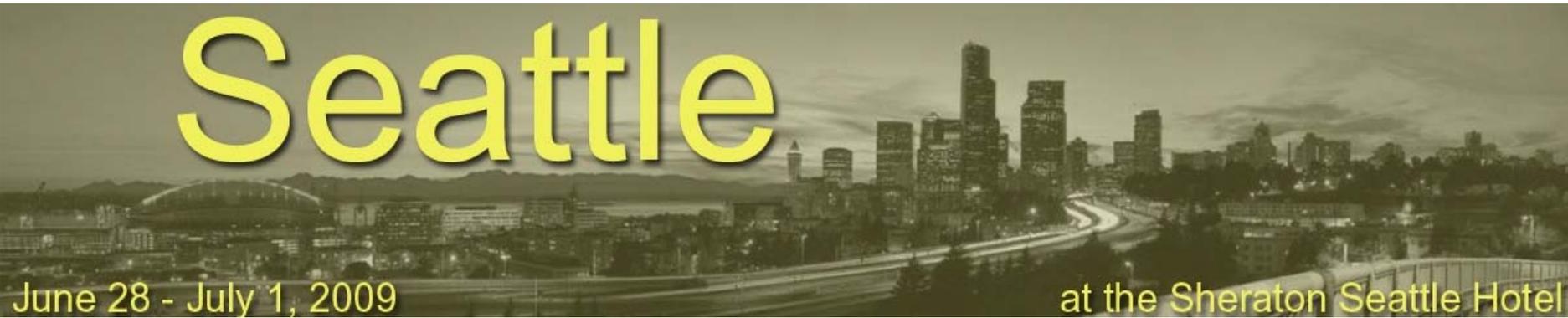


Multi-User Scheduling on Mars Science Laboratory in collaboration with MS Project

Seattle



June 28 - July 1, 2009

at the Sheraton Seattle Hotel

Julie Owen JPL, California Institute of Technology
Thomas Barnhart, Lockheed Martin Space Systems

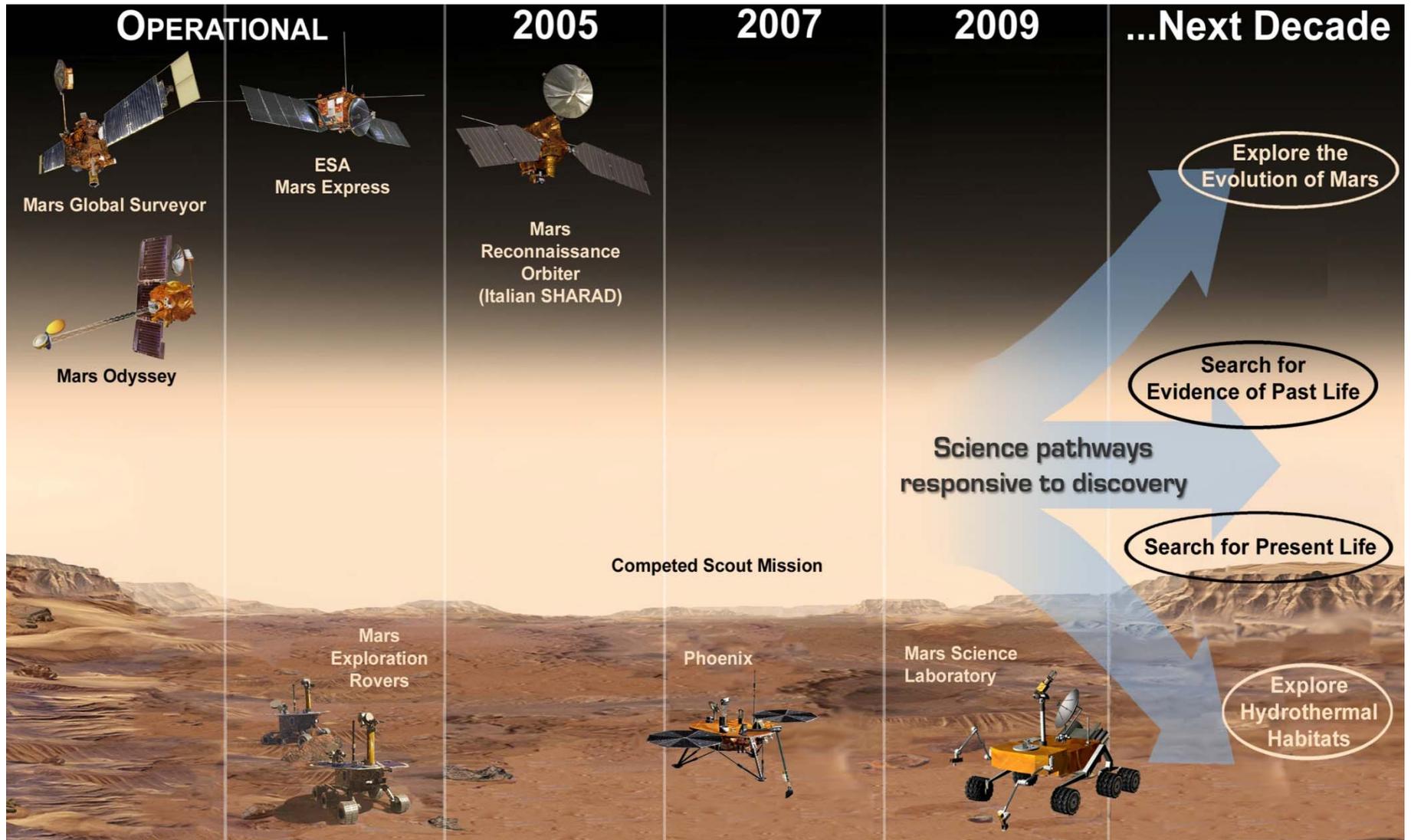
AACE International's 53rd Annual Meeting

Seattle, Washington

A change in JPL schedule paradigm – Prior distributed schedule architecture versus a single, integrated program

- Outline MSL program background and mission complexity
- Integrate vendor/JPL MS Project schedules and into one master schedule
- Evaluate two different methods for file integration
 - Step by step process to import/export MS Project data
 - Step by step process for using ProjectLink
- Assess pros and cons regarding importing versus ProjectLink
- Review lessons learned

NASA's Mars Exploration Program



Strategy: Follow the water, assess habitability, return a sample, prepare for humans.

This Image is the property of NASA and JPL Caltech

MSL Project Overview

Science

Focus on Past & Present Habitability of Mars

Highly Capable Analytical Laboratory

Next Generation Remote Sensing & Contact Investigations

Suite of Environmental Monitoring Instruments



This Image is the property of NASA and JPL Caltech

Technical Capabilities

One Mars Year surface operational lifetime (669 sols/687 days)

Discovery Responsive over wide range of latitudes and altitudes

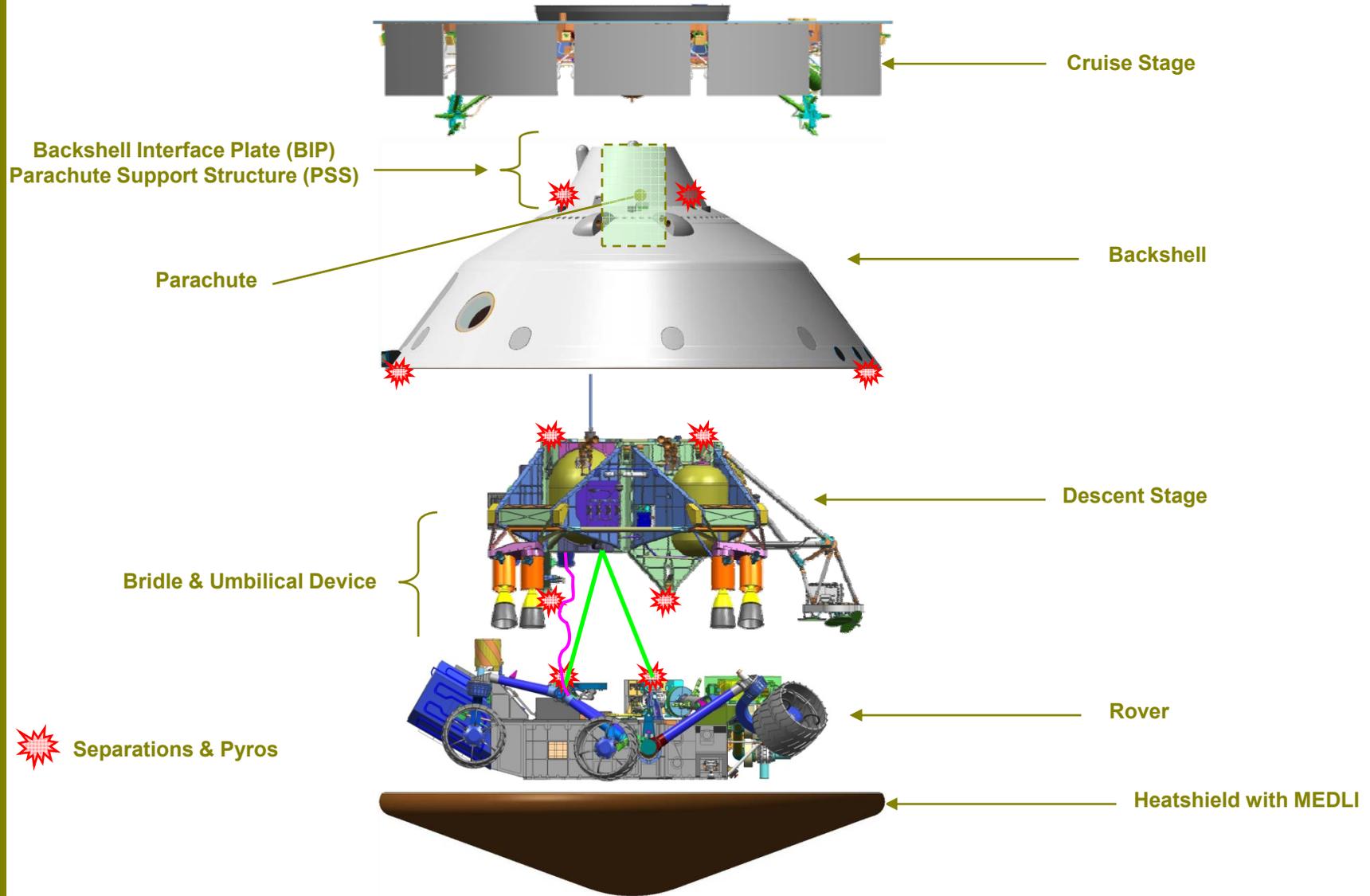
Precision Landing via Guided Entry

Skycrane Propulsive Landing

Long Distance Traverse Capability (20 km)

Flexible & Robust Sample Acquisition & Processing

MSL Spacecraft Major Elements

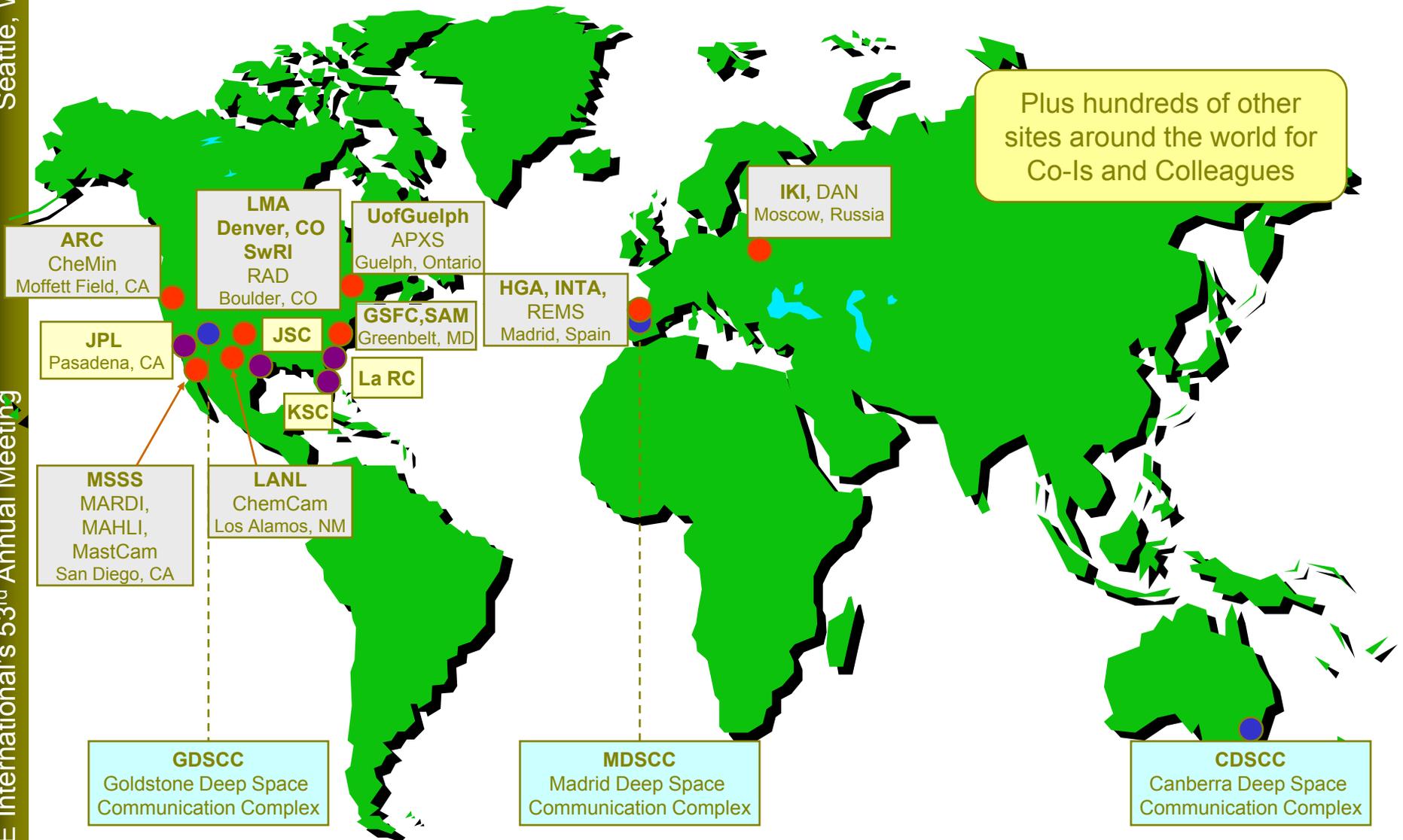


Who's Your Daddy?



This Image is the property of NASA and JPL Caltech

Geographic Site Overview



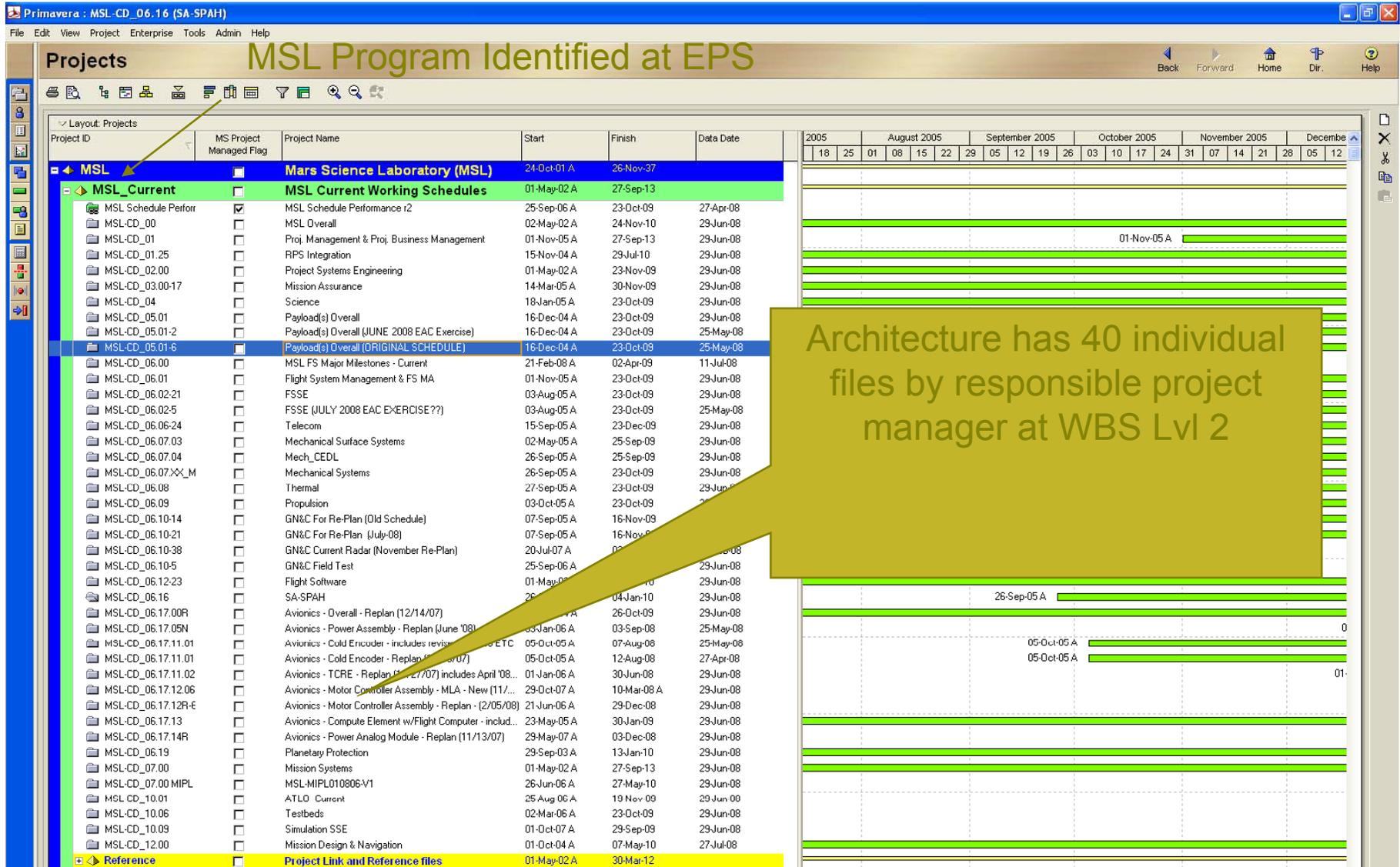
Project Facts

- 10 Yr Project Concept Through Operations
- Project Value Over \$1 Billion
- Project Employed 20% of Lab Resources at peak
- 675 Vendors
- 40,000 tasks cost and resource loaded
- Over Forty Individual Project File Elements
- Seven Full-Time JPL Schedule Analysts
- Fifty Licenses for P6 Web

