

# PRIMAVERA™ P6

## ADVANCED STO PLANNING, SCHEDULING & PROJECT CONTROLS TRAINING

**Shutdowns, Turnarounds, and Outages (STO)** are scheduled events necessary to re-establish Asset and Process Integrity in asset intensive industries such as petrochemicals, refining, utilities and offshore oil & gas platforms. STO projects are complex, risky and expensive to navigate. STO projects are dynamic, everchanging hour-by-hour, creating havoc at each level of the STO organization as they struggle to figure out where they are, and where they're going.

Primavera P6 is popular project management software used in shutdown, turnaround and operational projects to successfully plan & schedule projects. **IPEC Project Systems Sdn Bhd** in exclusive partnership with **STO Navigator Canada** is introducing Primavera P6 STO Training Course in Malaysia and Asia. This course combine best practises for planning & scheduling for STO project's and hand's on training of Primavera P6 simulating a sample STO project.

The main objective of this course is to teach STO Methodology—using Primavera P6 to better understand the dynamics of Project Controls; to drive a project, versus simply monitoring its progress; or lack of progress, as is often the case.

### WHO SHOULD ATTEND?

- ◆ Planners
- ◆ Schedulers
- ◆ Project Control Professional
- ◆ Maintenance Managers
- ◆ Operations Manager
- ◆ Plant Manager's
- ◆ Turnaround/Shutdown Manager
- ◆ Shutdown contractor's

This course is recommended for professionals who are involved in shutdown, turn around and maintenance in petrochemicals, refining, utilities, offshore O&G platforms/structures and large manufacturing plant's.

"Impressed. This course should be extended to all Petronas Turnaround Units"

**Mohamad Maulana, Petronas Chemical Group Bhd**

I am tremendously impressed with the presentation and organization of the workshop. I am sure it will help me personally & professionally

**Sabri, Petronas Chemical Group Bhd**

"Excellent presentation, tips and secret information on STO project planning"

**Azarudeen, Petronas Carigali Sdn Bhd**

Very impressive and useful for my planning for routine maintenance

**Wenny, Murphy Oil Sarawak**

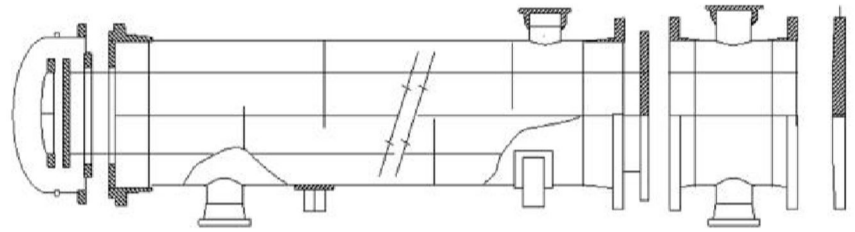
Impressive. P6 STO course should be extended to middle managers to help with better understanding of project planning.

**Hadenan, Talisman Malaysia**


# ADVANCED STO PLANNING, SCHEDULING & PROJECT CONTROLS TRAINING - COURSE OVERVIEW

**Traditional scheduling methods used in EPC Project Management are not sufficient for controlling the dynamics of STO ProjectExecution...” —Ej Lister**

**On-time, On-Budget simply isn't good enough to claim success on a STO project; it's imperative that effective STO Project Controls are implemented as the Navigator of the STO Methodology Management Process to meet its true objectives..." —Ej Lister**



- ◆ Plan
- ◆ Estimate
- ◆ Program
- ◆ Schedule
- ◆ Execute
- ◆ Update
- ◆ Performance
  - ◆ Safety
  - ◆ Quality
  - ◆ Wrench-time



STOnavigator  
inc.

