



User and Reference Manual



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Altova Authentic 2010 Browser Edition User & Reference Manual

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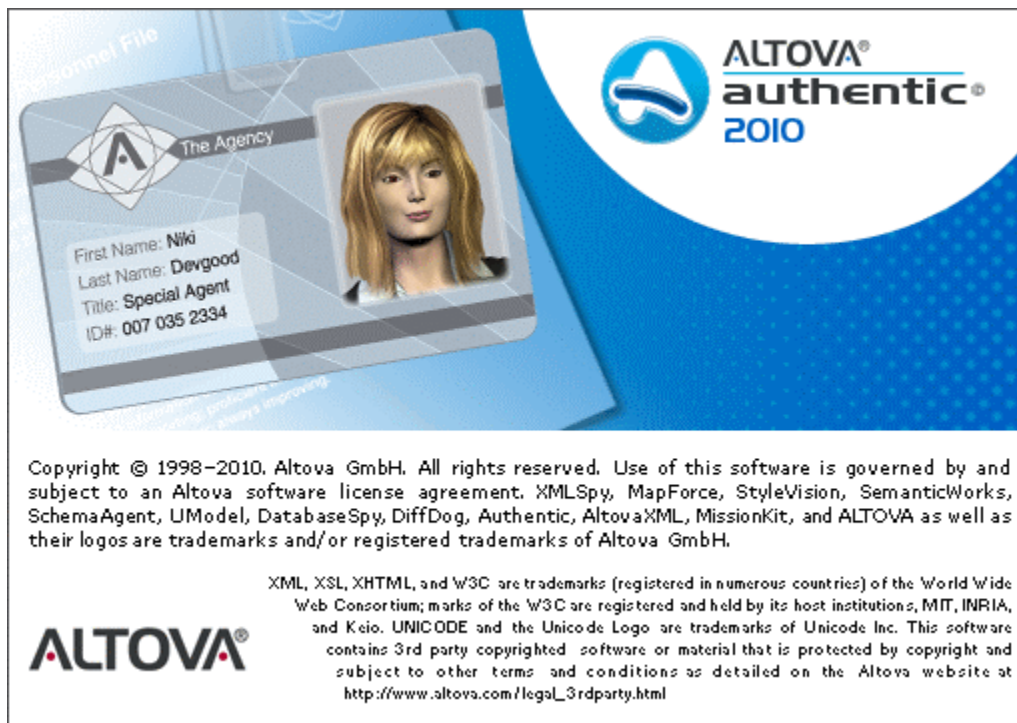
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Chapter 1

Altova Authentic Browser Edition

Altova Authentic Browser Edition

Altova® Authentic® 2010 Browser Edition empowers business users to easily create and edit XML and database content through a user interface that closely resembles an easy-to-use word processor. The Browser Edition can be embedded in any Web page and allows editing directly within the Browser. Authentic Browser Edition is available as a plug-in for the **Internet Explorer** and **Firefox** browsers.



There are two versions of Authentic Browser: (i) **Enterprise Edition**, which supports advanced features, and to use which a [license must be purchased](#); and (ii) **Community Edition**, which is free of charge.

Chapter 2

About This Documentation

About This Documentation

This documentation is the Authentic Browser user manual. It is organized into the following sections:

- An [Overview](#) section that explains: (i) the [benefits of using Authentic Browser](#); (ii) [how Authentic Browser works and how an Authentic Browser network is set up](#); and (iii) the [implementation steps](#) for an Authentic Browser project.
- A [Server Setup](#) section, which describes the steps required to set up a server for an Authentic Browser project.
- A detailed description of the [HTML Page for Authentic Plug-in](#). This section explains how to create the HTML page that the client must open to access the XML document. Since each supported browser uses a different process, the HTML page for each browser is described separately: [Internet Explorer](#) and [Firefox](#).
- A three-part reference section ([User Reference: Mechanisms](#), [User Reference: Objects](#), and [User Reference: Enumerations](#)) on the mechanisms, objects, and enumerations used to create and customize Authentic View in Authentic Browser

Related documentation

There are two sets of additional Altova documentation that are relevant:

- Documentation for creating StyleVision Power Stylesheets (SPSs) is available with the Altova StyleVision product at the [Altova website](#). An SPS is the file that controls the Authentic View of an XML document. This documentation is relevant for persons developing the Authentic View interface for XML editing.
- Documentation for using Authentic View. Persons using Authentic View should be referred to the Authentic View tutorial and usage sections of the Authentic Desktop User Manual, which is available online at the [Altova website](#).

Chapter 3

Overview

Overview

Altova® Authentic® 2010 Browser Edition enables users to edit XML documents **based on StyleVision Power Stylesheets (.sps files) that have been created in Altova StyleVision**. It is a unique solution that allows live XML content editing from within an Internet browser window on any desktop (client) in your organization.

This [Overview](#) section is organized into the following sub-sections:

- [Benefits of Authentic Browser](#): notes the uses and advantages of using Authentic Browser.
- [How It Works and Network Setup](#): briefly explains how the Authentic Browser solution works and describes the network architecture required to implement the solution.
- [Implementation Steps](#): lists the sequence of steps you need to take to implement an Authentic Browser project.

1 Benefits of Authentic Browser

The Authentic Browser XML editing solution has several benefits, the most important of which are listed below:

- Enables multiple users to access and edit an XML document via their browsers. Currently, Authentic Browser can be used with **Internet Explorer 5.5 or higher** and **Firefox 3.0 or higher**.
- Dramatically eases organization-wide deployment and application maintenance while also reducing the total cost of ownership.
- Based upon open standards, such as XML Schema and XSLT.
- Is fully Unicode compatible.
- Uses Authentic View, which is based on the widely used and easily available Internet Explorer browser (which must be installed on a client in order to enable Authentic View) . Authentic View enables users to edit XML files in a WYSIWYG fashion, i.e. without users having to see the underlying XML code.
- Does not require deployment of any additional software since the Authentic Browser plug-in is embedded in Internet Explorer or Firefox.
- The Authentic Browser is an ActiveX control where the COM interface is defined by the [Authentic](#) object. The complete object model is described in the [User Reference: Objects](#) section of this documentation.

2 How It Works and Network Setup

This section describes how Authentic Browser works and how the network for an Authentic Browser project should be set up.

How it works

Authentic Browser works broadly as follows:

- The installation package of the Authentic Browser plug-in is stored on a server in your organization. If you are deploying the Enterprise edition of Authentic Browser, then the package must be stored on the server for which the Enterprise license has been registered.
- It is automatically installed on a client when the client opens an HTML page invoking the plug-in. If you are deploying the Enterprise edition of Authentic Browser, then the HTML page must be installed on the server for which the Enterprise license has been registered.
- Once the plug-in is installed on the client, code in the HTML page causes an Authentic View editing window to open within the browser window.
- The XML document to be edited is loaded into the Authentic View window and the user can start editing it and saving changes directly to the XML document.

Network setup

The following points describe the network setup required to successfully implement an Authentic Browser project:

- Authentic Browser Edition is available for the Windows platform only and works on Windows XP, Windows Vista, and Windows 7. It is available in two versions: (i) **Enterprise Edition**, which supports advanced features, and to use which a [license must be purchased](#); and (ii) **Community Edition**, which is free of charge.
- One machine is required as a server. The Authentic Browser installer file is stored on the server.
- Typically, the XML file/s, SPS file, and XMLSchema file/s will also be stored on the server, but can be stored at alternative locations.
- The server is connected to an unlimited number of client machines.
- Each client must have one of the following browsers installed: **Internet Explorer 5.5 or higher** or **Firefox 3.0 or higher**. The browser is required to open the HTML page for Authentic and carry out the functions encoded in the page. The Authentic Browser Plug-in is available for both 32-bit as well as 64-bit Internet Explorer versions.
- Each client machine must have **Internet Explorer 5.5 or higher** installed on it. This is because the Authentic View interface (which will be displayed within the browser window) is generated using Internet Explorer.
- For running Authentic Browser Enterprise Edition a license key is required. See [Licensing for Enterprise Edition](#) for details.

3 Implementation Steps

In order to implement an Authentic Browser project, you need to do the following:

1. Download the zipped Authentic Browser file/s (CAB and/or XPI) from the Altova website and save it/them to a location on your server. If you are deploying the Enterprise edition of Authentic Browser, then the package must be stored on the server for which the Enterprise license has been registered. This part of the process is described in the section [Server Setup](#). Authentic Browser is installed from this zipped file to the various clients on the network. When a client accesses this zipped file for the first time (via the [HTML Page for Authentic Plug-in](#)), Authentic Browser is automatically downloaded to the client, unzipped, and installed on the client.
2. Create the [HTML file](#) that contains the [Authentic](#) object. We call this file the [HTML Page for Authentic Plug-in](#). If you are deploying the Enterprise edition of Authentic Browser, then the HTML page must be installed on the server for which the Enterprise license has been registered. On a particular client, this page is opened in a browser (Internet Explorer or Firefox). The HTML page not only contains code that installs Authentic Browser (as mentioned in Step 1 above). It also opens an XML document in an Authentic View interface within the browser window. The HTML page must therefore be written correctly to carry out these functions. How to write the HTML page is described in the section, [HTML Page for Authentic Plug-in](#).
3. Create the XML Schema, StyleVision Power Stylesheet (SPS), and XML (or XML Template) files. The SPS file (created with Altova's StyleVision product) defines how the XML file will be displayed in Authentic View and how data is entered into the XML file. The XML file is the XML file that will be edited with Authentic Browser. For details about creating the SPS file and associating an XML file with it, see the user documentation of the Altova StyleVision product.
4. Some SPSs that are written for Authentic Browser plug-in might require additional information or settings. For example, if you are using DB-based SPSs, you need to ensure certain settings in the SPS, on the server, and on the clients. These additional settings are described in the section, [SPS Notes](#).
5. After the server has been set up and the HTML page been created, the entire installation should be tested. For testing, you can use one of the examples in the section [HTML Page for Authentic Plug-in](#). Remember to copy the required XSD, XML, and SPS files to the correct locations as referenced in the HTML file.

Note: When the user opens an HTML file containing an Authentic object for the first time, the Authentic Browser plug-in is downloaded from the server and installed as a plug-in on the client's browser application. No separate or additional installation steps are required.

Chapter 4

Server Setup

Server Setup

Setting up the server for Authentic Browser entails the following steps:

1. Install and [configure the browser service of your server](#). If you use Microsoft's Internet Information Services (IIS), note that the installation process creates a default directory called `Inetpub` with subdirectories. The root directory of the server would then be: `//Inetpub/wwwroot`. This is the directory reached with the IP Address of the server if you do not specify (in your browser service configuration) some other directory as the root directory. For details about installing and configuring your browser service, see the supplier's documentation.
2. Download Authentic Browser (a zipped CAB or XPI file) from the Altova website to any location on the server. If you are deploying the Enterprise edition of Authentic Browser, then the package must be stored on the server for which the Enterprise license has been registered. **Do not unzip this file.** On the website, there are four versions of Authentic Browser, each set of four in in three formats (CAB 32-bit, CAB 64-bit, and XPI). For information on which [file format](#) and which [version](#) to select, see the sub-sections of this section.

Note: Before installing Authentic Browser, make sure that no previous version of Authentic Browser is running. Otherwise the new version might not be registered correctly, and this could result in a defective installation. If that happens, register the plugin by running: `regsvr32 C:\Windows\Downloaded Program Files\AuthenticPlugin.dll`. (Note that you need administrative privileges to run the program `regsvr32.exe`.)

This section is organized into the following sub-sections:

- [Authentic Browser File Download](#): explains the difference between the CAB and XPI file formats.
- [Authentic Browser Versions](#): provides all the relevant information about the four Authentic Browser versions.
- [Configuring the Browser Service](#), which shows how to add specific filetypes to the list of MIME types of Internet Information Services.

1 Authentic Browser File Download

CAB file or XPI file?

The Authentic Browser Plug-in must be stored on the server as a zipped (CAB or XPI) file. Whether the CAB file or XPI file is stored on the server depends upon which browser is used on the client to open the [HTML page for Authentic Plug-in](#).

Internet Explorer ver 5.5 or higher, 32-bit or 64-bit	CAB file (.cab file extension), 32-bit or 64-bit
Firefox	XPI file (.xpi file extension)

If a client may use either browser (Internet Explorer or Firefox), then both the CAB file and the XPI file should be stored on the server. In such cases, you could include a script in the [HTML page for Authentic Plug-in](#) to detect which browser is currently being used. The appropriate file (CAB for Internet Explorer; XPI for Firefox) can then be downloaded automatically from the server to the client. For information about this scenario, see [HTML Page for Authentic Plug-in | Browser-Independent](#).

CAB files for Internet Explorer are available for 32-bit IE browsers and 64-bit IE browsers. Again, you may wish to store both types of CAB file (32-bit and 64-bit) on the server. The [HTML page for Authentic Plug-in](#) could have a script that determines whether the browser is a 32-bit or 64-bit version and then downloads the correct CAB file. How to create such a script is described in the section, [HTML Page for Authentic Plug-in | Browser-Independent](#).

Downloading and storing the CAB/XPI file

The CAB file and/or XPI file is to be downloaded from the [Altova Website](#) and can be downloaded to any location on your server. If you are deploying the Enterprise edition of Authentic Browser, then the package **must be stored on the server for which the Enterprise license has been registered**.

