

Using Microsoft Project 98 and V4.0

Introduction

Project Gateway can be used with MS Project 2000, 98, 95 and Version 4.0. Project 2000/2002/2003 is discussed in its own chapter. Project 98 is discussed here. Contact Marin Research if you need instructions for previous versions.

In order to use these systems effectively, you need to install the Project Gateway macros for Microsoft Project. These macros become part of you desktop application.

The purpose of the Project Gateway macros is twofold:

First, to export the information in your plan in a format that is compatible with Project Gateway.

Second, to allow you to use most of the Project Gateway functions directly from within Microsoft Project.

The macros are designed for use with Microsoft Project 98 running in conjunction with a Lotus Notes 32 bit client. They should also be installed if you will be using Project 98 with ProjectWeb Publisher.

Installing the Project Gateway Macros in MS Project 98

These macros make direct calls to the Project Gateway add-in of Notes. You must have the 32 bit version of the Notes Client, and the compatible version of Project Gateway installed to use these macros.

Before installing, please load Lotus Notes and verify that Project Gateway is successfully installed by displaying the Project Gateway About Box (Menu, Actions, Project Gateway...) After verifying this, exit Notes.

To install the Project Gateway macros:

1. Load Microsoft Project 98.
2. Use the File Open command to open the file "ProjectGatewayInstallMacrosIntoGlobal.MPP" . Opening this file will cause the system to display a dialog box telling you that the Project Gateway macros are being installed.
3. Exit Microsoft Project and save the files that have been opened.

When you reload Microsoft Project, you will see the Project Gateway toolbar installed. This small toolbar provides access to the Project Gateway Menu About, Project Gateway Save, AddProject, Update Project and Update Notes functions

Testing Connections

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.

First, make sure that the Project Gateway tools are displayed on the Actions menu in your Notes client.

Next, to test the path setting, open MS Project 98 and click on the "8-ball" on the Project Gateway Toolbar. If an error message appears, then the path statement in your system must be changed before you can use the direct access functions (AddProject, UpdateProject, UpdateNotes) of the macros. The ProjectGatewaySave function can always be used, even if the path is set incorrectly.

