

# Using Microsoft Project 2000/2003

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## Introduction

Project Gateway now provides a complete interface for Microsoft Project 2000+ for Notes Clients and ProjectWeb Publisher Users. This chapter provides complete information for Notes users. For ProjectWeb Publisher users, the "mechanics" of installation and operation are different from those shown here, please see the instructions in the "Using ProjectWeb Publisher" chapter. All of the other information in this chapter applies to both methods..

For the purpose of this chapter, Microsoft Project 2000 means all versions including 2002 and 2003. Any issues that are specific to a particular version will be noted as such.

There are two steps required before you can begin. First you must install the Project Gateway Tools on your workstation. Then you must install the new Project Gateway XML Macros into your Microsoft Project 2000 application. Even if you are currently using the Project Gateway tools with MS Project 98, you must install the latest version to be compatible with the new Project 2000 macros. Note: When using ProjectWeb Publisher, you do not need the Project Gateway Tools for Notes Clients, but you do need to install the macros

Once the software has been installed in Microsoft Project 2000, you will see a new toolbar which provides direct access to all of the publishing and synchronizing features.

The typical use of the Project Gateway functions with a Notes Client is as follows:

First, create your plan. Then use the Publish Project "Wand" tool to publish it to your existing Project Gateway Repository.

Once users have had a chance to update their progress, use the Update Project tool to gather those changes and apply them to your project model.

After some review, make necessary changes to your plan and use the Update Notes tools to update the Repository with your changes.

Repeat this periodic cycle of Update Project and Update Notes until the project is complete.

Successful use of this facility can be assured by good planning techniques. While any MS Project plan can be published, some styles of

planning are much better suited to the Repository environment than others, and a certain amount of pre-publication work will save time over the project lifecycle. Please read the section entitled "Project Planning Considerations" before you begin using the software.

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## Installing the Project Gateway XML Macros

**Requirements:** You must have the R4 or R5 Notes Client, and have already installed Project Gateway Tools on your workstation.

**To install Project Gateway Tools: (ProjectWeb Publisher Installation is described in that chapter)**

1. Run the Project Gateway Tools Install Program (run Setup from the disk1 subdirectory of the PGTools Directory on the Installation CD). **If upgrading, choose the "Repair" option.**
2. Verify that the Project Gateway Tools are displayed on the Actions menu of your Lotus Notes Client program.
3. Modify your Autoexec.bat file so that the directory containing the Lotus Notes executable programs (for example, C:\Notes or C:\Lotus\Notes) is on the system path. This may already have been done by the install program if you have allowed it to do so.
4. Reboot your system so that the Path changes can take effect.

**To install the Project Gateway XML Macros:**

*Note: Your security settings may be set to prevent the use of macros. These settings must be changed before you can install the PG components.*

1. Start MS Project 2000.
2. Open the file named "**ProjectGatewayXMLInstallMacrosIntoGlobal.mpp**". You will find this file in the directory you selected when you installed the Project Gateway tools, or you can use File Find to locate it. Note that the file you want contains the letters XML in its name. There will be another file with a similar name in the same directory which is used for Microsoft Project 98.
3. When this file is loaded, it will display a dialog box with a button labeled "Enable Macros". The dialog box will show that the code has been signed by Marin Research, Inc. You may simplify future installations if you select the "Trust" checkbox, but this is not required.
4. Press the Enable Macros button. The macros will be installed and a new toolbar will be added to your desktop. **NOTE: IF YOU ARE REINSTALLING OR UPGRADING THE MACROS, A LONG SERIES OF "REPLACE" DIALOGS WILL APPEAR, YOU MUST SELECT YES FOR ALL OF THEM TO CORRECTLY UPDATE THE SOFTWARE.**

5. Select File Exit. This will save the new Global.MPT settings file which actually stores the macros for future use.

When you reload Microsoft Project, you will see the Project Gateway toolbar installed.



This toolbar is easily identified by the 8-ball icon on the left and the ? icon on the right. It provides access to all of the functions you will need to use Project Gateway to publish and synchronize project plans.

## Verifying Correct Installation with Project Gateway Tools.

This procedure tests the operation of the toolbar functions with your Notes Client.

*If you are using ProjectWeb Publisher, do not use any of the left 5 buttons as they will not function unless a Notes client is installed.*

**Click on the 8-ball.**

**In a few seconds you should see the Project Gateway About dialog box. The appearance of this dialog box shows that the system is properly configured to publish and synchronize plans. If it does not appear, please read the next section.**

### **Troubleshooting**

First, load Notes and verify that the Project Gateway commands appear on the end of the Notes Action menu if you have not already done so.

In order to use the Project Gateway macros, both the Project Gateway installation directory and the Lotus Notes directory must be on the system "Path". Getting this set correctly is the biggest single obstacle most people encounter in using MS Project with Project Gateway.

To find the location of the Notes software, do a FIND operation for "NLNOTES.EXE" The directory where this file is found should be part of the path statement.

To find the location where Project Gateway has been installed, do a FIND operation for "PMT32.DLL". The directory where this file is found should be part of the path statement.

To display the current system path in MS Windows 98, run command.com to open a MS DOS window and type the command "PATH". This will probably show something like:

```
PATH:=C:\WINDOWS;C:\WINDOWS\COMMAND;
```

What you would like it to say is something like:

```
PATH:=C:\WINDOWS;C:\WINDOWS\COMMAND;C:\NOTES;C:\PG;
```

The example assumes that Notes is stored in the directory C:\Notes and that Project Gateway was stored in the directory C:\PG. If Project Gateway was installed in the \Windows or

\WinNT directories , then the Project Gateway directory does not need to appear in the path.

Changing the system path can be complicated in some installations because of network startup files. If you are working in a network environment, you should probably contact your system administrator and tell them that you need to put these additional directories on your system path.

If you have a local system, you can simply change the path statement in the "AUTOEXEC.BAT" file usually found in you C:\ directory. Note that in most cases you will already have the Project Gateway files in the path because the Project Gateway install program will have made the change. So you will probably only need to add the "\Notes" directory to the path.

*Note: If you use Windows NT or 2000, set the path using Control Panel, System Properties, Advanced, Environment Variables..*

Whenever the Autoexec.bat file is changed, you will need to reboot your system for the changes to take effect.

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## Project Planning Considerations

### Best Practices

A project that will be seen by many people and used for reporting naturally needs more preparation and attention to detail than one created solely for your personal use. The project titles, resource names, task descriptions, and resource assignments should be reviewed carefully before publication. When many projects are going to coexist in a single repository, the choice of project and resource names become very important and generally require some preplanning to minimize confusion.

Similarly, when the plan is displayed in the "To do" list and timesheet format as most participants will see it, the choice of task names becomes very important. Having 20 tasks called "Design" may be perfectly understandable within the outline structure of your plan, but becomes almost unusable when shown as a sorted "to do" list for one person. This problem is aggravated when several projects with virtually identical task names and similar schedules are put together.

The level of detail that you want to use for a published project may be different from that which works well when using it as a personal tool. Because it is so easy to create tasks, there is a tendency to create a task for every detail that needed to be done. Such plans look more like checklists than schedules. Publishing such plans creates very large numbers of small tasks. Each requires effort on the part of each participant to understand and provide status or timesheet reporting. This makes project management more burdensome and less accepted by a busy team.

It is good practice to minimize the number of and create a checklists to clarify the specific deliverables. That way there are fewer documents to manage, and less work for the participants. A good goal is to plan no more than one to two tasks per participant per week.

Tasks should remain in the plan for the life of the project. This is not a technical requirement, but it is good practice and makes for better project time tracking.

## **Project Gateway Considerations**

There are certain simple requirements that Project Gateway imposes upon your project. Please read the following sections.

### ***Week Start Convention***

The starting day of the MS Project plan week must be the same as the starting day of week used by the Project Gateway Repository. This is usually Monday. This is done so that actual work reported in Project Gateway will appear in the same week when it is transferred to MS Project.

You can see the starting day of the week by looking at your Repository Timesheet. The first day shown will be the convention that your administrator adopted for the Repository

**Note:** The starting day of week for a Project Gateway Repository is defined in the Field Map document for that Repository. While this can be different from Monday, it must be set prior to the publication of any projects. Once the repository is in use, the starting day cannot be changed.

When a plan is published the project plan will be modified to change the starting day of week.

When a project is synchronized, a message will be generated if the starting day of week is being changed. If you attempt to synchronize with an inconsistent starting day of week, an error will occur. Once it is changed and saved, you will not see a message again.

When a new project is created, the starting day of week will be set to Monday unless a specific option is enabled for your workstation. In general this is not necessary because the day of week will be reset on the first synchronization if it is wrong. However, if your plan contains work contour actuals at the time of publication, you must have the correct day of week for publication to be successful.

### ***Assigning a Project Title***

Project Gateway requires that each project have a title before publishing it. The Title is set in the File Properties, Summary Tab, Title. If you are building a multiple project repository, establish a convention for project titles and resource naming with the other project managers *before* publishing the plans.

Project titles should be rather short so that they can fit in the available screen real estate. More important is that, if there are going to be many

projects, that the projects are identifiable using the beginning words of the project name. That way, even when the project name is truncated in a repository form or view, the project is recognizable.