Both file formats (CAB and XPI) are zipped file formats. **Do not unzip these files**. The file extraction and installation on the client takes place automatically when the client opens the [HTML page for Authentic Plug-in](#) for the first time. The location of the CAB/XPI file on the server is specified in the [HTML page for Authentic Plug-in](#).

2 Authentic Browser Versions

There are four versions of the Authentic Browser Plug-in available for download at the [Altova Website](#). Each version is available as a CAB file (for Internet Explorer) and an XPI file (for Firefox).

The different versions are listed below with their class IDs (for CAB files) and MIME types (for XPI files). You will need to specify the relevant class ID or MIME type in the [HTML page for Authentic Plug-in](#).

- **CAB files (separate files for 32-bit and 64-bit) and their Class IDs**

EN	Trusted	B4628728-E3F0-44a2-BEC8-F838555AE780
EN	Untrusted	A5985EA9-3332-4ddf-AD7F-F6E98BFEAF94
DE	Trusted	9NDDF44A-DFDN-4F47-8EE3-4CBE874584F7
DE	Untrusted	28A640E8-EAEE-4B5D-BEBE-BFA95608NE66

- **XPI files and their MIME types**

EN	Trusted	application/x-authentic-scriptable-plugin
EN	Untrusted	application/x-authentic-scriptable-plugin-untrusted
DE	Trusted	application/x-authentic-scriptable-plugin-german
DE	Untrusted	application/x-authentic-scriptable-plugin-untrusted-german

You can download one or more of these versions from the [Altova Website](#) according to your requirements.

Note the following points about the various Authentic Browser versions:

- All versions are Unicode versions and each provides full support of multiple character-sets in the XML document. Unicode versions require the use of Windows XP, Windows Vista, or Windows 7 on the client workstation.
- The Class IDs of .CAB files for 32-bit and 64-bit IE browsers are identical and are as given in the table above for various EN/DE and Trusted/Untrusted versions.
- The Trusted version does not allow access to local files and is, therefore, marked as being "safe for scripting". It can be used in a browser-based scenario and can be invoked from any web page without causing security alerts on the client side.
- The Untrusted version is intended for intranet deployment, or for using the Authentic Browser Edition as an ActiveX control in your application. It provides access to local files and is therefore **not** marked as being "safe for scripting". If you try to use this version from within a browser window, it will ask the user for permission.

Note: To install and configure your browser service (e.g. Microsoft's Internet Information Services), refer to the supplier's documentation.

3 Configuring the Browser Service

Microsoft's Internet Information Services (IIS) 6 serves up only file types that are defined in the MIME types for that specific site (website or folder). Required filetypes, therefore, must be added to the list of MIME types for a given site.

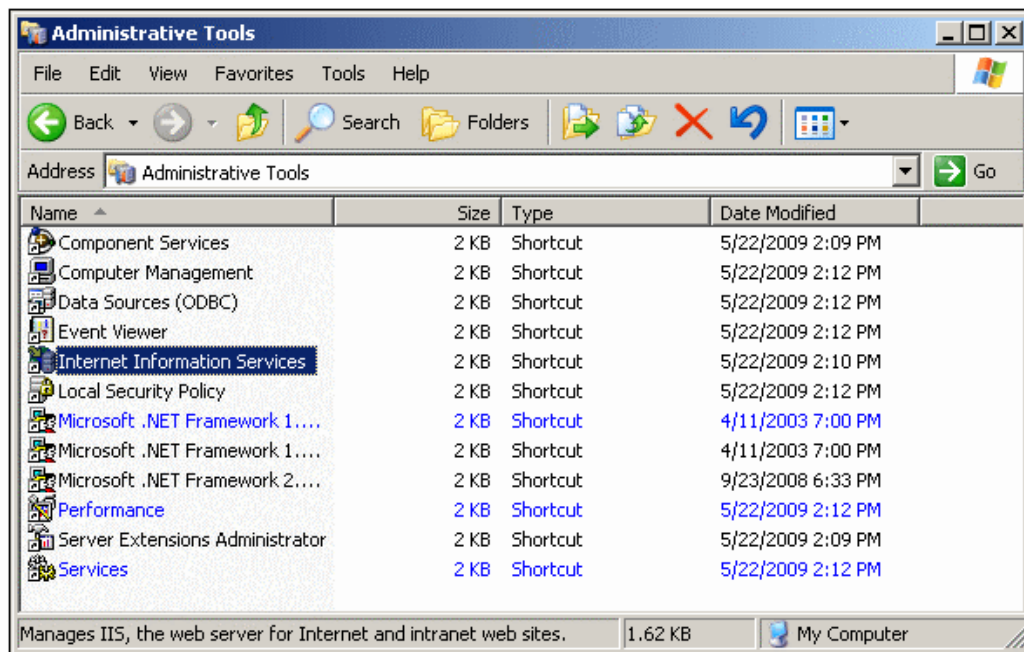
For working with Authentic Browser, the following filetypes are required and must be added:

File extension	MIME type	Comment
xsd	text/plain	
sps	text/plain	
xpi	application/x-xpinstall	For Firefox. Not required for IE.

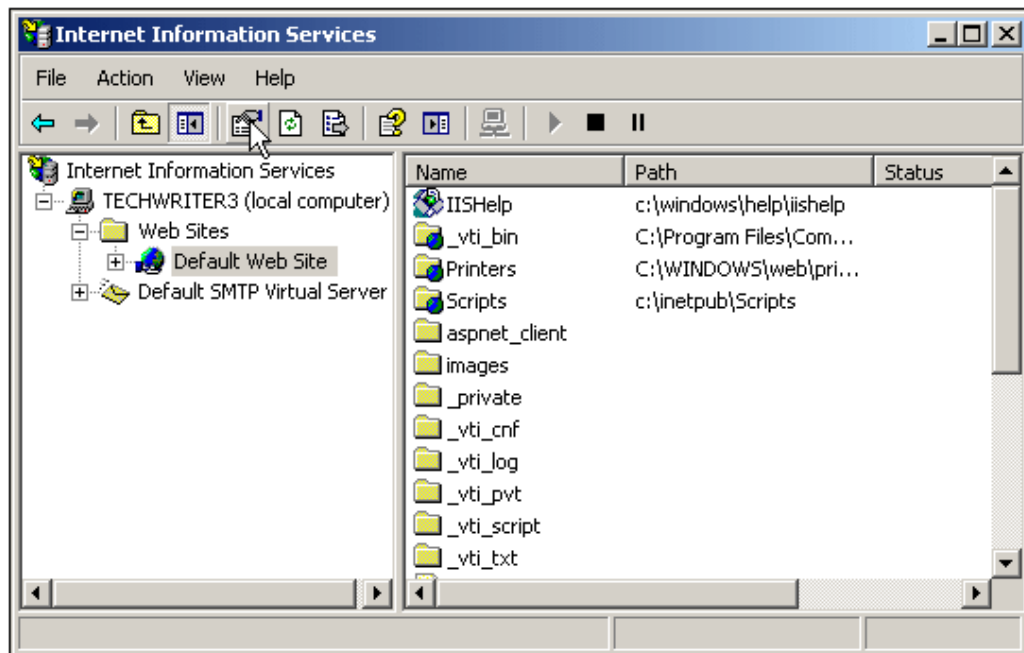
Adding MIME types for a site in Internet Information Services

To add a MIME type to the list of MIME types for a particular site on a Windows XP machine, do the following. The process is similar on other supported systems (Windows Vista and Windows 7).

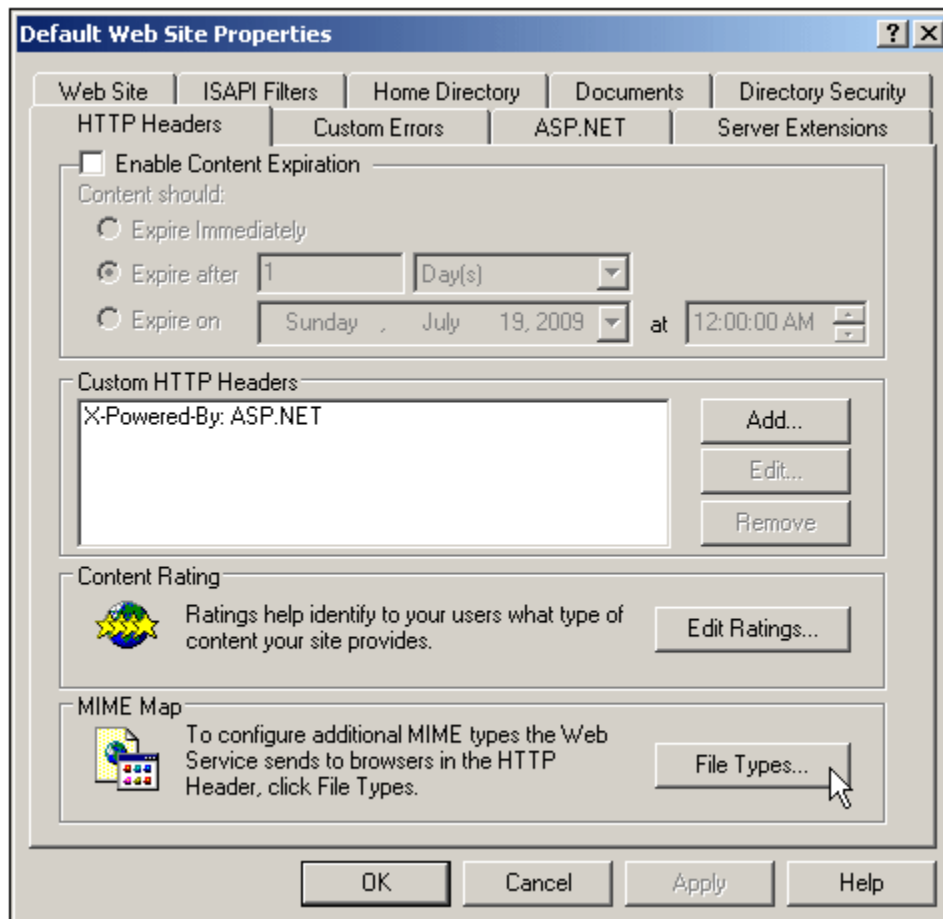
1. Open Control Panel and double-click Administrative Tools.
2. In the folder that pops up (*screenshot below*), double-click Internet Information Services.



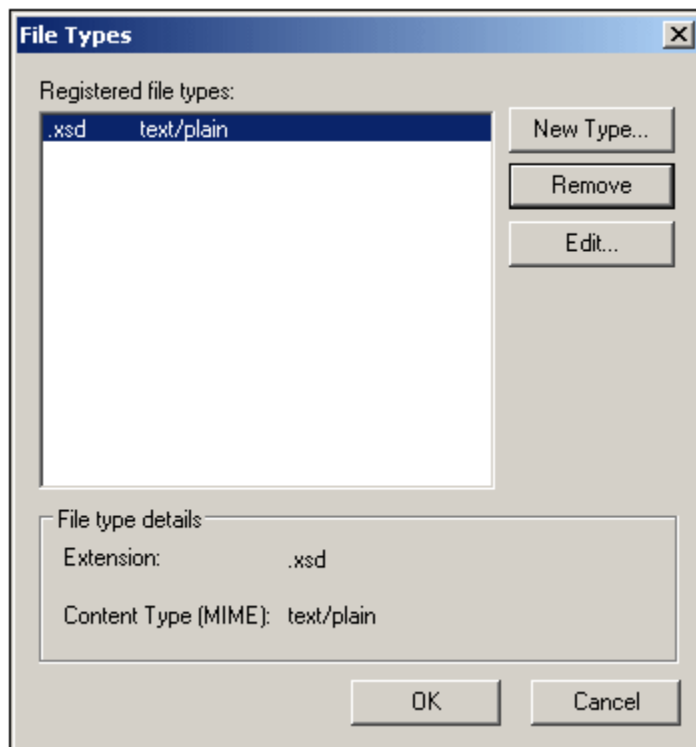
3. In the Internet Information Services (IIS) folder that appears (*screenshot below*), first select the required site (website or folder) in the folders pane (at left) and then click the **Properties** icon (*under cursor in screenshot below*) or the **Properties** command from the context menu (accessed by right-clicking).



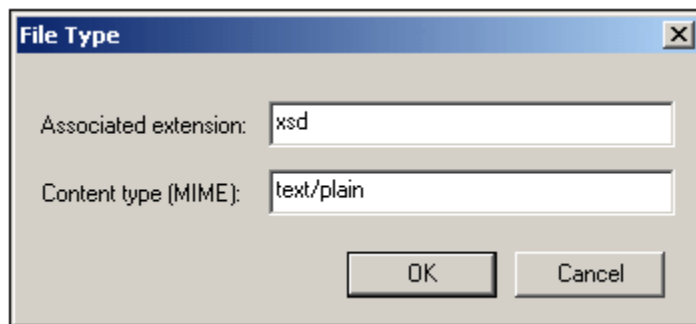
4. In the HTTP Headers tab of the Properties dialog, click the **File Types** button in the MIME Map pane (see screenshot below).



5. In the File Types dialog (screenshot below), click the **New Type** button.



6. In the dialog that pops up enter the required extension and its MIME type. See the table above for required filetypes and their corresponding MIME types.



