Tamino X-Plorer

Version 9.7

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WEBMETHODS

Table of Contents

Tamino X-Plorer

The Tamino X-Plorer documentation is intended for designers, builders and developers of XML database applications who need to explore and manipulate the contents of a Tamino XML Server.

This documentation covers the following topics:

I Introducing the Tamino X-Plorer

1 Introducing the Tamino X-Plorer

The Tamino X-Plorer displays the contents of Tamino XML Server in a navigation tree, thus allowing you to explore and manipulate its contents.
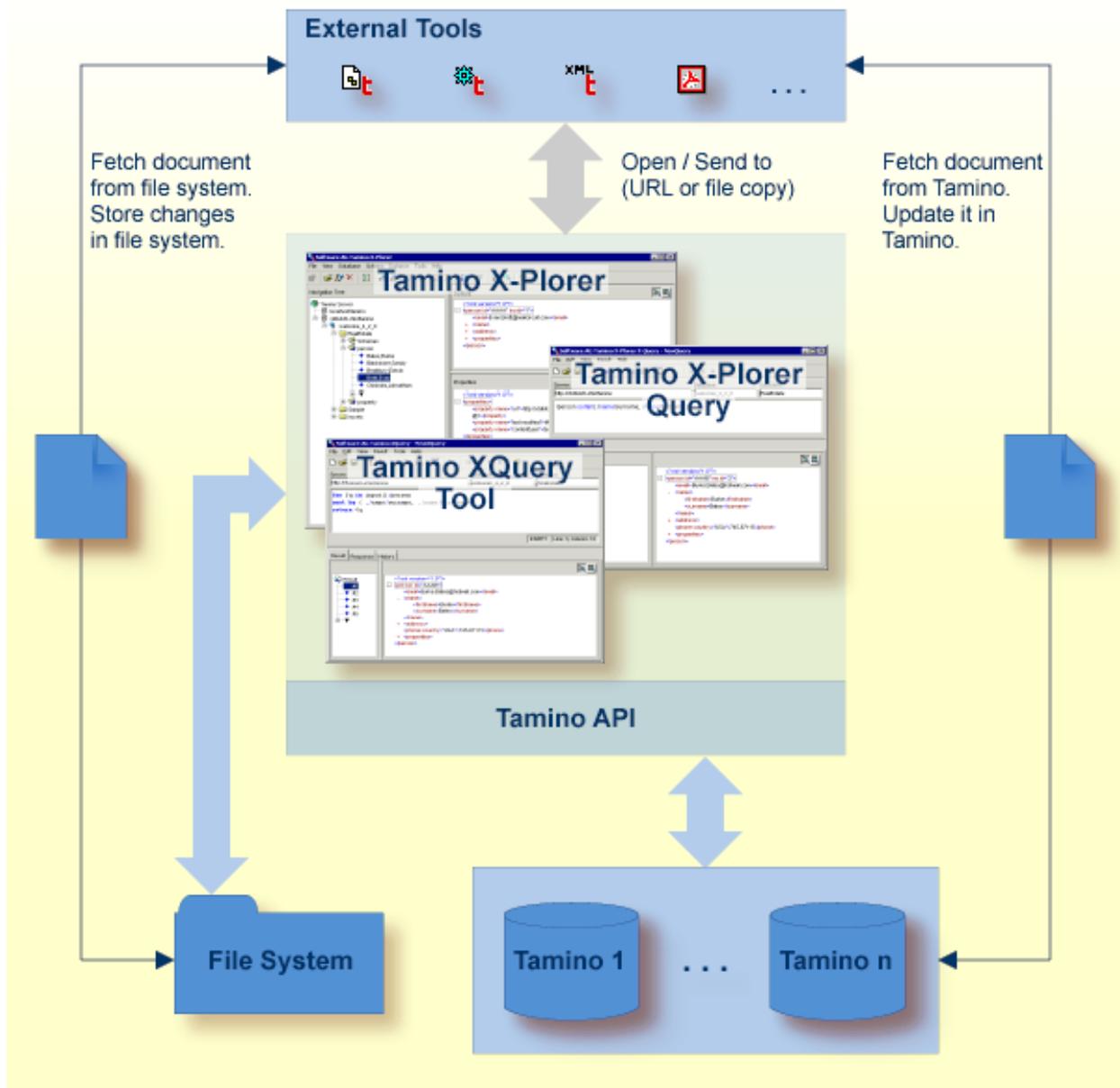
The features of the Tamino X-Plorer are summarized below.

Explore databases

- Connect to Tamino servers and their XML databases.

- Navigate and browse through collections, groups of schemas and groups of instances.

- Display the contents of documents in the standard formats XML, HTML, TXT, GIF, JPG, BMP, TIFF and SVG.

- Define different views for the document contents.

- Browse through very large amounts of data using highly sophisticated fetch options, filter mechanisms and display options.

Query a database

- Query and display instances or fragments of instances.

- Specify and execute queries directly.

- Save and load queries.

- Define different result views.

Maintain the structure and contents of a database

- Define, update and undefine existing schemas.

- Insert, update and delete existing instances. Multiple insertions and deletions of instances are supported.

Display, create and edit objects in a database

- For schemas, invoke the Tamino Schema Editor.

- For XML instances, invoke an appropriate external tool or start an application.

- For non-XML instances, invoke an external tool which supports the corresponding media type (for example, Adobe Reader for PDF).

Support for developing Tamino applications

- Invoke useful tools for application development, for example, a tool which generates test data for a specific doctype.

View externally maintained data

- View administrative data such as security data or server extensions of a Tamino XML Server.

- View WebDAV-enabled collections which contain documents controlled by a WebDAV server.

II Installing the Tamino X-Plorer

2 Installing the Tamino X-Plorer

The Tamino X-Plorer is automatically installed if you choose the option "Complete" of the Tamino XML Server installation. For more information, refer to the installation section of the Tamino XML Server documentation.

After you have Installed the Tamino X-Plorer

Non-ASCII Characters

In order to enable this Java based graphical tool to display non-ASCII characters, users can edit or create their own font.properties files to to map logical font names to physical fonts.

III First Steps with the Tamino X-Plorer

3 First Steps with the Tamino X-Plorer

This chapter is intended to get you started with the most important features of the Tamino X-Plorer. It is recommended that you read the topics in the sequence indicated below. After reading a section which is referenced in a topic below, you should always return to this chapter and then proceed with the next topic.

The following topics are covered below:

Starting the Tamino X-Plorer

See *Starting the Tamino X-Plorer* for information on how to start the Tamino X-Plorer on the supported platforms.

Connecting to a Database

When you start the Tamino X-Plorer for the very first time, the navigation tree on the left is empty since you have not yet connected to a server and database.

Connect to any Tamino database which has been previously activated using the Tamino Manager. See *Connecting to a Tamino Database* in the section *Servers and Databases*.

Browsing through a Database

When you have connected to a database, a node for it is shown in the navigation tree and you can explore the database contents.

Expand the tree structure by clicking the plus sign in front of an object. When using the keyboard, select the object and press RIGHT-ARROW. The object types are indicated by different icons. See *Navigation Tree* in the section *Elements of the Main Application Window*.

Select an object to display details about it in the **Content** pane and in the **Properties** pane on the right. See *Content Pane* and *Properties Pane* in the section *Elements of the Main Application Window*.

Displaying Packs of Instances

In the navigation tree, not all instances are shown at the same time. They are subdivided into several packs. When further packs are available, down-arrows are shown in the navigation tree.

Click the plus sign next to the down-arrow to display the next pack of instances. When using the keyboard, select the down-arrow and press ENTER.

Or invoke a context menu for a group of instances. From the context menu, choose, for example, **Last** to display the last pack of instances.

Specifying the Instance Fetch Options

The pack size and the maximum number of instances that can be shown in the navigation tree at the same time depend on the instance fetch options. You can specify different values. See *Specifying the Instance Fetch Options* in the section *Working with Schemas*.

Using Instance Descriptors

By default, the `ino:docname` or `ino:id` is shown for each XML instance in the navigation tree. To make the instances more readily identifiable, you can create instance descriptors.

An instance descriptor defines the attributes of an instance that are to be shown in the navigation tree (for example, a surname, city and phone number) and the sorting sequence. See *Specifying an Instance Descriptor* in the section *Working with Schemas*.

Filtering Instances

Using a filter, you can reduce the number of instances that are shown in the navigation tree. For example, you can define a filter that shows only the instances with a specific surname. See *Filtering Instances* in the section *Working with Instances*.

Adding Instances and Schemas to a Database

Instances and schemas are created outside the Tamino X-Plorer, using external tools (see below). With the Tamino X-Plorer, you can then add them to a Tamino database. See *Defining a Schema* in the section *Working with Schemas* and *Inserting a New Instance* in the section *Working with Instances*.

Checking the Open Location

The open location is the folder on your PC in which all schemas and instances that you modify and save using external tools are temporarily stored.

To check the default open location or to define another open location, invoke the **Options** dialog box and go to the **File Location** page. See the section *Setting the Tamino X-Plorer and X-Query Options*.

Modifying a Schema or Instance

Several steps are required when modifying schemas or instances:

1. Invoke the corresponding external tool for the schema or instance directly from the Tamino X-Plorer (either with a double-click or via a context menu using the **Open With** command). See *Opening a Schema or Instance* in the section *General Commands for Managing Different Types of Objects*.

2. Modify the schema or instance with your external tool.

3. Save the modifications to your open location and exit your external tool.

4. Update the schema or instance using the Tamino X-Plorer (i.e. overwrite the existing schema or instance in the database with the new version that is stored in your open location). See *Updating a Schema or Instance* in the section *General Commands for Managing Different Types of Objects*.

Searching a Tamino Database

To search a Tamino database, you have to invoke a query window in which you specify and execute your query. The query results are shown in the query window. Two different types of query can be performed with the Tamino X-Plorer. See the following sections for further information:

- *Performing X-Queries with the Tamino X-Plorer*
- *Using the Tamino XQuery Tool*

IV   Using the Tamino X-Plorer

This section explains how to work with the Tamino X-Plorer. The following topics are provided:

- **Starting and Leaving the Tamino X-Plorer**
- **Elements of the Main Application Window**
- **Servers and Databases**
- **Browsing Through a Tamino Database**
- **General Commands for Managing Different Types of Objects**
- **Working with Schemas**
- **Working with Instances**
- **Setting the Tamino X-Plorer and X-Query Options**
- **Instances in WebDAV Enabled Collection**

4 Starting and Leaving the Tamino X-Plorer

This chapter covers the following topics:

Note: Each Tamino X-Plorer installation uses a single set of properties. Therefore, we do not recommend using one installation with multiple users (at least not in parallel) because they will then share (mutually overwrite) these properties.

Starting the Tamino X-Plorer

The Tamino X-Plorer can be invoked from all supported Windows and UNIX platforms.

≫ **To start the Tamino X-Plorer on Windows**

■ From the Windows **Start** menu choose **Tamino X-Plorer** in the Tamino program group.

≫ **To start the Tamino X-Plorer on UNIX platforms**

■ Start the following script from the command line:

```
inoxplorer.sh
```

Using Help

The complete Tamino X-Plorer documentation is available in HTML format.

The description below applies to both the main application window and the query windows of the Tamino X-Plorer.

≫ **To invoke the overview page for the documentation**

■ From the **Help** menu, choose **Contents**.

Or:

Press F1.

Or:

Choose the following toolbar button:

⑦

≫ **To invoke context-sensitive help for a dialog box**

■ Choose the **Help** button in the dialog box.

Or:

Press F1.

Leaving the Tamino X-Plorer

When you leave the Tamino X-Plorer, all open connections to databases are disconnected automatically. Visited databases are remembered.

≫ **To leave the Tamino X-Plorer**

■ From the **File** menu, choose **Exit**.

Or:

From the Control menu, choose **Close**.

Or:

Choose the corresponding standard button in the title bar.

5 Elements of the Main Application Window

When you start the Tamino X-Plorer, its main application window appears.
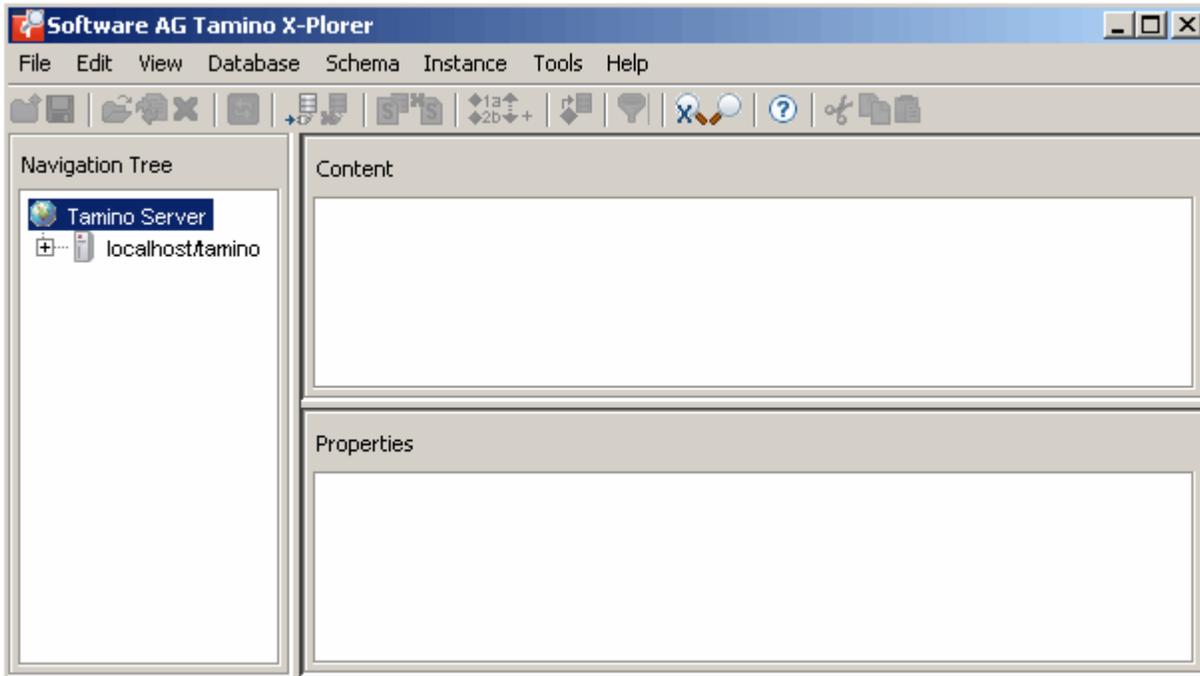
The main application window contains several panes: the navigation tree, the **Content** pane and the **Properties** pane. To modify the size of a pane, move the mouse pointer over the border separating the panes until the pointer changes, showing two arrows pointing in opposite directions. Then drag the border using the mouse until the panes have the desired size.

For details on keyboard access not mentioned in this documentation, consult the documentation of the individual operating system or software product.

The following topics are covered below:

Menu Bar

The following menus are available:

Menu	Using the commands in this menu, you can ...
File	Create a new collection or open, update, delete and save objects. Or exit the Tamino X-Plorer.
View	Switch on and off different elements of the main application window or refresh the display.
Database	Connect/disconnect to/from a database, or remove a database from the tree.
Schema	Define and undefine a schema, specify an instance descriptor or the instance fetch options.
Instance	Insert instances and apply a display filter.
Tools	Perform queries, invoke external tools, define additional external tools or define the options.
Help	Invoke the online documentation.

For reference information on each menu command, see *Menu Commands in the Main Application Window*.

Toolbar

You can execute the most important functions using the toolbar.

The following toolbar buttons are available:

Create new collection

Open schema or instance

Update schema or instance

Delete instance or collection

Refresh database, collection, schema or instance

Connect to database

Disconnect from database

Define schema in collection

Undefine schema

Specify instance descriptor

Specify instance fetch options

Insert instance in collection

Filter instances

Invoke Tamino XQuery tool

Invoke X-Query window

Access online documentation

> **To switch the toolbar display on and off**

■ From the **View** menu, choose **Toolbar**.

   When the toolbar is displayed in the main application window, a check mark is shown next to this menu command.

Navigation Tree

The navigation tree on the left side of the main application window shows databases of Tamino XML Servers to which you have previously connected. When you invoke the Tamino X-Plorer for the first time, the list is empty. See *Connecting to a Tamino Database* for further information.

> **Note:** If you have removed all previously connected databases, no database is shown at all.

You can expand or collapse the tree structure by clicking the plus or minus sign in front of an object. When using the keyboard, select the object and press RIGHT-ARROW or LEFT-ARROW.

When you select an object, details about this object are displayed in the **Content** pane and in the **Properties** pane, but the tree is not expanded.

A database contains collections (the largest units of information within a database). A collection contains one group of schemas. For each schema containing a doctype, the collection contains one group of instances of that doctype. The following example shows different doctypes of schemas and the corresponding groups of instances.
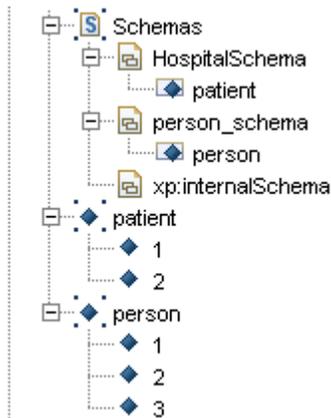
The object types are indicated by the following icons:

- Server
- Connected database
- Disconnected database
- TSD3 or TSD4 collection
- TSD2 collection
- WebDAV-enabled collection
- Group of schemas
- TSD3 or TSD4 schema
- TSD2 schema
- Doctype of XML schema
- Doctype of non-XML schema
- Group of XML instances
- Group of non-XML instances
- Group of XML instances without doctype (grouped by root element name)
- Group of non-XML instances without doctype (grouped by root element name)
- Group of instances with active filter
- XML instance
- Non-XML instance
- XML instance without doctype
- Non-XML instance without doctype

For information on TSD4, TSD3 and TSD2, see *Collections*.

Arrows for browsing the instances may appear in the tree. See *Handling Very Large Amounts of Data*.

> **Note:** Problems within the navigation tree may occur if more than one X-Plorer modifies the same data in the database (for example, X-Plorer 1 scrolls through an instance group which is modified or deleted by X-Plorer 2).

Context Menus

Context menus are available for the entries in the navigation tree. For example, the following context menu is available for a group of instances:
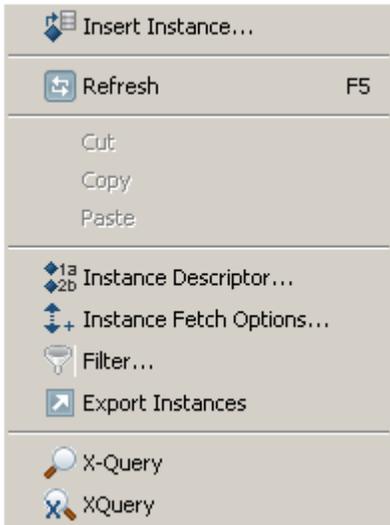
Additionally, two commands (**Next** and **Last**) appear when the selected node is expanded so that instances are shown and not all instances can be shown at the same time. Depending on the pack of instances that is currently shown (see *Handling Very Large Amounts of Data*), you can either display the next or last pack or the previous or first pack.

> ≫ **To invoke a context menu**

1   Select the object for which you want to invoke a context menu.

2   Click the right mouse button.

   Or:

   Press SHIFT+F10.

   The context menu appears and you can now choose the required command.

Content Pane

The **Content** pane at the top right of the main application window shows the content of the XML object that is currently selected in the navigation tree.

Non-XML instances in the following formats can also be shown in the **Content** pane: GIF, JPG, HTML, SVG and ASCII text.

Restrictions:

▪ **Objects in the HTML format**
Under certain circumstances, the **Content** pane remains empty in HTML view (for example, HTML pages based on frames or documents that contain external references such as images).

▪ **Right-to-left orientation**
Documents with right-to-left orientation or mixed orientation may not be displayed in the correct sequence.

▪ **SVG Includes**
In case an SVG document internally refers to another content, which is not accessible in URL form. Displaying such a document would not be possible for the SVG view.

▪ **SVG DTD Reference**
Should an SVG document refer to a DTD or include entity declarations, such a document cannot be added to Tamino as an XML object (as Tamino does not support DTDs). However, it is possible to add this document as a non-XML document.

▪ **SVG External Links and References**
If an SVG document (that has been added to Tamino as a non-XML object) has DTD or link references to an external URL, and this URL is not accessible or is beyond proxy, the SVG content is rendered under default environment settings. However, this may cause the SVG not to be rendered at all, or to be rendered with an incorrect dimension (size).

Help:

▪ **SVG Context Help**
Right-clicking on the SVG Image view opens a context help that can be referred to while working with the content.

When information cannot be displayed in the **Content** pane or when no information is available, a hint is provided. For example, for a group of instances, no content information is available. In this case, the **Content** pane informs you to check the **Properties** pane.

Depending on the type of object, one or more views are available. When different views are available, they can be activated using the following buttons in the top right corner of the **Content** pane:

Button	Keyboard	Description
	CTRL+SHIFT+T	Tree view for XML objects. Not available for non-XML instances. Whether lines are wrapped in tree view depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.
	CTRL+SHIFT+P	Plain view providing the XML code of an XML object. Or plain view providing the HTML code of an HTML document
	CTRL+SHIFT+H	Browser-like view for HTML documents with the restrictions described above.
	CTRL+SHIFT+I	Image view for non-XML objects (for example, GIF).
	CTRL+SHIFT+X	Hexadecimal view for non-XML objects of media type "text/plain".
	CTRL+SHIFT+S	SVG image view for Scalable Vector Graphics

The following example shows the tree view for an XML instance:

The following example shows the plain view for the same instance:
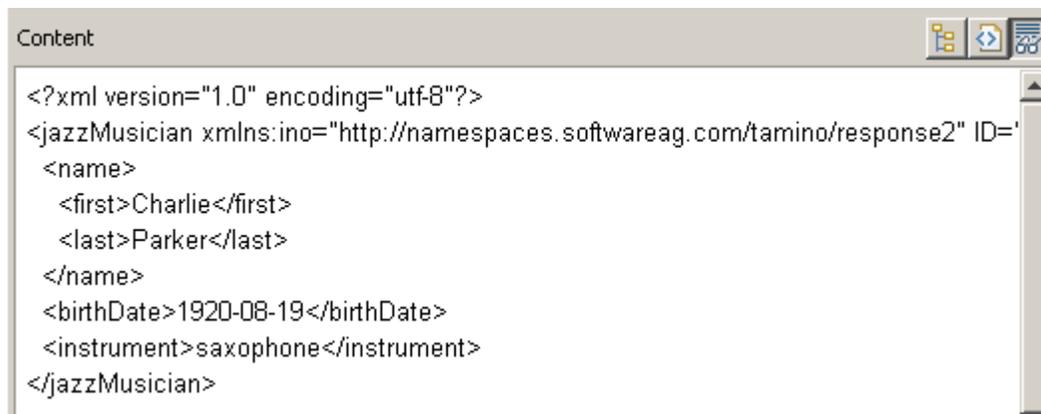
See *Instances* for further information.

≫ **To switch the Content pane display on and off**

■ From the **View** menu, choose **Content**.

