About Schemas

An *XML schema* is an XML document that specifies the structure of a valid XML document. Comparable to a document template, an XML schema ensures that every item is in the correct form. You cannot combine an XML schema with an XML document that the schema governs, since the schema is used by several documents and stored separately for validation purposes.

An XML schema consists of the following components:

✦ XML declaration – Defines the XML version that the schema uses.

✦ Schema element – Identifies the document as an XML schema.

✦ Element declaration – Defines the element.

✦ Attribute declaration – Defines the attribute.

An *element* is a section of an XML document. An element can contain *attributes*, which are characteristics of an element.

Schemas are used in Gentran Integration Suite to validate translation data in the Map Editor, provide web service structural information to web service clients, and define Reporting Services components such as fact models and reports.

When you submit an XML document using Gentran Integration Suite, the XML document is compared to the XML Schema to ensure that the document is in the appropriate format and is valid.

Checking In Schemas

To use schemas in Gentran Integration Suite, you must first check them in to Gentran Integration Suite. You can check in the following types of schemas:

✦ XML schema (.xsd)

✦ DTD (.dtd)

✦ Fact Model (.bifm) (used for Reporting Services)

✦ Report Definition (.rdef) (used for Reporting Services)

✦ Report Format (.rfmt) (used for Reporting Services)

✦ Mondrian Cube (.mond) (used for Reporting Services)

✦ Other

Note: The Other schema type option enables you to save schema files having extensions other than those listed—for example, schemas having extensions .doc and .txt.

To check in a schema to Gentran Integration Suite:

1. From the Gentran Integration Suite **Deployment** menu, select **Schemas**.

2. In the Check-in section, click **Go!**

3. Either type the path to the schema or click **Browse**, locate the schema on your client computer, and click **Open**.

   Note: A schema name cannot use spaces or apostrophes.

4. Type comments in the **Check-in comments** field and click **Next**. This is required.

   You may want to note the purpose of the schema or to explain the changes made to it.

5. In the **Schema Name** field, type the name of the schema.

   Note: For translation mapping, the schema name here must match exactly the schema name in the XML instance document that the Translation service will translate. If the schema is an XML schema, the name must match the target namespace in the schema. If these conventions are not followed, the XML parser in Gentran Integration Suite generates an error at run time.

6. Verify that the schema type is correct.

7. If you are checking in an XML schema (XSD), specify the target namespace and click **Next**.

8. Verify the settings and click **Finish**.

Checking Out Schemas

After a schema is checked in, you can check it out of Gentran Integration Suite. Checking out a schema does not remove it from the Gentran Integration Suite database; it saves a copy of the schema from the host to your client computer. To edit the schema, use the Source Manager to check out a version.

To check out a version of a schema from Gentran Integration Suite:

1. From the Gentran Integration Suite **Deployment** menu, select **Schemas**.

2. Locate the schema you want to check out by using either the Search or List option.

3. Next to the schema you want to check out, click **source manager**.

4. Next to the version you want to check out, click **check-out**.

5. In the **File Download** dialog box, select one of the following options:

   ◆ Select **Open**, then click **OK**. You can view the file in Notepad or a similar program.

   ◆ Select **Save** then click **OK**. Map Editor prompts you to choose a destination location. Browse to the location and click **OK** to save the file and complete check out.

The schema is now saved on your local computer. You can edit the schema and then check in a new version.

Searching for Schemas

In order to check in a schema version, or check out, enable, or disable a schema, you must first locate the schema. You can locate a schema in several ways:

✦ By name – Most precise and provides only results that match the name you provide.

✦ Schema namespace – Provides results that match the namespace you provide (for XSD schemas only)

✦ From an alphabetic list – Provides all schemas in an alphabetical list.

✦ By schema type – Provides results of schemas that match the type you provide.

Maintaining a Schema Version History

Gentran Integration Suite enables you to maintain versions of your schemas.

A *version* is an edited copy of a schema. Each time a schema is edited, a new version is created, but the original schema remains intact for future use. A schema version starts when you type a description in the Comments field as you check in a schema. Because this description provides the basis for maintaining the version for that schema, you should create the description carefully. In addition, Gentran Integration Suite adds a date and time stamp to each version that can be used for version identification.

To maintain a schema version:

1. From the Gentran Integration Suite **Deployment** menu, select **Schemas**.

2. In the Schemas page, locate the schema for which you want to check in a version using Search or List.

3. Next to the schema that you want to check in a version, click **source manager**.

4. Next to Check in a version of this schema, click **Go!**

5. To check in a schema, either type the path to the schema or click **Browse**, locate the schema on your client computer, and click **Open**.

6. Type comments in the **Check-in comments** field. This field is required.

    You may want to note the purpose of the schema or explain the changes made to it.

7. Select the version you want to be the default version and click **Next**.

8. If you do not want the schema to be enabled, clear the **Enable for Business Processes** check box.

9. Review the settings for the schema you are checking in. Are the settings correct?

    ◆ If Yes, click **Finish** to apply your changes. Gentran Integration Suite displays the message, *The system update completed successfully.*

    ◆ If No, click **Back** to make changes to your selections, or click **Cancel** to cancel without saving your changes.

Enabling or Disabling Schemas

Enabling a schema makes the schema available to Gentran Integration Suite components. Disabling a schema makes the schema unavailable to Gentran Integration Suite components.

You can enable or disable a schema in two ways:

✦ At the time you check in a schema

✦ Through the Version Manager after the schema has been checked in

To enable or disable a schema that has been checked in:

1. From the Gentran Integration Suite **Deployment** menu, select **Schemas**.

2. Locate the schema you want to enable or disable using either the Search or List option.

3. Next to the schema you want to enable or disable, click **version manager**.

4. Depending on your task, complete one of the following actions:

   ◆ To enable the schema, select the **Enable** check box.

   ◆ To disable the schema, clear the **Enable** check box.

5. Click **Save**.

   Gentran Integration Suite displays the message, *Schema status has been successfully updated*.

Specifying Default Schemas

The *default schema* is the version of the schema that is available at the start of a business process. You can specify a default schema only if you have two or more versions of the same schema. One version must be selected as the default.

To specify a default schema:

1. From the Gentran Integration Suite **Deployment** menu, select **Schemas**.

2. Locate the schema using Search or List.

3. In the search results next to the schema you want to make the default, click **version manager**.

4. Select the version you want to be default.

5. Click **Save**.

   Gentran Integration Suite displays the message, *Schema status has been successfully updated*.