7. Confirm with **OK**.

For a description of how to set up remote access to a folder on an internal server via Web-DAV, see [this Windows IT Pro article](#).

Chapter 5

SPS Setup Notes

SPS Setup Notes

For Authentic Browser to work correctly, you must **ensure that a schema is assigned as a main schema** in the SPS file. For detailed information about creating StyleVision Power Stylesheets (SPSs), see the user manual of Altova's StyleVision product.

DB-based SPSs

If Authentic Browser will be used to view or edit databases (DBs) using a DB-based StyleVision Power Stylesheet (SPS), then you need to make the following settings to ensure that the client connects correctly to the DB.

Connection information in the SPS: All the information required to connect to the DB is stored in a connection string in the SPS. The connection string in the SPS is created in StyleVision at the time you create the StyleVision Power Stylesheet. The mechanism used to connect to MS Access DBs is different than for other DBs. For other DBs, ADO connections are used. The settings you need to make for these two types of connection mechanism are described below.

- **For MS Access DBs:** In the connection string for MS Access DBs, a UNC path must be used so that clients can correctly connect to the DB. This UNC path is specified when the StyleVision Power Stylesheet is built in StyleVision. You must, however, make sure that the folder containing the DB (or some ancestor folder) is set up for sharing. (In Windows XP, the sharing settings are accessed by right-clicking the folder and selecting **Sharing and Security**.) You must also enable Advanced File Sharing on this machine (**My Computer | Tools | Folder Options**, then uncheck Simple File Sharing). No settings are required on clients.

Note: The format of the UNC path used in the connection string is:

\\servername\sharename\path\file.mdb, where `servername` is the name of the server, `sharename` is the name of the shared folder (specified in the Share settings you make for the shared folder on the server), `path` is the path to the DB, and `file.mdb` is the name of an MS Access DB in the shared folder or a descendant folder of the shared folder.

- **For ADO connections:** The ADO connection string in the SPS is specified when the SPS is built in StyleVision. It contains all the required connection information, including security information. You must ensure that the driver used when testing the connection string in StyleVision is also installed on all client machines that will host Authentic Browser. This enables the SPS to correctly connect to the DB from clients. Note also that ADO database connections will only work with local file paths and not with `http://` URLs.

Chapter 6

HTML Page for Authentic Plug-in

HTML Page for Authentic Plug-in

The HTML Page for Authentic Plug-in carries out the following important functions:

1. The first time that the HTML Page for Authentic Plug-in is opened on a client, code within the HTML page causes the Authentic Browser plug-in to be downloaded from the server to the client and installed on the client. This code has to be written correctly to identify the correct file on the server. The format of the file that is downloaded (CAB or XPI) will depend on the client's browser. The code will also be different because Internet Explorer and Firefox process code differently than each other.
2. Code within the HTML page sets up the Authentic View interface within the browser window, including the dimensions of the Authentic View interface, and the locations of the XML, XSD, and SPS files.
3. It specifies the XML file to edit, as well as the schema file and SPS on which the XML file is based.
4. It contains, within HTML `SCRIPT` elements, definitions for subroutines and the handling of events. For example, it can be specified what action to carry out when a button in the HTML page is clicked. See [Internet Explorer Example 1: Simple](#) and [Firefox Example 1: Simple](#) for examples.

Note: If you are deploying the **Enterprise edition of Authentic Browser**, then the HTML page must be installed on the server for which the Enterprise license has been registered.

The sub-sections of this section describe how the functions listed above are to be implemented in the HTML page. These sections are organized at the first level by browser-type because of the different ways used to download the Authentic Browser DLL for particular browsers:

- [Licensing for Enterprise Edition](#) describes the licensing mechanism for the Enterprise Edition of Authentic Browser
- [Internet Explorer](#) describes how to download a CAB file (having a .cab extension) via an HTML `OBJECT` element.
- [Firefox](#) describes how to download an XPI file (extension .xpi) via an HTML `EMBED` element.
- [Independent browsers](#) describes how to determine the browser type making the request and how to then download the correct plug-in version for that browser.

In these sub-sections, you will find descriptions and examples of how the HTML `OBJECT`, `EMBED`, and `SCRIPT` elements are to be used, as well as examples of complete HTML pages that invoke the Authentic Browser plug-in. For information about individual objects, see the respective [Object descriptions](#) in the [Reference section](#).

1 Licensing for Enterprise Edition

Authentic Browser is available in two editions:

1. **Enterprise Edition**, which enables advanced SPS features and requires a license
2. **Community Edition**, for which no license is required.

The license for Authentic Browser Enterprise Edition can be purchased at the [Altova Website](#).

Overview of setting up the Enterprise Edition license

Given below is a list summarizing the steps you must take to correctly set up your license information for Authentic Browser Enterprise Edition.

- Authentic Browser Enterprise Edition requires the following valid license information: (i) the **server name** for which the license is valid; (ii) the **name of the company** to which the license has been registered, and (iii) the **license key**. This information will be sent to you in the License Email you will receive on purchasing your Authentic Browser Enterprise Edition license.
- The license information must be located in the [HTML Page for Authentic Plug-in](#). How exactly this is to be done in the HTML page is explained below. (Note that there is no specific license key file that Authentic Browser will reference.)
- If the licensing information supplied in the [HTML Page for Authentic Plug-in](#) is valid, Enterprise Edition functionality in the Authentic Browser File will be unlocked; otherwise, functionality will be limited to that of Community Edition.
- The [HTML Page for Authentic Plug-in](#) must be stored on the server for which the license is valid.

How to enter the license information

The three license key parameters (server name, company name, and license key) must be entered in the [HTML Page for Authentic Plug-in](#) and can be done in the following ways:

- As parameter values of the `OBJECT` or `EMBED` elements. How to do this is described in the respective HTML page sections for [Internet Explorer](#) and [Firefox](#).
- If the HTML page is to be browser-independent, the license parameters can be registered as shown in the code listing in the [Browser-Independent Example](#).
- The license parameters can also be set on the object directly, as shown in the code listing below, which adapts the code listing in the [Browser-Independent Example](#).

```
<SCRIPT LANGUAGE=javascript>
// event subscription if running on Firefox
if ( isFirefoxOnWindows() )
{
    objPlugIn.addEventListener("ControlInitialized", InitAuthenticPluginPage,
false);
}
</SCRIPT>
<SCRIPT LANGUAGE="javascript" FOR=objPlugIn EVENT="ControlInitialized">
// event subscription if running on Internet Explorer
if ( isIEOnWindows() )
{
    InitAuthenticPluginPage();
}
</SCRIPT>

<SCRIPT type="text/javascript" LANGUAGE="javascript" >
function InitAuthenticPluginPage( )
{
    var serverstr='DevAuthBrowTest';
```

```
var basedir='Authentic/';
objPlugIn.LicServer = 'DevAuthBrowTest';
objPlugIn.LicCompany = 'Altova';
objPlugIn.LicKey = 'XXXXXXXXXX';
objPlugIn.SchemaLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xsd';
objPlugIn.XMLDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xml';
objPlugIn.DesignDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.sps';
objPlugIn.StartEditing();
}
```

</SCRIPT>

2 Internet Explorer

If the HTML page for the Authentic plug-in is opened in Internet Explorer (32-bit or 64-bit), then it must contain the following elements:

- An HTML [OBJECT](#) element, which (i) causes the correct DLL for the Authentic Plug-in (32-bit or 64-bit) to be downloaded from the server to the client, and (ii) specifies the dimensions of the Authentic View window in the client's browser. The [OBJECT](#) element contains the location of the Authentic Browser plug-in. **Note that the Authentic Plug-in is available in versions for 32-bit and 64-bit Internet Explorer, so the correct Authentic Browser plug-in version (.cab file) must be downloaded to the client.** See the section, [Browser-Independent Example](#), for example code which automatically checks the X-bit version of Internet Explorer and downloads the correct Authentic Plug-in.
- One or more HTML [SCRIPT](#) elements for defining subroutines and the handling of events. A [SCRIPT](#) element can be used to specify the XML document to be edited, and the XML Schema and SPS file on which the XML document is based.

This section is organized into the following sub-sections:

- [The OBJECT Element](#), which describes how the HTML [OBJECT](#) element is to be used in an HTML page for the Authentic plug-in.
- [The SCRIPT Element](#), which describes how HTML [SCRIPT](#) elements are to be used in an HTML page for the Authentic plug-in.
- Examples of full HTML pages: [IE Example 1: Simple](#) and [IE Example 2: Sort a Table](#).

For information about individual objects, see the respective [Object descriptions](#) in the [Reference section](#).

Note: The Authentic Browser plug-in is supported for **Internet Explorer 5.5 or higher**.

2.1 The OBJECT Element

The `OBJECT` element has the following functions:

- It gives the Authentic Browser Plug-in a name (via the `id` attribute).
- It selects which [version of the Authentic Browser Plug-in](#) to use (with the value of the `classid` attribute).
- It specifies a .CAB file and version number (`codebase` attribute). The .CAB file contains a DLL, which registers a COM object (the Authentic Browser Plug-in) with an ID that is the value of the `classid` attribute. Typically, both the 32-bit and 64-bit versions of the Authentic Browser Plug-in will be stored on the server. Each version is identified by a different file name. The `codebase` attribute specifies the file name of the required .CAB file (see *code listing below*). The Class IDs for 32-bit and 64-bit .CAB files are identical to each other and are as given in [the table for various EN/DE and Trusted/Untrusted versions](#).

Filename for 32-bit version: AuthenticBrowserEdition.CAB

Filename for 64-bit version: AuthenticBrowserEdition_x64.CAB

- It specifies the dimension of the Authentic View window in the client's browser (via the `style` attribute).
- It can specify any number of parameters.

Here is a sample HTML `OBJECT` element. It selects the Trusted Unicode version (with the value given in the `classid` attribute) and sets the dimensions of the Authentic View window in the client's browser to 600 x 500 pixels. All the attributes and parameters available to the `OBJECT` element are explained below. (Note that the version number given below may not be the current version number. See [codebase](#) below for details.)

For 32-bit Authentic Browser Plug-in:

```
<OBJECT id="objPlugIn" style="WIDTH: 600px; HEIGHT: 500px"
  codeBase="
http://yourserver/cabfiles/AuthenticBrowserEdition.CAB#Version=N2,2,0,0"
  classid="clsid: B4628728-E3F0-44a2-BEC8-F838555AE780">
  <PARAM NAME="XMLDataURL" VALUE="http://yourserver/OrgChart.xml">
  <PARAM NAME="SPSDataURL" VALUE="http://yourserver/OrgChart.sps">
  <PARAM NAME="SchemaDataURL" VALUE="http://yourserver/OrgChart.xsd">
</OBJECT>
```

For 64-bit Authentic Browser Plug-in:

```
<OBJECT id="objPlugIn" style="WIDTH: 600px; HEIGHT: 500px"
  codeBase="
http://yourserver/cabfiles/AuthenticBrowserEdition_x64.CAB#Version=N2,2,0,0"
  classid="clsid: B4628728-E3F0-44a2-BEC8-F838555AE780">
  <PARAM NAME="XMLDataURL" VALUE="http://yourserver/OrgChart.xml">
  <PARAM NAME="SPSDataURL" VALUE="http://yourserver/OrgChart.sps">
  <PARAM NAME="SchemaDataURL" VALUE="http://yourserver/OrgChart.xsd">
</OBJECT>
```

id

The value of the `id` attribute is used as the name of the Authentic Browser Plug-in objects when these are used in scripts. For example, `objPlugIn.SchemaLoadObject.URL` is a call to the object that loads the schema file. See [The SCRIPT element](#) for more details.

style

This is the usual HTML `style` attribute, and is used to specify the dimensions of the Authentic View window in the client's browser.

codebase

The `codebase` attribute gives the location of the `.CAB` file. Note that there is a different `.CAB` file for the 32-bit Authentic Browser plug-in and for the 64-bit Authentic Browser Plug-in, named, respectively: `AuthenticBrowserEdition.CAB` and `AuthenticBrowserEdition_x64.CAB`.

The value of the optional `#Version` extension gives the version number of the component that is currently available on the server. If the client has an earlier version and a newer version is specified in the `codebase` attribute, the newer version is installed from the server. If the `#Version` extension is not specified, no update will take place until the component has been removed manually from the client. **The current version number of the component is listed with the properties of the `.dll` file of the component's `.CAB` file.**

classid

The Class IDs for 32-bit and 64-bit `.CAB` files are identical to each other and are as given in the list below for various EN/DE and Trusted/Untrusted versions.

From version 5.0 onwards of the Browser Plug-in, the `classid` value for Unicode versions from versions 5.0 onwards is different from that of previous Unicode versions. So, if you are updating the Unicode `.CAB` file on your server from a version prior to 5.0, make sure that you change the `classid` values in your HTML files. Note also that if a new `.CAB` file on the server has the same CLSID as that of a `.CAB` file which has been installed previously on the client, then the new `.CAB` file will not automatically replace the old one on the client. You must remove the previously installed `.CAB` file before downloading the new `.CAB` file. The CLSID values of different language versions are different.

Also, when selecting the version to download to a client, bear in mind that older operating systems may not be able to correctly install the Unicode versions.