Problem Statement

- Complex project w/many players & different scheduling tools
- Limited business support budget and personnel
- JPL technical staff unaccustomed to scheduling best business practices
- Must leverage limited resources, consolidate program data and provide timely status
- Must have proactive management to address delivery impacts to the program
- MS Project not suited to large program integration
- Cannot afford inefficiency of file locking in Project

Develop File Enterprise Structure



MSL Aeroshell Project Overview

- MSLA Deliverables consist of one Aeroshell (A Backshell and Heatshield) plus one additional backup Heatshield
- Aeroshell protects rover from launch through landing. 4.5m in diameter and 3.3m in height
- Aeroshell is made of composite laminated materials, with Shuttle-like tiles on heatshield to protect rover during fiery entry
- Project Start Sept 2006 – End May 2009
- Integrated Master Schedule (IMS) is a fully networked and resource loaded MS Project 2003 file to track progress

MSL Aeroshell

Aeroshell just before Separation Test.

Backshell

Heatshield



This Image is the property of NASA and JPL Caltech

- Largest
Aeroshell Ever
Built

MSLA Heatshield

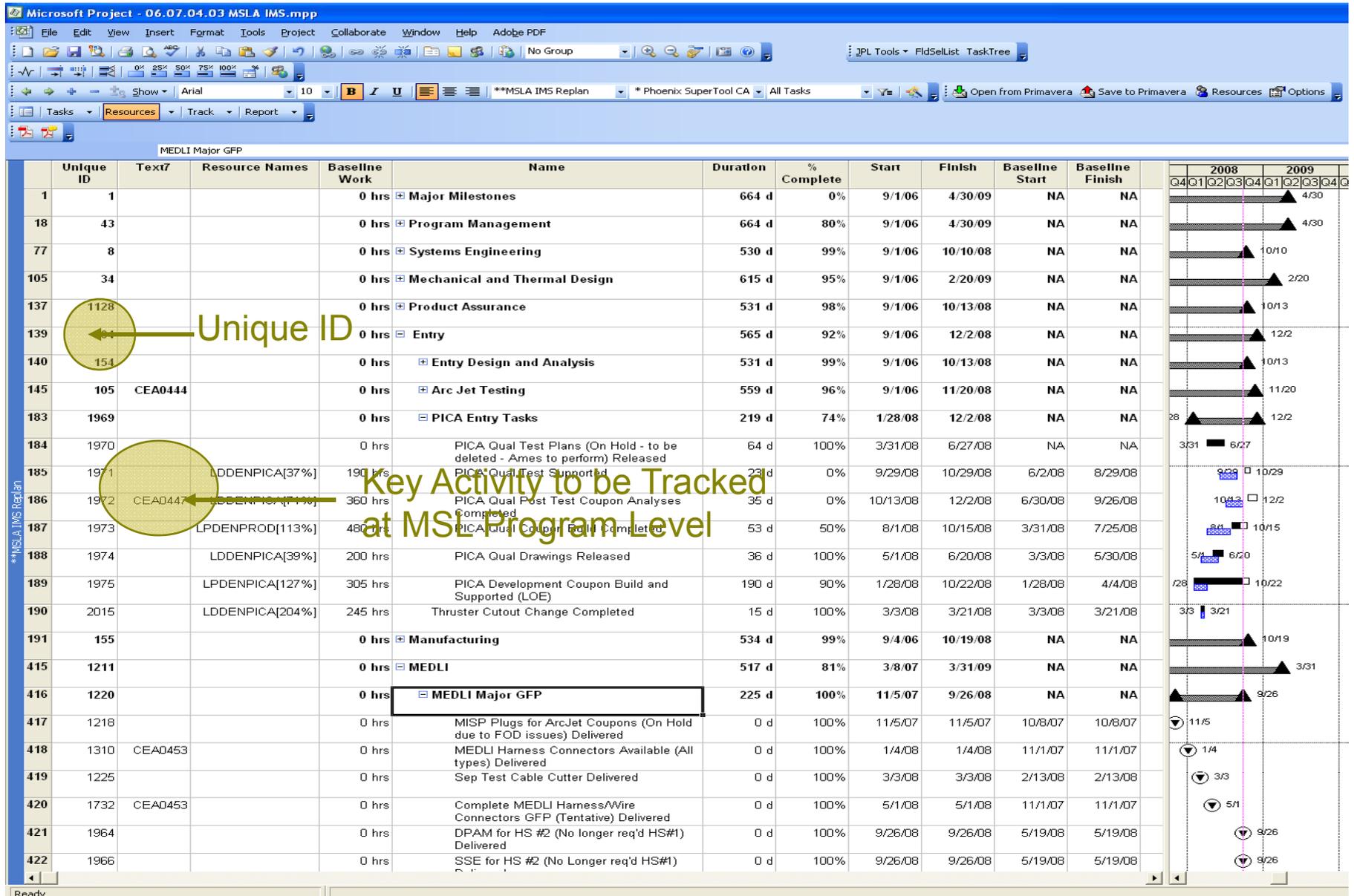


This Image is the property of NASA and JPL Caltech

Monthly MSL Aeroshell Status

- Monthly IMS submitted to JPL in MS Project 2003 format
- Critical Path analysis performed
- Schedule margin position
- IMS provides status against task baseline
- IMS provides status against key program level milestones
- Key program level milestones mapped into data and linked into JPL Master Program Schedule
- IMS is the basis for Earned Value system and cost position status

Sample MS Project File



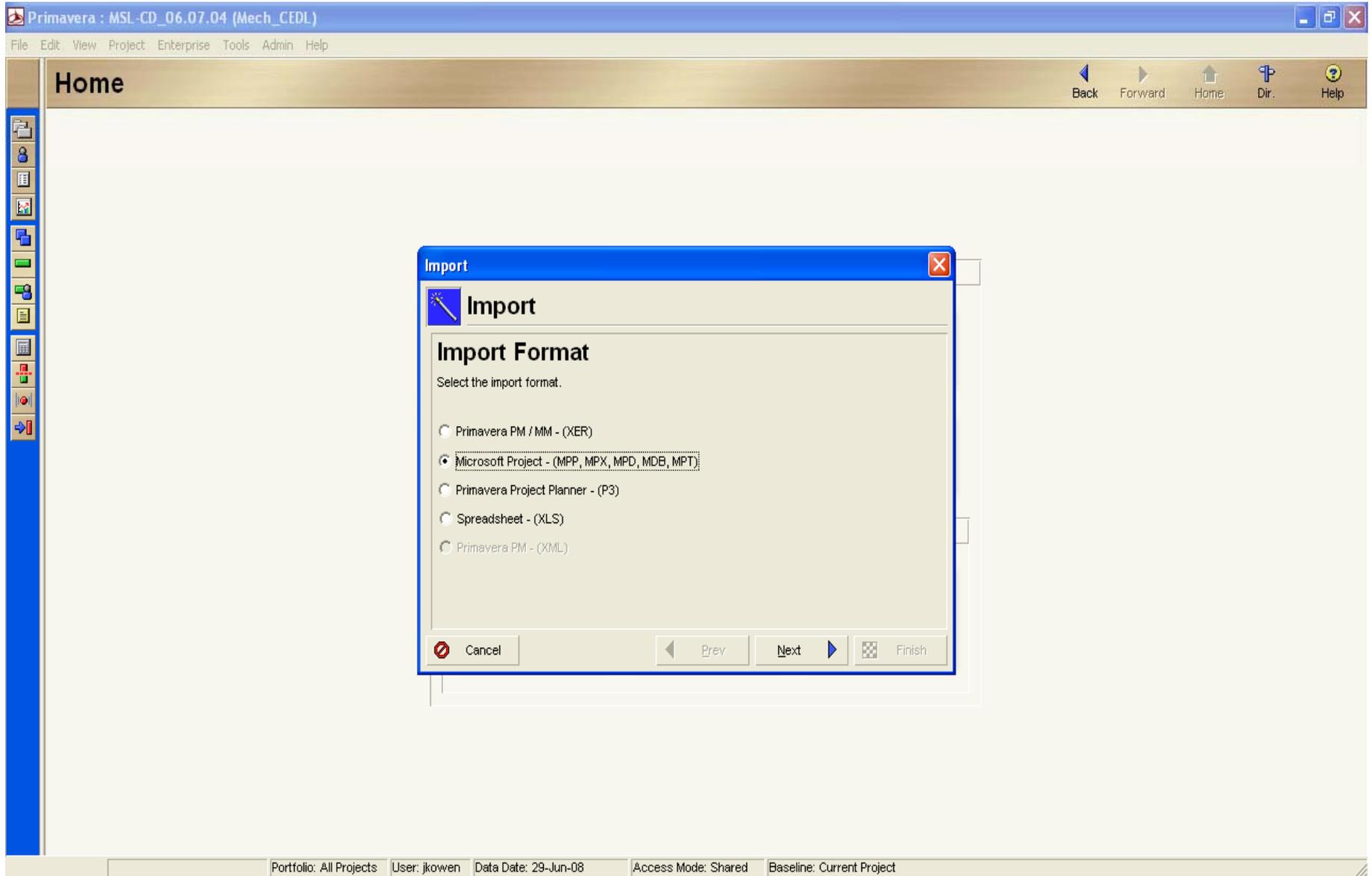
Import Example

Create P6 Custom Mapping Fields

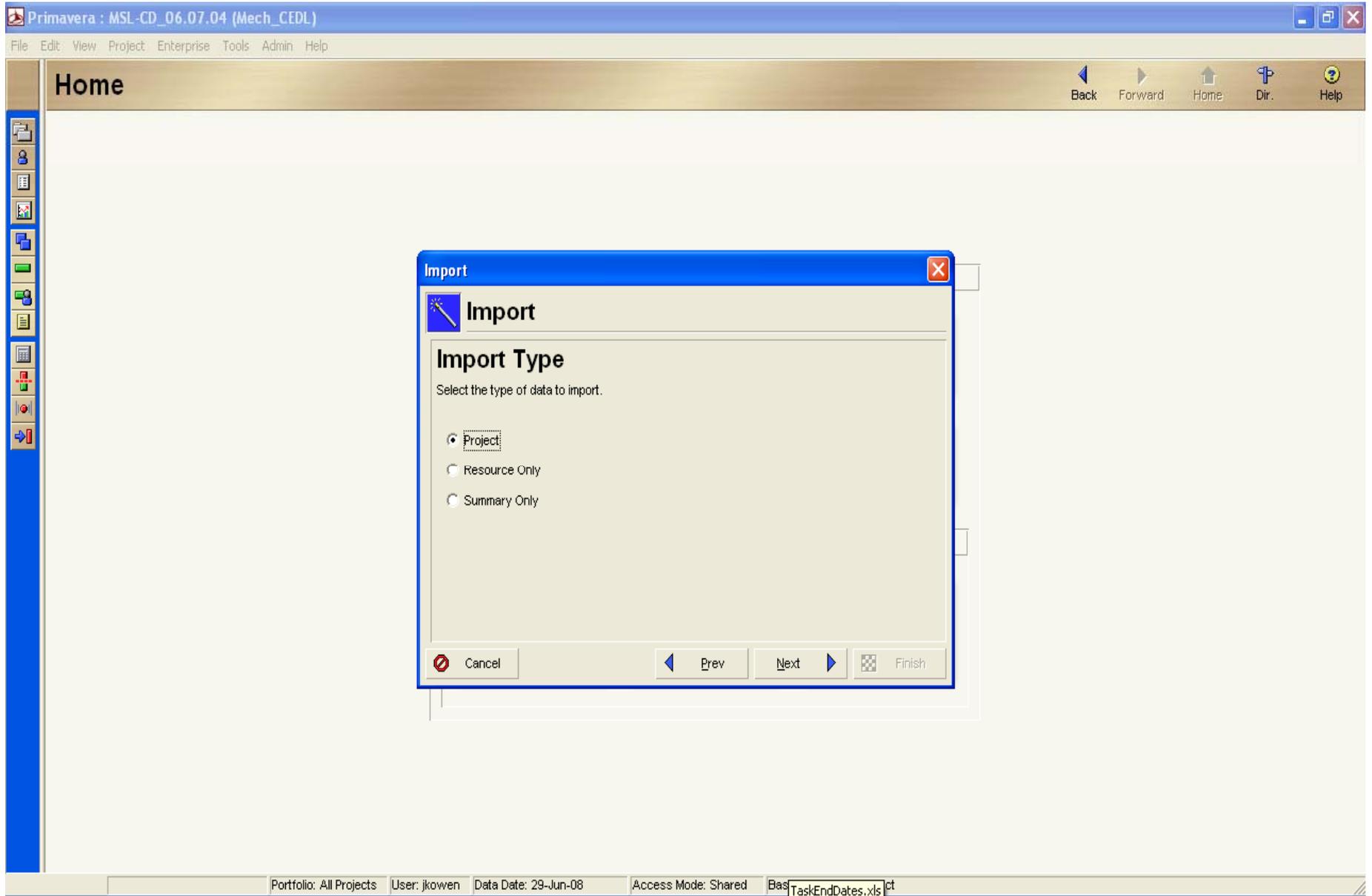
The screenshot displays the Primavera software interface with the 'User Defined Fields' dialog box open. The dialog box contains a list of fields and their corresponding data types. The 'MSLA Baseline Work' field is highlighted, showing a data type of 'Number'. Other fields include 'MSLA Top Level 1 - System' (Text), 'MSLA Top Level 2- Subsystem' (Text), 'MSLA Activity ID's' (Text), 'MSLA Baseline Finish' (Finish Date), 'MSLA Baseline Start' (Start Date), 'Old PDR Negative Float' (Text), 'PDR CP Items Flag' (Indicator), 'Rec/Del Required Date' (Start Date), and 'REC/DEL to/ from Organization' (Text).

