

CA GREEN PAPERS

CA Clarity™ PPM: Comparing Scheduling Tools

Open Workbench and
Microsoft® Office Project

LEGAL NOTICE

This publication is based on current information and resource allocations as of its date of publication and is subject to change or withdrawal by CA at any time without notice. The information in this publication could include typographical errors or technical inaccuracies. CA may make modifications to any CA product, software program, method or procedure described in this publication at any time without notice.

Any reference in this publication to non-CA products and non-CA websites are provided for convenience only and shall not serve as CA's endorsement of such products or websites. Your use of such products, websites, and any information regarding such products or any materials provided with such products or at such websites shall be at your own risk.

Notwithstanding anything in this publication to the contrary, this publication shall not (i) constitute product documentation or specifications under any existing or future written license agreement or services agreement relating to any CA software product, or be subject to any warranty set forth in any such written agreement; (ii) serve to affect the rights and/or obligations of CA or its licensees under any existing or future written license agreement or services agreement relating to any CA software product; or (iii) serve to amend any product documentation or specifications for any CA software product. The development, release and timing of any features or functionality described in this publication remain at CA's sole discretion.

The information in this publication is based upon CA's experiences with the referenced software products in a variety of development and customer environments. Past performance of the software products in such development and customer environments is not indicative of the future performance of such software products in identical, similar or different environments. CA does not warrant that the software products will operate as specifically set forth in this publication. CA will support only the referenced products in accordance with (i) the documentation and specifications provided with the referenced product, and (ii) CA's then-current maintenance and support policy for the referenced product.

Certain information in this publication may outline CA's general product direction. All information in this publication is for your informational purposes only and may not be incorporated into any contract. CA assumes no responsibility for the accuracy or completeness of the information. To the extent permitted by applicable law, CA provides this document "AS IS" without warranty of any kind, including, without limitation, any implied warranties of merchantability, fitness for a particular purpose, or non-infringement. In no event will CA be liable for any loss or damage, direct or indirect, from the use of this document, including, without limitation, lost profits, lost investment, business interruption, goodwill or lost data, even if CA is expressly advised of the possibility of such damages.

COPYRIGHT LICENSE AND NOTICE:

This publication may contain sample application programming code and/or language which illustrate programming techniques on various operating systems. Notwithstanding anything to the contrary contained in this publication, such sample code does not constitute licensed products or software under any CA license or services agreement. You may copy, modify and use this sample code for the purposes of performing the installation methods and routines described in this document. These samples have not been tested. CA does not make, and you may not rely on, any promise, express or implied, of reliability, serviceability or function of the sample code.

Copyright © 2010 CA. All rights reserved. All trademarks, trade names, service marks and logos referenced herein belong to their respective companies.

Microsoft and Windows are either registered trademarks or trademarks of Microsoft in the United States and/or other countries. Microsoft product screen shots reprinted with permission from Microsoft Corporation.

TITLE AND PUBLICATION DATE:

CA Clarity™ PPM: Comparing Scheduling Tools - Open Workbench and Microsoft® Office Project
Publication Date: February 1, 2010

ACKNOWLEDGEMENTS

Principal Author

Paul Kitko

Editor

Pamela Molennor

The principal author, editor and CA would like to thank the following contributors:

Linda Aughney
Chris Craig-Jones
Paul Maxwell
Sue Merenyi
Taunya Moore
Jenn Rinella
Jason Wells

and the following teams:

CA Services
Development
Marketing
QA
Support
SWAT
Technical Sales
Technical Information

CA PRODUCT REFERENCES

This document references the following CA products:

- CA Clarity Project and Portfolio Manager (PPM) v12
- Open Workbench (OWB) r1.1.9, a CA sponsored open source application

Note: Always refer to the latest CA Clarity PPM Product Architecture Stack (PAS) for product details. It is available on CA Support Online (<http://support.ca.com>) with the CA Clarity PPM product documentation.