Given below are the CLSID values of the current versions (English (EN) and German (DE)):

EN Trusted Unicode:

`clsid: B4628728-E3F0-44a2-BEC8-F838555AE780`

EN Untrusted Unicode:

`clsid: A5985EA9-3332-4ddf-AD7F-F6E98BFEAF94`

DE Trusted Unicode:

`clsid: 9NDDF44A-DFDN-4F47-8EE3-4CBE874584F7`

DE Untrusted Unicode:

`clsid: 28A640E8-EAEE-4B5D-BEBE-BFA95608NE66`

Parameters

Any number of the following parameters may be used.

LicServer

The name of the server for which the Authentic Browser Enterprise Edition license key is valid. (No license key is required for Authentic Browser Community Edition.)

LicKey

The license key for validating the use of Authentic Browser Enterprise Edition. (No license key is required for Authentic Browser Community Edition.)

LicCompany

The company name for validating the use of Authentic Browser Enterprise Edition. (No license key is required for Authentic Browser Community Edition.)

XMLDataURL

An absolute URL that gives the location of the XML file to be edited. For the Untrusted versions, you can also use a full local path.

XMLDataSaveURL

An absolute URL that gives the location where the XML file is to be saved. For the Untrusted versions, you can also use a full local path.

SPSDataURL

An absolute URL that gives the location of the StyleVision Power Stylesheet (.sps file). For the Untrusted versions, you can also use a full local path.

SchemaDataURL

An absolute URL that gives the location of the associated schema file. For the Untrusted versions, you can also use a full local path.

TextStateBmpURL

The folder where bitmap image for text-state icons are to be stored.

TextStateToolbarLine

The toolbar line in which text-state icons are to be placed. The default is 1.

AutoHideUnusedCommandGroups

Determines whether unused toolbar command groups should be hidden. The default is True.

ToolbarsEnabled

Specifies general support for toolbars. The default is True.

ToolbarTooltipsEnabled

Specifies whether Tooltips are enabled or not.

HideSaveButton

If set to True, removes the Save button from the Authentic toolbar, which is visible by default.

BaseURL

Gives the base URL for use with relative paths.

SaveButtonUsePOST

If set to True, the HTTP POST command is used instead of a PUT when saving the document.

EntryHelpersEnabled

If set to True the Authentic entry helpers are visible

EntryHelperSize

Width of the entry helper window in pixels.

EntryHelperAlignment

Specifies the location of the entry helpers relative to the document window.

0 = Align toolbar at top of document

N = Align toolbar at left of document

- 2 = Align toolbar at bottom of document
- 3 = Align toolbar at right of document

EntryHelperWindows

Selects which of the entry helper sub-windows are visible.

- N = Elements
- 2 = Attributes
- 4 = Entities

Any combination is allowed (bit-check)

SaveButtonAutoEnable

See [Authentic.SaveButtonAutoEnable](#)

LoaderSettingsFileURL

Gives the URL of the `LoaderSettingsFile` for package management.

2.2 The SCRIPT Element

The `SCRIPT` elements define the event handlers and subroutines that can be called from within the HTML file.

Here is a sample of a script for handling an event:

```
<SCRIPT LANGUAGE="javascript" FOR=objPlugIn EVENT="ControlInitialized">
    objPlugIn.SchemaLoadObject.URL = "http://yourserver/OrgChart.xsd"
    objPlugIn.XMLDataLoadObject.URL = "http://yourserver/OrgChart.xml"
    objPlugIn.DesignDataLoadObject.URL = "http://yourserver/OrgChart.sps"
    objPlugIn.StartEditing
</SCRIPT>
```

Here is a sample of a script that contains subroutines:

```
<SCRIPT ID=clientEventHandlers LANGUAGE=vbscript>
    Sub BtnOnClick
        objPlugIn.SchemaLoadObject.URL = "http://yourserver/OrgChart.xsd"
        objPlugIn.XMLDataLoadObject.URL = "http://yourserver/OrgChart.xml"
        objPlugIn.DesignDataLoadObject.URL = "http://yourserver/OrgChart.sps"
        objPlugIn.StartEditing
    End Sub
    Sub OnClickFind
        objPlugIn.FindDialog
    End Sub
    Sub BtnOnTestProp
        If objPlugIn.IsRowInsertEnabled Then
            MsgBox "true"
        Else
            MsgBox "false"
        End If
    End Sub
</SCRIPT>
```

LANGUAGE

The Authentic Browser Plug-in has been tested with JavaScript and VBScript.

Handling events

The value of the `ID` attribute of the `OBJECT` element in the HTML body is specified as the value of the `FOR` attribute. Authentic Browser Plug-in objects that are called must have a name that is this value.

For a list of events see also [Events: Reference](#).

Subroutines

Subroutines can be created for any event that you wish to define in the HTML file. The Authentic Browser Plug-in object name must be the same as the value of the `ID` attribute of the `OBJECT` element in the HTML body. In the example above, the prefix is `objPlugIn`, which must be the value of the `ID` attribute of the `OBJECT` element.

The methods, properties, and sub-objects available in the Authentic Browser Plug-in are described in the reference section of this documentation.

2.3 IE Example 1: Simple

The HTML code below generates a page that has the following features:

- It installs the Trusted Unicode version of Authentic Browser on the client if this is not already installed.
- The body contains a window of 600px wide and 500px high into which the Authentic Browser is loaded.
- Below the Authentic Browser window is a row of four buttons.
- The Authentic View of `OrgChart.xml` is loaded.
- The **Find** and **Replace** buttons pop up the Find and Replace dialogs respectively.
- The **Save** button saves changes to a file called `SaveFile.xml` located in the root directory of the server
- The **Test Property** button tests a simple property

When this HTML page is opened on the client, the user can start editing the XML file `OrgChart.xml` and save the edited file as `SaveFile.xml`.

You may wish to use this simple HTML page to test whether Authentic Browser functions properly. If you do so, be sure to use the correct URLs to locate the the `CAB` file, the `xsd`, `xml`, and `sps` files, and any other resources on the server. Note that case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of filenames and of commands in the code. You can expand or modify this example to build more complex solutions using Authentic Browser. Also see [The OBJECT Element](#) for details.

```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
  <title>Minimal XMLSpyDocEditPlugIn page</title>

  <!-- Script for handling the ControlInitialized event -->
  <SCRIPT LANGUAGE="javascript" FOR="objPlugIn" EVENT="ControlInitialized">
    objPlugIn.SchemaLoadObject.URL = "http://yourserver/OrgChart.xsd"
    objPlugIn.XMLDataLoadObject.URL = "http://yourserver/OrgChart.xml"
    objPlugIn.DesignDataLoadObject.URL = "http://yourserver/OrgChart.sps"
    objPlugIn.StartEditing()
  </SCRIPT>

  <!-- Script with subroutines -->
  <SCRIPT ID=clientEventHandlers LANGUAGE=vbscript>
    Sub OnClickFind
      objPlugIn.FindDialog
    End Sub

    Sub OnClickReplace
      objPlugIn.ReplaceDialog
    End Sub

    Sub BtnOnSave
      objPlugIn.XMLDataSaveUrl = "http://yourserver/SaveFile.xml"
      objPlugIn.Save
    End Sub

    Sub BtnOnTestProp
      If objPlugIn.IsRowInsertEnabled Then
        msgbox "true"
      Else
        msgbox "false"
      End If
    End Sub
  </SCRIPT>
</head>

<body>
  <!-- Object element has id with value that must be used -->
  <!-- as name of Authentic Browser Plug-in objects -->
```

```
<!-- Classid selects the Trusted Unicode version -->
<OBJECT id="objPlugIn"
  <!-- CodeBase selects 32-bit CAB file (AuthenticBrowserEdition.CAB) -->
  <!-- or 64-bit CAB file (AuthenticBrowserEdition_x64.CAB) -->
  CodeBase="http://yourserver/AuthenticBrowserEdition.CAB#Version=N2,2,0,0"
  <!-- Class Id for 32-bit and 64-bit CAB files is the same -->
  Classid="clsid:B4628728-E3F0-44a2-BEC8-F838555AE780" width="600" height="500">
</OBJECT>
<p>
  <input type="button" value="Find" name="B4" onclick="onClickFind()">
  <input type="button" value="Replace" name="B5" onclick="onClickReplace()">
  <input type="button" value="Save" name="B6" onclick="BtnOnSave()">
  <input type="button" value="Test property" name="B7" onclick="BtnOnTestProp">
</p>
</body>
</html>
```

2.4 IE Example 2: Sort a Table

This is an example HTML page with an embedded JavaScript. The sample requires the Authentic Browser Plug-in (CAB file) to be installed on your computer. Note that case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of filenames and of commands in the code.

The code shows:

- How to access the browser plug-in. Modify the code to refer to your CAB file and the class identifier (CLSID) of your browser plug-in version (trusted or untrusted).
- How to load a file into the browser plug-in. Modify the code to refer to your sample document.
- Implement buttons for simple cursor positioning.
- Implement more complex commands like the sorting of tables.
- How to use the `SelectionChanged` event.

Also see [The OBJECT Element](#) for details.

```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
  <title>test page For Authentic Browser Plug-in</title>

  <SCRIPT LANGUAGE="javascript" For="objPlugIn" EVENT="ControlInitialized">
    var strSampleRoot = "http://myRoot/myPath/myDocBaseName";
    objPlugIn.SchemaLoadObject.URL = strSampleRoot + ".xsd";
    objPlugIn.XMLDataLoadObject.URL = strSampleRoot + ".xml";
    objPlugIn.DesignDataLoadObject.URL = strSampleRoot + ".sps";
    objPlugIn.StartEditing();
  </SCRIPT>

  <SCRIPT ID="clientEventHandlers" LANGUAGE="javascript">
    var objCurrentRange = Null;

    Function BtnDocumentBegin() { objPlugIn.AuthenticView.DocumentBegin.Select();
  }
    Function BtnDocumentEnd() { objPlugIn.AuthenticView.DocumentEnd.Select(); }
    Function BtnWholeDocument() { objPlugIn.AuthenticView.WholeDocument.Select();
  }
    Function BtnSelectNextWord() {
objPlugIn.AuthenticView.Selection.SelectNext(1).Select(); }
    Function BtnSortDepartmentOnClick()
    {
      var objCursor = Null;
      var objTableStart = Null;
      var objBubble = Null;
      var strField1 = "";
      var strField2 = "";
      var nColIndex = 0;
      var nRows = 0;

      objCursor = objPlugIn.AuthenticView.Selection;
      If (objCursor.IsInDynamicTable())
      {
        // calculate current column index
        nColIndex = 0;
        while (True)
        {
          try { objCursor.GotoPrevious(11); }
          catch (err) { break; }
          nColIndex++;
        }

        // GoTo begin of table
        objTableStart = objCursor.ExpandTo(9).CollapsToBegin().Clone();

        // count number of table rows
        nRows = 1;
        while (True)
```

```

    {
        try { objTableStart.GotoNext(10); }
        catch (err) { break; }
        nRows++;
    }

    // bubble sort through table
    For (var i = 0; i < nRows - 1; i++) {
        for(var j = 0; j < nRows-i-1; j++) {
            objBubble = objCursor.ExpandTo(9).CollapsToBegin().Clone();
            // Select correct column in jth table row
            objBubble.GotoNext(6).Goto(10,j,2).Goto(11,nColIndex,2).ExpandTo(6);
            strField1 = objBubble.Text;
            strField2 =
objBubble.GotoNext(10).Goto(11,nColIndex,2).ExpandTo(6).Text;
            if(strField1 > strField2) {
                if(!objBubble.MoveRowUp()) {
                    alert('Table row move is not allowed!');
                    return;
                }
            }
        }
    }
}
</SCRIPT>
</head>

<body>
<Object id="objPlugIn"
<!-- CodeBase selects 32-bit CAB file (AuthenticBrowserEdition.CAB) -->
<!-- or 64-bit Cab file (AuthenticBrowserEdition_x64.CAB) -->
codeBase="
http://myCabfileLocation/AuthenticBrowserEdition.CAB#Version=12,2,0,0 "
<!-- Class Id for 32-bit and 64-bit CAB files is the same -->
classid="clsid:B4628728-E3F0-44a2-BEC8-F838555AE780 "
width="100%"
height="80%"
VIEWASTEXT>
<PARAM NAME="EntryHelpersEnabled" VALUE="TRUE">
<PARAM NAME="SaveButtonAutoEnable" VALUE="TRUE">
</Object>
<TABLE>
<TR>
<TD><Input Type="button" value="Goto Begin" id="B1" onclick="
BtnDocumentBegin() "></TD>
<TD><Input Type="button" value="Goto End" name="B2" onclick="
BtnDocumentEnd() "></TD>
<TD><Input Type="button" value="Whole Document" name="B3" onclick="
BtnWholeDocument() "></TD>
<TD><Input Type="button" value="Select Next word" name="B4" onclick="
BtnSelectNextWord() "></TD>
</TR>
<TR>
<TD><Input Type="button" value="Sort Table by this Column" id="B6" onclick="
BtnSortDepartmentOnClick() "></TD>
</TR>
</TABLE>
<TABLE id=SelTable border=1>
<TR><TD id=SelTable_FirstTextPosition></TD><TD id=SelTable_LastTextPosition></
TD></TR>
<TR><TD id=SelTable_FirstXMLData></TD><TD id=SelTable_FirstXMLDataOffset></TD
></TR>
<TR><TD id=SelTable_LastXMLData></TD><TD id=SelTable_LastXMLDataOffset></TD></
TR>
<TR><TD id=SelTable_Text></TD></TR>
</TABLE>
</body>

<SCRIPT LANGUAGE=javascript For=objPlugIn EVENT=selectionchanged>
var CurrentSelection = Null;
CurrentSelection = objPlugIn.AuthenticView.Selection;
SelTable_FirstTextPosition.innerHTML = CurrentSelection.FirstTextPosition;
SelTable_LastTextPosition.innerHTML = CurrentSelection.LastTextPosition;
SelTable_FirstXMLData.innerHTML = CurrentSelection.FirstXMLData.Parent.Name;
SelTable_FirstXMLDataOffset.innerHTML = CurrentSelection.FirstXMLDataOffset;
SelTable_LastXMLData.innerHTML = CurrentSelection.LastXMLData.Parent.Name;
SelTable_LastXMLDataOffset.innerHTML = CurrentSelection.LastXMLDataOffset;
</SCRIPT>

```

</html>

3 Firefox

If the HTML page for the Authentic plug-in is to be opened in Firefox, then it must contain the following elements:

- An HTML [EMBED](#) element, which (i) causes the DLL for the Authentic Plug-in to be downloaded from the server to the client, and (ii) specifies the dimensions of the Authentic View window in the client's browser. The [EMBED](#) element contains the location of the Authentic Browser plug-in.
- One or more [Event Listeners](#) for defining subroutines and handling events. Event listeners are constructed within `SCRIPT` elements.