Field Name	Data Type
MSLA_Top Level 1 - System	Text
MSLA_Top Level 2- Subsystem	Text
MSLA Activity ID's	Text
MSLA Baseline Finish	Finish Date
MSLA Baseline Start	Start Date
MSLA Baseline Work	Number
Old PDR Negative Float	Text
PDR CP Items Flag	Indicator
Rec/Del Required Date	Start Date
REC/DEL to/ from Organization	Text

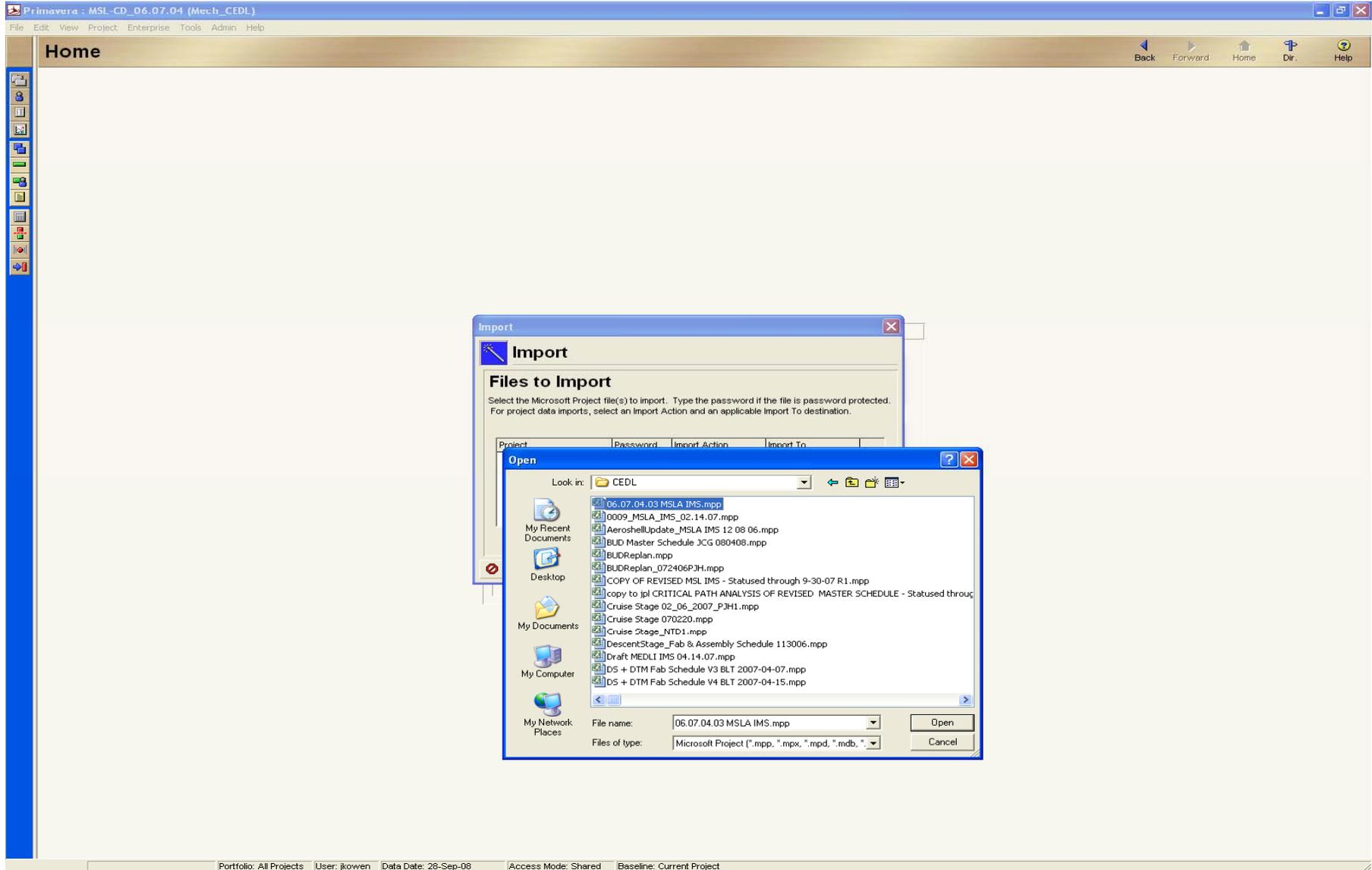
Import MSP to Primavera



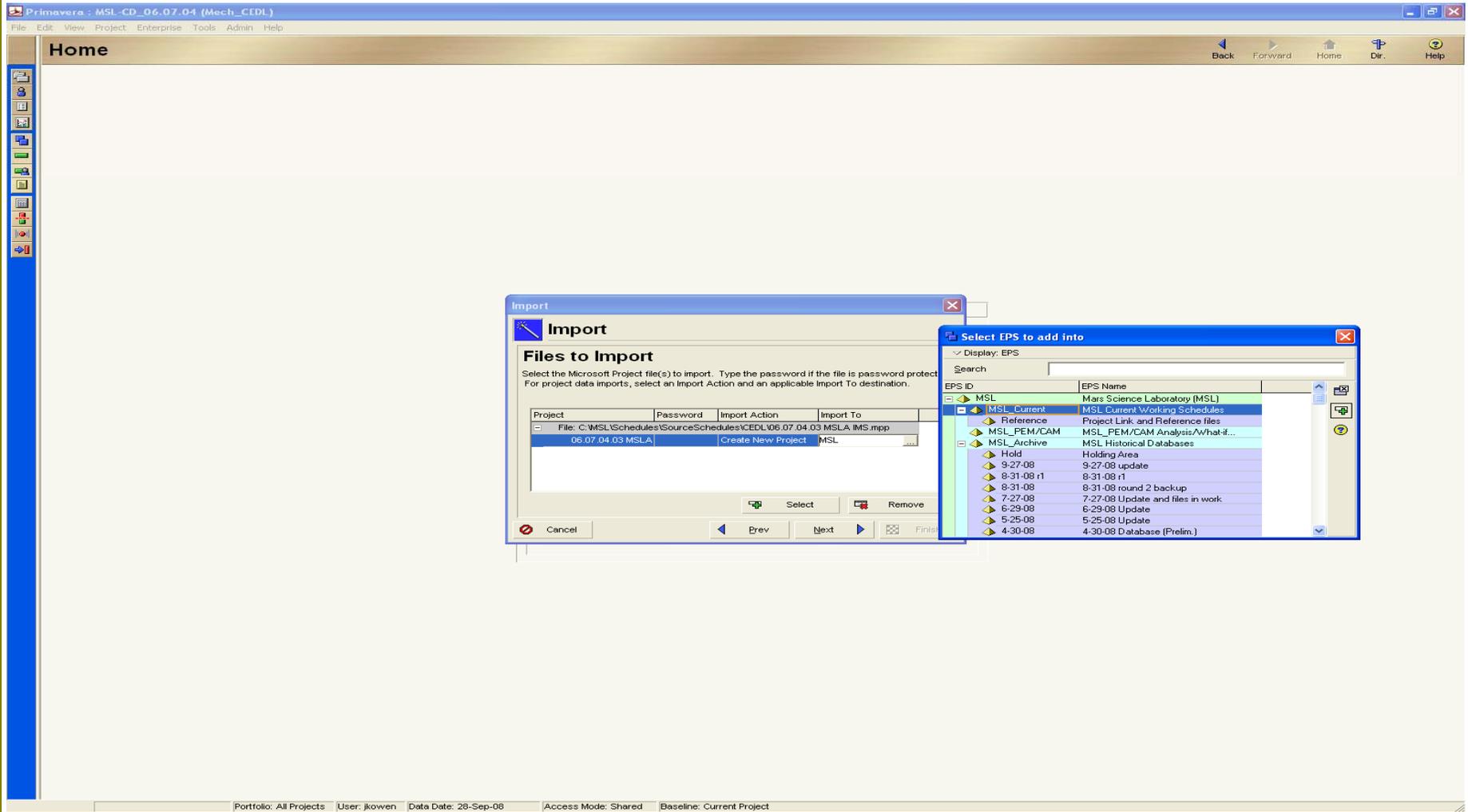
Select Import Data Type



Select Import File



Select File/EPS Import Location



Create Import/Export Template

Primavera : MSL-CD_06.07.04 (Mech_CEDL)

File Edit View Project Enterprise Tools Admin Help

Home

Back Forward Home Dir. Help

Modify Template

Template Name: MSL LMA Import Template

Select the appropriate options for exchanging data with Microsoft Project files. Click OK to save the template.

General Activity Resource Notebooks Custom Field Mappings

Choose custom field mappings for exchanging data with Microsoft Project files.

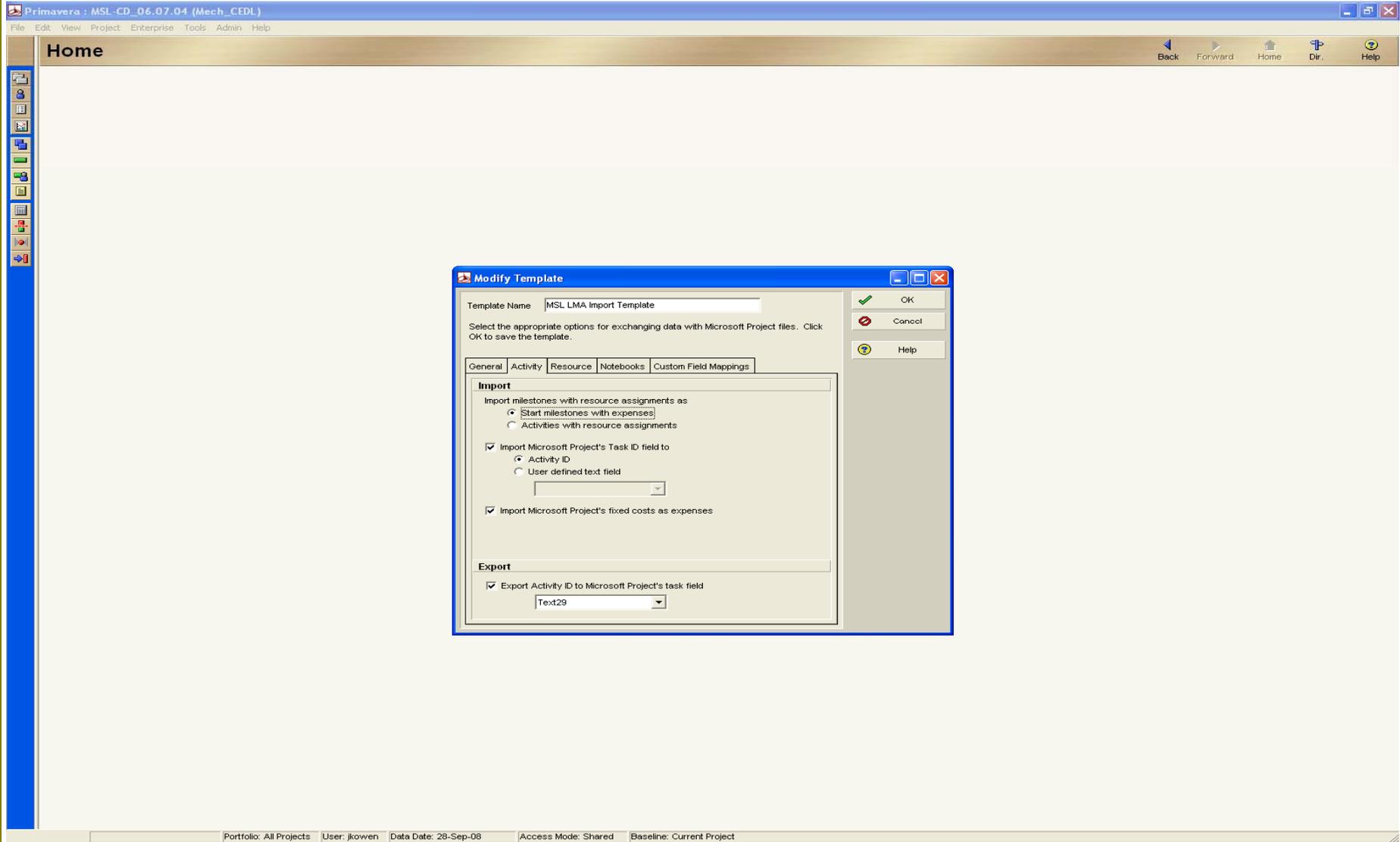
Select Subject Area: Activities

Project Management Field	MSP Field
+	Cost
+	Date
+	Number
-	Text
MSLA Unique Activity ID's	Text1
<None>	Text2
<None>	Text3
<None>	Text4
<None>	Text5
<None>	Text6
MSLA Activity ID's	Text7
<None>	Text8

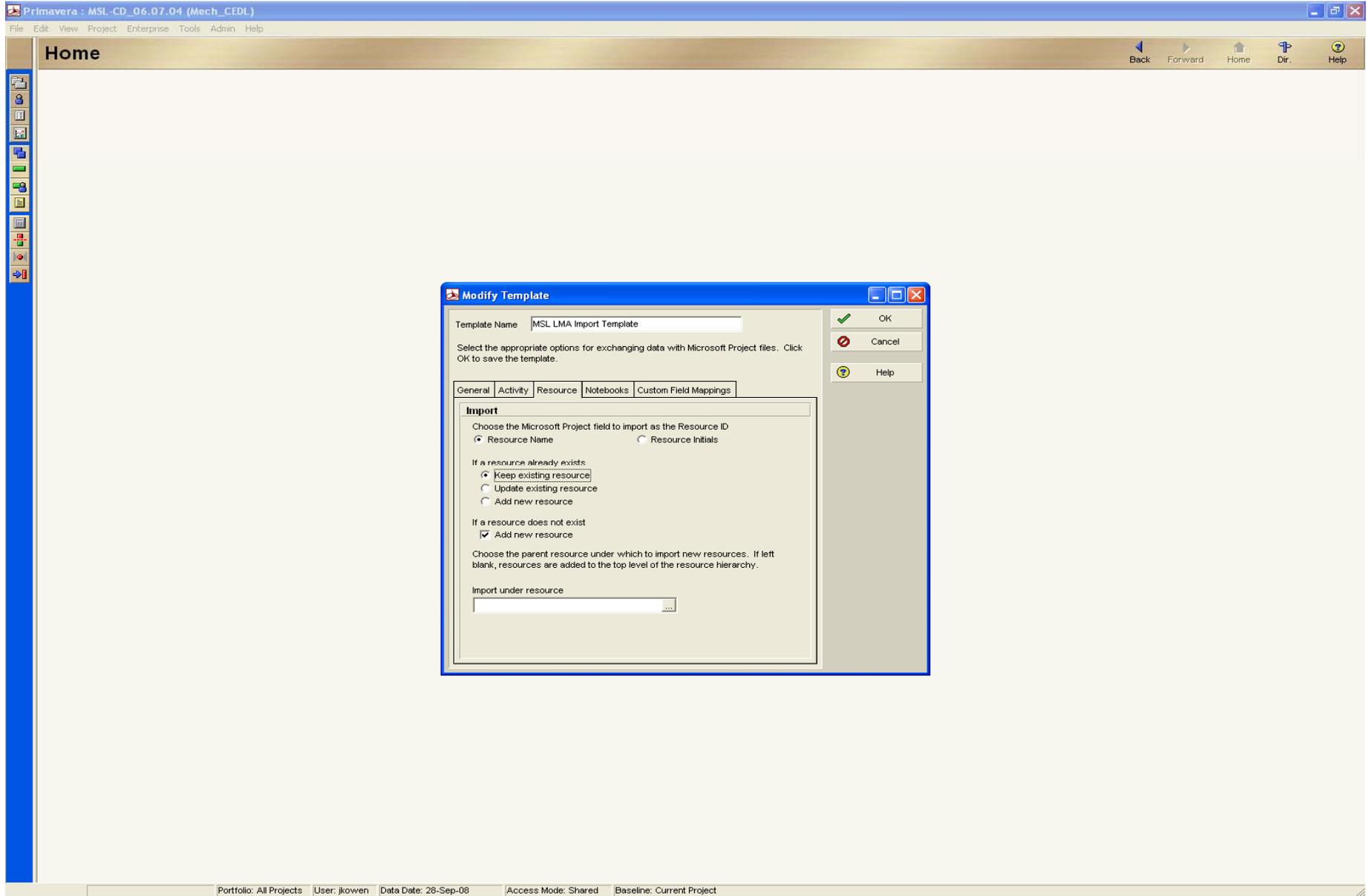
Map Custom Fields into P6

Portfolio: All Projects | User: jkowen | Data Date: 28-Sep-08 | Access Mode: Shared | Baseline: Current Project

