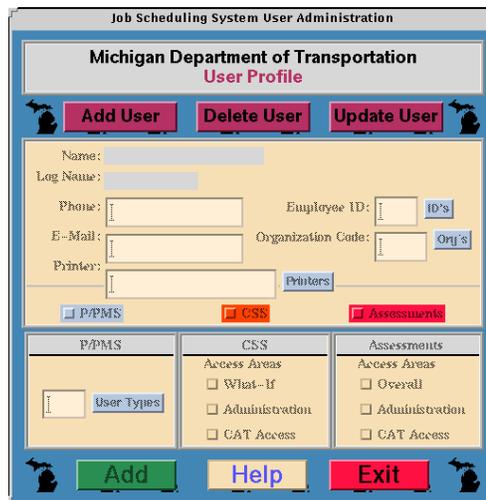


Figure 2

Section B - How to Provide User Access or Updates (continued)

Procedure:

Step	Action
10	To update current users, click Update User. This will present a list of all current users with access to PPMS areas.
11	Click on the user to update and then click OK.
12	Their current access information will be presented on the screen. Modify any information as necessary.
13	Repeat this procedure for all users to be updated.
14	Click Done when finished. Data will be updated, and you will be returned to the Main Menu.

Section C - How to Add Printers for User Availability

Purpose: This section provides information and steps about how to add printers to P/PMS.

Procedure:

Step	Action
1	User sends request for new printer to Application Administrator. The request must include: 1) the network printer name 2) the printer make and model.
2	Application Administrator sends request for addition to System Administrator. This request includes: 1) the network printer name 2) types of queues to set up (controlled by make & model). The 4 types available are: A. _lj - regular text, 8.5"x11" B. _grf - graphics capable, 11"x8.5" C. _11x17 - graphics capable, 17"x11" D. _11x17r - regular text, 17"x11"
3	SA notifies AA upon printer addition.
4	AA notifies Lenny of completion of printer additions and any color printer types involved.
5	Lenny installs printers in CAT and notifies AA of installation & printer names.
6	AA contacts users to verify function of printers from P/PMS.

Section D - How to Modify the Global Network/Templates

Purpose: This section provides information and steps about how modify the Global Network or network templates in P/PMS.

Before You Begin: Editing the Global Network or network templates requires editing of the actual table of tasks and constraints. You cannot use the Add/Delete Task and Constraints feature to modify these. Also, it is recommended that you reference the related Network Logic Diagram and/or Task and Constraints Listing when making modifications.

Procedure

Step	Action
1	From the Administration Area, click on File, Open, Template.
2	Pick the template you wish to modify from the corresponding menu.
3	Select <u>E</u>dit, <u>T</u>asks and <u>C</u>onstraints from the menu. All tasks and constraints will be presented in a spreadsheet format allowing you to access several items at once.
4	Determine what modifications must be made to the template; such as what tasks need to added/deleted and how various constraints need to be added/deleted/modified.
5	To <u>A</u> dd a task, click on New. The task needs to be in the WBS to be added.
6	Type in the task number. The description and WBS code will be filled automatically.
7	Click on New again, and for each, add the appropriate constraints to connect the new task to the network. Find or scroll through existing tasks if necessary, or consult the Network Logic Diagram of the Global Network or Template.
8	To <u>D</u> elete a task, go to the row containing the task, and click Delete.

Section D - How to Modify the Global Network/Templates (continued)

Procedure
(Continued)

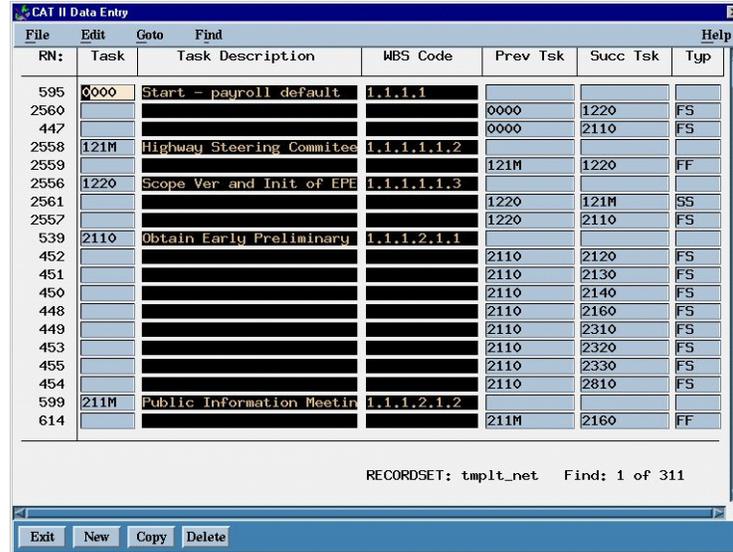


Figure 3

Step	Action
9	Delete any constraints associated with that task by using the Find feature on the Prev Task and Succ Task Fields, using the Delete button.
10	Reconnect any tasks that came before and after the deleted task so that the logic of the network will be kept.
11	To Modify a constraint, go to the row containing the constraint to be modified.
12	You may change the predecessor or successor task, or constraint type for each modification.
13	Click on Exit when finished.
14	Click P rocess, A nalyze Template. If the analysis process passes, the template can then be used to generate a network.

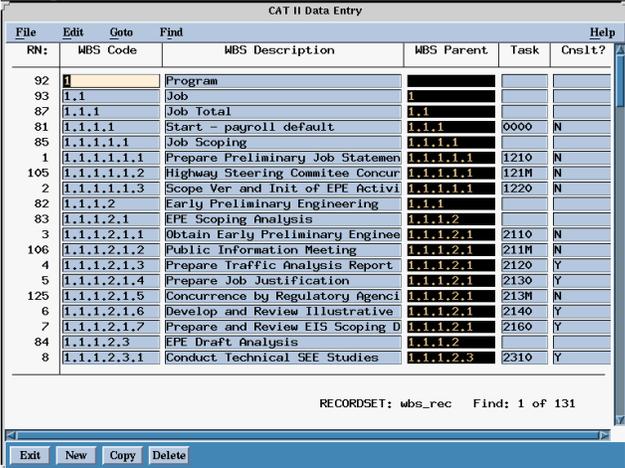
Section E - How to Add a New Task to P/PMS or Edit Existing Tasks

Purpose: This section provides information & steps about how to add a task and its standards in P/PMS.