Field Planning Form

<b>Planner:</b> _____	<b>Date:</b> _____	<b>Work Order No:</b> _____	<b>Page:</b> of _____
<b>Equip No:</b> _____	<b>Equip Type:</b> _____	<b>Equip Description:</b> _____	
<b>Work Type:</b> _____	<b>PIP No:</b> _____	<b>Task Description:</b> _____	

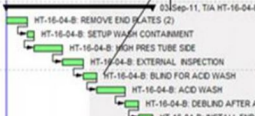
**Plan** (to be completed in the field and returned to Planning Lead for Review)

P/S	Activity Description	Phase	Grid	Risk	Permit	Dur	Craft	Crew	Lag	Special Tools / Equipment

**Work Order Task  
(Worklist Item)**

Task	Duration (Time)
HT-16-04-B: REMOVE END PLATES (2)	6 0% L-07
HT-16-04-B: SETUP WASH CONTAINMENT	6 0% L-07
HT-16-04-B: HIGH PRES TUBE SIDE	4 0% L-07
HT-16-04-B: EXTERNAL INSPECTION	4 0% L-07
HT-16-04-B: BLIND FOR ACID WASH	4 0% L-07
HT-16-04-B: ACID WASH	4 0% L-07
HT-16-04-B: DEBLIND AFTER ACID WASH	4 0% L-07
HT-16-04-B: INSTALL END PLATES	4 0% L-07

**Estimate**



**Plan of Activities**

Activity	Duration
HT-16-04-B: REMOVE END PLATES (2)	6h
HT-16-04-B: SETUP WASH CONTAINMENT	6h
HT-16-04-B: HIGH PRES TUBE SIDE	4h
HT-16-04-B: EXTERNAL INSPECTION	4h
HT-16-04-B: BLIND FOR ACID WASH	4h
HT-16-04-B: ACID WASH	4h
HT-16-04-B: DEBLIND AFTER ACID WASH	4h
HT-16-04-B: INSTALL END P	4h

General	Status	Resources	Codes	Relationships	Notebook	Steps	WPs & Docs	Expenses	Summary
Activity 2019423-0020 HT-16-04-B: REMOVE END PLATES (2)									
Resource	Primary	Curve	Dur	Crew Size	Wrench-Hours	Cost			
OSPIPE PIPEFITTER	<input checked="" type="checkbox"/>	Front Loaded	6	2.00/h	12h	CA\$760.00			
DISCRAND CRANE	<input type="checkbox"/>	Back Loaded	2	1.00/h	2h	CA\$240.00			
OSGENLAB LABORER	<input checked="" type="checkbox"/>	Front Loaded	8	1.00/h	8h	CA\$320.00			

**Resource Estimate**

Add Resource Assign Role Assign by Role Remove

**Crew Size Estimate**

**Wrench-Hours Estimate**

## ***Primavera Advanced STO Planning, Scheduling & Project Controls Training – Course Overview***

## WORKSCOPE

The approved worklist for a Shutdown, Turnaround or Outage; produced by the Asset Management Team using *effective* Risk/Cost Benefit Analysis...

## PLANNING

The development of Planned Job Packages and the associated list of Activities in logic sequence to execute a Work Order Task safely, with quality and *efficiency*...

## ESTIMATING

The calculated, benchmark time, tools, equipment, resources, and materials required to execute the Planned Job Package

## PROGRAMMING

## The entry of data into Primavera™ P6 and the establishment of the WBS, Activity Codes, Priorities, Resource Limits and Calendars

## SCHEDULING

The automatic calculating of Primavera™ P6 to produce a Dynamic Plan for each shift to match available Resources...

## WORK MANAGEMENT

Executing according to the Plan; providing accurate and timely status from the field to produce a new Plan...



### Day 1 - Theme: Introduction to Primavera P6 and STO Event Best-Practice Methodologies

Day 1 is designed to provide participants who are new to STO Events (and Primavera P6), or those who have registered for all 3 days, with an introduction to Primavera P6 and STO Event Best-Practice Methodologies.

At the end of Day 1, participants will have hands-on experience with Primavera™ P6 and working knowledge of STO Event Best-Practice Methodologies specific to Planning, Scheduling & Project Controls, which they can immediately put into practice upon returning to their relevant positions.

