

Project Gateway 5.1 Installation

Overview

The complete installation and setup of the full Repository Suite will take several hours. If you are upgrading an existing database, then please read this chapter and the chapter on upgrading before starting.

In addition to following the instructions in this chapter, you will want to install the Project Gateway Publishing Tools (Project Manager's User Manual) on to your desktop and that of your project managers so they can upload projects to your new repository.

Server Capacity Planning

Database Size

For evaluation purposes, no more than 2 GB is likely to be needed, even if all of the system components are installed and used.

For a production system, the databases can become large. We have seen Repository databases in medium sized organizations (200 users) in excess of 1 GB. Adding the size of a full text index (typically 1.5x), an Archive (1x over time) and the other system databases (1 x) you could need 5GB for your production system plus space for backups.

Server Performance

In practice, it takes some time to build up the databases and get people using the system. Thus you should have time to monitor performance and make any necessary adjustments without impacting rollout. The following are simply guidelines and should not be taken as hard and fast rules. The "intensity" of use of project management applications varies greatly from site to site. A configuration that comfortably handles 500 users in one environment might be considered inadequate for 200 in another. Most sites find that they can use this application on a shared server, at least initially.

For a 50 user department, the Project Gateway system can normally coexist with your other Domino applications on your existing application server.

For a 100 user department, a single 1GHz CPU server with 512MB should be adequate or a significant fraction of a large shared server.

For installations with 200 or more users, a dedicated high performance multiprocessor server with 1GB or more RAM should be planned.

The Project Observatory application can be located on its own server if required to balance the load.

In general, web users require much more "horsepower" per user than Notes users because all of the form rendering is done on the server.

Domino Server Configuration

The Repository ID

Before you begin you will need to have a Notes User ID available that will be given manager rights to the new databases and which will have rights to run unrestricted agents on the server. You should create a new ID for this purpose.

Email that is sent by agents will show this ID as the "From" field, thus it would be best if this were not your personal ID, because people would think that all these reminders were coming from you (and could decide to reply.)

If you do use the server ID, then make sure that, in this database, this ID is set as an "Unspecified" user type, not as a Server type. This allows it to be used from a client as well as by a server agent.

Note: *We really do not want you to use the serverID.* You should create an ID (e.g., "Project Repository") for this purpose that has a mail file so that the replies that are sent by users will have some place to go.

Repository ID Agent Rights

The UserID used to sign the agents must be given the ability to run unrestricted agents in the Agent Manager section of the server document. Only a few of the agents in our designs actually require the "unrestricted" status. Those that do need the extra features to use local "temp" files on the server in order to construct attachments such as PDF Gantt Charts and XML files.

Server Agent Timeout Setting

Agents should be allowed to run for relatively long periods. We suggest setting the timeout to 2 hours in very large databases. Please do not panic at this statement, many agents run for a short time, often less than a minute per day. Runtimes vary greatly depending on the number of assignments, projects, participants and recent changes. Hence, we feel it is best simply to make sure that the agent manager will allow them to run to completion.

Everything runs quickly in a new small database so you may not need to adjust your agent timeout limits immediately. Unfortunately, the effects produced when agents do not have time to run to completion are subtle and can show up as out of date totals, access control problems, disconnected links, etc. Most of the scheduled agents in these designs have been developed over several releases and have significant field

experience so they are unlikely to hang up.

The following agents are typically the longest running agents:

ProjectGo\AssignmentTracking

Graphics\PGG0

XMLRepositoryLink.

The following agents are the most critical so far as maintaining proper operation:

PGPostem

MaintainDashboards

MaintainAccessControl

ECL

The Execution Control List for the UserID used to sign agents must have all possible authorities. This dialog is accessed as an Action.

The Setup Process

To install this system you will do the following:

1. Retrieve, Copy, and Sign each of the system databases.

Every site will have a Repository database, but not all will have licensed or have immediate need for the Metrics, Costing, Archive, Requests, Wireless, or TimePortal components.