When a project is published, it must have a title and the title must be different from its filename. If this field is not set, then a message will appear. This check is used to prevent you from inadvertently publishing your plan as "Project1" in your repository. Note that Project Gateway will do an additional check during the publishing process to make sure that your project name is unique within the Repository. At that point you can change the project title.

While the Repository Project Title can be manually changed in the repository, changes made in the MS Project plan will not be transferred. As an extra check to help you avoid mistakes, the titles of the Repository and MSP plans are compared during the Update Project process. If they differ, you will see a dialog. If this shows an intended change made in the Repository, you will want to manually adjust the MS Project File Properties Title field to prevent future messages.

### ***Assigning Resource Names***

The resource names used in your plan become the Participant Names in the Repository. Therefore it is very important that you spell names correctly and consistently in all of your projects.

If the participant is already defined in the Repository Center application, then you must use exactly the same spelling in your resource list for that person.

Project Gateway Repositories provide an optional setting which prevents any new participant from being created when a plan is being added or updated in the repository. If this option is in effect on your site, you will get an error message during the Publish Project or Update Notes functions if you have used resources which are not already setup in the Repository. This feature exists simply to prevent the accidental spread of multiple names for an individual caused by spelling errors.

Resource names must not contain the "List separator character". This is a comma or semicolon depending upon your MS Windows Regional Settings. It is best to avoid using either of these characters because their use may limit your ability to interchange project data with people in other countries.

**Note:** If two resources in a single MS Project plan have been given the same name, the system will report an error indicating the name of the duplicated resource. You must change the plan by renaming one of the duplicated resources before importing again. MS Project allows such duplication, but Project Gateway does not, and in any case it just creates confusion.

**Resource Groups.** Group codes are imported and used to set the organization field of new participant profiles. However, since most repositories will prevent the automatic creation of new participants this many not be important to you. Note that, even if the organization codes

are set, you will still need to create the Organization Profile documents in the Repository. Note also that these codes are used only when the participant profile is first created. Changes made in Microsoft Project to the group code of an existing repository participant will not be made in the repository, and the group codes in MSP will not be affected by changes made in the Repository.

### ***Designing Tasks and Assignments***

You may use any arrangement of tasks, summary tasks, and dependencies in your project plan. Project Gateway is concerned primarily with your resource assignments.

One task can have any number of resource assignments. Each of the assignments will be published as a separate document in the Repository so that it can be individually updated by the assignee. All assignment documents created from a single task are cross-linked to each other so that Repository users can skip from one to another with a click.

If you remove a resource from a task after it has been published, and then synchronize to update the Repository, the corresponding Repository document will be removed from active service. It will be marked as an "obsolete" assignment, but will be retained in the database.

### **Task Types**

Microsoft Project provides several different ways to interpret manual changes among assignments of a task. Task types include Fixed units, Fixed Work, and Fixed Duration task types and have the optional Effort Driven modifier. These choices are only relevant when you are manually editing the task information and particularly when you are adding resources. When the Project Gateway Update Project process adds assignments or adjusts task hours and dates to record repository values, the choice of task types will have no effect on the outcome. Subsequent manual adjustments, however, will still be affected by the task type choices.

### **Milestones.**

An assignment will become a Key Event in the Project Gateway Repository if either the MS Project Milestone flag is set Yes, or the start and finish dates are identical.

### ***Using Task Notes to Incorporate Checklists and Document Requirements***

#### ***Including Custom Checklists***

To put a custom checklist on a task, write the checklist in the task note area in the following format.

*Checklist: <numbered items> ;*

Note that there is a required ":" colon after the word Checklist and a number and period in front of each checklist item. A semicolon or the end of the field defines the end of the last item.

e.g.

Checklist: 1.design program 2. write code 3.debug 4. document 5. ship to customer;

When this is published, all assignments will have 5 item custom checklists.

Note that the system does not provide a way to link standard checklists to tasks during publication. You can, of course, assign them manually in the repository.

### ***Including Document Requirements***

As explained in the document tracking chapter, required documents are specified by including "::documentname" in the tasknote. Documents to be created by the task are indicated by "::\*documentname"

Put the document instructions before the checklist instructions if both are used.

### ***Task WBS Coding Conventions***

***NOTE: MS PROJECT 2003 Custom Outline Codes***

***In MSP 2003 and later, the planner has the ability to define custom outline codes for the WBS field. This feature conflicts with the operation of the Project Gateway macros and so must not be used. Errors will result during the publishing process if custom outline codes are in use.***

Project Gateway uses the Microsoft Project WBS code field to identify tasks during synchronization. Using these codes allows you to revise task names and outline position over the life of the project while retaining the association between the Repository documents and the MS Project assignments.

All tasks must have unique WBS codes and these codes must be different from the default codes created by Microsoft Project (see below for details) Whenever your plan is published or synchronized, the Project Gateway software examines the WBS codes for each task. If the WBS code is in the default format computed by MS Project, then the WBS Code is changed by adding the # character followed by a unique number. This modification prevents MS Project from automatically changing the code in the future.

Why are the WBS codes changed? If you have read the chapter on synchronization, you will know that it is essential that tasks can be matched between the Notes database and the corresponding project plan. Since Tasknames are frequently changed during the course of a project, and since their position in the project outline is adjusted as new tasks are inserted or moved, it is necessary to be able to uniquely identify a task from one synchronization to another. Project Gateway uses the WBS code for this purpose. The default values that are created by MS Project are very nicely numbered 1, 1.1.,1.2, 1.2.1 etc. but whenever a task is inserted or deleted, all the numbers will be changed. So these numbers are not useful for comparing different versions of a project. When the default code is replaced with some other value (different from the number that would be computed automatically), Microsoft Project will

never change it. So by replacing the WBS codes with "non-default" values such as 1.1#213, Project Gateway stabilizes the codes for the life of the project.

The WBS codes for all tasks in a new project are modified prior to its publication. This modification allows their values to be fixed for the life of the project. Using these fixed codes allows for reliable synchronization. In some cases, user copy/paste operations may create two tasks which have the same WBS code. Because this would reduce the effectiveness of later synchronization's, the system checks for duplicates and prevents you from publishing or synchronizing a project until one of the duplicate codes is removed.

### ***Correcting Duplicate WBS Codes***

There is only one common way that a duplicate WBS code can be created. This is by copying and pasting tasks in a Microsoft Project plan that has already been published. In this case the pasted tasks will have copies of the WBS codes assigned to the original tasks. When you try to synchronize again, you will get an error. To correct the problem do the following:

1. Insert the WBS column into the Gantt View.
2. Find the task that was "pasted" and clear the value of the WBS field (make it blank).
3. When you move the cursor to the next task, Microsoft Project will create a new WBS code. When you execute the Synchronization function, Project Gateway will modify it to a new, permanent value which will be retained for the life of the project.

### ***Resource Assignment Details***

When a task is published, the starting and finish dates for each assignment are published in the Repository assignment documents. Two assignments to the same task can show different dates depending upon how the assignment is scheduled within the task.

If you are new to Microsoft Project, you might not be aware that it actually computes start and finish dates for each resource assignment in addition to the dates for the task as a whole. Since Project Gateway is predominantly concerned with communicating assignments to participants, it publishes these "Resource Assignment" scheduled dates in the repository. These dates can be different from the "Task" dates you see on the Gantt View in Microsoft Project.

#### **How to inspect your resource assignments:**

To see the resource assignment schedule, use the Window Split command, then click in the lower pane. Now, from the menu, select the Format Details Resource Schedule command. If it does not appear on the menu, it is because you have not clicked in the lower pane first.

The command Format Details Resource Schedule will show the planned start and finish dates for each resource assignment on your task.

In most cases, if there is only one resource assigned, then these dates are identical to the task dates.

If, however, the task is fixed duration of 10 days, and you have assigned 1 unit of a person for a total of 16 hours of work, then the resource schedule will show that the assignment finishes at the end of day 2, not day 10! When this assignment is published to the Repository, it will show a planned finish date equal to the end date of the assignment. This is, in fact, what you have planned.

If several people are assigned to a task, there may be different scheduled start dates and finish dates in the associated Notes assignment documents, each coming from the appropriate line of the assignment schedule table.

### ***Progress Reporting***

Project Gateway is designed with the understanding that progress information will be entered in the Repository while planned dates and effort estimates are entered or calculated in the Microsoft Project environment.

By **progress information** we mean the actual start date of assignments, the actual hours worked (in total and by week) the actual finish date of completed assignments, and the percent complete as reported by the repository user. In addition, for assignments that are started but not yet completed, the work remaining on the assignment is considered to be part of the progress information, but it can also be adjusted from with Microsoft Project.

The system has rules which resolve conflicts between the two systems.

***In general, do not enter actual assignment progress information (actual start, actual finish, percent complete, or actual work) directly into MS Project.*** Allow that information to be entered using the Repository and inserted into your plan via the Synchronization process. Changes made in MS Project to actual data already recorded in the Repository will be ignored.

However, actual work is acceptable when it is already in the plan at the time of first publication. When the task is first published, existing actual start, finish, hours will be published. After this stage, however, existing repository actual values will be retained and adjustments to the actuals in Project will not update the repository.