Before You Begin: To add a new task in P/PMS first requires a written description and collection of standards data. This procedure is outlined in the Task Manual. For each of the following Parts, editing will follow the same general procedure, but you will find and edit rows of existing information. The same menu picks can provide existing information under Listings.

Part I - Task Addition and Task Base Standards

Procedure

Step	Action
1	<p>From the Administration Area, click on Edit, Work Breakdown Structure. You will see a window as in Figure 4.</p>  <p style="text-align: center;">Figure 4</p>
2	Locate and identify the correct WBS Parent for the task, and click on New.
3	Enter the WBS Code, WBS Description, and Task Number.
4	Repeat steps 2 and 3 for all new tasks.
5	Hit and up or down arrow when done to save, and then Exit.
6	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>T</u>ask Base.
7	You will be prompted to choose a specific Task Number and/or Job Type to edit, if you wish. Then you will see a window as in Figure 5 (next page).

Section E - How to Add a New Task to P/PMS or Edit Existing Tasks, (continued)

8	Click on New for the first row of data; you may use Copy for subsequent rows.
9	Enter a row for each Job Type, containing the Task Number, Job Type, Base Duration and Labor Hours, and Construction Length and Structure Multipliers as gathered from the standards collection.
10	Repeat for subsequent rows of data.
11	Exit when finished.

RN:	Task	Job Type	Base Dur	Base Hrs	Length Dur(Mi)	Length Dur(Km)
4	1210	10				
5	1210	11				
6	1210	12				
627	1210	13	65	130		
1	1210	14	65	140		
2	1210	15	65	140		
3	1210	16	65	140		
7	1210	17				
12	1220	10				
13	1220	11				
14	1220	12				
8	1220	13	95	340	5	3.106865
9	1220	14	95	340	5	3.106865
10	1220	15	95	340	5	3.106865
11	1220	16	95	340	5	3.106865
15	1220	17				
644	2110	10	160	605		
645	2110	11	160	605		
646	2110	12	160	605		

RECORDSET: task_base_rec Find: 1 of 680

Exit New Copy Delete

Figure 5

Section E - How to Add a New Task to P/PMS or Edit Existing Tasks (continued)

Part II - Task Work Group Standards

Purpose: This section provides information and steps about how to add a task=s Work Group standards in P/PMS.

Procedure

Step	Action
1	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>W</u>ork Group.
2	You will be prompted to choose a specific Task Number, Job Type, or Work Group combination to edit, if you wish. Then you will see a window as in Figure 6.
3	Click on New for the first row of data; you may use Copy for subsequent rows.
4	Enter a row for each Job Type/Work Group combination that contains the Task Number, Job Type, Work Group, and associated Duration and Labor Hours Multipliers.
5	Use the data gathered from the standards collection. <u>Note:</u> Non-zero multipliers indicate involvement; these are often 1.
6	Repeat for subsequent rows of data. Exit when finished.

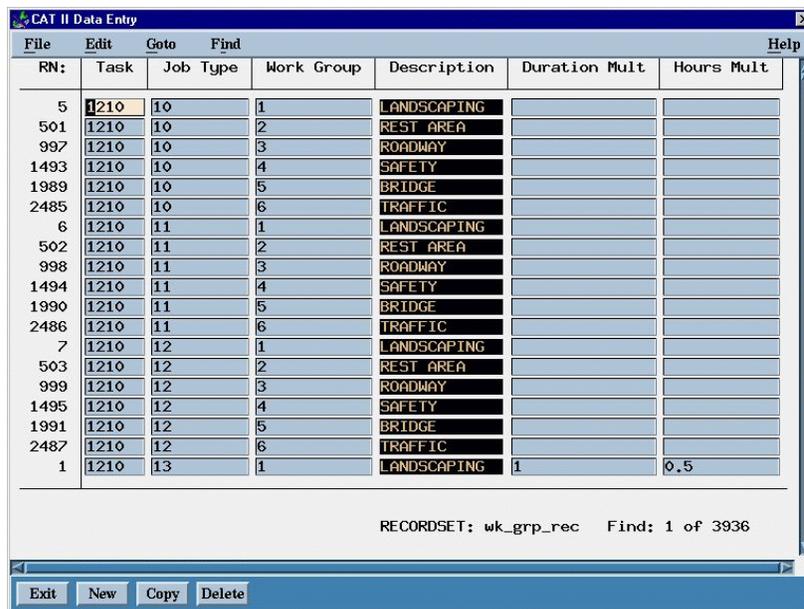


Figure 6

Section E - How to Add a New Task to P/PMS or Edit Existing Tasks (continued)

Part III - Task Region Standards, and More

Purpose: This section provides information and steps about how to add a task=s Region standards in P/PMS.

Procedure

Step	Action
1	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>R</u>egion.
2	You will be prompted to choose a specific Task Number, Job Type, or Region combination to edit, if you wish. Then you will see a window as in Figure 7.
3	Click on New for the first row of data; you may use Copy for subsequent rows.
4	Enter a row for each Job Type/Region combination that contains the Task Number, Job Type, Region, and associated Duration and Labor Hours Multipliers.
5	Use the data gathered from the standards collection. <u>Note:</u> Non-zero multipliers indicate involvement or application; these are often 1.
6	Repeat for subsequent rows of data. Exit when finished.

As you can see, there is a pattern to this procedure for adding standards.