   When the **Content** pane is displayed in the main application window, a check mark is shown
   next to this menu command.

Properties Pane

The **Properties** pane at the bottom right of the main application window shows properties (metadata) for the object that is currently selected in the navigation tree. There are two types of information:

- **Schemas, Doctypes and Instance Nodes**
  For a schema, the schema type (for example, TSD4) and the media type (for example, text/xml) are shown.

  For a doctype, the doctype name is shown and whether this is a non-XML doctype or not.

  For an instance (XML or non-XML), date and time of the last modification are shown as well as the media type (for example, text/xml or image/gif).

- **Other Nodes**
  Other nodes are the nodes for servers, databases, collections, groups of schemas and groups of instances. The information shown in the **Properties** pane depends on the type of node which is currently selected in the navigation tree. It may include the names of the doctype, schema, collection, database and server (URL and version). It may also include the state of the database (connected or not), the type of collection (user collection or system collection) and whether the collection is WebDAV-enabled. For a group of schemas, the schema version (for example, TSD4) is shown. For a group of instances, information about the instance descriptor (if defined) and the instance fetch options is shown.

Depending on the type of object, one or more views are available. When different views are available, they can be activated using the following buttons in the top right corner of the **Properties** pane:

Button	Keyboard	Description
⊟	CTRL+SHIFT+T	Tree view. Whether lines are wrapped in tree view depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.
⊞	CTRL+SHIFT+P	Plain view providing the properties of a schema, doctype or instance node as name/value pairs in a table. Not available for other nodes.

The following example shows the properties for an XML instance in tree view:

The following example shows the plain view for the same instance:
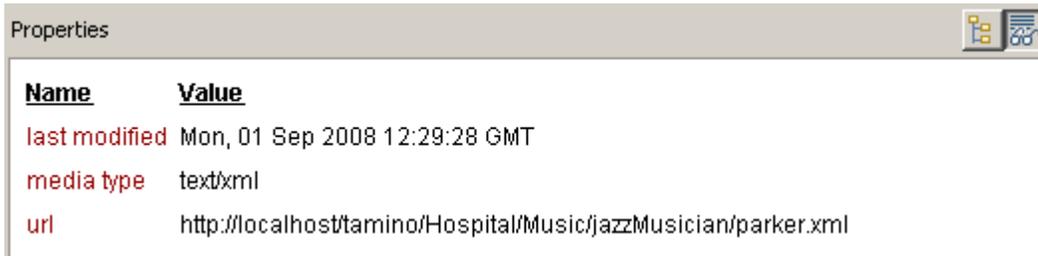
> **To switch the Properties pane display on and off**

■ From the **View** menu, choose **Properties**.

   When the **Properties** pane is displayed in the main application window, a check mark is shown next to this menu command.

Dialog Boxes

Most Tamino X-Plorer dialog boxes can be resized. This is indicated by the following symbol in the lower right corner of a dialog box:

Resizing a dialog box is helpful if a string is so long that it is not fully shown.

Keyboard users should additionally note the use of the following keys:

Key	Function
ENTER	Activate the default button.
ESCAPE	Cancel the current operation and close the dialog box.

Navigating in the Tamino X-Plorer

You can navigate in the Tamino X-Plorer using the standard mouse and/or keyboard techniques for navigating through the menus and selecting items.

Keyboard users should additionally note the use of the following keys:

Key	Function
F2	Activate the selected input field for editing (edit mode).
ALT+DOWN-ARROW and ALT+UP-ARROW	Open and close a drop-down list box in a dialog box. To open and close a drop-down list box in a table, invoke edit mode (F2) first.
TAB	Select the next control, or select the next item in a table.
CTRL+TAB	If a control uses TAB for its own purposes (for example, a table), you have to use CTRL+TAB to leave the context of current control.

6 Servers and Databases

You can connect to several servers and Tamino databases at the same time.

This chapter provides the following information:

Connecting to a Tamino Database

You can connect to any Tamino database which has been previously activated using the Tamino Manager.

The navigation tree shows all servers and databases to which you have previously connected. The icon next to the database name indicates one of the following states:

- A connection to the database has not yet been established.
- A connection to the database has already been established.

≫ To connect to a Tamino database

1 From the **Database** menu, choose **Connect**.

   Or:

   Choose the following toolbar button:

   The **Connect** dialog box appears.
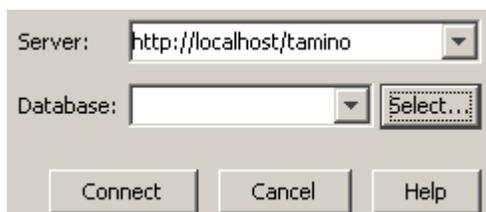
   If this is the first time you are connecting to a server, the drop-down list boxes are empty and you have to type in the required information. The next time you access this dialog box, this information is available and can be selected from the drop-down list boxes.

   Note: All information entered in the **Connect** dialog box is reflected in the navigation tree. If you accidentally mistyped, for example, the name of a database and thus tried to connect to a non-existing database, you should remove this entry from the tree. See *Removing a Server or Database from the Navigation Tree*.

💡 **Tip:** The **Connect** dialog box appears automatically when you try to expand the node for a database which has not yet been connected.

2   Enter the path to the required server in the following format:

```
http://host/tamino
```

where *host* is the name of the computer on which the Tamino Server resides. You can specify "localhost" for your local computer, or a path such as "yourpc.ourcompany.com" for a remote computer.

Or:

Select the required server from the corresponding drop-down list box.

3   Enter the name of the database to which you want to connect.

Or:

Select the required database from the corresponding drop-down list box.

Or:

Choose the **Select** button to display all databases on the specified server in an additional dialog box. You can then choose the desired database. This feature works only with databases that have been created starting with version 4.2.1. In all other cases, a message appears saying that a list of databases is not available.

4   Choose the **Connect** button.

When a password is required for the database, a login dialog box appears.

5   Specify the user ID and password with which you are defined to Tamino security and/or the authentication file of your web server (if authentication is active), and then choose the **Login** button.

If you have to specify a domain name with your user ID, specify it in the following way:

```
domain-name/user-ID
```

If the authentication of your web server is not active (which is the default setting) and you have no explicit user ID/password entry in the Tamino security file, you can enter any combination here. You are then assigned default access rights in Tamino.

The last user ID you entered in this text box is automatically remembered.

Checking the Database Version

When you select a Tamino database in the navigation tree, the **Properties** pane shows the current Tamino version. For example:

Disconnecting from a Database

When you disconnect from a database, an expanded node is collapsed and the icon in front of the database name indicates that this database is not connected.

> **Note:** When you leave the Tamino X-Plorer, all open connections to databases are disconnected automatically.

≫ To disconnect from a database

1   In the navigation tree, select the database to be disconnected.

2   From the **Database** menu, choose **Disconnect**.

Or:

Choose the following toolbar button:

Removing a Server or Database from the Navigation Tree

All servers and databases that you have previously accessed are automatically remembered. They are shown in the navigation tree each time you start the Tamino X-Plorer. When you do not need access to a specific server or database any longer, you can remove its entry from the tree.

Removed servers and databases are no longer available from the drop-down list boxes of the **Connect** dialog box.

≫ **To remove a server or database from the navigation tree**

1   In the navigation tree, select the server or database to be removed.

2   From the **Database** menu, choose **Remove from Tree**.

    A dialog box appears asking whether you really want to remove the selected object.

3   To remove the object, choose the **Yes** button.

7 Browsing Through a Tamino Database

This chapter provides general information on handling the objects in the navigation tree:

For detailed information, see *Working with Schemas* and *Working with Instances*.

Collections

A collection is the largest unit of information within a database.

When you select a collection in the navigation tree, the **Properties** pane shows information about this collection. For example:

A collection may be defined as required, optional or prohibited (`schemaUsage` property). See also *Creating a New Collection*.

Whether system collections are shown in the navigation tree depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.

Different types of collection are available:

- WebDAV-enabled Collections
- The Collection ino:etc

One collection may contain only schemas of a specific version: either XSD, TSD, TSD2 or TSD3.

WebDAV-enabled Collections

In the navigation tree, WebDAV-enabled collections are indicated by the following icon:

You can view the contents of a WebDAV-enabled collection. The WebDAV path for an instance is shown in the **Properties** pane. This path is not always identical to the path in the navigation tree.

You can specify that the WebDAV names of the instances are shown in the navigation tree. See *Specifying an Instance Descriptor* for further information.

The Collection ino:etc

The collection `ino:etc` is always shown in the navigation tree. It is not affected by the **Hide system collections** setting in the **Options** dialog box (see *Setting the Tamino X-Plorer and X-Query Options*).

Instances for which a doctype has not been defined in Tamino can be stored in the collection `ino:etc` or in any other collection for which schema usage is optional or prohibited.

XML instances are grouped according to their root element. When a new XML instance without a doctype is inserted in the database, one of the following occurs (this applies also for collections for which schema usage is optional or prohibited):

- If a group with the same name as the root element does not yet exist, the group is created and the instance is shown in this group.
- If a group with the same name as the root element has already been created, the instance is shown in this group.

Non-XML instances without a doctype do not have a root element. They are always inserted in the group `ino:nonXML` which is part of `ino:etc`.

See *Inserting a New Instance* for further information.

Schemas and Doctypes

All schemas of a collection are available in a group of schemas. In the navigation tree, groups of schemas are indicated by the following icon:

When you select a group of schemas in the navigation tree, the **Properties** pane shows information about this group. For example:

Schemas

A schema specifies rules for how XML document elements, attributes, and other data are defined and logically related in an XML-compliant document.

When you select a schema in the navigation tree, the **Content** pane shows the XML code for the entire schema. The **Properties** pane shows the schema type (for example, TSD4) and the media type (for example, text/xml).

Doctypes

A doctype describes a particular type of object. Tamino can store instances of doctypes and can retrieve information from them. The icon in the navigation tree indicates whether a doctype applies to an XML schema (◆) or to a non-XML schema (◆).

A TSD4 schema can have more than one doctype. TSD4 schemas may also be sub-schemas without a doctype; these sub-schemas can be imported into other schemas.

When you select the doctype for a schema in the navigation tree, only the XML code for the doctype is shown in the **Content** pane. In the case of a non-XML schema, only information such as the following is shown:

```
<?xml version="1.0" encoding="UTF-8"?>
<tsd:nonXML name="jpg-file"/>
```

Instances

For each doctype of a schema, the corresponding instances stored in Tamino are shown. In the navigation tree, the instances are shown in different groups of instances where each group has the same name as the corresponding doctype. The icon in the navigation tree indicates whether the group contains XML instances (◆) or non-XML instances (◆).

Selecting such a group displays the properties of the selection in the Properties pane. This can basically be used to determine the selection's meta properties like root-element name, fetch option, etc. However, it is also possible to see the total number of records available under this group in the `recordCount` property.

> **Note:** Similar icons are shown for groups of instances without doctype and for groups of instances with an active filter.

The following defaults apply for the different types of instances:

- **XML Instances**
  The `ino:id` is shown in the navigation tree.

  > **Caution:** The `ino:id` may change when the Tamino Data Loader is used to unload and load data.

- **Non-XML Instances**
  The `ino:docname` is shown in the navigation tree (for example, "myimage.jpg").

- **Instances in a WebDAV-enabled Collection**
  The WebDAV name is shown in the navigation tree. See also *WebDAV-enabled Collections*.

To make the instances more readily identifiable, you can create instance descriptors for all XML instances of a specific doctype. An instance descriptor defines the attributes of an instance that are to be shown in the navigation tree (for example, the e-mail address of a user) and the sorting sequence. See *Specifying an Instance Descriptor* for detailed information.

When an instance does not have an `ino:id` or `ino:docname` and when an instance descriptor has not been defined, a number preceded by a hash (#) character is shown in the navigation tree. This number indicates the current position of this instance within the group of instances.

When you select a group of instances in the navigation tree, the **Properties** pane shows information about this group, including the current **instance descriptor**, **filter** (if defined) and **instance fetch options**.

XML Instances

In the navigation tree, XML instances are indicated by the following icon:

◆

> **Note:** A similar icon (◆) is shown for XML instances without doctype.

When you select an XML instance in the navigation tree, the **Content** pane shows the contents of this instance.

The **Properties** pane shows the date and time of the last modification and the media type (for example, text/xml).

> **Note:** If XML instances with a mapping to externally stored data do not provide an `ino:id`, the Tamino X-Plorer does not display these documents in the navigation tree. Hint: Use the **XQuery** tool to query and view these documents.

Non-XML Instances

In the navigation tree, non-XML instances are indicated by the following icon:

◈

> **Note:** A similar icon (◈) is shown for non-XML instances without doctype.

When you select, for example, a non-XML instance in the JPG format, the **Content** pane shows an image.

The **Properties** pane shows the date and time of the last modification and the media type (for example, image/gif).

For a list of all non-XML formats that can be displayed with the Tamino X-Plorer, see the description of the main application window's **Content** pane.

Handling Very Large Amounts of Data

In the navigation tree, not all data is shown at the same time. The instances are subdivided into several packs.

The following symbols can be shown within a group of instances:

▼ Click the plus sign next to this symbol to fetch and display the next pack. When using the keyboard, select this symbol and press ENTER.

▲ Click the plus sign next to this symbol to fetch and display the previous pack. When using the keyboard, select this symbol and press ENTER.

A symbol is not shown when the number of available instances is smaller than the defined pack, or when the beginning or end of the instance list has been reached.

The instance fetch options limit the number of instances that can be shown in the navigation tree at the same time. See *Specifying the Instance Fetch Options* for detailed information.

Memory Settings for the Java Virtual Machine (VM)

For normal use, the following tested and optimized default settings for the JAVA_PARAMS are sufficient:

`-Xms64m` (lower limit: 64 MB)
`-Xmx256m` (upper limit: 256 MB)

If the VM runs out of memory, you have to increase these settings in the file *inoxplorer.cmd* (for Windows) or *inoxplorer.sh* (for UNIX).

Depending on the tasks, memory usage of the Tamino X-Plorer may be high, in particular when using fetch options with a large number of documents to be retrieved and/or kept, or when accessing/using several different databases and collections in parallel. See *Database Cursoring* below for further information.

Database Cursoring

In general, the Tamino X-Plorer retrieves its data (especially the instances in the navigation tree) using database cursoring. The data belonging to a retrieved cursor is displayed pack by pack (using the navigation controls as described above) to fill the navigation tree with this data. Under certain circumstances, these cursors need to be retrieved again. This leads to a refresh of the displayed data in the navigation tree, possibly showing different data afterwards.

In the navigation tree, new cursors will be retrieved when:

- using the **refresh** function,
- adding/changing the **instance descriptor,**
- adding/changing the **filter** expression,
- changing the fetch options for **instances**.

In a query window, new cursors will be retrieved when changing the fetch options for **X-Query results** or **XQuery results**.

For optimum usage, performance and response time, it is recommended that you use the pack sizes indicated in the tables below.

- Navigation tree in the main application window (**instance fetch options**):

	Default	Recommended Maximum
Number of instances per pack	5	500
Maximum number of kept instances	15	2000

- Query window (result fetch options for **X-Query** and **XQuery**):

	Default	Recommended Maximum
Number of instances per pack	5	Depends on the size of the documents to be retrieved. This number should be a good deal smaller than the recommended maximum for the navigation tree (see above).
Maximum number of kept instances	5	

Generally spoken, the larger the pack size, the longer the response time and the bigger the memory usage. For large packs, or if you encounter high response times and big memory usage, consider smaller pack sizes or use the **filter** functionality to reduce the amount of data to be retrieved or displayed.

If the pack sizes are too large, runtime exceptions may occur (normally `OutOfMemory` exceptions).

Refreshing the Display

You can refresh the visual representation of databases, collections, schemas and instances in the navigation tree. This is useful, for example, when a schema has been renamed or when instances have been created or deleted by other users.

For a schema, the name is refreshed. For an instance, the current representation according to the specified **instance descriptor** is refreshed.

🛑 **Caution:** Refreshing a database can be time-consuming.

≫ **To refresh the display**

1 In the navigation tree, select the desired object.

2 From the **View** menu, choose **Refresh**.

Or:

Press F5.

Or:

Choose the following toolbar button:

8 General Commands for Managing Different Types of Objects

The **File** menu contains general commands for managing different object types. These commands are described in this chapter.

See *Working with Schemas* and *Working with Instances* for further information.

Creating a New Collection

We can add new collections to a database. A collection may contain groups of schemas and instances.

≫ **To create a new collection**

1   In the navigation tree, select the database to which we want to add the collection.

2   From the **File** menu, choose **New Collection**.

Or:

Choose the following toolbar button:

Or:

Open the context menu and choose **New Collection**.

The **Create New Collection** dialog box appears.
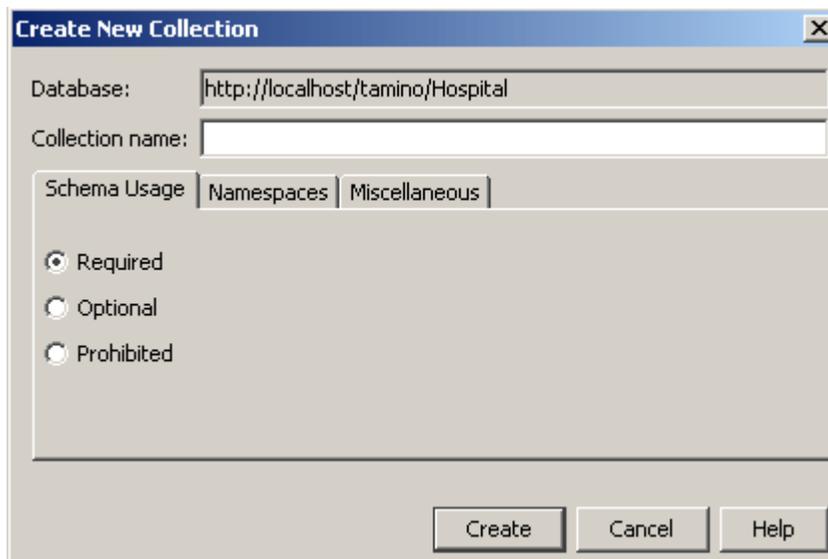
If the tab **Schema Usage** is not selected, select it now before proceeding.

3   Specify a name for the new collection.

The name must comply with the Tamino naming conventions (e.g. blanks are not allowed in a name).

4   Specify one of the following option buttons:

Required
>   Default. Schema usage is required. Instances can only be stored in this collection when a
>   schema has been defined.

>   **Note:** Collections which have been created with an older version of Tamino are
>   automatically defined as required.

Prohibited
>   Schema usage is prohibited. A schema is not required for storing instances.

Optional
>   Schema usage is optional. A schema can be defined, but this is not required. Instances can
>   also be stored when a schema has not been defined (for example, `ino:etc` is a collection
>   for which schema usage is optional).

5   Select the Namespaces tab.
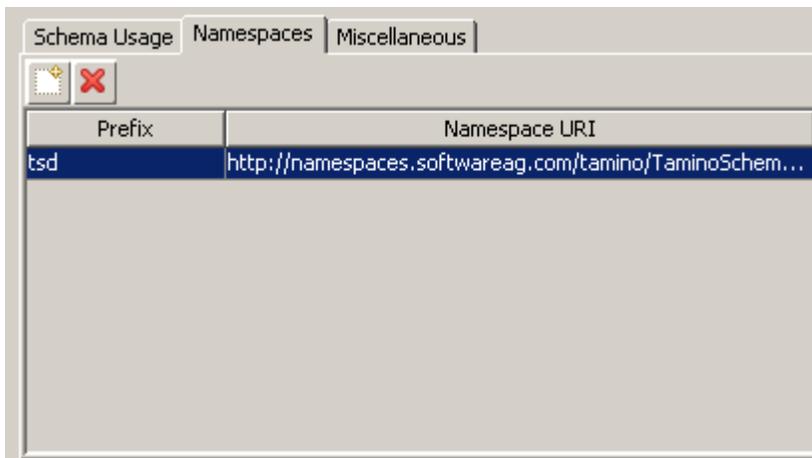
Set the custom namespaces, if required. Note that the *tsd* namespace definition is predefined
and you cannot delete it.

1. To add a namespace, choose the **Add** button.

2. To remove a namespace, choose the **Delete** button.

6   If we choose the **Miscellaneous** tab, the following options are displayed:

■   If we want auto version control to be enabled, check the **Supports auto version control**
    field.

■   We can also specify the end-of-line handling character:

    1. Preserve

2. Transform

7   Choose the **Create** button.

The collection is now created and is visible in the navigation pane.

Modifying Properties of an Existing Collection

It is possible to modify the properties of an existing collection.

≫ **To modify the properties of an existing collection**

1   Select a collection in the navigation tree and open the context menu. From the context menu, choose **Modify Collection Properties**. This opens a dialog in which you can specify the collection's properties.

2   Choose the **Schema Usage** tab and specify one of the following option buttons:

Option	Description
Required	Instances can only be stored in this collection if a schema has been defined
Optional	Schema usage is optional. A schema can be defined, but this is not required. Instances can also be stored if a schema has not been defined (for example, `ino:etc` is a collection for which schema usage is optional) .
Prohibited	Schema usage is prohibited. A schema is not required for storing instances. **Note:** The following schema usage modifications are permitted for a collection: Required - Optional and Prohibited - Optional

3   Choose the **Namespaces** tab and modify the custom namespaces, if required. Note that the *tsd* namespace definition is displayed by default and that it is not possible to delete it.

To add a namespace, choose the **Add** button (⬚).

To remove a namespace, choose the **Delete** button (✖).

4   Choose the **Miscellaneous** tab.

If we want to modify the auto version control property of the collection, choose the **Supports auto version control** check box.

The `End of line handling` parameter can have one of the following values:

▪ Preserve (default)

▪ Transform

If you select the value "Transform" for the `End of line handling` parameter, the Tamino X-Plorer adds this value to the corresponding instance in *ino:collection/tsd:collection*:

```
<tsd:collection
     ino:docname="PretestTelefon01"
     name="PretestTelefon01"
    xmlns:tsd="http://namespaces.softwareag.com/tamino/TaminoSchemaDefinition">
         <tsd:property name="end-of-line-handling" value="transform" />
</tsd:collection>
```

5   Choose the **Modify** button to store the modified the collection properties.

Opening a Schema or Instance

Using external tools, schemas and instances can be opened directly from the Tamino X-Plorer. We can then view or modify the schema or instance using the features of that external tool. The external tools have to be defined in the **Customize** dialog box. See *Customizing the Tools* for further information.

When we double-click a schema or instance in the navigation tree, it is opened using the default tool that has been defined in the **Customize** dialog box. This corresponds to selecting the object and choosing **Open** from the **File** menu.

Each external tool that has not been defined as the default tool for a specific type of object is available for selection using the **Open With** command from a context menu. We can thus use more than one tool for opening the same type of object (for example, two different schema editors where one of them has been defined as the default tool).

Each time a schema or instance is opened with an external tool, a file is written to the open location which has been defined in the **Options** dialog box. The file name is derived from the current **instance descriptor**. For example, when the name "Atkins" is shown for an instance in the navigation tree, the resulting file name is "Atkins.xml". When more than one item has been defined for the instance descriptor, all items are used in the file name (for example, "Fred, Bloggs.xml").

