

Progress Dynamics for OpenEdge 10.1A Software Configuration Management

Roundtable® TSMS and Progress Dynamics Installation and Setup

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Contents

| | | |
|----------|---|-----------|
| 1 | INTRODUCTION | 5 |
| 2 | ROUNDTABLE INTEGRATION OVERVIEW | 5 |
| 2.1 | ROUNDTABLE SITE NUMBERS..... | 5 |
| 2.2 | ROUNDTABLE CODE SUBTYPES..... | 6 |
| 2.3 | ROUNDTABLE PRODUCT MODULES..... | 8 |
| 2.4 | ROUNDTABLE WORKSPACES | 9 |
| 2.4.1 | <i>Proposed Roundtable Workspaces</i> | 9 |
| 2.4.2 | <i>Receipt (read-only) Workspace</i> | 10 |
| 2.4.2.1 | Development Workspace..... | 10 |
| 2.4.2.2 | Test Workspace..... | 10 |
| 2.4.2.3 | Deployment Workspace..... | 10 |
| 2.4.3 | <i>Workspace Naming Conventions</i> | 11 |
| 2.4.4 | <i>Example Roundtable Environments</i> | 13 |
| 2.4.4.1 | Example Site 000 – Default | 13 |
| 2.4.4.2 | Example Site 101 | 15 |
| 2.5 | CENTRAL ROUNDTABLE REPOSITORY FOR PROGRESS DYNAMICS..... | 16 |
| 2.6 | ROUNDTABLE PARTNER SITE DEPLOYMENTS | 17 |
| 2.6.1 | <i>Roundtable Partner Site Deployment Packages</i> | 17 |
| 3 | INSTALLATION AND SETUP | 19 |
| 3.1 | INSTALLING AND UPDATING SOFTWARE | 19 |
| 3.1.1 | <i>Progress OpenEdge</i> | 19 |
| 3.1.2 | <i>Roundtable</i> | 20 |
| 3.1.3 | <i>Roundtable Dynamics Add-on pack</i> | 20 |
| 3.1.4 | <i>Directory Structures</i> | 20 |
| 3.1.4.1 | OpenEdge Installation | 20 |
| 3.1.4.2 | Progress Dynamics Installation | 21 |
| 3.1.4.3 | Roundtable Installation | 21 |
| 3.1.4.4 | Progress Dynamics and Roundtable Working Environments | 21 |
| 3.1.4.5 | Database Locations | 22 |
| 3.1.4.6 | Roundtable Setup Shortcut..... | 22 |
| 3.1.4.7 | Roundtable Desktop Shortcut..... | 23 |
| 3.2 | ENVIRONMENT CONFIGURATION | 26 |
| 3.2.1 | <i>Configuring Roundtable</i> | 26 |
| 3.2.1.1 | Roundtable License Information | 26 |
| 3.2.1.2 | Roundtable Site Information | 27 |
| 3.2.1.3 | Creating Roundtable Workspaces | 27 |
| 3.2.2 | <i>Progress Dynamics</i> | 31 |
| 3.2.2.1 | Progress Dynamics Configuration File..... | 31 |
| 3.2.2.2 | Session Configuration Types..... | 32 |
| 3.2.2.3 | Session Type | 32 |
| 3.2.2.4 | Creating a New Session Type from the Repository | 37 |
| 3.2.2.5 | Generating a Configuration File | 40 |
| 3.2.3 | <i>Progress AppServer Brokers</i> | 40 |
| 3.3 | CREATING A NEW ROUNDTABLE ENVIRONMENT | 41 |
| 3.3.1 | <i>Progress Dynamics Environment</i> | 41 |
| 3.3.1.1 | InstallShield Installation | 41 |
| 3.3.2 | <i>Roundtable Environment</i> | 41 |
| 3.3.2.1 | Roundtable Partner Site Package | 42 |
| 3.3.2.2 | Roundtable Partner Site Package Load..... | 42 |
| 3.3.2.3 | Roundtable Receipt Workspace | 45 |
| 3.3.3 | <i>Update the Development Workspace</i> | 56 |
| 3.3.3.1 | Development Workspace Population..... | 56 |

| | | |
|----------|--|-----------|
| 3.3.3.2 | Workspace Sources..... | 57 |
| 3.3.3.3 | Create Workspace Databases..... | 58 |
| 3.3.3.4 | Workspace Import | 58 |
| 3.3.3.5 | Database Connection Parameters..... | 62 |
| 3.3.3.6 | Database Schema Update..... | 62 |
| 3.3.3.7 | Setting the X-Ref level..... | 66 |
| 3.3.3.8 | Workspace Cross Reference (X-Ref) Compile | 67 |
| 3.3.3.9 | Create a Release..... | 68 |
| 3.3.4 | <i>Start Using the Workspaces</i> | 69 |
| 3.3.5 | <i>Deploying to Other Workspaces</i> | 70 |
| 3.3.5.1 | Separate Releases | 70 |
| 3.3.5.2 | Unmanaged Data | 70 |
| 3.4 | UPDATE AN EXISTING ROUNDTABLE ENVIRONMENT..... | 73 |
| 4 | ALTERNATIVE WORKSPACE CONFIGURATIONS..... | 74 |
| 5 | LINKS TO RELATED DOCUMENTATION..... | 75 |
| 6 | TECHNICAL SUPPORT..... | 76 |
| 6.1 | DYNAMICS SUPPORT | 76 |
| 6.2 | ROUNDTABLE DYNAMICS SUPPORT | 76 |

1 Introduction

Roundtable® is a Software Configuration Management (SCM) package designed specifically for the Progress® 4GL and RDBMS. Roundtable integrates with the Progress development environment seamlessly and provides programmers, quality assurance staff, and managers with a wide range of powerful tools to develop and manage deployment of software applications.

This white paper describes the steps involved in setting up and configuring Progress Dynamics® (OpenEdge Release 10.1) to work within a Roundtable environment, and how to configure Roundtable to support and integrate with Progress Dynamics.

The contents of this document only apply to OpenEdge 10.1A. Customers using 10.0x should not use this document for configuring Roundtable and Dynamics.

This white paper assumes knowledge of Roundtable and does not attempt to explain any of the Roundtable terms used or how to use Roundtable in general. For that level of information, please see the Roundtable product documentation.

It is also important to note that this paper is not intended to be complete documentation on how to use Roundtable and Dynamics. It complements the information in the product documentation set. In addition, users, especially system administrators, should have working knowledge and experience with the use and configuration of Roundtable before attempting the procedures documented here.

If you are already familiar working with previous versions of Progress Dynamics and Roundtable, note that OpenEdge 10 introduces the following differences:

- Progress Dynamics is no longer a separate install but is installed as part of OpenEdge Studio. The instructions in this white paper reflect the new installation process.
- The Receipt Workspace has changed to 092dyn-dep.
- The Roundtable Site Number has changed to 092.
- The root directory for Progress Dynamics is now 'dynamics' instead of 'icf'.

2 Roundtable Integration Overview

2.1 Roundtable Site Numbers

Roundtable site numbers are not related to Progress Dynamics site numbers in any way. The two site numbers do not need to be the same, and in most cases will not be.

The Progress Dynamics site number is used to ensure that data in each Progress Dynamics repository is unique and does not clash when exported to other Progress Dynamics repositories.

The Roundtable site number is used only when you have more than one Roundtable repository and must move information from one repository to another; that is, you are doing distributed development. Using multiple repositories is an advanced feature of the Roundtable system. The default Roundtable site number value is 000 and that is the value you would typically use.

Progress Dynamics uses a Roundtable site number of 092 in the OpenEdge release to help avoid clashes with others who wish to manage their development environments using Roundtable, as well as the development environment for Progress Dynamics 2.1x which uses site number 090. The majority of Roundtable users have a site number of 000, which is the default for a new Roundtable repository.

Site numbers are Roundtable's way of ensuring that code that does not belong to your site is not accidentally changed. Changing any of the Progress Dynamics code entails moving the Progress Dynamics code to a module owned by the current site, thereby creating a custom variant.

Loading a new release of Progress Dynamics does not automatically overwrite custom variants, and the developer gets a chance to review the Progress Dynamics changes and can either overwrite the changes, integrate them, or ignore them.

All Progress Dynamics Roundtable workspaces and modules are prefixed with the Roundtable site number 092.

2.2 Roundtable Code Subtypes

In Progress Dynamics prior to Version 2.1A, there was a one-to-one relationship between the Progress Dynamics Object Type and the Roundtable Subtype. This is no longer the case. A table has been added to the Dynamics repository to solve this problem. This table stores SCM cross-reference (X-Ref) data, which contains the relationships between the Object Types in Dynamics and the Code Subtypes in Roundtable. The integration code has been modified to support this functionality. Instead of hard-coded links between the Dynamics and Roundtable repositories, these links are now stored as data that is used to translate between Object Types and Code Subtypes when the framework and Roundtable are used.

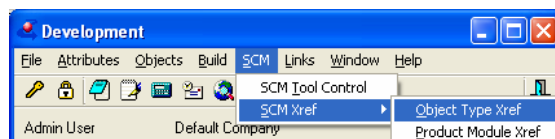
There are significantly more Progress Dynamics object types necessary than there are Roundtable Code Subtypes. Since users should not modify any of the standard set of object types that ship with Dynamics, it is necessary to create a new object type that extends the standard object type and then customize this new object type.

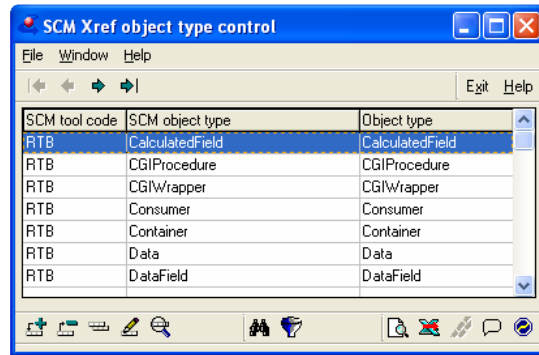
Once an object has been assigned to a Code Subtype in Roundtable, it is not possible to change the code subtype the object is linked to as well as some of the basic properties of Code Subtype.

To accommodate the customization of object types in Progress Dynamics, the integration with Roundtable has been extended to look up the relationship between the Roundtable Subtypes and Progress Dynamics object types. The new object type no longer needs to conform to a naming standard to allow the Dynamics Object Type to be mapped to the correct Roundtable Code Subtype.

Instead, the new Object Type has to be registered in the SCM Object Type X-Ref control, which is accessible from the SCM menu off the Dynamics Development menu:

1. Open the Object Type X-Ref control. SCM → SCM Xref → Object Type Xref.





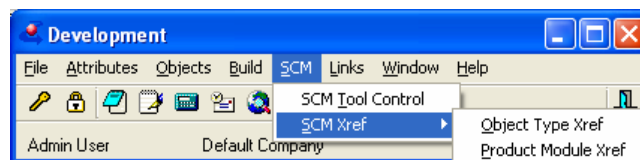
By way of example, if you extend the object type SDO to create a new object type, mySDO that extends SDO, then you can point the new object type mySDO to the same SDO subtype as the normal SDO. This means that moving existing objects to point at the new mySDO object type would not result in a change to the Roundtable subtype.

The limitation here is that while one Roundtable subtype can point to many Dynamics object types, a Dynamics object type can only point to one Roundtable subtype. This avoids having to ask for the subtype to use when doing the mapping.

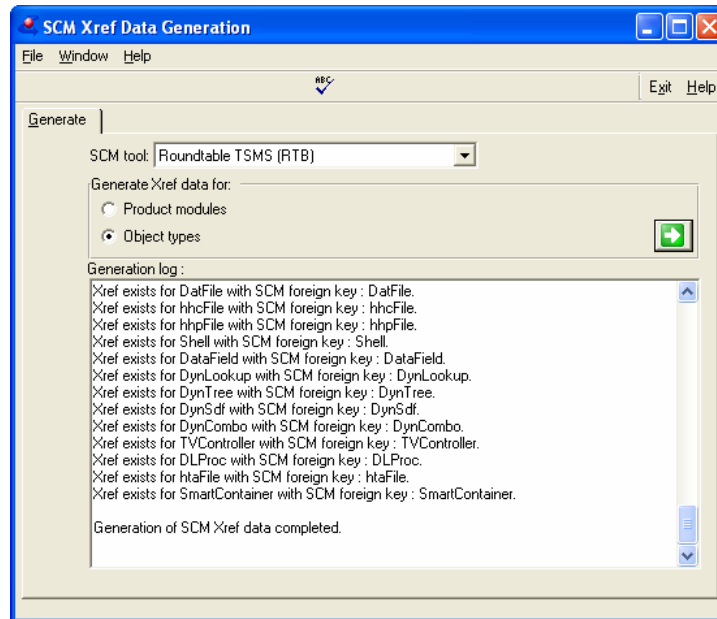
As there is not much functionality linked to a Roundtable subtype, the recommendation is to use as few Roundtable subtypes as possible to avoid the issue of having to change a subtype, which Roundtable does not currently allow. Dynamics object types, on the other hand, define class behavior and must be defined at a much lower level of granularity.

If you are updating an existing repository to Dynamics 10.1A, you must ensure that all Object Types are registered with valid SCM X-Ref data before using them with Roundtable and Dynamics. This can be done automatically by running the Generate SCM X-Ref Data tool from the SCM menu off the Dynamics Development menu:

2. Open the X-Ref Data tool, SCM → SCM Xref → Generate Scm Xref Data from the Development Tool.



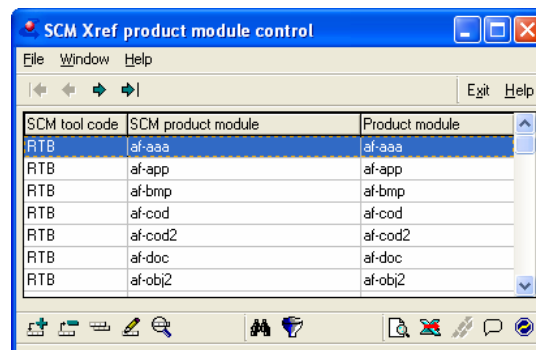
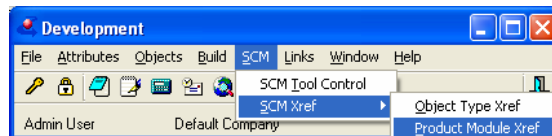
3. Press the green button to generate SCM X-Ref data.



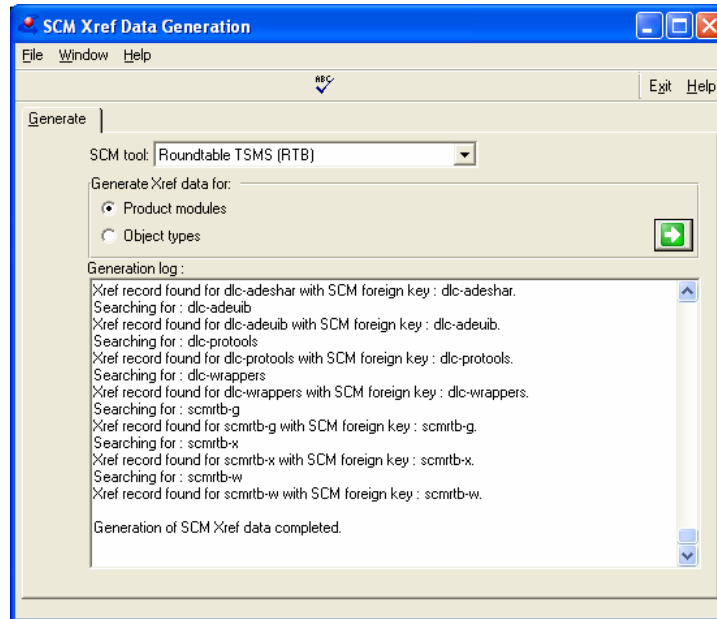
2.3 Roundtable Product Modules

The SCM X-Ref functionality introduced to maintain the links between Progress Dynamics Object Types and Roundtable Code Subtypes also maintains the links between product modules in the two repositories. This eliminates the need for strict naming conventions when setting up product modules in either of the repositories. The limitations until now have been that the base name of the product module must match in both Dynamics and Roundtable. Roundtable requires product modules to be prefixed with the Roundtable site number. This is still a requirement on the Roundtable side, but is not necessary for the corresponding product modules in Dynamics:

1. Open the SCM Xref product module control, SCM → SCM Xref → Product Module Xref.



2. All of the Dynamics framework product modules are delivered with a valid set of data that links with corresponding product modules in the Roundtable repository. Users must generate the correct SCM X-Ref data for their own product modules before the integration between Roundtable and Dynamics will work. This is done using the SCM X-Ref Data Generation tool:



The SCM X-Ref data that links the product modules together does not contain Roundtable site number prefixes for the SCM data. This eliminates having multiple sets of SCM X-Ref data for custom variant product modules where the base name is essentially the same, for example, “092ry-obj” and “ry-obj”. The integration code adds or deletes Roundtable site number prefixes as necessary to ensure this data is valid.

For product modules, the same limitations exist as for object types when doing this mapping, that is, one Roundtable product module can point to many Dynamics product modules, but a Dynamics product module can only point to a single Roundtable product module. It is wise to try to limit the number of Roundtable product modules where possible due to the implications of an object changing its product module in Roundtable.

2.4 Roundtable Workspaces

Roundtable provides the ability to maintain multiple environments by managing configurations of your software applications in workspaces. A workspace is a copy of all of the components that make up your application, including your application code and related databases. Roundtable manages the creation, deletion, and modification of objects (code, databases, tables, fields, and text) within and between workspaces.

You can have multiple workspaces for a single development project, with each workspace representing a different stage of development. Changes made within a workspace do not affect other workspaces unless they are migrated to them.

2.4.1 Proposed Roundtable Workspaces

A typical development site would have a *receipt* workspace for loading the contents of Roundtable Partner Site Deployment packages (contents of another Roundtable repository) and workspaces for the different QA stages of your product development. These could be

Development, Testing, and Deployment. See workspace explanations and the example diagram later on in this document.

2.4.2 Receipt (read-only) Workspace

This is a read-only workspace containing a snapshot of a workspace from another physical Roundtable repository. For the Progress Dynamics environment, the receipt workspace contains the standard version of Progress Dynamics delivered by Progress.

This workspace is used to load changes to Progress Dynamics whenever they are delivered in the form of new Partner Site Deployments. Updates to Progress Dynamics can be reviewed in this workspace using standard Roundtable tools and reports. Once changes are reviewed, they can then be imported into the application workspaces for use as they are, or modified by creating custom variants.

You cannot modify objects directly in this workspace. The workspace can only be used as a reference for the standard version of Progress Dynamics as delivered in the deployment package. This workspace only contains Progress Dynamics-specific modules and objects.

2.4.2.1 Development Workspace

The Development workspace is used as the main development area for the application development. It is used to create, modify, and delete new objects, data, and other components that make up the configuration of the workspace.

The Development workspace is initially populated and updated by importing contents and structure from the receipt workspace. This workspace is used for customizing to standard framework objects, as well as creating, deleting and modifying application specific objects.

Since the contents of this workspace change frequently, its main function is for development and unit testing, usually done by programmers.

2.4.2.2 Test Workspace

The Test workspace is the next stage of the QA flow. It is built by importing content and changes from the Development workspace. This workspace is stable enough for significant quality assurance testing.

Although it is possible, changes should normally not be made to objects in this workspace. Whenever possible, bugs found in programs in the Test Workspace should be fixed in the development workspace. The new version of the objects should be imported into the Test workspace, where they can be tested.

2.4.2.3 Deployment Workspace

The Deployment workspace is usually the end of the QA flow for application development. It typically contains a configuration of the application that is nearly identical to the deployed application in a live environment. Since this workspace can often be used as a reference point in confirming bugs and issues found by end users, it should be a fully functional environment.

Although Roundtable does make it possible to track changes made to objects in this workspace, it is normally not recommended. Clear, in-house rules for which workspaces can be used to modify objects and fix bugs should be in place to prevent unnecessary problems with object orphans and quick fixes not being included in core development.

2.4.3 Workspace Naming Conventions

IMPORTANT: To successfully load a Roundtable Partner Deployment package, the receipt workspace **MUST** always be named the same as the workspace for which the Roundtable Partner Site Deployment packages were created.

The Progress Dynamics deployment workspace is called **092DYN-DEP**. Therefore, this is the name that should be used for a receipt workspace for the standard Progress Dynamics Framework.

The workspace name is prefixed with the Roundtable site number from the deploying repository, which is 092 for the Progress Dynamics Roundtable repository. The reason for this is that the data files with internal repository information from the delivering Roundtable site make use of the exact workspace name. If the workspace name is not correct, the loaded data will be incomplete, rendering the repository unusable.

NOTE: Roundtable does not give any indication of incorrect naming when loading a deployment package.

All workspaces that are not receipt workspaces from other sites must be prefixed with the current Roundtable site number. This is only the case if the Roundtable site number has been set to something other than 000. If you are using the default site number 000 (for a Master Site), then the site number prefix is not needed. For site 000, Roundtable will not allow the use of a three-digit numeric prefix for workspace names.

Except for the requirement from Roundtable to prefix workspace names with the site number, there is no other workspace naming convention restrictions for the Progress Dynamics and Roundtable integration.

For Roundtable environments based on the Progress Dynamics framework and the integration of this with Roundtable, it is recommended that workspace names conform to the naming convention illustrated below. This will ensure a seamless integration of the Progress Dynamics and Roundtable environments without any need for customizing the integration code itself.

The default Progress Dynamics naming convention for the workspace name contains a single hyphen separating the Roundtable site number (if not 000) and an application code from the workspace area code (the same as the stage in the flow of workspaces).

The workspace name is structured as follows:

[###]app-xxx

= The Roundtable site number as a three-digit integer, if the site number is set.

app = The application code. This is a short code or name used to identify the application being developed in Roundtable. For example, the code for the Dynamics framework is "dyn".

xxx = The area, for example, DEV - Development, TST - Testing/QA, DEP for Deployment.

EXAMPLES:

Progress Dynamics Deployment Workspace (092dyn-dep):

The central Progress Dynamics Roundtable Repository has a Roundtable site number of 092 and an application code of "DYN", so the deployment workspace for Progress Dynamics is 092DYN-DEP. This is the name used for the Progress Dynamics receipt workspace.