THIRD-PARTY ACKNOWLEDGEMENTS

- Java runtime environment™ (1.5.0_10 or higher patch level)

Sun, Sun Microsystems, the Sun Logo, Java runtime environment™ are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

- Microsoft® Office Project, releases 2002 - 2007

FEEDBACK

Please email us at greenbooks@ca.com to share your feedback on this publication. Please include the title of this publication in the subject of your email response. For technical assistance with a CA product, please contact CA Technical Support at <http://ca.com/support>. For assistance with support specific to Japanese operating systems, please contact CA at <http://www.casupport.jp>.

Contents

- Chapter 1: Project Scheduling Considerations** **7**
 - Introduction 7
 - Understanding Your PPM Maturity Level 7
 - Scheduling Tool Considerations..... 7

- Chapter 2: Feature Comparison** **9**
 - Comparisons and Procedures..... 9
 - Using Baselines..... 9
 - Loading Patterns and Work Contours 9
 - Recurring Tasks 10
 - Effects of Resource Scheduling on Duration 11
 - Roles and Resource Replacement 12
 - Creating Inter-project Dependencies 12
 - Opening Master Projects 13
 - Configuring Calendars 14
 - Schedule Calculation 14
 - “Actuals Through Date” Tracking..... 14
 - Managing Pending Estimates 15
 - Lookups..... 17
 - Task Numbering 17
 - Shared Views 18
 - Exporting and Sharing Data..... 20
 - Macros 20

- Chapter 3: Other Considerations** **21**
 - Performance..... 21
 - Using OWB and Microsoft Project Together 22

- Chapter 4: Summary** **23**
 - Summary..... 23

- Index** **25**



Chapter 1: Project Scheduling Considerations

Introduction

The paper provides the software architect, software developer, software engineer, system administrator, and support technician with the information necessary to select a project scheduling tool to use with CA Clarity™ PPM. Both Open Workbench (OWB) and Microsoft® Office Project (Microsoft Project) integrate with CA Clarity PPM, but there are tradeoffs involved with selecting one scheduling tool over another.

Generally speaking, Open Workbench is best suited if you staff projects based upon the total estimated work across all project tasks. In other words Open Workbench is best used with “effort driven” project scheduling. Microsoft Project is best suited if you use “time-boxed” projects where task durations are well understood or determined by dependencies between tasks. Both have advantages and disadvantages based upon your scheduling objectives.

Understanding Your PPM Maturity Level

Before you start thinking about which project scheduling tool you should use, you must first consider your company’s Project and Portfolio Management (PPM) maturity level. A high level of PPM sophistication is not required to benefit from using CA Clarity PPM and OWB/Microsoft Project in the short term. In fact, it can be advantageous if you have little PPM knowledge and you are willing to adopt some of the basic CA Clarity PPM and OWB/Microsoft Project out-of-the-box functionality. Conversely, if you already have well established PPM practices, you will find adopting CA Clarity PPM and OWB/Microsoft Project to be relatively straight forward because CA Clarity PPM follows industry PPM best practices. As we know from experience, however, most companies fall somewhere in between these two extremes.

Because CA Clarity PPM can be tailored to meet a variety of PPM maturity levels, you need to honestly evaluate where you are in your PPM journey. Be careful not to assume that CA Clarity PPM, in conjunction with OWB/Microsoft Project, will rectify training or organizational shortcomings. In situations like these, CA Clarity PPM implementations can point out knowledge and proficiency gaps, which can prompt you to consider what needs to be done to bring your organization in line with PPM best practices.

Scheduling Tool Considerations

When deciding which scheduling tool to use with CA Clarity PPM, you must weigh a variety of options. Consider the following general questions when deciding which scheduling tool to select and deploy:

- How proficient are your project managers with scheduling tools?



- Do the project managers already rely on Microsoft Project?
- Which of the scheduling tools' functional features best suit your objectives?
- How do you currently manage your project schedules; are project assignments effort-driven or task-driven?
- How do you plan to capture resource effort, through the scheduling tool or through CA Clarity PPM timesheets?
- Are you aware that you will need to deploy updated versions of Schedule Connect and OWB clients for each CA Clarity PPM upgrade?



Chapter 2: Feature Comparison

Comparisons and Procedures

This chapter compares and contrasts various features in OWB and Microsoft Project. For in-depth information on Microsoft Project, please visit the Microsoft website at: <http://office.microsoft.com>.