Follow this same pattern for entering the task standards for:

- Environment Type
- Road Class
- Traffic Level
- Development Class

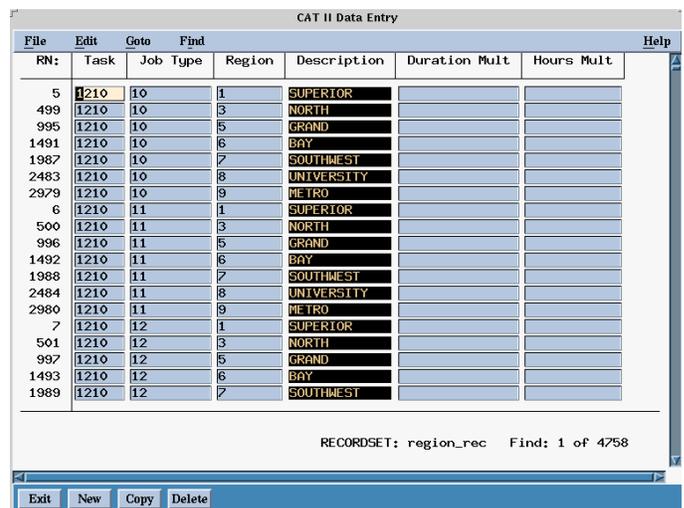


Figure 7

Part IV - Task Additives

Procedure

Step	Action																																																																								
1	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>T</u>ask <u>A</u>dditives.																																																																								
2	<p>You will be prompted to choose a specific Task Number and Additive Code to edit, if you wish. Then you will see a window as in Figure 8.</p> <div> <p>The screenshot shows a window titled 'CAI II Data Entry' with a menu bar (File, Edit, Goto, Find, Help) and a table. The table has columns: RN, Task, Additive, Additive Description, Add Dur, and Add Hours. The data rows are as follows:</p> <table border="1"> <thead> <tr> <th>RN</th> <th>Task</th> <th>Additive</th> <th>Additive Description</th> <th>Add Dur</th> <th>Add Hours</th> </tr> </thead> <tbody> <tr><td>198</td><td>220</td><td>6</td><td>FIRMA INVOLVEMENT</td><td>20</td><td></td></tr> <tr><td>1</td><td>2110</td><td>1</td><td>BELLONDS</td><td>5</td><td>16</td></tr> <tr><td>2</td><td>2110</td><td>3</td><td>NAVIGABLE MATERS</td><td>5</td><td></td></tr> <tr><td>3</td><td>2110</td><td>6</td><td>FIRMA INVOLVEMENT</td><td>5</td><td>20</td></tr> <tr><td>4</td><td>2110</td><td>14</td><td>NOISE MAIL</td><td>5</td><td>8</td></tr> <tr><td>25</td><td>2140</td><td>9</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>200</td></tr> <tr><td>24</td><td>2140</td><td>23</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>200</td></tr> <tr><td>5</td><td>2160</td><td>9</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>80</td></tr> <tr><td>16</td><td>2160</td><td>23</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>80</td></tr> <tr><td>6</td><td>2310</td><td>9</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>120</td></tr> <tr><td>17</td><td>2310</td><td>23</td><td>CONSULTANT/EPEZ/IND CONTRACT</td><td></td><td>120</td></tr> </tbody> </table> <p>Below the table is a subrecord section with fields: 5 RN:, Resource, In-House %, Consultant %. At the bottom, it says 'RECORDSET: add_rec Find: 1 of 274 NSUB: 0' and has buttons for Exit, New, Copy, Delete, and Subrec.</p> </div> <p style="text-align: center;">Figure 8</p>	RN	Task	Additive	Additive Description	Add Dur	Add Hours	198	220	6	FIRMA INVOLVEMENT	20		1	2110	1	BELLONDS	5	16	2	2110	3	NAVIGABLE MATERS	5		3	2110	6	FIRMA INVOLVEMENT	5	20	4	2110	14	NOISE MAIL	5	8	25	2140	9	CONSULTANT/EPEZ/IND CONTRACT		200	24	2140	23	CONSULTANT/EPEZ/IND CONTRACT		200	5	2160	9	CONSULTANT/EPEZ/IND CONTRACT		80	16	2160	23	CONSULTANT/EPEZ/IND CONTRACT		80	6	2310	9	CONSULTANT/EPEZ/IND CONTRACT		120	17	2310	23	CONSULTANT/EPEZ/IND CONTRACT		120
RN	Task	Additive	Additive Description	Add Dur	Add Hours																																																																				
198	220	6	FIRMA INVOLVEMENT	20																																																																					
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5	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%; text-align: center;">If...</th> <th style="width: 50%; text-align: center;">Then...</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A. The additive contains additional labor hours</td> <td style="text-align: center;">Go to Step 6.</td> </tr> <tr> <td style="text-align: center;">B. The additive only contains an additional duration</td> <td style="text-align: center;">Go to Step 8.</td> </tr> </tbody> </table>	If...	Then...	A. The additive contains additional labor hours	Go to Step 6.	B. The additive only contains an additional duration	Go to Step 8.																																																																		
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B. The additive only contains an additional duration	Go to Step 8.																																																																								
6	Drop to the Subrecord.																																																																								
7	In the Subrecord, identify by organizational code the resources that the additional labor hours apply to																																																																								
8	Repeat Steps 3 - 5 for each Additive.																																																																								
9	Exit when finished.																																																																								
10	Make sure the coding to include the additive gets added to the Network Generation Program.																																																																								

Section E - How to Add a New Task to P/PMS or Edit Existing Tasks (continued)

Part V - Task Switches

Procedure

Step	Action
1	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>T</u>ask <u>S</u>witches.
2	You will be prompted to choose a specific Task Number and Switch ID to edit, if you wish. Then you will see a window as in Figure 9.
3	Click on New for the first row of data; you may use Copy for subsequent rows.
4	Enter a row for each Task Switch to be added, containing the Task Number, Switch Code, and a Multiplier of zero (switches turn tasks off in certain instances). This information should have been gathered in the standards data.
5	Repeat for each Switch.
6	Exit when finished.
7	Make sure the coding to include the switch gets added to the Network Generation Program.