Application development workspace with Roundtable Site Number 000

For most Roundtable installations where there are no external development partners also using Roundtable, the site number is 000. In this case, it is not possible to use the site number as a prefix in Roundtable.

A workspace used for developing and maintaining customizations to the standard progress Dynamics framework, a suggested name of **dyn-dev**.

The tables below illustrate workspaces using a Roundtable site number of 000. The first table shows suggested workspaces that could be used for enhancement and/or customization of the Progress Dynamics framework. The application code has been kept as "DYN". The example environment consists of the following workspaces:

| Area | Description | Workspace Name |
|------|-------------------------------|----------------|
| DEP | Receipt (read-only) Workspace | 092DYN-DEP |
| DEV | Development Workspace | DYN-DEV |
| TST | Test Workspace | DYN-TST |
| DEP | Deployment Workspace | DYN-DEP |

If the Roundtable environment is used to develop and maintain an application with Progress Dynamics as the foundation, and in addition consists of more than just the framework, using an application code other than "dyn" is recommended, for example, "app".

Possible workspace names are illustrated in the following table:

| Area | Description | Workspace Name |
|------|-------------------------------|----------------|
| DEP | Receipt (read-only) Workspace | 092DYN-DEP |
| DEV | Development Workspace | APP-DEV |
| TST | Test Workspace | APP-TST |
| DEP | Deployment Workspace | APP-DEP |

A combination of the above two scenarios allow for customizing of the Progress Dynamics framework in a separate workspace, which can then be included in the application development workspace once the customizations have been tested and approved, is shown in the following table:

| Area | Description | Workspace Name |
|------|----------------------------------|----------------|
| DEP | Receipt (read-only) Workspace | 092DYN-DEP |
| DEV | Dynamics Customization Workspace | DYN-DEV |
| DEV | Development Workspace | APP-DEV |
| TST | Test Workspace | APP-TST |
| DEP | Deployment Workspace | APP-DEP |

The advantage of this approach is that customizations and extensions to the framework can be made in an isolated workspace where they can be tested and approved without impacting others working on application development, until they are ready to be included in the actual application development environments.

Therefore, this is the recommended approach for most application development.

If the overhead of having the additional "dyn-dev" workspace is undesired, then the second example can be used instead. If this approach is chosen, note that any customizations that are made to the framework in the "app-dev" workspace will affect others working in the workspace.

If these workspace names do not conform to your requirements, you can modify them to suit your naming conventions. Roundtable does provide for renaming workspaces. However, the workspace names should be planned carefully before the environments are configured. See the Roundtable product documentation for further information.

Application development workspace with Roundtable Site Number 101

If you need to work with multiple physical sites and Roundtable installations for application development, make sure that each of the different sites has its own unique site number. This site number must be unique among the various sites working on the same application. To avoid possible conflicts with Roundtable deployments from existing Dynamics and Roundtable-based repositories, choose a series of site numbers above 100.

It is common to have a Master site that is responsible for the main application development, testing, and deployment. This site typically has site number 000. All other partner sites then need to have site numbers other than 000.

In the example below, a Roundtable site number of 101 is used for the Master Site. All other sites should have site numbers that do not conflict with this site number or any other known site numbers from development partners. The best approach is for the master Site to allocate site numbers to all other partners.

This particular environment is for enhancement and/or customization of the Progress Dynamics framework. The application code is still “DYN”. If the Roundtable environment is being used to develop and maintain an application that used Progress Dynamics as a foundation and consists of more than just the Progress Dynamics Framework, use an application code other than “dyn”.

The following table shows the workspaces for this environment:

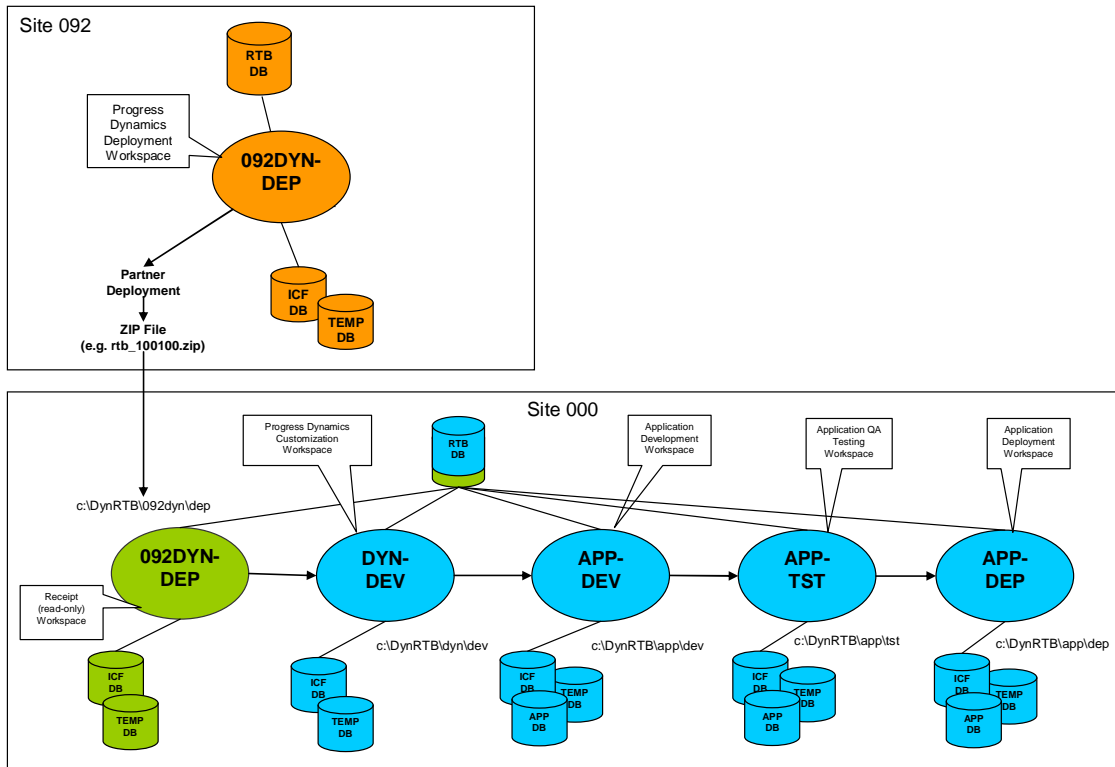
| Area | Description | Workspace Name |
|------|-------------------------------|----------------|
| DEP | Receipt (read-only) Workspace | 092DYN-DEP |
| DEV | Development Workspace | 101DYN-DEV |
| TST | Test Workspace | 101DYN-TST |
| DEP | Deployment Workspace | 101DYN-DEP |

2.4.4 Example Roundtable Environments

2.4.4.1 Example Site 000 – Default

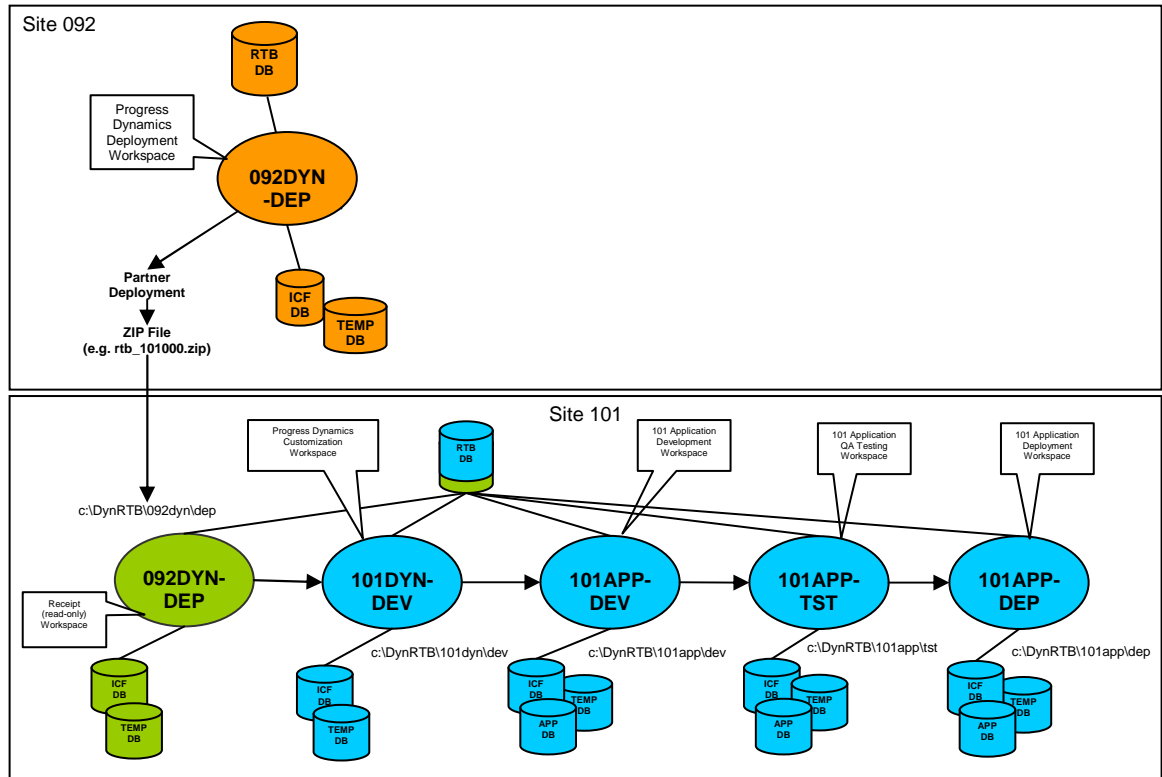
The following diagram explains a sample basic Roundtable environment for Roundtable site 000. It consists of a “dyn-dev” workspace containing framework customizations and enhancements, as well as application workspaces.




Unless there are known development partners/sites using Roundtable from the start of the development process, it is recommended that the structure below is used for developing Dynamics applications using Roundtable.



2.4.4.2 Example Site 101

The following diagram explains a sample basic Roundtable environment for Roundtable site 101. It is only a basic example of what an environment could look like:



-  Progress Dynamics Central Roundtable Release Workspace & Databases
-  Customer Application Progress Dynamics Receipt Workspace & Databases
-  Customer Application Development Workspaces & Databases

The individual databases required for the Roundtable environment and workspaces are:

| | |
|---------|--|
| RTB | For Roundtable only a single database for the whole environment. |
| ICFDB | A workspace Progress Dynamics framework repository. |
| TEMP-DB | A workspace database to compile the Progress ADE module ADM2. |
| APPDB | A workspace database for each of your application databases. |

2.5 Central Roundtable Repository for Progress Dynamics

A central Roundtable repository for Progress Dynamics is maintained by Tugboat Software along with the central Progress Dynamics repository database. This central Roundtable repository has a deployment workspace called **092DYN-DEP**. All deployments of the Progress Dynamics Roundtable repository are made from this workspace, which is why the receipt workspace explained above has this name.

The workspace is only used to register the latest commercial Progress Dynamics code and then to subsequently create Roundtable Partner Site Deployment packages for release. The repository does not, therefore, contain details of the modifications made to the code, who made them, and so on. The repository does however contain a full version history of the changes made to Progress Dynamics objects between releases, giving the opportunity to review the changes made between each version.

The Progress ADE and Progress Dynamics product modules that are currently registered and deployed with Roundtable are:

- `/src/adecomm` Progress ADE common source files (only some files are registered).
- `/src/adeedit` Progress ADE edit tools source files (only some files are registered).
- `/src/adeshar` Progress ADE shared source files (only some files are registered).
- `/src/adettdb` Progress ADE Temp-DB database definition file (only some files are registered).
- `/src/adeuib` Progress ADE AppBuilder source files (only some files are registered).
- `/src/adm2` Progress ADE ADM2 source code.
- `/src/protools` Progress ADE tools source files (only some files are registered).
- `/src/wrappers` Progress ADE generic included source files (only some files are registered).
- `/src/dynamics` Progress Dynamics source code.

The remainder of the Progress ADE has not been loaded into Roundtable. The Progress ADE source base is quite extensive and is made up of many individual subcomponents. Each of these components has specific requirements for development and compilation. Progress uses a script called “pbuild” to do a full compile of the ADE. In addition to the volume of code (which is normally not included as part of an application developed with the Progress toolset), there are several temporary databases that are used in various ways when this compilation is done.

As there are several temporary databases and extensive requirements for compiling the various components of the complete ADE, only the specifically identified and required modules have been loaded into Roundtable.

2.6 Roundtable Partner Site Deployments

Roundtable provides the ability to do a special form of deployment for Partner Sites. These Partner Site deployments include selective internal Roundtable repository information. The Roundtable Partner Site Load utility is used to update the Roundtable repository with the information contained within the Partner Site deployment package.

A standard Roundtable Partner Site Deployment package contains both the Roundtable directories and the workspace/application-related code.

In order to reduce the size of Progress Dynamics Roundtable Partner Site Deployment packages, the Progress Dynamics source code is excluded from the delivered Roundtable packages. This code is already included in the Progress Dynamics distributed media.

The source code for the objects contained in the deployment package is included in the repository data that is deployed as part of a Partner Site Deployment. The source code is available in the Roundtable repository once the Partner Site deployment has been loaded. From here it is then possible to use the Populate Workspace function to extract the source code to disk.

Each Roundtable Partner Site Deployment package (related to a specific Progress Dynamics release/version) contains ONLY Roundtable-specific directories (/rtb_*) generated as part of the deployment. These directories contain the necessary data files needed to update a Roundtable repository to contain a snapshot of the deployed workspace.

The directories included in the package are:

/rtb_dbup

/rtb_idat

/rtb_inst

/rtb_temp (This is only a temporary directory and does not contain any data or files.)

2.6.1 Roundtable Partner Site Deployment Packages

The standard product installation processes for Progress Dynamics does not automatically install the Roundtable Partner Site Deployment package. For each release of Progress Dynamics there will be full and incremental versions of the Roundtable Partner Site Deployment package.

The Roundtable Partner Site Deployment packages are available for download from the Progress Electronic Software Distribution web site (<http://www.progress.com/esd/>).

The Roundtable Partner Site Deployment packages are in zip file format. The filename is prefixed with "rtb_" and followed by a set of number codes to identify whether it is a full deployment or an incremental deployment.

The deployment numbers are structured as follows:

rtb_**xx****yyzz**[_**xxyyzz**]. zip

xx = The Version number, for example, version 1

yy = The Revision number for the Version, for example, version 1.1

zz = The Service Pack number for the Revision of the current Version, for example, version 1.1 SP 1

For full Partner Site Deployment packages, only the latest version number is referenced.

For incremental Partner Site Deployment packages, the previous and current version number (from_to) are included in the name.

Partner Site Deployment packages naming convention, examples:

| Deployment | Status | Type [From → To] | Filename |
|------------|-------------|----------------------|-----------------------|
| 10.1A | Full | V .10.1 | rtb_101000.zip |
| 10.1A | Incremental | V.10.1 → V.10.1 SP 1 | rtb_101000_101001.zip |

CAUTION: The Partner Site Deployment packages must be loaded in the correct sequence, beginning with the earliest one. Any alterations to the package before loading or loading in the incorrect order might corrupt the Roundtable repository.

Once a full deployment has been loaded into a Roundtable repository, subsequent loads and updates of the receipt workspace must be done with the correct sequence of incremental deployments. Failure to do this can result in corruption of the version history and repository contents.

3 Installation and Setup

This section describes the processes for setting up and maintaining a Roundtable environment (repository and workspaces). Although there might be references to general Roundtable usage and configuration, the following sections are specific to a Roundtable environment that is integrated with Dynamics. Basic understanding and experience in using Roundtable is assumed throughout this document. Therefore, there might be some sections where steps are not described in as much detail as users would expect from a complete User's Guide.

The installation and setup consist of the following areas:

[Installing and Updating Software](#)

[Environment Configuration](#)

[Creating a New Roundtable Environment](#)

[Update an Existing Roundtable Environment](#)

3.1 Installing and Updating Software

The required software and minimum supported versions are:

[OpenEdge](#) → OpenEdge 10.1A.

Service Packs for Progress can be downloaded from <http://www.progress.com>.

[Roundtable](#) → Roundtable 10.0A.

Patches for Roundtable can be downloaded from <http://www.roundtable-tsms.com>.

Roundtable Dynamics Add-on pack.

Roundtable Dynamics Add-on pack can be downloaded from <http://www.roundtable-tsms.com>.

3.1.1 Progress OpenEdge

Progress Dynamics 10.1A is part of the Progress OpenEdge Studio 10.1A product and does not require a separate install.

Install the required version of OpenEdge Studio, if not already available. For OpenEdge installation instructions please refer to the OpenEdge product documentation.

OpenEdge should be installed locally, for example, C:\Progress\OpenEdge.

If multiple versions of Progress or OpenEdge are needed on the computer, install these into separate directories. One suggestion for naming conventions of the Progress installations could be the following:

Progress 10.1A C:\OpenEdge101A or C:\Progress\OpenEdge101A

3.1.2 Roundtable

Install the required version of Roundtable using the default installation tools for Roundtable. For Roundtable installation instructions refer to the Roundtable product documentation.

Roundtable should be installed locally, for example, C:\Roundtable or C:\Roundtable\100A.

Considerations:

Since the Roundtable repository with multiple workspaces can become quite big, allocate ample space for the Roundtable repository database from the start. Reconfiguring the database through dump and load is a very time-consuming process. With a setup similar to the examples shown earlier, the repository database can easily reach 500MB in size.

The Roundtable repository database should be located on a database server with fast network access (as the Roundtable client is a heavy, fat client with large amounts of network traffic) and a backup scheme for the repository should be made from the start. As the repository is taken into use, the Roundtable database will represent a significant value in both time and content.

Further instructions on the installation of Roundtable and the Roundtable database can be found in the Roundtable product documentation.

If there are multiple users on the network, create a network installation of Roundtable that each user can access. Alternatively, a “master” of the Roundtable installation (including customizations, desktop shortcuts, and so on.) can be placed on a file server. Whenever changes are made to the setup, this master can then be updated, and users can update their local installations from there.

If a Roundtable installation or upgrade was done, continue by launching the Roundtable Setup shortcut according to Roundtable installation instructions.

3.1.3 Roundtable Dynamics Add-on pack

Install the required version of the Roundtable Dynamics Add-on pack for Roundtable 10.0A. Follow the Roundtable installation instructions which can be downloaded on the Roundtable support site. <http://www.roundtable-tsms.com/support/>

3.1.4 Directory Structures

Have a clear convention for the naming of directories and the files within these directories. The adoption of a company standard will facilitate the setup and maintenance of the in-house environments, as well as environments for the deployed application.

This section contains a description of a suggested directory structure for a Roundtable and Dynamics-based environment. There are no functional requirements for this structure to be used. It is only intended as an example of a working setup.

3.1.4.1 OpenEdge Installation

A default OpenEdge installation is located in C:\Progress\OpenEdge.

It is sometimes necessary for more than one release of OpenEdge to co-exist on a system. When a new release of OpenEdge is installed, for example, there may be a requirement to preserve the previous installation for a period of time.

This is particularly true when the Dynamics code needs to be upgraded in individual Roundtable workspaces. Before each workspace is upgraded, a session based on the older

OpenEdge release is used to access it, while a session based on the newer release is required to complete the upgrade and to access the workspace thereafter.

For this reason, a naming convention that supports multiple releases is recommended for the OpenEdge installation directory name. For the 10.1A release of OpenEdge, for example:

C:\Progress\OpenEdge101A

or, for a shorter and simpler path:

C:\OpenEdge101A

Important: In the following sections of this document, an OpenEdge installation directory of “C:\Progress\OpenEdge” is used. Change all references as needed to reflect the actual installation if the examples are being copied from this document.

3.1.4.2 Progress Dynamics Installation

Progress Dynamics is installed with a default installation of OpenEdge Studio (Complete: install ALL components), or with a custom install that includes it.

Prior to the OpenEdge release, Dynamics required a separate install from the corresponding Progress version.

3.1.4.3 Roundtable Installation

Roundtable is typically installed into C:\Roundtable.

The examples in this document show Roundtable installed in C:\Roundtable. If multiple versions of Roundtable are needed, Roundtable could be installed into a subdirectory of C:\Roundtable instead.

Once Roundtable has been installed on a single local system, the contents of the installation directory can be copied directly onto other systems without having to go through the full installation procedure again. When Roundtable starts the first time, the necessary registry entries for the Roundtable client are created. The only disadvantage of copying an existing installation is that the shortcuts that are created as part of an InstallShield install are not created on the new systems. This is not a big problem, as the short cuts for any Roundtable environment will have to be customized before they can be used.

3.1.4.4 Progress Dynamics and Roundtable Working Environments

You should keep all of the files and directories that make up one or more Progress Dynamics and Roundtable environments in a well-defined structure. The example structure described below can be used as a guideline for Roundtable and Dynamics development environments:

System File and Source Code Directory Structure:

| | |
|---------------------|--------------------|
| Root directory | C:\Dynamics |
| Configuration Files | C:\Dynamics\config |
| Ini files | C:\Dynamics\ini |
| Pf files | C:\Dynamics\pf |
| Working Directory | C:\Dynamics\work |

(This directory can then be further split up into sub directories for each site if needed for example, C:\Dynamics\work\092 for site 092)

The structure above can be used to maintain all of the files that are needed to define and configure the Roundtable/Progress Dynamics Environment.

The physical directories for the various workspaces can also be included in this structure. Here it is a good idea to name the directories so that the Roundtable sites and the different workspaces can easily be identified from the names of the subdirectories. For example:

| | |
|--------------------------------|------------------------------|
| General Workspace Directory | C:\Dynamics\rtbws\ |
| Site 092dyn Workspaces | C:\Dynamics\rtbws\092dyn |
| Site 092dyn Deployment Receipt | C:\Dynamics\rtbws\092dyn\dep |

| | |
|-------------------------------|---------------------------|
| Site 000 Dynamics Workspaces | C:\Dynamics\rtbws\dyn |
| Site 000 Dynamics Development | C:\Dynamics\rtbws\dyn\dev |
| Site 000 Dynamics Test | C:\Dynamics\rtbws\dyn\tst |
| Site 000 Dynamics Deployment | C:\Dynamics\rtbws\dyn\dep |

3.1.4.5 Database Locations

A number of databases are needed for the basic environment, as well as for each workspace environment. Depending on whether the Roundtable and Progress Dynamics environments are being installed on a stand-alone system or in a network with file servers and databases servers, the requirements for the locations of databases will vary.