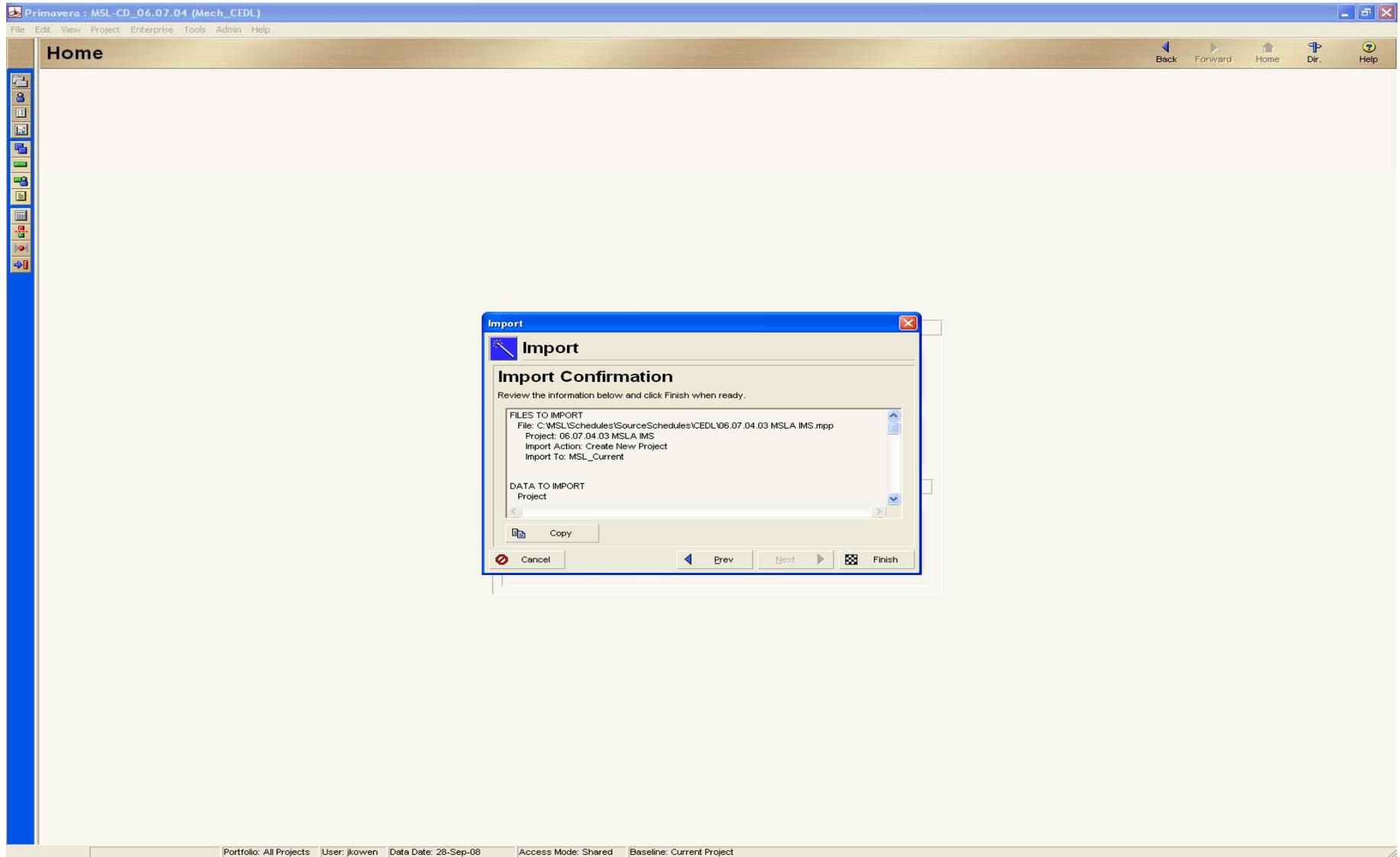
Identify Activity Import Mapping



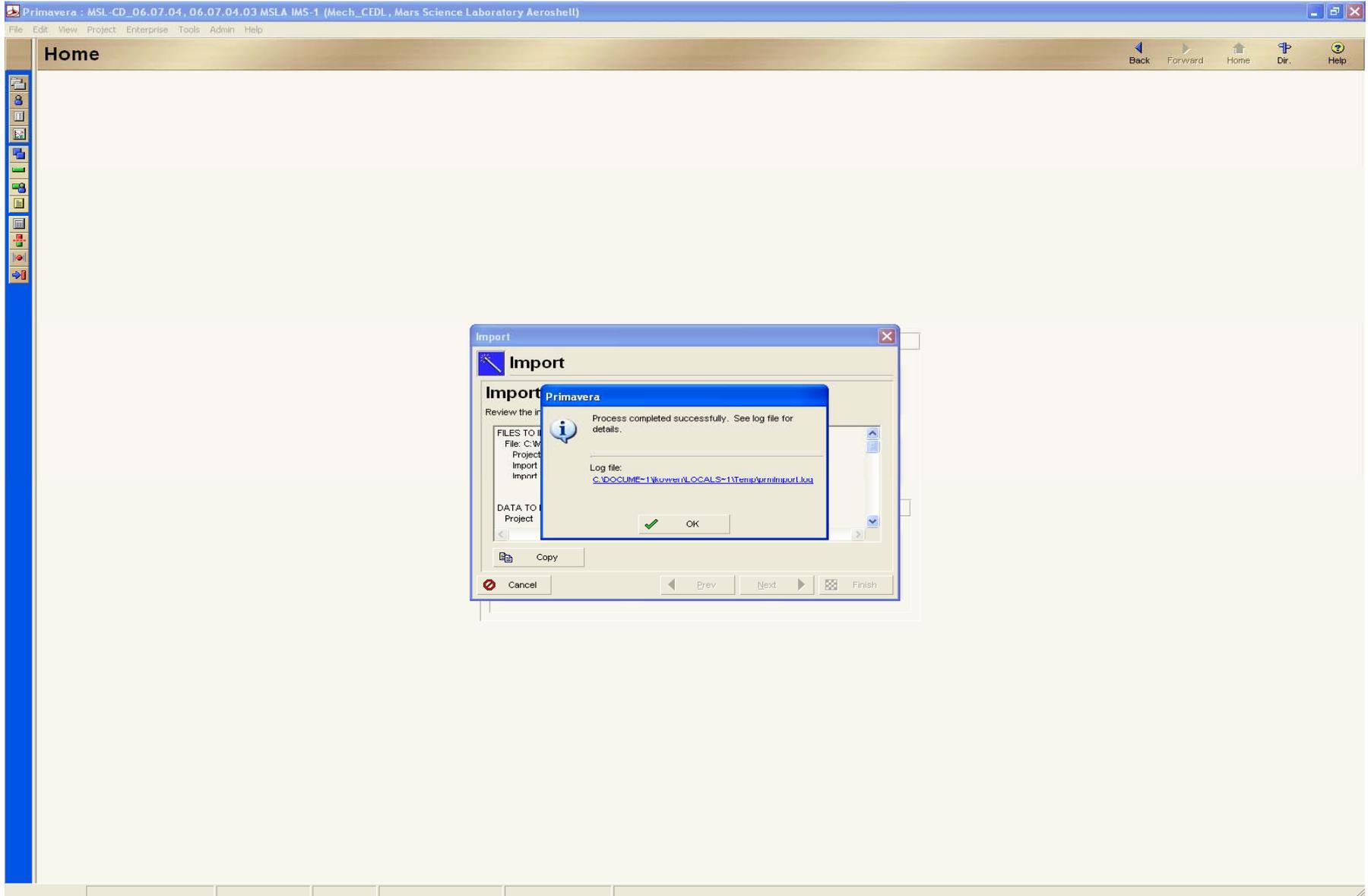
Identify Resource Mapping



Click Finish to Proceed



Import Complete



Import Sample

Primavera : MSL-CD_06.07.04, 06.07.04.03 MSLA IMS-1 (Mech_CEDL, Mars Science Laboratory Aeroshell)

File Edit View Project Enterprise Tools Admin Help

Activities

Layout: LMA Import Filter: All: WAO WBS Summary Tasks

Act ID	MSLA Activity ID's	Calendar	Resource IDs	Activity Name	Start	Finish	Orig Dur	Rem Dur	Total Float
Mars Science Laboratory Aeroshell									
Major Milestones									
Program Management									
Systems Engineering									
Mechanical and Thermal Design									
Product Assurance									
Entry									
190		SES 5 Day Thru 12/2011	LDDENPICA	Thruster Cutout Change Completed	03-Mar-08 A	21-Mar-08 A	15	0	
Entry Design and Analysis									
Arc Jet Testing									
Qualification Testing									
Heat Shield Qual Testing (Alt Tape Plan)									
148		Phoenix 5 day with Holidays off - 12/2012		Design HS Qual Test Coupon & Drawings Released	01-Sep-06 A	02-Feb-07 A	102	0	
149		Phoenix 5 day with Holidays off - 12/2012		SIRCA-25 Collars/RSIs from JPL (Proposed GFP) Delivered	28-Feb-07 A	28-Feb-07 A	0	0	
150		Phoenix 5 day with Holidays off - 12/2012	LDDENENG	Fabricate HS Qual Test Arc Jet Coupons Completed	20-Feb-07 A	12-Apr-07 A	53	0	
151		Phoenix 5 day with Holidays off - 12/2012		HS Qual Arc Jet Test Margin	08-Mar-07 A		0	0	
152	CEA0445	Phoenix 5 day with Holidays off - 12/2012	LDDENENG	HS Arc Jet Qual Testing at Ames Completed	13-Apr-07 A	19-Apr-07 A	35	0	
153		Phoenix 5 day with Holidays off - 12/2012	LDDENENG	Post HS Qual Arc Jet Test Data Analysis and Report Deliver...	20-Apr-07 A	27-Jul-07 A	69	0	
154		Phoenix 5 day with Holidays off - 12/2012	LDDENENG	Compl Post HS Qual Arc Jet Test Data Analysis and Report ...	30-Jul-07 A	09-Aug-07 A	12	0	
Backshell Qual Testing (Cloth Plan)									
Flight Coupon Verification Testing									

Mapped MSP Text Fields into PG

General | Status | Relationships | Steps | Codes | Notebook | Resources

Activity: _____ Project: _____

Predecessors							Successors											
Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Primary Res

Assign Remove GoTo

Check Data Types

MSPProject Default

Activity Types

- Task = Resource Dependent
- % Compl = Duration
- Duration = Fixed Duration
- Calendar = Global MPT

Primavera Default

Activity Types

- Task = Task Dependent
- % Compl = Duration
- Duration = Fixed Units/Time
- Calendar = Global at EPS

ProjectLink Example

ProjectLink Basic Facts

- Primavera ProjectLink plug-in allows user to store MS Project 2003 file into Primavera Database
- Gives access to use Primavera resource dictionaries but not activity code dictionaries
- ProjectLink file managed within MSP but stored to Primavera
- Primavera reporting tools gives visibility into MSP schedule
- ProjectLink help menu is available

Project-Link Save to Primavera

The screenshot shows the Microsoft Project interface for a project named '06.07.04.03 MSLA IMS.mpp'. The main window displays a Gantt chart with tasks from 1 to 190. A yellow circle highlights the 'Save to Primavera' button in the toolbar. Below the Gantt chart, the 'Task Form' is open for task ID 185, 'PICA Qual Post Test Coupon Analyses Completed'.

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Baseline Finish
1	1		0 hrs	Major Milestones	664 d	0%	9/1/06	4/30/09	NA	NA
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA	NA
77	8		0 hrs	Systems Engineering	530 d	99%	9/1/06	10/10/08	NA	NA
105	34		0 hrs	Mechanical and Thermal Design	615 d	95%	9/1/06	2/20/09	NA	NA
137	1128		0 hrs	Product Assurance	531 d	98%	9/1/06	10/13/08	NA	NA
139	104		0 hrs	Entry	565 d	92%	9/1/06	12/2/08	NA	NA
140	154		0 hrs	Entry Design and Analysis	531 d	99%	9/1/06	10/13/08	NA	NA
145	105	CEA0444	0 hrs	Arc Jet Testing	559 d	96%	9/1/06	11/20/08	NA	NA
183	1969		0 hrs	PICA Entry Tasks	219 d	74%	1/28/08	12/2/08	NA	NA
184	1970		0 hrs	PICA Qual Test Plans (On Hold - to be deleted - Ames to perform) Released	64 d	100%	3/31/08	6/27/08	NA	NA
185	1971	LDDENPICA[37%]	190 hrs	PICA Qual Test Supported	23 d	0%	9/29/08	10/29/08	6/2/08	8/29/08
186	1972	CEA0447	360 hrs	PICA Qual Post Test Coupon Analyses Completed	35 d	0%	10/13/08	12/2/08	6/30/08	9/26/08
187	1973	LPDENPROD[113%]	480 hrs	PICA Qual Coupon Build Completed	53 d	50%	8/1/08	10/15/08	3/31/08	7/25/08
188	1974	LDDENPICA[39%]	200 hrs	PICA Qual Drawings Released	36 d	100%	5/1/08	6/20/08	3/3/08	5/30/08
189	1975	LPDENPICA[127%]	305 hrs	PICA Development Coupon Build and Supported (LOE)	190 d	90%	1/28/08	10/22/08	1/28/08	4/4/08
190	2015	LDDENPICA[204%]	245 hrs	Thrustor Cutout Change Completed	15 d	100%	3/3/08	3/21/08	3/3/08	3/21/08

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
185	PICA Qual Test Supported	SS	10d	15	PICA HS #2 Delivery Date (Mo)	FS	0d

Select File Location

The screenshot displays the Microsoft Project interface for a project named "MSLA IMS.mpp". The main window shows a Gantt chart with tasks listed in a table below. Two dialog boxes are overlaid on the chart:

- Save to Primavera:** A dialog box with a "Select EPS" section. It contains a list box with "Mars Science Laboratory (MSL)" selected. Below the list box are "Cancel" and "Previous" buttons.
- Select EPS:** A tree view dialog box showing a hierarchy of EPS (Elementary Process Step) items. The tree is expanded to show sub-items under "MSL_Archive", including "MSL Historical Data", "Hold", and various update and database tasks.

The Gantt chart shows tasks from 2008 to 2009. The task list table is as follows:

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Baseline Finish
1	1		0 hrs	Major Milestones	664 d	0%	9/1/06	4/30/09	NA	NA
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA	NA
77	8		0 hrs	Systems Engineering	530 d	99%	9/1/06	10/10/08	NA	NA
105	34		0 hrs	Mechanical and Thermal Design	615 d	95%	9/1/06	2/20/09	NA	NA
137	1128		0 hrs	Product Assurance	531 d	98%	9/1/06	10/13/08	NA	NA
139	104		0 hrs	Entry						
140	154		0 hrs	Entry Design and A						
145	105	CEA0444	0 hrs	Arc Jet Testing						
183	1969		0 hrs	PICA Entry Tasks						
184	1970		0 hrs	PICA Qual Test deleted - Ames t						
185	1971	LDDENPICA[37%]	190 hrs	PICA Qual Test C						
186	1972	CEA0447	LDDENPICA[71%]	360 hrs	PICA Qual Post Completed					
187	1973	LPDENPROD[113%]	480 hrs	PICA Qual Coup						
188	1974	LDDENPICA[39%]	200 hrs	PICA Qual Drawi						
189	1975	LPDENPICA[127%]	305 hrs	PICA Developme Supported (LOE)						
190	2015	LDDENPICA[204%]	245 hrs	Theater Cutout Change Completed	15 d	100%				

At the bottom of the screen, the "Task Form" is visible, showing task details for "PICA Qual Post Test Coupon Analyses Co".

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
185	PICA Qual Test Supported	SS	10d	15	PICA H5 #2 Delivery Date (Mo)	FS	0d

Select Code Field Mappings

The screenshot displays the Microsoft Project interface for a project named '06.07.04.03 MSLA IMS.mpp'. The main window shows a Gantt chart with tasks such as 'Major Milestones', 'Program Management', 'Systems Engineering', and 'Mechanical and Thermal Design'. A 'Save to Primavera' dialog is open, showing a list of templates with 'MSL LMA Import Template' selected. A 'Modify Template' dialog is also open, showing the 'Custom Field Mappings' tab. In this dialog, the 'Number' field is selected, and a list of mappings is shown, including 'MSLA Unique Activity ID's' mapped to 'Text1' through 'Text8'.

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Baseline Finish
1	1		0 hrs	Major Milestones	664 d	0%	9/1/06	4/30/09	NA	NA
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA	NA
77	8		0 hrs	Systems Engineering	530 d	80%	9/1/06	4/30/09	NA	NA
105	34		0 hrs	Mechanical and Thermal Design	615 d	80%	9/1/06	4/30/09	NA	NA
137	1128		0 hrs							
139	104		0 hrs							
140	154		0 hrs							
145	105	CEA0444	0 hrs							
183	1969		0 hrs							
184	1970		0 hrs							
185	1971	LDDENPICA[37%]	190 hrs							
186	1972	CEA0447 LDDENPICA[71%]	360 hrs							
187	1973	LPDENPROD[113%]	480 hrs							
188	1974	LDDENPICA[39%]	200 hrs							
189	1975	LPDENPICA[127%]	305 hrs	PICA Development Coupon Build and Supported (LOE)	190 d					
190	2015	LDDENPICA[204%]	245 hrs	Thruster Output Change Completed	15 d					

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
185	PICA Qual Test Supported	SS	10d	15	PICA HS #2 Delivery Date (Mo	FS	0d

Click Finish to Proceed

The screenshot displays the Microsoft Project interface for a project named 'MSLA IMS.mpp'. The main window shows a Gantt chart with tasks such as 'Major Milestones', 'Program Management', 'Systems Engineering', and 'Mechanical and Thermal Design'. A dialog box titled 'Save to Primavera' is open, containing an 'Import Confirmation' window. The confirmation window lists the file path and project details, and includes a 'Finish' button. Below the dialog, the 'Task Form' is visible, showing task details for 'PICA Qual Post Test Coupon Analyses Co'.