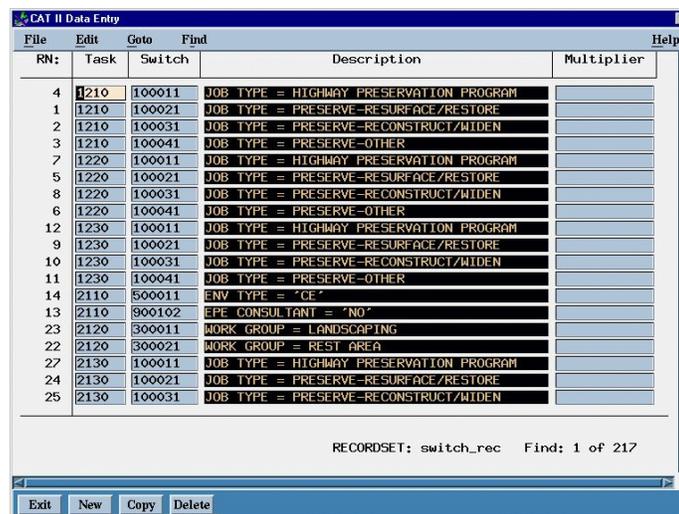


Figure 9

Section E - How to Add a New Task to P/PMS or Edit Existing Tasks (continued)

Part V - Task Switches

Procedure

Step	Action
1	Click on <u>E</u>dit, <u>S</u>tandards Tables, <u>R</u>esources Assigned.
2	You will be prompted to choose a specific Task Number, Work Group, and Resource Code to edit, if you wish. Then you will see a window as in Figure 10.
3	Click on New for the first row of data; you may use Copy for subsequent rows.
4	Enter a row only for each Work Group, to which the task applies, containing the Task Number, Work Group, Resource, and the % of total labor hours the resource receives on In-House and Consultant jobs. This information should have been gathered in the standards data.
5	Repeat for each Task/Work Group/Resource combination.
6	Exit when finished.

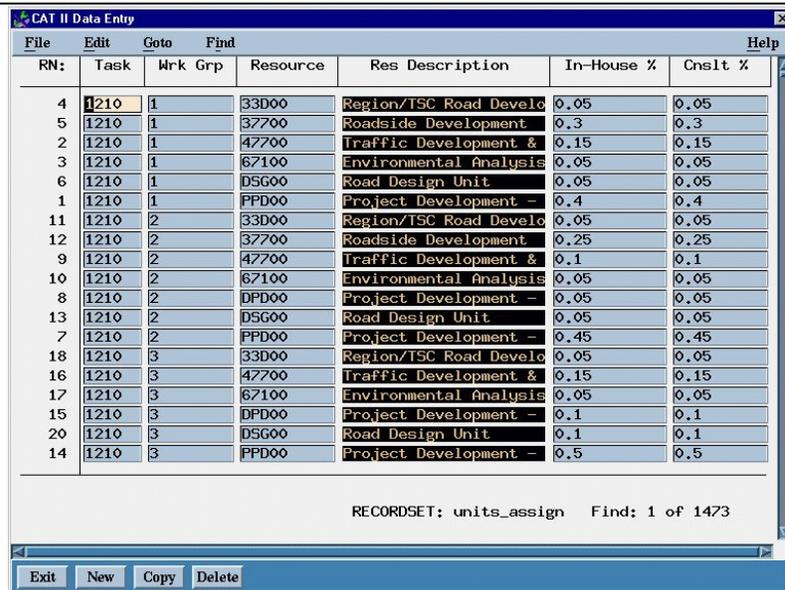


Figure 10

Part VI - Other Task Standards Questions/Procedures

1. How do I know if/when task standards should be changed?

Standards Validation is a periodic and ongoing process, but specific standards may need exploration in the event that a Project Manager or unit leader points out a specific difficulty with their tasks and/or networks. Discussions between the initiator, Application

Administrator, and P/PMS Support Personnel should help determine if there is a change in the way a task is being performed or business is being done that warrants a standards change.

2. How do I know if a new switch or additive is necessary?

The need for a new switch or additive is situational dependant. A switch is used to remove a task from a network if certain conditions are met. An additive increases duration and/or labor hours for tasks that meet certain criteria. Typically, the need for a new switch or additive is discovered by a Project Manager or unit leader pointing out a specific difficulty with their tasks and/or networks. If the difficulty can not be rectified by means of deleting tasks, use of any governing characteristics, or any existing PPMS conventions and processes, a new switch or additive may be the best solution, but all possibilities should be considered and explored

Section F - How to Control Who Has Access to Jobs

Purpose This section provides information and steps about how to control which users have access to specific jobs in P/PMS.

Before You Begin These are procedures in addition to the control provided through the different P/PMS user types. One method is automatic - the assignment of access to Project Managers for their jobs in the system is performed by picking up the information nightly from MPINS and synchronizing with it. While the PM permissions are shown in P/PMS, they are not able to be changed. Only the additional accesses may be modified.

Note: Access given to the main job (Version 1) will be extended through all versions, and vice versa. It is not possible to provide access to only a version.

Procedure

Step	Action
1	Click on <u>E</u>dit, <u>J</u>ob Access.
2	You will see a window as in Figure 11.
3	Find the job or project manager of jobs for which you want to modify access.
4	From the row containing the job number, select Subrecord.
5	In the User Name field, enter the user's P/PMS login who you wish to have access to that job/version.
6	Repeat Steps 3 - 5 for each job you wish to modify access for.
7	Exit when finished.