The following example structure is based on an installation on a local system with all databases located together.

As with the above section, it is a good idea to have a root directory structure that then contains a series of subdirectories with the databases for each of the different sites and environments worked with. A database directory structure similar to the above file structure follows:

| | |
|---------------------------------------|-----------------------------------|
| General Database Directory | C:\Dynamics\db |
| Site 000 Roundtable Database | C:\Dynamics\db\rtb |
| Site 000 Dynamics Databases | C:\Dynamics\db\dyn |
| Site 000 Dynamics Development ICFDB | C:\Dynamics\db\dyn\dev\icfdb |
| Site 000 Dynamics Development TEMP-DB | C:\Dynamics\db\dyn\dev\temp-db |
| Site 101 Dynamics Databases | C:\Dynamics\db\101dyn |
| Site 101 Dynamics Dev. ICFDB | C:\Dynamics\db\101dyn\dev\icfdb |
| Site 101 Dynamics Dev. TEMP-DB | C:\Dynamics\db\101dyn\dev\temp-db |

3.1.4.6 Roundtable Setup Shortcut

The Roundtable setup is used to create or update the schema of the Roundtable repository, as well as compile the source code of the Roundtable client. It is important to use the correct version of the Roundtable repository, and that the source code for the Roundtable client has been compiled against a database with the correct schema.

If Roundtable is installed using the standard InstallShield package, then there should already be a shortcut for Roundtable Setup. If not, the syntax for the setup shortcut is shown below:

Shortcut – Command Line:

| |
|---|
| C:\Progress\OpenEdge\bin\prowin32.exe -p C:\Roundtable_update.w |
|---|

Start in: C:\Dynamics\work

(For readability, each element of the command line has been written on a single line. They should all be on the same line when used.)

Use the Roundtable Setup shortcut to create/update the Roundtable environment, if required.

Build the Roundtable repository according to instructions, if required.

Upon completion of building and updating the schema of the database, compile the Roundtable source objects according to Roundtable setup instructions.

3.1.4.7 Roundtable Desktop Shortcut

The Roundtable environment is managed from a single session started with a desktop shortcut. The sessions and environments that make up the various workspace environments will then be managed from the same Roundtable session.

This section describes the setup and properties of a shortcut for Roundtable.

Shortcut – Command Line:

```
C:\Progress\OpenEdge\bin\prowin32.exe
-pf C:\Dynamics\pf\oe101A_rtb100a_101.pf
-ininame C:\Dynamics\ini\local_oe101A_rtb100a.ini
-icfparam ICFCONFIG=C:\Dynamics\config\icfconfig_101.xml
-p C:\Roundtable\_rtb.r
```

Start in: C:\Dynamics\work

(For readability, each element of the command line has been written on a single line. They should all be on the same line when used.)

There are various icons available from the Roundtable installation directory and the Progress Dynamics “adeicon” directory that can be used together with this shortcut.

The shortcut starts up a Progress Session (normally the Progress Desktop) together with the Roundtable Tabletop.

The different elements of this command line are explained in detail below. (Before the shortcut can be set up, each of the files mentioned below must be in place.)

oe101A_rtb100a_101.pf – Parameter file used by the shortcut.

This file contains the basic Progress session startup settings as well as the connection to the database. The RTB database connection is the only database connection needed for the Roundtable client.

Name the .pf files so that the environment they are used for can easily be identified. The file in the example below has been named to identify the Progress version, the Roundtable version, and the Roundtable site number. This is just an example of file naming.

There are no functional requirements or restrictions in the naming of these files. However, with files and directory structures, it is always a good idea to have clear and concise naming conventions that make it possible to easily identify components of the different environments that might exist on the same system.

C:\Dynamics\pf\oe101A_rtb100a_101.pf:

This .pf file includes the session parameters from the standard icf.pf file supplied with Progress Dynamics.

An example of a pf file is shown below:

```
-db C:\Dynamics\db\rtb\rtb.db -ld rtb
-inp 16384
-baseADE "" # no PL's added to PROPATH
-Bt 512 # buffer size for temp-tables
-D 500 # directory size
-l 1000 # local buffer size
-mmax 65534 # maximum memory
-nb 150 # nested blocks
-s 128 # stack size
-TB 31 # speed sort
-TM 32 # merge number
-d mdy
-yy 1950
-tok 1600
-debugalert # debug-alert-box
-zn
```

The `-baseADE` parameter is used to set the base path for Progress to use when loading .pl files at session startup. If this has a value "", no .pl files except those specifically referenced in the PROPATH (set in the .ini file for the session) will be loaded into memory. If .pl files from a specific version of Progress are needed in the PROPATH, enter the gui directory of the relevant Progress installation, for example, "C:\Progress\OpenEdge\gui".

For more information on the session parameters, refer to the Progress product documentation.

`local_oe101A_rtbl00a.ini` – Progress Initialization File

The environment initialization file contains the Roundtable installation directory, the Progress ADE PROPATH, and some basic DLC PROPATH elements. Use a standard Progress Dynamics .ini file, delivered as part of OpenEdge Studio, as a starting point. The standard file is located in <OpenEdge Install>/bin/icf.ini

If the example directory structure described earlier is being used, place a .ini file for the Roundtable environment in the relevant "ini" directory.

As with other system files it is a good idea to have a clear naming convention for the files. The above example refers to an .ini file with the following properties:

The file is for a *local* OpenEdge 10.1A installation.

If some users are using local OpenEdge installations and others are using a central network installation of OpenEdge, it is important that the PROPATH in the .ini file refers to the correct installation.

The version of Roundtable being used is 10.0A (useful if there are multiple versions of Roundtable installed).

Roundtable controls the Dynamics-specific elements of the PROPATH for each workspace. It does this by adding the workspace paths to the top of the session PROPATH on connecting to a workspace. The PROPATH in the .ini file contains the elements that are common to all workspaces.

```
<...>
PROPATH=C:\Roundtable,.,<...default DLC PROPATH...>
<...>
```

This file must contain the Roundtable root directory entry ahead of the default PROPATH as well as some changes to the standard Progress Dynamics PROPATH. Some of the Dynamics-specific entries are not needed in the Roundtable .ini, as they are maintained as part of the PROPATH management done by Roundtable.

The following example shows a valid PROPATH for an .ini file (each element is shown on a new line for readability – they should be in a single line separated by the appropriate O/S delimiter, which should be a comma for WIN32):

```
PROPATH=C:\Roundtable,
.,
C:\Progress\OpenEdge\gui\adecomm.pl,
C:\Progress\OpenEdge\gui\adeicon.pl,
C:\Progress\OpenEdge\gui\adeshar.pl,
C:\Progress\OpenEdge\gui\adeuib.pl,
C:\Progress\OpenEdge\gui\protools.pl,
C:\Progress\OpenEdge\gui\adeedit.pl,
C:\Progress\OpenEdge\gui\adedict.pl,
C:\Progress\OpenEdge\gui\prodict.pl,
C:\Progress\OpenEdge\gui\adecomp.pl,
C:\Progress\OpenEdge\gui\adedesk.pl,
C:\Progress\OpenEdge\gui\adexml.pl,
C:\Progress\OpenEdge\gui\adeweb.pl,
C:\Progress\OpenEdge\gui,
C:\Progress\OpenEdge,
C:\Progress\OpenEdge\src,
C:\Progress\OpenEdge\bin
```

The Dynamics and Progress paths shown in the example above refer to an OpenEdge installation in C:\Progress\OpenEdge.

Connections to workspace databases and additional PROPATH elements needed for the application development environments are handled by Roundtable when a workspace is selected.

The Progress Dynamics Configuration File Manager, which runs as part of a combined Roundtable and Progress Dynamics session, only controls the AppServer and Manager connections and additional parameter/variable information. This is different from a default Progress Dynamics session where the Configuration File Manager also controls database connections for the session. This is explained in more detail in the next section.

icfconfig_101.xml - The Progress Dynamics environment configuration file.

This file contains all the Session Type connection and configuration information needed for a session type running in a Roundtable and Progress Dynamics session. A single configuration file for the whole Roundtable environment (for all of the required workspaces) is needed.

To use this file, the –icfparam parameter is used as part of the command line to specify the Progress Dynamics configuration filename to use. The Session Type within this configuration file must not be specified as part of the startup, as this is retrieved and assigned at the time of changing workspaces from Roundtable. This is different from a standard Progress Dynamics session, where the session type is also needed when using the –icfparam startup parameter.

The name of the file in this example is the same as a standard icfconfig.xml file for Progress Dynamics, but with “_101” added. As there is only one file for all of the environments at a specific site, it is enough to identify the configuration file with the site number. As long as the name of the file is correct in the –icfparam startup parameter, there are no requirements for the naming of the file.

This does not need to be a valid working configuration file at this stage. The contents of this file will be configured when the various workspaces and other needed environments are configured.

The configuration file and setup requirements are covered later in the section, [Progress Dynamics Configuration File](#).

3.2 Environment Configuration

With every installation or upgrade, the following components of your Roundtable and Progress Dynamics environments must be reviewed and correctly configured.

Please follow each point in this section very carefully step-by-step.

[Configuring Roundtable](#)

[Roundtable License Information](#)

[Roundtable Site Information](#)

[Creating Roundtable Workspaces](#)

[Progress Dynamics](#)

[Progress Dynamics Configuration File \(icfconfig_101.xml\)](#)

[Session Configuration Types](#)

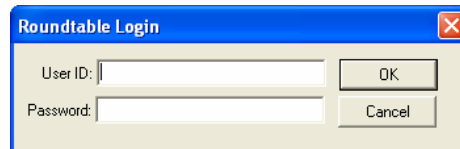
[Progress AppServer™ Brokers](#)

3.2.1 Configuring Roundtable

Start your Roundtable session using the created desktop shortcut.

Log in with a valid user ID and password. If this is the first time you log in or security is not enabled in Roundtable, any user ID and password will do.

If security is needed for the Roundtable repository, you need to create a valid user ID and password from the Admin | Security menu in Roundtable. When users are created in Roundtable, it is also necessary to assign the password for the Roundtable Administrative user “sysop”. This password will be required when any of the administrative options in Roundtable are accessed:



3.2.1.1 Roundtable License Information

When a Roundtable repository is used for the first time, the serial number and control codes from the License Addendum for Roundtable must be entered.

Roundtable checks the license information in the repository every time a user logs into the system. If the number of licensed users is exceeded, Roundtable prevents the latest logged in users (those exceeding the user count) from using Roundtable to change any information in the repository. It is possible for these users to use Roundtable for information purposes only.

1. The license information for Roundtable can be edited by using the Update Record button in the About Roundtable dialog (Help → About).



3.2.1.2 Roundtable Site Information

Ensure your site number is set correctly. If not, change the number before continuing. The site number can be set by using the Update Record button at the About Roundtable dialog (Help → About).

If you are unsure about the Roundtable Site Number, refer to the Section [Roundtable Site Numbers](#) and to the Roundtable User Documentation.

The site number you set here is not the Progress Dynamics site number, but the Roundtable site number, which is used for Partner Deployment and receipting. The Progress Dynamics and Roundtable site numbers do not need to match. In most cases they will not match, because the format of the Dynamics site numbers and the Roundtable site numbers are different. Ensure you use unique numbers for all your own development environments.

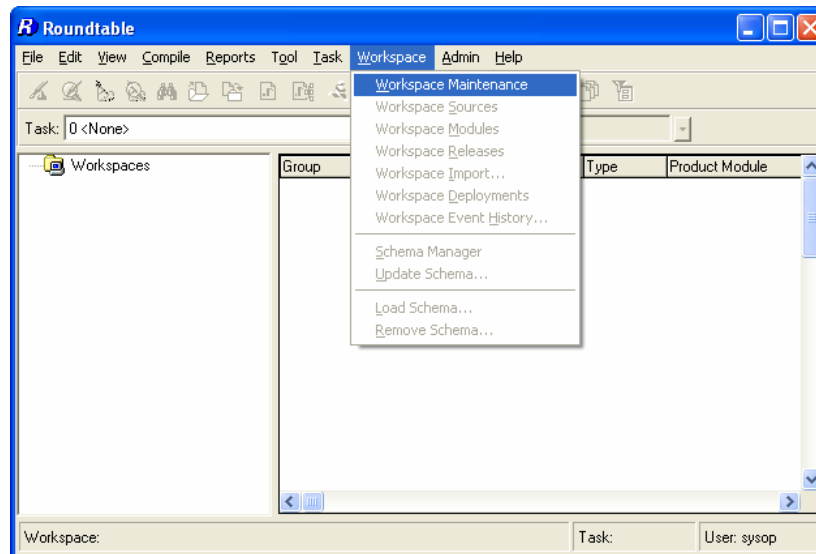
The default value is 000 and that is the value you would use in a typical Roundtable environment. The Roundtable site number for the central Progress Dynamics repository is 092. If this environment is used as a distribution environment, make sure that all sites to receive the deployment packages have a unique site number. Progress Dynamics has reserved site 092 and therefore no other sites can use this.

Since there are other known places where site numbers below 100 are being used, you should use a site number higher than 100.

3.2.1.3 Creating Roundtable Workspaces

Before you can use Roundtable, you must configure the repository. Much of the basic configuration information, such as code subtypes and product and product modules, are provided with the Partner Deployment Package. The workspaces needed for using the Roundtable and Dynamics environment must be created.

1. To create workspaces, select Workspace Maintenance from the Workspace menu:



For more information on Roundtable Workspaces, refer to the section [Roundtable Workspaces](#) and the Roundtable User Documentation.

Create the Progress Dynamics Receipt workspace (092dyn-dep) using the Roundtable Workspaces window by specifying it as a Partner Site Workspace.

Create the site-specific workspaces necessary for development, testing, and deployment of Dynamics and the Dynamics-based application.

A significant amount of setup and workspace configuration is needed before all of the workspaces can be used. It is a little early to create all of the workspace at this time. However, the next section requires setting up the Dynamics configuration file, which must include a session type for all of the workspaces. So decide on the names of the workspaces you want to use at this time.

Create all the needed workspaces and set the appropriate workspace paths for each workspace.

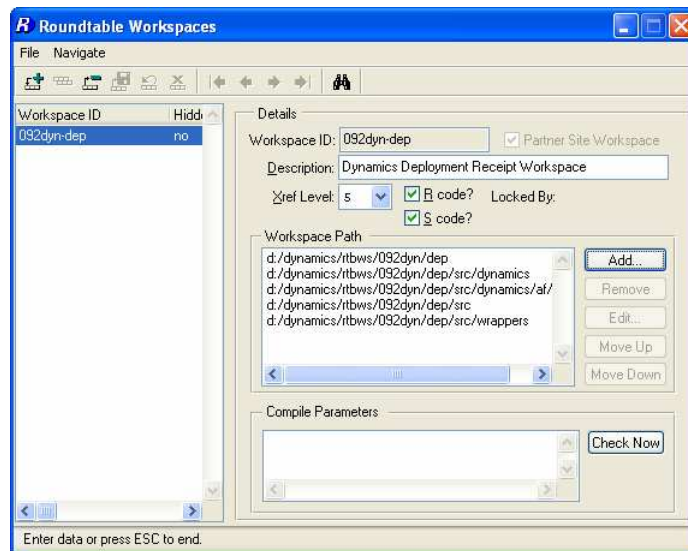
The workspace path values need to be added in the correct sequence to ensure that the framework, the development environment, and the integration with Roundtable function correctly. Roundtable uses these to manage the top of the PROPATH when the workspaces are selected.

The following table lists the workspace paths in the correct order.

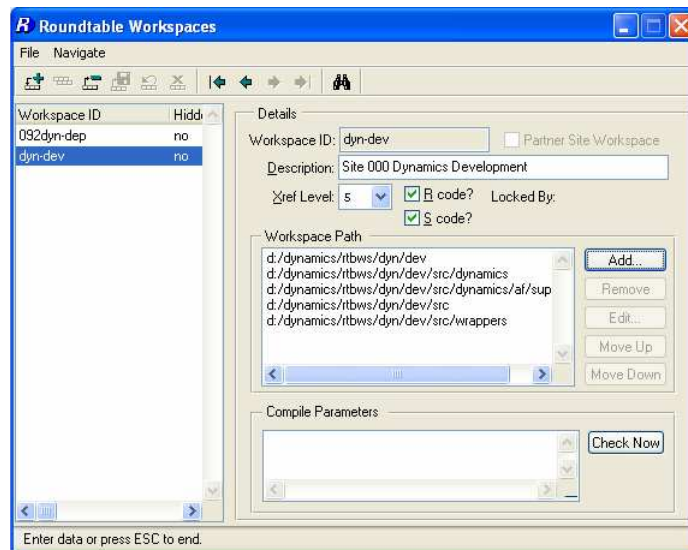
| Directory Name | Description |
|---|---|
| <workspace-root-path> | The root directory for the workspace. This must always be the first entry in the Roundtable Workspace Paths, for example, :/Dynamics/101dyn/dev for a development workspace or c:/Dynamics/092dyn/dep for the Progress Dynamics receipt workspace. |
| <workspace-root-path>/src/dynamics | The root level directory for the Progress Dynamics application. |
| <workspace-root-path>src/dynamics/af/sup2 | The directory with support files for the Progress Dynamics application. |
| <workspace-root-path>/<application-path(s)> | The customer application specific path structure(s) as required, for example: c:/Dynamics/101dyn/dev/appsrc |
| *<workspace-root-path>/src/dynamics/scm | <i>Optional workspace path entry</i> To enable the Progress Dynamics and SCM integration, the scm-related directories must be included. This is vital to ensure that the scm-related objects are picked up first in the PROPATH. |
| *<workspace-root-path> /src/dynamics/scm/custom/rtb | <i>Optional workspace path entry</i> ADE files customized for Roundtable. The customized objects in this directory will be higher up in the PROPATH than the standard Progress ADE version of these files, and will, therefore, be found first when this workspace is selected. |
| *<workspace-root-path> /src/dynamics/scm/custom | <i>Optional workspace path entry</i> The root customization directory containing important file customizations general to the Roundtable SCM environment. |
| <workspace-root-path>/src | The /src directory is needed so that the version of the ADE and ADM2 located under it is used when running or compiling code in this workspace. |
| <workspace-root-path>/src/wrappers | The include files in the src/wrappers directory are always referenced just by name, with no relative path. In a standard Progress Dynamics installation, these include files are copied into the gui directory. They can be found there because the gui directory is always included in the PROPATH. Since this workspace does not contain a gui directory, the src/wrappers directory is added to the workspace path so that the include files can be found there instead. |

* Workspace paths containing the Roundtable Dynamics integration code are only needed if customizations are being made to the standard integration code. The Roundtable deployment packages containing OpenEdge 10.1A also contain the latest version of the Roundtable Dynamics code at the time the deployment packages are built. These can be used as a starting point for customizing the integration.

When the workspaces are populated during the workspace import, Roundtable creates all the necessary directories on disk for you. It is not necessary to manually create any of the workspace directories on disk.



Example of the paths required for a Dynamics Deployment Receipt Workspace.



Example of the paths required for a standard Progress Dynamics environment.

Leave the X-Ref level and the R-code and S-code settings to the default settings. More information about these can be found in the *Roundtable Users Guide*.

3.2.2 Progress Dynamics

3.2.2.1 Progress Dynamics Configuration File

As mentioned earlier, a single configuration file for the Roundtable environment is required, and it must contain a session type for each of the workspaces used by the Roundtable environment.

The session type for each workspace in Roundtable will contain the AppServer connection, startup of managers and additional properties/variables information. No database connections are needed in the Session Types as this is managed by Roundtable. Do not enter any database connection information for the Roundtable session types, Roundtable will not work properly when changing workspaces.

In order for Roundtable integration to work with the session management features of the framework, you must use the following Session Type naming standards:

`rtb_[workspace_name]`

`rtb_` = Prefix added by the event hooks when assigning the Roundtable workspace session type.

`[workspace_name]` = The name of the workspace, without hyphens, slashes, or spaces.

Examples:

For Site 000 and Dynamics Enhancements customizations use the following naming conventions:

| | | |
|------------|---|---------------|
| 092dyn-dep | → | rtb_092dyndep |
| dyn-dev | → | rtb_dyndev |
| dyn-tst | → | rtb_dyntst |
| dyn-dep | → | rtb_dyndep |

or

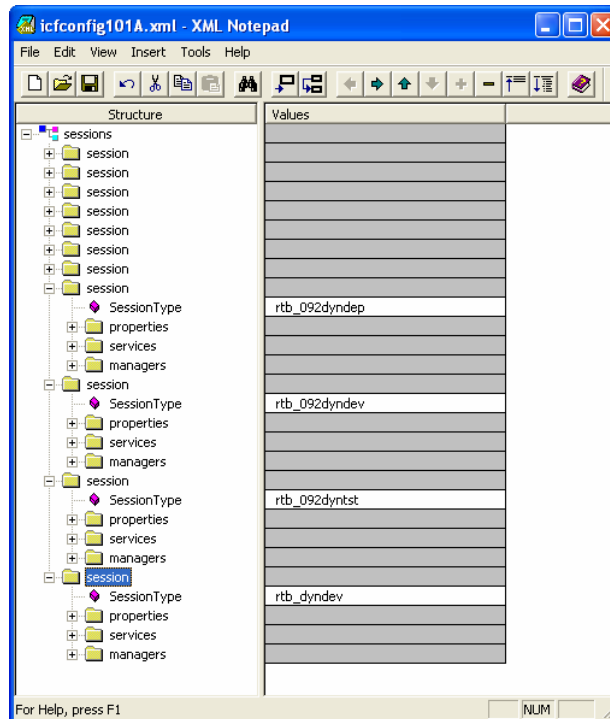
| | | |
|------------|---|---------------|
| 092dyn-dep | → | rtb_092dyndep |
| dyn-dev | → | rtb_dyndev |
| app-dev | → | rtb_appdev |
| app-tst | → | rtb_apptst |
| app-dep | → | rtb_appdep |

For Site 101 and Dynamics Enhancements customizations use the following naming conventions:

| | | |
|------------|---|---------------|
| 092dyn-dep | → | rtb_092dyndep |
| 101dyn-dev | → | rtb_101dyndev |
| 101dyn-tst | → | rtb_101dyntst |
| 101dyn-dep | → | rtb_101dyndep |

Create a configuration file for your Roundtable environment, for example, 'icfconfig_101.xml' for site 101. This file can also be created by making a copy of the icfconfig.xml file that is distributed with Progress Dynamics.