Using Baselines

Baselines can be used in both OWB and Microsoft Project, but Microsoft Project does have some baseline functional limitations.

Open Workbench

- CA Clarity PPM allows OWB to save complete project baselines, baselines of groups of tasks, and individual task level baselines. You can manage baselines from Tools > Baselines.

Microsoft Project

- Only complete project baselines should be saved from Microsoft Project to CA Clarity PPM. This can be confusing to some users because Microsoft Project, by itself, does allow task -level baselines.

Note: Partial baselines do save to CA Clarity PPM but CA does not support this technique at this time.

- Also, if a project has an embedded subproject and you baseline the project, then the subproject is not baselined. You can baseline the subproject separately by opening the subproject in Microsoft Project or CA Clarity PPM.

Loading Patterns and Work Contours

A resource's work can be distributed across a project task in different ways based upon the availability of that resource. For instance, if a resource was committed to outside activities at the beginning of a project, it may make sense to allocate a smaller portion of that resource's time at the beginning of a project task. Likewise, as the resource's availability increases later on, then more effort can be given to accomplishing the task.

This technique of varying the amount of work across a task is referred to in OWB as a Loading Pattern and in Microsoft Project it is referred to as Work Contour, and is defined as follows in both products:



OWB – Loading Patterns	Microsoft Project – Work Contours	Definition
Fixed	Contour	Work effort distribution is user-defined
Uniform	Flat	Work effort is evenly distributed in a task
Front (Default)	Front	Work efforts peaks at the beginning of a task
Back	Back	Work effort peaks toward the end of a task
Contour	No Equivalent	Work effort is distributed as evenly as possible based upon unused resource allocation.

Open Workbench

- OWB types, although fewer in number, offer more accurate results over Microsoft Project. (Microsoft Project has several more contours not listed here. Check the Microsoft website for further details.) OWB’s behavior in placing resource work within a task’s duration is more fluid and accurate than that of Microsoft Project.

Microsoft Project

- Microsoft Project offers a wide diversity of “Work Contours” (for example, Front, Back, Bell, Double Peak, Turtle, and so forth), but as soon as these are introduced, task durations are likely to be extended leading to periods of resource underutilization. An extended overall schedule of suboptimal resource utilization is therefore likely. Attempting to model real-world usage patterns (some at front, some at back) is impractical due to the negative impacts these work contours have on the overall schedule. Typical user response to this difficulty is to assign only one resource per task and introduce new tasks to model the desired resource usage patterns, which introduces more complexity.

Notes:

The default loading pattern is “Front” in OWB and Clarity PPM and should be changed as required.

Use the Flat work contour in Microsoft Project to increase the speed it takes for the .mpp file to open.

Keep in mind that using anything other than the default (flat) loading pattern in Microsoft Project is highly likely to INCREASE task duration and produce underutilized resource periods.

Recurring Tasks

Scheduling recurring tasks, such as status meetings, can be created in an automated fashion in Microsoft project. But recurring tasks must be created manually in OWB and CA Clarity PPM.



Open Workbench

- Although OWB does not have a “recurring task” functionality built in, you can create repeating tasks in OWB by using a “fixed loading pattern.” Set the loading pattern for the resource on the task to Fixed and change your view by timescaling the Assignment ETC (Estimate To Complete). Then locate the cell for the date when the work will take place, and enter the amount of work effort required by each resource on each specific day.

Microsoft Project

- The Microsoft Project recurring task functionality is supported in CA Clarity PPM. Go to Insert > Recurring Task to open the recurring task dialog box in Microsoft Project. The recurring task appears as a summary task in CA Clarity PPM. Each master task holds multiple subtasks, with each subtask representing a recurring event from Microsoft Project.

Effects of Resource Scheduling on Duration

Project managers must understand what effect resource scheduling changes will have on their schedule’s duration. Without actively managing resources, task durations can exceed their deadlines and project commitments can be missed. OWB and Microsoft Project have slight variations in how you can control task duration.