If the actual work has been recorded using contour periods, then the weekly period details will be uploaded to the Repository and will be shown in the time summary views just as if they had been entered using Repository timesheets. If the actual work has been reported only as assignment totals, then only those totals will be preloaded into the Repository and these hours will not show in the time summary views.

### ***Avoid Summary Task Assignments***

We recommend that you do not put resource assignments on summary tasks. The most common situation in which this occurs is when a detail

task is promoted to a summary task without removing the resource assignments.

Since the schedule of a summary task is set by the schedule of the tasks within the summary group, reporting start and finish dates on the summary task assignment in the repository will not have any effect on the project plan. These assignments are ignored during the Update Project Process.

Project Gateway will publish assignment documents for summary tasks when you have resources assigned to them but will not update them during the Update Project process.

We suggest, however, that you avoid using this capability since it creates a somewhat confusing picture in the Notes outline views. When a summary task has resource assignments, the outline view will show one entry for the task itself as a detail task (with a minus sign after the number prefix) and another line, in this case a category title, for the summary task in its role as a parent. At first glance this will look like a duplicate title until you notice the dash in the task name.

Since assignments made to summary tasks will not be updated during the Update Project synchronization process, actual hours are reported on summary task assignments in the Repository will not be pushed back to MS Project. This can result in the situation where the total actual hours reported in the Repository are different from the same information displayed in Project after Update Project.

### ***Using Resource Pools***

Resource Pools are simply tables of resource names and properties that are maintained in a file separate from the project file and linked automatically whenever the project plan is loaded. No special actions are required to use resource pools with Project Gateway, but you do have to be especially careful to avoid duplicate resource names.

### ***Using Dependencies***

Finish to Start (FS) Dependencies created in Project will be reconstructed as doclinks in the Repository assignment documents. This allows users to browse the database along the logical path of work.

Dependencies should be used when they represent a logical relationship which the implementer(s) of the work will actually follow. If there are a number of tasks which feed a common goal, but which really do not have to be done in any particular order, then those tasks should not be linked into a chain because out of order execution will make using the results of synchronization more complicated. It has been our experience that out-of-order execution of project tasks is very common.

Imagine a plan with three linked tasks, each 2 weeks long, named A, B, and C. Now suppose that task A is started late. When you update, B and C will be delayed by the late start of A. Moreover, even if B starts early, if it is not complete, the remaining part of B will be delayed by Project after the completion of A. That will in turn delay C. If these tasks are simply required steps needed to reach a common goal, then the

dependency links will be extending the schedule unrealistically. As the planner you will then have to remove the non-essential links in order to tighten up the schedule.

### ***Linked Projects***

MS Project allows multiple projects to be merged into a master plan for analysis. Project Gateway cannot publish the master project, you must publish and synchronize each project individually. Load each plan and use the UpdateProject toolbar command then save the plan. Once all the individual plans are updated, you can then load the master project for analysis. When all plans have been revised, load each and use the UpdateNotes command.

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## Understanding the Synchronization Cycle

*Synchronization should always be done in a cycle.*

First, use UpdateProject to bring the current actual start dates, finish dates, actual effort, percentcomplete and work remaining from the repository into your current plan.

Then after making desired changes and carefully reviewing the results, use UpdateNotes to push those changes in scheduled start, scheduled finish, scheduled effort, plus your new tasks, new assignments, deleted assignments and other changes back to the Repository.

*You don't need to do UpdateNotes unless you want to, but you should always UpdateProject before doing UpdateNotes.*

### **When should you do UpdateProject?**

If your organization is using timesheets, then you should probably do UpdateProject on Tuesday. Most people submit timesheets Friday. If any timesheets require third party approval, the approval will probably not be done until Monday. The timesheets are posted by an agent that runs in the evening. So Tuesday morning is generally the time when the most up to date actuals are available.

If you are going to publish a revised schedule, you should do so as soon as possible so that the team can incorporate your new plan in this week's work and timesheet reports. Generally, new schedules should be posted by Tuesday evening to have the most value in influencing the outcome of the current weeks work.

### **When should you do UpdateNotes?**

The answer to this question may surprise you. The answer is to update the repository as infrequently as possible.

Most project plans anticipate progress a little faster than it is actually achieved. As a result, most projects have some slippage. People being as they are, tend to pay more attention to things that are late than to those which are not so late.

Publish a plan. A week later you run UpdateProject and see that a few tasks have slipped and a little less progress has been achieved than you forecasted. Microsoft Project will instantaneously calculate a new schedule which takes all this information into account. In so doing, it adjusts (slips) all of the future tasks to dates that are mathematically self consistent with the project constraints. In particular, all unstarted tasks may be moved to the future.

If you press the UpdateNotes button, Project Gateway will transfer all the changes to the repository. The effect will be that the goals have been slipped. While this is mathematically correct, it is psychologically counterproductive. The more you slip, the more time you get!

So a wise project manager will update the published schedule infrequently. When a significant schedule change is intended it should

be published. When the published dates have been missed so badly that no one takes the schedule seriously, it should be updated.

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## Using the Project Gateway Toolbar Functions

The toolbar has the following functions:



**8-BALL CONNECT**

Used to verify connectivity with Notes. Not used with ProjectWeb Publisher.

**WAND PUBLISH PROJECT**

Used to publish the current a project into an existing Notes Repository. Not used with ProjectWeb Publisher.

**FOLDER UPDATE NOTES**

**TO DB** Used to update your Notes Repository project with a revised schedule. Not used with Project Web Publisher.

**DB TO UPDATE PROJECT**

**FOLDER** Used to update your current schedule with the actual start, finish, effort etc. that has been entered in the Repository. Not Used with ProjectWeb Publisher.

**SCROLL MAKE PROJECT**

Used to create a new project plan using the information from the repository. Not Used with ProjectWeb Publisher.

**WHITE PROJECT ASSOCIATION**

**FLAG** Used to display and control the association of the current project. Shows what Server, Database, and Project is linked to the current MS project plan.

**RED FLAG ASSOCIATION ENABLE**

Used as a master switch to prevent all automatic association between project files and Repository projects.

**DISK FILE OPERATIONS**

Used to do direct file operations with .m2k files. This allows you to prepare and process Repository project data when you do not have a Lotus Notes client on your workstation.

**? HELP**

Provides overview of functions and access to synchronization report and INI-file options.

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## **PUBLISH: Project Gateway AddProject**

This first runs the check and save process described above to prepare the project data in .m2k format. It then invokes the Project Gateway Add Project To Database function using the Notes API to put your project into your repository. Project Web Publisher users should see that chapter for publishing instructions.

When you use this function, you will be prompted by a dialog asking you to select the server and database. This must be a Repository Center database.

The project is published with the option "Include unassigned" set.

### ***To Add a new project to an existing Project Gateway Notes database:***

1. Load the Project .MPP file.
2. Select the Toolbar item "ProjectGatewayAdd ProjectXML" which is represent by a wand symbol.
3. At the dialog, select the database and press OK.
4. The project will be saved and imported into the Notes database. The Project Gateway progress dialog will appear during processing and a dialog will appear announcing completion.

Note: To use the "Add Schedule to Existing Project" or "TaskHelp" features, you must set a system option. See the later part of this chapter.

Note: The project data is saved in a ".m2k" format file using the same file name as the project. So if the project was called "Project Plan 1.MPP" the macro will create the file Project Plan 1.m2k in the same directory as well as updating the stored version of Project Plan 1.MPP.

### ***What happens during Publishing***

1. The system will create "Participant Profiles" documents for any resources which do not already have them. These will require manual editing afterward, see the instructions below.
2. The system will create a new "Project Profile" document in the repository and assign a uniqueprojectid to this project. If the "Attach Project to Existing Schedule" option was used, then an existing project profile will be used rather than creating a new one". New project profiles should be edited to verify settings and to record additional project details for Repository operation.
3. The system will create "Assignment" documents for each resource assignment in your plan. Each assignment document will contain the resource name, project name, task name, assignment start, finish and planned work among other information. All of the assignments for the project can be seen in the outline format of the project plan by opening the "Project Assignments - Outline w/Hours" view. If the TaskHelp option

has been used, assignments will contain doclink to the appropriate methodology information.

## **What to do after Publishing A New Project**

### ***Setting Up Your New Project Profile***

From the Repository Center Navigator, select Projects. The Project Dashboard view will be shown. Find your new project, open it, and review/change the following items.

#### **General Settings:**

1. Set the "Allow ProjectGo Notifications" to "Yes" if you will allow the system to send reminders about this project. Note the feature "Allow Two-Way Planning" is not supported when you are using Microsoft Project 2000.
2. Adjust the "UserID" for Project Manager if necessary. Immediately after publication, it will contain the UserID used to publish the plan. This should be your ID. If not, or if there are other people who should have the rights of the project manager to modify every document associated with this project, you should adjust this entry to add these individuals. This is a very important field. If you do not put your own ID into this field, you will require the assistance of the Repository Administrator to correct it.
3. Enter a description of the project in the place provided.

#### **Dashboard Settings:**

The statistics table will be empty until the Maintain Dashboards process has had a chance to run, but you should setup your dashboard options at this time.