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Baseline Finish
1	1		0 hrs	Major Milestones	664 d	0%	9/1/06	4/30/09	NA	NA
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA	NA
77	8		0 hrs	Systems Engineering	530 d	99%	9/1/06	10/10/08	NA	NA
105	34		0 hrs	Mechanical and Thermal Design	615 d	95%	9/1/06	2/20/09	NA	NA
137	1128		0 hrs				9/1/06	10/13/08	NA	NA
139	104		0 hrs				9/1/06	12/2/08	NA	NA
140	154		0 hrs				9/1/06	10/13/08	NA	NA
145	105	CEA0444	0 hrs				9/1/06	11/20/08	NA	NA
183	1969		0 hrs				2/28/08	12/2/08	NA	NA
184	1970		0 hrs				3/31/08	6/27/08	NA	NA
185	1971	LDDENPICA[37%]	190 hrs				2/29/08	10/29/08	6/2/08	8/29/08
186	1972	CEA0447	360 hrs				7/13/08	12/2/08	6/30/08	9/26/08
187	1973	LPDENPROD[113%]	480 hrs				8/1/08	10/15/08	3/31/08	7/25/08
188	1974	LDDENPICA[39%]	200 hrs				5/1/08	6/20/08	3/3/08	5/30/08
189	1975	LPDENPICA[127%]	305 hrs	PICA Development Coupon Build and Supported (LOE)	190 d	90%	1/28/08	10/22/08	1/28/08	4/4/08
190	2015	LDDENPICA[204%]	245 hrs	Thrustor Cutout Change Completed	15 d	100%	3/3/08	3/21/08	3/3/08	3/21/08

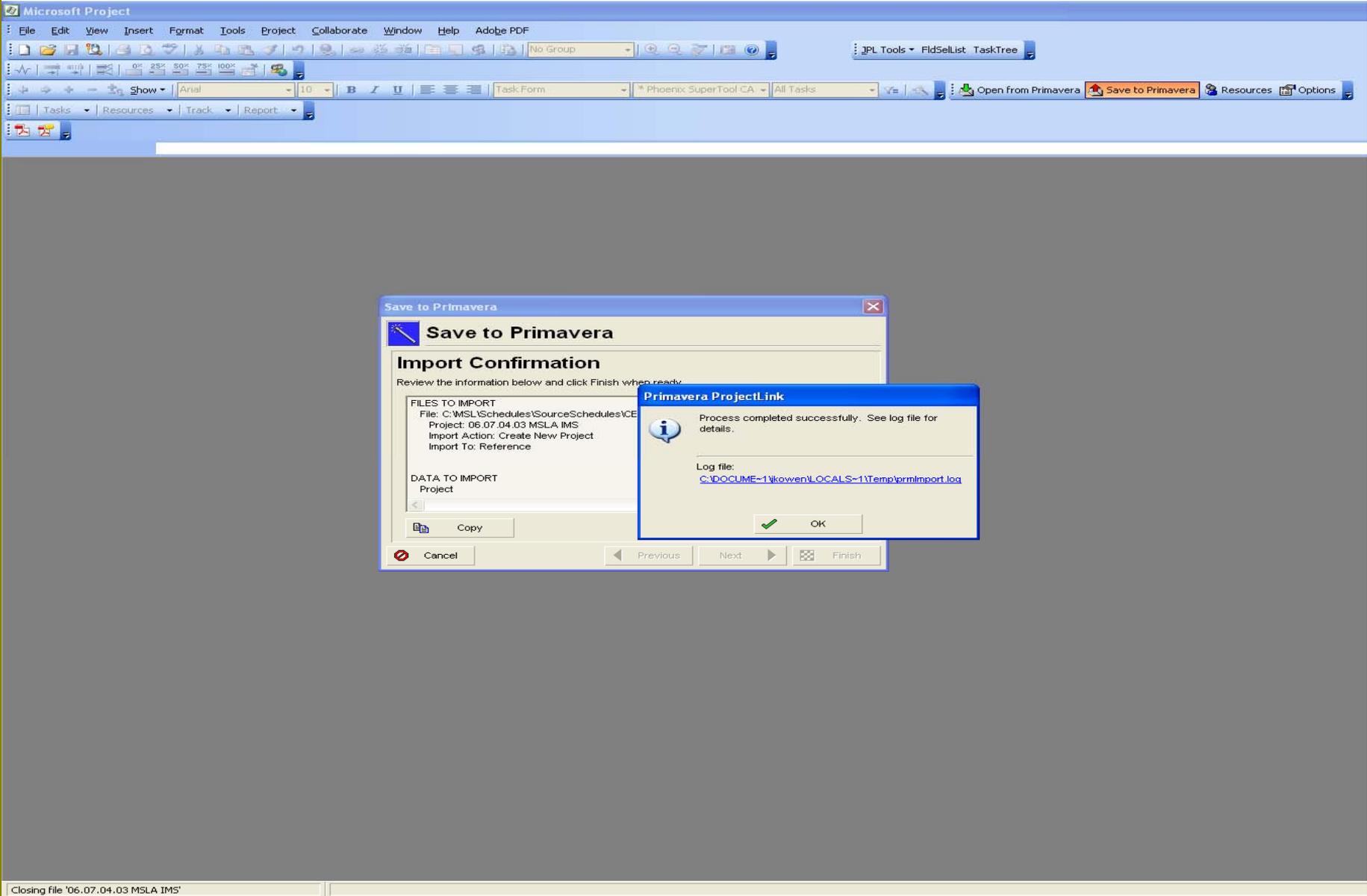
Task Form:

Name: PICA Qual Post Test Coupon Analyses Co Duration: 35d Effort driven: Previous Next

Start: 10/13/08 Finish: 12/2/08 Task type: Fixed Duration % Complete: 0%

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
185	PICA Qual Test Supported	SS	10d	15	PICA HS #2 Delivery Date (Mo	FS	0d

MSP Save to P6 Complete



MSP Managed File in P6

Primavera : MSL-CD_06.07.04 (Mech_CDLD)

File Edit View Project Enterprise Tools Admin Help

Projects

Layout: Projects

Project ID	MS Project Managed Flag	Project Name	Start	Finish	Data Date
MSL		Mars Science Laboratory (MSL)	24-Oct-01 A	26-Nov-37	
MSL_Current		MSL Current Working Schedules	01-May-02 A	27-Sep-13	
GDS 2.1		GDS 2.1			17-Oct-08
MSL Schedule Performance r2	<input checked="" type="checkbox"/>	MSL Schedule Performance r2	25-Sep-06 A	23-Oct-09	27-Apr-08
MSL-CD_00	<input type="checkbox"/>	MSL Overall	02-May-02 A	24-Nov-10	28-Sep-08
MSL-CD_01	<input type="checkbox"/>	Proj. Management & Proj. Business Management	01-Nov-05 A	27-Sep-13	28-Sep-08
MSL-CD_01.25	<input type="checkbox"/>	RPS Integration	15-Nov-04 A	23-Oct-09	28-Sep-08
MSL-CD_02.00	<input type="checkbox"/>	Project Systems Engineering	01-May-02 A	23-Nov-09	28-Sep-08
MSL-CD_03.00-17	<input type="checkbox"/>	Mission Assurance	14-Mar-05 A	04-Feb-10	26-Oct-08
MSL-CD_04	<input type="checkbox"/>	Science	18-Jan-05 A	23-Oct-09	28-Sep-08
MSL-CD_05.01	<input type="checkbox"/>	Payload(s) Overall (JULY 08 EAC/REPLAN)	16-Dec-04 A	23-Oct-09	28-Sep-08
MSL-CD_06.00	<input type="checkbox"/>	MSL FS Major Milestones - Current	21-Feb-08 A	02-Apr-09	17-Oct-08
MSL-CD_06.01	<input type="checkbox"/>	Flight System Management & FS MA	01-Nov-05 A	23-Oct-09	26-Oct-08
MSL-CD_06.02-21	<input type="checkbox"/>	FSSE (Old Schedule)	03-Aug-05 A	23-Oct-09	29-Jun-08
MSL-CD_06.02-6	<input type="checkbox"/>	FSSE (JULY 2008 EAC/REPLAN)	03-Aug-05 A	18-Nov-09	28-Sep-08
MSL-CD_06.06-24	<input type="checkbox"/>	Telecom	15-Sep-05 A	04-Dec-09	26-Oct-08
MSL-CD_06.07.03	<input type="checkbox"/>	Mechanical Surface Systems	02-May-05 A	25-Sep-09	26-Oct-08
MSL-CD_06.07.04	<input type="checkbox"/>	Mech_CDLD	26-Sep-05 A	25-Sep-09	28-Sep-08
MSL-CD_06.07.XX_Mech	<input type="checkbox"/>	Mechanical Systems	26-Sep-05 A	23-Oct-09	28-Sep-08
MSL-CD_06.08	<input type="checkbox"/>	Thermal	27-Sep-05 A	23-Oct-09	28-Sep-08
MSL-CD_06.09	<input type="checkbox"/>	Propulsion	03-Oct-05 A	16-Nov-09	26-Oct-08
MSL-CD_06.10-21	<input type="checkbox"/>	GN&C For Re-Plan (July-08)	07-Sep-05 A	18-Nov-09	28-Sep-08
MSL-CD_06.10-38	<input type="checkbox"/>	GN&C Current Radar (used for Key Milestones only)	20-Jul-07 A	02-Apr-09	24-Feb-08
MSL-CD_06.10-5	<input type="checkbox"/>	GN&C Field Test	25-Sep-06 A	23-Oct-09	28-Sep-08
MSL-CD_06.12-23	<input type="checkbox"/>	Flight Software	01-May-02 A	23-Oct-09	28-Sep-08
MSL-CD_06.16	<input type="checkbox"/>	SA-SPAH	26-Sep-05 A	23-Oct-09	28-Sep-08
MSL-CD_06.17.00	<input type="checkbox"/>	Avionics - Overall - EAC/Replan (July '08)	16-Dec-04 A	22-Dec-09	28-Sep-08
MSL-CD_06.17.05	<input type="checkbox"/>	Avionics - Power Assembly - EAC/Replan (July '08)	03-Jan-06 A	14-Nov-08	26-Oct-08
MSL-CD_06.17.11.01	<input type="checkbox"/>	Avionics - Cold Encoder - EAC/Replan (July '08)	05-Oct-05 A	23-Oct-08	28-Sep-08
MSL-CD_06.17.11.02R	<input type="checkbox"/>	Avionics - TCRE - Replan (11/27/07) includes April '08...	01-Jan-06 A	25-Apr-08 A	27-Jul-08
MSL-CD_06.17.12	<input type="checkbox"/>	Avionics - Motor Control Assembly (MCA) - EAC/Repla...	27-Aug-07 A	29-May-09	28-Sep-08
MSL-CD_06.17.12.06R	<input type="checkbox"/>	Avionics - Motor Controller Assembly - MLA - New (11/...	29-Oct-07 A	10-Mar-08 A	27-Jul-08
MSL-CD_06.17.13N	<input type="checkbox"/>	Avionics - Compute Element w/Flight Computer - EAC/...	23-May-05 A	24-Apr-09	26-Oct-08
MSL-CD_06.17.14	<input type="checkbox"/>	Avionics - Power Analog Module - EAC/Replan (July '08)	29-May-07 A	24-Apr-09	28-Sep-08
MSL-CD_06.19	<input type="checkbox"/>	Planetary Protection	29-Sep-03 A	09-Nov-09	28-Sep-08
MSL-CD_07.00	<input type="checkbox"/>	Mission Systems 07 & 09	01-May-02 A	27-Sep-13	26-Oct-08
MSL-CD_07.00 MIPL SM	<input type="checkbox"/>	MSL-MIPL010806-V1	26-Jun-06 A	01-Dec-09	26-Oct-08
MSL-CD_10.01	<input type="checkbox"/>	ATLO Current	25-Aug-06 A	17-Nov-09	28-Sep-08
MSL-CD_10.06	<input type="checkbox"/>	Testbeds	02-Mar-06 A	18-Nov-09	28-Sep-08
MSL-CD_10.09	<input type="checkbox"/>	Simulation SSE (JULY 08 EAC/REPLAN)	01-Oct-07 A	25-Sep-09	28-Sep-08
MSL-CD_10.09.5	<input type="checkbox"/>	Simulation SSE (Old Schedule)	01-Oct-07 A	29-Sep-09	29-Jun-08
MSL-CD_12.00	<input type="checkbox"/>	Mission Design & Navigation	01-Oct-04 A	07-May-10	26-Oct-08
MSLA IMS 07.30.08 EV Rev A	<input type="checkbox"/>	Mars Science Laboratory Aeroshell	01-Sep-06 A	15-Sep-09	26-Jul-08
Reference		Project Link and Reference files	01-May-02 A	30-Mar-12	
06.07.04.03 MSLA IMS	<input checked="" type="checkbox"/>	Mars Science Laboratory Aeroshell			26-Sep-08
AEGSE_EVM_Schedule_07J	<input checked="" type="checkbox"/>	AEGSE_EVM_Schedule_07Jan12b	07-Jan-08	26-Sep-08	07-Jan-08
ATLO what-if v2	<input checked="" type="checkbox"/>	MSL_TDO_GSE_HW_22Jun06			24-Jan-06
ATLO what-if v3	<input checked="" type="checkbox"/>	MSL_TDO_GSE_HW_22Jun06	24-Jan-06 A	28-Oct-09	24-Jan-06
ATLO what-if v4	<input type="checkbox"/>	MSL_TDO_GSE_HW_22Jun06	24-Jan-06 A	28-Oct-09	28-Aug-08
AVS - Secondary Batt	<input type="checkbox"/>	AVS Secondary Battery (used for schedule)	05-Nov-06 A	22-Aug-08	06-Nov-06
MIC Assembly	<input type="checkbox"/>	MIC Assembly - subcontract Work (August 6 2007)	22-Feb-07 A	11-Nov-08	22-Feb-07

Portfolio: All Projects User: jkown Data Date: 28-Sep-08 Access Mode: Shared Baseline: Current Project

Connecting Logic from MSP Managed File to P6

Tie Logic P6 to MSP (Task to Task)

Primavera : MSL-CD_06.07.04, 06.07.04.03 MSLA IMS (Mech_CEDL, Mars Science Laboratory Aeroshell)

File Edit View Project Enterprise Tools Admin Help

Activities

Layout: Status Update Schedule Layout Filter: All Activities

WBS	EPS	yWork Pack...	PMT	Act ID	Activity Name	Start	Finish	Orig Dur	Rem Dur	Perf. % Compl.	Total Float	EVM Units
Manufacturing												
06.07.				CEA0455	Backshell Fabrication	20-Aug-07 A	24-Nov-08	313	37	0%	208	0
06.07.				CEA0456	Heatshield Fabrication	20-Aug-07 A	01-Feb-08 A	20	0	100%		0
06.07.				CEA0459	LMT FM BIP from JPL Required Date	01-Feb-08 A		0	0	100%		0
06.07.				CEA0451	Pre-Static Test Aeroshell Assembly	04-Feb-08 A	28-Mar-08 A	20	0	100%		0
06.07.				CEA0457	REC FM BIP from JPL	26-Feb-08 A		0	0	100%		0
06.07.				CEA1180	REC DTM BIP from JPL	24-Mar-08 A		0	0	100%		0
06.07.				CEA0460	BIP/Bumper	31-Mar-08 A	18-Apr-08 A	10	0	100%		0
06.07.				CEA1080	REC DS Simulator (AHSE Item 710)	31-Mar-08 A		0	0	100%		0
06.07.				CEA0446	REC Aeroshell Pyro Sep Nuts & Cartridges	30-Apr-08 A		0	0	100%		0
06.07.				CEA1081	Deliver Aeroshell to Static Test	05-May-08 A		0	0	100%		0
U6/U7				U6AU465	Aeroshell Static/System Testing	09-May-08 A	05-Jun-08 A	45	U	100%		U
06.07.				CEA1082	Complete Aeroshell Static Test	13-Jun-08 A		0	0	100%		0
06.07.				CEA0471	DEL DTM BIP Load Skit to JPL for DS DTM Testing	13-Jun-08 A		0	0	100%		0
06.07.				CEA0462	Backshell TPS	24-Jun-08 A	29-Aug-08 A	30	0	100%		0
06.07.				CEA1151	Aeroshell Specified Contract Close	29-Aug-08 A		0	0	100%		0
06.07.				CEA0466	Backshell Closeout	02-Sep-08 A	17-Sep-08 A	15	0	100%		0
06.07.				CEA0475	LMA Aeroshell Schedule Reserve	18-Sep-08 A	18-Sep-08 A	0	0	100%		0
06.07.				CEA1150	Flight Aeroshell Backshell Preship Review	19-Sep-08 A		0	0	100%		0
06.07.				CEA0477	Pack Flight Aeroshell and Ship to JPL	22-Sep-08 A	26-Sep-08 A	5	0	100%		0
06.07.				CEA1160	Deliver FM Aeroshell Backshell from LMA to JPL	30-Sep-08 A		0	0	100%		0
06.07.				CEA1170	Receive FM Aeroshell Backshell from LMA to JPL	30-Sep-08 A		0	0	100%		0
06.07.				CEA0480	Deliver FM Aeroshell Heatshield from LMA to JPL	02-Oct-08 A		0	0	0%	1	0
06.07.				CEA0476	Flight Aeroshell Heatshield Preship Review	02-Oct-08 A		0	0	0%	1	0
06.07.								0	0	0%	1	0
06.07.								20	20	0%	3	0
06.07.								273	20	0%	3	0

Calendar view showing activity bars for 2008 and 2009.