≫ **To open a schema or instance using the default tool**

1   In the navigation tree, select the schema or instance to be opened.

2   From the **File** menu, choose **Open**.

Or:

Press CTRL+O.

Or:

Choose the following toolbar button:

Or:

Double-click the schema or instance.

The schema or instance is opened using the external tool that has been defined as the default tool.

> **To open a schema or instance using another defined external tool (not the default tool)**

1   In the navigation tree, select the schema or instance to be opened.

2   Invoke the context menu and choose **Open With >** *your external tool.*

The schema or instance is opened using the chosen external tool.

> **Note:** When the **Open With** command is not available, an alternative tool has not been defined for the selected type of object.

Updating a Schema or Instance

When we modify a schema or instance using an external tool, our modifications are not automatically stored in the database. To do so, we have to update the schema or instance.

We can update an existing schema or instance from a file in your file system (from the open location which has been defined in the **Options** dialog box), or by coping a schema from another database.

The update procedure checks whether the existing schema or instance will not only remain well-formed but also whether it is still a valid XML document (i.e. whether it matches the schema). If the modifications result in an invalid document, the existing schema or instance is not updated.

> **Note:** When we update an XML instance, the attribute `ino:id` is no longer accepted by the parser. It is recommended that we delete the attribute `ino:id` in the instance text.

> **To update a schema**

1   In the navigation tree, select the schema to be updated.

2   From the **File** menu, choose **Update**.

Or:

Choose the following toolbar button:

The **Update Schema** dialog box appears.

3   Select one of the following pages:

▪ **From File**
This page is used to specify the name of a file containing a schema.

Either specify the path and file name in the text box or choose the **Select** button to select the file from a dialog box.

▪ **From Database**
This page is used to copy an existing schema from another database.

When we have previously connected to a server and database, we can select their names from the corresponding drop-down list boxes. If we want to connect to a new server and database, enter the required names in the drop-down list boxes.

When the specified database is currently not connected, a dialog box appears asking whether we want to connect. Choose the **Yes** button to invoke the **Connect** dialog box. See *Connecting to a Tamino Database*.

When a database has been specified and is connected, the names of all of its collections are available in the **Collection** drop-down list box. Select the collection containing the desired schema.

When a collection has been selected, the names of all of its schemas are available in the **Schema** drop-down list box. Select the schema to be copied.

4   Choose the **Update** button.

The existing schema is now replaced with the schema that we have just specified.

🛑   **Caution:** Do not specify information on different pages. When we choose the **Update** button, only the information on the currently shown page is used.

≫ **To update an instance**

1   In the navigation tree, select the instance to be updated.

2   From the **File** menu, choose **Update**.

     Or:

     Choose the following toolbar button:

     The **Update Instance** dialog box appears. The title bar shows the doctype and the name of the selected instance as displayed in the navigation tree.

     This dialog box is used to specify the name of a file containing an instance.

3   Either specify the path and the file name in the text box or choose the **Select** button to select the file from a dialog box.

4   Choose the **Update** button.

     The existing instance is now replaced with the instance that we have just specified.

Deleting a Collection or Instance

You can delete a collection or instance permanently from the database.

🛑 **Caution:** When you delete a collection, all instances of all doctypes in this collection will also be deleted.

📄 **Note:** If you want to undefine a schema or delete a collection, you need exclusive access to the collection. Otherwise, these commands result in an error. The error message indicates that the documents could not be locked. No user is allowed to access this collection while an "undefine schema" or "delete collection" is about to be executed. This error will also occur if you are the user who is accessing a group of instances of that collection, for example, in an XQuery result. If this error occurs, the problem will persist until the database is disconnected and connected once again. Workaround: Disconnect the database, connect it once again and then execute the command without previously accessing instances of this collection.

≫ **To delete a collection or instance**

1   In the navigation tree, select the collection or instance to be deleted.

2   From the **File** menu, choose **Delete**.

    Or:

    Choose ✖ from the toolbar.

    Or:

    From the context menu of the collection or instance, choose **Delete**.

    You are now asked whether you really want to delete the collection or instance.

3   Choose the **Yes** button to confirm the deletion.

Saving a Schema or Instance in Your File System

You can save a schema or instance that is stored in a database in your local file system.

A schema is saved with the extension "tsd". An XML instance is saved with the extension "xml". A non-XML instance is saved with its original file name and extension.

⟫ **To save a schema or instance in your file system**

1   In the navigation tree, select the schema or instance to be saved.

2   From the **File** menu, choose **Save As**.

     The **Save As** dialog box appears.

3   Specify a file name and select the path in which you want to save the file.

4   Choose the **Save** button.

9 Working with Schemas

This chapter covers the following topics:

See *General Commands for Managing Different Types of Objects* for information on how to **open**, **update** and **save** schemas.

Defining a Schema

A schema is created outside the Tamino X-Plorer, using an external tool such as the Tamino Schema Editor. After a schema has been created, you can use the file containing the schema to define the schema in the Tamino database. You can also define a schema by copying an existing schema from another database.

A schema is always defined in the collection that is currently selected.

For non-XML objects, you only need to define a simple doctype in a schema. For example:

```
<?xml version="1.0" encoding="UTF-8"?>
<tsd:nonXML name="gif-file"/>
```

≫ To define a schema

1   In the navigation tree, select the collection that is to contain the schema.

2   From the **Schema** menu, choose **Define Schema**.

Or:

Choose the following toolbar button:

Or:

From the context menu, select **Define Schema**.

The **Define Schema** dialog box appears.

Using the different pages, you can define a schema in one of the following ways:

- **define a schema from a file**
- **define a schema from a database**

3   Select the desired page and specify all required information as described below under the corresponding heading.

4   Choose the **Define** button.

    Caution: Do not specify information on different pages. When you choose the **Define** button, only the information on the currently shown page is used.

Define a Schema from a File

This page is used to specify the name of a file containing a schema.
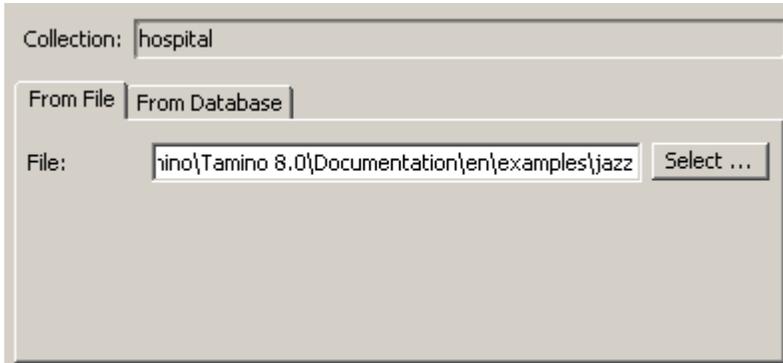
Either specify the path and file name in the text box or choose the **Select** button to select the file from a dialog box.

Defining a Schema from a Database

This page is used to copy an existing schema from another database.

When you have previously connected to a server and database, you can select their names from the corresponding drop-down list boxes. If you want to connect to another server and database, enter the required names in the drop-down list boxes.

When the specified database is currently not connected, a dialog box appears asking whether you want to connect. Choose the **Yes** button to invoke the **Connect** dialog box. See *Connecting to a Tamino Database*.

When a database has been specified and is connected, the names of all of its collections are available in the **Collection** drop-down list box. Select the collection containing the desired schema.

When a collection has been selected, the names of all of its schemas are available in the **Schema** drop-down list box. Select the schema to be copied.

Undefining a Schema

When you undefine a schema, it is deleted permanently from a collection in the database.

Caution: All instances of all doctypes belonging to this schema will also be deleted.

Note: If you want to undefine a schema or delete a collection, you need exclusive access to the collection. Otherwise, these commands result in an error. The error message indicates that the documents could not be locked. No user is allowed to access this collection while an "undefine schema" or "delete collection" is about to be executed. This error will also occur if you are the user who is accessing a group of instances of that collection, for example, in an XQuery result. If this error occurs, the problem will persist until the database is disconnected and connected once again. Workaround: Disconnect the database, connect it once again and then execute the command without previously accessing instances of this collection.

≫ To undefine a schema

1   In the navigation tree, select the schema you want to undefine.

2   From the **Schema** menu, choose **Undefine**.

Or:

Choose the following toolbar button:

Specifying an Instance Descriptor

An instance descriptor can be defined for each doctype which defines XML instances. It defines the information, including the sorting sequence, that is to be shown for the corresponding instances in the navigation tree. This information may be, for example, a surname, city and phone number.

An instance descriptor consists of one or more items. Each item is an X-Query expression. See *X-Query User Guide* and *X-Query Reference Guide* in the Tamino XML Server documentation for detailed information on X-Query expressions.

For non-XML instances only the `ino:docname` is shown in the navigation tree. If the `ino:docname` is not defined, the `ino:id` is shown instead.

Note: The instance descriptor applies to both the main application window and the X-Query windows (it does not apply to the XQuery tool). The sorting sequence, however, is only

applied in the main application window. In an X-Query window, you can specify your own sorting sequence in the query expression (for example, with the `sortby` clause).

Example

The following instance descriptor has been defined:

```
/patient/name/firstname
/patient/name/surname
/patient/therapy/medication/type/@brand
```

This displays the following instances in the navigation tree:

First name and surname have been found for both instances.

A medication was only found for one instance containing the following information:

```
<therapy>
  <medication>
     <type brand="Gallopamil" form="tablet">Beta-blocker</type>
        <dosage>Twice daily</dosage>
  </medication>
</therapy>
```

When an instance does not contain a value for an item defined in the instance descriptor, "<not_defined>" is shown in the navigation tree. In the above example, "<not_defined>" is shown because an "other" therapy has been used instead of a "medication" therapy:

```
<therapy>
  <other>
    <description>Decompression chamber</description>
    <amount>18 hrs</amount>
  </other>
</therapy>
```

≫ **To specify an instance descriptor**

1   In the navigation tree, select the desired doctype.

2   From the **Schema** menu, choose **Instance Descriptor**.

     Or:

Choose the following toolbar button:

Or:

Choose **Instance Descriptor** from the context menu of the instance group.

The **Specify Instance Descriptor** dialog box appears, which includes the following panel:
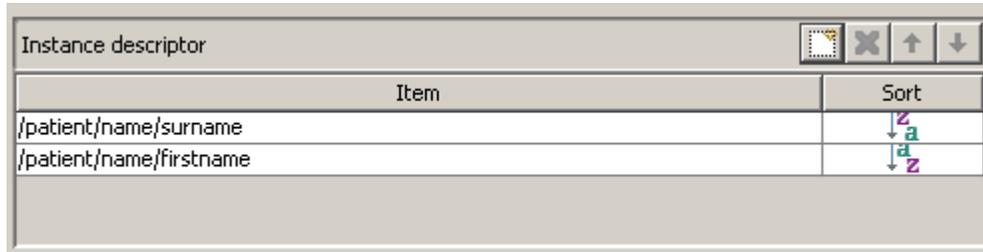
When you are modifying an existing instance descriptor, the dialog box shows the X-Query expressions that are currently defined. The sequence of the X-Query expressions determines the sequence in which the information for an instance is shown.

3 Edit the existing X-Query expressions or use the following buttons:

    Add a new item. You can then specify an X-Query expression (case-sensitive) in a new line.

    Delete the selected X-Query expression.

    Move the selected X-Query expression up one position.

    Move the selected X-Query expression down one position.

4 Optionally: select a cell in the **Sort** column and from the resulting drop-down list box, choose either ascending ( ) or descending ( ) sorting sequence for the corresponding item.

5 Choose the **OK** button to save the instance descriptor.

Specifying the Instance Fetch Options

The instance fetch options limit the number of instances that can be shown in a specific group of instances at the same time. They are always defined for a doctype.

When you expand the node for a group of instances in the navigation tree, the first pack of instances in this group is shown. You can define the number of instances that are to be fetched with each pack.

Each pack that you fetch (see *Handling Very Large Amounts of Data*) remains visible in the navigation tree until the maximum number of kept instances is reached. You can also define this number.

Example: when the number of instances per pack is 50 and the maximum number of kept instances is 4000, you can fetch 80 packs where each pack has 50 instances. All of these instances will be shown in the navigation tree. However, when you fetch the 81st pack, the first pack is removed from the tree to make room for the new pack.

The default values are defined in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.

≫ **To specify the instance fetch options**

1   In the navigation tree, select the group of instances for the desired doctype.

2   From the **Schema** menu, choose **Instance Fetch Options**.

Or:

Choose the following toolbar button:

↕₊

Or:

In the context menu of the doctype, choose **Instance Fetch Options**.

The **Specify Instance Fetch Options** dialog box appears showing the values for the currently defined fetch options.

3   Specify the following information:

Number of instances per pack
    The number of instances that are to be fetched with each pack.

Maximum number of kept instances
    The maximum number of instances that can be shown in a group of instances at the same time.

4   Optionally: if you want to reset the values that are currently defined in this dialog box to the default values, choose the **Reset to Default** button.

5   Choose the **OK** button to save the new instance fetch options.

10   **Working with Instances**

This chapter covers the following topics:

See *General Commands for Managing Different Types of Objects* for information on how to **open**, **update**, **delete** and **save** instances.

See also: *Specifying an Instance Descriptor* and *Specifying the Instance Fetch Options*.

Inserting a New Instance

An instance is created outside the Tamino X-Plorer, using an external tool. After the instance has been created, you can use the Tamino X-Plorer to insert it in the database.

When you insert an instance, you specify the name of the file which contains the instance.

You can insert XML instances and non-XML instances in a collection.

You can also insert instances for which a doctype has not been defined. You insert these instances in collections for which schema usage is optional (like `ino:etc`) or prohibited.

> **Note:** Instances containing the attribute `ino:id` are no longer accepted by the parser. It is recommended that you delete the attribute `ino:id` in these instances.

> **To insert a new instance**

1   In the navigation tree, select the collection or group of instances that is to contain the instance.

> **Notes:**

> 1. If a group with the same name as the root element of the instance does not yet exist, a new group of instances is created and the instance is inserted in this new group.

> 2. If you want to insert an instance for which a doctype has not been defined, you must select a collection for which schema usage is optional or prohibited.

2   From the **Instance** menu, choose **Insert Instance**.

Or:

Choose the following toolbar button:

Or:

Open the context menu on the collection or instance group and choose **Insert Instance**.

The following dialog box is displayed if a collection is selected while invoking the **Insert Instance** dialog box:
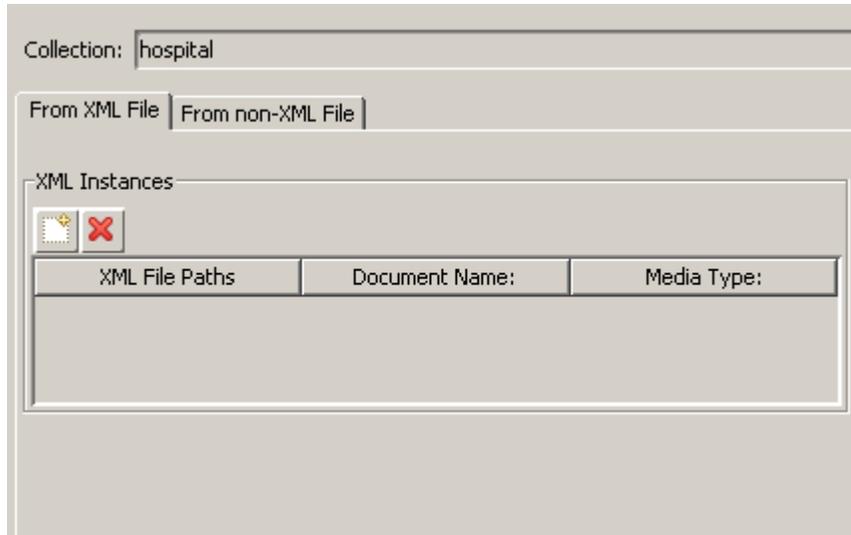
Instances can be inserted from XML as well as non-XML files, using the tabs in the **Insert Instance** dialog box. Depending on the type that you have selected (XML or non-XML), the following tabs are activated:

- **from an XML file**
- **from a non-XML file**

3   Select the desired tab, when the **Insert Instances** dialog box is invoked from the collection level, and specify all required information as described below under the corresponding heading.

4   Choose the **Insert** button.

⬤   **Caution:** Do not specify information on different pages. When you choose the **Insert** button, only the information on the currently shown page is used.

From XML File

This dialog box is used to insert an instance from an XML file.
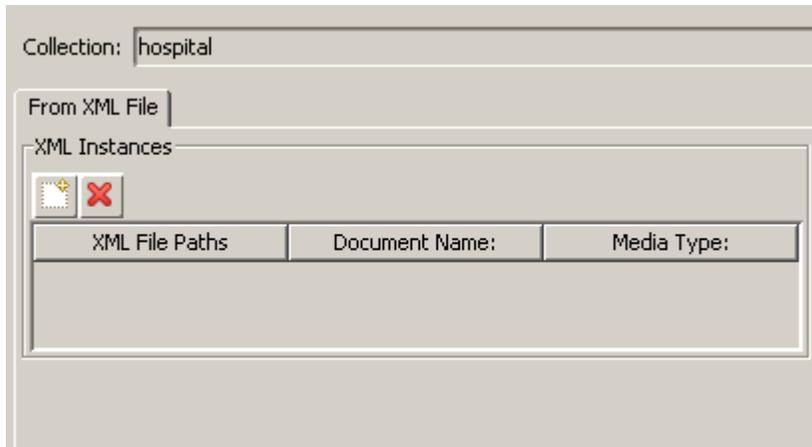
≫ **To insert an instance from an XML file**

1   Choose the **Add New** button ( ) to select the file from a **Select File** dialog box.

2   Select the source file, or use CTRL or SHIFT to select multiple files.

3   Choose the **Select File** button to add your selection to the **Insert Instance** dialog box.

4   You can modify the file name in the **Document Name** field.

5   Choose the **Insert** button to insert the instance(s) into the database.

From Non-XML File

This dialog box is used to insert a non-XML instance, for example, an image file.
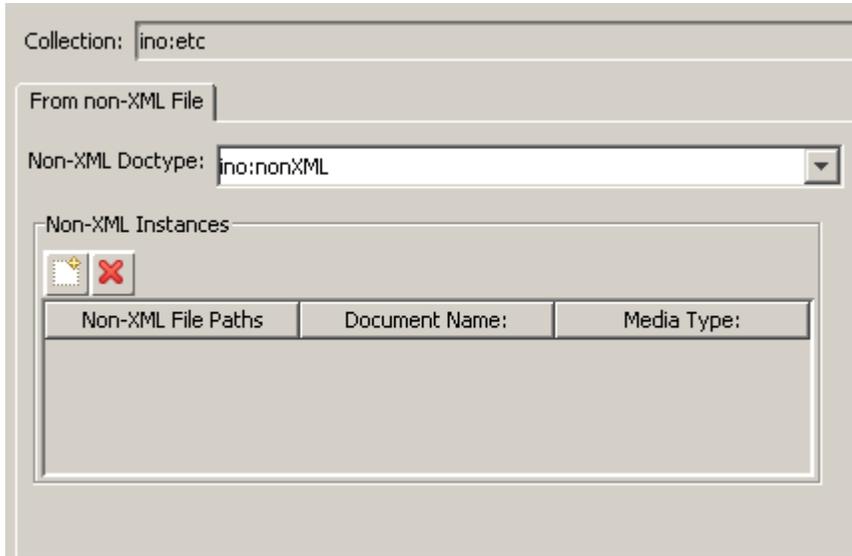
> ### To insert an instance from a non-XML file

1   Choose the **Add New** button ( ) to select the file from a **Select File** dialog box.

2   Select the source file, or use CTRL or SHIFT to select multiple files.

3   Choose the **Select File** button to add your selection to the **Insert Instance** dialog box.

4   You can modify the **Document Name** and or the **Media Type** of the document to be inserted.

5   Choose the **Insert** button to insert the instance(s) into the database.

> **Note:** The **Delete** button ( ) can be used to remove an already selected document from the list of documents to be inserted.

Non-XML Doctype
>   Enter a non-XML doctype that is available in the selected collection. Or select the non-XML doctype from the drop-down list box. The drop-down list box provides for selection all non-XML doctypes in the selected collection.
>
>   If you want to insert a non-XML instance without a doctype in a collection for which schema usage is optional (like `ino:etc`) or prohibited, you have to select the doctype `ino:nonXML`.

File
>   Enter the path to the non-XML object or choose the **Select** button to select the file from a dialog box.

Media Type
>   If you intend to change the media type, refer to *Media Types for Non-XML Instances*.

The following information applies when the media type "text" has been used (for example, "text/plain" or "text/html"). Behind the media type - separated by a semicolon - specify the character set that has been used when the non-XML object has been created. For example, if you want to insert an instance containing Japanese text which has been created using the media type "text/plain" and the character set Shift-JIS, the **Media Type** field must contain the following:

```
text/plain; charset=Shift-JIS
```

Cutting, Copying and Pasting of Instances

It is possible to cut, copy and paste instances within the X-Plorer for easier handling of instances.

> **To cut, copy and paste instances**

1   Select the instance in the navigation pane.

2   From the context menu, choose **Cut** to remove or **Copy** to copy the selected instance.

3   Right-click on the target collection to paste the cut or copied instance.

You can insert instances from the file system into a collection, using X-Plorer's system clipboard integration features:

■ Select and copy files from your file system.

■ In the X-Plorer window, right-click on the target collection, then choose **Paste** to find the selected files to be inserted as instances. You are prompted for a confirmation if the file to be inserted is a non-XML file.

It is also possible to paste the content of an XML instance from the X-Plorer to an external editor using the Copy functionality of the X-Plorer and the Paste functionality of an external editor. The instance can be edited in the external editor and pasted back into the X-Plorer as a new instance.

You can also copy the content of an XML file from an external editor and use the Paste functionality of the X-Plorer to insert the copied content into a collection as an instance.

Editing Instances

You can edit text documents (XML and non-XML documents) in the plain text view.

≫ **To edit a text document**

1   Choose the instance in the navigation view. The contents are then displayed in the **Content** pane.

2   If the plain text view is not already active in the **Content** pane, change to the plain text view.

3   Edit the text as required.

4   Save your changes by using one of the following methods:

In the navigation pane, choose another object. You will be prompted if you want to save the current changes.

Or:

Choose **File > Save** from the main menu.

Or:

Press CTRL+S.

Renaming of Instances

You can add the ino:docname attribute to an instance. You can also modify or remove the `ino:docname` attribute of an instance that has it already defined.

≫ **To rename an instance**

1   Select the instance that you want to rename in the navigation pane.

Or:

Choose **Rename** from the context menu of the instance to be renamed.