An example of an icfconfig.xml file:



It is possible to have session type information for multiple sites within the same Dynamics Configuration file. It is also possible to share the same Configuration File across platforms and environments by maintaining a master file and distributing copies of this file to the various servers and clients that need to use them. The only requirement is that the session types for selected workspaces available in the configuration file must be referred to by the – icfparam startup parameter.

This file should not be within a workspace directory but on a higher level outside of the workspace structures. Do not use or refer to the actual 'icfconfig.xml' within a workspace (contained as part of the standard framework objects being maintained by Roundtable), because this will be overwritten during partner site loads and workspace imports.

3.2.2.2 Session Configuration Types

Make sure that the configuration file used matches the version of Progress Dynamics that each workspace contains. This is important, since there can be changes to the session type management between different versions of Progress Dynamics.

You can create the configuration file either by using the Progress Dynamics Session Configuration Tools from a Progress Dynamics environment or by manually editing the configuration file.

This section explains what the requirements for the Progress Dynamics configuration file are for working within a Roundtable environment.

3.2.2.3 Session Type

The example session types described below exist in a default icfconfig.xml file delivered as part of the standard Progress Dynamics product.

Note that there are session types defined in the resulting configuration file for a Roundtable workspace and a corresponding Progress AppServer configuration for each workspace.

Session Types:

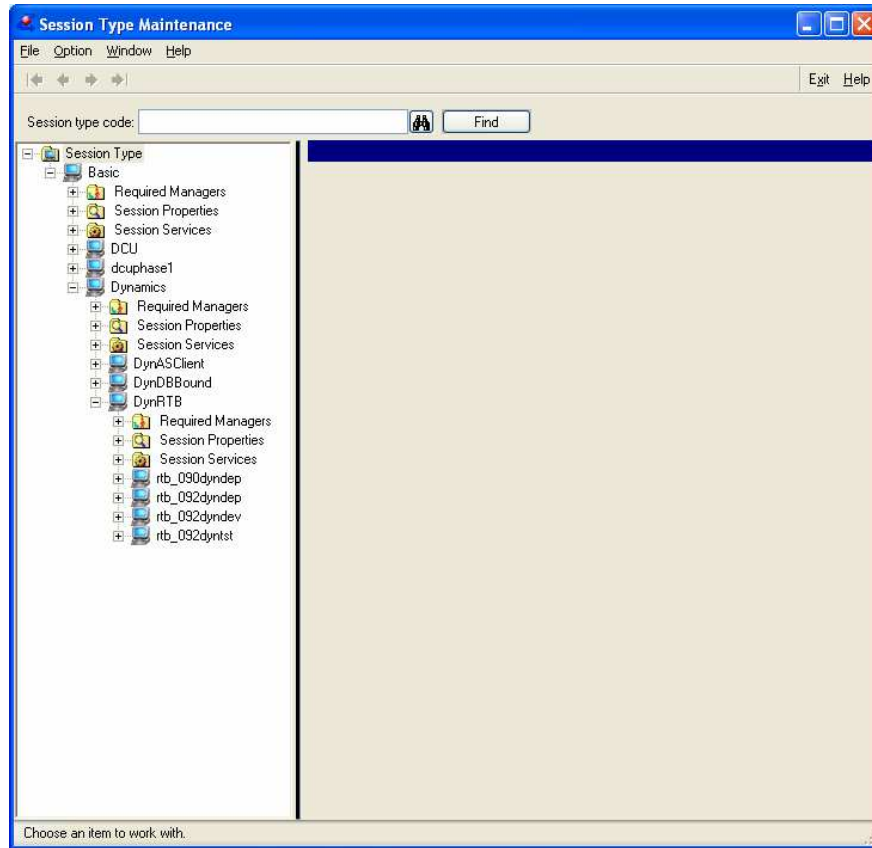
| Workspace Name | Area Type | Session Type Name |
|----------------|----------------------|-------------------|
| 090DYN-DEP | Roundtable Workspace | rtb_090dyndep |
| | Progress AppServer™ | asb_090dyndep |
| 091DYN-DEV | Roundtable Workspace | rtb_091dyndev |
| | Progress AppServer™ | asb_091dyndev |
| 091DYN-TST | Roundtable Workspace | rtb_091dyntst |
| | Progress AppServer™ | asb_091dyntst |
| 091DYN-DEP | Roundtable Workspace | rtb_091dyndep |
| | Progress AppServer™ | asb_091dyndep |

The standard icfconfig.xml file that comes with OpenEdge 10.1A does not contain the Session Types needed for the 10.1A Roundtable Dynamics environments. Session Types for a Roundtable site number of 092 are missing from this file.

It is necessary to manually create a new Session Type entry in the icfconfig.xml file with the name **rtb_092dyndep** (this is the only Session Type needed for customer environments). This can be created by copying the Session Type **rtb_091dyndep** and change the name to **rtb_092dyndep**.

| Workspace Name | Area Type | Session Type Name |
|----------------|----------------------|-------------------|
| 092DYN-DEV | Roundtable Workspace | rtb_092dyndev |
| | Progress AppServer™ | asb_092dyndev |

Examples of defined session types in the Session Type Maintenance for Progress Dynamics:



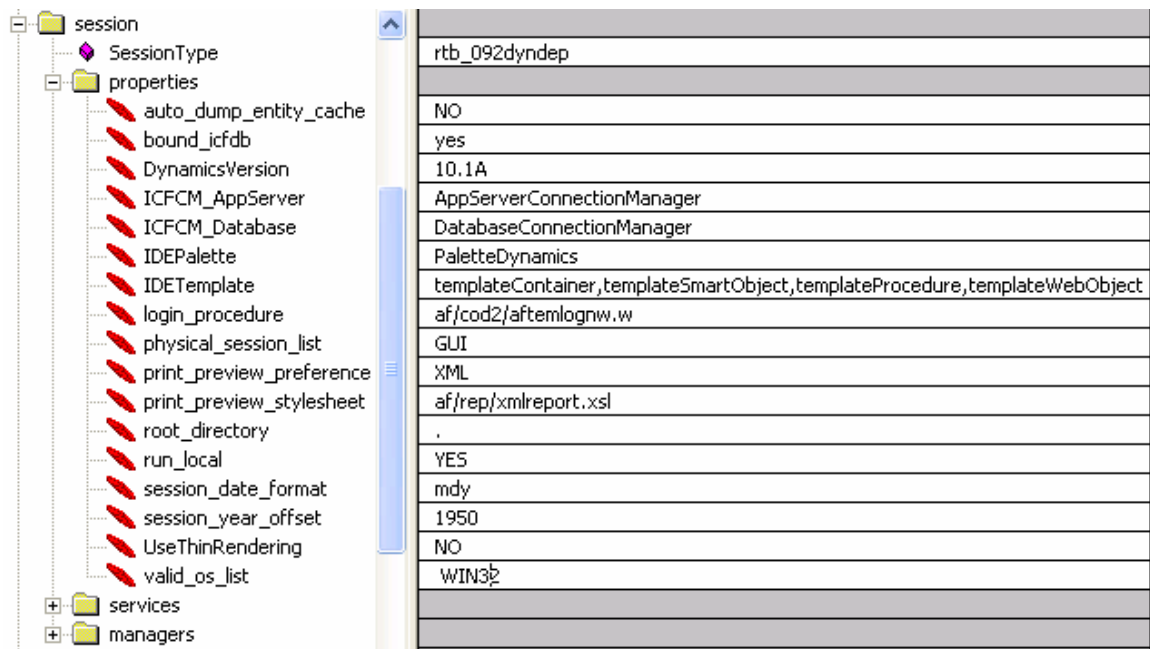
The following sections describe the steps for setting up a session type for a Roundtable workspace, that is, workspace 092dyn-dep with session type rtb_092dyndep.

3.2.2.3.1 Session Type Properties

The Session Type Properties listed in the table below are worth noting for Roundtable and Dynamics environments:

| Session Type Properties | Description | Default Value |
|-------------------------|--|---------------|
| auto_dump_entity_cache | Indicates whether the entity cache should automatically be created | NO |
| bound_icfdb | Indicates whether a session is bound to the repository | YES |
| _debug_tools_on | Switches on special tools in the framework for diagnostics. | YES |
| physical_session_list | Automatically inserted into ICFCONFIG from session type. | GUI |
| run_local | Should this session run locally? | YES |
| Session_date_format | SESSION:DATE-FORMAT setting. | Mdy |
| Session_year_offset | Session year offset attribute. | 1950 |
| Valid_os_list | Automatically inserted into ICFCONFIG from session type. | Win32 |

You might want to add additional session type properties. There are a number of session properties set as defaults for a session type used by a Roundtable workspace:



For Roundtable-specific session types, the following properties should NOT be specified:

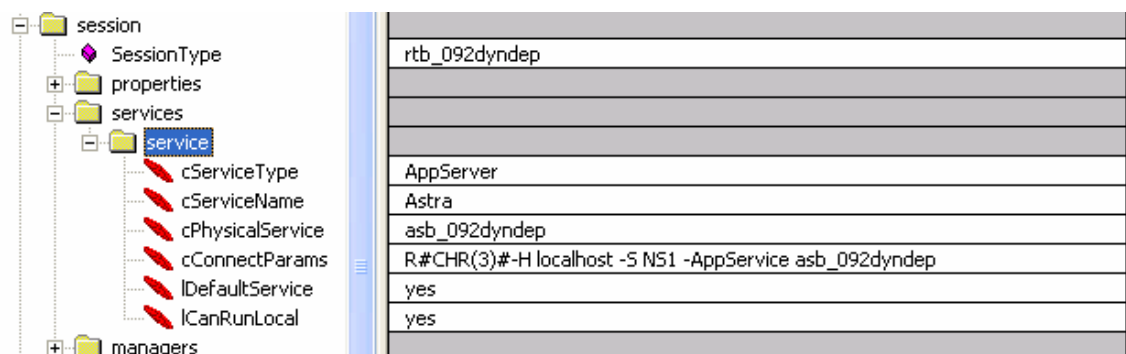
→ "startup_procedure"

3.2.2.3.2 Session Type Services

Session Type Services:

| Session Type Services | Description | Service Name | Connection Paramaters |
|-----------------------|---------------------|--------------|---|
| AppServer | AppServer Partition | ASTRA | R#CHR(3)#-H localhost -S NS1 -AppService asb_092dyndep |

Below is a configuration file example of the only required defined session type service for a Roundtable and Dynamics session:



For Roundtable-specific session types, the **ICFDB** services should NOT be specified.

3.2.2.3.3 Session Type Managers

All the default Progress Dynamics managers are already set up in the default session type hierarchy, which also includes the default settings for the DynRTB session type, which all Roundtable session types inherit their basic settings. Additional managers can be setup for the DynRTB session type or for individual session types as needed.

If the session type property <run_local> = YES, then the Server-side FILE-NAME must be used for the managers, otherwise the Client-side FILE-NAME must be used for the managers.

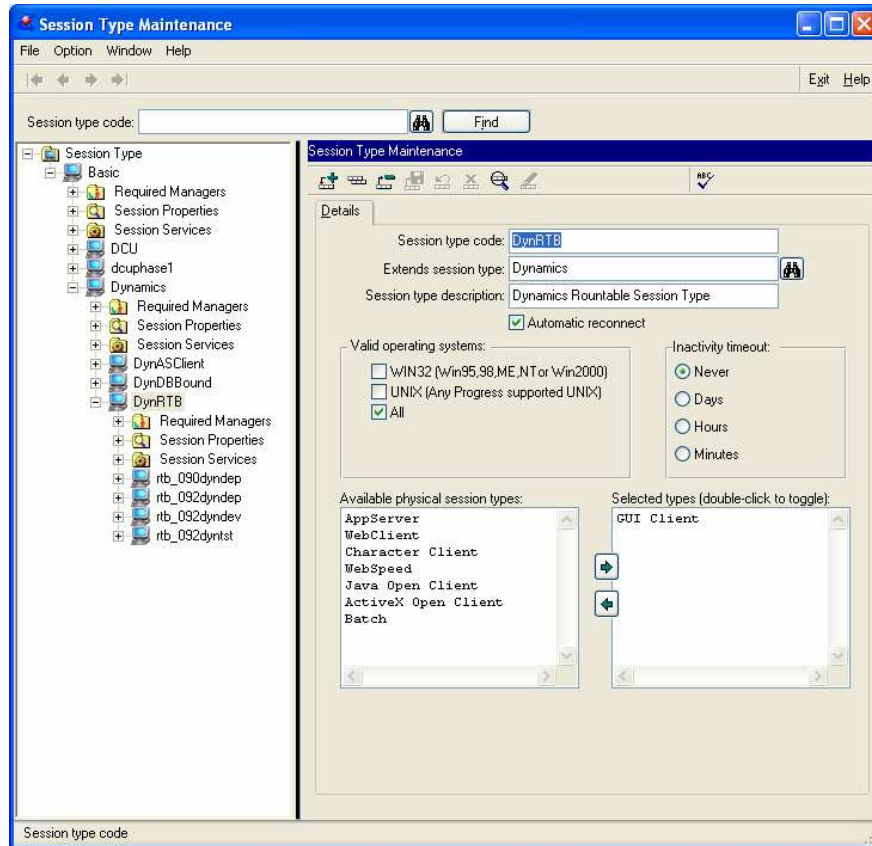
Session Type Managers:

| Session Type Manager | Description | Handle name | Server-side file-name | Client-side file-name |
|-----------------------------|---------------------------------|-------------|-----------------------|-----------------------|
| ConnectionManager | Connection Manager | NON | af/app/afconmgrp.p | af/app/afconmgrp.p |
| WebServiceConnectionManager | Web Services Connection Manager | NON | af/app/afwebconmgrp.p | af/app/afwebconmgrp.p |
| AppServerConnectionManager | AppServer Connection Manager | NON | af/app/afasconmgrp.p | af/app/afasconmgrp.p |
| DatabaseConnectionManager | Database Connection Manager | NON | af/app/afdbconmgrp.p | af/app/afdbconmgrp.p |
| JMSConnectionManager | JMS Connection Manager | NON | af/app/afjmsconmgrp.p | af/app/afjmsconmgrp.p |
| SessionManager | Session Manager | SM | af/app/afsessrvrp.p | af/sup2/afsesclntp.p |
| GeneralManager | General Manager | GM | af/app/afgensrvrp.p | af/sup2/afgencclntp.p |
| SecurityManager | Security Manager | SEM | af/app/afsecsrvrp.p | af/sup2/afsecclntp.p |
| RepositoryManager | Repository Manager | RM | ry/app/ryrepsrvrp.p | ry/prc/ryrepclntp.p |
| ProfileManager | Profile Manager | PM | af/app/afprosrvrp.p | af/sup2/afproclntp.p |
| LocalizationManager | Localization Manager | TM | af/app/aftrnsrvrp.p | af/sup2/aftrncclntp.p |
| CustomizationManager | Customization Manager | NON | ry/app/rycusssrvrp.p | ry/prc/rycusclntp.p |
| RIManager | Referential Integrity Manager | RI | ry/app/ryrisrvrp.p | |
| RepositoryDesignManager | Repository Design Manager | NON | ry/app/rydessrvrp.p | |
| SDFCacheManager | SDF Cache Manager | NON | ry/prc/rysdfcmngr.p | ry/prc/rysdfcmngr.p |

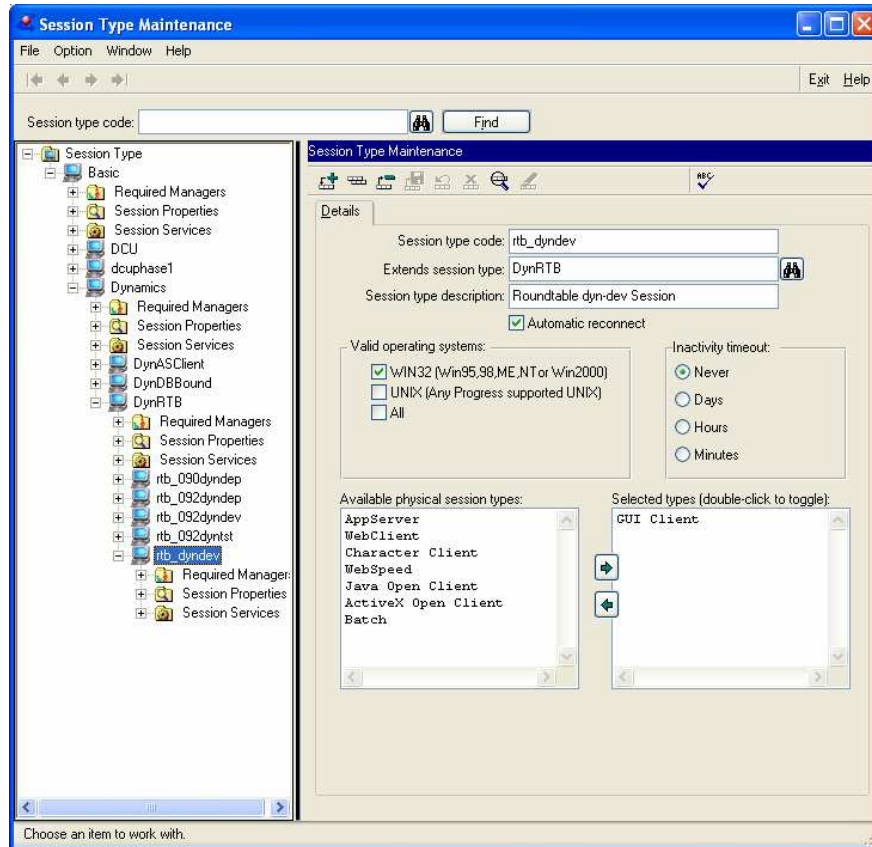
See the Progress Dynamics product documentation on the configuration file manager for more information about setup and configuration.

3.2.2.4 Creating a New Session Type from the Repository

1. Select the Session Type Control submenu option:

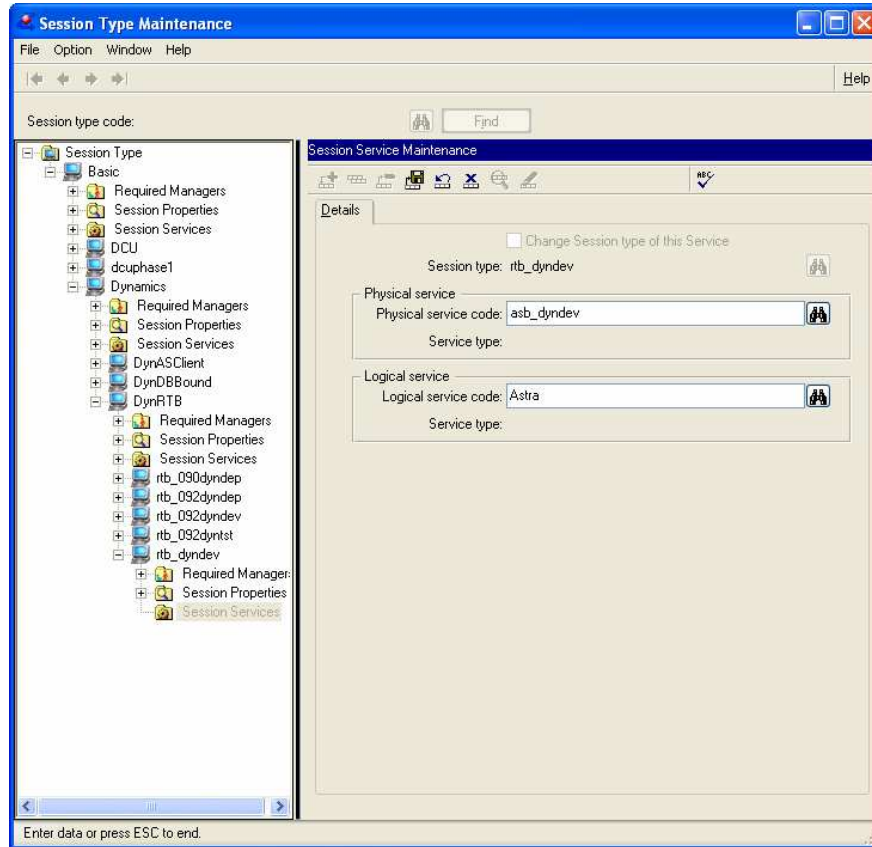


2. Select the preconfigured DynRTB Session Type “rtb_092dyndev” and make a copy of this session type. This session type will inherit all of the default settings for a DynRTB session type and only needs to be customized with the session properties and session services to be usable.



- *Adding Session Services*

3. Expand the node for the new Session Type and Add a new Session Service. This will be the AppServer connection that can be used when connected to the workspace using this session type.



Add a valid AppServer physical session for the new workspace session type, as shown in the screen shot above.