Open Workbench

- OWB allows for a granular level of control over resource scheduling. You can lengthen or shorten overall task duration by modifying a resource’s “availability” or “% available per day. ” The resulting task duration change is actually held in check by OWB. You can also control task duration by setting the task duration to Fixed.

Microsoft Project

- Microsoft Project acts differently from OWB in that recalculations occur whenever changes are made to resource availability. For the uninitiated, it can appear that the task duration is moving for no apparent reason. One way around this is to set the task type to Fixed duration.

Roles and Resource Replacement

During the course of a project it may become necessary to replace a resource (typically a named person performing actual work) or a role (a generic description that acts as a place holder) against a task with other resources and roles. You can replace resources and roles across all tasks or against individual tasks in both OWB and Microsoft Project.

Open Workbench

- When resources and roles are added to an OWB plan from CA Clarity PPM for the first time, the default allocation for both is set to 100%. Resource or role replacements on project tasks maintain the same maximum allocation percentages. For instance, if you replace John Doe, allocated at 75%, with Jane Smith, then Jane Smith will maintain the same maximum allocation of 75%. Use the "Transfer Assignments" functionality to swap assignments between resources and roles.

Microsoft Project

- Microsoft Project behaves similarly to OWB. When resources and roles are added to a Microsoft Project plan from CA Clarity PPM for the first time, the default allocation for both is set to 100%. When replacing at the task level, resources and roles "inherit" the previous allocation value. Replacing resources and roles is slightly more complicated than in OWB, and is carried out by using the "Assign Resources" functionality.

Creating Inter-project Dependencies

In both OWB and Microsoft Project you can create external or internal dependencies between tasks that are in different projects. An external dependency occurs between two different projects that are not linked by a common master project. An internal dependency occurs between projects referenced from a common master project such as when you insert subproject tasks into a project. Both scheduling tools handle the mechanics differently.

Open Workbench

- In OWB you can insert External Dependencies by drilling down into a project and selecting a specific task.

To insert External Dependencies

1. Right-click the task from a view that displays the list of tasks in the project (such as the Gantt Chart view) and select Insert External Dependency.

The Open External Dependencies dialog box appears.

2. Select the project and then drill down to locate the task to insert.

You cannot link to summary levels.

3. Click Select to insert the selection into the project.

By default, the external dependency is placed in the plan *after* the linked task, as a successor. It will be placed *before* the linked task if it is modified to be a *predecessor*. You can modify the dependency relationships of a task by editing its task properties.

Microsoft Project

- To create External Dependencies in Microsoft Project you must manually enter the dependency relationship at the task level:

To insert External Dependencies

1. Open both files in Microsoft Project that you want to create the external dependency between.

NOTE: You can only create external dependencies between two projects if both projects exist in CA Clarity PPM.

2. Type the file name and task ID of the dependent task in the following format: [Project Name]\[Task ID]. For example, Configure OBS\30.

Opening Master Projects

Both OWB and Microsoft Project have the capability to open master projects from CA Clarity PPM, but both behave differently.

Open Workbench

- All of a master project's subprojects are downloaded within the same OWB file. The OWB download process is quicker and more efficient than the Microsoft Project download process.

Microsoft Project

- Opening a master project in Microsoft Project opens all associated subprojects within their own separate windows. Additionally a collective resource pool file is also downloaded. Therefore the number of project files downloaded is one Master Project plus one or more subprojects, plus one resource pool, which may result in decreased download performance when compared to OWB for an equivalent operation.



Configuring Calendars

CA Clarity PPM can be configured to create base calendars that are linked to resources and used across all projects. Known as Base Calendars, they are downloaded each time you open a project in either OWB or Microsoft Project. Base calendars define the general availability of a resource to work, based upon work days and holidays (non-workdays). Base calendars are centrally maintained in CA Clarity PPM and **cannot** be adjusted in OWB or Microsoft Project. If you enter the calendar information in either OWB or Microsoft Project and save the plan back to CA Clarity PPM, the calendar information will be lost.

Schedule Calculation

Open Workbench gives you a wider range of control over when you can recalculate schedules, while Microsoft Project typically re-calculates schedules automatically.