1. Select the appropriate Target Mode. The default Target mode is "Reference." This will have set the baseline values of your project as the dashboard target. We suggest that you should choose Manual and then enter the most appropriate target effort and target finish dates into the cells to the right. Targets are meant to reflect your management commitment to your project's customer for effort and delivery date. Your plan will certainly change some during the execution of the project. By setting your true goals as your dashboard targets, your normal schedule adjustments will not impact the dashboard display.
2. Set "Notify if Red Indicators" to receive an email if changes to your project cause it to seriously overrun your target settings. You might as well be notified before others notice the problem. Often the cause is an incorrect timesheet report or manual date entry that can quickly be corrected.

#### **Management Agent Profile Settings:**

The Management Agent will provide useful reminders to help you execute your plan.

1. In the "SendMessageTo" field, enter your Username (or your external email address).
2. Set the appropriate notification conditions for your project for Upcoming, Late starting, Late Finishing assignments, and for Upcoming and Overdue milestones.
3. If you want the system to send dashboard status reports to your Notes calendar/PalmPilot, make that selection at the end of this section.

**When your settings are correct, Close and Save the project profile.**

### ***Updating New Participant Profiles***

If any new participants were created as part of your publishing process, you must update these new participant profiles with the correct user ID's and other options. Why? because these new participants were created with the User ID set to be your ID. That means that the real person for who your assignments have been created will not be able to report on them.

From the Repository Center Navigator, select "Participants". This will open the Participant Profiles view. In the third column of this view you will see the UserID associated with each participant. Look down this list, if you see your own name, then you need to update the participant profile.

1. Open each participant profile.
2. Go to the User ID for Participant field and change the name to be the User name of the actual person.  
Note: If this participant is for a "skill" that must be assigned to a real person before work begins, set the appropriate resource manager name in the ID field and set the participant agent profile to the manager name with the "Upcoming Assignment Rule" enabled.
3. Setup the timesheet setting for the participant (if the participant is a real person, otherwise set the Timesheet Initiation Method to "Not Allowed."
4. Setup the Participant Agent Profile settings for the new participant.
5. Close and save the changes. Once you have changed the participant UserID to the correct name, you will not be able to modify the profile again.

After all of the participants have been updated, you will need to wait overnight for the Maintain Organizations process to update all of the assignments. If this is too long to wait, you can run the Admin\UpdateOrganizations function from the Notes menu if you have the permission of the Repository administrator to do so.

---

## Project Gateway UpdateProject

This will first extract the current project information from the Repository and then use it to update your project plan. Project Web Publisher users should see that chapter for Update Project instructions.

### ***To Update your project with current actuals from Notes:***

1. Load the Project .MPP file. **Make sure that the Microsoft Project option "Updating task status updates resource status" is NOT checked** (Tools, Options, Calculation, Calculation Options). Incorrect results will be created if this option is set.
2. Select the Toolbar item "ProjectGatewayUpdateProjectXML" which is represented by a icon showing a database cylinder pointing to folder.
3. If this is the first time this has been done, a dialog will appear. Select the database and press OK. A second dialog will appear displaying the name(s) of the projects found in this database. Drop down the list to find the correct project, select it and press OK. Hint: If this project was just published, it will be at the bottom of the list.
4. If the majority of Repository assignments do not match with those in your plan, a dialog box will appear "Less than half of the assignments are matching" with the option to proceed. The only time this should appear and be accepted is when you have deliberately removed a large number of assignments from your project plan since the previous synchronization. In most cases, the appearance of this dialog box indicates that you are synchronizing with the wrong repository project.
5. If "Confirm every synchronization" is selected on the Project Gateway Setting Dialog, then a dialog box with the message "Implement Changes in Project" will appear during synchronization. If you select No, then your plan will remain unchanged. If you select Yes, then the changes made in the repository will be implemented in your plan.  
At the time this dialog appears, a set of numbers will be shown in the left side of the status bar in the form [x/y]. (e.g. [123/124]) The number on the right of the / is the number of previously published assignments that are candidates for matching. This number excludes assignments to summary tasks and assignments made to the [unassigned] resource which are placeholders in the Repository for tasks that have no other resources assigned.  
The number on the left is the number of these candidates that have been matched to existing project assignments. Unless you have manually deleted tasks or assignments, these numbers will be equal. If they are significantly different, you might want to

stop the sync at this point and examine the synchronization report (click the ? button on the toolbar, then the support tab, then the sync.txt button..)

6. The current project will be updated. As this is done, the number of the task being updated will appear in the status line. The time to update individual tasks can vary greatly. When complete, a dialog will appear. After you OK the completion message, the updated status will appear in your plan. You may need to press F9 to recalc the schedule.

At this point, only the in-memory copy of the project plan is changed. The stored version will not be changed until you explicitly save it, or until you exit project and allow it to be saved, or until you do another Update Notes or Publish action which always saves the current plan.

### ***What will Update Project Do?***

This process updates the current project with the changes that have been made in the Project Gateway Repository to the previously published version.

1. It updates assignments to the actual start, actual finish actual work, and remaining work from the repository if the repository assignment has an actual start date. Assignments which do not have actual start dates in the repository will not be modified by the update process, but may be modified during the subsequent Microsoft Project recalculation if the task to which they belong has been affected by the actuals reported for other assignments. For example: A 1 week task had two assignments. If one of those two assignments was updated in the repository to have an actual start and actual finish that were six weeks apart, then the task duration would be extended to at least 6 weeks. After recalc, the first assignment, which was not updated, will be stretched to a new duration because the task was stretched, and this will probably increase the planned work on that assignment.

Tasks that have the same actual values in Notes as in project will not be updated. This saves time during the update process. However there is an option to force the system to reload actuals into every task. This option is controlled by the SyncAlways INI variable and can be used by unchecking the "Only update actuals if total changes" item on the Project Gateway Macros Help Options Tab. The only time in which this should be required is after making corrections to previously posted timesheets which reallocate work between weeks without changing totals.

2. It updates tasks with the earliest actual start and latest actual finish of repository assignments.

3. It updates task text fields and the task note field that have been modified in the repository.

4. It creates new assignments made in the repository for existing tasks. The system will attempt to set the same dates in your plan as were entered in the repository, but these may be overridden by Microsoft

Project. If the assignments have actual dates in the repository, then these actual dates will be preserved.

5. It creates new tasks and assignments when new assignments have been created in the repository which were not associated with previously published tasks. After the update, you may want to relocate these tasks to some other place in your plan.

6. It creates new resources in the MS Project plan when they are used in the repository but were not already part of the project plan. These resources will be created with default parameters. If you are doing cost analysis, you will probably want to edit the cost rates.

### ***Resource Reassignment during Update Project***

The following is a major change between the PG6 implementation and all previous versions. You must install the macros distributed with the PG6 Tools to have this behavior.

***If an assignment has been reassigned in the repository, the resource used in the project plan on that assignment will be changed to the repository resource.***

e.g.

1. Assign "Programmer" in MS Project and publish the plan.
2. In the repository, reassign that assignment to "Bill".
3. During the update project process, the MS Project assignment will change from "Programmer" to "Bill".

Exception: The automatic reassignment will not be done if the "reassigned" resource is already assigned to the task.

### ***How Actual Work Is Recorded***

Actual work entered into Notes is loaded into MSProject by constructing a "Work Contour" using weekly periods. This allows timesheet information entered into Notes to be shown in Project in the correct weekly amounts. Although project can "display" the work for days, hours or minutes, the sub-weekly detail is not transferred from the Repository, so all you will see is an interpolated average if the display format is not set to weeks. When you look at the assignment properties you will see that the Work Contour property is set to "Contoured".

Each task's percent complete will be set to the average of the percent complete values reported on the assignments for that task in the repository. E.g. if there are two resource assigned, and one resource reports that they started on March 1 and are 50% done, and the other assignment reports a start date of March 7 and 25% done, then the task will show a March 1 start date and 37.5% done.

If the entire history of the assignment has been reported by timesheet, then the task usage view in MSP, when displayed by weeks, will correspond to the time summaries view in the Repository.

**To display the weekly timesheet data in Microsoft Project:**

1. Select Task Usage icon from the left hand menu area of MS Project 2000, or use the menu command View Task Usage.
2. Put the cursor on the timescale bar on the right pane, right click, and select Timescale... from the tear off menu to display the timescale dialog.
3. On the timescale dialog, select weeks as the smaller period and any of the larger periods. Since timesheet data is reported on a week period, selecting a smaller display period will not add any more informational content, it will merely show the week total interpolated to daily, hourly or minute level periods.
4. On the left side of the right pane you will see the word "Work" next to each row. On this area, right click and check "actual work". You may leave "work" selected if you wish.
5. Now scroll the right pane left or right to display the time range of interest. The actual hours shown here will correspond to the actual hours shown in the Project Gateway Time Summary view for the same weeks of this project.

### ***Special handling for inconsistent and non-timesheet reporting***

If the assignment in the Repository has been manually updated, or if both timesheet and manual posting is done to the assignment, then the final data in MS Project may be different from the timesummary data.