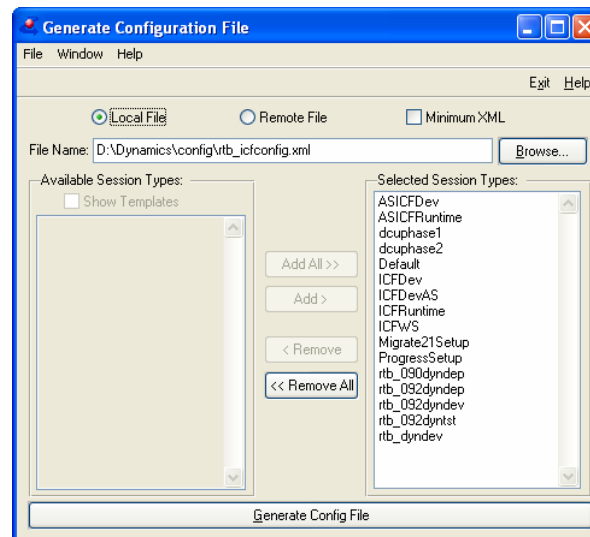
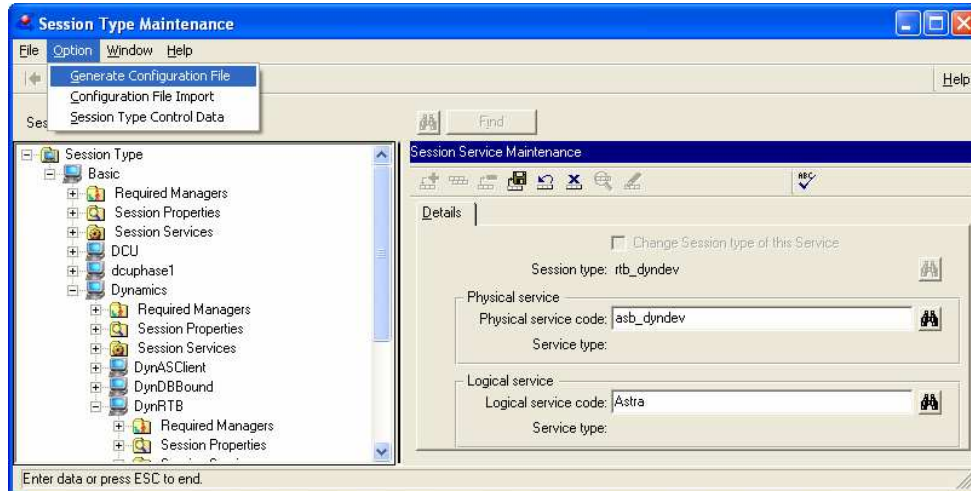
You only need to add a session service to this session type for the Astra AppServer provided with Progress Dynamics. Roundtable handles the database connection and therefore it will not be required to be set in the session type.

- *Adding Required Managers*

All the default Progress Dynamics managers are already set up in the default Session Type hierarchy, which also includes the default settings for the DynRTB Session Type, which all Roundtable Session Types inherit their basic settings from. Additional managers can be set up for the DynRTB session type or for individual session types as needed.

3.2.2.5 Generating a Configuration File

1. Generate the configuration file from the Option menu in the Session Type Maintenance window:



3.2.3 Progress AppServer Brokers

If you use the Progress AppServer, a broker for each of the workspaces within the Roundtable environment must exist. You must create one if it does not already exist. This must be done before you can use the workspace for running Progress Dynamics with the AppServer. The customized Roundtable hooks handle connecting and disconnecting the AppServer using the session types defined for each workspace. To configure the AppServer broker for use with a Roundtable workspace, refer to the documentation on Progress Dynamics installation and setup of AppServer brokers.

Use the session types that were created for each of the Roundtable workspaces. For more information on the session types refer to the section [Session Configuration Types](#).

Using AppServer in a development environment is not a true test of an AppServer session. Always test the AppServer using a valid runtime session and a client with no local database connected.

The creation of AppServer brokers is not covered in this document.

3.3 Creating a New Roundtable Environment

For new installations, please follow each point in this section very carefully, step-by-step.

The subsections detailing the required steps are:

[Progress Dynamics Environment](#)

[InstallShield Installation](#)

[Roundtable Environment](#)

[Roundtable Partner Site Package](#)

[Roundtable Partner Site Package Load](#)

[Roundtable Receipt Workspace](#)

[Progress Dynamics Roundtable Customizations and Enhancements](#)

[Create the Development Workspace](#)

3.3.1 Progress Dynamics Environment

Progress Dynamics is included in a default installation of OpenEdge Studio.

The Progress Dynamics environment is installed into the OpenEdge directory structure.

Even though a Progress Dynamics environment is available in the OpenEdge directory structure, in practice, each Roundtable workspace, including the Receipt Workspace 092dyn-dep, needs to be configured, populated and compiled, to use the Dynamics environment that it contains.

3.3.1.1 InstallShield Installation

Use the commercial OpenEdge InstallShield installation to install Progress Dynamics.

For installation instructions, refer to the Progress Dynamics installation documentation.

Although the Progress Dynamics installation using the InstallShield package creates a structure containing source code and sample databases, the databases needed for each of the Roundtable workspaces are created later as part of this setup. This will be done using the version of the Dynamics Configuration Utility (DCU) that is configured with the commercial installation of OpenEdge Studio.

3.3.2 Roundtable Environment

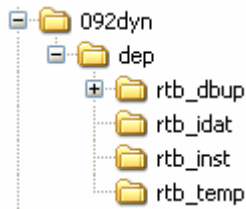
NOTE: Make a backup of the Roundtable repository before continuing.

3.3.2.1 Roundtable Partner Site Package

The Roundtable partner site deployment package is available separately. For more details on the availability, naming, and content of these packages, refer to the section [Roundtable Partner Site Deployment packages](#).

Before loading the contents of a Roundtable Partner Site Deployment, the correct .zip file must be uncompressed into the Roundtable Progress Dynamics Receipt workspace root directory (for example, C:\Dynamics\092dyn\dep). The .zip file must be extracted correctly to this directory so that the container rtb_* directories are located directly under the root of the workspace.

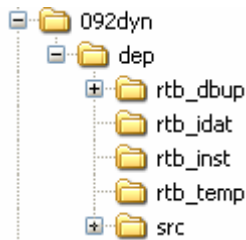
1. The following illustration shows the directory structure that must be in place before a load is done:



This directory structure is all that needs to be in place the first time a Partner Package is loaded into an empty Roundtable repository. The directory rtb_idat contains all of the needed data files to load the full contents of the deployment into the Roundtable repository.

Note that the above directory structure does not contain a source code structure yet. This is created from Roundtable once the partner load is done.

2. If the partner package is extracted into an existing directory structure as part of an upgrade, then the directory structure will also contain the source code of the workspace, as shown below:



See the Partner Site Package release notes for more information about the installation and possible extra considerations to take during implementation.

3.3.2.2 Roundtable Partner Site Package Load

Load the partner package into the Roundtable Receipt workspace for Progress Dynamics, as described in the steps below. The receipt workspace should already have been created following the steps in section 3.2.1.3 Creating Roundtable Workspaces.

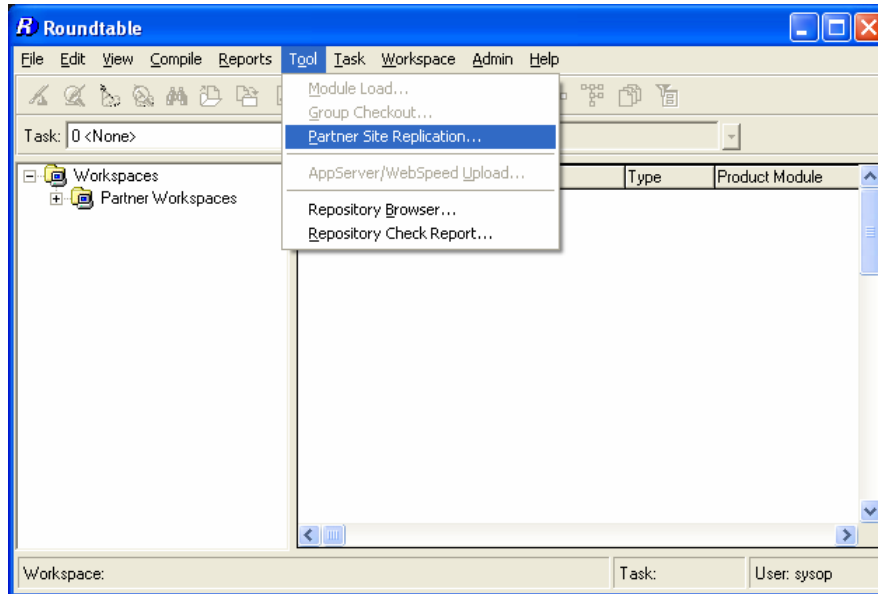
NOTE: Due to issues with loading of internal Roundtable information for site 000, the following steps are critical when loading Partner Deployments from 092DYN-DEP.

If your site number is 000:

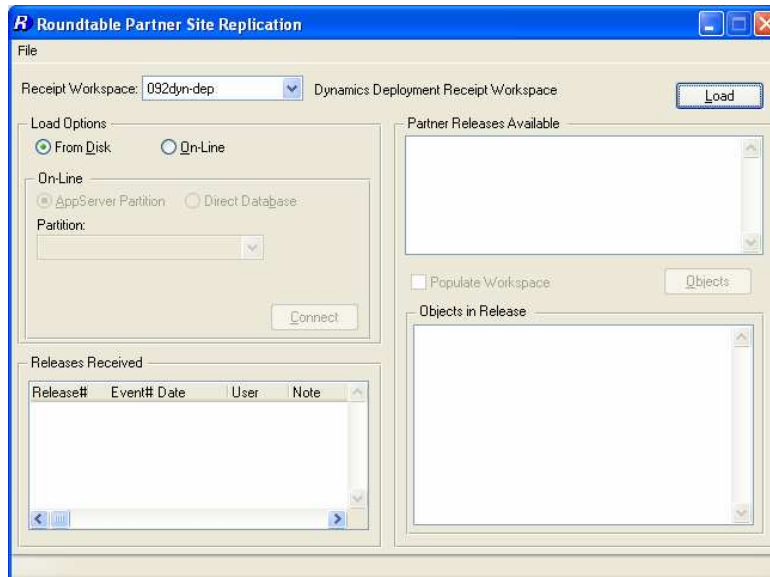
- Set the Roundtable site number to something other than 000, for example, 100
- Do a Partner Site Load for Partner Deployment Workspace 092dyn-dep
- Set the Roundtable site number back to 000

Steps for doing a Partner Site Load:

1. Select Partner Site Replication from the Tool menu.



2. Select the Progress Dynamics Roundtable Partner Site Deployment workspace: **092DYN-DEP**.



3. Load the Partner Deployment Package by selecting the Load button. For a first time load, this might take up to one hour. Subsequent loading of updates will be substantially quicker.

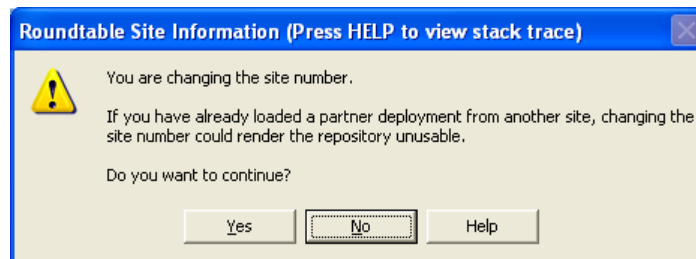


Upon completion, the partner site load will have updated your Roundtable database with all the Roundtable repository information for Progress Dynamics. This includes all the subtype, products, and product modules required and used by Progress Dynamics in conjunction with Roundtable.

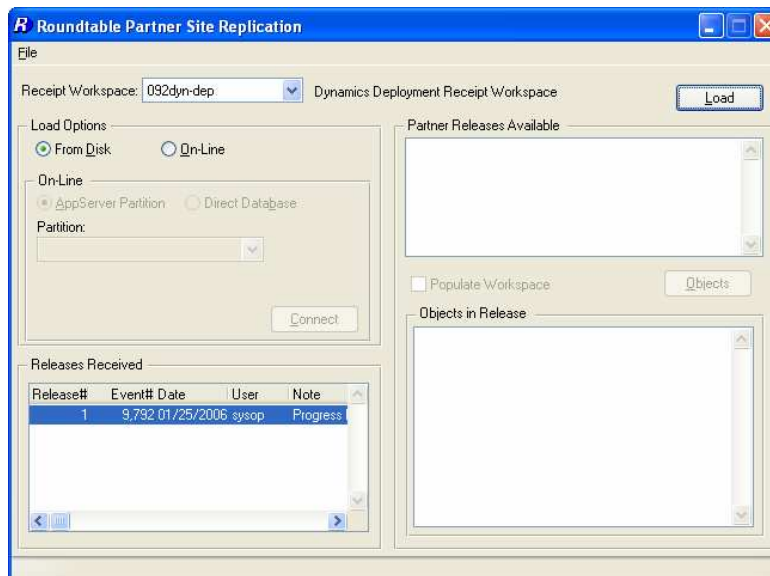
The partner site deployment package supplied with Progress Dynamics adds the required subtypes, modules, objects, etc.

NOTE: If your site number is chosen to be 000, remember to set this back to 000 once the Partner Site Load has been completed.

Setting the site number back to 000 produces a warning message about the consequences of changing the site number. In this case, the error can safely be ignored.



4. After the load is completed, the release number information will be displayed in the Releases Received section of the RTB Partner Site Replication window.



3.3.2.3 Roundtable Receipt Workspace

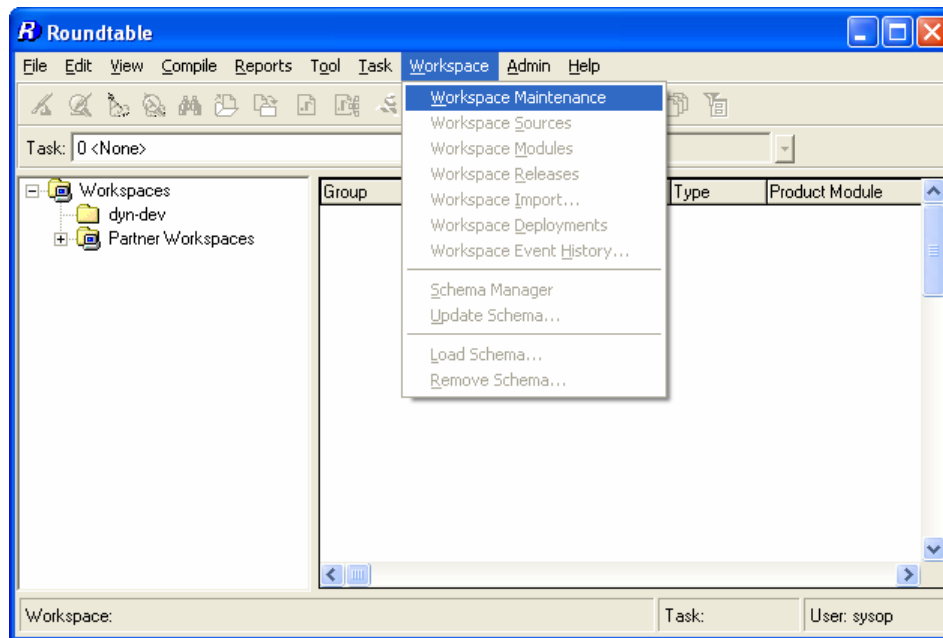
During the partner site load, only the Roundtable repository information was updated. Since the source code on disk for the workspace has not been extracted from the .zip file, it is necessary to extract the physical files for this workspace from the Roundtable repository.

Once the files are written to disk, and the necessary databases for the workspace are created, the source code has to be compiled.

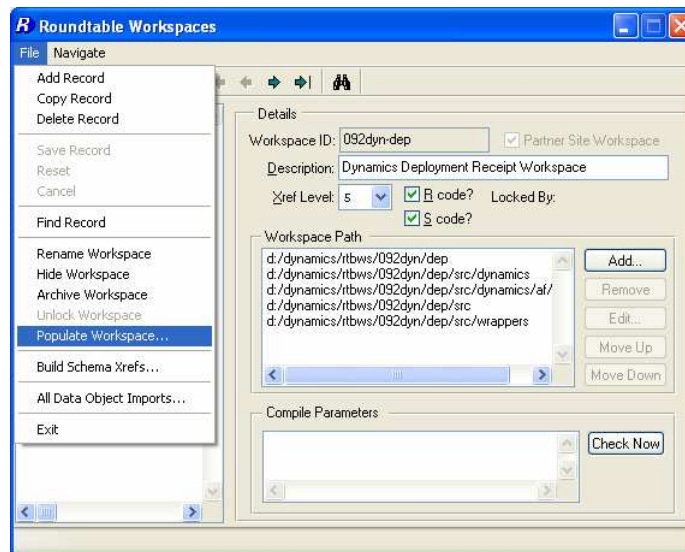
1. Continue by selecting the Receipt Workspace 092dyn-dep.

Roundtable Populate Workspace

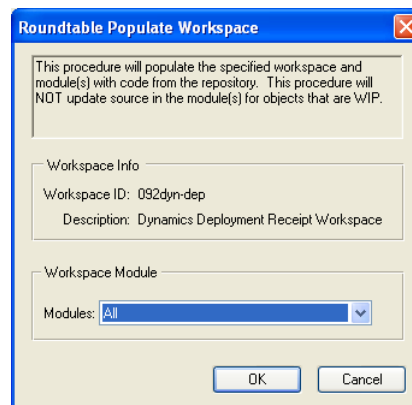
1. Start the Roundtable Workspaces window by selecting Workspace Maintenance from the menu in the Roundtable Tabletop.



2. Select the 092dyn-dep workspace and choose the Populate Workspace option from the File menu.



3. Select product modules All to populate all modules and press OK to start the workspace population. This can be a lengthy process; it is a complete extract of the entire contents of the workspace.



3.3.2.3.1 Create Progress Dynamics Repository for Receipt Workspace

It is now necessary to create a Progress Dynamics repository for the Roundtable Receipt workspace. As this is a completely standard ICFDB database, the safest and fastest method of creating this database is by using the Dynamics Configuration Utility (DCU).

The database can be located in a directory structure such as the one suggested earlier in the section on directory structures for the databases in the Roundtable and Progress Dynamics environment. This could for example be "C:\db\092dyn\dep\icfdb".

As with all ICFDB databases that will be created and used for Dynamics-based development, it is critical that **all** of these databases have unique *Dynamics Site numbers*. It is also important that the site number for this database is not set to 90 or 91 – even though this is a repository for a workspace for site 092 – the site number must be a different unique number allocated from the ICF Site Number Allocator utility available at <http://www.progress.com/cgi-bin/icfsite.cgi/icfsite.w?wRun=RunFrames>.

1. Starting the Dynamics Configuration Utility

The Dynamics Configuration Utility can be run from the shortcut created during the installation of OpenEdge Studio.

If a new icon must be created for the DCU, here is the syntax for the command line:

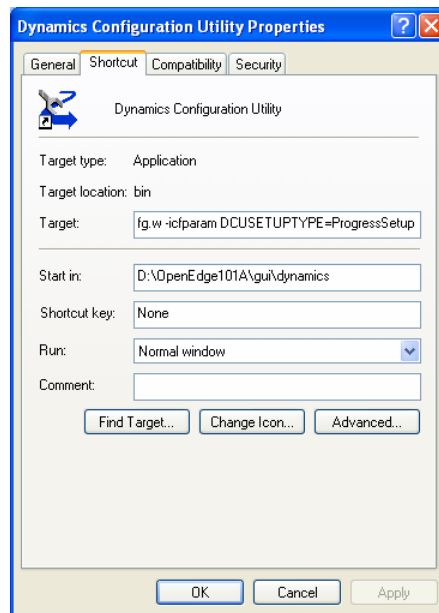
```
%DLC%\bin\prowin32.exe -p icfcfg.w -icfparam DCUSETUPTYPE=ProgressSetup
```

Where:

%DLC% is the directory where OpenEdge is installed; and

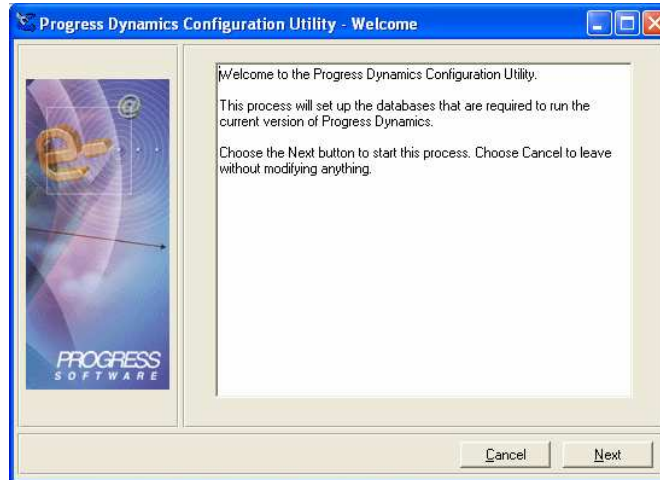
The directory used as the Start in directory for the Dynamics Configuration Utility should be the directory that contains the icfcfg.w procedure (icfcfg.r) procedure. This is normally the <OpenEdge Install>\gui\dynamics directory, for example:

```
C:\Progress\OpenEdge\gui\dynamics.
```

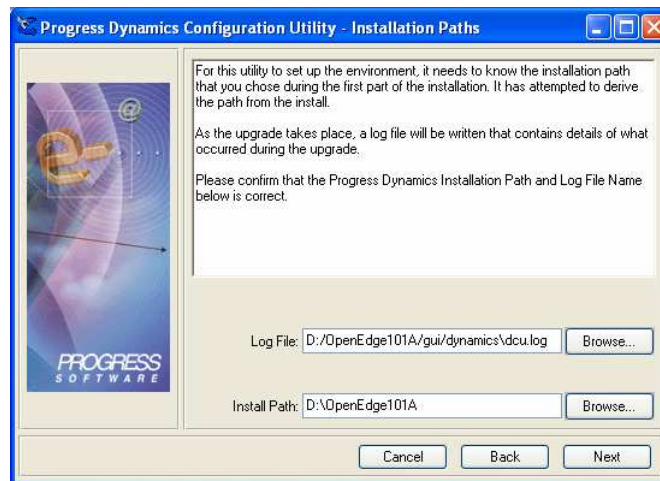


For further instructions on the shortcut setup, refer to the Progress Dynamics Configuration Utility (DCU) documentation.