Open Workbench

- With Autoschedule, you can choose to schedule the entire project or a group of project tasks that fall within a specific date range. The autoschedule calculation takes into account dependencies, date constraints, and resource availability. Resource usage is maximized to shorten task duration. For example, if a resource has 80% availability, then the autoschedule function will use all 80% to shorten the duration of the task. Likewise, if a resource is over-allocated, then the task duration will lengthen. The exception to this rule is if the task duration is fixed. Essentially, OWB will generate a project schedule with the shortest possible critical path.

Microsoft Project

- A common observation of some CA Clarity PPM customers is that Microsoft Project appears to perform many actions without manual prompt or interaction. The complex relationship and interaction of project, resource, and task settings can produce an array of behaviors that may seem confusing to some. This is because Microsoft Project is typically set to calculate schedule changes automatically.

Controlling when schedule calculations occur in Microsoft Project is accomplished by using the "Calculation Mode" under Tools > Options > Calculation. It is recommended that you keep this option set to *automatic*. Otherwise, you need to remember to manually recalculate the schedule **before** you save it to CA Clarity PPM. It is important to keep in mind that the Microsoft Project schedule is automatically recalculated each time it is downloaded from CA Clarity PPM, regardless of the value to which "Calculation Mode" is set.

"Actuals Through Date" Tracking

The "Actuals Through Date" is the dividing line between a resource's actual work that was accomplished in the past, and the remaining work which the resource will accomplish in the future. The Actuals Through Date is tracked differently in OWB and Microsoft Project and thus has slightly different implications in each tool.

Open Workbench

- OWB tracks the Actuals Through Date at the resource level. This means that each resource has its own Actuals Through Date, clearly indicating the cut-off point of past work. On tasks with actuals booked, remaining work is ALWAYS scheduled after the Actuals Through Date cut-off.

Microsoft Project

- Microsoft Project **does not** track the Actuals Through Date at the resource level. Without this dividing line in place it is possible for users to schedule a resource's remaining work in the past. And if the project is stored in CA Clarity PPM, this can cause data continuity issues.

Managing Pending Estimates

On occasion, a team member may determine that the remaining work estimate is not sufficient to complete a task. For example, rather than two days of remaining work, a team member may feel there are another five days of work remaining to complete the task.

To communicate this "Pending Estimate" back to the Project Manager, the team member can overwrite the Estimate to Complete (ETC) value on their timesheet with the new value. This proposed change in hours needs to be either approved or rejected by the project manager. This is done differently in OWB and Microsoft Project. OWB will let you accept or reject pending estimates "en masse" or by task. Microsoft Project will only allow you to accept or reject pending estimates on a task by task basis.

Open Workbench

- Accept Pending Estimates

To accept pending estimates for selected tasks

1. Open the project and select the tasks for which you want to accept the estimates. Otherwise start with step 2.
2. Select Tools > Pending Estimates.

The Pending Estimates dialog box opens.

3. Define the scope by selecting Project, View, or Selected Task(s), and then select Accept Pending Estimates.
4. Click OK.

The Pending Estimates are accepted and the Pending Estimates dialog box closes.



- Reject Pending Estimates

To reject pending estimates for selected tasks

1. Open the project and select the tasks for which you want to reject the estimates. Otherwise start with step 2.
2. Select Tools > Pending Estimates.

The Pending Estimates dialog box opens.
3. Define the scope by selecting Project, View, or Selected Task(s), and then select Reject Pending Estimates.
4. Click OK.

The Pending Estimates are rejected and the Pending Estimates dialog box closes.

- Partially Accept Pending Estimates

To partially accept pending estimates for tasks

1. Update the ETC value to reflect your opinion of how much work remains to be done. For example, if the current **ETC** is 20 and the **Pending ETC** is 30, you might decide that 25 is a better value; so set the ETC to 25.
2. Select the tasks for which you have modified the ETC value.
3. Select Tools > Pending Estimates.

The Pending Estimates dialog box opens.
4. Define the scope by selecting Selected Task(s), and then select Reject Pending Estimates.
5. Click OK.

The Pending Estimates are rejected and the Pending Estimates dialog box closes. In the example given in step 1, this will set the task ETC and Pending ETC to 25.