In all cases, the system attempts to preserve the timesheet data for the periods for which it is available, but adjusts the total hours to match the total hours shown on the assignment. Timesheet data will generally be valid so long as it is for periods that are within the actual start and actual finish dates of the assignment. However, if the assignment dates or assignment actual work has been manually adjusted, then some or all of the detailed timesheet data may be ignored when the MS Project assignment is updated.

### ***How Remaining Work is allocated***

When Update Project is complete, assignments which are started but not finished will have remaining work. The amount of this work will be the value set in the Repository assignment document. The completion date of this work will be determine by the way in which the units are computed for the assignment.

The remaining work will normally begin on the first work day following the end of the period which contains the most recent actual work. Thus remaining work will begin on the Monday that follows the last week for which work has been reported. However, if the task has dependencies, the remaining work may be delayed until the predecessor date. This can have substantial impacts on schedules where work is done in an order different than the dependencies imply. The timing of the start of remaining work is also affected by the MS Project Split-In Progress Option and by the Tools Tracking Update Project Reschedule command.

The duration of the remaining work will depend upon the amount of work, and the "Method Used to set units for Remaining Work" setting in the Project Gateway Macros Help Options Tab. See the Options section near the end of this chapter.

There are two possible allocation methods which can be selected:

#### **Actual Experience Method**

The units that were calculated by Project from the actual work are used to compute the new finish date. This means that the work rate from the most intensive actual period is used. If there were three full weeks of actuals reported as 10h, 3h, 20h hours, the highest weekly rate,  $(20h/40h) = 50\%$  would be used to allocate the remaining work. This implements the assumption that future work will be done no faster than the best historical work rate.

#### **Original Units Method**

The units that were previously set on the assignment (prior to sync) are preserved and used to compute the new finish date. This implements the assumption that future work will be done at the originally planned rate, regardless of the past performance of the resource on that assignment.

The method must be defined before the Update Project process is initiated. The method applies to all tasks actually updated during this process.

#### ***What will not happen during UpdateProject***

Update Project will not add assignments to summary tasks, even if such assignments have been manually created in the Repository.

The task outline will not change, except that new tasks created in Notes may be added at the end.

No existing resource assignments will not be deleted, even if the assignment was reassigned or deleted in the repository. Additional assignments, however, may be added to existing tasks.

#### ***How can I tell whether synchronization was successful?***

Each time the system synchronizes, it writes a report called "Sync.Txt", this is put in the system temp directory (typically "\\Windows\\Temp" in MS Windows 98.) The Sync.Txt file describes, in great detail, how each task in the repository is matched up with the tasks in your project plan. If you have not deleted anything from your plan since it was published, then every task and assignment should be successfully matched up.

You can examine this report by opening the help dialog (? button on the Project Gateway Toolbar), selecting the support tab, and clicking the Sync.txt button. This will identify the file and offer to launch a file viewer for you.

### ***What can cause problems during UpdateProject?***

The most common problem comes from using the wrong plan or wrong version of the plan, or synchronizing with the wrong project or the wrong repository. It is very easy to get confused when you keep multiple versions of a project and multiple databases all with similar names.

The association function will minimize these possible mistakes by reducing the number of selections that you have to make.

The system does two checks during the Update Project Process to help you avoid mistakes.

First, it compares the Project Title of the plan with that of the project retrieved from Notes. If these differ, you will see a dialog box and have the opportunity to stop.

Second, it checks to see if at least half of the previously published assignments that are candidates for matching have been matched by the synchronization process. If less than half match, you get a dialog to that effect. At this point you have the opportunity to stop or continue.

Third, at the point when the "Implement Changes" dialog appears (if you have Confirm Every Synchronization enabled) you can look to the lower left to see the number of repository tasks that have been matched. This is displayed as [number matched/total previously published] e.g. [174/174]. Unless you have deliberately removed some tasks from your plan, all previous tasks should be matched.

---

## Project Gateway UpdateNotes

This will check the plan for duplicate WBS codes, save your current plan as a .MPP file, save the information in an .m2k file, and then use the Project Gateway UpdateNotes function to transfer your current plan to the repository, revising the previously published information. Project Web Publisher users should see that chapter for update instructions.

### ***To Update the Notes database with your current project plan:***

1. Load the Project .MPP file.
2. Select the Toolbar item "ProjectGatewayUpdateNotesXML" which is represented by an icon showing a folder pointing to a database cylinder.
3. If this is the first time this has been done, a dialog will appear. Select the database and press OK. Next, a dialog will appear displaying the name(s) of the projects found in this database. Drop down the list to find the correct project, select it and press OK. The most recently published project will be at the end of the list.

If the Offer TaskHelp Option is enabled, and you have answered "Yes" to the "Add TaskHelp" query, then the TaskHelp setup dialog will appear near the beginning of the update process.

4. The synchronization process will be done and the current project will be updated. A progress bar and a completion dialog will appear.

### **What happens during UpdateNotes?**

1. For all assignments that are successfully matched, the contents of the existing assignment document will be revised. The revision history section of each such assignment will be extended to show the date and filename used for the revision. If the reference dates are changed, a notation will be made to that effect.
2. For assignments in the project which do not have existing assignment documents in the repository, new assignment documents will be created.
3. For assignments of participants who have not previously had assignments in the repository, new participant profiles will be created with the organization code of the participant profile set to the group code used in the resource table of Microsoft Project. (Note that the ability to add participants during the update process is an optional feature which may not be allowed by your Repository administrator)

4. The planned start, planned finish, and planned work will be set to the values provided in Microsoft Project as shown in *the Format Details Resource Work* and *Format Details Resource Schedule* displays. For assignment of tasks which are actually complete, the new scheduled dates will match the actual dates. Don't confuse the scheduled dates - which always reflect the current plan - with baseline dates (known in project as the "planned dates" and in the Repository as the "reference dates") Baseline dates are unchanged by the posting of actuals, but the scheduled dates are always identical to the actuals.
5. *For existing repository assignments that have an actual start date recorded, no changes will be made to actual start, actual finish, actual work or percent complete* even though the values in Microsoft project may be different from the values in the repository documents. Actual values in the repository are always assumed to be correct. The presence of the actual start date is the "flag:" used to indicate that actual information is present in a particular assignment. What this means is that you should not make status changes or adjustments to actual work or dates in Microsoft Project. The planned dates of these tasks may be changed.
6. The work remaining provided in Microsoft Project for the assignment (total work - actual work) will be adjusted by the difference between the actual shown in MS Project and the current actual shown in the repository. The adjusted value will be published. This is done to accommodate actual work changes that were made in the repository between when you did UpdateProject and when you do UpdateNotes.
7. Changes made in the Taskname, and tasknote will be made in the repository documents.
8. If none of the items in a checklist on a previously published assignment has been marked done, and if the checklist in the project plan is different from that previously published, the assignment checklist will be updated to match the plan. This means that you can revise checklists in future tasks at any time prior to the actual use of the checklist in the repository. If the repository checklist has been used, however, then any differences with the MS project plan will be ignored.
9. For all of the fields that are defined in the Field Map of the Repository, the appropriate values from the Microsoft Project plan will be stored in each assignment. This can include text field values from the task record and cost rate values for the assigned resources. Available fields are shown in the table at the end of this chapter.
10. Assignments that were previously published, but which have been deleted from the project plan will be modified to be marked as "obsolete assignments". They will disappear from

most of the repository views, but will still be visible under "Reports - Obsolete Assignments".

11. If a previously published assignment document has been deleted from the repository, it will be replaced with a new one.
12. For every new assignment, the repository reference plan values will be set from the current Microsoft Project baseline values, if available, or the current scheduled values if no baseline exists.
13. If the "Reset Reference" option is set on the Project Profile, then the reference values will be updated for all assignments to the current baseline or scheduled values as available.
14. The project profile will be modified to update the revision history and the previous .CPF attachment file will be replaced by the newer version. The CPF attachment contains the instructions used to create the repository documents and is required for subsequent synchronizations.

---

## Make Project

Make Project is a function that will construct a new MS Project plan from the information stored in a Project Gateway repository. The most common use of this function is to create an MS plan from project which was manually entered or which was initialized by another application. A secondary use is to recover a MS Project plan to replace one that has been lost or to serve as a template for the creation of a new project.

There are two methods provides for Make Project. The choice of the method to use is set in an INI entry. The current setting is adjusted using the Options panel of the Help dialog.

These two methods are called "Normal Mode" and "Template Mode"

### ***Normal Mode***

In the Normal Mode, the system tries to exactly match the Repository assignment start and finish dates and efforts. This process will set any existing total actual work, work remaining, actual start and actual finish, but it will not use the Work contour method of setting actual work. In order to get timesheet level information you should follow Make Project with Update Project to apply the period level details.

### ***Template Mode***

In Template Mode, the system sets default units for resource rates and allows MS Project to compute the end date of assignments. The actual start, finish, and work are not set as such, however the Repository actual start date is used for setting the task start, and the total of actual plus work remaining from the Repository assignment is used to set the total work on the new assignment.

Template mode is useful if you are using the existing project as a template for making a new plan.

Project Web Publisher users should see that chapter for instructions.