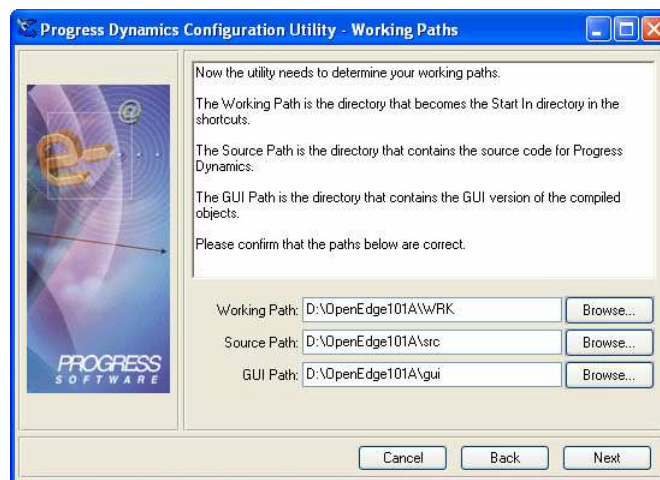
2. The following screen shots show the creation of an ICFDB database for the 092dyn-dep workspace:



3. The install path is picked up from the registry settings for the OpenEdge installation and should point correctly to the OpenEdge installation directory:

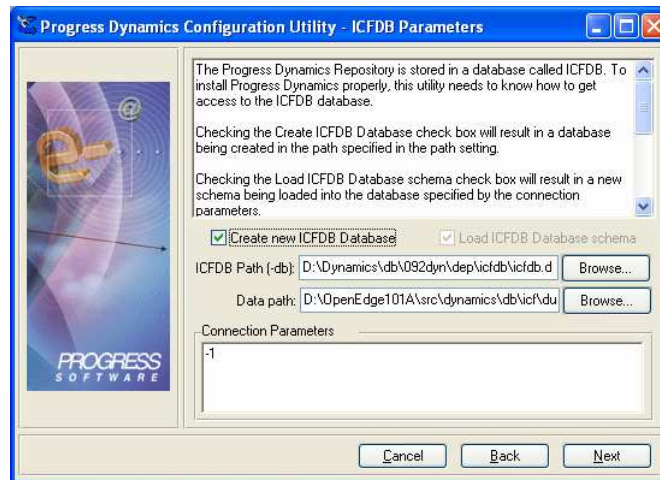


4. The Working path, Source Path, and GUI paths are also read from the registry and displayed as follows:



5. Enter the full path for the new database.

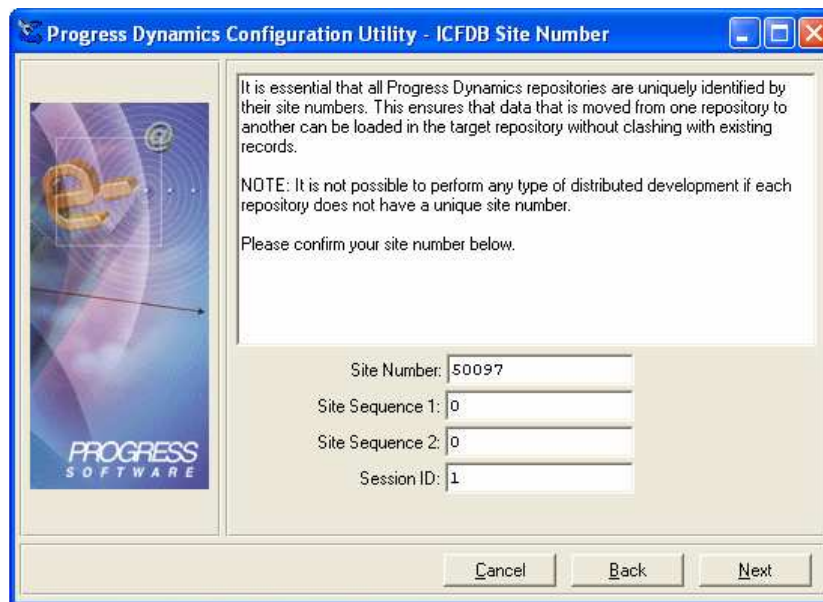
The default data path is relative to the source path from the previous page, for example, <OpenEdge Install>\src\dynamics\db\icf\dump. Ensure that this value is correct.



The settings for connecting to the database are created automatically and do not need to be changed at this stage where the database has not yet been created.

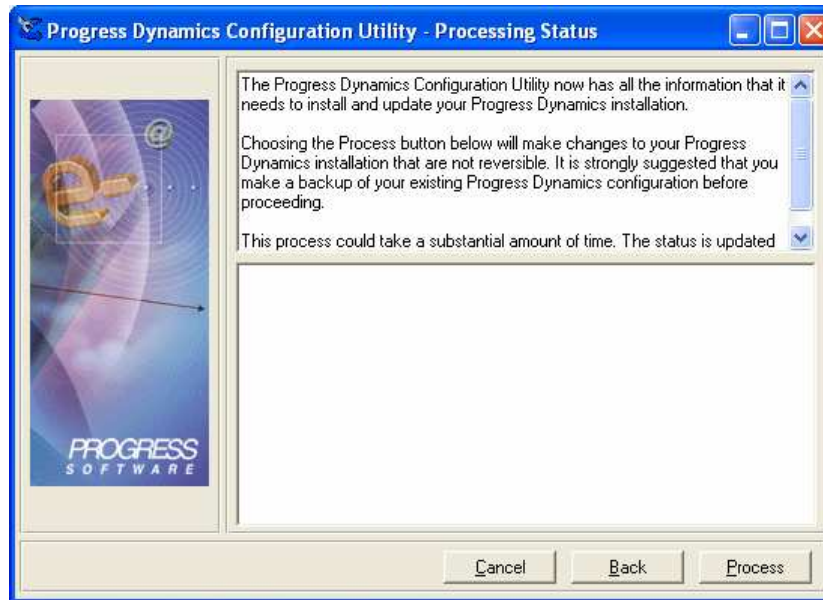
NOTE: If the icfdb database is to be located on a remote database server, it will have to be created first as an empty database and then the corresponding connection parameters should be specified on this page in the DCU.

6. Choose Next to continue:



Enter a valid Progress Dynamics site number. As mentioned earlier, it is important that all ICFDB site numbers be unique. Do not use the site number in the screen shot below. Instead, use one that has been allocated from the ICF Site Number Allocator utility located at <http://www.progress.com/cgi-bin/icfsite.cgi/icfsite.w?wRun=RunFrames>.

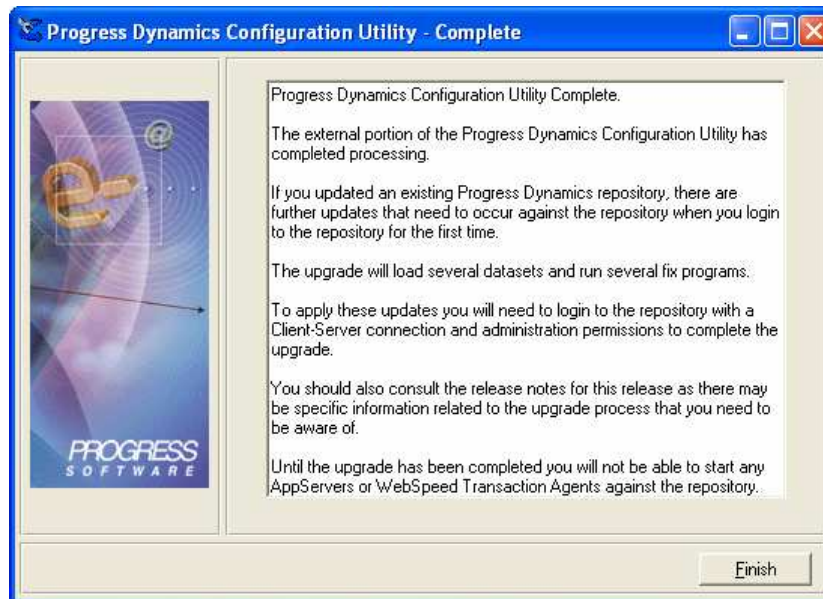
7. Choose Next to continue:



Select the Process button to create the database, load the database schema, and load the data for a complete default Progress Dynamics repository. This database will contain all of the needed database schema and data to be fully functional for the 092dyn-dep workspace.

For all new workspaces in a Roundtable and Dynamics-based environment, a database created in this way is a good starting point because it contains all of the default data for the Dynamics foundation of the application.

8. The database is now complete. Next you must set up the connection parameters to connect to the database when the workspace 092dyn-dep is selected.



3.3.2.3.2 Create temp-db Database

You must also create a database containing schema definitions for temp-tables used during compilation of some of the base ADM2 components contained within the Roundtable

repository. The temp-db database is also used for the TEMP-DB functionality in the AppBuilder.

This database can be created manually by using the Progress Database Administration utility or from the command line. For details on doing either of these, refer to the relevant Progress documentation.

If the suggested database directory structure is being used, the database can be placed in the directory:

C:\ db\092dyn\dep\temp-db.

Create an empty database with a physical name of “temp-db”.

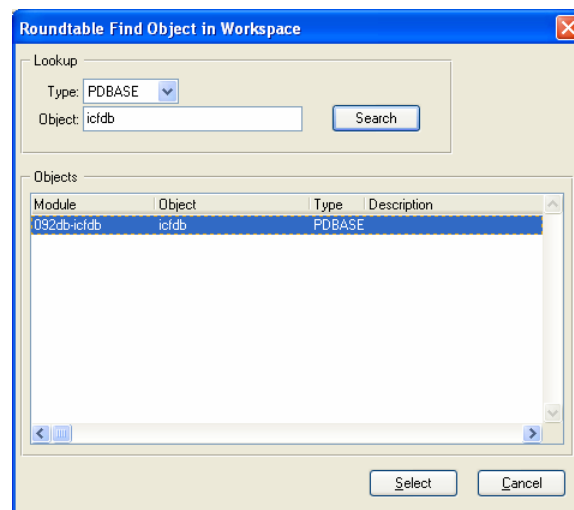
Connect to the database using the Progress Database Administration tool, and load the contents of the following .df files and .d files:

- <OpenEdge Install>\src\adettddb\temp-db.df
- <OpenEdge Install>\src\adettddb\temp-db-ctrl.df
- <OpenEdge Install>\src\adettddb\tempdbct.d
- <OpenEdge Install>\src\dynamics\db\icf\dump\tempdbct.d

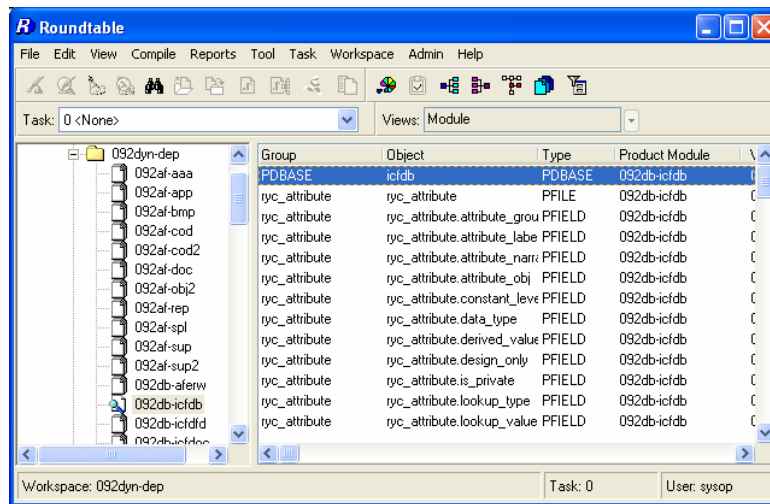
The content of the .d files are needed when modifying specific objects in the Dynamics framework that make use of the temp-db functionality.

3.3.2.3.3 092dyn-dep Workspace Database Connection Parameters

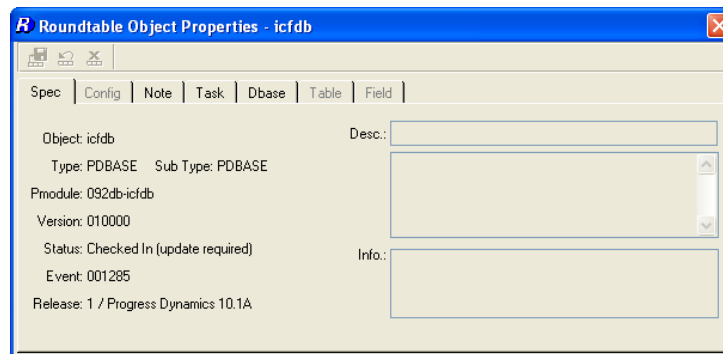
1. From the Roundtable Tabletop, go to the ICFDB PDBASE object (use the Find function and search for ICFDB):



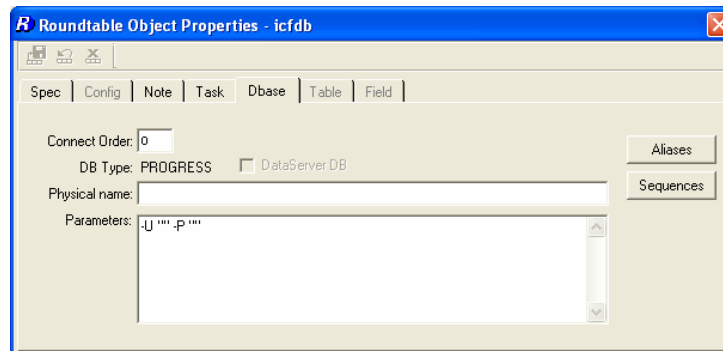
- From the RTB tabletop menu, choose **View → Object Properties**.



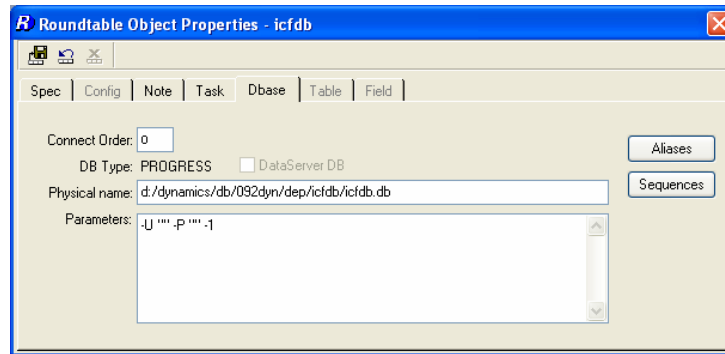
- Select the Dbase tab.



- Enter the connection parameters to connect to the newly created database.



5. Modify the parameters for the database connection and save.



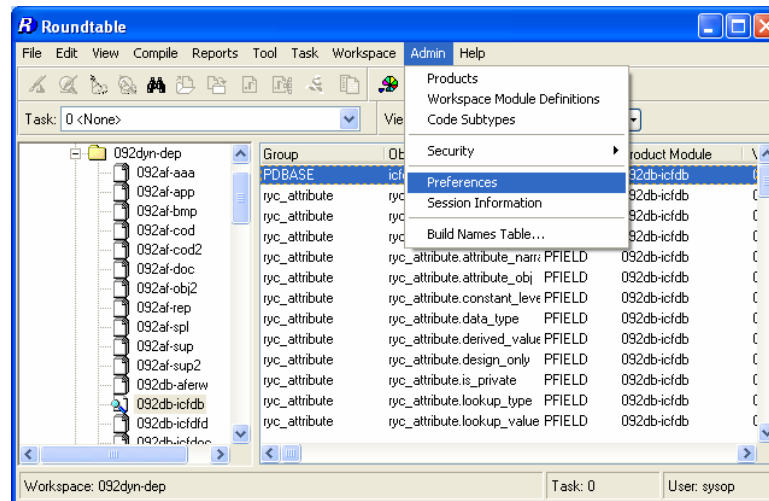
6. Do the same for the newly created temp-db database

NOTE: If this is a multi-user environment, the connection parameters above should be changed for a multi-user or network connection.

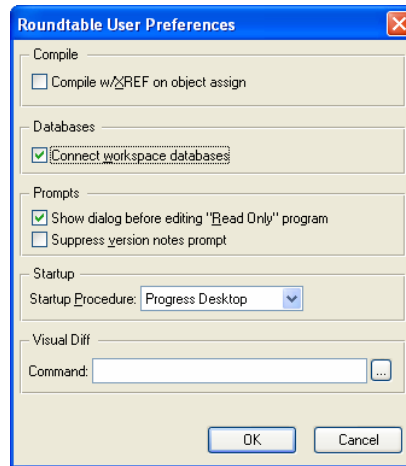
Follow the same procedure to set the connection parameters for the temp-db database.

Automatic connection of workspace databases is optional, and the default is not to connect. To set auto connect for the databases:

7. Select **Admin → Preferences** from the RTB Tabletop.

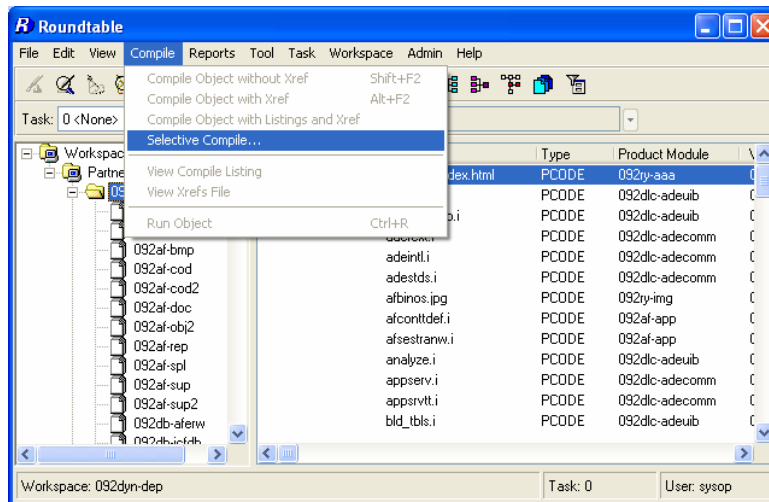


8. Check the **Connect workspace databases** checkbox.

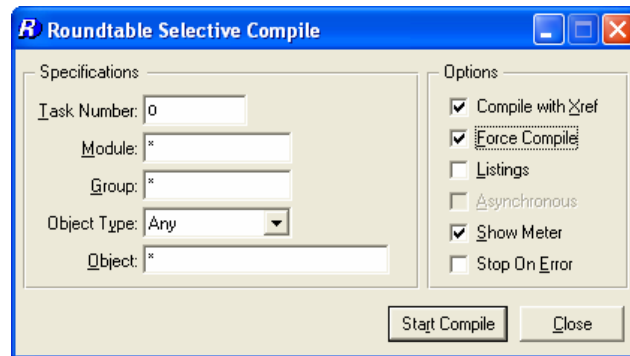


3.3.2.3.4 Roundtable Compile

1. Do a full compile of the Roundtable Receipt Workspace 092dyn-dep to ensure all r-code is up to date. This could be done using the Progress Application Compiler or the Roundtable Selective Compile. Using the Progress Application Compiler is the fastest method of compiling the workspace contents completely. However, it does not create X-Ref information in the workspace. X-Ref information is only created when the Selective Compile utility from Roundtable is used:



2. To use the Selective Compile, choose this option from the compile menu off the Roundtable Tabletop and enter the compilation criteria, as shown below:



The above settings force a compile of all of the objects in the workspace, regardless of their current compilation status within Roundtable. The default setting when entering this screen is that the Object Type is set to "PCODE". For a first time compile of the workspace, it makes no difference if this setting or the setting above is used. Using "Any" for the Object Type for later compiles ensures that all objects that have been changed, as well as all objects that are affected by changes to non-PCODE objects, are recompiled.

The Progress Dynamics and Roundtable integration is not fully functional at this time. There will be some errors during the compile referring to database aliases and other settings done from the framework. To avoid these errors, you can postpone the Selective Compile until after implementing the next section of the document.

3. In addition, there will be some compile warnings during the compile. These can be ignored. Below is a list of known compile errors that can be ignored.

```
Workspace: 092dyn-dep
dlayoutlookup.w:
** "src/dynamics/ry/obj/dlayoutlookup_cl.w" was not found.
(293)
dlookup.w:
** "src/dynamics/ry/obj/dlookup_cl.w" was not found. (293)
dynb2b.w:
** "src/adm2/dynb2b_cl.w" was not found. (293)
dynbrowserd.w:
** "src/adm2/support/dynbrowserd_cl.w" was not found. (293)
dyndata.w:
** "src/adm2/dyndata_cl.w" was not found. (293)
```

3.3.2.3.5 Roundtable Dynamics Add-on Compile

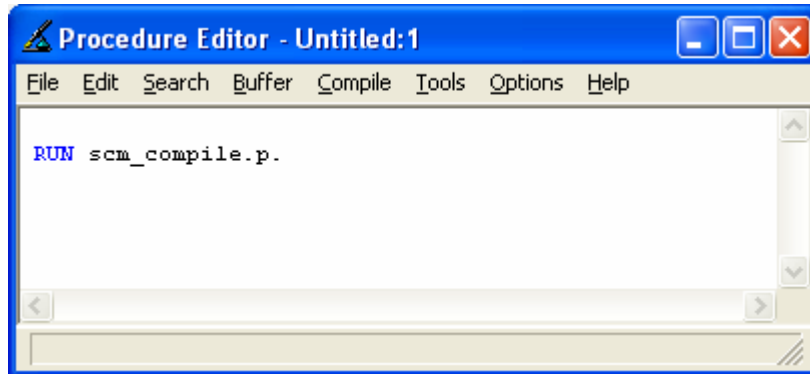
When the selective compile is done, we need to compile the integration code located in the <roundtable install>\scm directory. Once this is done, re-selecting the workspace should give a login to the Dynamics environment. This is also described in the Roundtable Dynamics Add-on installations guide on the Roundtable support site:

<http://www.roundtable-tsms.com/support/>

1. Open a procedure editor from the Progress desktop



2. Enter the code as shown below and Press F2 for compiling the integrations code.



3.3.3 Update the Development Workspace

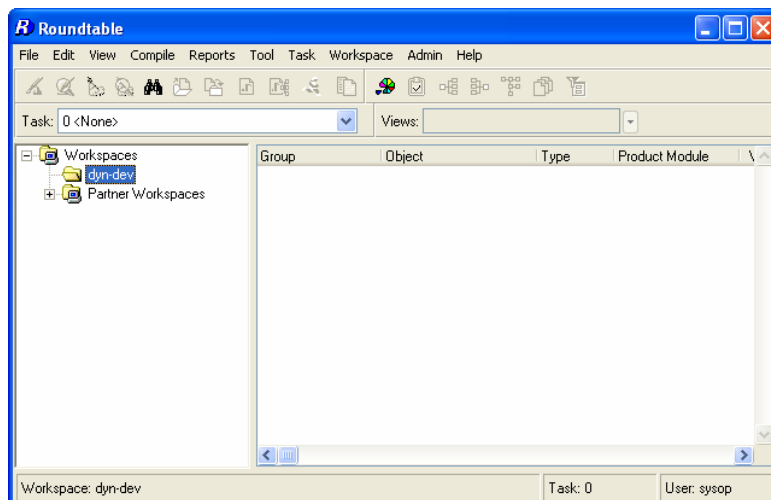
Once the partner site deployment packages have been loaded into the read-only receipt workspace, you can then do the following:

The Progress Dynamics application can be launched for evaluation and testing purposes.