Note 1: The Pending Estimates option is disabled if you are viewing a read-only copy of a project or if the track mode is not set to "Clarity".

Note 2: You are strongly advised to **reject** inappropriate Pending Estimate values. If you do not, they will remain on the timesheet and the resource will assume that they have been agreed upon.

Microsoft Project

CA Clarity PPM maps a timesheet's Pending Estimate field to Microsoft Project's 'Number1' field (column). To view this field, open the Task Usage view in Microsoft Project, then add a column and select 'Number1.'

There are three possible values:

1. **0** indicates a Summary task or a generic role assignment, or that the resource is suggesting there is no more work left to do on the task.

2. **-1** indicates the ETC value on the timesheet has not been modified.
 3. A value other than -1 indicates that the value is the team member's suggested ETC from their timesheet.
- To Accept or Partially Accept Pending Estimates
 1. Update the current Remaining Work value (overtyping the existing value) to either the value in the Number1 column or a more appropriate value.
 2. Set Number1 column to be -1 so that the new value in the Remaining Work column will display in the ETC column of the timesheet.
 - To Reject Pending Estimates
 1. Set the Number1 field to -1.
 2. Leave the Remaining Work field untouched.

Lookups

Lookup fields display a drop-down list from which to choose an item. Lookups can be developed in CA Clarity PPM (via Clarity Studio) and then added to project-related objects (project, task, resource). Although this section does not describe the mapping process, it is helpful to know how lookups behave in both Open Workbench and Microsoft Project.

Open Workbench

- OWB supports the CA Clarity PPM data model. After custom lookups have been created in CA Clarity PPM and added to project-related objects as attributes, these new attributes will automatically be available within OWB. Then the user will be able to make selections from the lookup's drop-down list from within the OWB environment.

Microsoft Project

- Microsoft Project does not integrate as completely with CA Clarity PPM custom lookups on project-related object attributes. Although lookup attributes can be mapped from CA Clarity PPM to Microsoft Project, the options presented to the user will be different. For example, if you created a custom lookup in CA Clarity PPM with the options "Yes" and "No", then these options would appear the same in the OWB drop-down list. Microsoft Project, on the other hand, will not display these "visible" options. It will instead display the "hidden" codes, which might be "0" and "1" for this sample lookup. In other words, the lookup attribute values are available in Microsoft in a less user-friendly manner.

Task Numbering

Task numbering operates differently between OWB and Microsoft Project. OWB does not automate the creation and management of task numbers, while Microsoft Project automatically generates task numbering and maintains task hierarchy.



Open Workbench

- OWB does not auto-number the ID column field by default. Instead, it allows the Project Manager to manually number his/her tasks. However, you can create manual IDs, for example 1, 1.1, and so on. And OWB will assign alternative IDs if you type in a duplicate ID by mistake. For example, if you number a task ID as 1.2 when 1.2 already exists, then OWB will automatically renumber the task ID to 1.2-2.
- As an alternative you can use copy and paste to do batch numbering, which may be the preferred method from a user perspective. Here's how:

To use copy and paste to do batch numbering

1. Type a letter, such as T for Task, in the ID column of the first task.
2. Do Ctrl+C or Edit Copy.
3. Click and drag using the left mouse button to highlight the ID cells for a group of tasks and use Ctrl+V to paste the ID.

This will generate a unique number extension after the T.

4. Repeat until all tasks have been given an ID.
5. Note that if you insert additional tasks, you must perform the same copy and paste process to continue generating unique numbers for the new tasks.

Microsoft Project

- Microsoft Project Task numbering is generated in two ways. The Task ID column automatically generates a task number each time you create and populate a task. You can also use Microsoft Project's "outline number" column that indicates the exact position of a task in the outline. For example, a task with an outline number of 7.2 indicates that it's the second subtask under the seventh top-level summary task.

Microsoft Project has the added functionality that will automatically renumber columns if you insert tasks in between existing tasks.

Shared Views

Views are used in both OWB and Microsoft Project to arrange project data in a more relevant way for the user. OWB allows users to have access to both local views as well as shared enterprise-level views via a User View Library and a Corporate View Library. Microsoft Project only allows users access to local-level views.