To display the current system path, 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;
```

(assuming that Notes is stored in the directory \Notes and that Project Gateway was stored in the directory \PG)

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 change 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, set the path using Control Panel, System Properties, Environment.

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

Please go to the section entitled, "Using the Project Macros."

Using the Project Macros

The basic macros are

Project Gateway Save

Project Gateway AddProject

Project Gateway UpdateProject

Project Gateway UpdateNotes

Project Gateway Save

This macro can be used manually from the Tools menu or Toolbar to save your plan in the form used by Project Gateway. It is used automatically whenever you use the AddProject, UpdateProject or UpdateNotes functions.

In order to take data from Microsoft Project, it must be put into a file form that can be read by the Project Gateway software. The native format used by MS Project, ".MPP" is a proprietary Microsoft file format whose definition is a Microsoft secret. An alternate file format, ".MPX" is provided by Microsoft to export and import project information. Project Gateway makes use of this ".MPX" format. The MPP file contains the project data and the visual layout parameters (fonts, views, table definitions, etc.) specific to your project. The MPX format contains only project data (tasknames, dates, costs, etc.)

Note: There is a common misconception that MPX is the "old" format and that "MPP" is the "new" format. Actually both go back to the first versions of Microsoft Project. MPP is the internal format and MPX is the export format.

Data Validation

When the ProjectGatewaySave function is used, either directly or implicitly when doing AddProject, UpdateNotes or UpdateProject, two special checks are made.

The first check determines whether the project has a title. All projects posted to Project Gateway should have titles. If this field is not set, then a message will appear. Use the File Properties command to set the title and restart the process.

The second check verifies that tasks with actual work are actually marked as started. Project Gateway requires this and will not import the existing actual work of a task without an existing actual start date. The macros notify you of this problem. You should correct the task information and restart the process.

Note: As a rule, you should not enter actuals into Microsoft Project, they should be coming from your Repository. However progress may be preexisting when the project is first published.

WBS Adjustments

When the Project Gateway Save macro runs, it 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 their position in the project outline 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.

Saving the MPP plan

After updating these codes, the ProjectGatewaySave macros saves your .MPP plan. If this is a new project you have just written, you will be prompted for a file name in the Save Project dialog.

Now, the ProjectGatewaySave macro modifies some of the options settings to ensure that the .MPX file it will create will be understandable by the Project Gateway import function. It then saves the file in ".MPX" format using the same file name as the project. So if the project was called "Project Plan 1.MPP" the ProjectGatewaySave macro will create the file Project Plan 1.MPX in the same directory as well as updating the stored version of Project Plan 1.MPP.

Hints: If you have a large project, you can significantly increase speed if you switch away from Gantt view before running any of the Project Gateway macros. Microsoft Project spends much of your time refreshing the screen during the operation of the macros. This can be avoided by displaying a different view while the processing is taking place. For example, display the resource view.

Project Gateway AddProject

This first runs the ProjectGatewaySave process as described above to prepare the project data in .MPX format. It then invokes the Project Gateway Add Project To Database function using the Project Gateway and Notes API to put your project into your repository.

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 command "Tools ProjectGatewayAddProject."
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, use the following procedure:

1. Load the Project .MPP file.
2. Select the MS Project command "Tools ProjectGatewaySave."
3. Use *Create Project In Notes Database, Existing, Add Project To Database* commands from the Notes Actions Menu. Select the .MPX version of the project file which will be in the same directory as your .MPP file. Pick the options, and press OK.

Project Gateway UpdateProject

This will first run ProjectGatewaySave, then call the Synchronize, UpdateProject function to bring information from the Notes database. After the actual synchronization is completed, another internal function "MergeMPXtoMPP" will be run to update the project with the changes found in the Repository.

To Update your project with current actuals from Notes:

1. Load the Project .MPP file.
2. Select the command "Tools ProjectGatewayUpdateProject."
3. If this is the first time this has been done, a dialog will appear. Select the database and press OK.
4. If this is the first time this has been done, 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.
5. The synchronization process will be done and the current project will be updated. A progress dialog and a completion dialog will appear. After you OK the completion message, the updated status will appear in your plan.

Project Gateway UpdateNotes

This will first run ProjectGatewaySave, then call the Synchronize, UpdateNotes function to transfer your current plan to the repository, revising the previously published information.

To Update the Notes database with your current project plan:

1. Load the Project .MPP file.
2. Select the command "Tools ProjectGatewayUpdateNotes."
3. If this is the first time this has been done, a dialog will appear. Select the database and press OK.