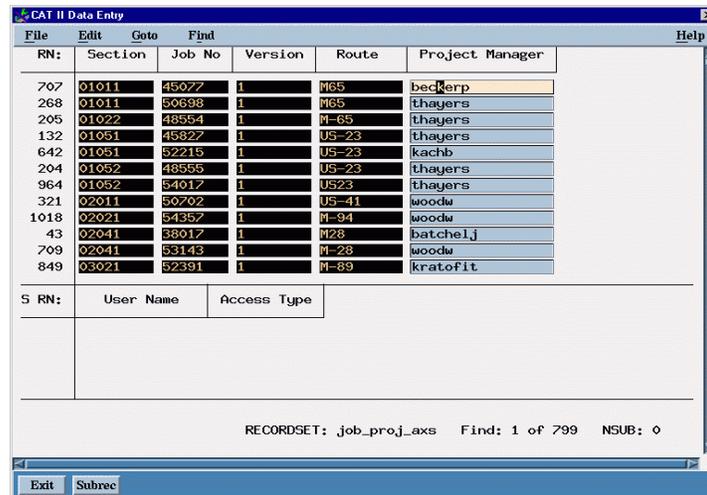


Figure 11

Section G - How to Quit, Close, Exit, Log Off or Out, or Otherwise Leave the System

Procedure	Step	Action
	1	Choose <u>E</u>xit from the <u>F</u>ile menu. <ol style="list-style-type: none"><li>1. Note that it is not necessary to close your template, job, scenario, or program session before exiting.<li>2. Use of the Windows Control button (the x sign in the upper right of the window) to close windows is not recommended, as this will kill your session abnormally, and may leave things running on the P/PMS server which may preclude you from accessing the system later, or preclude other users from accessing certain system data.

Chapter 3 APPENDICES

Appendix A - The View File Window

MICHIGAN DEPARTMENT OF TRANSPORTATION
All FY's Refined Jobs Listing
All Letting Months

Produced by: kelleyd
Produced on: 01-31-2000

Control Section	Job Number	Ver	Project Manager	Route	Location Description	Work Type	Region	Target Plan Comp
41031	34693	2	alghuram	M37	S/KRFT NW-N/60TH ST	212	GRAND	01-04-2000
81032	46619	2	awwas	US-12BR	E Mi Ave over Cnrrail	130	UNIVERSITY	04-11-2000
82023	46982	1	bottm	I-94	Wyoming to M-102	114	METRO	08-15-2000
47082	34519	1	burnellc	M59	@US23 INTCHANGE	193	UNIVERSITY	05-05-2003
24051	45848	2	burnse	M-119	BEACH-W/STATE RD-HRB	142	NORTH	03-14-2000
61073	30127	2	burnse	US31BR	US31SB West-White Rv	142	GRAND	11-17-1999
03092	52083	3	clausk	M-179	US-131 E TO M-43	141	SOUTHWEST	04-18-2000
11016	50791	2	jildehr	I-94EB &	I-94 @ M-139	138	SOUTHWEST	05-01-2001
39042	47647	1	jildehr	M-96	SPRINKLE RD BR ECL K	137	SOUTHWEST	08-01-2001
18033	45426	2	mazurekg	US-27	US-10- HATTONROD	222	BAY	11-14-2000
82061	45688	2	mazurekg	US-12	WAYNE COL - BELLEVIL	160	METRO	07-18-2000
65041	45865	2	parkerd	I-75	S OF COOK RD N-S OF	155	NORTH	07-18-2000
47082	48762	2	saxbyj	M-59	EAST OF C&O RR-OAKGR	210	UNIVERSITY	08-01-2001
63043	30154	2	saxbyj	M59	@ ADAMS RD RCHR H S1	320	METRO	08-15-2005
63022	50521	2	sweeneym	M-5	6 RMP5@I-96/M-5/I-27	159	METRO	07-18-2000
01052	46935	2	thayers	US-23	Black River Rd N to	174	NORTH	07-20-1999
35032	50955	2	thayers	US23	@TAWAS BEACH RD-E-TW	120	NORTH	12-01-2000
30061	37992	2	vandenbt	US-12	W COL TO WCL - JONES	147	UNIVERSITY	08-15-2000
70041	47840	2	wisneyp	M-45	GVSU 40TH AVE-68TH A	310	GRAND	03-14-2000
64012	45805	1	wynsr	US-31Br	W/US31 NW E/Longbrid	142	GRAND	08-06-2000

The Number of Refined Jobs that match the Selection Criteria is: 20

Exit Continue Select Another Find Repeat Zoom Out Print

The window, in which listings and reports are displayed, shown below, is called the View File window.

This screen allows you to:

1. Scroll up and down the listing using the vertical scroll bar
2. Scroll right and left in the listing using the horizontal scroll bar
3. Search for a text string in the listing
4. Print the listing
5. Save the listing to a file
6. Display listing files you have saved (by clicking on **Utilities, View a File**)

You can also maximize the View File window to see a larger part of the listing.

Appendix A - the View File Window, continued

The menu bar at the top of the screen gives you access to three menus:

- File
- Goto
- Help

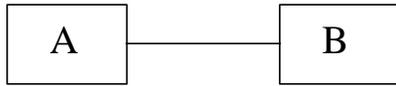
In addition, there are seven buttons at the bottom of the screen. The functions assigned to menu items and buttons are summarized below.

MENU BAR FUNCTIONS: VIEW FILE WINDOW		
MENU	MENU ITEM	FUNCTION
<u>F</u> ile		
	Print	Prints the listing on the default printer.
	<u>S</u> ave As	Saves the listing to the file you specify in the Prompt pop up window.
	<u>E</u> xit	Closes the View File window and returns you to the P/PMS area window.
<u>G</u> oto		
	<u>T</u> op	Moves the View File window to the top of the listing.
	<u>B</u> ottom	Moves the View File window to the bottom of the listing.
	<u>L</u> eft	Moves the View File window to the left side of the listing.
	<u>R</u> ight	Moves the View File window to the right side of the listing.
<u>H</u> elp		
	About <u>V</u> iewfile	Displays information about the View File window.
	About <u>W</u> indows	Displays information about X Windows.

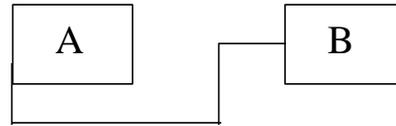
BUTTON BAR FUNCTIONS: VIEW FILE WINDOW	
BUTTON	FUNCTION
EXIT	Closes the View File window and returns you to the P/PMS area window.
CONTINUE	Allows processing to continue in the P/PMS area window.
SELECT	Displays in a View File window the file you select in the File Requestor pop-up window.
ANOTHER	Displays a selected file in another View File window.
FIND	Searches for the text string you enter in the Prompt pop-up window.
REPEAT	Searches for the next occurrence of the text string.
PRINT	Prints the listing on the printer you select from the pop-up window.