Instructions for this step are included in this chapter.

Note: If you are also installing Project Observatory, see the Observatory System Guide 1 for its installation instructions. Note however, that you no longer install the Repository Observatory Link or Request Observatory Link because they are already preinstalled in Project Gateway 5.1.

2. Set the Access controls for each database.

In general, all system users, including senior executives, should be listed as Authors with create rights (and delete rights at your discretion.) Some individuals should be given the role of "PGADMIN" which gives them the power needed to correct user errors and control most aspects of system operation. Only the Notes designer community and the Notes administrators should have Editor, Designer or Manager rights. This same rule applies to all of the databases.

3. Setup and configure the administration documents.

The Repository Administration Form

The Repository Administration form is prebuilt and requires only a few mandatory adjustments for your site, but it has a large number of

customization options that should be reviewed with your database or project administrator.

Instructions for this step are contained the two chapters entitled "Configuring the Repository" and "Timesheet and Document Customization."

Instructions in the first of these chapters should be done before the Repository Agents are activated.

The Suite Administration Forms

Each of the Suite components requires a short individual setup process to create its administration form.

Instructions for this step are found in the chapter entitled "Configuring the Suite Databases"

4. Activate the database agents in each database.

This can be done very efficiently using the AgentStatusReport facility as described in this chapter.

Details on the functions of the individual agents are found in the chapter entitled "Project Gateway Agents"

5. Install Project Gateway publishing tools

This is a client process done only on the Notes client desktops of the project managers who will be using them (this is usually a small number of people).

This work does not involve the server. Instructions for installing and using the client software are found in the Project Managers Users Manual.

6. Create the Repository Profile Structure.

This is an "owner" task that does not require Notes Administration. It is briefly outlined in the chapter entitled "Initializing the Repository Structure." Much more information is found in the Repository User's Guide.

7. Revisit the system periodically to make sure it is running correctly.

The AgentStatusReport is very helpful in this review.

Step 1. Retrieve Copy and Sign the databases

Project Gateway can be installed on Notes 4.6.2 and later servers including Notes Release 5.03-5.09 and later. Any Notes server platform can be used. The actual installation and setup procedure is done from a Windows Notes client.

Installation Packages

There are several installation packages for Project Gateway 5 that are provided on the distribution CD. Depending upon which version you

receive, Standard, Repository Suite, or Evaluation, you will have some or all of the following sub directories on the CD.

Note that everything is located under a top level "PG" directory.

../DATABASE - Database Installation files. This will contain all databases in the Repository Suite and Evaluation versions. This will install only the Repository Suite database in the Standard version.

../PGTools - Installation Files for Project Gateway Tools for Notes Clients. These should be installed on Notes Clients using Project Management applications or creating Repository Schedules.

../PWPub - ProjectWeb Publisher Software for Web Clients using Project Management Applications. Not included in the Standard version.

../SERVER -

HTML These are the files which should be put in the Domino Server HTML directory

PWPAPI - this contains the Server API DLL that must be installed for ProjectWeb Publisher support. Not included in the Standard version.

../DOC

ADMIN, PM, USER directories - Contains the full text of all three Project Gateway manuals provided in PDF format.

../DEVINFO - This contains a detailed design analysis of the database designs produced by the Ives Team Studio(Tm) software.

../WIRELESS - This contains the files used to construct PQA for use with the Wireless Portal database.

Installing Server HTML Files

The Server\HTML directory of the CD contains a set of files that must be copied into the HTML directory of the Domino Server. These files are .GIF's used by the application. Installing these components requires direct access to the server operating system.

Before installation,

R4: Check the Server Record, HTTP Server Section of the Name and Address Book to find the directory used for HTML files.

R5: Check the Internet Protocols, Mapping section of the server record). The default is usually domino\html, but it could be different on your system.

To install, put the CD in the drive and use Explorer or File Manager to copy the files to the designated HTML directory. Do not create an additional subdirectory.