4. If this is the first time this has been done, 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.
5. The synchronization process will be done and the current project will be updated. A progress dialog and a completion dialog will appear.

Associating the Database Project with the 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 **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 **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.

Preparing the Project

General

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 "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 tasks and write a note on each task listing the "details" that are supposed to be accomplished within the task. That way there are fewer documents to manage, and less work for the participants. A good goal is to plan one to two tasks per participant per week.

Setting the Project Title

Project Gateway requires that each project has 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.

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 contain an optional setting that will prevent any new participant from being created when a plan is being added or synchronized. If this option is in effect on your site, you will get an error message during the Add Project function if you have used resources not already setup in the Repository. This limitation exists simply to prevent the accidental spread of multiple names for an individual caused by spelling errors.

If you are going to be putting multiple projects into one repository, get an agreement among the project managers for the consistent naming of resources *before* the production database is constructed. This will save much time and effort.

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.

Resource Groups. Group codes are imported and used to set the organization field of new participant profiles. You will still need to create the Organization Profile documents in the Repository. Note 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.

Resource Assignments

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 quite different from the "Task" dates you see on the Gantt View in Microsoft Project.

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.

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

If your task is resource driven, and 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.

Note: A Project Gateway publishing option is available to force the use of Task dates rather than assignment dates. Publishing assignment schedules is the default behavior. If you would rather import the task start and finish dates for each assignment, set the option *useAssignmentSchedule=0* in the *[msproject]* section of the MARINPMG.INI file. See the appendix for the use of this INI file option

Actual Dates.

Project Gateway is designed with the understanding that actual dates and effort will be entered in Notes and planned dates and effort are entered or calculated in Project. Once you have published your plan into your Notes production database, do not enter or adjust actuals in Project since these values will be reset during UpdateProject synchronization to the Notes values.

Note: 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 task with multiple assignments is marked started in Project, but no actual work has been done on an assignment, only those assignments whose scheduled start date is the same as the task actual start date will be marked actually started in Notes when the task is published.

Multiple Assignment. Project Gateway specifically checks the incoming project plans for *multiple assignments of the same resource* on a task. If this is found an error message will appear and the action will

be terminated. This is a very rare problem, but can be created accidentally within Microsoft Project.

Task Types. Use Resource Driven tasks wherever possible. This allows a wider range of actual data to be posted without generating recalculation errors when using Fixed duration tasks.

Note: If the total effort of an assignment has been enlarged within the Notes database, then the task duration of a fixed duration may be changed by Project Gateway to accommodate the extra time required when the project is synchronized. In this situation, Project Gateway will change "fixed" durations. The calculation of the new duration is based upon the total work (actual+workremaining) divided by the Units of the resource assigned to this assignment.

Summary Task Assignments. Project Gateway will publish assignment documents for summary tasks when you have resources assigned to them. 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. The most common situation in which this occurs is when a detail task is promoted to a summary task without removing the resource assignments.

In addition, 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.

WBS Codes. To ensure results during synchronization the Project Gateway Save macro modifies WBS Codes. Do not modify these codes after the project is published.

The codes that are naturally created by MS Project (1.1 etc.) are revised whenever you insert, delete or move tasks in your plan and hence are not useable for comparing versions of the project with one another.

Critical Indicator. If you add the "Critical" field to the Export table, all assignment documents created from Critical tasks in MS Project will have the field pg_critical set to "Y". You can then use this to create a critical path view in Notes.

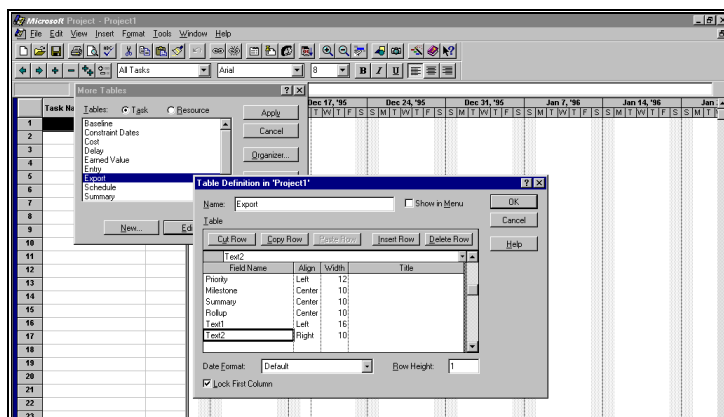
Milestones. An assignment will become a Key Event in Notes if either the MS Project Milestone flag is set Yes, or the start and finish instants are identical.

Transferring Extended Fields to the Repository

If you want to use Text2, Text3, etc., you must first modify the Export Form to include them. As shipped by Microsoft, only Text1 is exported. To change the export form do the following.

From the Menu select View Tables, More Tables, Export.

Press Edit to open the Table Definition Dialog. Scroll to the bottom of the list box where you will see Text1 defined and add additional rows for Text2 etc.