### **To make a new project plan from a repository project:**

1. Press the Make Project toolbar button.
2. Select the Server, Database, and Project.

The system will retrieve information from the Notes database and construct a new MS project plan. Depending on the number of assignments, this process can take quite a while. When done, the dialog box "Make Project Complete" will appear.

At this point the new project may not been recalculated and will not have been saved. You should press F9 to recalculate. You should use the "Save As" command to assign a file name.

### ***The Results Of Make Project***

The Make process will generate all tasks as Fixed Duration task type. You may want to change these task types after they have been made to a more flexible format such as fixed units.

Make will also set start date constraints (start no sooner than) on most tasks in order to preserve the dates found in Project Gateway. You may want to change the constraint type to As Soon As Possible for some of these tasks.

In Normal mode, Make sets work units so that the specified work hours are spread evenly over the duration of the task. With long running tasks having very little effort, this may result in very small units which Project displays as zero even though it treats them internally as fractional work rates. In Template mode the resource rates are set at 100%.

In Normal mode, Make will create the actual start and finish dates for tasks.

Make does not create assignments on summary tasks, even if those exist in the repository. Thus, hours associated with summary tasks will not be incorporated in the new project plan.

### ***Using UpdateProject After MakeProject***

Make does not allocate actual work to specific time periods. Instead, time is recorded as a total against the assignment and the work contour feature is not used.

To recover the actual, period by period work hours, you should run the Update Project function after you complete the Make Function.

#### **To Update after Make:**

1. Save your newly created project plan as a .MPP file. You must do this prior to beginning the Update Project process or an error will result.
2. Select the UpdateProject command.
3. Select the server, database, and Repository project.
4. Allow the process to run to completion.

At this point the actual work hours in the plan will match those in the repository (with the usual exception of summary task assignments) on a period by period basis.

### **Making a New Project directly from the Notes Client.**

In some cases, you may want to create new MS Project plans by starting from the Notes client rather than from Microsoft Project.

To create a new Microsoft Project from the Notes menu:

1. Select the "Make Project File from Database" command from the Notes Actions Menu.
2. Select the Server, Repository Database and Repository Project.
3. In the Project File field, enter a file name ending in .m2k. The system will respond by showing the words Microsoft Project 2000 above the file name.
4. Press OK. This will generate the file.

5. The "Launch Project Management System" dialog box will appear. Press Yes if you want to create the new plan in Microsoft Project, press No if you want the .m2k file for some other purpose (or if you do not have Microsoft Project 2000 loaded on this workstation.)

6. After pressing Yes, Microsoft Project 2000 should load or activate. Then it will load an intermediate plan named "PGLOAD.MPP" When this loads it may display and "Enable Macros" dialog box. This code will be identified as being signed by Marin Research which is your assurance that the Macros have not been changed since the product was released. Press "Enable". This will allow the PGLOAD program to activate the Make Project function which will read the .m2k file and build the new project. PGLOAD will close itself. The current Options setting (Normal Mode or Template Mode) will be used.

7. When this process is completed, recalc and save the new plan file.

---

## File Operations

The file operations dialog allows you to directly make, save, and update plans using .m2k files. These operations are used with ProjectWeb Publisher. These commands do not use the Project Gateway API interface, hence they can be used when you do not have the Path correctly configured for direct operation of the PG functions, or when you do not have a Notes client but want to prepare/use files in conjunction with someone who does.

*Note: The .c2k Holiday functions on this menu are discussed in the next section.*

### **Load .m2k File**

The Load function will let you select a .m2k File and will use it to create a new project plan. The result will be the same as if you had used the "Make Project" command.

### **Save .m2k File**

The Save function will create a .m2k file. The location of this file will be in the same directory path as the currently active .MPP file. The name of the file will be the same as that of the .MPP file with the extension .m2k rather than .MPP. Prior to creating this file, the WBS codes will be adjusted, and the current project will be saved in .MPP format.

Note that this function does not provide a "Save Project" dialog box because the target file name and location are set automatically.

Note also that, if no plan is loaded, or if the loaded plan is empty, then the save option is grayed out on the dialog box.

Once you have created this .m2k file, you can use it as input to the Create New Project in Database command or the Synchronize Update Notes command from the Notes Action Menu.

### **Update From .m2k File**

The Update function will allow you to select a .m2k file (which will be by default in the same location and with the same file name as the .MPP file) and then use it to update the current project plan. All the usual synchronization process will be used.

The .m2k file used to update the plan must be from the published version of the same project in the repository. You can get such a file by using the "Make Project" command from the Notes action menu and specifying a file with the .m2k extension. Once the Notes process is complete, select "No" at the Launch Project Management dialog and then use the File Operations Update Function.

---

## Participant & Holiday Export to Microsoft Project

Now you can take the holidays entered by your participants using the Schedule action and load them directly into Microsoft Project. This

allows you to easily adjust your project schedules to avoid committing people to work when they will be away.

You can also use this function to load the entire repository participant list into your project plan as resources. This saves time and avoids typographical errors.

This function can be used with Microsoft Project 2000/2002 using either PG Tools (Notes Client) or Project Web Publisher.

This function is accessed from the "Export Holidays" item on the Participant Navigator. This generates a file ("Holidays.c2k") that will be processed using the "M2k File Options" button on the Project Gateway Toolbar in Microsoft Project. The Holidays.c2k file is an XML document.

### ***Exporting the Holidays.c2k file.***

Click on the "Export Holidays" action on the Participant Navigator (located just below "create a new participant").

This will display an Export Participant Holidays form.

If using a Notes client, click "Create Holiday File", wait for the file to appear, and then click "Detach" to save the file to your local disk. Press Close. If using a browser, click "Click Here to Download" to save the file to your local disk. Press Done to return to the navigator.

### ***Using the Holidays.c2k file***

After loading your project plan (or after creating a new project) select the "M2k File Options" button on the Project Gateway Toolbar.

There are two holiday import selections at the bottom of this panel:

### ***Import holiday (.c2k) file.***

This function will to set and/or remove non work days on the individual working time calendars of the existing resources.

Note that only those days defined using the "Schedule" function on the participant profile will be marked as holidays. All other individual holidays will be removed for each matching resource. Holidays that are present on the base calendar (typically called "Standard") associated with the resource will not be affected and will still apply.

When complete, a dialog box will appear showing the number of resources updated. All resources whose names match the participant names will be updated. The PGLog.txt file will contain the list of updated resources if the "*Create Log File for Support*" is enabled on the Help/Options panel.

### ***Import holiday (.c2k) file & add resources***

This function will add all Repository participants to your project plan if they do not already exist and set and/or remove individual holidays. Only the resource name is set, all other attributes will acquire the current MSP default settings. A dialog box will appear when the function is complete.

### ***Creating a resource list for a new project.***

Use the File New command to create a new project. Save this as a .MPP file. Create at least one task. Now, use the Import holiday (.c2k) file & add resources command to load the resources list.

---

## **Creating a New Project Repository**

The Repository database must exist before the Add or Update macros can be used. If this database will contain only a single project, use the Project Gateway commands from within Notes to create the database.

1. Load your Project.MPP file.
2. Use Toolbar File Operations dialog box, select "Save as .m2k" and press OK.
3. When the save process is complete, Exit MS Project.
4. Using the instructions found in the "Publishing Projects" chapter, Create Project In Notes Database - New command, and specify the .m2k file created by the ProjectGatewaySave.

During subsequent synchronization, the codes will be updated automatically for new tasks.

---

## Flag Commands

### ***How a Database Project is logically associated with a Microsoft Project Plan***

The first time UpdateProject or UpdateNotes is used, the system will present a dialog box to ask you to select the database and then a second dialog box to select the project within that database.

After a successful Update, the association between this project plan and the server, database, and published project, will be stored in the MarinPMG.INI file on your workstation. Whenever you use the UpdateProject or UpdateNotes command in the future, the system will recall this association and you will not be prompted to select the database.

The White Flag **ProjectGatewayAssociation Command** will display the association of the project currently loaded, showing the Notes database file and the unique project id of the project within that database. You may Reset this by pressing the Yes button. If you reset it, on the next synchronization, the Notes database dialogs will be displayed so you can select it again.

The Red Flag **ProjectGatewayAssociationEnable Command** lets you tell the system whether to use associations or to not use associations. It applies to all projects. If you set this option to No, then the system will always ask you for the Notes database when you synchronize. If you set it to Yes, then it will use the associated database automatically if there is one.

The association is recorded based upon the project file name. So if you change your project file name, you will be prompted again for database and project selection.

One possible problem, however, is that the system will never forget the association. So if you publish a plan today called demo.mpp, then create a new plan called demo.mpp six months from now, the system will remember the old association and may try to access a no longer existent database!

Another version of the same problem can occur if you have created several databases from the same project.