This section is organized into the following sub-sections:

- [The EMBED Element](#), which describes how the HTML [EMBED](#) element is to be used in an HTML page for the Authentic plug-in.
- [Adding Event Listeners](#), which describes how [Event Listeners](#) are to be used in an HTML page for the Authentic plug-in.
- Examples of full HTML pages: [Firefox Example 1: Simple](#) and [Firefox Example 2: Sort a Table](#).

For information about individual objects, see the respective [Object descriptions](#) in the [Reference section](#).

Note:

- The Authentic Browser plug-in is supported for **Firefox 3.0 or higher**.
- Ensure that the MIME type for XPI files has [been added in the browser service](#) of your server to the list of MIME types for the site you will use.

3.1 The EMBED Element

The `EMBED` element has the following functions:

- It gives the Authentic Browser Plug-in a name (via the `id` attribute).
- It selects which [version of the Authentic Browser Plug-in](#) to use (via the `type` attribute).
- It specifies an `XPI` file (which is the Authentic Browser Plug-in DLL) via the `PluginsPage` attribute. The value of the `PluginsPage` attribute is a path that locates the `XPI` file.
- It specifies the dimension of the Authentic View window in the client's browser (via the `height` and `width` attributes).

Here is a sample HTML `EMBED` element. It selects the English-language Trusted version (with the value of the `type` attribute) and sets the width and height of the Authentic View window in the client's browser to 100% and 60%, respectively.

```
<embed
  id="objPlugIn"
  type="application/x-authentic-scriptable-plugin"
  width="100%"
  height="60%"
  PluginsPage="
http://your-server-including-path/AuthenticFirefoxPlugin_trusted.xpi"
  [Name-Of-Parameter="Value of Parameter"] />
```

id

The value of the `id` attribute is used as the name of the Authentic Browser Plug-in objects when these are used in scripts. For example, `objPlugIn.SchemaLoadObject`. URL is a call to the object that loads the schema file.

type

This value is the [MIME type](#) of the required [Authentic Browser version](#). In the code listing above, the value `application/x-authentic-scriptable-plugin` identifies the English-language Trusted version. See the section, [Authentic Browser Versions](#) for a list of the available versions and their MIME types.

width, height

These attributes specify the dimensions of the Authentic View window to be created within the browser window.

PluginsPage

The value of this attribute specifies the location of the Authentic Browser `XPI` file on your server. Make sure that you use the correct path in the URL that locates the the `XPI` file. Case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of paths and filenames.

Parameters

A parameter (see *list below*) can be used in the following ways:

- By giving the parameter name and its value as an attribute-value pair of the `EMBED` element. For example, the parameter `ToolbarsEnabled` can be specified with a value of `true` by adding the attribute-value pair `ToolbarsEnabled="true"` to the `EMBED` element. See listing above.
- A `PARAM` element can be specified as a child of the `OBJECT` element, as in the example below:

```
<object id="objPlugIn"
  type="application/x-authentic-scriptable-plugin"
```

```
        width="N00%"
        height="60%" >
    <param name="ToolbarsEnabled"
        value="true"/>
</object>
```

Note, however, that there is a drawback if parameters are specified in this way—that is, as a child of the `OBJECT` element. Since Firefox does not accept the `PLUGINSPACE` attribute of the `OBJECT` element, Firefox will have no reference to the Authentic Browser XPI file on the server and cannot start installation of the Authentic Browser plug-in on the client. Therefore, this way of specifying parameters is of use only on clients where the plug-in has already been installed.

Any number of the following parameters may be used.

LicServer

The name of the server for which the Authentic Browser Enterprise Edition license key is valid. (No license key is required for Authentic Browser Community Edition.)

LicKey

The license key for validating the use of Authentic Browser Enterprise Edition. (No license key is required for Authentic Browser Community Edition.)

LicCompany

The company name for validating the use of Authentic Browser Enterprise Edition. (No license key is required for Authentic Browser Community Edition.)

XMLDataURL

An absolute URL that gives the location of the XML file to be edited. For the Untrusted versions, you can also use a full local path.

XMLDataSaveURL

An absolute URL that gives the location where the XML file is to be saved. For the Untrusted versions, you can also use a full local path.

SPSDataURL

An absolute URL that gives the location of the StyleVision Power Stylesheet (. `sps` file). For the Untrusted versions, you can also use a full local path.

SchemaDataURL

An absolute URL that gives the location of the associated schema file. For the Untrusted versions, you can also use a full local path.

TextStateBmpURL

The folder where bitmap image for text-state icons are to be stored.

TextStateToolbarLine

The toolbar line in which text-state icons are to be placed. The default is 1.

AutoHideUnusedCommandGroups

Determines whether unused toolbar command groups should be hidden. The default is True.

ToolbarsEnabled

Specifies general support for toolbars. The default is True.

ToolbarTooltipsEnabled

Specifies whether Tooltips are enabled or not.

HideSaveButton

If set to True, removes the Save button from the Authentic toolbar, which is visible by default.

BaseURL

Gives the base URL for use with relative paths.

SaveButtonUsePOST

If set to True, the HTTP POST command is used instead of a PUT when saving the document.

EntryHelpersEnabled

If set to True the Authentic entry helpers are visible

EntryHelperSize

Width of the entry helper window in pixels.

EntryHelperAlignment

Specifies the location of the entry helpers relative to the document window.

- 0 = Align toolbar at top of document
- N = Align toolbar at left of document
- 2 = Align toolbar at bottom of document
- 3 = Align toolbar at right of document

EntryHelperWindows

Selects which of the entry helper sub-windows are visible.

- N = Elements
- 2 = Attributes
- 4 = Entities

Any combination is allowed (bit-check)

SaveButtonAutoEnable

See [Authentic.SaveButtonAutoEnable](#)

LoaderSettingsFileURL

Gives the URL of the `LoaderSettingsFile` for package management.

3.2 Adding Event Listeners

The following `SCRIPT` element defines an event listener and registers it with the plug-in object. The event listener function will be called each time the specified event is triggered inside the plug-in.

```
<SCRIPT LANGUAGE="javascript">
var selCount = 0;
function OnSelectionChanged()
{
    selCount = selCount + 1;
    selectionCounter.value = "SelectionCount = " + selCount;
}
var objPlugIn = document.getElementById('objPlugIn');
objPlugIn.addEventListener("selectionchanged", OnSelectionChanged, false)
</SCRIPT>
```

For a list of events see also [Events: Reference](#).

Language

The Authentic Browser Plug-in has been tested with JavaScript and VBScript.

Event listeners

For information about event listeners, see the relevant [W3C Recommendation](#).

Authentic Browser object model

The methods, properties, and sub-objects available in the Authentic Browser Plug-in are described in the [reference section](#) of this documentation.

3.3 Firefox Example 1: Simple

The HTML code below generates a page that has the following features:

- It installs the Trusted version of Authentic Browser for Firefox on the client if this is not already installed.
- The Authentic Browser window within the page has a width that is 100% that of the browser window and 60% of its height.
- Below the Authentic Browser window is a row of four buttons.
- The Authentic View of `OrgChart.xml` is loaded.
- The **Find** and **Replace** buttons pop up the Find and Replace dialogs respectively.
- The **Save** button saves changes to a file called `SaveFile.xml` located in the root directory of the server.
- The **Test Property** button tests a simple property.

When this HTML page is opened on the client, the user can start editing the XML file `OrgChart.xml` and save the edited file as `SaveFile.xml`.

You may wish to use this simple HTML page to test whether Authentic Browser functions properly. If you do so, be sure to use the IP Address and the correct path to the respective files in the URLs that locate the `xpi` file, the `xsd.xml`, and `sps` files, and any other resource on the server. Note that case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of filenames and of commands in the code. You can expand or modify this example to build more complex solutions using Authentic Browser.

```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
  <title>Minimal XMLSpyDocEditPlugIn page</title>
</head>

<!-- to disable the fast-back cache in Firefox, define an unload handler -->
<BODY id="bodyId" onunload="Unload()">
  <!-- Embed element has id with value that must be used -->
  <!-- as name of Authentic Browser Plug-in objects -->
  <!-- type selects the Trusted Unicode version -->
  <embed
    id="objPlugIn"
    type="application/x-authentic-scriptable-plugin "
    width="100%"
    height="60%"
    PLUGINSPAGE="
http://your-server-including-path/AuthenticFirefoxPlugin_trusted.xpi "
    LicServer="DevAuthBrowTest"
    LicCompany="Altova"
    LicKey="xxxxxxx" />
  <!-- Script with subroutines -->
  <SCRIPT LANGUAGE="javascript">
    var objPlugIn = document.getElementById('objPlugIn');
    function OnClickFind()
    {
      objPlugIn.FindDialog();
    }

    function OnClickReplace()
    {
      objPlugIn.ReplaceDialog();
    }

    function BtnOnSave()
    {
      objPlugIn.XMLDataSaveUrl = "http://your-server/Authentic/SaveFile.xml"
      objPlugIn.Save()
    }

    function BtnOnTestProp()
```

```

        {
            alert ( objPlugIn.IsRowInsertEnabled );
        }
    }
    function Unload()
    {
    }
    function InitAuthenticPluginPage( )
    {
        var serverstr='your-server/';
        var basedir='Authentic/';
        objPlugIn.SchemaLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xsd';
        objPlugIn.XMLDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xml' ;
        objPlugIn.DesignDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.sps';
        objPlugIn.StartEditing();
    }
    // event subscription if running on Firefox
    objPlugIn.addEventListener("ControlInitialized", InitAuthenticPluginPage,
false);
</SCRIPT>
<p>
<input type="button" value="Find" name="B4" onclick="OnClickFind()">
<input type="button" value="Replace" name="B5" onclick="OnClickReplace()">
<input type="button" value="Save" name="B6" onclick="BtnOnSave()">
<input type="button" value="Test property" name="B7" onclick="BtnOnTestProp()">
</p>
</body>
</html>

```

Note: The script above contains license information for activating Authentic Browser Enterprise Edition. If the three parameters `LicServer`, `LicCompany`, and `LicKey` are not present, then the Authentic Browser functionality will be limited to that of Community Edition.

3.4 Firefox Example 2: Sort a Table

This is an example HTML page with an embedded JavaScript. The sample requires the Authentic Browser Plug-in (XPI file) to be installed on your computer. Note that case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of filenames and of commands in the code.

The code shows:

- How to access the browser plug-in. Modify the code to refer to your XPI file and the class identifier (MIME Type) of your browser plug-in version (trusted or untrusted).
- How to load a file into the browser plug-in. Modify the code to refer to your sample document.
- Implement buttons for simple cursor positioning.
- Implement more complex commands like the sorting of tables.
- How to use the `SelectionChanged` event.