Appendix B - Constraint Types

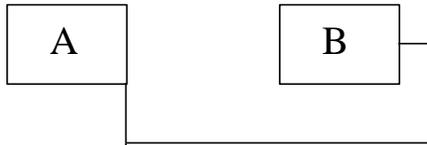
Constraints are the means which will be used to show how the activities relate to each other. The following diagram lists the major types.



Finish to Start



Start to Start



Finish to Finish

Finish to start means that activity B cannot start until activity A is finished.

Start to Start means that Activity A must start before activity B can start.

Finish to Finish means that Activity B cannot finish until activity A finishes.

Each of these types of constraints may also contain a delay inserted between the two tasks involved.

There is one other kind dependency that exists - Start to Finish - but it is rarely used, so it is not included in the above.

Appendix C - Glossary of Terms

2604 Form. A change request form in MPINS used to obtain authorization for such changes to a job as adding or deleting phases, and splitting a job, as well as changes to a job's cost, major work type or work performed, location, financial cost divisions, and major milestone dates. This form is usually submitted before creating a version of a job. (See Version)

Actual Finish Date (AF) - The actual point in time that work is finished on a task. (Note: in some cases, the task is considered "finished" when work is "substantially complete").

Actual Start Date (AS) - The actual point in time that work started on a task.

Approved Finish Date - The target point in time that work should finish on a task in order for the job to meet its targeted plan completion date.

Approved Start Date - The target point in time that work should start on a task in order for the job to meet its targeted plan completion date.

Characteristics - Items in the scope of a job that make it unique, including work type and region, road class, FHWA involvement, subgrade work or work outside existing shoulders, and many more. Specifically, these items of scope determine what tasks are in P/PMS job networks, their durations, and more.

Constraint - A dependency between two tasks, or between a task and a milestone. The four types are:

- Finish-to-start - the "from" task must finish before the "to" task can start.
- Finish-to-finish - the "from" task must finish before the "to" task can finish.
- Start-to-start - the "from" task must start before the "to" task can start.
- Start-to-finish - the "from" task must start before the "to" task can finish.

Construction Cost - The programmed A-phase amount minus the estimated Construction Engineering (CE) amount. Both values are retrieved from the MAP database and are shown on the MPINS Job Info Screen.

Critical Path - The series of activities determining the earliest completion of the project. The critical path will generally change from time to time as activities are completed ahead of or behind schedule. Although normally calculated for the entire project, the critical path can also be determined for a *milestone*. The critical path is usually defined as those activities with float less than or equal to a specified value, often zero.

Duration - Number of work days (not including holidays/other non-working days) required to complete a task.

Float - The amount of time, in days, that a task may be delayed from its approved dates without delaying the project finish date. Float is a mathematical calculation and can change as the project progresses and changes are made to the project. Also called slack time, total float, and path float.

Generic Job - A job containing all of the tasks, milestones, and constraints necessary to constitute a network, but missing the necessary Management Units to finish assigning all resources to tasks.

Job Schedule - The planned dates for performing the tasks and for meeting the milestones.

Appendix C - Glossary of Terms (continued)

Labor Hours - The amount of actual “hands-on” time a resource (work unit) spends performing a task or group of tasks.

Letting - The date that a job is put up for bid by contractors.

Management Units - Work units (resources) involved in major portions of a job & the P/PMS network of tasks.

MAP - Michigan Architectural Project. The MDOT corporate database.

Milestone - A significant event in the job, usually the completion of a major deliverable.

MPINS - Michigan Project Information System. The user interface to the MAP database.

Network Analysis - The process of identifying early and late start and finish dates for the uncompleted portions of project activities.

Network Logic Diagram - A schematic display of the logical relationships of project tasks. Always drawn from left to right to reflect project chronology. Often referred to as a “PERT chart”.

New Job - A valid job whose basic data has been loaded from MAP and needs a P/PMS network created. Valid jobs include:

- Concepts with job numbers not beginning with 9, with valid P/PMS work types, region codes greater than 0, and which will be let by MDOT during or after the current fiscal year.
- Approved or active trunk line jobs, with job numbers not beginning with 9, valid P/PMS work types, region codes greater than 0, and which will be let by MDOT during or after the current fiscal year (or Study jobs).

Plan Completion - The date at which all plans are complete, and the job is turned in to Specifications and Estimates for packaging to be advertised and let.

P/PMS - The Program/Project Management System.

Program - A group of related projects managed in a coordinated way. Programs usually include an element of ongoing activity.

Programmed Job - A job that has been approved and added to the P/PMS Statewide Program. These jobs require updating and monitoring for progress.

Project - A temporary endeavor undertaken to create a unique product or service.

Project Management - The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project.

Project Manager - The main person responsible for developing schedule & plans for a job/group of jobs.

Appendix C - Glossary of Terms (continued)

Refined Job - A job that has a version waiting to be included in the P/PMS Statewide Program. The version must have satisfactory dates and/or coincide with an approved 2604 before it can be “programmed” in P/PMS.

Resource – A unit that performs at least some of the work on the task or tasks they’re involved with.

Scheduled Finish Date - The planned point in time that work will be finished on a task.

Scheduled Start Date - The planned point in time that work will be started on a task.

Scheduling Specialist - The “right-hand” of a project manager, whose duty with regards to P/PMS is to perform the ground work necessary to create and update the P/PMS network for a job.

Target Date - An imposed date which constrains or otherwise modifies the network analysis. Target dates are set approved dates from which the network schedule is calculated. These include the Target Start (Task 0000), Target Plan Completion, Target Letting, Target Finish (Task 9999), and Target Float.

Task - An element of work performed during the course of a project. A task has an expected duration, and expected cost, and expected resource requirements.

Ungenerated Job - A job that has been opened in P/PMS. The job may even have some characteristics entered, but does not yet have a network generated.

Unrefined Job - A job containing all of the tasks, milestones, constraints, and resources necessary to constitute a network, but that needs to be checked, updated, and verified to ensure the network correctly reflects all work to be done.