Press OK to exit the dialogs then save the project in MPX format. Any information in the Text2 etc. fields can now be included in your assignment documents.

Note: 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.

Synchronizing the Project with the Repository

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 you new tasks, new assignments, deleted assignments and other changes back to the Repository.

You do not 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 immediately after using UpdateProject so that the team can incorporate your new plan in this week's work and timesheet reports.

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 pay more attention to things that are late than to those which are not 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 that 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 will 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.

For most projects that are not undergoing changes in scope or resources, it's best to leave plans unchanged for as long as possible. Ideally you would never change them once the core of the work was underway.

What happens during UpdateProject?

Tasks are correlated by WBS code and resources are matched by name. For all those tasks and assignments that have been matched, or those being added from the repository, the following will be done:

1. New tasks that have been added to the project in the repository will appear at the bottom of you task list as new "top level" tasks.
2. New assignments that have been made to existing tasks (using the "Compose Additional Assignment" function) will be added to those existing tasks. You will need to display the resource list of the affected task to notice this.
3. If any assignment of a task has been given an actual start date in the repository, then the task will be marked started in Microsoft Project and some percent complete value will be set for the task.
4. If all of the assignments of a task have been given an actual finish date in the repository, then the task will be marked as finished in Microsoft Project and the task finish date will be the latest of the assignment finish dates entered in the repository.

5. 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 resources 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.

6. If an assignment has been reassigned in the repository, the hours expended by the resource will be shown on the assignment of the original resource in Microsoft Project. E.g. Assign "programmer" 20 hours on a task; in the repository, reassign that assignment to "Bill"; when you do UpdateProject, the 20 hours will be reported on the resource "programmer" in Microsoft Project.

UpdateProject does not change your resource assignments. If you want to change them, do so, then do UpdateNotes. When you do, the old assignment in the repository will be marked obsolete and will disappear from view and while the new assignment is created.

7. The resource details will change to track the information provided in the repository. The actual work field will be set to the actual hours entered in the repository. The "work" field will be set to the sum of the actual hours and the work remaining from the assignment document.

8. If the task is fixed duration, and if the resource effort has been increased in the repository, the task duration may have been increased to accommodate the extra work. (If Project Gateway did not do this, Microsoft Project would give an error message).

9. If the task is fixed duration, and if the actual start and actual finish dates reported in the repository are non-work dates on the resource calendar, you can get a calculation error. Adjust the calendar of the resource to allow what has actually occurred.

10. Any resources that were assigned to tasks in the repository will be added to the bottom of your resource list.

Using Two Way Planning during UpdateProject

If the repository planned start is changed, the date entered will be set as the scheduled start date and a "Start No Earlier Than" constraint will be set on the task for the same date. MS Project will then set a new start date that will be the one entered by the user unless other constraints (such as the project calendar) require it to be later.

If the repository planned finish date is changed and the task is a fixed duration task, then the duration will be adjusted so that MS Project will calculate a new finish date for the task that is approximately the one entered by the user.

If the repository planned finish date is changed and the task is a resource driven task, then it is not possible to change the duration, but a note is added to the task that tells the project manager that this change was requested but was not implemented.

If the Microsoft Project task is marked as a milestone in MS Project and has a zero duration, then if the repository finish date is revised by the

user, the start date of the milestone is set to the revised finish date specified in Notes.

In every case, the task note is modified or created by Project Gateway to contain information detailing the change requested by the user and the corresponding adjustment made in the plan. Since the task note is normally published by Project Gateway, a convention has been introduced to prevent Project Gateway from republishing its own comments. Text that is enclosed in { } braces will not be re-imported by Project Gateway.

InterProject Dependencies

If InterProject dependencies are defined in the repository for this project, and if they specify that the project plans should be modified during synchronization, then start no earlier than constraints will be added to the project plan and a task note will be written to explain the reason for the change.

What will not happen during UpdateProject

1. The task outline will not change, although new tasks may be added at the end.
2. The existing resource assignments will not be deleted, even if the assignment is 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 that is usually called "\\Windows\\Temp". Sync.Txt 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.

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 become confused when you keep multiple versions of a project and multiple databases.