8.30-9.00 AM	Presentation and Course Objectives
9.00-10.00 AM	Lesson 1 – P6 Introduction & Navigation (create a STO Event)
10.00-10.15 AM	Coffee Break
10.15-10.30 AM	Presentation – WBS (Work Breakdown Structure)/ Systemization Best-practices
10.30-11.00 AM	Lesson 2 - Create a WBS (Work Breakdown Structure) in P6
11.00-12.00 PM	Lesson 3 - Create WBS & Phase Calendars in P6 for Scheduling

12.00-1.00 PM	Lunch
1.00-1.30 PM	Lesson 4 - Creating Activity Codes, Layouts & Filters (for Scheduling)
1.30-2.00 PM	Lesson 5 - Work Package Planning Best-practices exercise
2.00-2.45 PM	Lesson 6 - Entering Work Package Data into Primavera P6 & Logic/Relationships
2.45-3.00 PM	Coffee Break
3.00-4.00 PM	Lesson 7 - Scheduling in Primavera P6 Introduction & Scheduling Best-practices

### Day 2 - Theme: Advanced Primavera P6 Scheduling and Detailed Planning & Scheduling Best-Practice Methodologies for Driving & Navigating your STO Events

The theme for this session is Programming and Scheduling, where the student will learn the difference between them, and learn to create programming codes and how to assign them, both manually and globally. The student will learn the various methods of scheduling; how to apply them, and when to use them. The highlight of this session will be Dynamic Schedule Management (DSM) for driving, not monitoring their STO project.

At the end of Day 2, the student will have a STO Project in Primavera™ P6 that represents a Plan, in preparation for the next session of Execution Management and Control.

8.30-9.00 AM	Presentation – Programming vs Scheduling
9.00-10.00 AM	Lesson 8 - Scheduling Level I to III
10.00-10.15 AM	Coffee Break
10.15-10.30 AM	Lesson 8 cont'd - Scheduling Level I to III Cost Management
10.30-12.00 PM	Lesson 9 - Scheduling Level IV & Level V

12.00-1.00 PM	Lunch
1.00-2.00 PM	Lesson 9 cont'd - Scheduling Level IV & Level V
2.00-2.45 PM	Lesson 10 - Resource Leveling
2.45-3.00 PM	Coffee Break
3.00-4.00 PM	Lesson 11 - Saving a Baseline

### Day 3 - Theme: Advanced Primavera P6 Project Controls and Dynamic Execution Management Methodologies to Drive & Navigator your STO Events, to control KPI (Safety, Quality, Efficiency, Cost and Schedule

The theme for this session is Execution Management and Control, where the student will learn how to create reports for distribution (Daily Shift Reports) and analysis (Key Performance Reports) using the Primavera™ P6 Report Writer with Filters and Batch Printing. The student will create a new layout for Updating while establishing the methodology for obtaining accurate and timely Field Updates.

The student will learn to update and using DSM (Dynamic Schedule Management) learn to produce a new Daily Shift Report (Plan) to accommodate the Field Execution Coordinators based on resource and asset availability.

At the end of this session, the student will have a complete understanding of Planning, Estimating, Programming, Scheduling, Updating and reporting to ensure an effective and efficient STO project with a combined effort of Planners, Schedulers and Field Execution Coordinators.

8.30-9.00 AM	Presentation – Execution Management and Control
9.00-10.00 AM	Lesson 12 - Creating Reports & Dashboards
10.00-10.15 AM	Coffee Break
10.15-10.30 AM	Lesson 12 cont'd - Creating Reports & Dashboards
10.30-12.00 PM	Lesson 13 - Updating Activities

12.00-1.00 PM	Lunch
1.00-2.00 PM	Presentation - Earned Value Performance Management
2.00-2.45 PM	Lesson 14 - Earned Value Performance Management Exercise
2.45-3.00 PM	Coffee Break
3.00-4.00 PM	Review, Certificates and Photos

## COURSE OVERVIEW

This 3 day intensive training course is designed by STO navigator™ Masters® & licensed to IPEC Project Systems Sdn Bhd for the individuals responsible for the planning, scheduling, execution management and control functions associated with shutdowns, turnarounds, outages and operational maintenance projects.

To maximize the effectiveness of Primavera P6™ for managing these projects we've designed a course that not only focuses on the ability to use the software effectively, it focuses also on providing best-practice management tools for effective estimating, schedule development and field execution to ensure your overall project meets your key performance targets associated with safety, cost, duration, worker efficiency and quality.

Attendees will learn how to properly develop a plan based on realistic estimates, how to apply productivity factors and measure performance, how to develop and manage a dynamic schedule using the Primavera P6™ levelling capabilities and how to get buy-in from field execution and operations coordinators during the outage.

## OBJECTIVE

The objective of this course is to provide instruction on navigating and managing data in the Primavera P6™ environment while teaching industry best-practices for planning, scheduling and executing an efficient shutdown, turnaround, and outage or capital project.