Version - A copy of a job network, with which a project manager or scheduling specialist is able to make changes to the network. This is sometimes utilized to perform a “what-if?” scenario.

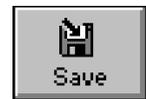
Appendix D - Entry of Actual Start and Finish Dates

Other than in P/PMS itself, actual start and finish dates get to us through MAP from other systems, MPINS, and now from DCDS. The MPINS and DCDS methods are presented here.

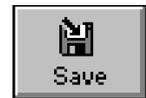
How to assign an employee to a P/PMS Task in MPINS

This function can be performed by the Supervisor of the Unit for an employee assignment to be made.

1. Identify the job record for which an employee assignment is to be made as described in **How to Identify Desired Records**. From the Job List, select **Job/Phase Task Status** from the menu bar, and in the Job Locator select **Jobs** and **Phase Task Status**.
2. In the **Phase Tasks** section of the Phase Task Status window, use the vertical scroll bar to locate and select the PPMS Task Number/Unit record in which an employee assignment is to be made.
3. In the **Task Status** section of the window use the pick list associated with the **Employee** field to select the employee to be assigned to the task.
4. Save the changes by clicking on the **Save** tool bar button.



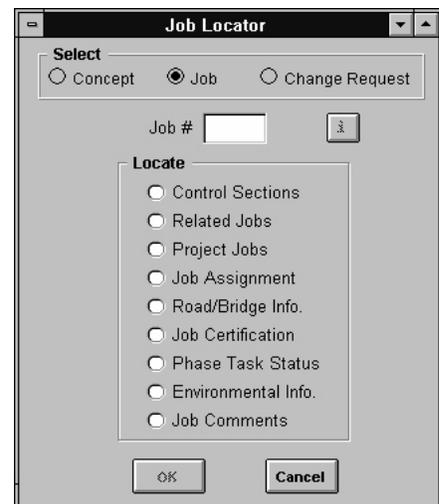
5. Repeat from step 2 as desired. When done, the user can close the window by clicking on the **Close** tool bar button.



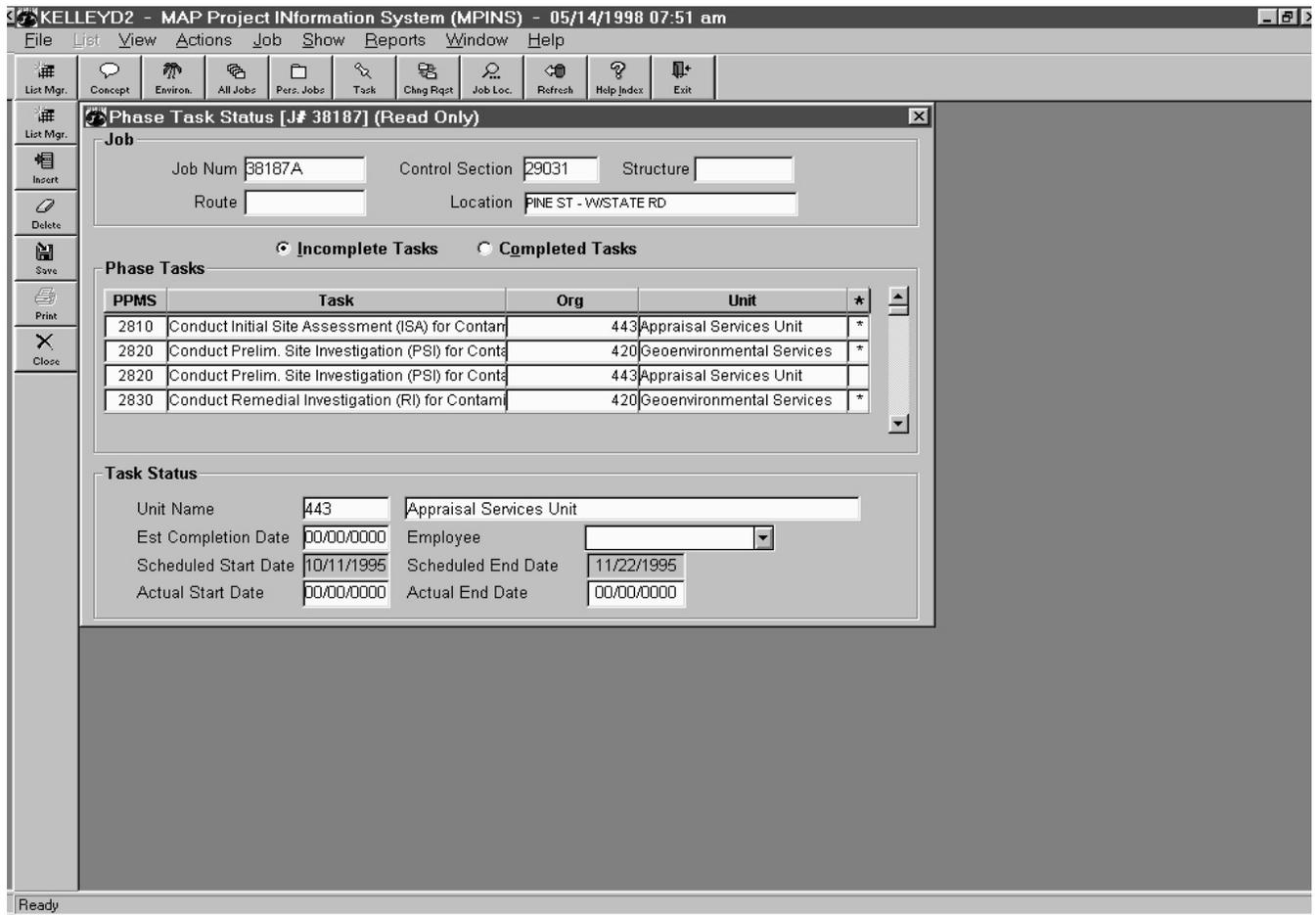
How to record dates for P/PMS Tasks in MPINS

This function can be performed by the Unit Leader or Project Manager for a given job, and by the Supervisor of the Unit or an employee they designate as assigned to the Task.