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
<title>Test Page For Authentic Browser Plug-in</title>
</head>

<!-- to disable the fast-back cache in Firefox, define an unload handler -->
<BODY id="bodyId" onunload="Unload()">
  <embed
    id="objPlugIn"
    type="application/x-authentic-scriptable-plugin "
    width="100%"
    height="60%"
    PLUGINSOURCE="
http://your-server-including-path/AuthenticFirefoxPlugin_trusted.xpi "
    EntryHelpersEnabled="TRUE"
    SaveButtonAutoEnable="TRUE" >
  </embed>
  <TABLE>
  <SCRIPT LANGUAGE="javascript">
var objCurrentRange = null;
var objPlugIn = document.getElementById('objPlugIn');

function BtnDocumentBegin() { objPlugIn.AuthenticView.DocumentBegin.Select(); }
function BtnDocumentEnd() { objPlugIn.AuthenticView.DocumentEnd.Select(); }
function BtnWholeDocument() { objPlugIn.AuthenticView.WholeDocument.Select(); }
function BtnSelectNextWord() { objPlugIn.AuthenticView.Selection.SelectNext(1).Select(); }
}

function BtnSortDepartmentOnClick()
{
  var objCursor = null;
  var objTableStart = null;
  var objBubble = null;
  var strField1 = "";
  var strField1 = "";
  var nColIndex = 0;
  var nRows = 0;

  objCursor = objPlugIn.AuthenticView.Selection;
  if (objCursor.IsInDynamicTable())
  {
    // calculate current column index
    nColIndex = 0;
    bContinue = true;
    while ( bContinue )
    {
      try { objCursor.GotoPrevious(11); }
      catch (err) { bContinue = false; nColIndex--; }
      nColIndex++;
    }

    // GoTo begin of table
  }
}
```

```

objTableStart = objCursor.ExpandTo(9).CollapsToBegin().Clone();

// count number of table rows
nRows = 1;
bContinue = true;
while ( bContinue )
{
    try { objTableStart.GotoNext(10); }
    catch (err) { bContinue = false; }
    nRows++;
}

// bubble sort through table
for ( i = 0; i < nRows - 1; i++) {
    for( j = 0; j < nRows-i-1; j++) {
        objBubble =
objCursor.ExpandTo(9).collapsToBegin().Clone();
        // Select correct column in jth table row
objBubble.GotoNext(6).Goto(10,j,2).Goto(11,nColIndex,2).ExpandTo(6);
        strField1 = objBubble.Text;
        try
        {
            strField2 =
objBubble.GotoNext(10).Goto(11,nColIndex,2).ExpandTo(6).Text;
        }
        catch ( err ) { continue; };
        if(strField1 > strField2) {
            if(!objBubble.MoveRowUp()) {
                alert('Table row move is not allowed!');
                return;
            }
        }
    }
}

}

function InitAuthenticPluginPage( )
{
    var serverstr='your-server/';
    var basedir='Authentic/';
    objPlugIn.SchemaLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xsd';
    objPlugIn.XMLDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xml';
    objPlugIn.DesignDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.sps';
    objPlugIn.StartEditing();
}

function Unload()
{
}

function OnSelectionChanged()
{
    var CurrentSelection = null;
    CurrentSelection = objPlugIn.AuthenticView.Selection;
    SelTable_FirstTextPosition.innerHTML = CurrentSelection.FirstTextPosition;
    SelTable_LastTextPosition.innerHTML = CurrentSelection.LastTextPosition;
    SelTable_FirstXMLData.innerHTML = CurrentSelection.FirstXMLData.Parent.Name;
    SelTable_FirstXMLDataOffset.innerHTML = CurrentSelection.FirstXMLDataOffset;
    SelTable_LastXMLData.innerHTML = CurrentSelection.LastXMLData.Parent.Name;
    SelTable_LastXMLDataOffset.innerHTML = CurrentSelection.LastXMLDataOffset;
}

objPlugIn.addEventListener("selectionchanged", OnSelectionChanged, false)
// event subscription if running on Firefox
objPlugIn.addEventListener("ControlInitialized", InitAuthenticPluginPage, false);
</SCRIPT>
<TR>
<TD><Input Type="button" value="Goto Begin" id="B1" onclick="BtnDocumentBegin()"></TD>
<TD><Input Type="button" value="Goto End" name="B2" onclick="BtnDocumentEnd()"></TD>
<TD><Input Type="button" value="Whole Document" name="B3" onclick="BtnWholeDocument()"
"></TD>
<TD><Input Type="button" value="Select Next word" name="B4" onclick="BtnSelectNextword()"
"></TD>
</TR>

```



```
<TR>
<TD><input type="button" value="Sort Table by this column" id="B6" onclick="
BtnSortDepartmentOnClick()" />
</TD>
</TR>
</TABLE>
<TABLE id=SelTable border=1>
<TR><TD id=SelTable_FirstTextPosition></TD><TD id=SelTable_LastTextPosition></TD></TR>
<TR><TD id=SelTable_FirstXMLData></TD><TD id=SelTable_FirstXMLDataOffset></TD></TR>
<TR><TD id=SelTable_LastXMLData></TD><TD id=SelTable_LastXMLDataOffset></TD></TR>
<TR><TD id=SelTable_Text></TD></TR>
</TABLE>
</body>
</html>
```

4 Browser-Independent

In some projects, it may not be known what browser (Internet Explorer or Firefox) will be used on the client. In such cases, [Authentic Browser versions for both Internet Explorer and Firefox](#) can be stored on the server (that is, both the CAB file and XPI file can be stored on the server). In the HTML page you can insert a script to determine which browser has been used to open the HTML page, and accordingly cause the correct [Authentic Browser Plug-in](#) to be loaded.

Additionally, if Internet Explorer is the browser that is used on the client, then the correct .CAB file (for 32-bit or 64-bit Internet Explorer) must be selected for download from the server. A script can test for the X-bit version of Internet Explorer and select the correct .CAB file for download from the server.

This section contains [an example file](#), which does the following: determines the browser, loads the correct Authentic Browser version, and carries out a few functions.

For information about individual objects, see the respective [Object descriptions](#) in the [Reference section](#).

Note:

- The Authentic Browser plug-in is supported for **Internet Explorer 5.5 or higher** and **Firefox 3.0 or higher**.
- For Firefox usage, ensure that the MIME type for XPI files has [been added in the browser service](#) of your server to the list of MIME types for the site you will use.

4.1 Browser-Independent Example

The HTML code below generates a page that has the following features:

- It checks what browser is installed on the client (Internet Explorer or Firefox) and installs an Authentic Browser version for the detected browser type.
- Furthermore, if the installed browser is Internet Explorer, then it checks whether the system is 32-bit or 64-bit, and then selects [the correct .CAB file](#) (for 32-bit or 64-bit Internet Explorer).
- The Authentic Browser window within the page has a width that is 100% that of the browser window and 60% of its height.
- Below the Authentic Browser window is a row of five buttons
- The **Start Editing** button loads the Authentic View of `OrgChart.xml`, which is in the root directory of your server
- The **Find** and **Replace** buttons pop up the Find and Replace dialogs respectively
- The **Save** button saves changes to a file called `SaveFile_OrgChart.xml` located in the root directory of the server
- The **Test** property button tests a simple property

When this HTML page is opened on the client, the user can start editing the XML file `OrgChart.xml` and save the edited file as `SaveFile_OrgChart.xml`.

You may wish to use this simple HTML page to test whether Authentic Browser functions properly. If you do so, be sure to use the IP Address and the correct path to the respective files in the URLs that locate the `xpi` file, the `xsd`, `xml`, and `sps` files, and any other resource on the server. Note that case-sensitivity might be an issue with some servers, so if there is a problem locating a file, check the casing of filenames and of commands in the code. You can expand or modify this example to build more complex solutions using Authentic Browser.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Orgchart.sps Scriptable Plug-in Test - browser independent</title>
<script type="text/javascript">
<!--
function BtnOnSave() { objPlugIn.Save();}

function InitAuthenticPluginPage( )
{
    var schema= document.getElementById('xsd');
    var instance=document.getElementById('xml');
    var design=document.getElementById('sps');
    objPlugIn.XMLDataLoadObject.URL =instance.innerHTML;
    objPlugIn.DesignDataLoadObject.URL = design.innerHTML;
    objPlugIn.SchemaLoadObject.URL= schema.innerHTML;
    // alert(schema.innerHTML+" "+instance.innerHTML+" "+design.innerHTML);

    /*
    var serverstr='your-server/';
    var basedir='Authentic/';
    objPlugIn.SchemaLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xsd';
    objPlugIn.XMLDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.xml';
    objPlugIn.DesignDataLoadObject.URL = 'http://' + serverstr + basedir +
'OrgChart.sps';
    */

    objPlugIn.StartEditing();

}

function unload()
```

```

    {
    }
    //-->
</script>
<style type="text/css">@page { margin-left:0.60in; margin-right:0.60in;
margin-top:0.79in; margin-bottom:0.79in } @media screen { br.altova-page-break {
display: none; } } @media print { br.altova-page-break { page-break-before: always; } }
</style>
</head>

<body id="bodyId" onload="Unload()">
  <table border="1">
    <tbody>
      <tr><th><span>DesignLoadURL</span></th><td id="sps">
http://your-server/Authentic/Orgchart.sps </td></tr>
      <tr><th><span>SchemaLoadURL</span></th><td id="xsd">
http://your-server/Authentic/Orgchart.xsd </td></tr>
      <tr><th><span>XMLDataLoadURL</span></th><td id="xml">
http://your-server/Authentic/Orgchart.xml </td></tr>
      <tr><th><span>XMLDataSaveURL</span></th><td id="xmlsave">
http://your-server/Authentic/SaveFile_OrgChart.xml </td></tr>
    </tbody>
  </table>
  <center><h3><span>Authentic Platformindependent Plug-in Enterprise Edition</span>
</h3></center>
  <span>&nbsp;</span>
  <center>
    <script language="JavaScript">
      // return true if the page loads in Firefox
      function isFirefoxOnWindows()
      {
        return ((navigator.userAgent.indexOf('Firef') != -1) &&
(navigator.userAgent.indexOf('win') != -1));
      }

      // return true if the page loads in Internet Explorer
      function isIEOnWindows()
      {
        return ((navigator.userAgent.indexOf('MSIE') != -1) &&
(navigator.userAgent.indexOf('win') != -1));
      }

      //return true if Browser is 64bit
      function is64bitBrowser()
      {
        return ((navigator.userAgent.indexOf('win64') != -1)&&
(navigator.userAgent.indexOf('x64') != -1));
      }

      //return Codebase for 32 bit or 64 bit
      function getCodeBase()
      {
        if ( is64bitBrowser() ){
return('CodeBase="http://your-server/AuthenticBrowserEdition_x64.CAB#Version=12,2,0,0"
')
        }
        else {
return('CodeBase="http://your-server/AuthenticBrowserEdition.CAB#Version=12,2,0,0" ')
        }
      }

      // Create the plugin object instance, according to the browser loading the
page
      // -Firefox uses EMBED tag for embedding plugins and supports PLUGINSOURCE
      // attribute to redirect to an installation file if the plugin is not
      // currently installed;
      // -IE uses <OBJECT> tag for embedding plugins and supports CODEBASE attribute
      // to indicate a .cab file for the installation if the plugin is not
      // currently installed

      function createObject( codebase, clsid)
      {
        if ( isFirefoxOnWindows() )
        {
          document.write ( '<embed ' +
'id="objPlugIn" ' +
'type="application/x-authentic-scriptable-plugin " ' +

```

```

        'width="100%" ' +
        'height="60%" ' + PLUGINSPAGE="
http://your-server/Authentic/AuthenticFirefoxPlugin_trusted.xpi " ' +
        'SaveButtonAutoEnable="true" ' +
        'EntryHelpersEnabled="true" ' +
        'LicServer="your-server" ' +
        'LicCompany="Altova" ' +
        'LicKey="xxxxxxxxxx" ' +
        'XMLDataSaveUrl="http://your-server/Authentic/SaveFile_OrgChart.xml "> ' +
        '</embed>' );
    }
    else if ( isIEOnWindows() )
    {
        document.write ( '<OBJECT ' +
            'id="objPlugIn" ' +
            getCodeBase() +
            'Classid="clsid:B4628728-E3F0-44a2-BEC8-F838555AE780 " ' +
            'width="100%" ' +
            'height="60%" ' +
            '>' +
            '<PARAM NAME="XMLDataSaveUrl" VALUE="
http://your-server/Authentic/SaveFile_OrgChart.xml "> ' +
            '<PARAM NAME="EntryHelpersEnabled" VALUE="TRUE"> ' +
            '<PARAM NAME="SaveButtonAutoEnable" VALUE="TRUE"> ' +
            '<PARAM NAME="LicServer" VALUE="your-server"> ' +
            '<PARAM NAME="LicCompany" VALUE="Altova"> ' +
            '<PARAM NAME="LicKey" VALUE="xxxxxxxxxx"> ' +
            '</OBJECT>');
    }
}

createObject();
// after running createObject the plugin object exists. Initialize the
javascript variable to be used in the scripts
var objPlugIn = document.getElementById('objPlugIn');
</script>

<br><br>
<button onclick="objPlugIn.StartEditing()"><span>Start Editing</span></button>
<button onclick="objPlugIn.FindDialog()"><span>Find</span></button>
<button onclick="objPlugIn.ReplaceDialog()"><span>Replace</span></button>
<button onclick="BtnOnSave()"><span>Save</span></button>
<button onclick="alert ( objPlugIn.IsRowInsertEnabled );"><span>Test</span><br>
></button>
</center>

<script language="javascript">
    // event subscription if running on Firefox
    if ( isFirefoxOnWindows() )
    {
        objPlugIn.addEventListener("ControlInitialized", InitAuthenticPluginPage,
false);
    }
</script>

<script event="ControlInitialized" for="objPlugIn" language="javascript">
    // event subscription if running on Internet Explorer
    if ( isIEOnWindows() )
    {
        InitAuthenticPluginPage();
        //if ( isIE64onWindows() ) alert("IE x64");
    }
</script>

</body>
</html>

```

Note: The script above contains license information for activating Authentic Browser Enterprise Edition. If the three parameters `LicServer`, `LicCompany`, and `LicKey` are not present, then the Authentic Browser functionality will be limited to that of Community Edition.