You can update your development workspace. If this workspace does not exist, you need to create it first. The workspace can be created by following earlier sections in this document about creating workspaces. See section *Creating Roundtable Workspaces*.

3.3.3.1 Development Workspace Population

1. Go to your development workspace (for example, dyn-dev) by selecting it in the Workspace treeview:

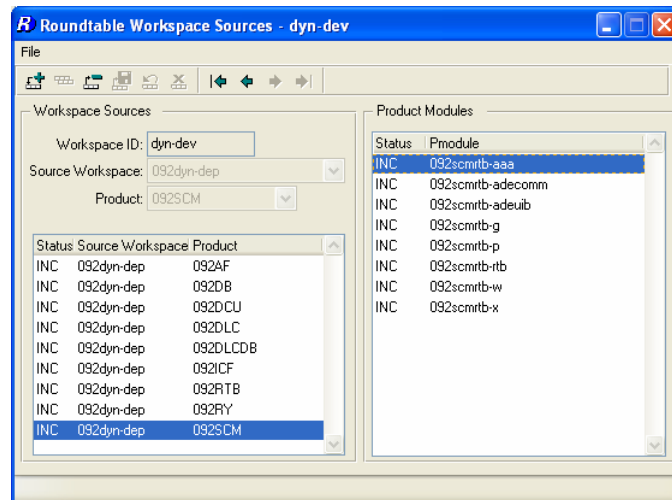
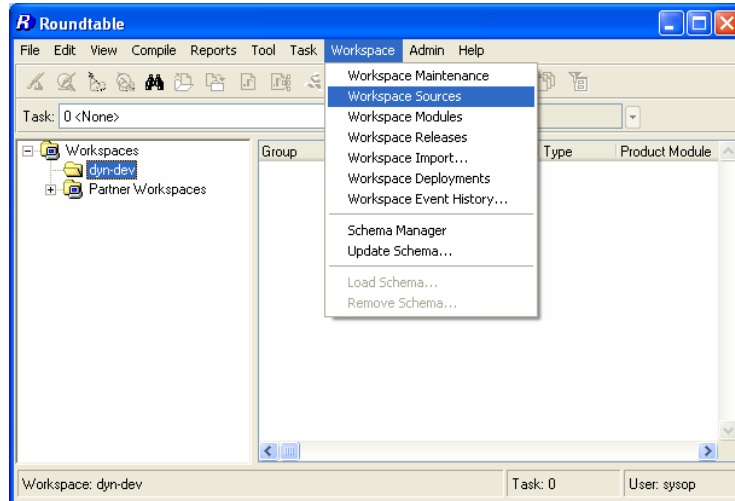


Go to the workspace that will be sourced from the 092DYN-DEP receipt workspace.

3.3.3.2 Workspace Sources

Before the workspace can be used, you must set up its Workspace Sources. These indicate which workspace(s) the currently selected workspace receives contents and updates from. Workspace Sources also indicates which products and product modules are used in the workspace.

1. Use the Workspace Sources menu option to first add the source workspaces and products for this workspace:



The workspace 092DYN-DEP will source the workspace DYN-DEV with all products starting with 092. If there are products and product modules that you do not want in this workspace, they can be excluded from the workspace by changing the status to EXC.

Once the workspace sources have been added, return to the Roundtable Tabletop and reselect the workspace. The modules added to the workspace will now be visible in the treewview list.

For more information on workspace sources, refer to Roundtable documentation.

3.3.3.3 Create Workspace Databases

3.3.3.3.1 Database Directory Structure

A suggested directory structure for workspace databases on a local system could be the following:

```
C:\Dynamics\db
C:\Dynamics\db\092dyn\dep\icfdb
C:\Dynamics\db\092dyn\dep\temp-db
C:\Dynamics\db\dyn\dev\icfdb
C:\Dynamics\db\dyn\dev\temp-db
```

3.3.3.3.2 Progress Dynamics Repository Database (ICFDB)

The easiest way to create new databases for the new workspace is to use the DCU to create the new ICFDB database. Using the DCU also makes it possible to set the site number for the Progress Dynamics repository during database creation.

You can also create a new database by creating an empty database and loading the database definitions and data from the appropriate /dfd and /dump directories. This is described in detail in the section on creating a workspace database for the 092dyn-dep workspace.

3.3.3.3.3 temp-db Database

The temp-db database contains data definitions needed to compile some of the internal tools that are part of the Progress Dynamics framework.

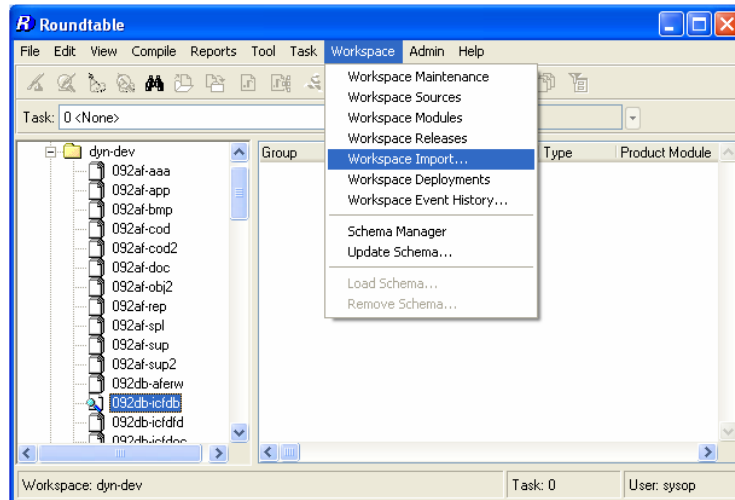
The temp-db database can be created manually from an empty database and a load of the data definitions from the src/adettdb directory. This is also described in more detail previously in the section on creating databases for the 092dyn-dep workspace.

3.3.3.3.4 Other Workspace Application Databases

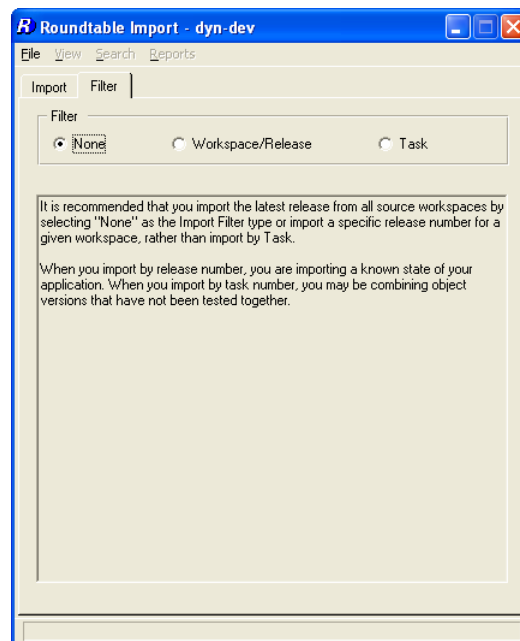
For other application databases that are to be part of this workspace, a starting point could be to take a copy of existing databases. Depending on whether databases are located on a separate database server or on the same local system as the Dynamics installation, the procedure for creating these databases will vary.

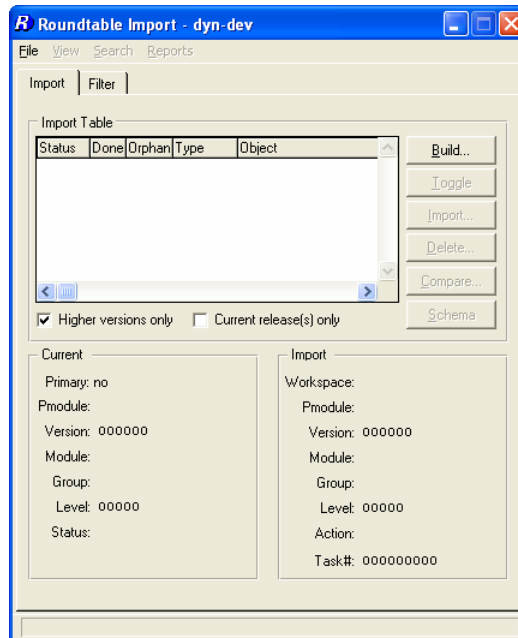
3.3.3.4 Workspace Import

By importing into the workspace, Roundtable creates or updates the source in the workspace from the SOURCE workspace(s). Only objects that are checked in and completed (this might have been done in the source workspace or in one of the prior workspaces in the flow) will be imported into the development workspace.

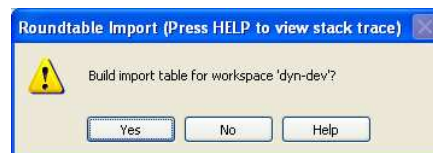


1. On the Filter page, select the necessary filter criteria for importing into the workspace. The default setting is to use the None option (this will build a table of all possible objects and object changes for this workspaces) for a full import:

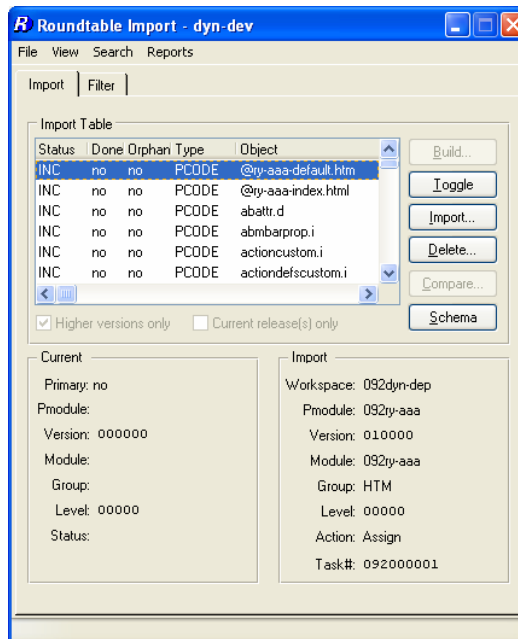




2. On the Import page, select the Build button and answer Yes when prompted for confirmation.

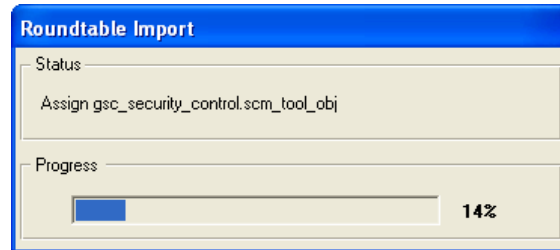


3. The resulting Import Control Table now contains a list of all of the objects from the source workspace(s) that can be imported into the workspace:



4. Pressing the Import button and importing all of the objects with a status of INC in the generated Import Control Table takes all of the objects from the 092DYN-DEP

workspace (static objects and Progress Dynamics objects) across into the target workspace – DYN-DEV in this case.

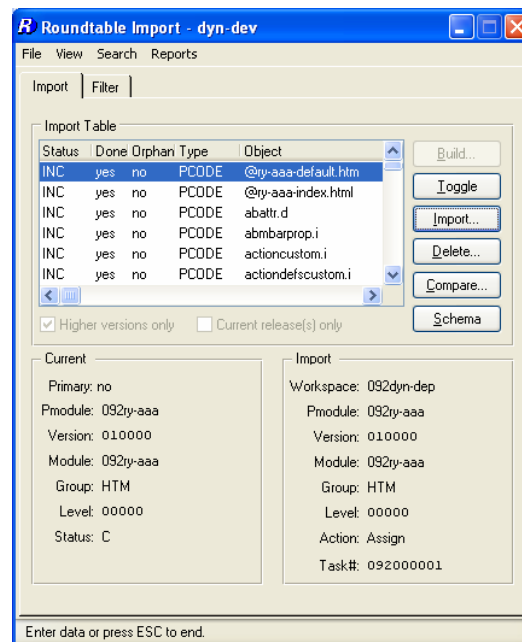


NOTE: Since this target workspace is not yet connected to a Dynamics Repository (ICFDB), the contents of the .ado files (containing repository data for each object) are not loaded at this time. In order for the hooks responsible for automatically loading the data to execute, an ICFDB database must be connected.

When an existing workspace that is connected to an ICFDB is updated, the Dynamics data in the .ado files will be loaded into the target repository by means of the Roundtable hooks. This will ensure that Dynamics objects can be migrated from one workspace to another.

For new workspaces, where a new database has been created from scratch, the Dynamics repository database will already be up to date with the data and object information.

5. When the import is complete, all of the imported objects will have the Done field set to **yes**:



See the Roundtable documentation for further details on using the Import Control in Roundtable.

6. Delete the import table list when all objects are imported. Press the Delete button. Answer **Yes** to the following question.



3.3.3.5 Database Connection Parameters

Add the connection parameters for the ICFDB and application-specific databases. Find the PDBASE entries, and enter the connection parameters for the database.

The same procedure must be done on the temp-db database. This is documented in detail in the section on setting up the 092dyn-dep workspace and databases.

3.3.3.6 Database Schema Update

Remember that Roundtable also version-controls the database schema for the databases contained in a workspace. After an import, some of the objects that have been imported could be schema objects. In the case of a full import into a new workspace, all of the schema objects (database, tables, and fields) will also have been imported. Immediately after an import, they will have a status of "Update Required". This means that the definitions of the logical schema objects (the ones maintained by Roundtable) need to be applied to the respective physical databases. This is done with the Update Schema process.

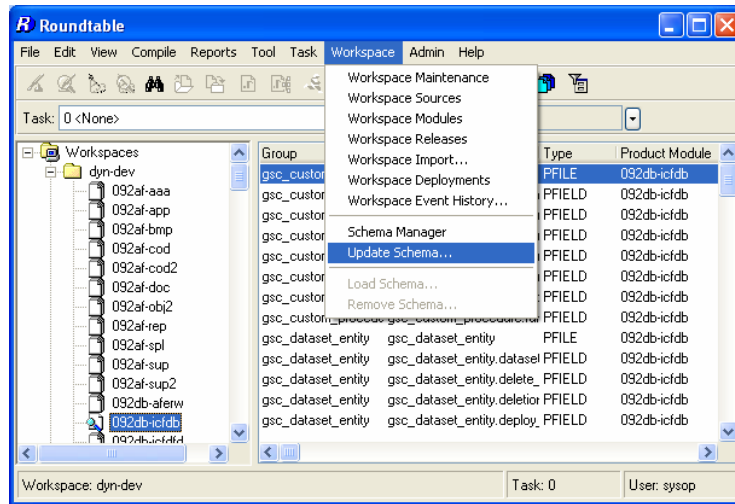
NOTE: The schema objects for the Dynamics repository (ICFDB) are also included in the import. This schema is already up to date, since it has been created completely with data definitions and data using the DCU. However, it is still necessary to remove the "Update Required" flag from the ICFDB schema objects. This can only be done using the Update Schema utility.

Do an Update Schema for the workspace. This will ensure the physical workspace databases and the logical database model for the workspace databases in the Roundtable repository are in synch.

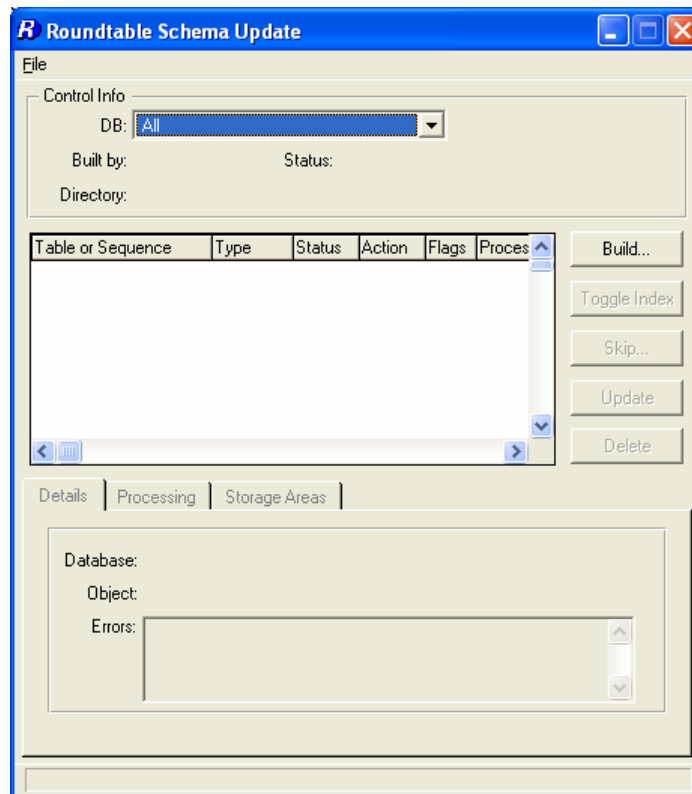
CAUTION: The recommended approach for updating Dynamics application databases using Roundtable is to not use the schema update functionality from Roundtable to physically update the databases. Instead, we use the .df files that are created from AllFusion Erwin™. However, as the schema objects are being version controlled in Roundtable, there are some requirements for the handling of schema that we have to adhere to. We use the SKIP function to avoid updating the database physically from Roundtable. This is described as part of the steps in the following section.

To keep CRC compatibility, manually apply the schema changes to the physical databases. Only database definition files (.df) must be used to update the physical database. These are all provided by Progress Dynamics. The import routine will inform/list all the database definition files included in the import that need to be applied manually.

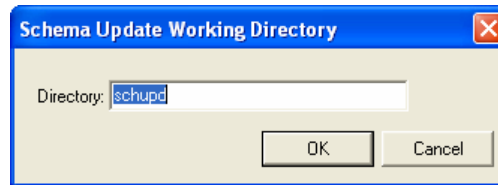
1. Access the Update Schema functionality from the Workspace menu in Roundtable.



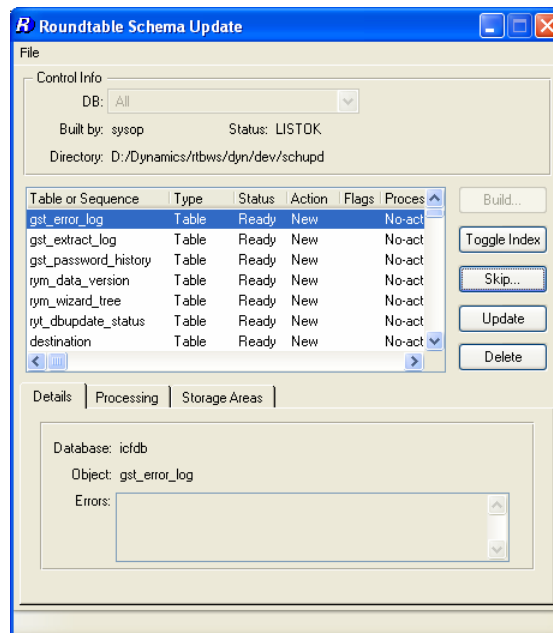
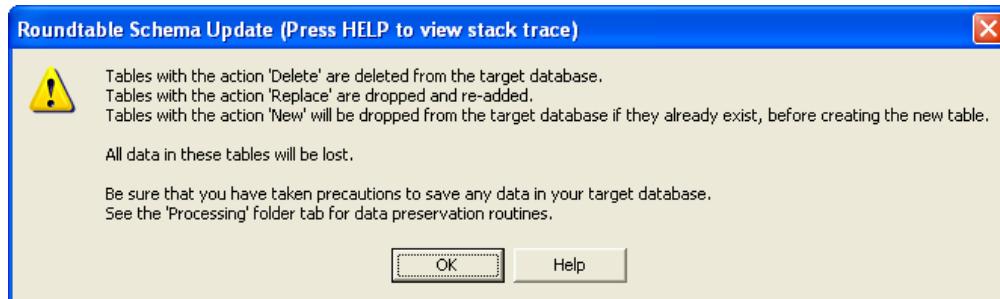
2. To process the schema objects that have to be updated, a list of these objects has to be created using the Build button. Select the individual database to process updates for, or All for all databases:



3. Use the default temporary schema update directory (schupd) suggested by Roundtable. This will be used to store temporary files during schema update operations. In most cases this directory will be empty:

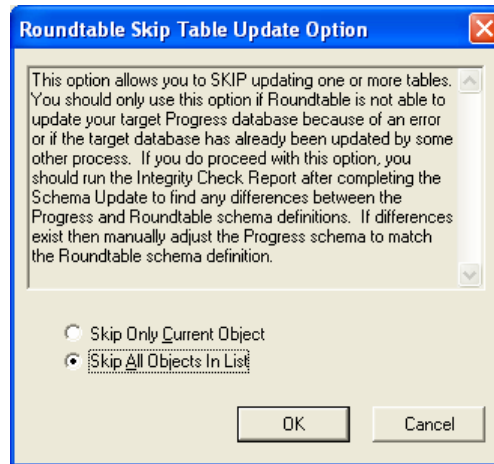


4. A warning is displayed about potential loss of data. This is important if the schema update functionality is being used to update the physical database, as some changes will result in a deleting and re-add of schema definitions. For now, this warning can be ignored:

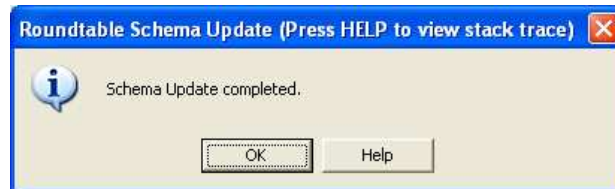


5. Once the table of updates to process has been built, Roundtable needs to remove the Update Required flags for the schema objects. This can be done either by physically applying the schema definitions to the connected databases, or by using the SKIP option to prevent Roundtable from updating the physical database and just removing the flag.