Assign Predecessors

Display: All Activities

Search: 1271

Activity ID: 06.07.04.03 MSLA IMS.1 Major Milestones

Activity Name: CBE - BS On Dock JPL

- 06.07.04.03 MSLA IMS.43 Program Management
- 06.07.04.03 MSLA IMS.43.1135 Peer Reviews
- 06.07.04.03 MSLA IMS.43.616 Program Management SDRLs
- 06.07.04.03 MSLA IMS.43.616.722 Sept - Oct BCWS Correction Factors
- 06.07.04.03 MSLA IMS.8 Systems Engineering
- 06.07.04.03 MSLA IMS.8.9 System Design and Analysis (LOE)
- 06.07.04.03 MSLA IMS.8.9.686 System Receivables Needed
- 06.07.04.03 MSLA IMS.8.9.648 Systems SDRLs
- 06.07.04.03 MSLA IMS.8.9.648.665 Test SDRLs
- 06.07.04.03 MSLA IMS.8.17 Configuration Management (LOE)
- 06.07.04.03 MSLA IMS.34 Mechanical and Thermal Design
- 06.07.04.03 MSLA IMS.34.33 Engineering Analysis
- 06.07.04.03 MSLA IMS.34.32 Structures and Mechanisms Design
- 06.07.04.03 MSLA IMS.34.2011 PICA Structures and Mechanism Design
- 06.07.04.03 MSLA IMS.4128 Product Assurance

Successors

Project: MSL-CD_06.07.04

Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Primary Res
CEA1170	Receive FM Aeroshell Backshell from LMA to JPL	FS	0	FS	0	30-Sep-08 A		Completed	

Portfolio: All Projects | User: jkowen | Data Date: 26-Sep-08 | Access Mode: Shared | Baseline: Current Project

Updating P6 Linked MSP file

File Updating: Change P6 File Status to "Checked Out"

The screenshot displays the Primavera software interface. At the top, the title bar reads "Primavera : MSL-CD_06.07.04, 06.07.04.03 MSLA IMS (Mech_CEDL, Mars Science Laboratory Aeroshell)". The main window is titled "Projects" and shows a Gantt chart for the "Mars Science Laboratory (MSL)" project. A list of project tasks is visible on the left, including "MSL Current Working Schedules" and various sub-tasks like "GDS 2.1", "MSL Schedule Performance r2", and "Mech_CEDL".

A dialog box titled "Primavera" is open in the center, with the following text: "This will change the status of the project to Checked Out without exporting project information. Are you sure you want to change the status of the project to Checked Out?". The dialog has "Yes" and "No" buttons.

At the bottom of the screen, the "Project Information" section is visible. The "Project ID" field is circled in green and contains the value "06.07.04.03 MSLA IMS". Other fields include "Project Name" (Mars Science Laboratory Aeroshell), "Status" (Active), "Check Out Status" (Checked Out), "Project Web Site URL", "Responsible Manager" (MSL), "Risk Level" (3 - Medium), "Project Leveling Priority" (50), "Checked Out By", and "Date Checked Out".

The status bar at the bottom indicates: "Portfolio: All Projects | User: jkowen | Data Date: 26-Sep-08 | Access Mode: Shared | Baseline: Current Project".

Status Changed in P6

Primavera : MSL-CD_06.07.04, 06.07.04.03 MSLA IMS (Mech_CEDL, Mars Science Laboratory Aeroshell)

File Edit View Project Enterprise Tools Admin Help

Projects

Layout: Projects

Project ID	MS Project Managed Flag	Project Name	Start	Finish	Data Date	2005	October 2005	November 2005	December 2005	January 2006	February 2006
MSL-CD_06.10.38	<input type="checkbox"/>	GN&C Current Radar (used for Key Milestones only)	20-Jul-07 A	02-Apr-09	24-Feb-08						
MSL-CD_06.10.5	<input type="checkbox"/>	GN&C Field Test	25-Sep-06 A	23-Oct-09	28-Sep-08						
MSL-CD_06.12.23	<input type="checkbox"/>	Flight Software	01-May-02 A	23-Oct-09	28-Sep-08						
MSL-CD_06.16	<input type="checkbox"/>	SA-SPAH	26-Sep-05 A	23-Oct-09	28-Sep-08						
MSL-CD_06.17.00	<input type="checkbox"/>	Avionics - Overall - EAC/Replan (July '08)	16-Dec-04 A	22-Dec-09	28-Sep-08						
MSL-CD_06.17.05	<input type="checkbox"/>	Avionics - Power Assembly - EAC/Replan (July '08)	03-Jan-06 A	14-Nov-08	26-Oct-08				03-Jan-06 A		
MSL-CD_06.17.11.01	<input type="checkbox"/>	Avionics - Cold Encoder - EAC/Replan (July '08)	05-Oct-05 A	23-Oct-08	28-Sep-08						
MSL-CD_06.17.11.02R	<input type="checkbox"/>	Avionics - TCRE - Replan (11/27/07) includes April '08...	01-Jan-06 A	25-Apr-08 A	27-Jul-08				01-Jan-06 A		
MSL-CD_06.17.12	<input type="checkbox"/>	Avionics - Motor Control Assembly (MCA) - EAC/Repla...	27-Aug-07 A	29-May-09	28-Sep-08						
MSL-CD_06.17.12.06R	<input type="checkbox"/>	Avionics - Motor Controller Assembly - MLA - New (11/...	29-Oct-07 A	10-Mar-08 A	27-Jul-08						
MSL-CD_06.17.13N	<input type="checkbox"/>	Avionics - Compute Element w/Flight Computer - EAC/...	23-May-05 A	24-Apr-09	26-Oct-08						
MSL-CD_06.17.14	<input type="checkbox"/>	Avionics - Power Analog Module - EAC/Replan (July '08)	29-May-07 A	24-Apr-09	28-Sep-08						
MSL-CD_06.19	<input type="checkbox"/>	Planetary Protection	29-Sep-03 A	09-Nov-09	28-Sep-08						
MSL-CD_07.00	<input type="checkbox"/>	Mission Systems 07 & 09	01-May-02 A	27-Sep-13	26-Oct-08						
MSL-CD_07.00 MIPL SM	<input type="checkbox"/>	MSL-MIPL010806V1	26-Jun-06 A	01-Dec-09	26-Oct-08						
MSL-CD_10.01	<input type="checkbox"/>	ATLO Current	25-Aug-06 A	17-Nov-09	28-Sep-08						
MSL-CD_10.06	<input type="checkbox"/>	Testbeds	02-Mar-06 A	18-Nov-09	28-Sep-08						02-Mar-06
MSL-CD_10.09	<input type="checkbox"/>	Simulation SSE (JULY 08 EAC/REPLAN)	01-Oct-07 A	25-Sep-09	28-Sep-08						
MSL-CD_10.09.5	<input type="checkbox"/>	Simulation SSE (Old Schedule)	01-Oct-07 A	29-Sep-09	29-Jun-08						
MSL-CD_12.00	<input type="checkbox"/>	Mission Design & Navigation	01-Oct-04 A	07-May-10	26-Oct-08						
MSLA IMS 07.30.08 EV Rev A	<input type="checkbox"/>	Mars Science Laboratory Aeroshell	01-Sep-06 A	15-Sep-09	26-Jul-08						
Reference		Project Link and Reference files	01-May-02 A	30-Mar-12							
06.07.04.03 MSLA IMS	<input checked="" type="checkbox"/>	Mars Science Laboratory Aeroshell	01-Sep-06 A	15-Sep-09	26-Sep-08						
AEGSE_EVM_Schedule_07J	<input checked="" type="checkbox"/>	AEGSE_EVM_Schedule_07Jan12b	07-Jan-08	26-Sep-08	07-Jan-08						

General | Milestones | Planning Resources | Budget Log | Spending Plan | Budget Summary | Dates | Funding | Codes | Defaults | Resources | Settings | Calculations

Project ID: 06.07.04.03 MSLA IMS
 Project Name: Mars Science Laboratory Aeroshell
 Status: Active
 Responsible Manager: MSL
 Risk Level: 3 - Medium
 Project Leveling Priority: 50
 Check Out Status: Checked Out
 Checked Out By: jkoven
 Date Checked Out: 24-Oct-08
 Project Web Site URL:
 Launch...

Portfolio: All Projects | User: jkoven | Data Date: 26-Sep-08 | Access Mode: Shared | Baseline: Current Project

Changes Made to MSP File in MSP

Microsoft Project - 06.07.04.03 MSLA IMS.mpp

File Edit View Insert Format Tools Project Collaborate Window Help Adobe PDF

JPL Tools FldSelList TaskTree

100%

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Base Fini	2008	2009	2010	2011	2012
7	839		0 hrs	Production Start (MDU Layup Start)	0 d	100%	6/12/07	6/12/07	3/1/07	3					
8	4	CEA0450	0 hrs	MSLA Critical Design Review (CDR) Completed (12th-13th)	0 d	100%	6/12/07	6/12/07	4/25/07	4/					
9	1114		0 hrs	Heatshield #1 Fabrication Completed	0 d	100%	2/20/08	2/20/08	12/18/07	12/					
10	601		0 hrs	Backshell Fabrication Completed	0 d	100%	4/11/08	4/11/08	1/23/08	1/					
11	1156	CEA1082	0 hrs	Static/Separation Load Test Complete	0 d	100%	6/13/08	6/13/08	4/9/08	4					
12	1160		0 hrs	BS/HS #1 Contract Delivery Date	0 d	100%	8/20/08	8/20/08	8/31/08	8/					
13	1271	CEA0530/CEA1170	0 hrs	CBE - BS On Dock JPL	0 d	100%	9/29/08	9/29/08	8/13/08	8/					
14	2079	CEA0530/CEA1170	0 hrs	CBE - HS #1 On Dock JPL	0 d	100%	10/19/08	10/19/08	8/13/08	8/					
15	529	CEA0531	0 hrs	PICA HS #2 Delivery Date (Mod 33)	0 d	0%	4/1/09	4/1/09	8/31/08	8/					
16	1759	CEA1139	0 hrs	CBE - HS #2 On Dock KSC	0 d	0%	4/1/09	4/1/09	8/13/08	8/					
17	2026	CEA1139	0 hrs	Contract End (Mod 33)	0 d	0%	4/30/09	4/30/09	8/13/08	8/					
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA						

Name: CBE - HS #1 On Dock JPL Duration: 0d Effort driven Previous Next

Start: 10/19/08 Finish: 10/19/08 Task type: Fixed Duration % Complete: 100%

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
369	Ship HS #1 to JPL - Current Be	FS	0d	12	BS/HS #1 Contract Delivery De	FS	0d
380	Aeroshell Shop Aids/Tooling For	FS	0d				
285	EBDM Mfg Need Date	FS	0d				
117	BS TPS and Assembly Drawings	FS	0d				

Ready

Save to Primavera

The screenshot displays the Microsoft Project interface for a project named "MSLA IMS.mpp". The main window shows a Gantt chart with tasks plotted across a timeline from 2007 to 2012. A yellow circle highlights the "Save to Primavera" button in the software's toolbar. Below the Gantt chart, a task list is visible, showing details for the selected task "CBE - HS #1 On Dock JPL".

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Baseline Finish
7	839		0 hrs	Production Start (MDU Layout Start)	0 d	100%	6/12/07	6/12/07	3/1/07	6/12/07
8	4	CEA0450	0 hrs	MSLA Critical Design Review (CDR) Completed (12th-13th)	0 d	100%	6/12/07	6/12/07	4/25/07	4/25/07
9	1114		0 hrs	Heatshield #1 Fabrication Completed	0 d	100%	2/20/08	2/20/08	12/18/07	12/18/07
10	601		0 hrs	Backshell Fabrication Completed	0 d	100%	4/11/08	4/11/08	1/23/08	1/23/08
11	1156	CEA1082	0 hrs	Static/Separation Load Test Complete	0 d	100%	6/13/08	6/13/08	4/9/08	4/9/08
12	1160		0 hrs	BS/HS #1 Contract Delivery Date	0 d	100%	8/20/08	8/20/08	8/31/08	8/31/08
13	1271	CEA0530/CEA1170	0 hrs	CBE - BS On Dock JPL	0 d	100%	9/29/08	9/29/08	8/13/08	8/13/08
14	2079	CEA0530/CEA1170	0 hrs	CBE - HS #1 On Dock JPL	0 d	100%	10/19/08	10/19/08	8/13/08	8/13/08
15	529	CEA0531	0 hrs	PICA HS #2 Delivery Date (Mod 33)	0 d	0%	4/1/09	4/1/09	8/31/08	8/31/08
16	1759	CEA1139	0 hrs	CBE - HS #2 On Dock KSC	0 d	0%	4/1/09	4/1/09	8/13/08	8/13/08
17	2026	CEA1139	0 hrs	Contract End (Mod 33)	0 d	0%	4/30/09	4/30/09	8/13/08	8/13/08
18	43		0 hrs	Program Management	664 d	80%	9/1/06	4/30/09	NA	NA

The task list below the Gantt chart shows the following details for the selected task "CBE - HS #1 On Dock JPL":

ID	Predecessor Name	Type	Lag	ID	Successor Name	Type	Lag
369	Ship HS #1 to JPL - Current Be	FS	0d	12	BS/HS #1 Contract Delivery De	FS	0d
380	Aeroshell Shop Aids/Tooling For	FS	0d				
285	EBDM Mfg Need Date	FS	0d				
117	BS TPS and Assembly Drawings	FS	0d				

Location Locked to Previous

The screenshot displays the Microsoft Project interface. At the top, the title bar reads "Microsoft Project - 06.07.04.03 MSLA IMS.mpp". The menu bar includes File, Edit, View, Insert, Format, Tools, Project, Collaborate, Window, and Help. The toolbar shows various icons for file operations and project management. Below the toolbar, the status bar indicates "No Group" and "JPL Tools - FldSelList TaskTree".

The main window is divided into several panes. The top pane is a Gantt chart showing a project schedule from 2007 to 2012. The bottom pane is a task list with columns for ID, Predecessor Name, Type, Lag, ID, Successor Name, Type, and Lag. A task named "CBE - HS #1 On Dock JPL" is selected, and its details are shown in the middle pane, including a duration of 0 days and a start/finish date of 10/19/08.

A "Save to Primavera" dialog box is open in the foreground. It has a title bar with a blue background and a close button. The dialog box contains the text "Select EPS" and a text input field. A green circle is drawn around the input field, which is currently empty. Below the input field, there is a "Project Link and Reference files" field. At the bottom of the dialog box, there are "Cancel", "Previous", "Next", and "Finish" buttons.

Unique ID	Text7	Resource Names	Baseline Work	Name	Duration	% Complete	Start	Finish	Baseline Start	Base Fini
7	839		0 hrs	Production Start (MDU Layout Start)	0 d	100%	6/12/07	6/12/07	3/1/07	
8	4	CEA0450	0 hrs	MSLA Critical Design Review (CDR) Completed (12th-13th)	0 d	100%	6/12/07	6/12/07	4/25/07	4/
9	1114		0 hrs	Heatshield #1 Fabrication Completed	0 d	100%	2/20/08	2/20/08	12/18/07	12/
10	601		0 hrs	Backshell Fabrication Completed	0 d	100%	4/11/08	4/11/08	1/23/08	1/
11	1156	CEA1082	0 hrs	Static/Separation Load Test Complete	0 d	100%	6/13/08	6/13/08	4/9/08	4
12	1160		0 hrs	BS/HS #1 Contract Delivery Date	0 hrs					
13	1271	CEA0530/CEA1170	0 hrs	CBE - BS On Dock JPL	0 hrs					
14	2079	CEA0530/CEA1170	0 hrs	CBE - HS #1 On Dock JPL	0 hrs					
15	529	CEA0531	0 hrs	PICA HS #2 Delivery Date (Mod 3)	0 hrs					
16	1759	CEA1139	0 hrs	CBE - HS #2 On Dock KSC	0 hrs					
17	2026	CEA1139	0 hrs	Contract End (Mod 33)	0 hrs					
18	43		0 hrs	Program Management	0 hrs					

Click Finish to Activate Upload

The screenshot shows the Microsoft Project interface with a Gantt chart view. A dialog box titled "Save to Primavera" is open, displaying an "Import Confirmation" window. The dialog box contains the following text:

Save to Primavera

Import Confirmation

Review the information below and click Finish when ready.

FILES TO IMPORT
 File: C:\MSL\Schedules\SourceSchedules\CEDL\06.07.04.03 MSLA IMS.mpp
 Project: 06.07.04.03 MSLA IMS
 Import To: 06.07.04.03 MSLA IMS

DATA TO IMPORT
 Project

Buttons: Cancel, Previous, Next, **Finish** (circled in green)

The background Gantt chart shows a task named "PICA HS #2 Delivery Date (Mod 33)" with a duration of 0 days and 100% completion. The task is scheduled from 4/1/09 to 4/1/09. The Gantt chart also shows other tasks such as "CBE - HS #1 On Dock JPL", "CBE - HS #2 On Dock KSC", and "Contract End (Mod 33)".