Chapter 7

User Reference

User Reference

This section contains a listing and description of Authentic Browser mechanisms, objects, and enumerations.

- [Authentic Browser Mechanisms](#)
- [Authentic Browser Objects](#)
- [Authentic Browser Enumerations](#)

1 Mechanisms

This section contains a description of some commonly used Authentic Browser mechanisms.

1.1 Events: Connection Point (IE-Specific)

Authentic Browser provides various connection point events (see also [Events: Reference](#)), for which you can provide event handlers in the `SCRIPT` blocks on your HTML page.

Note: The description in this section applies to Internet Explorer only.

The following samples show `SCRIPT` blocks for the `ControlInitialized` and `SelectionChanged` events:

ControlInitialized

This connection point event is triggered immediately after the control is created and initialized. Additional startup scripting for the control can be handled inside the `ControlInitialized` event handler.

```
<SCRIPT LANGUAGE=javascript FOR=objPlugIn EVENT=controlinitialized>
    // add your code here
</SCRIPT>
```

SelectionChanged

The `SelectionChanged` event is triggered each time the current selection in the view changes. Use a `SCRIPT` block to execute your event-specific code.

```
<SCRIPT LANGUAGE=javascript FOR=objPlugIn EVENT=selectionchanged>
    // add your code here
</SCRIPT>
```

Please note that the [Authentic.event](#) object is not populated when this event occurs. If event handlers are registered in your script, the [Authentic.event](#) object properties contain values from the last event to have occurred.

The [Authentic.CurrentSelection](#) object now contains valid information.

Loading SPS, XSD, and XML files without user intervention

If you wish to load the `.sps`, `.xsd` and `.xml` files without user intervention when loading the HTML page, it is the preferred method to write an event handler that handles the `ControlInitialized` event. Alternatively a property bag can be used as in the second example:

Recommended:

```
<SCRIPT LANGUAGE="javascript" FOR=objPlugIn EVENT="ControlInitialized">
objPlugIn.SchemaLoadObject.URL = "http://yourserver/OrgChart.xsd"
objPlugIn.XMLDataLoadObject.URL = "http://yourserver/OrgChart.xml"
objPlugIn.DesignDataLoadObject.URL = "http://yourserver/OrgChart.sps"
objPlugIn.StartEditing()
</SCRIPT>
```

or

```
<OBJECT id=objPlugIn style="WIDTH: 600px; HEIGHT: 500px"
codeBase="http://yourserver/cabfiles/AuthenticBrowserEdition.CAB#Version=7,0,N
,0"
classid=clsid: B4628728-E3F0-44a2-BEC8-F838555AE780>
```

```
<PARAM NAME="XMLDataURL" VALUE="http://yourserver/OrgChart.xml">
<PARAM NAME="SPSDataURL" VALUE="http://yourserver/OrgChart.sps">
<PARAM NAME="SchemaDataURL" VALUE="http://yourserver/OrgChart.xsd">
</OBJECT>
```

It is not recommended to load these files in an event handler that handles the "body" elements "onload" event as the Authentic Browser PlugIn control may be initialized after the "onload" event is fired. If this is the case the PlugIn's methods and properties will not be available, and the files will not load.

Not recommended:

```
<SCRIPT LANGUAGE="javascript">
  function load () {

objPlugIn.SchemaLoadObject.URL = "http://yourserver/OrgChart.xsd"
objPlugIn.XMLDataLoadObject.URL = "http://yourserver/OrgChart.xml"
objPlugIn.DesignDataLoadObject.URL = "http://yourserver/OrgChart.sps"
objPlugIn.StartEditing()
  }
</SCRIPT>

<body onload = "load files">
```

1.2 Events: Adding Event Listeners (Firefox-specific)

For each connection point event Authentic Browser provides (see also [Events: Reference](#)) you can write event handlers in the `SCRIPT` blocks on your HTML page by using the `addEventListener` method.

Note: The description in this section **applies to Firefox only**.

Here is an example on how to provide an event handler for the `SelectionChanged` event in Firefox:

SelectionChanged

The `SelectionChanged` event is triggered each time the current selection in the view changes. Use a `SCRIPT` block to execute your event-specific code.

```
<SCRIPT LANGUAGE="javascript">
var selCount = 0;
function OnSelectionChanged()
{
    selCount = selCount + N;
    selectionCounter.value = "SelectionCount = " + selCount;
}
var objPlugIn = document.getElementById('objPlugIn');
objPlugIn.addEventListener("selectionchanged", OnSelectionChanged, false)
</SCRIPT>
```

Please note that the [Authentic.event](#) object is not populated when this event occurs. If event handlers are registered in your script, the [Authentic.event](#) object properties contain values from the last event to have occurred.

The [Authentic.CurrentSelection](#) object now contains valid information.

1.3 Events: Toolbar Button

Each toolbar button has default behavior, which may need to be changed. The `AuthenticCommand` event allows you to add additional tasks to, or entirely redefine, the default behavior of toolbar buttons. Scripts can use the `AuthenticCommand` event to receive notification each time the user clicks a toolbar icon.

Please note that not every command (from the [Authentic.UICommands](#) collection) has its own associated event. To find out which icon the user clicked, the script has to check the [AuthenticEvent.srcElement](#) property, which contains a reference to a corresponding [AuthenticCommand](#) object.

Example

```
// event handler for OnDocEditCommand
<SCRIPT LANGUAGE=javascript FOR=objPlugIn EVENT=doceditcommand>
  // we are interested in the k_CommandSave button
  if( objPlugIn.event.srcElement.CommandID == N)
  {
    // instead of the standard HTTP PUT we want to use
    // a HTTP POST
    objPlugIn.SavePOST();

    // no standard execution follows
    objPlugIn.event.cancelBubble = true;
  }
</SCRIPT>
```

Reference

For available commands, see [AuthenticToolbarButton.CommandID](#).

1.4 Events: Reference

List of connection point events

Name	since TypeLib	Description
SelectionChanged	1.0	Selection in the editor has changed. The Authentic.CurrentSelection object now contains valid information. The properties of the Authentic.event object are not set.
ControllInitialized	1.2	The control is now fully loaded and initialized. The properties of the Authentic.event object are not set.
dragover	1.8	A drag-over operation is occurring.
drop	1.8	A drop operation has happened.
keydown	1.8	A key has been pressed but not yet released.
keyup	1.8	A key on the keyboard has been released. This is usually the event to react on keystrokes.
keypressed	1.8	Raised on any keyboard input.
mousemove	1.8	The mouse pointer has been moved.
buttonup	1.8	One of the mouse buttons has been released.
buttondown	1.8	One of the mouse buttons has been pushed.
contextmenu	1.8	Sent after receiving WM_CONTEXTMENU.
editpaste	1.8	Called before a paste operation takes place.
editcut	1.8	Called before a cut operation takes place.
editcopy	1.8	Called before a copy operation takes place.
editclear	1.8	Called before a clear operation takes place.
doceditcommand	1.8	Raised on executing an Authentic command and to implement a custom command handler. See also Events: Toolbarbuttons . The properties of the Authentic.event object are not set.
buttondoubleclick	1.8	One of the mouse buttons has been double-clicked.

If no exception is mentioned in the description the properties of the [Authentic.event](#) object are set on calling the event handler.

1.5 Accessing and Modifying Document Content

To access and modify document content, you can use the `AuthenticRange`, `AuthenticView`, and `Authentic` objects (and their properties and methods).

Where there is a functionality overlap between the `AuthenticRange` and `AuthenticView` interface on the one hand and the interface provided by the `Authentic` object on the other, the `AuthenticRange` and `AuthenticView` interface is the preferred interface. The overlapping functionality of the `Authentic` object is being phased out and will be obsolete in a future version.

1.6 Editing Operations

When XML data is displayed in Authentic View, it is possible to manipulate individual elements using the standard editing operations of cut, copy, and paste. However, not all the XML data elements may be edited. It is therefore necessary to first test whether editing is possible. The mechanism used is as follows: First, check whether the particular editing operation is enabled; if it is, then call the method to perform that editing operation. The only method that does not have a test is the method `EditSelectAll`, which automatically selects all elements displayed in the document.

The following is a list of properties and methods that perform editing operations. Each property returns a boolean value. The methods have no parameter.

IsEditUndoEnabled	Authentic.EditUndo	Undo an editing operation
IsEditRedoEnabled	Authentic.EditRedo	Redo an editing operation
IsEditCopyEnabled	Authentic.EditCopy	Copy the selected text to the clipboard
IsEditCutEnabled	Authentic.EditCut	Cut the selected text to the clipboard
IsEditPasteEnabled	Authentic.EditPaste	Paste clipboard text to current cursor position
IsEditClearEnabled	Authentic.EditClear	Clear the selected text from the XML document

1.7 Find and Replace

The [Authentic.FindDialog](#) method, opens a Find dialog box, in which the user can enter a search term. The [Authentic.FindNext](#) method allows the next instance of the same item to be found. The `FindNext` method can be tested using the boolean property `IsFindNextEnabled`. A variation of the `FindDialog` method is the [Authentic.ReplaceDialog](#) method. This operation finds a specific item, and is used to replace it with a specific value entered by the user in the Replace dialog box. If the `FindNext` method is then called, the next item is found and replaced.

1.8 Row Operations

In Authentic View, a repeating element structure may be created as a dynamic table, in which each row represents an instance of the repeated element. Once a dynamic table is created, the Authentic View user can manipulate the rows and their data. These row operations can be carried out with the use of a script.

If an external script is to perform row operations then two steps must occur:

- The first step checks whether the row that the cursor is in uses a property. A property, such as `IsRowInsertEnabled`, is used and returns a True or False value.
- If the return value is True, then the required row method can be called.

The following is a list of properties and methods that perform row operations. Each property returns a boolean, and the methods have no parameter.

IsRowInsertEnabled	Authentic.RowInsert	Row insertion operation.
IsRowAppendEnabled	Authentic.RowAppend	Append row operation.
IsRowDeleteEnabled	Authentic.RowDelete	Delete row operation.
IsRowMoveUpEnabled	Authentic.RowMoveUp	Move the XML data up one row.
IsRowMoveDownEnabled	Authentic.RowMoveDown	Move the XML data down one row.
IsRowDuplicateEnabled	Authentic.RowDuplicate	Duplicate the current row.

1.9 Shortcut Keys

The following shortcut keys are valid if the Authentic Browser has the input focus:

CTRL + P	Print document
CTRL + Z	Undo
CTRL + Y	Redo
CTRL + X	Cut
CTRL + C	Copy
CTRL + V	Paste
CTRL + A	Select all
CTRL + F	Open Find dialog box
CTRL + H	Open Find-Replace dialog box

1.10 Text State Buttons

The Authentic View toolbar of Authentic Browser provides support for text state icons. These are icons that insert elements having pre-defined text-formatting properties. To be able to use this function, the element that is to be created as a text state icon must be:

- declared as a global template in the schema, and
- the SPS must contains the necessary definitions (see the StyleVision documentation)

The Plug-in needs to have the path to the `.bmp` that will be used as the text state icon in the toolbar. This URL is provided as the value of the [Authentic.TextStateBmpURL](#).

1.11 Entry Helpers

The Authentic Browser enables you to provides entry helper windows as in XMLSpy. This provides the Authentic View user ready access to the elements, attributes, and entities allowed at any location in the document. The entry helpers are disabled by default and do not appear unless they are explicitly activated. To enable entry helpers, use the following `PROPERTYBAG` parameters in the `OBJECT` tag ([Internet Explorer](#)) or as an attribute of the `EMBED` element ([Firefox](#)):

<code>EntryHelpersEnabled</code>	TRUE / FALSE
<code>EntryHelperSize</code>	Size in pixels
<code>EntryHelperAlignment</code>	Takes SPYAuthenticToolbarAlignment values
<code>EntryHelperWindows</code>	Takes SPYAuthenticEntryHelperWindows values. Any combination is allowed (bit-check)

Instead of using the parameters in the `OBJECT` or `EMBED` tags you can also use properties and methods in the API:

Properties

- [Authentic.EntryHelpersEnabled](#)
- [Authentic.EntryHelperAlignment](#)
- [Authentic.EntryHelperSize](#)
- [Authentic.EntryHelperWindows](#)

Method

- [Authentic.RedrawEntryHelpers](#)

1.12 Packages

Feature Description

Authentic Browser supports packages that extend program module functionality. Currently we provide the following spell-checking packages, with more being planned.

- American English
- English complete (including medical and legal)
- All languages (including medical and legal)

Installation of packages

If the Plug-in is updated, there is no need to reinstall a previously installed package; the previously installed package will be used by the new version. The plug-in on the client PC reads the XML settings file on the server and retrieves the information about provided packages (version number, description, etc.). There is also a Package Management dialog giving the user control over the packages.

Mechanism

Packages are stored on the server and can be loaded by the Plug-in at any time. Once a package is installed, it is activated on every startup until the user removes it. The server provides the packages which are downloaded to the client on demand. No additional download time is needed if the user decides not to use the package.

Enabling the Package Management function

To enable the Package Management function, use the `LoaderSettingsFileURL` as a `PROPERTYBAG` parameter in the `OBJECT` tag (Internet Explorer) or as an attribute of the `EMBED` element (Firefox), which specifies the URL of the `LoaderSettingsFile` for Package management.