## VISION

The Planning Team will assist with establishing the Key Performance Targets and control the project to meet or exceed them.

Key Performance Indicators	Key Performance Targets	Phase
Budget / Workscope	Based on Risk / Cost Benefit	Strategic Planning
Duration	Based on Shutdown / Start-up and Longest-path	Planning and Scheduling
Safety / Environment	Zero Incidents	Execution
Quality	Zero rework, zero leaks	Execution
Direct Wrench-time	55%	Execution

## FLOW OF PRIMAVERA P6 LESSONS

*The steps (lessons) outlined below have been purposefully sequenced in the progression in which a real-life STO event should be planned, scheduled and controlled:*

- Presentation: STO Event Methodology and Technology
- Presentation: Planning, Scheduling and Project Controls
  - ◆ Lesson 1: Creating a STO Event and Setting Defaults
  - ◆ Lesson 2: Creating the Work Breakdown Structure (WBS)
  - ◆ Lesson 3: Creating WBS and Phase Calendars
  - ◆ Lesson 4: Creating Activity Codes
  - ◆ Lesson 5: Creating Layouts
  - ◆ Lesson 6: Managing Data
  - ◆ Lesson 7: Resources, Productivity and Cost
- Presentation: Creating a World-class Planned Job Package
- Group Workshop Exercise: Work Order (Task) Activity Planning
- Presentation: Resources and Productivity Factors
  - ◆ Lesson 8: Scheduling – Level I to Level III – SSM (Static Scheduling Methodology) using Relationships and Constraints
  - ◆ Lesson 9: Scheduling – Level IV & Level V – DSM (Dynamic Scheduling Methodology) and DEM (Dynamic Execution Management) using Resource Leveling
- Presentation: Establish Key Performance Indicators (KPI's)
- Presentation: Defining the Execution Plan
  - ◆ Lesson 10: Resource Leveling
  - ◆ Lesson 11: Saving a Baseline
  - ◆ Lesson 12: Creating Reports & Dashboards
  - ◆ Lesson 13: Updating and Progressing
  - ◆ Lesson 14: Earned-value Performance
  - ◆ Supplemental Materials





## COURSE INSTRUCTOR & LEADER

Ej (Ted) Lister is an internationally recognized innovative leader and sought-after Shutdown, Turnaround and Outage Navigator and Keynote Speaker and Presenter; author of several books and manuals relevant to STO Best-Practices. Gifted, patient and enthusiastic communicator and people-person; projects are not successful, the project team is.

25 years of combined experience in the field and in the war-room. Certified Red Seal Electrician and Instrumentation Technologist. Qualified Planner/Scheduler and Project Controls Specialist with HR and Change Management accreditations. Ej is the Editor of STO Navigator™ learning blog, contributing weekly to share knowledge and experience to more than 10,000 visitors monthly. In 2005 Ej published Successful Change Management and is currently completing a High Performance Organization book Lead, Manage or Dig.

***Favorite Quote: "Grown-ups invented work to keep playing together..."***

## COURSE ORGANIZER

**IPEC Project Systems Sdn Bhd** focuses in providing solutions that help project-intensive businesses to successfully manage their project, programmes and portfolios. Our core business is Oracle Primavera project portfolio solutions but we also provide customized project management solutions, project accelerators and integration to various enterprise systems. IPEC have recently concluded a joint venture with STO Navigator Inc to be exclusive partner in South East Asia for STO Navigator consulting, training & products.

IPEC Project Systems provides Primavera software, consulting, implementation, training, integration and premier technical support for

- ▶ Clients who are in the process of implementing Oracle Primavera solution for the first time
- ▶ Clients are thinking about migrating to a newer version of Oracle Primavera solution
- ▶ Clients who are considering an upgrade to their existing Oracle Primavera solution
- ▶ Clients want to make the best use of their existing Oracle Primavera solution deployed

We look forward working with you as strategic solution provider. IPEC does more than selling software. Our specialty is aligning business and technology to deliver solutions that bring value across entire organization. We work with you to fully understand your business challenges and focus on strengthening your organization by focusing on your immediate needs first. We are proactive in our approach to assist our customers which enables them to improve delivery of their projects and programmes.



STONAVIGATOR™



Specialized  
Primavera P6 Enterprise  
Project Portfolio Management



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