The following dialog box is displayed, if the instance does not have an already defined `ino:docname`:
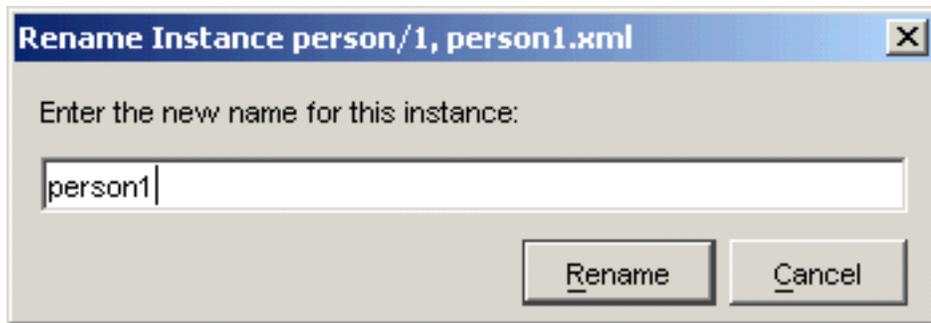
If the instance has an `ino:docname`, the rename functionality provides an additional feature as shown in the following dialog box:
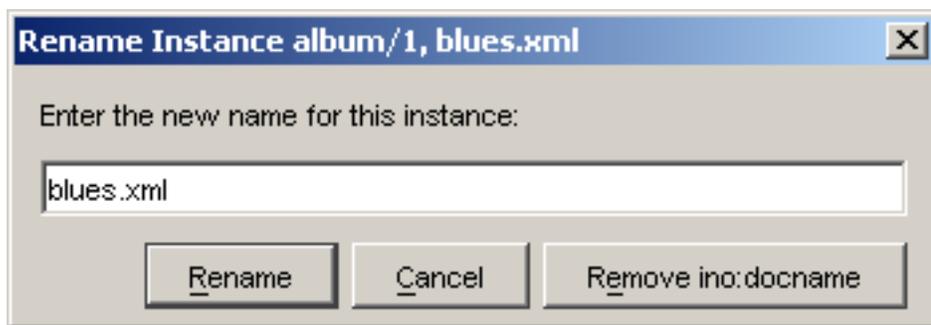
2   Enter the new name and choose the **Rename** button to rename the instance.

Or:

Select the **Remove ino:docname** button to remove the `ino:docname` attribute of the instance.

Deleting Multiple Instances

You can delete multiple instances in the X-Plorer. To do so, select the instances, while holding down the CTRL key. Delete the instances with the **Delete** icon (✖), available from the toolbar.

Filtering Instances

Using a filter, you can reduce the number of instances that are shown in the navigation tree of the application window.

For example, you can define a filter which only shows the instances starting with a specific surname. When "name/surname between 'B', 'C'" has been defined as the filter, only surnames beginning with the letter B are shown.

The filter is an XQuery expression. See *XQuery User Guide* and *XQuery Reference Guide* in the Tamino XML Server documentation for detailed information on XQuery expressions.

For each group of instances (doctype) you can specify exactly one filter. When a filter is active, a filter symbol is shown with the group node in the navigation tree. For example:

The corresponding filter expression for the group of instances is shown in the properties pane. For example:

≫ **To filter instances**

1   In the navigation tree, select the group of instances to which you want to apply the filter.

2   From the **Instance** menu, choose **Filter**.

Or:

Choose the following toolbar button:

Or:

From the context menu of the doctype, choose **Filter**.

The **Filter Instances** dialog box appears. The current doctype is indicated in the title bar. When a filter has already been defined, an XQuery expression is shown in the dialog box. When a filter has not yet been defined, the dialog box is empty.
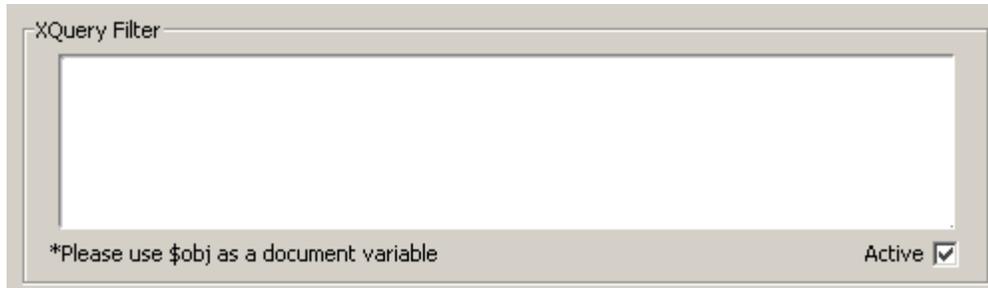
3   Specify the XQuery expression that is to be used as a filter.

It is only possible to specify the where-clause part of the valid XQuery. The where-clause expression can use the instance with the predefined instance variable name *$obj*. For example:

```
$obj/name/surname between 'B', 'C'
```

For comparison, this is the X-Query equivalent with square brackets:

```
/person[name/surname between 'B', 'C']
```

4   Make sure that the **Active** check box is selected.

If this check box is not selected, your filter is not applied. This is useful if you want to deactivate your filter temporarily.

5   Choose the **OK** button to display the first pack of instances that meet your filter criteria in the navigation tree.

Exporting Instances for Mass-Loading

You can export all instances of an instance group into the Tamino standard format for mass-loading.

≫ **To export instances for mass-loading**

1   Select the doctype that contains the instances.

2   From the context menu, choose **Export Instances**.

3   Select the export location and enter the output filename in the **Save** dialog box. This starts the export process.

The following dialog box is displayed, indicating the status of the export process:

> **Note:** If the number of instances in the selected instance group is quite high, the process will take some time.

When the export process completes, the output file that you specified will contain the concatenated contents of all of the selected instances.

Printing Instances

You can print both XML and non-XML instances. Select the instances to be printed and choose **Print Preview** from the **File** menu. The **Print Preview** page is displayed, showing the contents of the selected instances.

Choose the **Print** icon () from the toolbar to print the page.

You can also print an instance directly, without previewing it, by selecting the instance and choosing **Print** from the **File** menu.

11 Customizing the Tools

In the **Customize** dialog box, which is available under **Tools > Customize**, you can define external tools for editing the following types of objects that are displayed in the navigation tree:

- **schemas**
- **doctypes**
- **XML instances**
- **non-XML instances**
- **no specific type**

You can define an external tool as the default tool for a specific type of object. The default tool is invoked when you double-click the corresponding type of object in the navigation tree, or by choosing **Open** from the **File** menu.

The defined external tools are also available as menu commands in the **Tools** menu (provided that the corresponding check box has been selected in the **Customize** dialog box, see below).

When you invoke an external tool from the **Tools** menu, any schema or instance which is currently selected in the navigation tree is ignored. It is therefore recommended that you proceed as described in section *Opening a Schema or Instance*.

⚠ **Important:** Predefined external tools for which a path has not been specified are not shown as commands in the **Tools** menu and cannot be invoked using the **Open** or **Open With** command.

See *Predefined External Tools* for further information.

≫ **To customize the tools**

1   From the **Tools** menu, choose **Customize**.

The **Customize** dialog box appears.
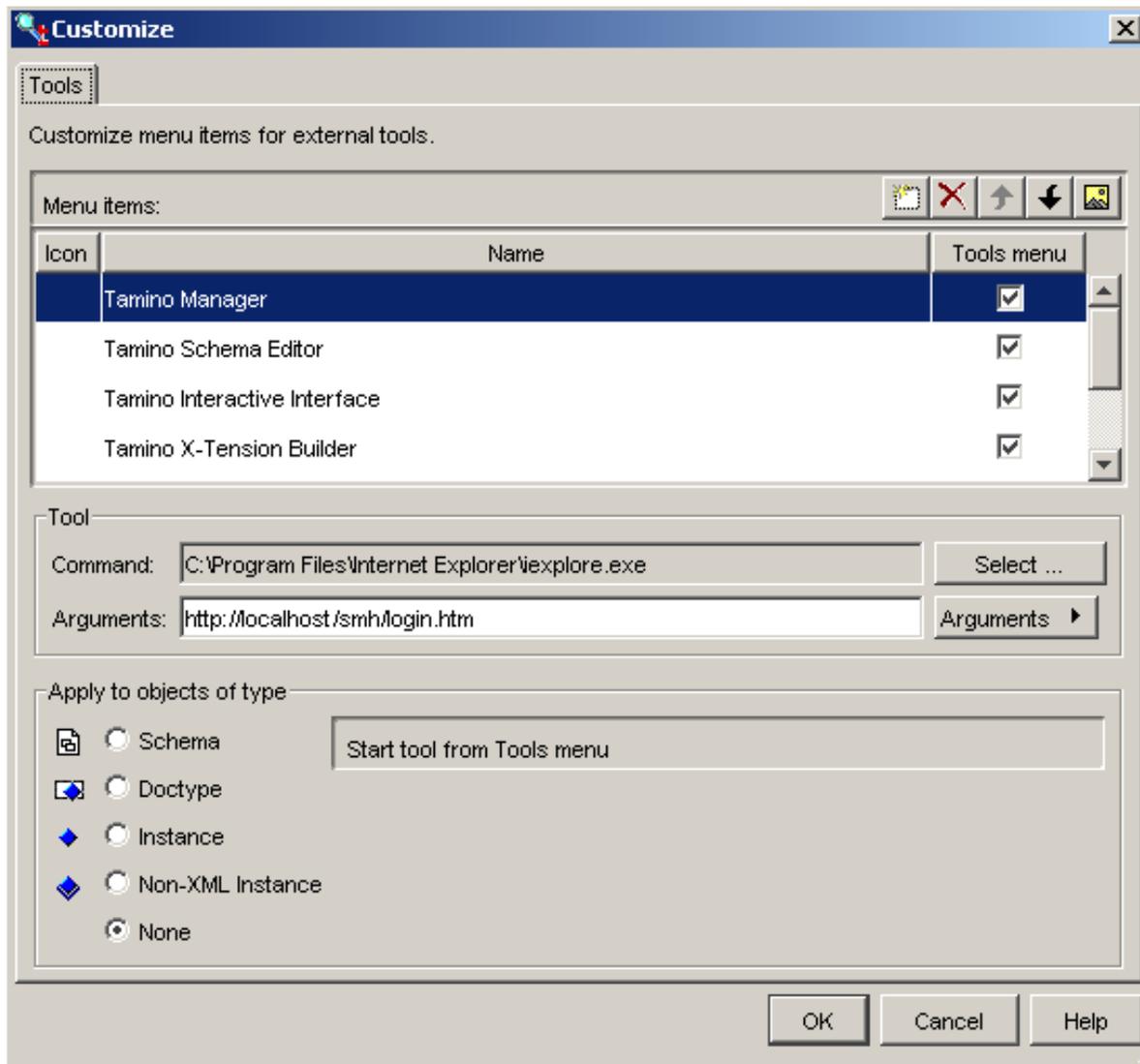
When external tools have already been defined, they are shown in the upper half of the dialog box. When the corresponding check box in the **Tools menu** column has been selected and a valid path has been entered in the **Command** text box, the external tool is provided as a menu command in the **Tools** menu.

The information shown in the lower half of the dialog box always applies to the external tool that is currently selected in the upper half.

If the same external tool is to apply to objects of different types, you have to add an entry for each of these types.

The following buttons are provided:

Add a new external tool.

Delete the selected external tool.

Move the selected external tool one position up in the menu.

Move the selected external tool one position down in the menu.

Define an icon for the selected external tool. When the corresponding check box in the **Tools menu** column is selected, the icon will be shown in the **Tools** menu. For your convenience, several image files are available in the folder "X_Plorer\icons" which is created during installation.

2   To add a new external tool, choose the following button:

A new line is now shown.

3   Enter a name for the new external tool in the new line and press ENTER.

The description below applies to both new external tools that you have just added and existing external tools that you want to modify.

4   Select the external tool in the upper half of the dialog box.

5   When the external tool is to be provided as a menu command in the **Tools** menu, make sure that the corresponding check box in the **Tools menu** column is selected.

6   In the **Command** text box, specify the path to the external tool.

Use the appropriate notation for the platform on which you are running the Tamino X-Plorer. Under Solaris, slashes are used (instead of backslashes as used under Windows).

Or:

Choose the **Select** button to select the executable file for the external tool from a dialog box.

Once the path to the external tool has been selected, the corresponding icon is automatically displayed in the icons column of the **Customize** dialog box.

> **Tip:** Under Windows, you can copy the information from the **Properties** dialog box. From the Start menu, select **Programs** > *program folder* > *program name*. Do not execute the program. Instead, invoke the context menu and choose **Properties**. You can now copy the string in the **Target** text box and paste it in the **Command** text box. Make sure not to copy any quotes at the start and end of the string.

If you leave this text box empty, the external tool is not shown as a command in the **Tools** menu and cannot be invoked using the **Open** or **Open With** command.

7   In the **Arguments** text box, define the arguments with which the external tool is to be invoked.

This can be a mixture of the following:

Context-specific arguments

The following arguments can be used to send information about the object that is currently selected in the navigation tree to the external tool:

Argument	Description
`$FILE_PATH$`	Creates a (temporary) file for the selected object in your **open location**. This argument is usually required for tools used to edit instances and schemas.
`$URL$`	Creates an URL pointing to the selected object. **Note:** 1. If the selected object is a schema, `$URL$` is equal to `$SERVER_URL$/$DATABASE$/$COLLECTION$/$SCHEMA$`. 2. If the selected object is an instance and if `ino:docname` exists, `$URL$` is equal to `$SERVER_URL$/$DATABASE$/$COLLECTION$/$DOCTYPE$/$INSTANCE$`. 3. If the selected object is an instance and if `ino:docname` does *not* exist, `$URL$` is equal to `$SERVER_URL$/$DATABASE$/$COLLECTION$/$DOCTYPE$/@ino:id`.
`$SERVER_URL$`	Creates an URL pointing to the server containing the selected object.
`$DATABASE$`	Creates a string with the name of the database containing the selected object.
`$COLLECTION$`	Creates a string with the name of the collection containing the selected object.
`$SCHEMA$`	Creates a string with the name of the selected schema.
`$DOCTYPE$`	Creates a string with the name of the selected doctype.
`$INSTANCE$`	Creates a string with the name of the selected instance (`ino:docname`).
`$USER$`	Your user ID for the database containing the selected object.
`$PASSWORD$`	Your password for the database containing the selected object.

Instead of entering the above arguments in the text box, you can also select them from a list. To do so, choose the **Arguments** button.

Tool-specific arguments

You have to specify all arguments that are expected by the external tool. See your external tool documentation for information on the supported arguments.

8   In the **Apply to objects of type** group box, select one of the following option buttons (the adjacent information changes depending on the option button that has been selected):

Schema
> The tool applies to schemas.
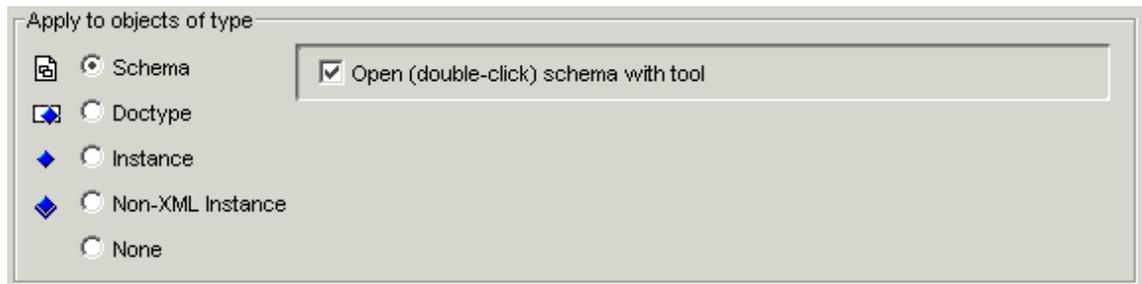
If you want to use this tool as your default tool for schemas, make sure that the **Open (double-click) schema with tool** check box is selected. When the check box is not selected, this tool is available from a context menu via the **Open With** command.

Doctype
> The tool applies to doctypes.
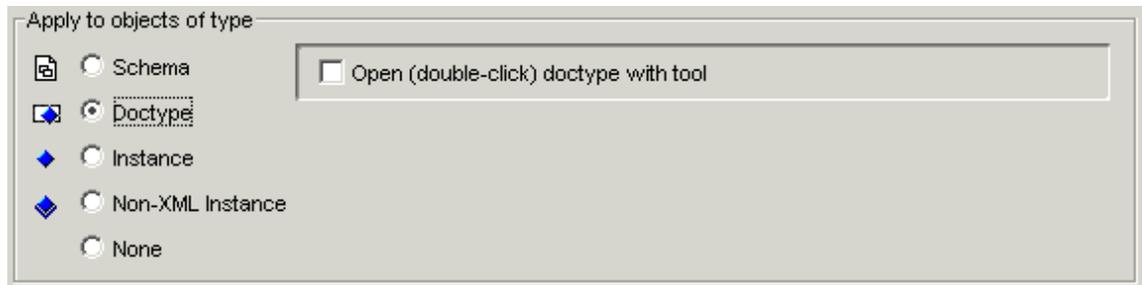
If you want to use this tool as your default tool for doctypes, make sure that the **Open (double-click) doctype with tool** check box is selected. When the check box is not selected, this tool is available from a context menu via the **Open With** command.

Instance
> The tool applies to XML instances.
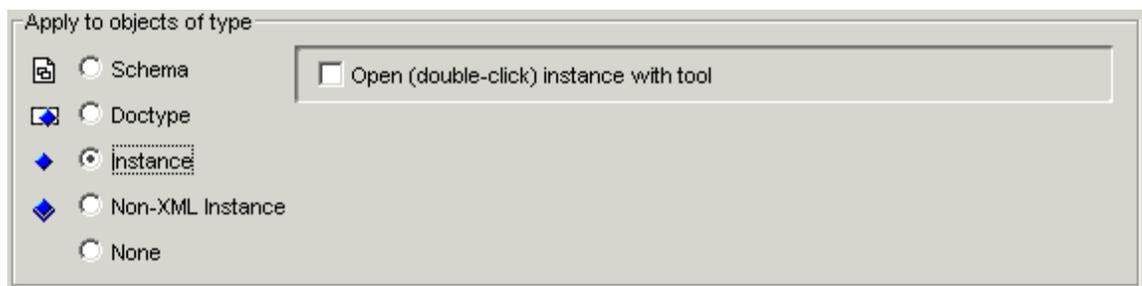
If you want to use this tool as your default tool for XML instances, make sure that the **Open (double-click) instance with tool** check box is selected. When the check box is not selected, this tool is available from a context menu via the **Open With** command.

Non-XML Instance

The tool applies to non-XML instances.
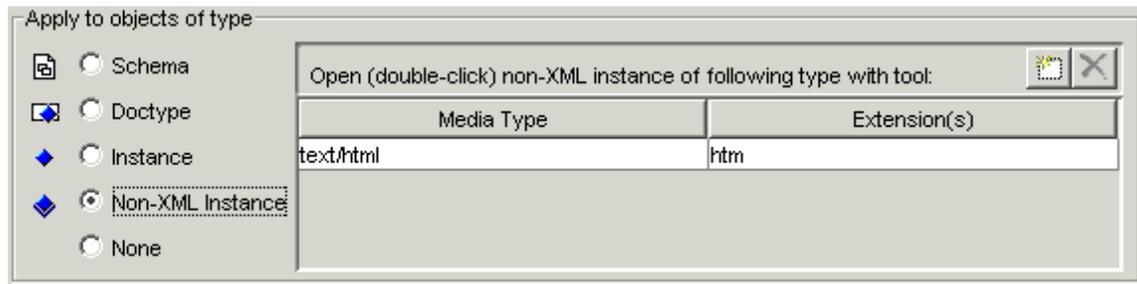
When you open a non-XML instance, the application which is associated with the media type and extension that has been defined in this table is used.

You have to specify the required media type and the corresponding extension(s). It is also possible to define an extension without a media type. See *Media Types for Non-XML Instances*.

> 💡 **Tip:** Under Windows, you can copy the media type from the **Folder Options** dialog box. Invoke the Windows Explorer (not the Internet Explorer) and from the **Tools** menu, choose **Folder Options**. In the resulting **Folder Options** dialog box, choose the **File Types** tab. Select a registered file type and copy media type and extension to the **Customize** dialog box.

When you define several tools for one type of object (for example, GIF), the first tool that has been defined in the upper half of the **Customize** dialog box is used as the default tool (i.e. when you use the **Open** command or double-click the non-XML instance). All other defined tools are available from a context menu via the **Open With** command which offers the tools in the following sequence: tools for which media type *and* extension have been defined are shown first, tools with a media type only are shown next, and tools with an extension only are shown last.

The following buttons are provided:

- ▢ Add a new media type and its extension(s).
- ❌ Delete the selected media type and its extension(s).

None

The tool does not apply to a specific type of object. It can only be invoked from the **Tools** menu (provided that the **Tools menu** check box has been selected). You can define, for example, an editor such as the Windows Notepad.
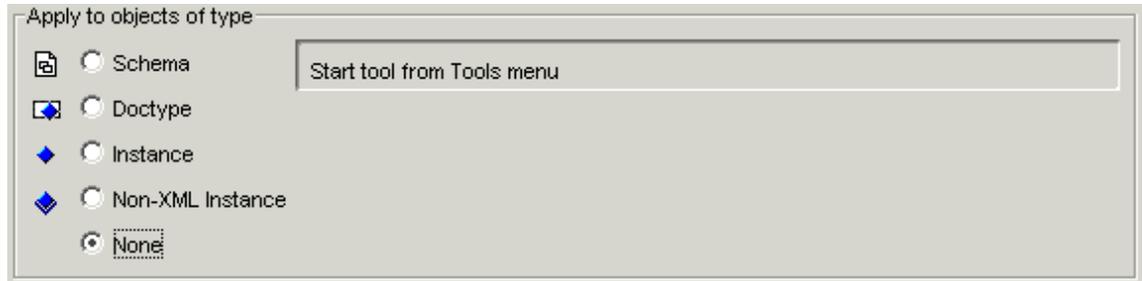
9   Choose the **OK** button.

In the **Tools** menu, commands are now available for each tool for which you have defined a path and for which the **Tools menu** check box has been selected.

12 Setting the Tamino X-Plorer and X-Query Options

This chapter covers the following topics:

Invoking the Options Dialog Box

The settings in the **Options** dialog box control the behavior of certain features of the Tamino X-Plorer.

≫ **To invoke the Options dialog box**

1   From the **Tools** menu, choose **Options**.

    The **Options** dialog box appears.

2   Select one of the following pages and set the required options as described below under the following headings.

    ▪ **General**

    ▪ **File Location**

    ▪ **X-Query**

3   Choose the **OK** button.

General

The instance fetch defaults on this page are the default values for the command **Instance Fetch Options**. See *Specifying the Instance Fetch Options*.

By default, different values are defined for the two instance fetch options. Each pack that you fetch is thus shown in addition to the previous pack. It is not overwritten - until the maximum number of kept instances is reached.

You can set the following options:

Number of instances per pack

The number of instances that are to be fetched with each pack.

Maximum number of kept instances

The maximum number of instances that can be shown in a group of instances at the same time.

Use wordwrap in tree view

Applies to the **Content** pane and **Properties** pane in the main application window. When this check box is selected, lines are wrapped in tree view.

Hide system collections

When this check box is selected, the system collections (for example, `ino:SXS-ADMINISTRATION` or `ino:SXS-TRACE`) are not shown in the navigation tree of the main application window. There is one exception: the collection `ino:etc`, which contains user data, is always shown.

If you want to display the content of the WebDAV enabled collection `ino:dav`, uncheck this check box. The content of the `ino:dav` collection is displayed in the Navigation Tree.