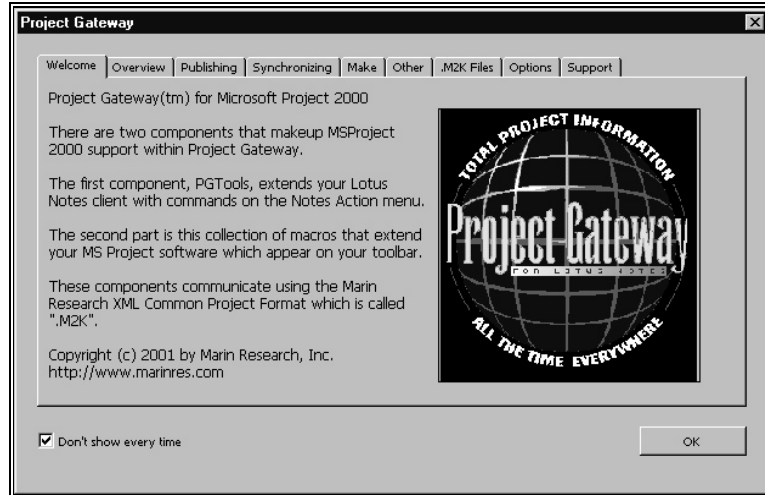
Finally, since the project file name is used for identification, it is possible that you might have two identically named project files in two different directories on your workstation, or a local and network directory with different projects using common names.

Disabling the Association feature, changing the project filename, or removing the [MSPMACROS] section of the MarinPMG.INI file on your workstation, will solve this kind of problem

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## ? Help

The help dialog box provides several tabs of basic instruction. The last tabs, labeled Support and Options, provide important user functions.



The Help dialog will appear when any command is used until the "Don't show this again" checkbox is selected. After that time, it will appear only when the ? toolbar button is clicked.

### ***The Support Tab***

#### **The Synchronization Report Button- Sync.Txt**

This will launch the Notepad/Wordpad program to display the Sync.TXT report generated during the most recent Update Notes or Update Project function.

The synchronization report is divided into sections that reflect the underlying process. The first section lists each of the tasks in the repository version of the project plan and notes how each has been mapped to the corresponding task in the MS Project plan. Most of the time, tasks should be mapped using WBS codes. For tasks that have been manually created however, name based mapping is used during the first complete synchronization cycle. For subsequent cycles, the WBS matching is available.

You should pay attention to any task which is not matched. The only good reason would be that you have deliberately removed the task from your project plan. If large numbers of such matching errors appear, you may be using the wrong version of your plan, or synching with the wrong repository project.

The second part of the report shows how the assignments of the matched task have lined up with their project counterparts. Assignments are matched by resource name, so resource names should not be changed during the life of the project.

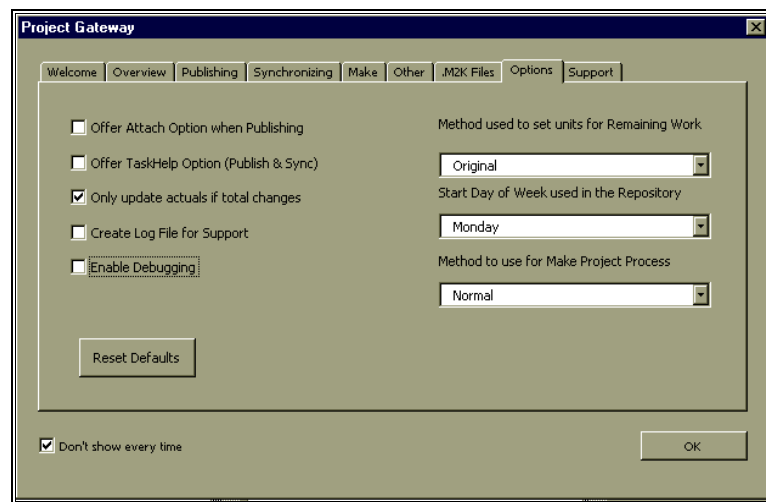
### The More Info Button

This will display some internal version information about the installed software. Please provide this information when contacting Marin Research about problems in the software.

After this version identification is listed all of the current options setting that apply to the MS Project macros. After this is listed all the contents of the MarinPMG.INI file that control the operation of the Project Gateway Tools. Note that the sections shown in this listing are not in the same order as they appear in the actual file.

### The Options Tab

The options tab allows you to set a number of frequently used INI Options. These will be recorded in the MarinPMG.INI file and used to control subsequent operations.



*The options panel*

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## Differences from Microsoft Project 98 Support

### **Synchronization differences with MS Project 98.**

The primary difference is in the handling of actual work during synchronization. In MSPProject 98, actual work was reported only as "total" on the assignment. In MSPProject 2000, actual work is reported by week. This can lead to some significant differences in the resulting schedules for tasks that are started but not finished.

### **No support for Two-Way planning.**

The Update Notes process will not make any changes to tasks which have not yet started. Thus the two-way planning option has no effect on MSP2000 schedules. It is important to understand what this option did and did not do. Its only purpose was to allow Repository Users to "edit" the schedule of unstarted tasks. These "edits" were implemented in MSP by imposing start date constraints. Most project managers do not like to have Repository users creating more constraints. The more useful Repository capabilities which are the ability to create new tasks and assignments in the Repository, are fully supported.

### **No support for delays from InterProject Dependencies.**

Project Gateway InterProject dependency forms allow you to request that the dependent milestone be delayed. This was accomplished in MS Project 98 by imposing a "start after" delay on the task if it was not actually started. Based upon customer feedback, this feature has been rarely used in production environments. We do not implement the delay, but, the task note is of the target activity will be updated to describe the dependency and the target date.

### **Unsupported INI Options**

These options will not have any effect upon the operation of the Microsoft Project 2000 interface, but will affect the MS Project 98 interface.

*[msproject] mpxPercentMode* is not supported. This was an option to force the system to ignore actuals unless the task was completed.

*[msproject] mpxAdjustRate* is not supported. This is not necessary when period based actuals are used.

*[msproject] mpxLanguage* is not supported. This applied only to .MPX file processing and so would not be relevant.

*[msproject] AllowAutotrack* is not supported.

*[msproject] newTaskMethod* is not supported. This was used to define the properties of user added tasks.

*[msproject] useAssignmentSchedule* is not supported. The assignment schedule is always used.

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## Options for the MSPProject 2000 Macros

The following options are specific to the ProjectGatewayXMLMacros for Microsoft Project 2000. If needed, they must be entered in the MarinPMG.INI file which will be found in your \Windows or \WinNT directory. The current settings of these options can be seen by pressing the "More Info" button on the Support tab of the ? Dialog.

These options must appear in a section named:  
[MSPXMLMacroOptions]

There are two groups of options. Functional options that you may want to set to control operation and support options that you may be requested to set to help provide support information in the event of a problem.

### **INI Functional Options**

These options provide choices for project managers in the operation of the system. These must be entered in the [MSPXMLMacroOptions] section of the MarinPMG.INI file to operate.

#### **RetainUnits**

**(Method used to set units for Remaining Work on Options Panel)**

retainUnits=0 or 1

*If not specified, then =1 is assumed.*

=0 means to allow Project to recalc units after Update

=1 means to preserve preexisting units after Update

#### **OfferAttach**

OfferAttach=0 or 1

*If not specified then =0 is assumed.*

=0 means do not offer the option.

=1 means that a dialog box will appear whenever a new project is published which will ask the question "Attach Schedule to Existing Project" This dialog has Yes and No buttons. If Yes is selected, then a list of candidate projects will appear at a later point in the publishing process. These candidate projects will be those which have been manually created in the Repository (rather than published from MSP files).

#### **Offer TaskHelp**

OfferTaskhelp=0 or 1

*If not specified then =0 is assumed.*

=0 means do not offer the option.

=1 means that a dialog box will appear whenever a new project is published which will ask the question "Implement TaskHelp?" or

when Update Notes is used the dialog "Add Taskhelp on New Assigns". These dialogs have Yes and No buttons.

If Yes is selected, then the Taskhelp setup dialog will appear later in the publication or Update Notes process. See the Using Taskhelp chapter for a discussion on the purpose and use of this feature.

### **WeekBeginsOffset**

#### **(Start Day of Week on Options Panel)**

WeekBeginsOffset=0 or 1 or 2 or 3 or 4 or 5 or 6 or 7

*If not specified, then =0 (Monday) is assumed.*

This is used to tell the system that the Repository has a non-standard week. Weeks starting on Monday are standard. In order to correctly maintain timesheet period actuals, the Repository and the MS project plan must use the same convention for the starting day of the week. Since the workstation cannot determine the repository setting, you must provide it if it is different from Monday.

Whenever you publish or synchronize a plan, the system will check the project to see if it is using this as the beginning day of the week. If the project is different, then it will be changed.

WeekBeginsOffset=0 - Monday

WeekBeginsOffset=1 - Tuesday

WeekBeginsOffset=2 - Wednesday

WeekBeginsOffset=3 - Thursday

WeekBeginsOffset=4 - Friday

WeekBeginsOffset=5 - Week starts on Saturday

WeekBeginsOffset=6 - Week starts on Sunday

### **SyncAlways**

#### **(Only update actuals if total changes on Options Panel)**

SyncAlways=0 or 1

*If not specified, then =0 is assumed.*

=0 means to Update work only those assignments where the actual start, actual finish, actual work, or work remaining has to be changed, or those assignments which do not have a preexisting work contour. This is the normal mode of operation.

=1 means to Update all assignments which have actual work reported. This is much slower, but it will correct changes in the weekly distribution of actual work which may have been made by correcting prior timesheets and which have no effect on the total work.