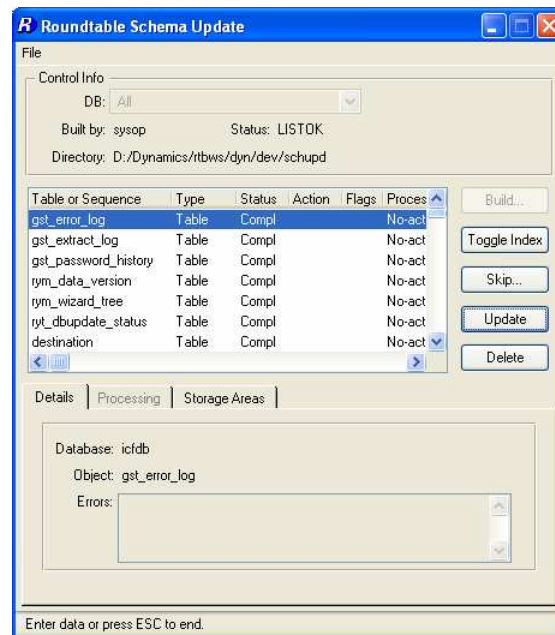
6. In this case, select the Skip button and choose to Skip All objects in the list of updates:



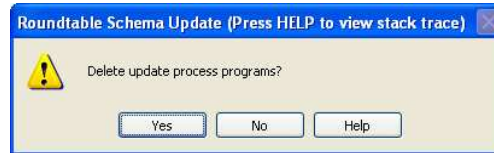
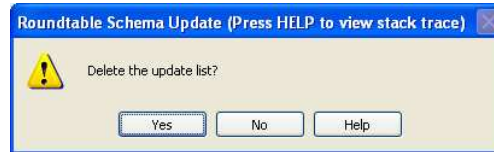
7. When the update is finish press **OK** to the dialog.



8. The status of all of the objects now changes to "Compl" for completed. Selecting the Update button will now process the schema updates internally in Roundtable, without making any changes to the physical database. Now select the Delete button. This will remove the lock on the workspace that the schema update process has created.



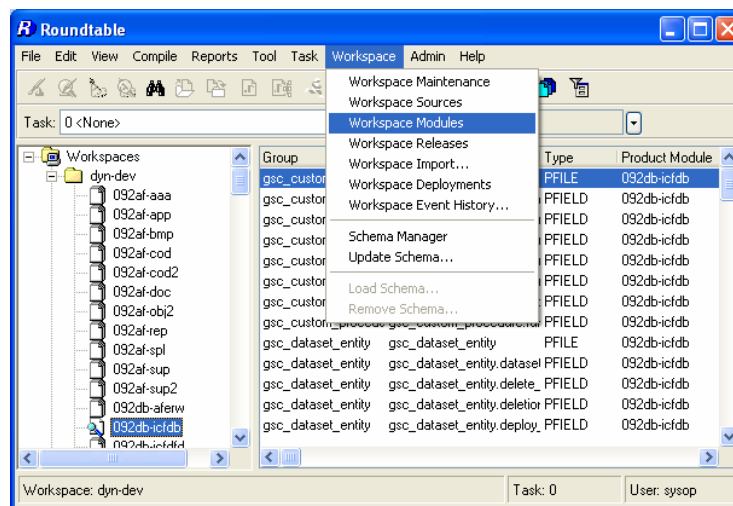
9. Select yes at the following prompts to remove the list of updates and the update process programs:



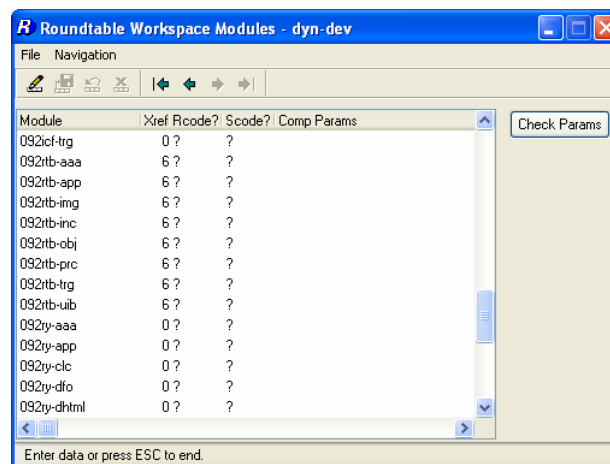
3.3.3.7 Setting the X-Ref level

Before doing a selective compile you must override the workspace X-Ref level for some modules. These modules are all the (092rtb-*) and all the (092scmrtdb-*), the Xref level must be set to level 6 for these modules.

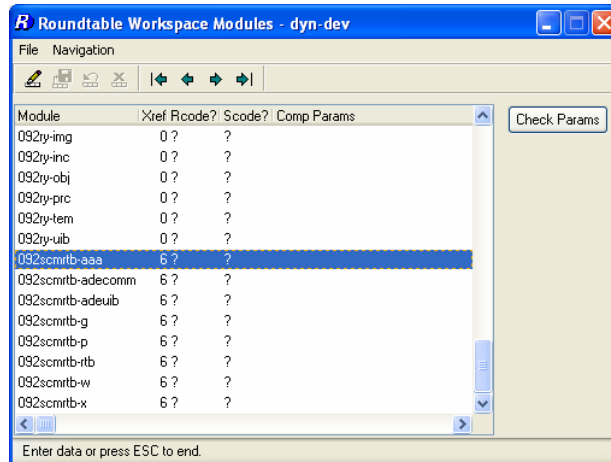
1. Select the workspace → workspace modules.



2. Change the level from ? (? Is the workspace default which is set in the workspace maintenance) to level 6 for (092rtb-*).



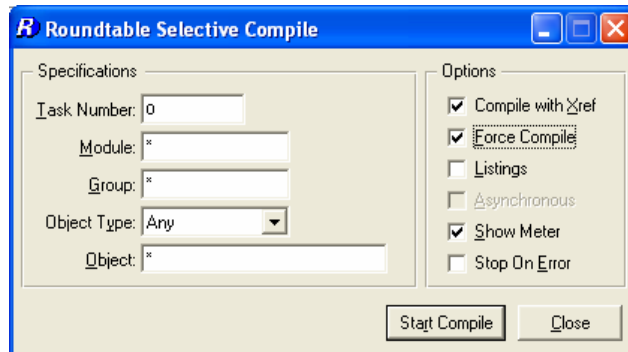
-
3. And for the (092rtbscm-*)



Leave all other settings as (?) for default settings.

3.3.3.8 Workspace Cross Reference (X-Ref) Compile

1. Do a full X-Ref compile on the workspace using the Selective Compile. This will compile all the objects and ensure the X-Ref information for all source and databases is fully updated in the workspace:



A first-time compile of the workspace will take a long time to complete. Once it is completed, full X-Ref information will be available in the workspace, which is very useful for Impact Change Analysis and getting a general understanding of the relationships between the objects in the workspace.

NOTE: The X-Ref information contained in the workspace is only as up to date as the latest compile in the workspace. Once you start using the workspace, objects must be compiled with full cross reference whenever they are changed. This will keep the X-Ref as up to date as possible.

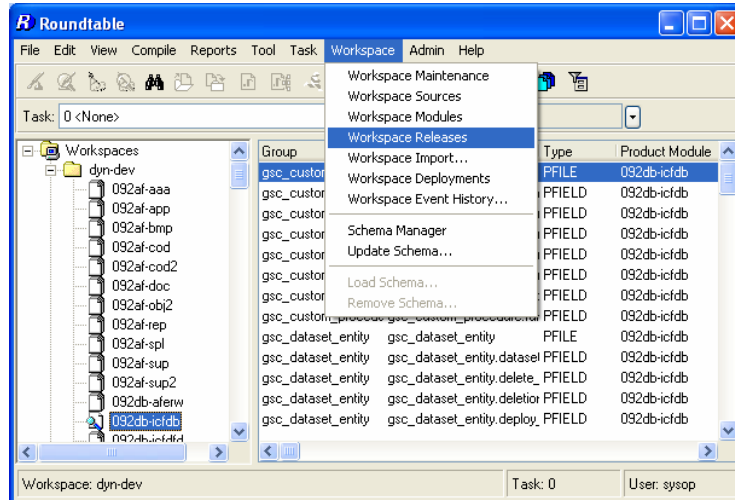
2. In addition, there will be some compile warnings during the compile. These can be ignored. Below is a list of known compile errors that can be ignored.

```
Workspace: dyn-dev
dlayoutlookup.w:
** "src/dynamics/ry/obj/dlayoutlookup_cl.w" was not found.
(293)
dlookup.w:
** "src/dynamics/ry/obj/dlookup_cl.w" was not found. (293)
dynb2b.w:
** "src/adm2/dynb2b_cl.w" was not found. (293)
dynbrowserd.w:
** "src/adm2/support/dynbrowserd_cl.w" was not found. (293)
dyndata.w:
** "src/adm2/dyndata_cl.w" was not found. (293)
```

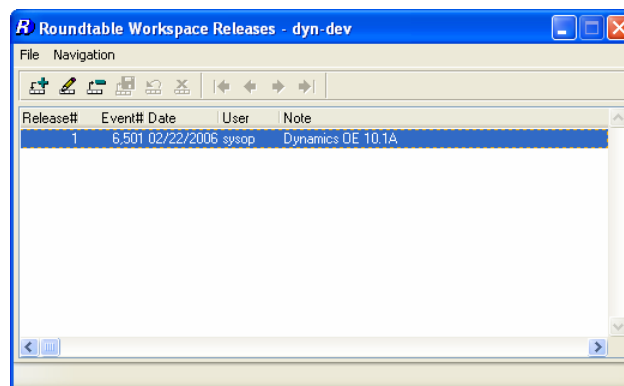
3.3.3.9 Create a Release

On completing the setup of the workspace, create a release.

1. This is done by selecting Releases from the Workspace menu.



2. Enter a description that indicates which version of Progress Dynamics has been imported into the workspace.

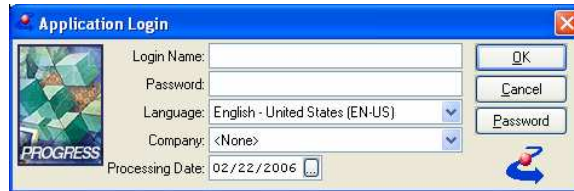


3.3.4 Start Using the Workspaces

1. Log out and shut down any AppServers affected by the update to the Roundtable repository and Progress Dynamics. Restart the AppServers for the workspaces and start a new Roundtable session using the Roundtable shortcut. Login with a valid user ID and password:



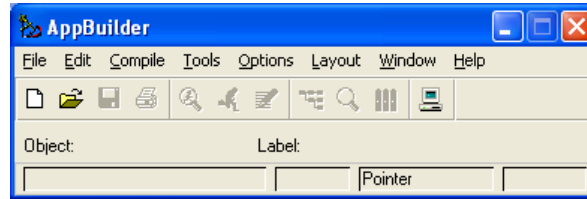
2. Go to your workspace, for example, development workspace DYN-DEV, by selecting the workspace in the Workspace treeview. If the setup has been done correctly, a Progress Dynamics Application Login window appears and requests you to login. If the login does not appear or any errors occur, the setup has not been successful.



3. Start the AppBuilder from the Progress Desktop only after a successful login.



-
4. If you are not logged in and the Progress Dynamics session is not valid, the Progress Dynamics extensions will be not be added to the AppBuilder:



5. If Progress Dynamics is running correctly, the Progress Dynamics functionality will be available with the AppBuilder:



3.3.5 Deploying to Other Workspaces

3.3.5.1 Separate Releases

It is important to deploy Progress Dynamics updates and application updates in separate releases.

For Progress Dynamics updates, the integration hooks are typically switched off during the Roundtable import process to ensure that any schema or data updates to the ICFDB are managed by the DCU.

For application updates, the integration hooks must remain engaged because they are responsible for updating the ICFDB with any new or changed data.

3.3.5.2 Unmanaged Data

There are several types of data that are not managed by Roundtable in the integration with Dynamics. Among these are:

- Dynamics products and product modules.
- Dynamics object types.

The SCM Cross-reference (X-Ref) records that map Dynamics product modules to Roundtable product modules and Dynamics object types to Roundtable code subtypes.

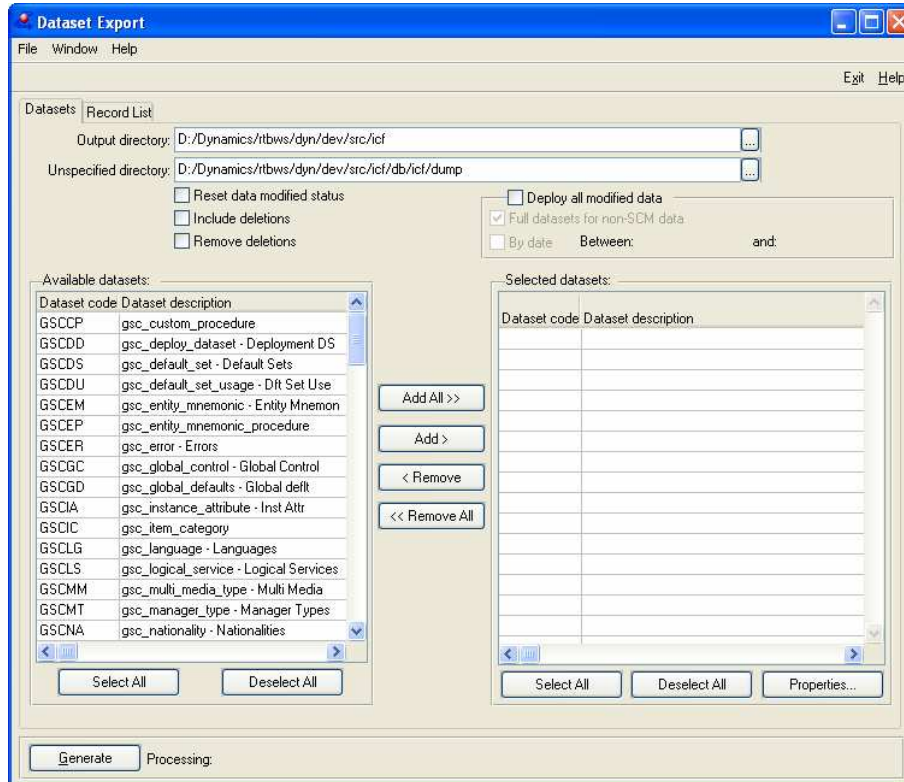
- Menu structures, items, and categories.
- Error messages.
- Smart link types.
- Run time attributes and master class attributes.

When you deploy a Dynamics application from one Roundtable workspace to another, for example, from a development workspace to a test workspace, any new or customized objects of these types must be transferred manually. This can be done using the Dynamics Dataset Export and Import functions.

3.3.5.2.1 Exporting Datasets

These are the steps to perform in the source workspace.

1. In the AppBuilder, go to: Tools → Administration → Deployment → Dataset Export.



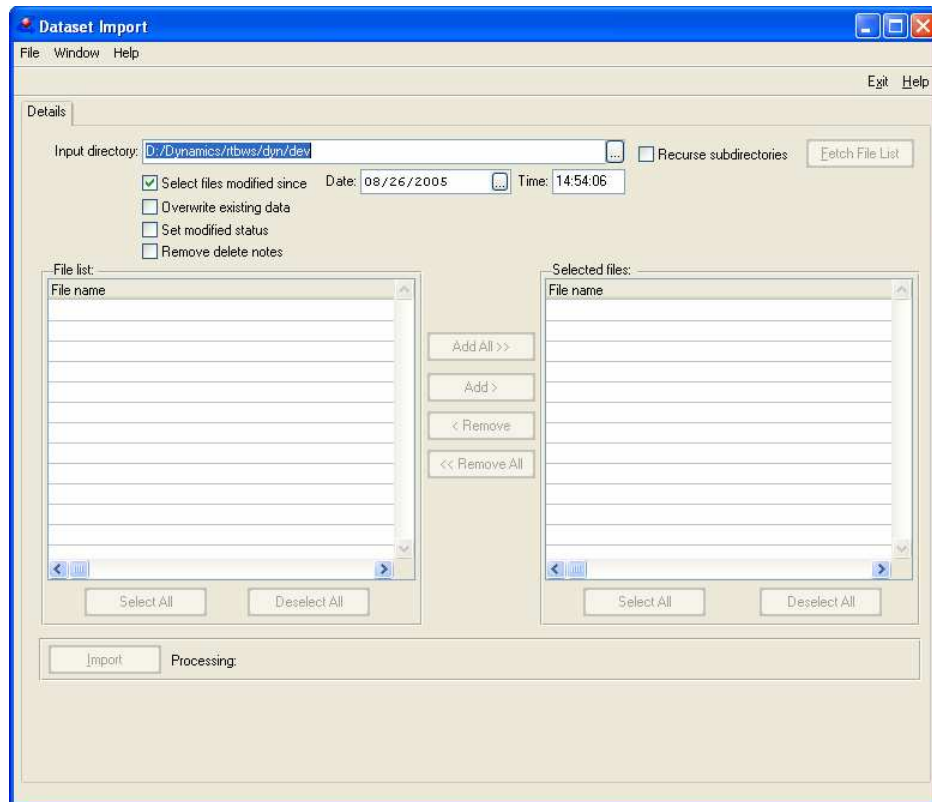
2. Set a suitable output path, for example, <workspace-root-path>/export.
3. Select the dataset to be exported:
 - GSCPR – Products and modules
 - GSCOT – Object types
 - GSCSM – SCM X-Ref
 - GSCIC – Item categories
 - GSMCA – categories
 - GSMMI – Menu items
 - GSMMS – Menu structures
 - GSCER – Error messages
 - GSCDM – Entity mnemonics
 - GSCIA – Instance attributes
 - RYCAT – Dynamic attributes

- RYCST – SmartLink types
4. Highlight the dataset to be exported and go to the *Record List* tab.
 5. Select the dataset items that belong to the application.
NOTE: the *Select Modified* button can help to identify these items.
 6. Select **Generate**

3.3.5.2.2 Importing Datasets

These are the steps to perform in the target workspace:

1. In the AppBuilder, go to: Tools → Administration → Deployment → Dataset Import.



2. Set the relevant Input directory.
3. Check the Recurse subdirectories checkbox.
4. Select Fetch File List.
5. Select the special datasets that were exported from the source workspace.
6. Import.
7. Immediately after importing the datasets, deselect the workspace (workspace = None) and reselect it to refresh the cache for the session.

3.4 Update an Existing Roundtable Environment

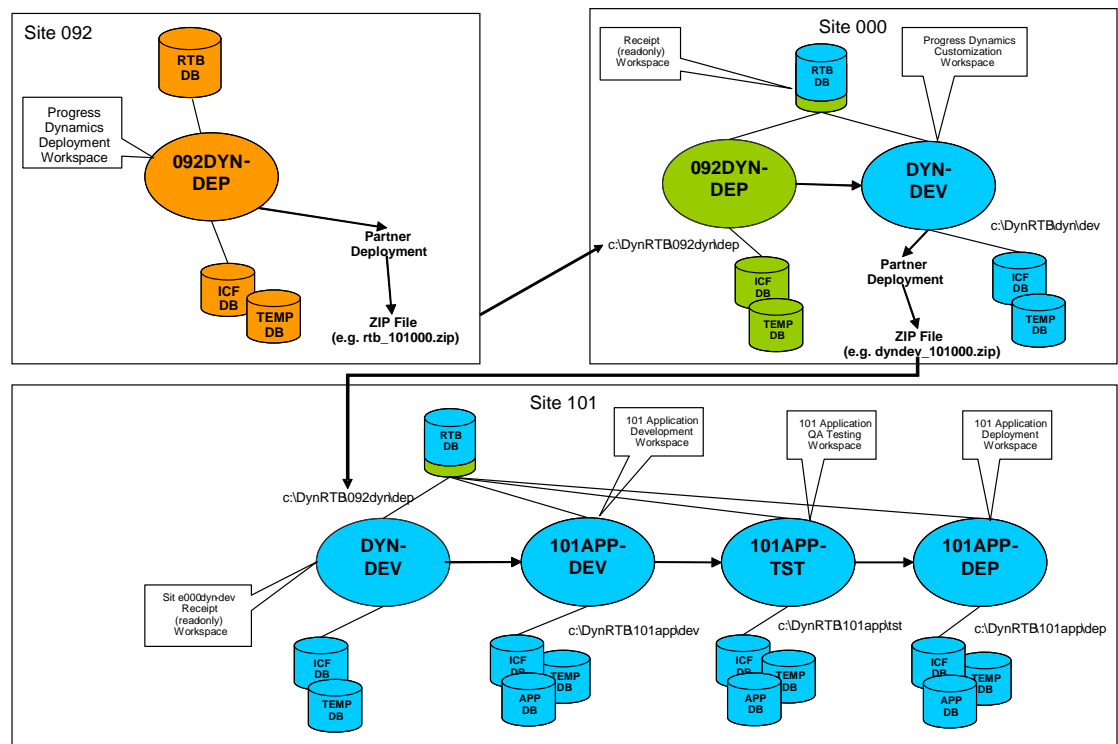
Updating an existing Roundtable Environment is not covered in this white paper. Instead find the correct paper at the Roundtable support site:

<http://www.roundtable-tsms.com/support/>

4 Alternative Workspace Configurations

The diagram below shows an example of an environment where the development and maintenance of enhancements and customizations for Dynamics are managed from a separate Roundtable repository. This repository has a Roundtable site number of 000. When a “version” of the customized Dynamics Framework is ready to be released, a Partnership deployment can then be made from the “dyn-dev” workspace.

This deployment can then be used as the foundation for the development of multiple applications – either by having each of these in a separate repository as well, or by maintaining them all in the same repository. The diagram for site 101 shows an example workspace flow for such application development.



5 Links to related documentation

Here are some links to related documents for setup and installation of the SCM Tool Roundtable for integration with Progress Dynamics, as well as some information resources for Roundtable and Progress Dynamics.

| Document | Location/Filename |
|----------------------------------|---|
| Roundtable TSMS Support Web site | http://www.roundtable-tsms.com/support PROGRESS DYNAMICS INTEGRATION |
| PSDN | http://psdn.progress.com/library/progress_dynamics |

6 Technical Support

6.1 Dynamics Support

Issues with core Dynamics functionality and upgrading Dynamics repositories or code, which do not have anything to do with the use of Roundtable and Dynamics should be directed to Progress Software Corporation's Technical Support.

<http://www.progress.com/support>

6.2 Roundtable Dynamics Support

The Roundtable Dynamics integration using Roundtable 10.0A02 or higher and OpenEdge 10.0B01 or higher is now supported by Roundtable Technical Support.

The following kinds of issues can be directed to Roundtable Technical Support:

- Issues related to the use of the core Roundtable product
- Issues related to the use of the Roundtable Dynamics integration
- Enhancement requests to Roundtable or the Roundtable Dynamics integration

Contact details for Roundtable Technical Support can be found at:

<http://www.roundtable-tsms.com/support>.