When you change this option and close the **Options** dialog box, the change is not applied immediately as this can be time-consuming. It will be applied the next time you invoke the Tamino

X-Plorer. If you want to see the effects of your change immediately, you can refresh the display for the database. See *Refreshing the Display*.

> 💡 **Tip:** As changing this option can be time-consuming for large databases, it is recommended that you specify the required setting once and then keep it.

File Location
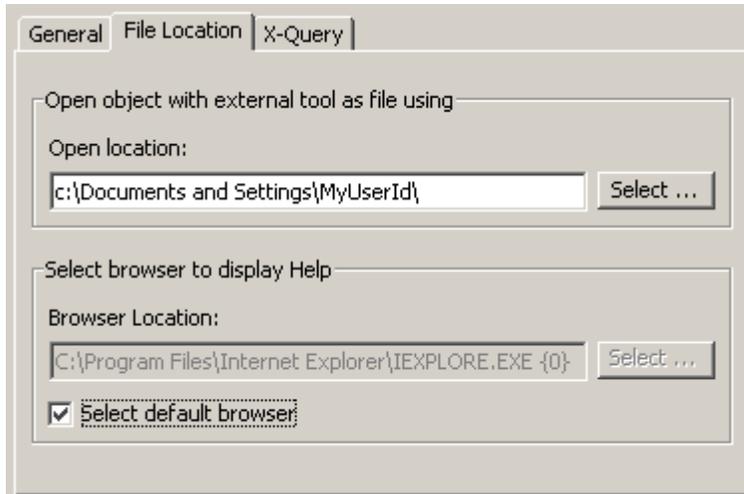
You can set the following option on this page:

Open location

All objects that are opened with an external tool for which the argument `$FILE_PATH$` has been specified are stored in the folder that is defined as your open location.

You can define any other folder in your file system. Either specify the path to the folder in this text box or choose the **Select** button to select the folder from a dialog box.

> **Note:** All file locations for schemas, instances, queries and results are remembered. Each time you open a file chooser dialog box, the folder that was selected when you last opened this dialog box is shown again. A file chooser dialog box appears, for example, when you define, update or save a schema.

Browser Location

With this option, you can choose your preferred browser to display help. Uncheck the option **Select default browser** and select the preferred browser location. You can change the settings anytime.

X-Query

The settings on this page apply only to the Tamino X-Plorer's X-Query windows. They do not apply to the Tamino XQuery Tool which can also be invoked from the Tamino X-Plorer.

The result fetch defaults on this page are the default values for the command **Result Fetch Options**. See *Specifying the Result Fetch Options*.

By default, identical values are defined for the two result fetch options. Each pack that you fetch thus overwrites the previous pack. If the previous packs are to remain visible, specify a higher value for the maximum number of kept instances.

You can set the following options:

Number of instances per pack

The number of instances or fragments that are to be fetched with each pack.

Maximum number of kept instances

The maximum number of instances or fragments that can be shown in a group of instances at the same time.

Use wordwrap in tree view

Applies to the **Result** pane in an X-Query window. When this check box is selected, lines are wrapped in tree view.

13 Instances in WebDAV Enabled Collection

The Tamino X-Plorer can display the contents of the WebDAV enabled collection `ino:dav`.

⊗ **To display the content of the `ino:dav` collection**

1   From the **Tools** menu, choose **Options** and uncheck the **Hide system collection** checkbox under the **General** tab.

The `ino:dav` collection is displayed in the Navigation Tree.

2   Expand the `ino:dav` collection and select an instance to view it in the X-Plorer.

> **Note:** Currently, displaying a folder in the `ino:dav` collection that has white-space character(s) in its name is not supported. An error message is displayed if such a situation occurs.

Furthermore, the following actions are possible with instances in the `ino:dav` collection:

Checkout and Checkin of Instances

You can check out instances of the `ino:dav` collection and subsequently check them back in. Instances that can currently be checked out are marked with the ◆ icon. Instances that can currently be checked in, i.e. instances that previously have been checked out, are marked with the ◆ icon.

⊗ **To check out an instance of the `ino:dav` collection**

1
Select the instance to be checked out, open the context menu and choose **Checkout** () from the context menu to open a **File Save** dialog box.

2   Select the path where the checked out instance is to be saved and choose the **Save** button.

The selected instance is saved to the specified location, and the corresponding instance icon changes to ◆.

⊗ **To check in an instance into the `ino:dav` collection**

1   Make the desired changes to the file that previously has been checked out.

2
Select the instance, open the context menu and choose **Checkin** from the context menu.

The selected instance is checked in, using the file that is located at the previously checked out location. The instance icon changes to ◆.

Version History

You can view the version history of the instances in the `ino:dav` collection. Also, you can download a specific version of a selected instance.

≫ **To view the version history of an instance in the** `ino:dav` **collection**

■ Select an instance, open the context menu and choose **Version List** from the context menu.

The **WebDAV Version History** dialog box is displayed:

WebDAV Version History

Filename : http://localhost/tamino/arjun/ino:dav/ino:dav/terms.txt

Version	Last Modified	Comment
1.0	Thu Jul 28 20:03:05 GMT+05:30 2005	-
2.0	Thu Aug 04 14:55:37 GMT+05:30 2005	-
3.0	Thu Aug 04 14:55:37 GMT+05:30 2005	-
2.0.1	Mon Sep 05 17:49:33 GMT+05:30 2005	-
2.02	Mon Sep 05 17:49:33 GMT+05:30 2005	-
2.0.1.1	Mon Sep 05 17:50:14 GMT+05:30 2005	-
2.0.12	Mon Sep 05 17:50:14 GMT+05:30 2005	-

Download   Close
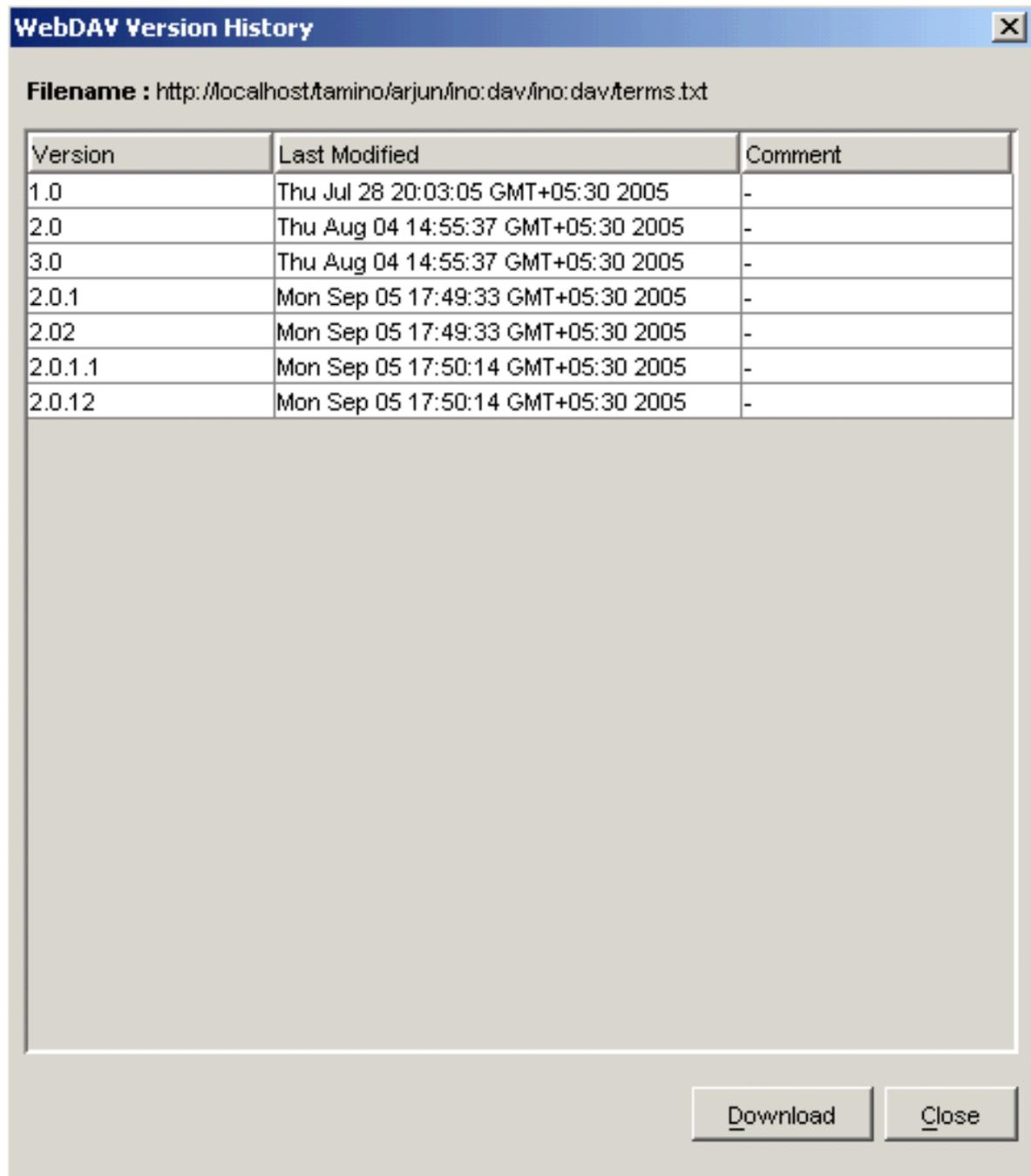
The dialog box shows the URL of the selected instance. It also displays the versions of the instance that are available, the last date modified of the particular version, as well as any related comment.

≫ **To download a specific version of an instance in the** `ino:dav` **collection**

1   In the **WebDAV Version History** dialog box, select the row containing the version of the instance that is to be downloaded, and choose the **Download** button.

A **File Save** dialog box is displayed.

2   Select the path where the specified version of the instance is to be saved and choose the **Save** button.

> **Note:** Modifying and updating plain text documents in WebDAV is possible as normal instances.

V Performing X-Queries with the Tamino X-Plorer

This section explains how to work with the X-Query windows of the Tamino X-Plorer. The following topics are provided:

- **Invoking and Closing X-Query Windows**
- **Elements of an X-Query Window**
- **Working with X-Queries**
- **Managing X-Query Results**

See also: *X-Query User Guide* and *X-Query Reference Guide* in the Tamino XML Server documentation.

14 Invoking and Closing X-Query Windows

You can perform queries on a Tamino database. Queries are performed in a separate application window. The main Tamino X-Plorer application window remains active so that you can work with both windows at the same time.

This chapter covers the following topics:

Invoking an X-Query Window

Each time you invoke an X-Query window, the currently selected object in the navigation tree is automatically provided as a query expression. This if helpful if you do not want to type this information yourself.

It is possible to invoke more than one X-Query window. Thus, you can perform several queries and compare their results.

≫ **To invoke an X-Query window**

1   In the navigation tree, select the object which you want to include in your query.

2   From the **Tools** menu of the main application window, choose **Query > X-Query**.

 Or:

 Choose the following toolbar button:

 🔍

 Or:

 In the context menu, choose **X-Query**.

 The X-Query window appears. See *Elements of an X-Query Window*.

 You can now specify and execute the query. See *Working with X-Queries*.

Closing an X-Query Window

When you close the main application window of the Tamino X-Plorer, all X-Query windows are also closed.

≫ **To close an X-Query window**

■ From the **File** menu of the X-Query window, choose **Close**.

Or:

From the Control menu of the X-Query window, choose **Close**.

Or:

Choose the corresponding standard button in the title bar.

15   Elements of an X-Query Window

The following sample X-Query window contains all information that is required to execute a query: server, database, collection and query expression.
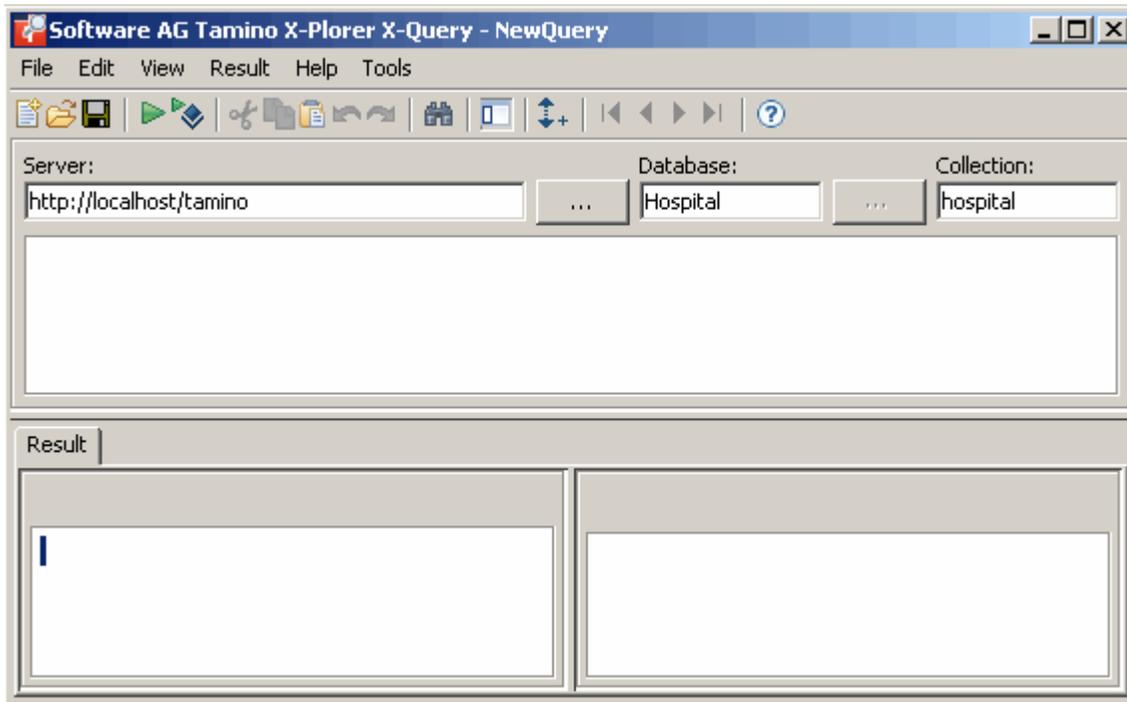
The X-Query window contains several panes. To modify the size of a pane, move the mouse pointer over the border separating the panes until the pointer changes, showing two arrows pointing in opposite directions. Then drag the border using the mouse until the panes have the desired size.

The following topics are covered below.

Menu Bar

The following menus are available:

Menu	Using the commands in this menu, you can ...
File	Create, open, execute and save your queries.
Edit	Cut, copy and paste information.
View	Switch on and off different elements of the X-Query window.
Result	Manage your results.
Tools	Use additional related features.
Help	Invoke online help.

For reference information on each menu command, see *Menu Commands in an X-Query Window*.

Toolbar

You can execute the most important functions using the toolbar.

The following toolbar buttons are available:

  Create new query

  Open query

  Save query

  Execute query

  Execute non-XML query

  Cut selected text

  Copy selected text

  Paste previously cut or copied text

  Toggle display of navigation tree

  Specify result fetch options

  Go to first result pack

  Go to previous result pack

  Go to next result pack

  Go to last result pack

  Access online documentation

≫ **To switch the toolbar display on and off**

■ From the **View** menu, choose **Toolbar**.

When the toolbar is displayed in the X-Query window, a check mark is shown next to this menu command.

Query Area

The query area consists of the text boxes in which you enter the required server, database and collection, and a query editor in which you enter your query.

When you invoke an X-Query window, the currently selected object in the navigation tree is automatically shown as a query expression. Server, database and collection containing the selected object are automatically provided in the text boxes. This if helpful if you do not want to type this information yourself. In addition, any settings used for the instance descriptors are included in the query. For example:

You can now modify the query expression and/or execute the query. See *Working with X-Queries*.

A query is specified using Tamino's X-Query language. See *X-Query User Guide* and *X-Query Reference Guide* in the Tamino XML Server documentation for detailed information.

Using the Tamino connect/select dialog, we can select the server and database. These buttons are available along with the text areas.

Different colors are used for a query expression. Blue is used for keywords of the X-Query language such as `and`, `true`, `sortby` or `between`. Red is used for values of datatypes such as `string` or `boolean`.

≫ **To execute the query**

■   Choose **File > Execute Query**.

Or:

Choose ▶ from the menu bar.

Result Pane

After you have executed a query (see *Executing an X-Query*), its result is shown on the **Result** pane at the bottom of the X-Query window. For example:
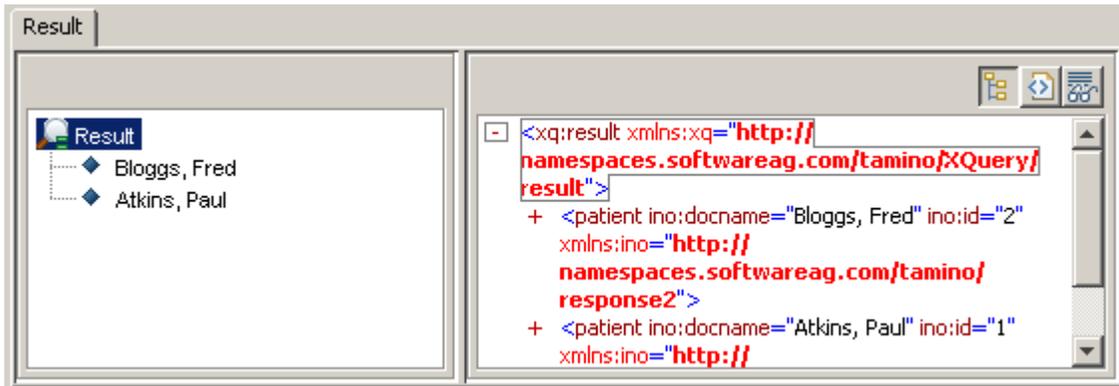
The following topics are covered below:

- Navigation Tree
- Result Contents

More information is provided in the section *Managing X-Query Results*.

Navigation Tree

The left side of the **Result** pane shows a navigation tree with the query result. The number of result packs shown depends on the defined result fetch options. See *Specifying the Result Fetch Options*.

Depending on your query expression, different types of query result are provided. Each result shows either instances or fragments:

- **Instances**
  Complete instances are shown when you search for a doctype, for example, when your query expression is "/patient". When an instance descriptor has been defined for the XML instances, it is applied.

- **Fragments**
  A fragment is a small part of an instance. It is shown when you specify, for example, "//name/firstname" which shows all first names not considering their locations in the XML object (i.e. this can be the first name of a patient or doctor). The `ino:id` is always shown for a fragment; an instance descriptor is not applied. Fragments are not shown for non-XML instances.

The following icons may appear in the navigation tree. The icon tells you which **type of query** has been executed.

◆ Shown as the result of an XML query: XML instance or non-XML instance.

◈ Shown as the result of a non-XML query: XML instance or non-XML instance.

◇ Shown as the result of an XML query: fragment of an XML instance.

Arrows for browsing the instances may appear in the tree:

▼ Click the plus sign next to this symbol to fetch and display the next pack. When using the keyboard, select this symbol and press ENTER.

▲ Click the plus sign next to this symbol to fetch and display the previous pack. When using the keyboard, select this symbol and press ENTER.

≫ **To switch the navigation tree display on and off**

■ From the **View** menu, choose **Navigation Tree**.

Or:

Choose the following toolbar button:

When the navigation tree is displayed in the **Result** pane, a check mark is shown next to the command **Navigation Tree**.

Result Contents

The right side of the **Result** pane shows the contents of the result that is currently selected in the navigation tree on the left.

Depending on the type of object and the type of query, one or more views are available. When different views are available, they can be activated using the following buttons in the top right corner of the **Result** pane:

Button	Keyboard	Description
![tree icon]	CTRL+SHIFT+T	Tree view for the result of an XML query. Not available for the result of a non-XML query. Whether lines are wrapped in tree view depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.
![plain icon]	CTRL+SHIFT+P	Plain view providing the content of a result.
![image icon]	CTRL+SHIFT+I	Image view for non-XML objects (for example, GIF). Not available for the result of an XML query.

> **Note:** In plain view, you can copy information using the corresponding command from the **Edit** menu.

The following example shows the contents of an XML instance in tree view (XML query):
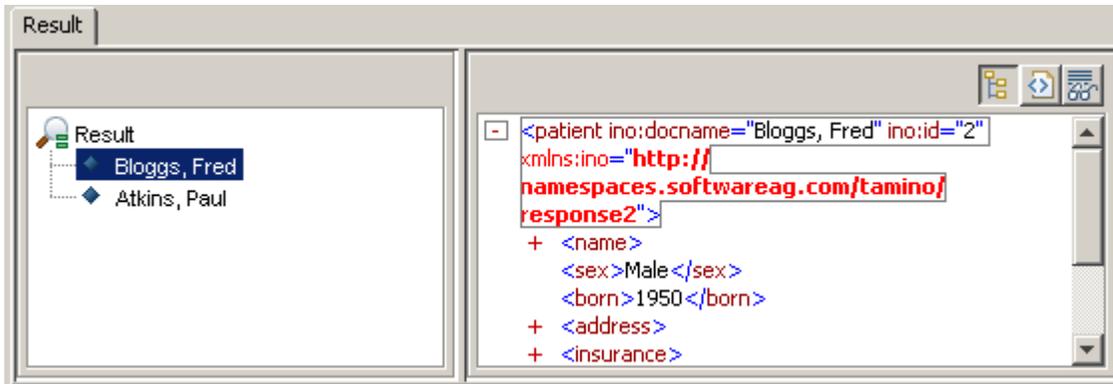
The following example shows the contents of the same instance in plain view (XML query):

16   **Working with X-Queries**

The following topics are covered below.

Specifying an X-Query

When you specify a query in the X-Query window, you must always provide server, database, collection and query expression.

≫ To specify an X-Query

1   In the **Server** text box, specify the name of the server on which you want to execute your query.

2   In the **Database** text box, specify the name of a database of the above server in which you want to execute your query.

3   In the **Collection** text box, specify the name of a collection in the above database in which you want to execute your query.

4   In the query area below the above text boxes, specify the query expression using Tamino's X-Query language. See *X-Query User Guide* and *X-Query Reference Guide* in the Tamino XML Server documentation for detailed information.

    The sorting sequence specified with the **instance descriptor** is not applied in the X-Query window. In the X-Query window, you can specify your own sorting sequence in the query expression (for example, with the `sortby` clause).

    You can now execute the query as described below. See *Executing an X-Query*.

Creating a New X-Query

When you create a new query, any information in the query area is deleted.

> **Note:** The result of the previous query is not overwritten until you execute the new query.

≫ To create a new X-Query

1   From the **File** menu, choose **New**.

    Or:

    Press CTRL+N.

    Or:

Choose the following toolbar button:

A dialog box appears asking whether you want to save the currently displayed query.

2   Choose either the **Yes** or **No** button.

When you choose the **Yes** button and the current query has not yet been saved in a file, the **Save As** dialog box appears. See *Saving an X-Query* below.

The query area is now empty.

3   Specify a query expression and execute the query.

Executing an X-Query

When you have specified a query and want to display the result, you have to execute the query.

You can search for both XML instances and non-XML instances. Two different types of query are available for these two types of instances and they are executed using different commands (see below).

Depending on the type of query different information is shown in the navigation tree:

▪ **XML Query**
The `ino:id` is shown for fragments and non-XML instances. For XML instances, the `ino:id` and/or **instance descriptor** is shown.