### **MakeWithEffort**

#### **(Method to use for Make Project Process on Options Panel)**

MakeWithEffort=0 or 1

*If not specified, then =1 is assumed*

=0 means to use the Normal method for the Make process. Here the system will attempt to preserve the best possible rendition of the assignment dates and effort shown in the Repository Data. Assignment work rate units will be set to distribute the total work over the assignment duration.

=1 means to use the Simple method for the Make process. Here the system will preset all assignments to 100% work rate units, the effort will be set, but the relative dates of the assignments within the task and the repository task finish date will not be preserved. This method is designed for use with method generators and for faster plan construction where date preservation is not the highest priority.

### ***INI Support Options***

These options are provided for support purposes and will not normally be enabled. These must be entered in the [MSPXMLMacroOptions] section of the MarinPMG.INI file to operate. Do not set this =1 unless you need the log file, using it has a very large effect on performance.

#### **logFile**

logFile=0 or 1

*If not specified, then =0 is assumed.*

=0 means that the detailed log will not be produced (faster operation)

=1 means that the PGLog.txt file will be generated in the system TEMP directory each time a publish, make, or update action is done.

#### **doNotTrapErrors**

**(Enable Debugging on the Options Panel)**

doNotTrapErrors=0 or 1

*If not specified, then =0 is assumed*

=0 means that any internal problems will be reported as a dialog box to the user and the operation will be stopped.

=1 means that any internal problems will cause the system to stop with a dialog that allows either termination or the use of the Visual Basic debug facility. This is very useful for support purposes because it can help find the exact point at which the malfunction occurs. However it also will appear on routine user actions such as canceling a project selection in a dialog box. Thus this should only be set when you are actually working with a Marin Research support person to solve a problem.

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## About Marin 2000 M2K XML Technology

The file format used by MS Project (.MPP) is a proprietary format of Microsoft. It cannot be created or modified directly by third party applications. In previous releases, Microsoft provided an alternate format, called .MPX (Microsoft Project Export) which could be used to load and store projects. This interface was used by Project Gateway (and many other products) to create and manipulate project data. Microsoft dropped support for .MPX in the Project 2000 release. While MSP2000 can still read projects in .MPX format, it can no longer export in the Microsoft Project Export format.

To replace .MPX, we have developed a new data format using XML technology. XML is an international standard for application data interchange. Files made using this XML DTD are labeled with the extension ".m2k" (Marin 2000 Format). The Project Gateway Tools for Lotus Notes and ProjectWeb Publisher can now read and write project data in .m2k format files. The new application macros which are provided with Project Gateway for MS Project 2000 read and write project plans in the .m2k format

Internally they contain code that translates the project plan into the .m2k format and which translate the .m2k representation into project plan data. They also implement the Marin Research synchronization procedures to update your MS Project plan with changes made in the Notes Repository.

The .m2k processing is done by macros which are written in Microsoft Visual Basic for Applications (VBA) programming language. We provide these macros ready for use, all you have to do is to install them into your desktop copy of Microsoft Project 2000 using the automated installation procedure.

The definition of the Marin Common Project Format XML Data Type can be seen at the beginning of each .m2k file. Please contact Marin Research if you need information about the internals of this format.

## Common Project Fields - Microsoft Project 2000

C - Create Notes Database/Synchronize Update Notes

M - Make Project File from Database

SP - Synchronize, Update Project

(Txx) means task record field number

(Rxx) means resource record field number

	Common Project Format Data Name	Notes Field Format	C	M	S P	Corresponding Project Field
1	"Task Name"	text	y	y	n	Task Name
2	"Task Scheduled Start Date"	date	y	y	n	Scheduled Start
3	"Task Scheduled Finish Date"	date	y	y	n	Scheduled Finish
4	"Task Baseline Start Date"	date	y	y	n	Baseline Start
5	"Task Base Line Finish Date"	date	y	y	n	Baseline Finish
6	"Task Baseline Cost"	number	y	y	n	Baseline Cost
7	"Task Baseline Work Hours"	number	y	y	n	Baseline Work
8	"Task Actual Start Date"	date	y	y	y	Actual Start
9	"Task Actual Finish Date"	date	y	y	y	Actual Finish
10	"Task Actual Cost"	number	y	y	n	Actual Cost
11	"Task Actual Work Hours"	number	y	y	n	Actual Work
12	"Task Actual Percent Complete"	number	y	y	y	% Complete
13	"Task Additional Cost"	number	y	y	n	Fixed Cost
14	"Task Total Cost"	number	y	y	n	Cost
15	"Task Priority"	number (0-9999)	y	y	n	Priority
16	"Task WBS Code"	text	y	y	n	WBS
17	"Task OBS Code"	text	y	y	n	N/A
18	"Task Notes"	text	y	y	n	Task Note
19	"Task Responsible Manager"	text	y	n	n	N/A
20	"Task Keyword"	text	y	y	n	N/A
21	"Project As Of Date"	date	y	y	n	N/A
22	"Project Task Count"	number	y	n	n	N/A (computed)
23	"Project Start Date"	date	y	y	n	From Project Header
24	"Assignment Resource Name"	text	y	n	n	From Assignment

25	"Assignment Resource Index"	number	y	n		N/A (computed)
26	"Assignment Work Rate Percent"	number	y	y	n	From Assignment
27	"Assignment Total Work Hours"	number	y	y	y	From Assignment
28	"Assignment Baseline Work Hours"	number	y	y	n	From Assignment
29	"Assignment Actual Work Hours"	number	y	y	y	From Assignment
30	"Assignment Scheduled Overtime Work"	number	y	y	n	From Assignment
31	"Assignment Actual Overtime Work"	number	y	y	n	N/A
32	"Assignment Total Cost"	number	y	y	n	From Assignment
33	"Assignment Baseline Cost"	number	y	y	n	From Assignment
34	"Assignment Actual Cost"	number	y	y	y	From Assignment
35	"Assignment Start Date"	date	y	n	n	From Assignment Start or Task Start
36	"Assignment Finish Date"	date	y	n	n	From Assignment or Task
37	"Assignment Duration"	number (hours)	n	n	n	N/A
38	"Assignment Work Rate"	number (0-100)	y	y	y	From Assignment (nearest 1%)
39	"Assignment Percent Complete"	number (0-100)	y	n	n	Used to compute Task %
40	"Assignment Actual Start Date"	date	y	n	n	Used to set Task Actual Start
41	"Assignment Actual Finish Date"	date	y	n	n	Used to set Task Actual Finish
42	"Assignment History"	text	y	n	n	Used to set Actual Hours
43	"Resource Name" (this name is the result of the Edit Resource Selection renaming option if that is used)	text	y	y	n	Resource Name
44	"Resource Standard Cost"	number	y	y	y	Resource Standard Rate

45	"Resource Overtime Cost"	number	y	y	n	Resource Overtime Rate
46	"Resource Cost Per Use"	number	y	y	n	Resource Cost Per Use
47	"Resource Capacity"	number	y	y	n	Resource Max Units
48	"Resource Special Units"	text	y	y	n	N/A
49	"Resource Initials"	text	y	y	n	Resource initials
50	"Resource Notes"	text	y	y	n	Resource Note Record
51	"Resource Code"	text	y	y	n	Resource Code
52	"Resource Group Code"	text	y	y	n	Resource Group Code, used to set the Organization field in Participant Profile.
53	"Resource Original Name" (this name is used during Make Project and Synchronize if the Resource Name has been adjusted using Edit Resource Selection Renaming)	text	y	y	n	Resource Name
54	"Resource Index"	number	y	n	n	N/A (computed)
55	"Task Index"	number	y	n	n	N/A (computed)
56	"Task Hierarchy"	text	y	n	n	Derived from task names and outline structure
57	"Assignment Work Remaining"	number	y	y	y	Computed from Work-Actual on import, used to set Work on export.
58	"Task AUX1/TEXT1"	text	y	y	y	Text1
59	"Task AUX2/TEXT2"	text	y	y	y	Text2
60	"Task AUX3/TEXT3"	text	y	y	y	Text3
61	"Task AUX4/TEXT4"	text	y	y	y	Text4
62	"Task AUX5/TEXT5"	text	y	y	y	Text5
63	"Task AUX6/TEXT6"	text	y	y	y	Text6
64	"Task AUX7/TEXT7"	text	y	y	y	Text7
65	"Task AUX8/TEXT8"	text	y	y	y	Text8
66	"Task AUX9/TEXT9"	text	y	y	y	Text9

69	"Task AUX10/TEXT10"	text	y	y	y	Text10
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1. Project summary dates, costs, hours are imported into the Project Profile document and updated automatically during synchronization
2. Baseline values of task start, finish, work and cost are automatically imported for new assignments and when "reset reference plan" is enabled. If no baseline values are provided in the plan, current task values are used as the repository reference.

### ***Transferring Extended Fields to the Repository***

Text fields Text1... Text10 are automatically exported and will be synchronized with the specified fields of Notes assignment documents.

To include Text1, Text2 etc. in your Notes database, setup the Field definition using the Create Notes Database/Advanced/Fields/Add dialog. Define a Notes field where the Text2 etc. data will be shown. Then, after the database is created, edit the Assignment Form to display the field you have created.