Planning your Databases

Before you begin, define a set of file names and titles names for the new databases.

We suggest that the file names should be as short as possible to minimize the length of URLs that will be generated in emails sent by the database agents.

We suggest that the database titles should begin with some common characters so that they are found next to each other in the Database Open List. Database titles are displayed throughout the system in very prominent places. Choose a short title that will not cause wrapping.

Subdirectories

In general, URLs are shorter if the databases are located in the root directory, however, you can place them in a subdirectory with the following conditions:

1. Keep the subdirectory path as short (in length) as possible.
2. Do not allow any spaces or special characters such as & % ! etc. in the pathname or the filename. Such punctuation will prevent some parts of the system from correctly functioning in web operation.

Marin Research Database Design File	Suggested File Name	Database title
PG51REPO.NSF	P5R.NSF	"Co. Name Projects"
PG51COST.NSF	P5C.NSF	"Co. Name Costs"
PG51METR.NSF	P5M.NSF	"Co. Name Metrics"
PG51ARCH.NSF	P5A.NSF	"Co. Name Archive"
PG51WRKR.NSF	P5W.NSF.	"Co. Name Requests"
PG51WIRE.NSF**	P5P.NSF	"Co. Name Wireless"

Database Planning Worksheet

Marin Research Database Design File	Your File Name	Your Database title
PG51REPO.NSF		
PG51COST.NSF		
PG51METR.NSF		
PG51ARCH.NSF		
PG51WRKR.NSF		
PG51WIRE.NSF		

**Note that the pg51wire.nsf is only needed if you want to provide wireless access to Palm users. You may not want to install it.

Transferring the Marin Research Designs to your workstation

Using Windows Explorer, drag the database designs from the \DATABASE subdirectory of the distribution CD into your local Notes Data directory.

For each database, right click to open the "Properties" and uncheck the "read only" flag.

Using the Notes Client File Database Open command, add each databases to your workspace using the Database Open "Add Icon."

Creating your production databases

Starting from each of the 6 design file icons, **use File Database New Copy** to create each database on the server. Remember to rename the file and set the database title according to your plan. Copy the Database design, documents and the access control list.

When done, open each of the databases on your desktop. Only the repository center database contains existing documents.

You are making a new copy so that you will have a unique replica ID for your databases. We do not want you to have databases on your production system that might have the same replica ID as those which we distribute.

Note: For Domino 4.6, in the copy dialog box, set the "SIZE LIMIT" to 4 GIGABYTES for each database (the default is 1GB and cannot be easily changed after the database is created). Setting these large sizes **does not** preallocate 4GB of disk space, it simply allows the tables to grow larger if this is ever necessary in the life of the database.

Signing your production databases

Using your Repository ID, sign each database.

Login under the ID you have created for this purpose and use the command Tools, Server Administration. Select the server and press the "Database Tools" button. Select each of the databases in turn, and select "Sign A Database" with the option "Sign Every Design Note"(R5 select the first option: Sign "All design documents").

Step 2. Set the Access controls for each database.

Once the databases are available, the system administrator should setup the access control list for each database as follows.

The ID used to sign agents should be defined as Manager with the roles of [PGADMIN] and [PGMASTER]. This is essential for proper agent operation.

The Users should be defined as authors.

A small number of people in each database should be given the role of [PGADMIN] so that they can make profile changes and generally correct data problems.

Those people who may be involved in making design changes should be Designers and should also have the [PGADMIN] and [PGMASTER] roles.

Step 3. Configure the Administration documents in each database

For the repository, following the steps in the following two chapters.

For the suite databases, follow the steps in the chapter entitled "Configuring the Suite Databases."

Note: Anyone who is designated with the [PGADMIN] role can perform these steps. The Notes Administrator should check the work to see that file names and URLs are correctly entered.

Step 4. Activate the database agents in each database.