Open Files in P6 and Re-Calc

Primavera : MSL-CD_06.07.04 (Mech_CEDL)

File Edit View Project Enterprise Tools Admin Help

Activities

Layout: Status Update Schedule Layout Filter: All Activities

WBS EPS	Work Pack...	PMT	Act ID	Activity Name	Start	Finish	Orig Dur	Rem Dur	Perf. % Compl.	Total Float	EVM Units
06.07.0			CEA1081	Deliver Aeroshell to Static Test	05-May-08 A		0	0	100%		0
06.07.0			CEA0465	Aeroshell Static/System Testing	09-May-08 A	09-Jun-08 A	45	0	100%		0
06.07.0			CEA1082	Complete Aeroshell Static Test	13-Jun-08 A		0	0	100%		0
06.07.0			CEA0471	DEL DTM BIP Load Skirt to JPL for DS DTM Testing	13-Jun-08 A		0	0	100%		0
06.07.0			CEA0462	Backshell TPS	24-Jun-08 A	29-Aug-08 A	30	0	100%		0
06.07.0			CEA1151	Aeroshell Specified Contract Close	29-Aug-08 A		0	0	100%		0
06.07.0			CEA0466	Backshell Closeout	02-Sep-08 A	17-Sep-08 A	15	0	100%		0
06.07.0			CEA0475	LMA Aeroshell Schedule Reserve	18-Sep-08 A	18-Sep-08 A	0	0	100%		0
06.07.0			CEA1150	Flight Aeroshell Backshell Preship Review	19-Sep-08 A		0	0	100%		0
06.07.0			CEA0477	Pack Flight Aeroshell and Ship to JPL	22-Sep-08 A	26-Sep-08 A	5	0	100%		0
06.07.0			CEA1160	Deliver FM Aeroshell Backshell from LMA to JPL		30-Sep-08 A	0	0	100%		0
06.07.0			CEA1170	Receive FM Aeroshell Backshell from LMA to JPL	30-Sep-08 A		0	0	100%		0
06.07.0			CEA0480	Deliver FM Aeroshell Heatshield from LMA to JPL		02-Oct-08*	0	0	0%	1	0
06.07.0			CEA0476	Flight Aeroshell Heatshield Preship Review	15-Oct-08*		0	0	0%	1	0
06.07.0			CEA0530	Receive FM Aeroshell Heatshield from LMA to JPL	27-Oct-08		0	0	0%	1	0

2008 2009 2010

General Status Relationships Steps Codes Notebook Resources

Activity: CEA0480 Deliver FM Aeroshell Heatshield from LMA to JPL Project: MSL-CD_06.07.04

Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status
2079	CBE - HS #1 On Doc... JPL	<input checked="" type="checkbox"/>	0	FS	0	19-Oct-08 A		Completed
CEA0475	LMA Aeroshell Schedule Reserve	<input checked="" type="checkbox"/>		FS	0	18-Sep-08 A	18-Sep-08 A	Completed
CEA0477	Pack Flight Aeroshell and Ship t...	<input checked="" type="checkbox"/>		FS	0	22-Sep-08 A	26-Sep-08 A	Completed
CEA1170	Receive FM Aeroshell Backshell...	<input checked="" type="checkbox"/>	8	SF	8	30-Sep-08 A		Completed

Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Primary Res
CEA0530	Receive FM Aeroshell Heatshield from LMA to JPL	<input checked="" type="checkbox"/>	1	FS	0	27-Oct-08		Not Started	
CEA0555	ATLO Support	<input type="checkbox"/>	8	FS	0	27-Oct-08	14-Sep-09	Not Started	

Assign Remove GoTo

Portfolio: All Projects User: jkownen Data Date: 28-Sep-08 Access Mode: Shared Baseline: Current Project

Updated File Shows Changes

Primavera : MSL_CD_06.07.04 (Mech_CEDL)

File Edit View Project Enterprise Tools Admin Help

Activities

Layout: Status Update Schedule Layout Filter: All Activities

WBS	EPS	Work Pack...	PMT	Act ID	Activity Name	Start	Finish	Orig Dur	Rem Dur	Perf. % Compl.	Total Float	EVM Units
06.07.				CEA1082	Complete Aeroshell Static Test	13-Jun-08 A		0	0	100%		0
06.07.				CEA0471	DEL DTM BIP Load Skirt to JPL for DS DTM Testing	13-Jun-08 A		0	0	100%		0
06.07.				CEA0462	Backshell TPS	24-Jun-08 A	29-Aug-08 A	30	0	100%		0
06.07.				CEA1151	Aeroshell Specified Contract Close	29-Aug-08 A		0	0	100%		0
06.07.				CEA0466	Backshell Closeout	02-Sep-08 A	17-Sep-08 A	15	0	100%		0
06.07.				CEA0475	LMA Aeroshell Schedule Reserve	18-Sep-08 A	18-Sep-08 A	0	0	100%		0
06.07.				CEA1150	Flight Aeroshell Backshell Preship Review	19-Sep-08 A		0	0	100%		0
06.07.				CEA0477	Pack Flight Aeroshell and Ship to JPL	22-Sep-08 A	26-Sep-08 A	5	0	100%		0
06.07.				CEA1160	Deliver FM Aeroshell Backshell from LMA to JPL	30-Sep-08 A	30-Sep-08 A	0	0	100%		0
06.07.				CEA1170	Receive FM Aeroshell Backshell from LMA to JPL	30-Sep-08 A		0	0	100%		0
06.07.				CEA0476	Flight Aeroshell Heatshield Preship Review	17-Oct-08*	20-Oct-08*	0	0	0%	-5	0
06.07.				CEA0480	Deliver FM Aeroshell Heatshield from LMA to JPL	21-Oct-08		0	0	0%	-5	0
06.07.				CEA0530	Receive FM Aeroshell Heatshield from LMA to JPL	21-Oct-08		0	0	0%	-5	0
06.07.				CEA0531	Aeroshell Subcontract Closeout	07-Nov-08	08-Dec-08	20	20	0%	-5	0
				MEDLI		26-Nov-07 A	03-Mar-09	293	20	0%	-17	0

2008 2009 2010

General Status Relationships Steps Codes Notebook Resources

Activity: CEA0476 Flight Aeroshell Heatshield Preship Review Project: MSL_CD_06.07.04

Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status
CEA0475	LMA Aeroshell Schedule Reserve	✓	SS	1	18-Sep-08 A	18-Sep-08 A	Completed	

Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Primary Res
CEA0477	Pack Flight Aeroshell and Ship to JPL	✓	FS	0	22-Sep-08 A	26-Sep-08 A	Completed		

Assign Remove GoTo

Portfolio: All Projects User: jkowen Data Date: 26-Sep-08 Access Mode: Shared Baseline: Current Project

Import Consolidation Pros vs. Cons

Method	Pro	Con
<u>Import</u>	Data controlled within P6	Data reconfiguration may be required
	Synchronized Calculation Allowed	Network troubleshooting necessary
	Allows access to database codes, custom fields, etc.	Potential different calculation
	Unlimited data mining, reports etc.	

ProjectLink Consolidation

Method	Pro	Con
<u>Project Link</u>	Stored as read-only. Calculation not-possible	Data controlled by MSP
	Task linking ProjectLink to P6	No assurance for complete network logic
	Data reconfiguration not-required	No access to database codes
	No Potential for different calculations	Check In/Out Required and configuration tricky

Import Lessons Learned

- Prior to import set MSP calculation default to move uncomplete tasks based upon status date. (i.e. Tools, Tracking, Reschedule uncompleted work to start after status date for entire project)
- Use import for internal controlled files and run health checks before import
- Give a sample of cleaned file to responsible party before import
- Import to a test database to help clean corruption
- After import check data type defaults and correct where necessary
- Watch for calendar changes on import

Project-Link Lessons Learned

- Use project link for vendor schedules
- Maintain integrity of submitted vendor schedules
- Cannot recalculate vendor data so it remains pristine
- Accommodates different accounting calendars
- Utilize shared folder for joint file use not posted schedules, else re-linking required

Comparing Calculated Import vs. Project Link

Notice Milestone Dates Changes

Primavera - 06.07.04.03 MSLA IMS, 06.07.04.03 MSLA IMS-1 (Mars Science Laboratory Aeroshell, Mars Science Laboratory Aeroshell)

File Edit View Project Enterprise Tools Admin Help

Activities

Layout: LMA Import Filter: All: activity ID, W/O WBS Summary Tasks

Act ID	MSLA Activity ID's	Calendar	Resource IDs	Activity Name	Start	Finish	Orig Dur	Rem Dur	Total Float
Mars Science Laboratory Aeroshell					01-Apr-09	01-Apr-09	13	0	0
Major Milestones					01-Apr-09	01-Apr-09	13	0	0
529	CEA0531	Phoenix 5 day with Holidays off - 12/2012		PICA HS #2 Delivery Date (Mod 33)	01-Apr-09		0	0	0
1759	CEA1139	Phoenix 5 day with Holidays off - 12/2012		CBE - HS #2 On Dock KSC	01-Apr-09		0	0	0
Mars Science Laboratory Aeroshell					25-Jun-09	25-Jun-09	0	0	56
Major Milestones					25-Jun-09	25-Jun-09	0	0	56
16	CEA1139	Phoenix 5 day with Holidays off - 12/2012		CBE - HS #2 On Dock KSC	25-Jun-09		0	0	57
PICA Major Milestones/Decision Points					25-Jun-09	25-Jun-09	0	0	56
Milestones					25-Jun-09	25-Jun-09	0	0	56
529		Phoenix 5 day with Holidays off - 12/2012		Deliver HS #2 to Cape (LM Capability CBE)	25-Jun-09		0	0	57

General Status Relationships Steps Codes Notebook Resources

Activity: 16 CBE - HS #2 On Dock KSC Project: 06.07.04.03 MSLA IMS-1

Predecessors									Successors									
Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Activity ID	Activity Name	Dr...	Float	R...	Lag	Start	Finish	Activity Status	Primary Res
388	BS TPS MOSE Completed (Design/Fab/Procure)	<input type="checkbox"/>	216	FS	0	30-Jul-07 A	30-Oct-08	In Progress	15	PICA HS #2 Delivery Date (Mod 33)	<input checked="" type="checkbox"/>	57	FS	0	25-Jun-09		Not Started	
665	Closeout, P&S Flight PICA HS #2 Completed	<input checked="" type="checkbox"/>	22	FS	0	19-Jun-09	25-Jun-09	Not Started	17	Contract End (Mod 33)	<input type="checkbox"/>	52	FS	0	02-Jul-09		Not Started	

Assign Remove GoTo

Portfolio: All Projects User: j.kowen Data Date: 24-Oct-08 Access Mode: Shared Baseline: Current Project

QUESTIONS

Appendix : Installing ProjectLink

A screenshot of a software installation menu. The background is a dark red color with a large, faint, light-colored circular graphic. The menu items are listed vertically on the right side, each with a horizontal line underneath it. At the bottom left, there is a black box with white text. At the bottom right, there is a small white box with black text.