▪ **Non-XML Query**
The `ino:docname` is shown for XML and non-XML instances. When `ino:docname` is not available for an XML instance, the `ino:id` is shown.

The result contents are shown in different ways, depending on the type of query:

	XML Query	Non-XML Query
XML Instance or Fragment	The XML code with `ino:id` is shown in plain view and tree view.	The XML code without `ino:id` is shown in plain view.
Non-XML Instance	The attributes `ino:id` and `ino:docname` are shown in plain view and tree view.	The content of a non-XML instance is shown.

For a list of all non-XML formats that can be displayed with the Tamino X-Plorer, see the description of the main application window's **Content** pane.

When you execute a query for a database which has not yet been connected, the **Connect** dialog box appears and you have to specify all required logon information. See *Connecting to a Tamino Database*.

Each new query that is executed overwrites the previous result pack. If you want to save your result pack, see *Saving the Current Result Pack*.

> **Note:** The result of a query may provide both XML and non-XML instances.

≫ To execute an XML query

■   From the **File** menu, choose **Execute XML Query**.

   Or:

   Or press CTRL+Q.

   Or:

   Choose the following toolbar button:

   ▶

   The result is now shown on the **Result** pane.

≫ To execute a non-XML query

■   From the **File** menu, choose **Execute Non-XML Query**.

   Or:

   Or press CTRL+E.

   Or:

   Choose the following toolbar button:

The result is now shown on the **Result** pane.

> **Note:** A portion of X-Query code can be executed by selecting the portion and pressing the **Execute** button or pressing Ctrl+Q.

Saving an X-Query

You can save a query in a file in your file system.

As long as a query has not yet been saved, the name "NewQuery" is shown in the title bar of the X-Query window. When you save this query for the first time, the **Save As** dialog box appears in which you have to specify the name of the file in which the query is to be saved in your file system.

≫ To save an X-Query under a new name

1   From the **File** menu, choose **Save As**.

    The **Save As** dialog box appears. File name and extension are automatically provided.

2   Optionally: specify another file name and extension.

3   Select the path in which you want to save the file.

4   Choose the **Save** button.

≫ To save a named X-Query

■   From the **File** menu, choose **Save**.

    Or:

    Or press CTRL+S.

    Or:

    Choose the following toolbar button:

    The existing query in your file system is updated.

Opening a Saved X-Query

You can open a query which you have previously saved in your file system.

≫ **To open a saved X-Query**

1   From the **File** menu, choose **Open**.

Or:

Press CTRL+O.

Or:

Choose the following toolbar button:

A dialog box appears asking whether you want to save the currently displayed query.

2   Choose either the **Yes** or **No** button.

When you choose the **Yes** button and the current query has not yet been saved in a file, the **Save As** dialog box appears. See *Saving an X- Query* above.

The **Open** dialog box appears.

3   Select the file containing the desired query.

4   Choose the **Open** button.

The previously saved query is now shown in the X-Query window.

Selecting Text

In order to cut, copy or delete text, you have to select it. To do so, use the standard techniques for the platform on which you are currently working.

You can also select all text at once (see below). In this case, the selection depends on the area which has previously been selected in the query window.

You can select text in the following areas:

■ in the query area (including the text boxes for server, database, and collection),

■ in the result contents of the **Result** pane (plain view only).

≫ **To select all text**

1   Select the required area in the query window.

2   From the **Edit** menu, choose **Select All**.

Or:

Press CTRL+A.

Cutting, Copying and Pasting Text

You can cut, copy and paste any text in the query area. You can also copy from the result contents of the **Result** pane (plain view only).

This feature uses the Windows clipboard which may also contain information from another application. Thus, it is also possible to copy an entire query from or to another source.

≫ **To cut the selection and transfer it to the clipboard**

■   From the **Edit** menu, choose **Cut**.

Or:

Press CTRL+X.

Or:

Choose the following toolbar button:

The selection is deleted at its original position and is copied to the clipboard.

≫ **To copy the selection to the clipboard**

■   From the **Edit** menu, choose **Copy**.

Or:

Press CTRL+C.

Or:

Choose the following toolbar button:

The selection remains at its original position and is copied to the clipboard.

> **To paste the content of the clipboard**

1   Place the insertion point at the position at which you want to paste the cut or copied information.

2   From the **Edit** menu, choose **Paste**.

Or:

Press CTRL+V.

Or:

Choose the following toolbar button:

The previously cut or copied text is inserted at the insertion point.

Deleting Text

You can delete any text in the query area.

> **To delete the selection**

■   From the **Edit** menu, choose **Clear**.

Or:

Press DEL.

The selection is deleted immediately. You are not asked to confirm the deletion.

17 Managing X-Query Results

The following topics are covered below.

Specifying the Result Fetch Options

The result of a query is shown as different packs in the **Result** pane. You can specify the number of instances that are to be shown with each pack.

The default values are defined in the **Options** dialog box. See *Setting the Tamino X-Plorer and X-Query Options* for further information.

≫ **To specify the result fetch options**

1   From the **Result** menu, choose **Result Fetch Options**.

Or:

Choose the following toolbar button:

↕₊

The **Specify Instance Fetch Options for Result** dialog box appears.

2   Specify the following information:

Number of instances per pack
The number of instances or fragments that are to be fetched with each pack.

Maximum number of kept instances
The maximum number of instances or fragments that can be shown at the same time.

3   Optionally: if you want to reset the values that are currently defined in the dialog box to the default values, choose the **Reset to Default** button.

4   Choose the **OK** button to use the new values.

Browsing the Result Packs

When more instances or fragments are available than can be shown on the **Result** pane, you can browse through the result packs.

You can display the next or previous pack. Or you can immediately jump to the last pack or to the first pack.

The browse commands (see below) that are currently not available are disabled. For example, when the entire result is provided in one pack on the **Result** pane, all browse commands (and the corresponding toolbar buttons) are disabled.

≫ **To go to the first result pack**

■   From the **Result** menu, choose **First**.

   Or:

   Choose the following toolbar button:

   ◀

≫ **To go to the last result pack**

■   From the **Result** menu, choose **Last**.

   Or:

   Choose the following toolbar button:

   ▶|

≫ **To go to the previous result pack**

■   From the **Result** menu, choose **Previous**.

   Or:

   Choose the following toolbar button:

   ◀

   Or:

When the navigation tree is shown, click the plus sign next to the up-arrow at the top of the list. When using the keyboard, select the up-arrow and press ENTER.

≫ **To go to the next result pack**

■ From the **Result** menu, choose **Next**.

Or:

Choose the following toolbar button:

▶

Or:

When the navigation tree is shown, click the plus sign next to the down-arrow at the bottom of the list. When using the keyboard, select the down-arrow and press ENTER.

Saving the Current Result Pack

You can save the result pack that is currently shown in the navigation tree of the **Result** pane to your file system.

≫ **To save the current result pack**

1 From the **Result** menu, choose **Save Displayed Result As**.

The **Save As** dialog box appears. File name and extension are automatically provided.

2 Optionally: specify another file name and extension.

3 Select the path in which you want to save the file.

4 Choose the **Save** button.

Saving an Instance or Fragment

You can save the item that is currently selected in the navigation tree of the **Result** pane to your file system. This can be an XML instance, a non-XML instance or a fragment.

≫ **To save an instance or fragment**

1 In the navigation tree of the **Result** pane, select the item to be saved.

2 From the **Result** menu, choose **Save Selected Item As**.

The **Save As** dialog box appears. File name and extension are automatically provided.

3   Optionally: specify another file name and extension.

4   Select the path in which you want to save the instance or fragment.

5   Choose the **Save** button.

VI   Using the Tamino XQuery Tool

This section explains how to specify queries with the Tamino XQuery tool. The following topics are provided:

- **Starting and Leaving the Tamino XQuery Tool**
- **Elements of the Tamino XQuery Window**
- **Working with the Tamino XQuery Tool**
- **Managing XQuery Results**
- **Setting the Tamino XQuery Tool Options**

See also: *XQuery 4 User Guide* and *XQuery 4 Reference Guide* in the Tamino XML Server documentation.

18 Starting and Leaving the Tamino XQuery Tool

This chapter covers the following topics:

Starting the Tamino XQuery Tool

The Tamino XQuery tool can be started in two different ways:

- From the Tamino X-Plorer. The Tamino X-Plorer remains active so that you can work with both applications at the same time.
- In standalone mode (without the Tamino X-Plorer).

It is possible to invoke more than one XQuery window. Thus, you can perform several queries and compare their results.

>> **To invoke the Tamino XQuery tool from the Tamino X-Plorer**

1   In the navigation tree of the Tamino X-Plorer, select the object which you want to include in your query.

   The currently selected object in the navigation tree will be provided as a query expression in the Tamino XQuery tool. The names of the server, database and collection will be supplied automatically. This if helpful if you do not want to type this information yourself.

2   From the **Tools** menu of the Tamino X-Plorer, choose **Query > XQuery**.

   Or:

   Choose the following toolbar button:

   The application window of the Tamino XQuery tool appears. See *Elements of the Tamino XQuery Window*.

   You can now specify and execute the query. See *Working with the Tamino XQuery Tool*.

≫ **To start the Tamino XQuery tool in standalone mode on Windows**

■ From the Windows Start menu choose **Tamino XQuery Tool** from the Tamino program group.

≫ **To start the Tamino XQuery tool in standalone mode on UNIX platforms**

■ Start the following script from the command line:

```
inoxquery.sh
```

Leaving the Tamino XQuery Tool

When you close the Tamino X-Plorer, all XQuery windows that have been opened from the Tamino X-Plorer are also closed.

≫ **To close an XQuery window**

■ From the **File** menu, choose **Close**.

Or:

From the Control menu, choose **Close**.

Or:

Choose the corresponding standard button in the title bar.

19 Elements of the Tamino XQuery Window

When you start the Tamino XQuery tool, its application window appears.

The following sample XQuery window contains all information that is required to execute a query: server, database, collection and the query expression.

The XQuery window contains several panes. To modify the size of a pane, move the mouse pointer over the border separating the panes until the pointer changes, showing two arrows pointing in opposite directions. Then drag the border using the mouse until the panes have the desired size.

For details on keyboard access not mentioned in this documentation, consult the documentation of the individual operating system or software product.

The following topics are covered below.

Menu Bar

The following menus are available:

Menu	Using the commands in this menu, you can ...
File	Create, open, execute, explain and save your queries.
Edit	Edit the current query (for example, cut, copy and paste text).
View	Switch on and off different elements of the XQuery window.
Result	Manage your results.
Tools	Define the options.
Help	Invoke online help.

For reference information on each menu command, see *Menu Commands in a Tamino XQuery Tool Window*.

Toolbar

You can execute the most important functions using the toolbar.

The following toolbar buttons are available:

Create new query

Open query

Save query

Execute query

Explain query

Open XQuery module

Save XQuery module

Toggle between module management mode and query mode.

Cut selected text

Copy selected text

Paste previously cut or copied text

Find text

Toggle display of navigation tree

Specify result fetch options

Go to first result pack

Go to previous result pack

Go to next result pack

Go to last result pack

Access online documentation

≫ **To switch the toolbar display on and off**

■   From the **View** menu, choose **Toolbar**.

   When the toolbar is displayed in the XQuery window, a check mark is shown next to this menu command.

Query Area

The query area consists of the text boxes in which you enter the required server, database and collection, and a query editor in which you enter your query expression.

When you invoke an XQuery window from the Tamino X-Plorer, the currently selected object in the X-Plorer's navigation tree is automatically shown as a query expression. Server, database and collection containing the selected object are automatically provided in the text boxes. This if helpful if you do not want to type this information yourself. For example:
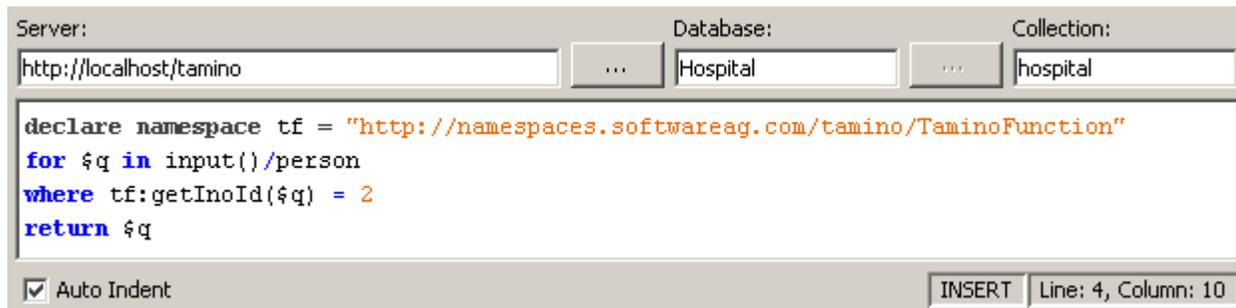
You can modify the query expression and/or execute the query. See *Working with the Tamino XQuery Tool*. When you invoke an XQuery window in standalone mode, you have to specify all of this information yourself (see *Specifying an XQuery*).

A query expression is specified using XQuery. See *XQuery 4 User Guide* and *XQuery 4 Reference Guide* in the Tamino XML Server documentation for detailed information.

Syntax highlighting is used. Several predefined styles with different colors and font styles are provided. For example, a keyword style is provided which shows the keywords of the XQuery language (such as `for`, `in`, `where` or `return`) with the color blue and with the font style bold.

📄 **Notes:**

1. The W3C XQuery specification (W3C Working Draft 16 August 2002) is currently used for syntax highlighting. See *XQuery 1.0: An XML Query Language* at **http://www.w3.org/TR/2002/WD-xquery-20020816/**.

2. Syntax highlighting may fail if the expression contains non-ASCII characters. In certain cases (for example, Kanji), the query code is highlighted in red. Workaround: Switch highlighting off by adding the following line to the *xplorer.properties* file:
   ```
   com.softwareag.xtools.xquery.editor.XQueryEditor.syntaxHighlighting=false
   ```

The current position of the insertion point in the query editor is shown at the bottom of the query area (line and column). The information to the left of the position indicates whether insert mode or overwrite mode is currently active. The mode can be toggled using the INS key.

The XQuery code is automatically indented in the query display area if you check the **Auto Indent** box. This can help to make the code easier for you to read if the code contains nested structures.

Result Pane

The **Result** pane is shown at the bottom of the XQuery window.

The following topics are covered below:

- Navigation Tree
- Result Contents

More information is provided in the section *Managing XQuery Results*.

Navigation Tree

After you have executed a query (see *Executing an XQuery*), the left side of the **Result** pane shows a tree with the query result. The number of result packs shown depends on the defined result fetch options (see *Specifying the Result Fetch Options*).

Note: The navigation tree is not shown when an error message is displayed or when an explanation of a query is displayed.

Depending on your query expression, different types of query result are provided. Each result shows either instances or fragments:

■ **Instances**
  Complete instances are shown when you search for a doctype, for example, when your query expression is "input()/patient".

■ **Fragments**
  A fragment is a small part of an instance. It is shown when you specify, for example, "input()/name/firstname" which shows all first names not considering their locations in the XML object (i.e. this can be the first name of a patient or doctor).

The instances or fragments receive consecutive numbers preceded by a hash (#) character.

The following icons may appear in the navigation tree. They are shown as the result of an XQuery.

◆ XML instance as it was stored in Tamino.

◇ Fragment of an XML instance, or XML instance if an element constructor is used in the result.

Arrows for browsing the instances may appear in the tree:

▼ Click the plus sign next to this symbol to fetch and display the next pack. When using the keyboard, select this symbol and press ENTER.

▲ Click the plus sign next to this symbol to fetch and display the previous pack. When using the keyboard, select this symbol and press ENTER.

≫ **To switch the navigation tree display on and off**

■ From the **View** menu, choose **Navigation Tree**.

Or:

Choose the following toolbar button:

When the navigation tree is displayed in the **Result** pane, a check mark is shown next to the command **Navigation Tree**.

Result Contents

The right side of the **Result** pane shows one of the following:

- When you have chosen the **Execute Query** command, the contents of the result that is currently selected in the navigation tree is shown on the right side of the **Result** pane. See *Executing an XQuery*.

  The following example shows the contents of a query in tree view:
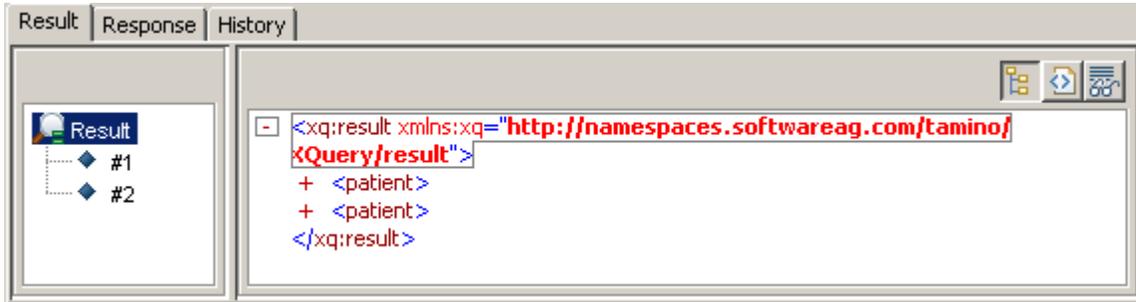
  The following example shows the same result in plain view:
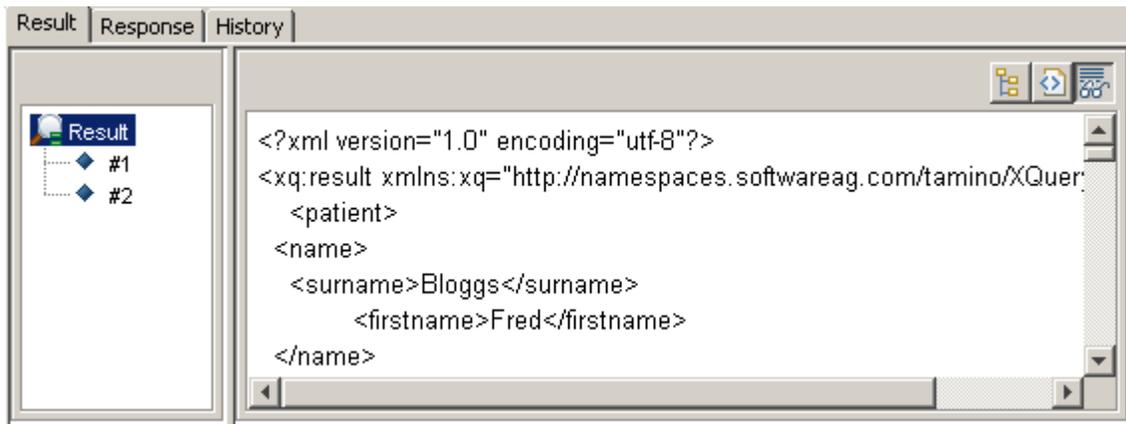
- When you have chosen the **Explain Query** command, an explanation of the query is shown. The navigation tree is not shown in this case. See *Explaining an XQuery*.

  The following example shows the explanation of a query:

```
✓  This query compiles successfully.
⚠  This query will retrieve all documents from the doctype Hospital/patient.

i  The analyzed query:
   {?explain?}

   for $q in input()/patient
   return $q
```
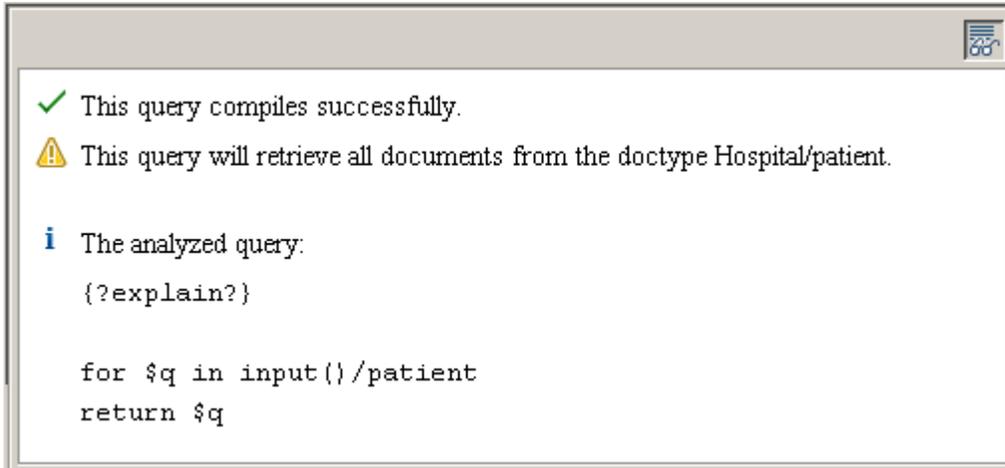
- When an error has occurred, an error message is shown. The navigation tree is not shown in this case.

Depending on the type of object and the type of query, one or more views are available. When different views are available, they can be activated using the following buttons in the top right corner of the **Result** pane:

Button	Keyboard	Description
	CTRL+SHIFT+T	Tree view providing the content of a result, an explanation of a query, or an error message. Whether lines are wrapped in tree view depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino XQuery Tool Options* for further information.
	CTRL+SHIFT+P	Plain view providing the content of a result, an explanation of a query, or an error message.

Note: In plain view, you can copy information using the corresponding command from the **Edit** menu.

Response Pane

When you have chosen the **Explain Query** command (see *Explaining an XQuery*), the Tamino response (`ino:response`) is shown in the **Response** pane at the bottom of the XQuery window.

In general, the success or failure of the client request is indicated in the `ino:returnvalue` attribute of the `ino:message` element of the response document. A value of 0 indicates a successful response, whereas a non-zero value indicates either an error or a non-standard response. For further information on the syntax of XML responses and on the elements and attributes in Tamino response documents, see *X-Machine Programming*, section *Requests using X-Machine Commands* in the Tamino XML Server documentation.

Different views are available. They can be activated using the following buttons in the top right corner of the **Response** pane:

Button	Keyboard	Description
⬚	CTRL+SHIFT+T	Tree view providing the response. Whether lines are wrapped in tree view depends on the corresponding setting in the **Options** dialog box. See *Setting the Tamino XQuery Tool Options* for further information.
⬚	CTRL+SHIFT+P	Plain view providing the response.

> **Note:** In plain view, you can copy information using the corresponding command from the **Edit** menu.