What happens during UpdateNotes?

1. For all assignments that are successfully matched, the contents of the existing assignment document will be revised. For assignments in the project that do not have existing assignment documents in the repository, new assignment documents will be created.
2. 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.
3. *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.

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.

5. 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.

6. Changes made in the Taskname, tasknote and other mapped fields will be made in the repository documents.

7. 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".

8. If an assignment document has been deleted from the repository, it will be replaced with a new one.

9. 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.

10. 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.

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 Tools ProjectGatewaySave command. This will save it as an .MPX file with the correct settings and WBS codes. This command will also save the .MPP file for subsequent uses with the revised WBS codes.
3. Exit MS Project.
4. Using the instructions found in the "Publishing Projects" chapter, Create Project In Notes Database - New command, and specify the .MPX file created by the ProjectGatewaySave.

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

Caution: Copying and Pasting Project Tasks. *In general, you can rearrange your project tasks however you like and Project Gateway will correctly synchronize them. If, however, you use paste to create duplicate project tasks or sections, then synchronize may work incorrectly because you may have created duplicate WBS codes. Therefore, whenever you paste sections to create duplicate tasks, manually delete the WBS codes. You can easily do this by adding the WBS column to your Gantt display and just deleting the entries for the new tasks. The next time you synchronize, the macros will assign new, stable and unique WBS codes to the new tasks and synchronization will be done correctly.*

Using Non-English Versions of Microsoft Project 98

Non-English versions of MS Project 98 contain local language translations of keywords such as "As Soon As Possible" in their MPX format files. Project Gateway provides a way to specify the localized version of each of the keywords. See the INI File Options Appendix.

A number of languages are supported. Select the language version you use on the Project Gateway Settings dialog box.

Using MultiProject Plans and 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.

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.

In Microsoft Project 98, you can define dependency links between projects in your master project. When the individual projects are loaded, special gray task bars (optional feature) appear representing the predecessor tasks in the other plans. These "external" or "proxy" tasks are ignored by the Project 98 version of the Project Gateway macros.

Project Gateway does not import cross project dependencies, but you can define InterProject dependencies in the repository for the same relationships.

Common Project Fields - Microsoft Project for Windows

Versions 3, 4, Project 95 & 98

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 MPX Field
1	"Task Name"	text	y	y	n	Task Name
2	"Task Scheduled Start Date"	date	y	y	n	Scheduled Start (T50)
3	"Task Scheduled Finish Date"	date	y	y	n	Scheduled Finish (T51)
4	"Task Baseline Start Date"	date	y	y	n	Baseline Start (T56)
5	"Task Base Line Finish Date"	date	y	y	n	Baseline Finish (T57)
6	"Task Baseline Cost"	number	y	y	n	Baseline Cost (T31)
7	"Task Baseline Work Hours"	number	y	y	n	Baseline Work (T21)
8	"Task Actual Start Date"	date	y	y	y	Actual Start (T58)
9	"Task Actual Finish Date"	date	y	y	y	Actual Finish (T59)
10	"Task Actual Cost"	number	y	y	n	Actual Cost (T32)
11	"Task Actual Work Hours"	number	y	y	n	Actual Work (T22)
12	"Task Actual Percent Complete"	number	y	y	y	% Complete (T44)
13	"Task Additional Cost"	number	y	y	n	Fixed Cost (T35)
14	"Task Total Cost"	number	y	y	n	Cost (T30)
15	"Task Priority"	number (0-9999)	y	y	n	Priority (T95) {medium is 5000}
16	"Task WBS Code"	text	y	y	n	WBS (T2)
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	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 (computed if required)
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 (R1)
44	"Resource Standard Cost"	number	y	y	y	Resource Standard Rate (R42)
45	"Resource Overtime Cost"	number	y	y	n	Resource Overtime Rate (R43)
46	"Resource Cost Per Use"	number	y	y	n	Resource Cost Per Use (R44)
47	"Resource Capacity"	number	y	y	n	Resource Max Units (R41)
48	"Resource Special Units"	text	y	y	n	N/A
49	"Resource Initials"	text	y	y	n	Resource initials (R2)
50	"Resource Notes"	text	y	y	n	Resource Note Record
51	"Resource Code"	text	y	y	n	Resource Code (R4)
52	"Resource Group Code"	text	y	y	n	Resource Group Code (R3), 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 (R1)
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 (T4)
59	"Task AUX2/TEXT2"	text	y	y	y	Text2 (T5) { must be added to export table definition before use }
60	"Task AUX3/TEXT3"	text	y	y	y	Text3 (T6)
61	"Task AUX4/TEXT4"	text	y	y	y	Text4 (T7)
62	"Task AUX5/TEXT5"	text	y	y	y	Text5 (T8)
63	"Task AUX6/TEXT6"	text	y	y	y	Text6 (T9)
64	"Task AUX7/TEXT7"	text	y	y	y	Text7(T10)
65	"Task AUX8/TEXT8"	text	y	y	y	Text8 (T11)
66	"Task AUX9/TEXT9"	text	y	y	y	Text9 (T12)
69	"Task AUX10/TEXT10"	text	y	y	y	Text10 (T13)

1. Project summary dates, costs, hours are imported into the Project Profile document and updated automatically during synchronization.
2. The Notes assignment field "pg_critical" will be created with a value of "Y" if the task is a "critical" in the project plan.
3. 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.
4. To get around a known limitation in MS Project, Project Gateway computes the actual cost of assignments *on completed tasks* and sets both the assignment cost and assignment actual cost to this computed value during Update Project. The cost is calculated as $actualhours * standardrate$.