Activating the Agents

All of the design elements in each of the databases must be signed. The ID used should have the right to run unrestricted agents on the server (this property is set in the Agent Manager section or (in R5), in the security tab of the Server Record in the Name and Address Book database). You should have already done this.

All scheduled agents should be scheduled for operation on this server. Even though you may replicate the databases, all the agents should run on a single system to minimize conflicts. Generally, when the system is first installed, agents should run frequently. After the system is in production, you can reduce the frequency.

Kinds of Agents

Each of the databases in the system (Repository, Archive, Costing, Metrics, Requests, Wireless, ETP) contains agents. These fall into 3 different categories loosely grouped as Admin Agents, Scheduled Agents, and Web Agents.

Admin Agents appear on the Notes Client menu to allow the system administrators and users to perform certain immediate actions. Most of these are restricted to use by someone with the [PGADMIN] role. These allow the administrator to "force" a process that would normally be done by a scheduled agent such as posting timesheets.

Scheduled Agents are run periodically by the server. These perform a variety of important functions such as maintaining userids for security, posting timesheets, sending reminders and updating the project dashboard with current status.

Web Agents execute when a web form is opened or closed or when a particular URL is executed to the database. Unless one of these actions is done, they do not execute at all.

Activating your scheduled agents

You can open designer and activate each agent individually or you can use the Enable function of the Agent Status Report to activate all of the

scheduled agents in a single action. Whenever you activate an agent manually, make sure you are choosing the correct server and an appropriate scheduling frequency. Information on individual agents is found in the chapter entitled "Project Gateway Agents."

The Agent Status Report

The Agent Status Report is a tool that is integrated into all of the Project Gateway (and Project Observatory) databases. This tool allows you to verify proper operation and to enable and disable the scheduled agents very easily.

Using the AgentStatusReport in the Repository

Open the repository database that you have just created.

On the navigator panel, on the "Reports" item.

On the Reports panel, click "Open the repository administration form."

This will display the Repository Administration Form which is also called the "Field Map" Document.

At the top of this form, you will see the "Agent Status Report" action button. Click it, and wait.

After a pause that may last 30 seconds, the Agent Status Report form will be displayed.

At the top of this form are two actions: Enable Agents and Disable Agents. These will affect all of the scheduled agents in the database.

If you are opening the database for the first time, look at the columns labeled Owner and ServerName.

In the Owner column, you should see the name of the ID which you use to sign the database (and which you should be using right now.)

If you see the name "DesignRelease" then you should stop at this point and go back to signing the database.

If the Owner names are correct, then select the Enable Agents action.

This function first checks to make sure that your current ID is a manager of the database. If not, you will get an error and will be stopped. So in a production system, no one other than a Notes admin will be able to use these functions, even though the buttons may be visible to others.

Enabling the Repository agents will again take some time, perhaps as long as a minute to complete. When done, the agent status report will close. At this point you should close the database and reopen it. Note, when you use the Enable function in the other databases, it will be much faster because there are fewer agents to process.

Why close and reopen? Notes maintains a copy of the "agent status" in you client. This will not be refreshed until you reopen the database. Thus, even though the enable function has been done, a check of the agent list may show that the agent have not been enabled. To prevent

this confusion, and to get the correct status, close and reopen whenever you use the enable or disable buttons.

Understanding the output of the Agent Status Report

The ASR report shows 5 columns

1. This will contain either yes or no for scheduled agents. Agents which are not scheduled will have "..." in this column.
2. This will contain the time last run for every agent. If the agent is a scheduled agent, and if it has never been run, it will contain the words "WHY NOT?" In a production system which has run for a week or more, the words "WHY NOT?" indicate either a problem or a deliberate action by some designer or manager to disable the function. In a newly created database, many of the agents will not run until the evening, so WHY NOT? will appear for the first day, but should be largely gone by the second day.
3. This will contain the name of the agent.
4. This will contain the ID used to sign or last modify the agent. This should be your "Repository ID" The name shown here must be listed in the server document as an ID with the rights to run agents on that server, otherwise the agent will never actually run, even if it is signed.
5. This will contain the name of the server on which the agent is scheduled to run. This must be the name of your production server. Otherwise the agent will never execute. For non-scheduled agents, this will be blank.