History Pane

Queries for which you have previously invoked the **Execute Query** command (see *Executing an XQuery*) or the **Explain Query** command (see *Explaining an XQuery*), are shown on the **History** pane at the bottom of the XQuery window.
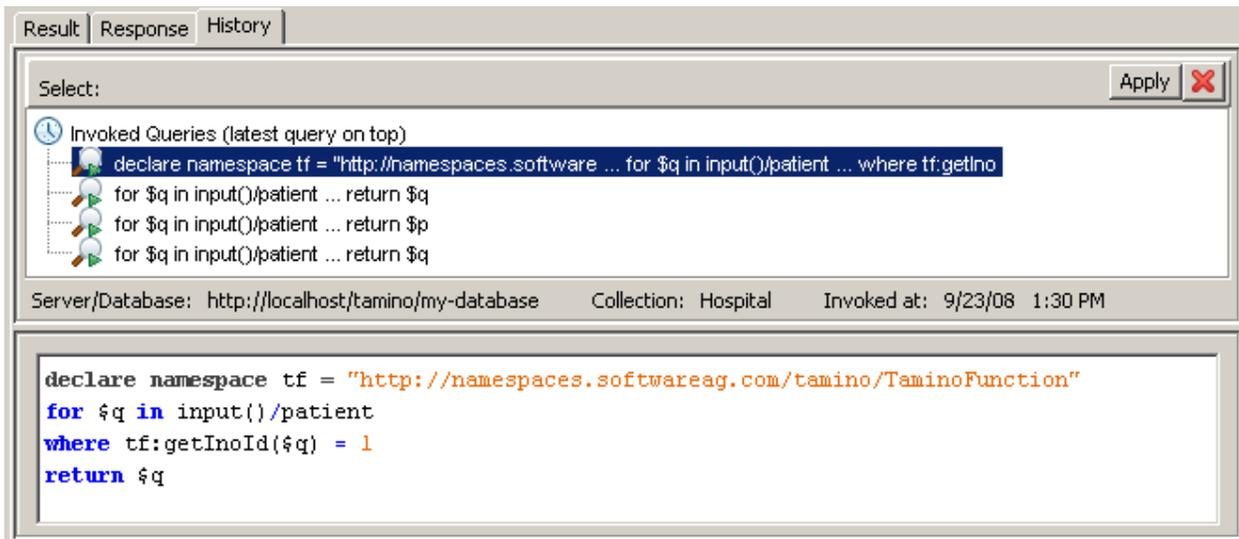
The following topics are covered below:

- Query List
- Query Contents

Query List

The top of the **History** pane shows a list with queries that have been previously invoked. The latest query is shown at the top of the list.

The maximum number of query entries and the maximum number of characters shown for each query entry depend on the corresponding settings in the **Options** dialog box. See *Setting the Tamino XQuery Tool Options* for further information.

When you select a query in the list, the following information about this query is shown below the list: server, database, collection and the date and time when this query was invoked.

The following buttons are provided:

Apply	Copies the selected query to the query area so that you can modify and invoke it once more. A dialog box appears asking whether you want to save the query which is currently displayed in the query area. Alternative: double-click the desired query.
✖	Deletes the selected query from the history. The query is deleted immediately. You are not asked to confirm the deletion.

Query Contents

The bottom of the **History** pane shows the entire query (read-only) for the item that is currently selected in the query list.

For information on syntax highlighting, see *Query Area*.

20 Working with the Tamino XQuery Tool

The following topics are covered below.

Specifying an XQuery

When you specify a query in the XQuery window, you must always provide server, database, collection and the query itself.

Only queries that reference XML doctypes are possible. For queries on non-XML doctypes, use X-Query. See *Performing X-Queries with the Tamino X-Plorer*.

> **To specify an XQuery**

1   In the **Server** text box, specify the name of the server on which you want to execute your query.

You can use the selection icon (⋯) to open a dialog that lets you navigate to the required server and database. You can also use the option **Tools > Connect to Server** from the main menu to navigate to the required server and database.

2   In the **Database** text box, specify the name of a database of the above server in which you want to execute your query.

3   In the **Collection** text box, specify the name of a collection in the above database in which you want to execute your query.

4   In the query editor below the above text boxes, specify the query. See *XQuery 4 User Guide* and *XQuery 4 Reference Guide* in the Tamino XML Server documentation for detailed information.

You can specify the sorting sequence in your query, for example, with the `sort by` clause (the sorting sequence specified in the Tamino X-Plorer (instance descriptor) is not applied).

You can now execute the query as described below. See *Executing an XQuery*.

It is also possible to retrieve information about query execution, without executing the query. See *Explaining an XQuery*.

Creating a New XQuery

When you create a new query, any information in the query area is deleted.

> **Note:** The result of the previous query is not overwritten until you issue the **Execute Query** or **Explain Query** command for the new query.

≫ **To create a new XQuery**

1   From the **File** menu, choose **New**.

Or:

Press CTRL+N.

Or:

Choose the following toolbar button:

A dialog box appears asking whether you want to save the currently displayed query.

2   Choose either the **Yes** or **No** button.

When you choose the **Yes** button and the current query has not yet been saved in a file, the **Save As** dialog box appears. See *Saving an XQuery* below.

The query area is now empty.

3   Specify a query and choose the **Execute Query** or **Explain Query** command

Using Templates and the auto-complete Feature

You can use pre-defined XQuery templates and the auto-complete feature to complete your XQuery statements, without much typing effort. Type in the first one or two letters of the word that you want to insert and press CTRL+SPACE. Also notice that the query statement aligns itself automatically.

Explaining an XQuery

When you have specified a query, you can use the **Explain Query** command (which corresponds to `ino:explain`) to retrieve information about query execution for analysis and optimization. For detailed information on `ino:explain`, see the *X-Query Reference Guide* in the Tamino XML Server documentation.

The **Explain Query** command works in the same way as the **Execute Query** command. The only difference is that the query is not executed, it is just analyzed.

When the query is sent to the Tamino server, two additional lines, `{?explain?}` and `{?explain preprocessor?}`, are inserted at the top of the query. Therefore, all line numbers in the explanation text of the query (in the **Result** pane and **Response** pane) are greater by two than in the query editor.

When you request the explanation of a query for a database which has not yet been connected, the **Connect** dialog box appears and you have to specify all required logon information. See *Connecting to a Tamino Database*.

> **To explain an XQuery**

■   From the **File** menu, choose **Explain Query**.

Or:

Or press CTRL+E.

Or:

Choose the following toolbar button:

The explanation is now shown on the **Result** pane and on the **Response** pane.

Executing an XQuery

When you have specified a query and want to display the result, you have to execute the query.

When you execute a query for a database which has not yet been connected, the **Connect** dialog box appears and you have to specify all required logon information. See *Connecting to a Tamino Database*.

Each new query that is executed overwrites the previous result pack. If you want to save your result pack, see *Saving the Current Result Pack*.

> **Note:** Before you execute a query, it is recommended that you retrieve information about query execution using the **Explain Query** command. See *Explaining an XQuery*.

≫ **To execute an XQuery**

■ From the **File** menu, choose **Execute Query**.

  Or:

  Or press CTRL+Q.

  Or:

  Choose the following toolbar button:

  ▶

  The result is now shown on the **Result** pane.

XQuery execution is based on a transaction. Therefore, the access to a query result is only possible during the transaction. See the description for maximum transaction duration in the in the Tamino XML Server documentation (to be found under *Create a Database* in the Tamino Manager section). Hints:

■ Execute the query once again if the transaction has timed out.

■ Increase the **number of instances per pack** to get a bigger portion of the query result set.

Cancel XQuery Execution

If you execute a query that takes a considerable amount of time, a processing dialog box is displayed, which lets you cancel the query. You just need to choose the **Abort** button and the query is cancelled.

XQuery Scratchpad

In addition to using the Explain Query and Execute Query features as described above, you can select a section of XQuery code from the display and activate the Explain or Execute feature for this selected code section.

≫ **To execute or explain a section of code from the text input field**

1   Ensure that the text input field contains valid XQuery code.

2   Select the required section of the displayed XQuery code in the text input field, by moving the cursor to the required first character, then dragging the cursor to the required last character.

3   From the **Tools** menu, select either ▶ to execute the selected query code, or 🔍 to examine the selected query code.

The results are then displayed in the Result window.

Saving an XQuery in the File System

You can save a query in a file in your file system.

As long as a query has not yet been saved, the name "NewXQuery" is shown in the title bar of the XQuery window. When you save this query for the first time, the **Save As** dialog box appears in which you have to specify the name of the file in which the query is to be saved in your file system.

≫ **To save an XQuery under a new name**

1   From the **File** menu, choose **Save As**.

The **Save As** dialog box appears. File name and extension (.xquery) are automatically provided.

2   Optionally: specify another file name. Do not change the extension.

3   Select the path in which you want to save the file.

4   Choose the **Save** button.

≫ **To save a named XQuery**

■   From the **File** menu, choose **Save**.

Or:

Or press CTRL+S.

Or:

Choose the following toolbar button:

The existing query in your file system is updated.

Opening a Saved XQuery

You can open a query which you have previously saved in your file system.

≫ To open a saved XQuery

1   From the **File** menu, choose **Open**.

Or:

Press CTRL+O.

Or:

Choose the following toolbar button:

A dialog box appears asking whether you want to save the currently displayed query.

2   Choose either the **Yes** or **No** button.

When you choose the **Yes** button and the current query has not yet been saved in a file, the **Save As** dialog box appears. See *Saving an XQuery* above.

The **Open** dialog box appears.

3   Select the file containing the desired query.

4   Choose the **Open** button.

The previously saved query is now shown in the application window.

Inserting an XQuery Expression from a File

You can insert the contents of a text file at the insertion point. This is helpful, for example, if you have received an XQuery expression from another user.

> **Note:** Do not use this feature to insert a saved XQuery with the extension "xquery". Use the **Open** command instead (see *Opening a Saved XQuery*).

≫ To insert an XQuery from a file

1   In the query area, move the insertion point to the position at which you want to insert the contents of the file.

2   From the **Edit** menu, choose **Insert From File**.

A dialog box appears.

3   Select the desired file.

4   Choose the **Open** button.

The content of the selected file is now inserted at the insertion point.

XQuery Modules

You can save XQuery code as a module in a database and retrieve it at a later time.

If you wish to work with modules, you must activate the module management mode. If this mode is not active, the menu entries and buttons for saving and retrieving modules are greyed out.

≫ To activate module management mode

■   Choose **Tools > Options** from the main menu, then select the **Module** tab in the dialog, then mark the checkbox for **Module management mode**

Or:

Choose the corresponding entry under the **Tools** menu

Or:

Choose the appropriate button from the toolbar.

▷ **To save a module to the database**

■   Choose **File > Save as Module**

      Or:

      Choose the appropriate button from the toolbar.

▷ **To retrieve a module from the database**

■   Choose **File > Open Module**

      Or:

      Choose the appropriate button from the toolbar.

When you save a module, it is stored in the doctype *ino:module* in the collection *ino:source* of your database.

The Tamino XQuery tool cannot be used to delete XQuery modules in a database. If you wish to delete an XQuery module in a database, use the Tamino X-Plorer instead.

If you wish to deactivate module management mode and return to query mode, proceed as follows:

▷ **To deactivate module management mode**

■   Choose again the appropriate menu entry under **Tools** or **Tools > Options**, so that the tick mark beside the menu entry is no longer displayed.

      Or:

      Choose the appropriate button from the toolbar. This toggles the current setting from "module management mode" back to "query mode".

Selecting Text

In order to cut, copy or delete text, you have to select it. To do so, use the standard techniques for the platform on which you are currently working.

You can also select all text at once (see below). In this case, the selection depends on the area which has previously been selected in the query window.

You can select text in the following areas:

▪ in the query area (including the text boxes for server, database, and collection),

▪ in the result contents of the **Result** pane (plain view only).

≫ **To select all text**

1   Select the required area in the query window.

2   From the **Edit** menu, choose **Select All**.

   Or:

   Press CTRL+A.

Cutting, Copying and Pasting Text

You can cut, copy and paste any text in the query area. You can also copy from the result contents of the **Result** pane (plain view only), or from the query contents at the bottom of the **History** pane.

This feature uses the Windows clipboard which may also contain information from another application. Thus, it is also possible to copy an entire query from or to another source.

≫ **To cut the selection and transfer it to the clipboard**

■   From the **Edit** menu, choose **Cut**.

   Or:

   Press CTRL+X.

   Or:

   Choose the following toolbar button:

✂

The selection is deleted at its original position and is copied to the clipboard.

≫ **To copy the selection to the clipboard**

■ From the **Edit** menu, choose **Copy**.

   Or:

   Press CTRL+C.

   Or:

   Choose the following toolbar button:

   The selection remains at its original position and is copied to the clipboard.

≫ **To paste the content of the clipboard**

1 Place the insertion point at the position at which you want to paste the cut or copied information.

2 From the **Edit** menu, choose **Paste**.

   Or:

   Press CTRL+V.

   Or:

   Choose the following toolbar button:

   The previously cut or copied text is inserted at the insertion point.

Finding Text Occurrences in XQuery Result and Response

You can find the occurrences of a text in the plain views of XQuery result and response panes.

≫ **To find occurrences of text**

1   Activate the plain view of the result or response pane.

2   Choose the **Find** icon in the toolbar.

Or:

Choose **Find** from the **Edit** menu.

Or:

Press CTRL+F.

Deleting Text

You can delete any text in the query area.

⟩ **To delete the selection**

■ From the **Edit** menu, choose **Clear**.

Or:

Press DEL.

The selection is deleted immediately. You are not asked to confirm the deletion.

Undoing and Redoing the Previous Change

You can undo and redo your previous changes in the query area.

⟩ **To undo the previous change**

■ From the **Edit** menu, choose **Undo**.

Or:

Press CTRL+Z.

⟩ **To redo the previous undo action**

■ From the **Edit** menu, choose **Redo**.

Or:

Press CTRL+Y.

21   Managing XQuery Results

The following topics are covered below.

Specifying the Result Fetch Options

The result of a query is shown as different packs in the **Result** pane. You can specify the number of instances that are to be shown with each pack.

The default values are defined in the **Options** dialog box. See *Setting the Tamino XQuery Tool Options* for further information.
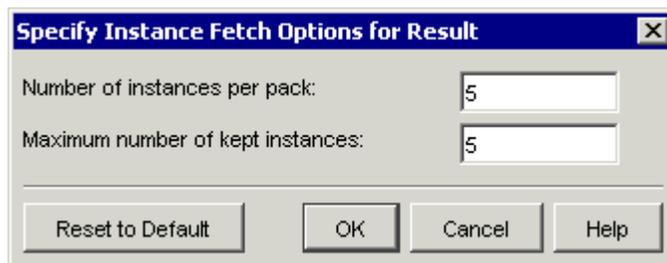
≫ **To specify the result fetch options**

1   From the **Result** menu, choose **Result Fetch Options**.

Or:

Choose the following toolbar button:

↕₊

The **Specify Instance Fetch Options for Result** dialog box appears.

2   Specify the following information:

Number of instances per pack
The number of instances or fragments that are to be fetched with each pack.

Maximum number of kept instances
The maximum number of instances or fragments that can be shown at the same time.

3   Optionally: if you want to reset the values that are currently defined in the dialog box to the default values, choose the **Reset to Default** button.

4   Choose the **OK** button to use the new values.

Browsing the Result Packs

When more instances or fragments are available than can be shown on the **Result** pane, you can browse through the result packs.

You can display the next or previous pack. Or you can immediately jump to the last pack or to the first pack.

The browse commands (see below) that are currently not available are disabled. For example, when the entire result is provided in one pack on the **Result** pane, all browse commands (and the corresponding toolbar buttons) are disabled.

⟩ **To go to the first result pack**

■   From the **Result** menu, choose **First**.

Or:

Choose the following toolbar button:

⏮

⟩ **To go to the last result pack**

■   From the **Result** menu, choose **Last**.

Or:

Choose the following toolbar button:

⏭

⟩ **To go to the previous result pack**

■   From the **Result** menu, choose **Previous**.

Or:

Choose the following toolbar button:

◄

Or:

When the navigation tree is shown, click the plus sign next to the up-arrow at the top of the list. When using the keyboard, select the up-arrow and press ENTER.

⯈ **To go to the next result pack**

■ From the **Result** menu, choose **Next**.

  Or:

  Choose the following toolbar button:

  ▶

  Or:

  When the navigation tree is shown, click the plus sign next to the down-arrow at the bottom of the list. When using the keyboard, select the down-arrow and press ENTER.

Saving the Current Result Pack

You can save the result pack that is currently shown in the navigation tree of the **Result** pane to your file system.

⯈ **To save the current result pack**

1 From the **Result** menu, choose **Save Displayed Result As**.

  The **Save As** dialog box appears. File name and extension are automatically provided.

2 Optionally: specify another file name and extension.

3 Select the path in which you want to save the file.

4 Choose the **Save** button.

Saving an Instance or Fragment

You can save the item that is currently selected in the navigation tree of the **Result** pane to your file system.

⯈ **To save an instance or fragment**

1 In the navigation tree of the **Result** pane, select the item to be saved.

2 From the **Result** menu, choose **Save Selected Item As**.

  The **Save As** dialog box appears. File name and extension are automatically provided.

3   Optionally: specify another file name and extension.

4   Select the path in which you want to save the instance or fragment.

5   Choose the **Save** button.

22 Setting the Tamino XQuery Tool Options

This chapter covers the following topics:

Invoking the Options Dialog Box

The settings in the **Options** dialog box control the behavior of certain features of the Tamino XQuery tool.

≫ **To invoke the Options dialog box**

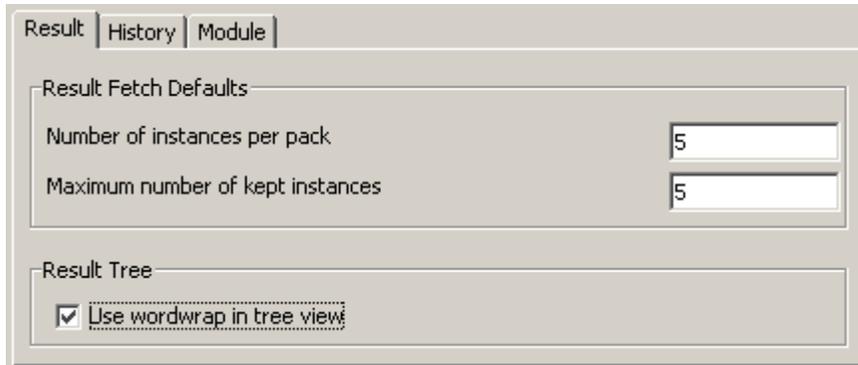1   From the **Tools** menu of the XQuery Tool, choose **Options**.

The **Options** dialog box appears.

2   Select one of the following pages and set the required options as described below under the following headings.

- **Result**
- **History**
- **Module**

3   Choose the **OK** button.

Result

The result fetch defaults on this page are the default values for the command **Result Fetch Options**. See *Specifying the Result Fetch Options*.

By default, identical values are defined for the two result fetch options. Each pack that you fetch thus overwrites the previous pack. If the previous packs are to remain visible, specify a higher value for the maximum number of kept instances.

You can set the following options:

Number of instances per pack
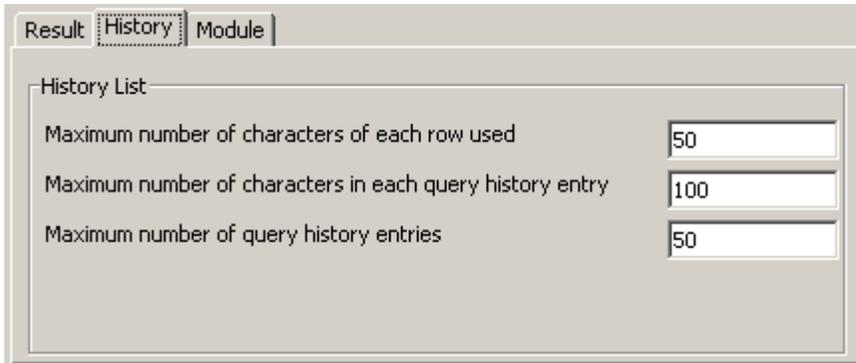 The number of instances or fragments that are to be fetched with each pack.

Maximum number of kept instances
 The maximum number of instances or fragments that can be shown in a group of instances at the same time.

Use wordwrap in tree view
 Applies to the **Result** pane. When this check box is selected, lines are wrapped in tree view.

History

You can set the following options:

Maximum number of characters of each row used

Each query entry in the **History** pane shows the first *n* characters from each query line. These characters are concatenated to one string; each line break is indicated by three dots. Example:

```
declare namespace tf ... for $q in input()/Pr ... return ... $q/Address/Zip ... ↵
sort by (Zip)
```

When the query has 5 lines and you specify 20 in this text box, the first 20 characters of each query line are shown and each query entry thus shows a maximum of 100 characters. However, if 90 has been defined in the text box **Maximum number of characters in each query history entry**, each query entry in this example only shows 90 characters - 10 characters from the last query line are not used.

Maximum number of characters in each query history entry

The maximum number of characters that can be shown for a query entry in the **History** pane.

Maximum number of query history entries

The maximum number of query entries to be kept in the **History** pane.

Module

This tab allows you to activate or deactivate the module management mode. You activate or deactivate the mode by checking or unchecking the box labeled **Module management mode**.

Mode setting	Description
Activated (the box is checked)	You can store XQuery code as a module in the database or retrieve an XQuery module from the database. In this mode, you cannot execute the current query.
Deactivated (the box is unchecked)	You can execute the current query but you cannot store or retrieve XQuery modules.

Note: You can also activate or deactivate the module management mode directly from the **Tools** menu by selecting the menu item **Module Management Mode**.

VII   Reference

The following topics are provided:

- **Menu Commands in the Main Application Window**
- **Menu Commands in an X-Query Window**
- **Menu Commands in a Tamino XQuery Window**
- **Predefined External Tools**
- **Supported Character Encodings**

23 Menu Commands in the Main Application Window

This chapter provides reference information on each menu command that is available from the main application window of the Tamino X-Plorer.

File

New Collection

Creates a new collection in the selected database. See *Creating a New Collection*.

Open

Opens the selected schema or instance using the default tool. See *Opening a Schema or Instance*.

Update

Updates the selected schema or instance so that your modifications are stored in the database. See *Updating a Schema or Instance*.

Delete

Deletes the selected collection or instance permanently from the database. See *Deleting a Collection or Instance*.

Save As

Saves the selected schema or instance (which is stored in the database) in your local file system. See *Saving a Schema or Instance in Your File System*.

Save Shadow As

Saves the shadow document of the selected non-XML instance (which is stored in the database) in your local file system.

Print Preview

Shows a print preview of the selected instance in a preview window. See *Printing Instances*.

Print

Prints the selected instance. See *Printing Instances*.

Exit

Closes the main application window of the Tamino X-Plorer. Any open query window that has been started from the Tamino X-Plorer is automatically closed. See *Leaving the Tamino X-Plorer*.

Edit

The entries in this menu are the standard operations for working with text, namely Cut, Copy, Paste, Select, Find, Replace.

View

Content

Toggles the display of the **Content** pane at the top right of the main application window. See *Content Pane*.

Properties

Toggles the display of the **Properties** pane at the bottom right of the main application window. See *Properties Pane*.

Toolbar

Toggles the display of the toolbar in the main application window. See *Toolbar* in the section *Elements of the Main Application Window*.

Refresh

Refreshes the content of a database, collection, schema or instance in the navigation tree. See *Refreshing the Display*.

Database

Connect

Connects to a specific database. See *Connecting to a Tamino Database*.

Disconnect

Disconnects the selected database. See *Disconnecting from a Database*.

Remove from Tree

Removes the selected server or database from the navigation tree. See *Removing a Server or Database from the Navigation Tree*.

Schema

Define Schema

Defines a new schema in the selected collection. See *Defining a Schema*.

Undefine Schema

Undefines the selected schema and thus deletes it with all of its doctypes and instances from the collection. See *Undefining a Schema*.