INSTALL CLIENT APPLICATIONS

INSTALL OTHER TOOLS

BROWSE CD CONTENTS

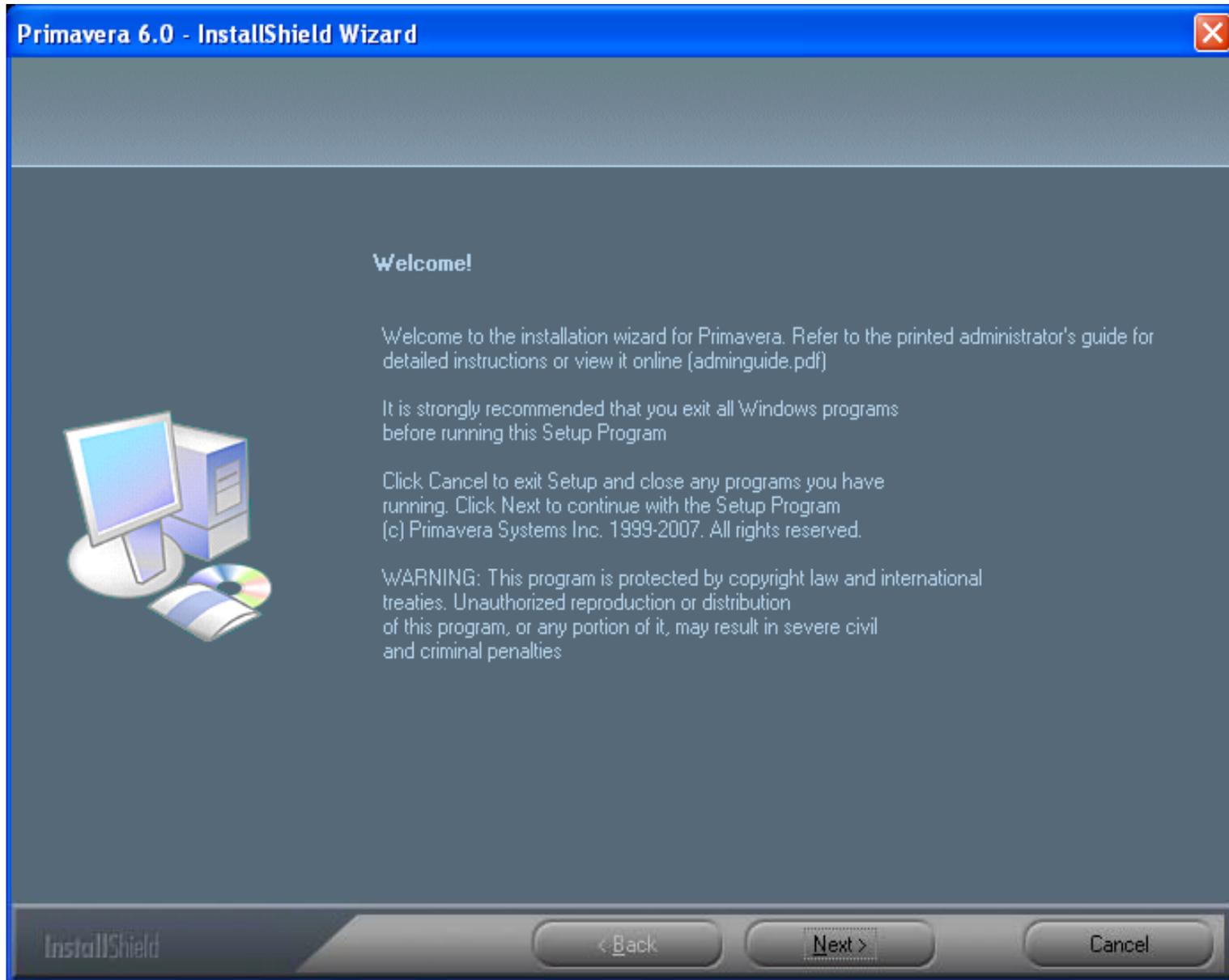
VIEW OUR WEBSITE

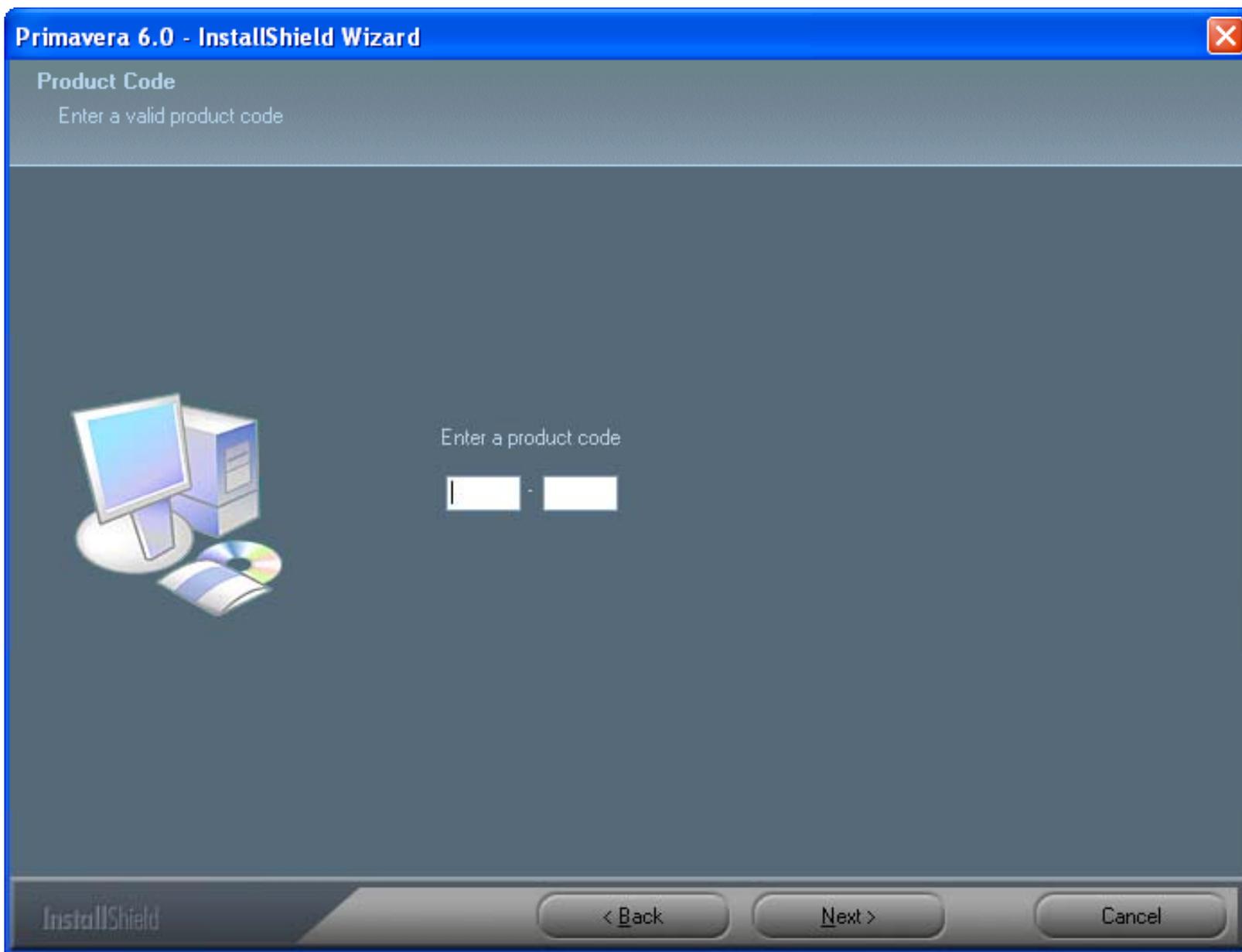
CONTACT US

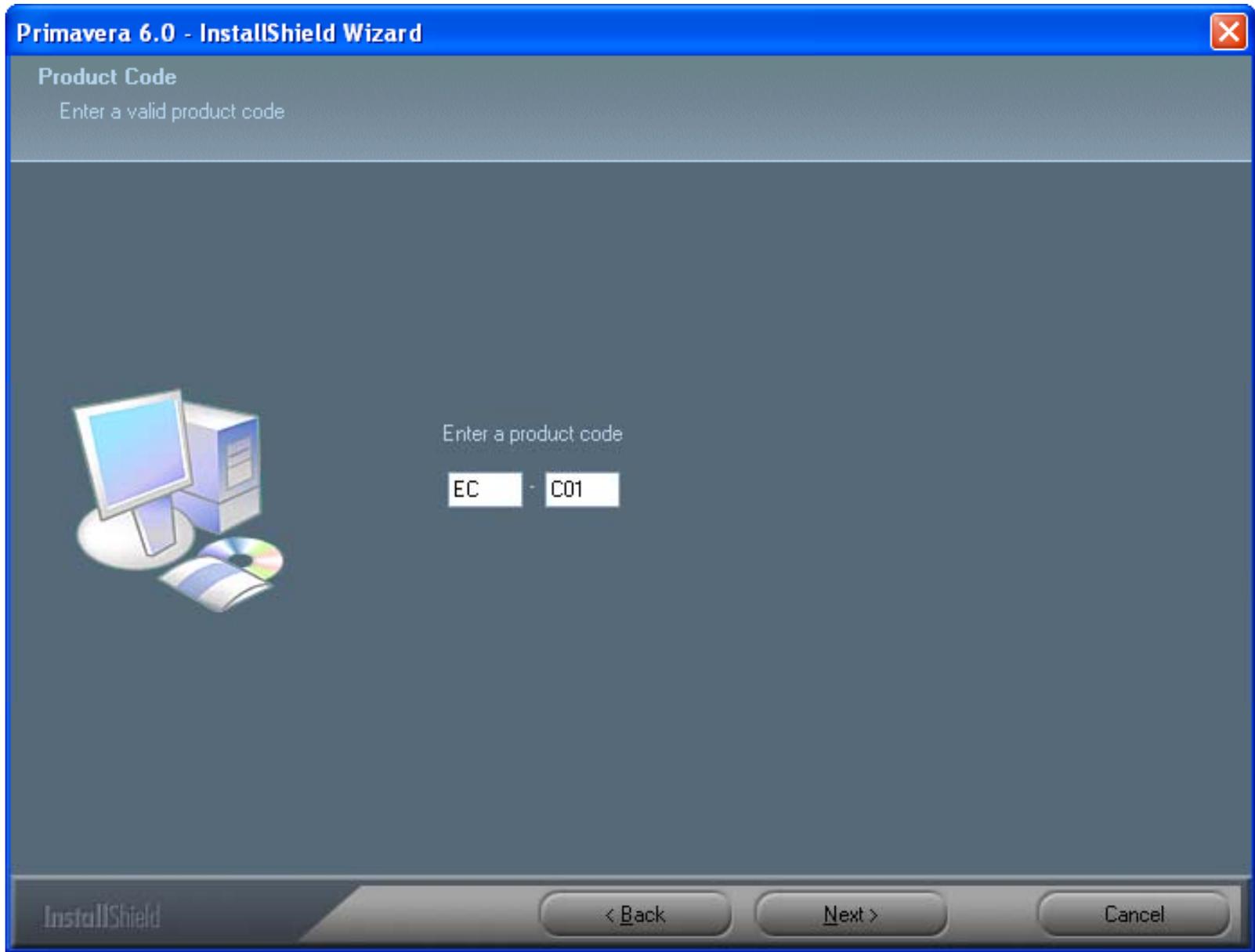
EXIT

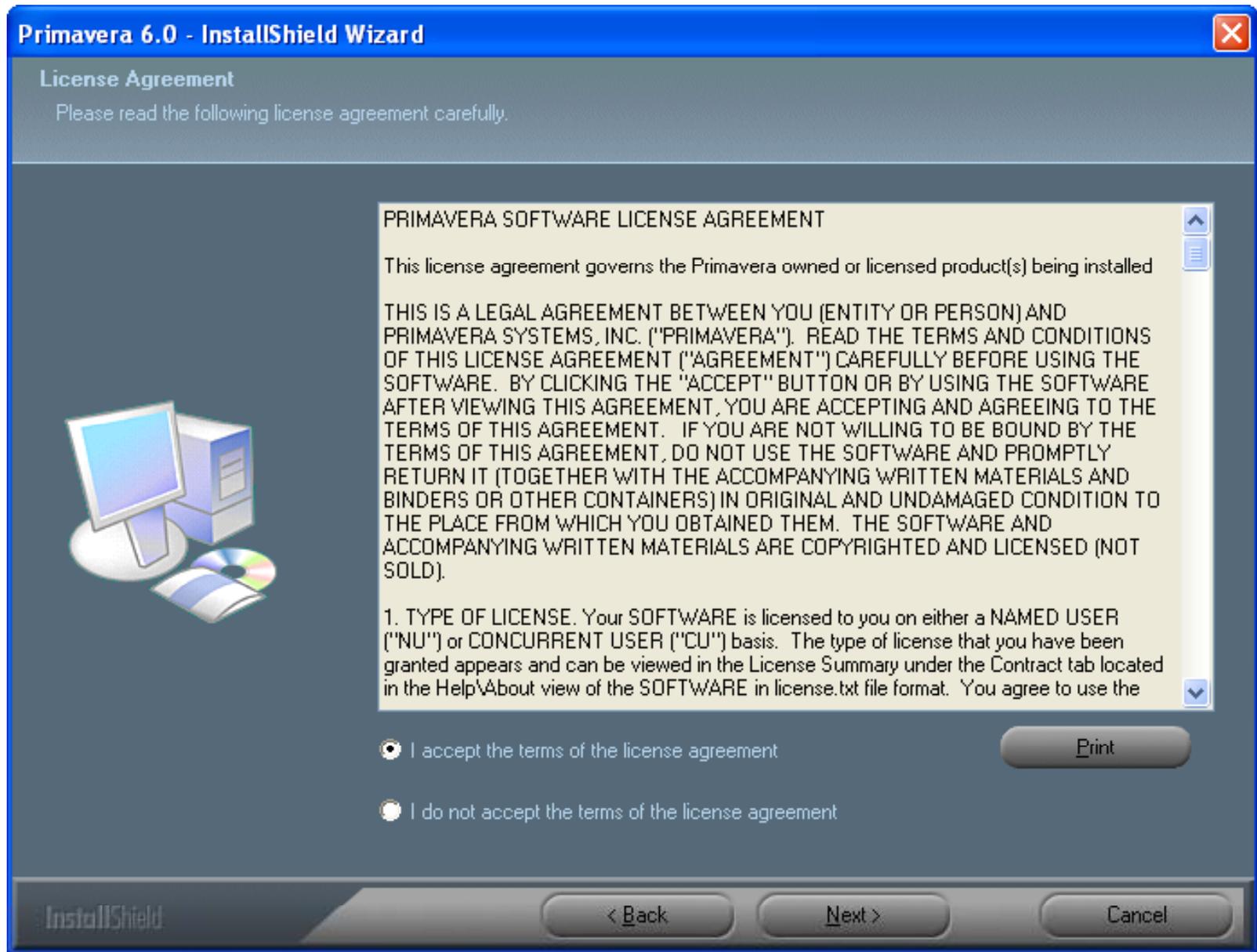
BUSINESS SOLUTIONS | FOR A PROJECT-DRIVEN WORLD.™

Copyright © Primavera 1999 – 2007. All rights reserved.









Primavera 6.0 - InstallShield Wizard

Setup Type:
Select the setup type that best suits your needs.

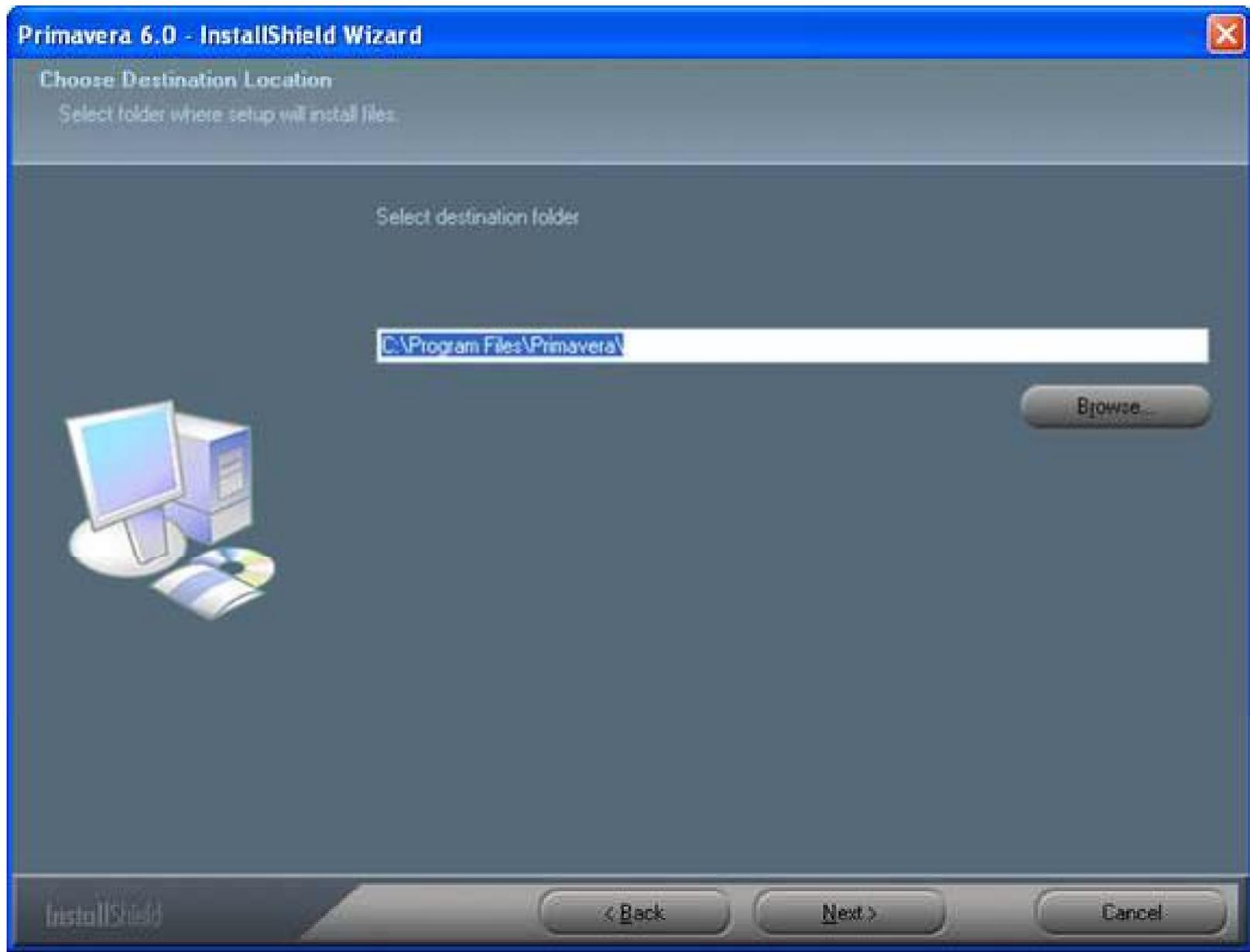
Click the type of setup you prefer.

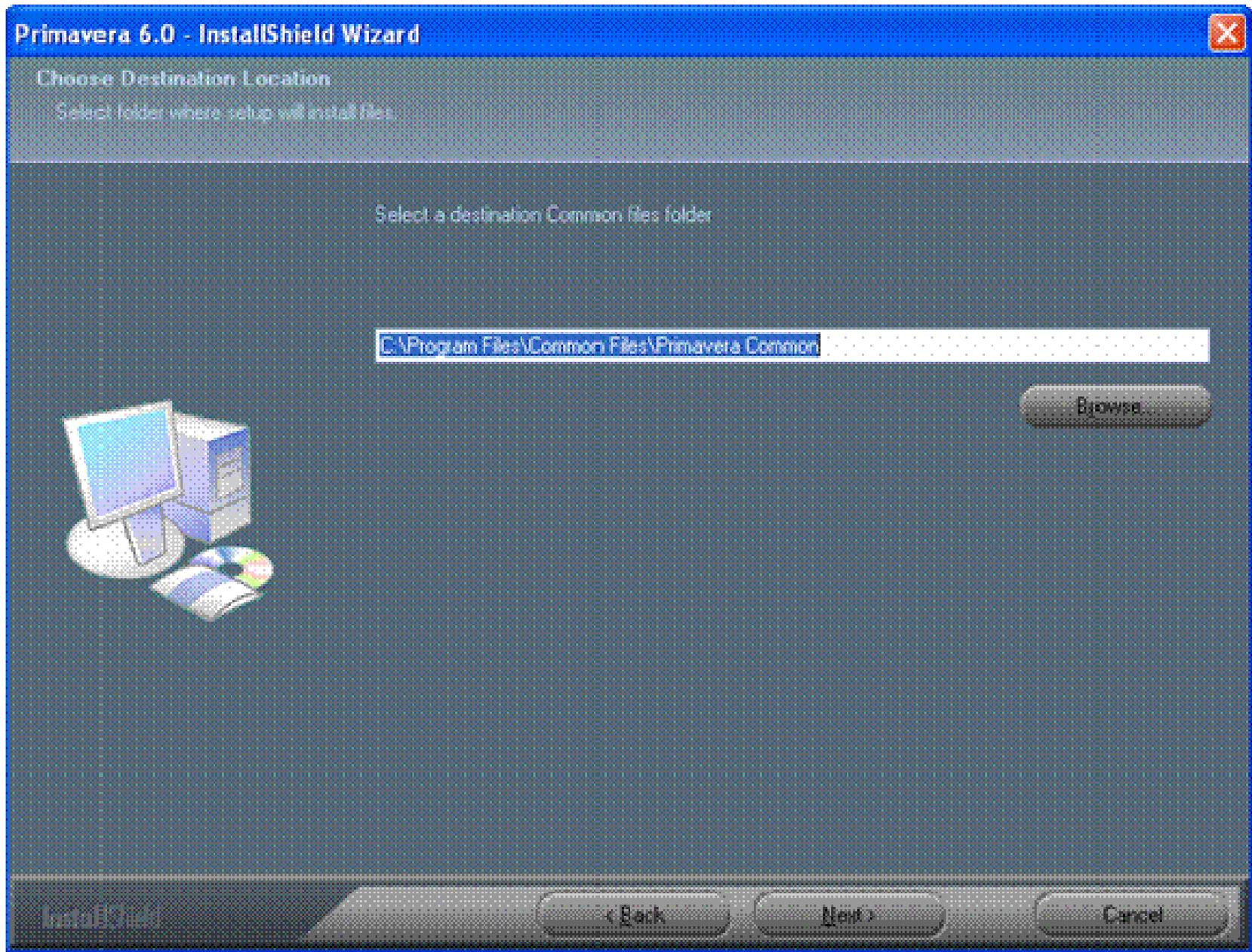
	Description
Primavera Client Applications	
Primavera Stand-alone	
Custom	Allows you to install one or more Primavera Components. (Job Services, SDK, Project Link, etc.)



InstallShield

< Back Next > Cancel





Primavera 6.0 - InstallShield Wizard

Select Program Folder
Please select a program folder.

Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.

Program Folder:
Primavera

Existing Folders:

- Accessories
- Administrative Tools
- CyberLink PowerDVD
- Data Extractor - 32bit
- Eudora
- Hummingbird Connectivity V8.0
- Java 2 Runtime Environment
- JetForm FormFlow
- meetingmaker
- Microsoft Office Tools
- Microsoft SMS Installer
- Mozilla Firefox



InstallShield < Back Next > Cancel