Open Workbench

- Enterprise views are stored in the Corporate View Library. This file can be stored in a shared location such as a read-only network drive. Users can map to the Corporate View Library via their OWB interface. The end result is access to a common list of views from anywhere in the enterprise.

To Create a Corporate View Library

1. Copy the "Standard.rwl" library (and all of the .rwl, .rws, and .rvw files located in C:\Program Files\Open Workbench\Views\en) to a network location where you want the Corporate View Library to reside. (Assign read-only access rights as appropriate to the OWB users, and read and write access to the Corporate View Library administrator.)
2. Rename the library to "Corporate View Library.rwl" or something similar.
3. From OWB select Tools > Options.
The Options dialog box appears.
4. Click Locations.
The Locations tab of the Options dialog box appears.
5. As the Corporate Library administrator, you then assign the Corporate View Library.rwl file location specified in Step 2 as your **User** View Library location.
This step provides you with the means to create, edit, and delete files that will comprise the Corporate View Library, network access rights permitting.
6. Edit, create, or remove view, sort, and filter files that will comprise the Corporate View Library.
7. On the Locations tab of the Options dialog box, remove the location assigned as a User View Library, and reassign it as the Corporate View Library.
8. Ensure all OWB users reference the Corporate Library as their Corporate View Library.

To Access the Corporate View Library

1. Navigate to Tools > Options.
2. Click the Locations tab.
3. Click the Corporate View Library link.
4. Click Browse and select the pre-determined network location (Corporate View Library.rwl).
5. Click Open.

Microsoft Project

- You cannot directly share Microsoft Project views across the enterprise. You can, however, share views across projects (within your instance of Microsoft Project) so that you do not have to recreate the same view for each project file. The following procedure shows how to share a view by copying it to the global.mpt file.

To share a view by copying it to the global.mpt file

1. On the Tools menu, click Organizer.
2. Select the Views tab.
3. Select the view that you created, and click Copy.

The view will be copied to the Global.MPT file.



4. Click Close.

- You can create one or more views for a project, which are linked to that project. When you save the project to CA Clarity PPM and another user opens the project in their instance of Microsoft Project, the other user will see the views that you created. The other user can then save the project views to their global view list.

Exporting and Sharing Data

It is possible to transfer project data from Microsoft Project to OWB via XML files. Exchanging project data in the opposite direction does not exist at the time of this writing.

Open Workbench

- OWB allows you to save project data in both .rmp and .xml file formats. Although exported .xml files cannot be opened in Microsoft Project, the file does make it possible to make custom integrations with other systems.
- Schedule data can also be cut and pasted from OWB into Microsoft Excel and vice versa. However, most of the formatting will be lost, including OWB color highlights, when this is done.

Microsoft Project

- Microsoft Project makes it possible to export project data in a variety of formats. Besides .xml, project data can be saved in the following formats: .csv, .txt, .xls, .mdb, .html and .mpp.

Macros

A macro is used by Microsoft Project as part of the integration mechanism (Microsoft Project Interface) between Microsoft Project and CA Clarity PPM. There are some implications to take into account when using this macro.

Open Workbench

- Macros are not used by OWB.

Microsoft Project

- Because Microsoft Project uses macros you will want to make sure to select the proper macro security level. Having the setting set too high will prevent the macro from installing the Microsoft Project Interface. Another item to consider is that because the Microsoft Project Interface macro code is customizable, it can be thought of as extensible. An example of extensibility in this case would be modifying the macro code to check for certain task field values in Microsoft Project before saving the field values to CA Clarity PPM.

Chapter 3: Other Considerations

Performance

CA Clarity PPM integrates well with the OWB design and architecture. However, both OWB and Microsoft Project can encounter performance issues – especially when project files become large and complex.

Use the following suggestions to increase Open Workbench performance.