Instance Descriptor

Defines the instance descriptor (i.e. the information that is to be shown in the navigation tree) for a specific doctype. See *Specifying an Instance Descriptor*.

Instance Fetch Options

Defines the number of instances that can be shown in the navigation tree at the same time and the number of instances that are to be fetched with each pack. See *Specifying the Instance Fetch Options*.

Instance

Insert Instance

Inserts a new instance in the selected collection. See *Inserting a New Instance*.

Filter

Defines a filter for the currently selected group of instances. This reduces the number of instances shown in the navigation tree. See *Filtering Instances*.

Tools

Query > XQuery

Invokes the Tamino XQuery tool. The currently selected object in navigation tree is provided as a query expression. See *Starting the Tamino XQuery Tool*.

Query > X-Query

Opens an X-Query window. The currently selected object in navigation tree is provided as a query expression. See *Invoking an X-Query Window*.

Customize

Defines external tools, for example, for editing the selected schema, doctype or instance. See *Customizing the Tools*.

Options

Controls the behavior of certain features of the Tamino X-Plorer. See *Setting the Tamino X-Plorer and X-Query Options*.

Help

Contents

Invokes the online documentation.

About Software AG Tamino X-Plorer

Displays information about the Tamino X-Plorer in a dialog box (for example, the version number). When you choose the **System Info** button in this dialog box, system information (for example, the Java Runtime Environment version which is used by the Tamino X-Plorer) and Tamino X-Plorer information is shown.

24   Menu Commands in an X-Query Window

This chapter provides reference information on each menu command that is available from an X-Query window of the Tamino X-Plorer.

File

New

Invokes an empty X-Query window. See *Creating a New X-Query*.

Open

Opens an existing query from the file system. See *Opening a Saved X-Query*.

Execute Query

Executes the current query. The document structure of an XML document is shown in the result. See *Executing an X-Query*.

Execute Non-XML Query

Executes the current query. The content of a non-XML instance (for example, an image) is shown in the result. See *Executing an X-Query*.

Save

Saves the current query. See *Saving an X-Query*.

Save As

Saves the current query under a new name. See *Saving an X-Query*.

Close

Closes the X-Query window. See *Closing an X-Query Window*.

Edit

Undo

Undo the previous operation.

Redo

Redo the previous operation.

Cut

Cuts the selected text in the query area. See *Cutting, Copying and Pasting Text* in the section *Working with X-Queries*.

Copy

Copies the selected text in the query area or **Result** pane (plain view only). See *Cutting, Copying and Pasting Text* in the section *Working with X-Queries*.

Paste

Pastes cut or copied text into the query area at the position of the insertion point. See *Cutting, Copying and Pasting Text* in the section *Working with X-Queries*.

Clear

Deletes the selected text in the query area. See *Deleting Text* in the section *Working with X-Queries*.

Select All

Selects all text in the query area or **Result** pane (plain view only). See *Selecting Text* in the section *Working with X-Queries*.

Find

Helps to find the portion of the content (same as X-Plorer).

View

Toolbar

Toggles the display of the toolbar in the X-Query window. See *Toolbar* in the section *Elements of an X-Query Window*.

Navigation Tree

Toggles the display of the navigation tree in the **Result** pane of the X-Query window. See *Result Pane* in the section *Elements of an X-Query Window*.

Result

First

Goes to the first result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing X-Query Results*.

Previous

Goes to the previous result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing X-Query Results*.

Next

Goes to the next result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing X-Query Results*.

Last

Goes to the last result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing X-Query Results*.

Save Selected Item As

Saves the currently selected item in the result pack to your file system. See *Saving an Instance or Fragment* in the section *Managing X-Query Results*.

Save Displayed Result As

Saves the current result pack as a file. See *Saving the Current Result Pack* in the section *Managing X-Query Results*.

Result Fetch Options

Defines the number of instances that are shown with each result pack. See *Specifying the Result Fetch Options* in the section *Managing X-Query Results*.

Help

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Invokes the online documentation.

About Software AG Tamino X-Plorer
Displays information about the Tamino X-Plorer in a dialog box (for example, the version number). When you choose the **System Info** button in this dialog box, system information (for example, the Java Runtime Environment version which is used by the Tamino X-Plorer) and Tamino X-Plorer information is shown.

Tools

Connect To Server
Allows you to connect to a new server and database.

25 Menu Commands in a Tamino XQuery Window

This chapter provides reference information on each menu command that is available from the Tamino XQuery tool.

File

New

Invokes an empty XQuery window. See *Creating a New XQuery*.

Open

Opens an existing query from the file system. See *Opening a Saved XQuery*.

Open Module

Opens an existing module from the Tamino database.

Execute XML Query

Executes the current query. The document structure of an XML document is shown in the result. See *Executing an XQuery*.

Explain Query

Retrieves information about query execution for analysis and optimization. See *Explaining an XQuery*.

Save

Saves the current query. See *Saving an XQuery*.

Save As

Saves the current query under a new name. See *Saving an XQuery*.

Save as module

Saves the current module in the Tamino database.

Close

Closes the Tamino XQuery window. See *Leaving the Tamino XQuery Tool*.

Edit

Undo

Undoes the previous change in the query area. See *Undoing and Redoing the Previous Change* in the section *Working with the Tamino XQuery Tool*.

Redo

Redoes the previous undo action. See *Undoing and Redoing the Previous Change* in the section *Working with the Tamino XQuery Tool*.

Cut

Cuts the selected text in the query area. See *Cutting, Copying and Pasting Text* in the section *Working with the Tamino XQuery Tool*.

Copy

Copies the selected text in the query area, in the **Result** pane (plain view only), or in the query contents of the **History** pane. See *Cutting, Copying and Pasting Text* in the section *Working with the Tamino XQuery Tool*.

Paste

Pastes cut or copied text into the query area at the position of the insertion point. See *Cutting, Copying and Pasting Text* in the section *Working with the Tamino XQuery Tool*.

Insert From File

Inserts an XQuery expression from a file. See *Inserting an XQuery Expression from a File*.

Clear

Deletes the selected text in the query area. See *Deleting Text* in the section *Working with the Tamino XQuery Tool*.

Select All

Selects all text in the query area or **Result** pane (plain view only). See *Selecting Text* in the section *Working with the Tamino XQuery Tool*.

Find

Finds the specified text in the Plain View of the Result Pane and the Response Pane.

View

Toolbar

Toggles the display of the toolbar in the XQuery window. See *Toolbar* in the section *Elements of the Tamino XQuery Window*.

Navigation Tree

Toggles the display of the navigation tree in the **Result** pane of the XQuery window. See *Result Pane* in the section *Elements of the Tamino XQuery Window*.

Result

First

Goes to the first result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing XQuery Results*.

Previous

Goes to the previous result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing XQuery Results*.

Next

Goes to the next result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing XQuery Results*.

Last

Goes to the last result pack on the **Result** pane. See *Browsing the Result Packs* in the section *Managing XQuery Results*.

Save Selected Item As

Saves the currently selected item in the result pack to your file system. See *Saving an Instance or Fragment* in the section *Managing XQuery Results*.

Save Displayed Result As

Saves the current result pack as a file. See *Saving the Current Result Pack* in the section *Managing XQuery Results*.

Result Fetch Options

Defines the number of instances that are shown with each result pack. See *Specifying the Result Fetch Options* in the section *Managing XQuery Results*.

Tools

Options

Controls the behavior of certain features of the Tamino XQuery tool. See *Setting the Tamino XQuery Tool Options*.

Connect To Server

Allows you to connect to a new server and database.

Module Management Mode

Toggles between query mode and module management mode.

Help

Contents

Invokes the online documentation.

About Software AG Tamino XQuery

Displays information about the Tamino XQuery tool in a dialog box (for example, the version number). When you choose the **System Info** button in this dialog box, system information (for example, the Java Runtime Environment version which is used) and product-specific information is shown.

26 Predefined External Tools

After installation, several external tools are predefined in the **Customize** dialog box. See *Customizing the Tools* for information on this dialog box.

This chapter covers the following topics:

Predefined Values

The tables below list the predefined external tools. The command line information is automatically available in the **Customize** dialog box, if the corresponding external tool has been found on your system. If an external tool could not be found, you have to specify the command line information yourself. If you do not need an entry for an external tool, you can safely delete it.

The entries "My Instance Editor" and "My Schema Editor" are provided for your convenience. You can either delete them or specify any external tool you have installed.

Image files for the icons below are available in the folder "X_Plorer\icons" which is created during installation.

📄 **Notes:**

1. Invoking an external tool with the URL of an instance (using the argument `$URL$`) is not possible for some external tools. This depends on the external tool.

2. Invoking an external tool with the file path to access the copy of a document in the file system (using the argument `$FILE_PATH$`) is only possible for a document that does not contain a namespace prefix in its name (a value for the attribute `ino:docname` that is not equal to the pattern xxx:yyy). If you want to use an external tool to view or edit a document with a namespace prefix, you have to save the document in the file system with a valid name and use the **Open** command of the external tool.

3. When using a file path argument containing blanks, the file path must be enclosed in double quotes (use `"$FILE_PATH$"` instead of `$FILE_PATH$`).

Installed Tools

Command line information is added for the following tools, if the tool is already installed:

⬚ **Tamino Schema Editor**	
Icon	*SoftwareAGTaminoSchemaEditor.gif*
Applies to	Schemas
Command line	Path to your Tamino Schema Editor (*inoschema.cmd* for Windows and *inoschema.sh* for UNIX)
Arguments	`-tamino -url $URL$ -usr $USER$ -pwd $PASSWORD$`
Invoke with	**Open** (**File** menu) or double-click
Additional information	If you invoke the Tamino Schema Editor with the above argument string, it is required that you specify a user ID and a password when connecting to a database using the Tamino X-Plorer. If authentication is not required for your database, use the following argument string instead (i.e. omit the arguments for user ID and password): `-tamino -url $URL$`
⬚ **Tamino X-Tension Builder**	
Icon	*SoftwareAGTaminoXTensionBuilder.gif*
Applies to	No specific type of object
Command line	Path to your Tamino X-Tension Builder (*inosxbuilder.cmd* for Windows and *inosxbuilder.sh* for UNIX)
Arguments	None
Invoke with	Corresponding command in **Tools** menu

Installed Tools which Depend on an Internet Browser

Command line information is added for the following tools, if the tool is already installed and if an Internet browser has been found:

ᵡᵐᵗ Tamino Interactive Interface	
Icon	*SoftwareAGTaminoInteractiveInterface.gif*
Applies to	No specific type of object
Command line	Path to your Internet browser
Arguments	Path to your Tamino Interactive Interface (*xql.htm*)
Invoke with	Corresponding command in **Tools** menu
⁛ᵗ Tamino Manager	
Icon	*SoftwareAGTaminoManager.gif*
Applies to	No specific type of object
Command line	Path to your Internet browser
Arguments	*http://localhost:9991/smh/login.htm*
Invoke with	Corresponding command in **Tools** menu
🌐 Internet Browser	
Icon	*InternetBrowser.gif*
Applies to	Non-XML instances (html, gif, jpg, pdf)
Command line	Path to your Internet browser
Arguments	`$FILE_PATH$`
Invoke with	**Open With** (context menu)

Tools Without Command Line Information

Command line information is not added for the following tools:

◆⧫ My Instance Editor	
Icon	*MyInstanceEditor.gif*
Applies to	Instances
Command line	Path to your instance editor
Arguments	`$FILE_PATH$`
Invoke with	**Open With** (context menu)
⬔⧫ My Schema Editor	
Icon	*MySchemaEditor.gif*
Applies to	Schemas
Command line	Path to your schema editor
Arguments	`$FILE_PATH$`
Invoke with	**Open With** (context menu)

Media Types for Non-XML Instances

When defining external tools for non-XML instances in the **Customize** dialog box, you have to specify media types and extensions. The following table lists frequently used items.

Media Type	Extension(s)
application/msword	doc
application/pdf	pdf
application/xml	xml
image/gif	gif
image/jpeg	jpg, jpeg
text/html	htm, html
text/plain	txt
text/xml	xml
application/pdf	pdf
application/xml	xml
image/gif	gif
image/jpeg	jpg, jpeg
text/html	htm, html
text/plain	txt
text/xml	xml
application/postscript	ai
audio/x-aiff	aif
audio/x-aiff	aifc
audio/x-aiff	aiff
text/plain	asc
audio/basic	au
video/x-msvideo	avi
video/x-msvideo	avx
application/x-bcpio	bcpio
application/octet-stream	bin
image/x-bmp	bmp
application/x-netcdf	cdf
application/octet-stream	class
application/x-cpio	cpio
application/mac-compactpro	cpt

Media Type	Extension(s)
application/x-csh	csh
text/css	css
application/x-director	dcr
application/x-director	dir
video/x-dl	dl
application/octet-stream	dll
application/octet-stream	dms
application/x-dvi	dvi
application/x-director	dxr
application/postscript	eps
text/x-setext	etx
application/octet-stream	exe
application/andrew-inset	ez
video/x-fli	flc
video/x-fli	fli
image/gif	gif
application/x-gtar	gtar
application/x-gzip	gz
application/x-hdf	hdf
application/mac-binhex40	hqx
text/html	htm
text/html	html
x-conference/x-cooltalk	ice
image/x-ico	ico
image/ief	ief
model/iges	iges
model/iges	igs
image/jpeg	jpe
image/jpeg	jpeg
image/jpeg	jpg
application/x-javascript	js
application/x-latex	latex
application/octet-stream	lha
application/octet-stream	lzh
audio/x-mpegurl	m3u
application/x-troff-man	man

Media Type	Extension(s)
application/x-troff-me	me
model/mesh	mesh
audio/midi	mid
audio/midi	midi
video/quicktime	mov
video/x-sgi-movie	movie
audio/mpeg	mp2
audio/mpeg	mp3
video/mpeg	mpe
video/mpeg	mpeg
video/mpeg	mpg
audio/mpeg	mpga
application/x-troff-ms	ms
model/mesh	msh
video/x-sgi-movie	mv
video/vnd.mpegurl	mxu
application/x-netcdf	nc
application/oda	oda
image/x-portable-bitmap	pbm
chemical/x-pdb	pdb
application/pdf	pdf
image/x-portable-graymap	pgm
application/x-chess-pgn	pgn
image/png	png
image/x-portable-anymap	pnm
image/x-portable-pixmap	ppm
application/vnd.ms-powerpoint	ppt
application/postscript	ps
video/quicktime	qt
audio/x-realaudio	ra
audio/x-pn-realaudio	ram
image/x-cmu-raster	ras
image/x-rgb	rgb
audio/x-pn-realaudio	rm
application/x-troff	roff
audio/x-pn-realaudio-plugin	rpm

Media Type	Extension(s)
text/rtf	rtf
text/richtext	rtx
text/sgml	sgm
text/sgml	sgml
application/x-sh	sh
application/x-shar	shar
model/mesh	silo
application/x-stuffit	sit
application/x-koan	skd
application/x-koan	skm
application/x-koan	skp
application/x-koan	skt
audio/basic	snd
application/octet-stream	so
application/x-futuresplash	spl
application/x-wais-source	src
application/vnd.sun.xml.calc.template	stc
application/vnd.sun.xml.draw.template	std
application/vnd.sun.xml.impress.template	sti
application/vnd.sun.xml.writer.template	stw
application/x-sv4cpio	sv4cpio
application/x-sv4crc	sv4crc
application/x-shockwave-flash	swf
application/vnd.sun.xml.calc	sxc
application/vnd.sun.xml.draw	sxd
application/vnd.sun.xml.writer.global	sxg
application/vnd.sun.xml.impress	sxi
application/vnd.sun.xml.math	sxm
application/vnd.sun.xml.writer	sxw
application/x-troff	t
application/x-tar	tar
application/x-tcl	tcl
application/x-tex	tex
application/x-texinfo	texi
application/x-texinfo	texinfo
application/x-gzip	tgz

Media Type	Extension(s)
image/tiff	tif
image/tiff	tiff
application/x-troff	tr
text/tab-separated-values	tsv
text/plain	txt
application/x-ustar	ustar
application/x-cdlink	vcd
video/x-msvideo	vfw
model/vrml	vrml
audio/x-wav	wav
image/vnd.wap.wbmp	wbmp
application/vnd.wap.wbxml	wbxml
text/vnd.wap.wml	wml
application/vnd.wap.wmlc	wmlc
text/vnd.wap.wmlscript	wmls
application/vnd.wap.wmlscriptc	wmlsc
application/wordperfect5.1	wp
model/vrml	wrl
image/x-xbitmap	xbm
application/vnd.ms-excel	xls
text/xml	xml
image/x-xpixmap	xpm
text/xml	xsl
image/x-xwindowdump	xwd
chemical/x-xyz	xyz
application/zip	zip
text/xml	svg

27 Supported Character Encodings

The Tamino X-Plorer supports the standard character encodings and their well known aliases, as shown in the following list. Please observe that Tamino XML Server may support other encodings than those listed here.

Encoding Name	Well known aliases
Big5	950, cp950, csBig5, ibm-1370_VSUB_VPUA, x-big5
cp850	850, csPC850Multilingual, IBM850
cp857	857, csIBM857
cp860	860, csIBM860, IBM860
cp861	861, cp-is, csIBM861, IBM861
cp862	862, cp867, cspc862latinhebrew
cp863	cp863, csIBM863, IBM863
cp864	csIBM864
cp865	865, csIBM865, IBM865
cp866	866, csIBM866
cp868	868, cp-ar, csIBM868, IBM868
cp869	869, cp-gr, csIBM869
EUC-JP	csEUCPkdFmtJapanese, eucjis, Extended_UNIX_Code_Packed_Format_for_Japanese, ibm-33722_VPUA, ibm-eucJP, X-EUC-JP
EUC-KR	csEUCKR, ibm-970_VPUA, ibm-eucKR, X-EUC-KR
gb18030	ibm-1392
GB2312	1383, chinese, cp1383, csGB2312, csISO58GB231280, EUC-CN, gb, gb2312-1980, GB_2312-80, ibm-1383, ibm-1383_VPUA, ibm-eucCN, iso-ir-58, X-EUC-CN
GBK	CP936, ibm-1386_VSUB_VPUA, MS936, zh_cn, windows-936
IBM01140	CCSID01140, CP01140, cpibm1140, ebcdic-us-37+euro
IBM01141	CCSID01141, CP01141, cpibm1141, ebcdic-de-273+euro

Encoding Name	Well known aliases
IBM01142	CCSID01142, CP01142, cpibm1142, ebcdic-dk-277+euro, ebcdic-no-277+euro
IBM01143	CCSID01143, CP01143, cpibm1143, ebcdic-fi-278+euro, ebcdic-se-278+euro
IBM01144	CCSID01144, CP01144, cpibm1144, ebcdic-it-280+euro
IBM01145	CCSID01145, CP01145, cpibm1145, ebcdic-es-284+euro
IBM01146	CCSID01146, CP01146, cpibm1146, ebcdic-gb-285+euro
IBM01147	CCSID01147, CP01147, cpibm1147, ebcdic-fr-297+euro
IBM01148	CCSID01148, CP01148, cpibm1148, ebcdic-international-500+euro
IBM01149	CCSID01149, CP01149, cpibm1149, ebcdic-is-871+euro
IBM037	cpibm37, ebcdic-cp-us, ebcdic-cp-ca, ebcdic-cp-wt, ebcdic-cp-nl, cp37, cp037, 037
IBM1026	CP1026, csIBM1026, Ibm-1026_STD
IBM273	273, CP273, cpibm273, csIBM273, ebcdic-de
IBM277	277, csIBM277, cpibm277, EBCDIC-CP-DK, EBCDIC-CP-NO, ebcdic-dk
IBM278	278, cp278, cpibm278, csIBM278, ebcdic-cp-fi, ebcdic-cp-se, ebcdic-sv
IBM280	280, CP280, cpibm280, csIBM280, ebcdic-cp-it
IBM284	284, CP284, cpibm284, csIBM284, ebcdic-cp-es
IBM285	285, CP285, cpibm285, csIBM285, ebcdic-cp-gb, ebcdic-gb
IBM290	cp290, csIBM290, EBCDIC-JP-kana
IBM297	297, cp297, cpibm297, csIBM297, ebcdic-cp-fr
IBM367	
IBM420	420, cp420, csIBM420, ebcdic-cp-ar1
IBM424	424, cp424, csIBM424, ebcdic-cp-he
IBM500	500, CP500, cpibm500, csIBM500, ebcdic-cp-be, ebcdic-cp-ch
IBM852	
IBM855	
IBM857	
IBM862	
IBM864	
IBM869	
IBM870	CP870, csIBM870, ibm-870, ibm-870_STD, ebcdic-cp-roece, ebcdic-cp-yu
IBM871	871, CP871, cpibm871, csIBM871, ebcdic-cp-is, ebcdic-is
IBM918	CP918, csIBM918, , ebcdic-cp-ar2, ibm-918_STD, ibm-918_VPUA
ISO-2022-CN-EXT	
ISO-2022-CN	
ISO-2022-JP	csISO2022JP
ISO-2022-KR	csISO2022KR
iso-8859-15	

Encoding Name	Well known aliases
ISO-8859-1	8859-1, cp819, csISOLatin1, IBM819, ISO_8859-1:1987, iso-ir-100, l1, latin1
iso-8859-2	8859-2, 912, cp912, csISOLatin2, ISO_8859-2:1987, iso-ir-101, l2, latin2
iso-8859-3	8859-3, 913, cp913, csISOLatin3, iso-ir-109, l3, latin3
iso-8859-4	8859-4, 914, cp914, csISOLatin4, ISO_8859-4:1988, iso-ir-110, l4, latin4
iso-8859-5	8859-5, 915, cp915, csISOLatinCyrillic, cyrillic, ISO_8859-5:1988, iso-ir-144
iso-8859-6	1089, 8859-6, arabic, asmo-708, cp1089, csISOLatinArabic, ecma-114, ISO_8859-6:1987, iso-ir-127
iso-8859-7	813, 8859-7, cp813, csISOLatinGreek, ecma-118, elot_928, greek, greek8, ISO_8859-7:1987, iso-ir-126
iso-8859-8	916, cp916, csISOLatinHebrew, Hebrew, 8859-8, ISO_8859-8:1988, iso-ir-138
iso-8859-9	8859-9, 920, cp920,latin5, csISOLatin5, ISO_8859-8:1989, iso-ir-148, l5
KOI8-R	cp878, cskoi8r, koi8
Shift_JIS	943, cp943, cp932, csShiftJIS, csWindows31J, MS_Kanji, pck, sjis, windows-31j, x-sjis
TIS-620	874, cp874, cp9066, ms874, windows-874
US-ASCII	ANSI_X3.4-1968, ASCII, ANSI_X3.4-1986, cp367, csASCII, ISO_646.irv:1983, ISO_646.irv:1991, ISO646-US, iso-ir-6, us
UTF-16BE	cp1201, UTF16_BigEndian, x-utf-16be
UTF-16LE	cp1200, UTF16_LittleEndian, x-utf-16le
UTF-8	cp1208, cp65001
UTF-16	csUnicode, ISO-10646-UCS-2, ucs-2
windows-1250	cp1250
windows-1251	cp1251
windows-1252	cp1252
windows-1253	cp1253
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