Using the Agent Status Report in the other databases

The ASR is always found on the Administration Profile Document. Simply follow the Administration navigator items to find the profile document. Note that these documents should already be created if you have followed the instructions in step 3 above.

Step 5. Installing the Project Gateway Tools for Project Managers

The "Project Gateway Tools" enable the convenient interoperation between the Domino Repository and Project Management scheduling software such as Microsoft Project 2000. It should also be installed on the workstations of those people (if any) who will be using the legacy Repository Schedules feature. No one else needs this software installed.

These tools act as an extension of the Lotus Notes Client (R4 and R5) and actually add additional menu commands to the Notes Client.

To install this software the installation program found in the PMTools directory must be run on the client system. You may do this by passing around the distribution CD or by putting a copy of the contents of the PMTools directory on your File server. Note that the installation process must be run on the client, not from the server.

See the instructions in the Project Manager's User Guide.

Note: For users of Microsoft Project, additional installation steps are required to properly configure the MS Project part of the tools. These essential steps are found in the Project Manager's User Guide in the chapters Using Microsoft Project 98 and Using Microsoft Project 2000.

Additional Setup for Connecting to Project Observatory™

Project Gateway 5.1 is Observatory enabled. While the Project Observatory manuals provide instruction for installing the Repository Observatory Link and Request Observatory Link, these steps have already been done in PG 5.1.

All that is needed to connect is to fill in the appropriate settings in the Repository administration form (Repository Suite, Observatory and Portal Setup) and activate the agents as part of the normal setup. As soon as projects appear in the Repository, they will be transmitted to the Observatory.

Additional Setup for Project Web Publishing

If you do not intend to use the ProjectWeb publishing facility, then follow the instructions in the section titled "Disabling ProjectWeb Operation."

Installing Server API File

Note: Installing this is required only if you are going to use the ProjectWeb Publisher. If all your project managers will be using Notes Clients, then you do not need to install this component. This component requires an Intel NT Domino Server.

The SERVER\PWPAPI directory of the CD contains a single file (PMTSVR32.DLL) that must be installed on your Domino Server. This component requires an Intel processor.

To install, put the diskette in the drive and use Explorer or File Manager to copy this file to the \System32 subdirectory on NT4. Installing this component requires direct access to the server operating system.

Modifying the MIME table on the Domino Server

The Domino server installation installs a text file named "httpd.cnf" that defines the MIME type used for file attachments. This file is found in the Notes\Data directory. To use the ProjectWeb publishing system, you should add an additional entry to the table for the application\cpf MIME type that is associated with ProjectWeb.CPF files.

Occasionally, we have found that the .cnf files have been configured by the Windows operating system to point to a protected Microsoft shortcut. If you encounter problems opening the file with a text editor; then we recommend that you rename the file 's extension through DOS to a ".txt" extension and then proceed to open the file in Notepad to edit the file.

Open the httpd.cpf file with a plain text editor and add the line first shown below in the table:

```
#####  
#      Map suffixes to the content-type of a file.  
#      Defaults: see list below  
#      Syntax: Addtype <.suffix><representation><encoding><quality>  
#              <quality> is optional  
#      This directive may be defined multiple times in the configuration file.  
#####  
AddType .cpf      application/cpf          binary 1.0 # Marin Common Project Format  
AddType .mime     www/mime                 binary 1.0 # Internal -- MIME is
```

Note: you must provide copies of the ProjectWeb Publishing software to your web endusers. You have the right to put the PWP files from the Project Gateway distribution CD onto your file servers for download to your users if desired.

Disabling ProjectWeb Operation

Not all sites will want to use ProjectWeb Publisher.

Disable or delete the agent: "ProjectWeb Publishing Agent."