For Open Workbench (releases 7.5.1_FP02_Schedulers, 7.5.1 FP03 and greater) there is a registry option that allows the user to override OWB's default memory allocation behavior. The default behavior allows Java to allocate up to a maximum of 512 MB. This means on a 265 MB machine OWB would allow Java to allocate up to 128 MB, whereas on a 2 GB machine the maximum allowed allocation would be 512 MB.

The new feature allows the user to set the maximum allowed memory for Java.

To set the maximum allowed memory for Java

1. Find the registry key is: HKEY_LOCAL_MACHINE\SOFTWARE\Niku\Niku Workbench.
2. The value to add or change is: 'JavaMemoryLimit'
3. When adding the new value 'JavaMemoryLimit', it should be created as a DWORD and the value's unit is in megabytes. Thus a decimal value of 256 would allow allocation of up to 256 MB.
4. When setting 'JavaMemoryLimit', you usually want to change the Base to be Decimal (not Hexadecimal) when setting the value.
5. When overriding the default behavior with 'JavaMemoryLimit', OWB will no longer cap the maximum memory allocated to 512 MB.

Note: If a user sets 'JavaMemoryLimit' to a value that cannot be honored, then you may see Open Workbench start up (flash) and immediately shutdown.

Use the following suggestions to increase Microsoft Project performance.

To increase Microsoft Project performance

1. Increase the memory of the workstations to at least 512 MB, ideally 1 GB.

Very large projects require a lot of memory for the plan to open in Microsoft Project.

- a. Go to the registry. Click on Start > Run and type in "regedit".



- b. Navigate to the
HKEY_CURRENT_USER\SOFTWARE\Niku\Schedulers\MSPOptions.
 - c. Right-click the MSPOptions folder and select New>String Value.
 - d. Change the name to "JavaMemoryLimit.
 - e. Change the value data to "256".
2. For long duration projects, review all task dates and 'bring in task finish dates' when appropriate, and review all long duration tasks to reduce the duration whenever possible.
3. Review all assignments, especially for the over-allocated resources. You may have many over-allocated resources that are assigned at 100% for too many tasks. These assignments increase the time it will take to export the project. Therefore, remove all assignments that are not necessary.
4. Use the Microsoft Project option for "flat loading patterns" on tasks.
5. Remove unnecessary baselines.

Using OWB and Microsoft Project Together

It is possible to manage projects in the same client environment with both OWB and Microsoft Project, but it is not recommended. This practice is called "togglng."

It is strongly recommended that you stay with a specific scheduling tool for a particular project and not change. OWB and Microsoft Project operate in such different manners that issues usually arise that can introduce corrupted data into your project plan. If making both schedulers available in an organization **clear rules** should be set for when OWB applies and when Microsoft Project applies.

Chapter 4: Summary

Summary

The most critical tool for measuring project status and performance is a detailed project plan that is regularly maintained with actuals. Therefore, it is important that the project plan accurately reflects expected and actual results across the key constraints of scope, budget, and schedule. Due to the complexity involved with managing intertwined project tasks and resources, most projects require automated support from specialized project management tools such as Open Workbench and Microsoft Project.

As described in this paper, many considerations must be taken into account when selecting a scheduling tool. Regardless of which scheduling tool you choose, it is important to keep your company's Project and Portfolio Management experience level in mind. No scheduling tool, no matter how sophisticated, will do your project scheduling for you. A thorough understanding in PPM concepts will go a long way in helping to evaluate the tradeoffs involved with selecting the best scheduling tool to meet your business needs.

Index

A

Actuals Through Date • 14
autoschedule • 14

B

base calendars • 14
Baselines • 9

C

Corporate View Library • 18, 19

D

default task allocation • 12
dependency- external • 12
dependency- internal • 12

E

export project data • 20
external dependency • 12

I

internal dependency • 12

L

Loading Pattern • 9
local views • 18
lookups • 17

M

macros • 20
master projects • 13
memory considerations • 21

P

partial baselines • 9
pending estimates • 15, 17
performance increase • 21
performance issues • 21
PPM best practices • 7

R

recurring tasks • 10, 11
resource scheduling • 11

S

schedules • 14
shared views • 18

T

task duration • 11
task numbering • 17, 18
task type • 11
togglng • 22

U

upgrade consideration • 8

V

views • 19