1. Open the Job Locator by clicking on the **Job Loc.** tool bar button. The **Job Locator** window opens, as illustrated here.
2. Select **Job** at the top of the above window.
3. Enter the desired job number in the **Job #** field.
4. Select **Phase Task Status** in the Locate section of the window.
5. Select **OK** at the bottom of the window to proceed.



Appendix D - Entry of Actual Start and Finish Dates (continued)



6. The Phase Task Status Screen opens, and defaults to select Incomplete Tasks.
7. In the **Phase Tasks** section of the Phase Task Status window, use the vertical scroll bar to locate and select the PPMS Task Number/Unit record in which dates are to be recorded.
8. In the **Task Status** section of the window enter any of the **Est. Completion Date, Actual Start Date, Actual End Date** fields as appropriate.
9. Save the changes by clicking on the **Save** tool bar button.
10. Repeat from step 2 as desired. When done, the user can close the window by clicking on the Close tool bar button.



Start and Finish Dates in DCDS

The P/PMS Team has developed a way for users to input P/PMS task start and finish dates through DCDS (current methods of entering actuals in MPINs and P/PMS are still supported). Task actuals can now be entered through the Multi field in DCDS. This is accomplished by entering a 5 digit code SMMDD or FMMDD where **S** indicates a start, **F** indicates finish, **MM** represents the month and **DD** represents the day. In the case that a task was started and finished during the same pay period the two codes can be combined resulting in SMMDDFMMDD. For the example below:

S0612 - would be an actual start date of June 12, 2000 (year from pay period) for task 3310.

F0622 - would be actual finish date of June 22, 2000 for task 3310.

S0612F0616 - would be a Start and Finish in the same pay period for task 2320.

AG1 (task code), Project (Job Number) and Index (old Org. Code) fields must be present for the actuals to be valid. The Index (old Org. Code) will be checked to insure that the unit listed is the Responsible Unit for the task.

Note: A delay of up to 3 weeks is possible for P/PMS to receive the DCDS information.

Employee Data Collection
 Eff Dt: 10/04/1998 PP EndDt: 01/08/2000 Ver: 0 Adj Type:

AY	Index	PCA	Grant	Ph	AG1	Project	Ph	AG2	AG3	Multi	Std
00	35300	51400			3310	43793C	00			S1228	<input type="checkbox"/>
00	35300	51400			3320	34098C	00			F0106	<input type="checkbox"/>
00	35300	51400			2320	39674C	00			S1228F0106	<input type="checkbox"/>

Month: December

Hours Type	Sum Total	26 S	27 M	28 T	29 W	30 Th	31 F	01 S	Wkly Total	02 S	03 M	04 T	05 W	06 Th	07 F	08 S	Wkly Total	PP Total
REG1				2.0	2.0				4.0		4.0	3.0		3.0			10.0	14.0
Totals:	0.0	0.0	0.0	5.0	6.0	0.0	0.0	0.0	11.0	0.0	5.5	11.0	0.0	3.0	2.5	0.0	22.0	33.0

Buttons: Hours Entry, Coding Block, Comments, Pers Miles, Errors, Display, Modifv, Submit, Prev Used CB, Delete, Save, Close

Appendix E - Network Logic Editor (NLE)

The Network Logic Editor (NLE) is an X Windows interface enabling you to use a mouse to interactively create and modify a job network on the computer screen. You can use the Network Logic Editor to:

- Create or delete activity boxes and constraint lines with the mouse.
- Modify activity or constraint information through a data entry screen
- Analyze and route a network

Using the Network Logic Editor to modify your network

To activate the Network Logic Editor after you have created or copied a network:

1. Click on **EDIT** from the CSS main menu bar
2. Select **Network Logic Editor**

If you are creating a network Task by Task, the Network Logic Editor screen will appear as a blank sheet.

If you have created a network by Job Type or Characteristics, the Network Logic Editor Screen will have the tasks that represent your network.

The following will describe the operations that you can perform within the Network Logic Editor.

To Add an Activity to your network

1. **Rest** your mouse cursor on a blank area of the NLE screen
2. **Press and hold** the left mouse button
3. **Drag** the cursor to the right or left (about an inch) and release

An activity box will be inserted into your network. Please be aware that information will need to be added to this activity. This will be explained throughout this section.

To Add an Activity Constraint

1. **Click one time** on the activity that you wish to impose a constraint. The activity should be highlighted with a bolded outer edge
2. **Place** your mouse cursor just inside the activity box
3. When the cursor turns into an plus sign (+) , **Click and hold** the left mouse button.
4. **Drag** the cursor to the activity with which you wish to constrain your activity

Where you place and release your cursor within an activity will determine your constraint type. The following describes activity constraints within the NLE.

Start to Start (SS) - Place the cursor on the left side of your task and draw a line to the left side of the task with which you wish to constrain.

Finish to Start (FS) - Place your cursor on the right side of the preceding task and draw a line to the left side of the succeeding task.

Finish to Finish (FF) - Place your cursor on the right side of the task box and draw a line to the right side of the task with which you wish to constrain your selected task.

To view or Edit a constraint record

1. Double click on the constraint line

To Edit an Activity

1. Double click in the center of the activity box
2. Click at the bottom of the active window
3. Make modifications (See section on modifying activity data)

To Delete an Activity

1. **Select** the activity
2. Click on **EDIT** form the NLE menu bar
3. Click on **Cut** to remove the activity

The following chart describes the basic functions within the NLE:

To:	Action
Create an activity box	Press and drag in empty space in Edit window
Create a constraint line	Press within a box: drag to another box
Select an activity or constraint	Click on desired activity or constraint
Edit an activity or constraint	Double Click on selected activity or constraint or Select activity or constraint: select Forms option from Data menu
Delete	Select Item: use Cut option from Edit menu
Move an activity	When the hand icon is in an activity box, press and drag
Paste	Select item: use Cut or Copy: place cursor, press right mouse button, use Paste from Edit Utilities pop-down menu
Route	Select Route option from Tools menu
Analyze	Select Analyze option from Tools menu
Exit	Select Exit option from Tools menu