For [Internet Explorer usage](#), add the `LoaderSettingsFileURL` parameter as a child `PARAM` element of the `OBJECT` element:

```
<PARAM NAME="LoaderSettingsFileURL" VALUE="
http://www.server.com/AuthenticFiles/XMLSpyPlugInLoaderSettings.xml" />
```

For [Firefox usage](#), add the `LoaderSettingsFileURL` parameter as an attribute of the `EMBED` element:

```
<EMBED
...
LoaderSettingsFileURL="
http://www.server.com/AuthenticFiles/XMLSpyPlugInLoaderSettings.xml" />
```

Example of a LoaderSettings XML file

```
<?xml version="1.0" encoding="UTF-8"?>
<loadersettings>
  <package mode="user_demand" id="SentrySpellChecker_EAM_only"
    category="spelling" version="1">
    <packageurl>
      PlugInLoader/SentrySpellChecker_EAM_only.pck
    </packageurl>
    <description>
      This package contains the Sentry Spell Checker
      engine with an American English lexicon.
    </description>
  </package>
  <package mode="user_demand" id="SentrySpellChecker_EALL"
    category="spelling" version="1">
    <packageurl>
      PlugInLoader/SentrySpellChecker_EALL.pck
    </packageurl>
    <description>
      This package contains the Sentry Spell Checker engine
      with all English lexicons including Legal and Medical.
    </description>
  </package>
</loadersettings>
```

```
</description>
</package>
<package mode="user_demand" id="SentrySpellChecker_ALL "
  category="spelling" version="1">
  <packageurl>
    PlugInLoader/SentrySpellChecker_ALL.pck
  </packageurl>
  <description>
    This package contains the Sentry Spell Checker engine
    with all lexicons including all English Legal and
    English Medical.
  </description>
</package>
</loadersettings>
```

The following should be noted:

- The location of a package must be specified as content of the `packageurl` child of `package`. This path can be absolute or relative to the HTML file.
- Removing a package from the XML file (by removing a `package` element) causes the package not be installed on the client.
- The `mode` attribute of the `package` element specifies the level of user influence over the decision to install the package. A value of "user" causes the user to be asked at every startup of the Plug-in whether the package should be installed. A value of "user_demand" installs the package when this is specifically asked for by the user; in the case of the current spelling packages pressing the toolbar button activates the installation. A value of "force" causes the package to be installed without notifying the user.
- The content of the `description` child of `package` can be edited.

1.13 Using XMLData

XMLData gives you access to the elements of the currently displayed XML file. It enables you to perform all necessary modifications to the elements of the XML structure. The main functionality of XMLData is:

1. Access to the names and values of all kinds of elements (e.g. elements, attributes)
2. Creation of new elements of all kinds.
3. Insertion and appending of new elements.
4. Erasing of existing child elements.

If you are already familiar with the XMLData interface because you used it in the XMLSpy API, please note that special considerations must be made if new elements are created and inserted into the XML file, or existing elements are renamed. Please take a look at "Creation and Insertion of new XMLData objects" and "Name and value of elements" below.

Structure of XMLData

Before you can use the XMLData interface, you have to know how an existing XML file is mapped into a XMLData structure. One major thing you must be aware of is, that XMLData has no separate branch of objects for attributes.

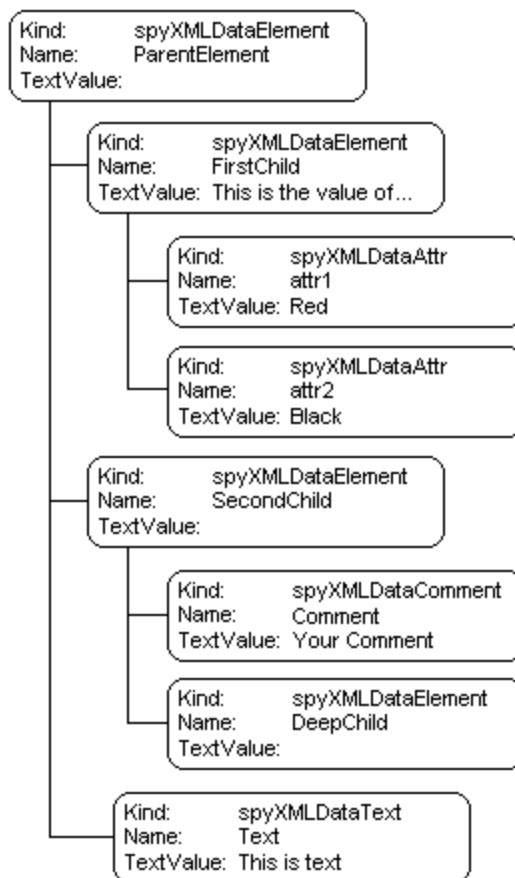
The attributes of an element are also children of the element. The [XMLData.Kind](#) property, gives you the opportunity to distinguish between the different types of children of an element.

Example:

This XML code,

```
<ParentElement>
  <FirstChild attrN="Red" attr2="Black">
    This is the value of FirstChild
  </FirstChild>
  <SecondChild>
    <!--Your Comment-->
    </DeepChild>
  </SecondChild>
  This is Text
</ParentElement>
```

is mapped to the following XMLData object structure:



The parent of all XML elements inside of a file is the property [Authentic.XMLRoot](#). Use this XMLData object to get references to all other XML elements in the structure.

Name and value of elements

To get and to modify the name and value of all types of XML elements use the [XMLData.Name](#) and [XMLData.TextValue](#) properties. It is possible that several kinds of XMLData objects and empty elements do not have an associated text value.

It is not recommended to change the name of an existing XML element in the Authentic View. The name has an important impact how the Authentic View displays the content of the element. Please refer to the StyleVision documentation for detailed information.

Creation and insertion of new XMLData objects

The creation of a new XML language entity requires the following steps:

1. Create the new XMLData object:
Use the [Authentic.CreateChild](#) method to create a new XMLData object. Set name and value before you insert the new XML entity (see point 3).
2. Find the correct location for the new XMLData object:
To insert a new XMLData object you have to get a reference to the parent first. If the new child is to become the last child of the parent, use the [XMLData.AppendChild](#) method to insert the XMLData object.
If the new child should be located elsewhere in the sequence of child objects, use the [XMLData.GetFirstChild](#) and [XMLData.GetNextChild](#) to move the iterator to the child

before which the new child should be inserted.

3. Insert the new child with [XMLData.InsertChild](#). The new child will be inserted immediately before the current child. In the Authentic View it can happen that together with the created element additional child nodes will be added to the XML file. This depends on the node settings you can modify using the StyleVision.

The following example adds a third child between <FirstChild> and the <SecondChild> element:

```
Dim objParent
Dim objChild
Dim objNewChild

Set objNewChild = objPlugIn.CreateChild(spyXMLDataElement)
objNewChild.Name = "OneAndAHalf"

'objParent is set to <ParentElement>
'GetFirstChild(-N) gets all children of the parent element
'and move to <SecondChild>
Set objChild = objParent.GetFirstChild(-N)
Set objChild = objParent.GetNextChild

objParent.InsertChild objNewChild
Set objNewChild = Nothing
```

Child elements should be inserted in a special order. Please avoid to insert attributes into the sequence after any other child elements. That means attributes must not have preceding elements of any other type and any other element must not have a succeeding element of type attribute.

Authentic View requires a special handling of displaying the text value of an XML element except for attributes. Any text (or content) must be part of an extra child node of type text. You can create such an element using [Authentic.CreateChild](#) with the parameter value 6. Instead of setting the text value of the element directly please set the text value of the child node.

Copying of existing XMLData objects

If you want to insert existing XMLData objects at a different place in the same file, you cannot use the XMLData.InsertChild and XMLData.AppendChild methods. These methods only work for new XMLData objects.

Instead of using InsertChild or AppendChild, you have to copy the object hierarchy manually. The following function written in JavaScript is an example for recursively copying XMLData:

```
// this function returns a complete copy of the XMLData object
function GetCopy(objXMLData)
{
    var objNew;
    objNew = objPlugIn.CreateChild(objXMLData.Kind);

    objNew.Name = objXMLData.Name;
    objNew.TextValue = objXMLData.TextValue;

    if(objXMLData.HasChildren) {
        var objChild;
        objChild = objXMLData.GetFirstChild(-N);

        while(objChild) {
            try {
                objNew.AppendChild(GetCopy(objChild));
            }
        }
    }
}
```

```
        objChild = objXMLData.GetNextChild();
    }
    catch(e) {
        objChild = null;
    }
}

return objNew;
}
```

Erasing of XMLData objects

XMLData provides two methods for the deletion of child objects, [XMLData.EraseAllChildren](#) and [XMLData.EraseCurrentChild](#).

To erase XMLData objects you need access to the parent of the elements you want to remove. Use [XMLData.GetFirstChild](#) and [XMLData.GetNextChild](#) to get a reference to the parent XMLData object.

See the method descriptions of [XMLData.EraseAllChildren](#) and [XMLData.EraseCurrentChild](#) for examples how to erase XML elements.

1.14 DOM and XMLData

The XMLData interface gives you full access to the XML structure of the current document with less methods than DOM and is also much simpler. The XMLData interface is a minimalist approach to reading and modifying existing, or newly created XML data. You might however, want to use a DOM tree because you can access one from an external source, or you just prefer the MSXML DOM implementation.

The **ProcessDOMNode()** and **ProcessXMLDataNode()** functions provided below convert any segments of an XML structure between XMLData and DOM.

To use the **ProcessDOMNode()** function:

- pass the root element of the DOM segment you want to convert in **objNode** and
- pass the plug-in object with the CreateChild() method in **objCreator**

To use the **ProcessXMLDataNode()** function:

- pass the root element of the XMLData segment in **objXMLData** and
- pass the DOMDocument object created with MSXML in **xmlDoc**

```

////////////////////////////////////
// DOM to XMLData conversion

function ProcessDOMNode( objNode, objCreator )
{
    var objRoot;
    objRoot = CreateXMLDataFromDOMNode( objNode, objCreator );

    if( objRoot ) {
        if( ( objNode.nodeValue != null ) && ( objNode.nodeValue.length > 0 ) )
            objRoot.TextValue = objNode.nodeValue;

        // add attributes
        if( objNode.attributes ) {
            var Attribute;
            var oNodeList = objNode.attributes;

            for( var i = 0; i < oNodeList.length; i++ ) {
                Attribute = oNodeList.item( i );

                var newNode;
                newNode = ProcessDOMNode( Attribute, objCreator );

                objRoot.AppendChild( newNode );
            }
        }

        if( objNode.hasChildNodes ) {
            try {
                // add children
                var Item;
                oNodeList = objNode.childNodes;

                for( var i = 0; i < oNodeList.length; i++ ) {
                    Item = oNodeList.item( i );

                    var newNode;
                    newNode = ProcessDOMNode( Item, objCreator );

                    objRoot.AppendChild( newNode );
                }
            }
        }
    }
}

```

```

        catch(err) {
        }
    }
}

return objRoot;
}

function CreateXMLDataFromDOMNode( objNode, objCreator)
{
    var bSetName = true;
    var bSetValue = true;

    var nKind = 4;

    switch( objNode.nodeType) {
        case 2: nKind = 5; break;
        case 3: nKind = 6; bSetName = false; break;
        case 4: nKind = 7; bSetName = false; break;
        case 8: nKind = 8; bSetName = false; break;
        case 7: nKind = 9; break;
    }

    var objNew = null;
    objNew = objCreator.CreateChild( nKind );

    if( bSetName)
        objNew.Name = objNode.nodeName;

    if( bSetValue && ( objNode.nodeValue != null))
        objNew.TextValue = objNode.nodeValue;

    return objNew;
}

////////////////////////////////////
// XMLData to DOM conversion

function ProcessXMLDataNode( objXMLData, xmlDoc)
{
    var objRoot;
    objRoot = CreateDOMNodeFromXMLData( objXMLData, xmlDoc );

    if( objRoot ) {
        if( IsTextNodeEnabled( objRoot ) && ( objXMLData.TextValue.length > 0 ))
            objRoot.appendChild( xmlDoc.createTextNode( objXMLData.TextValue ) );

        if( objXMLData.HasChildren ) {
            try {
                var objChild;
                objChild = objXMLData.GetFirstChild( -1 );

                while( true ) {
                    if( objChild ) {
                        var newNode;
                        newNode = ProcessXMLDataNode( objChild, xmlDoc );

                        if( newNode.nodeType == 2 ) {
                            // child node is an attribute
                            objRoot.attributes.setNamedItem( newNode );
                        }
                    }
                    else

```

```
        objRoot.appendChild( newNode );
    }

    objChild = objXMLData.GetNextChild();
}
}
catch( err ) {
}
}
}

return objRoot;
}

function CreateDOMNodeFromXMLData( objXMLData, xmlDoc )
{
    switch( objXMLData.Kind ) {
        case 4: return xmlDoc.createElement( objXMLData.Name );
        case 5: return xmlDoc.createAttribute( objXMLData.Name );
        case 6: return xmlDoc.createTextNode( objXMLData.TextValue );
        case 7: return xmlDoc.createCDATASection( objXMLData.TextValue );
        case 8: return xmlDoc.createComment( objXMLData.TextValue );
        case 9: return
xmlDoc.createProcessingInstruction( objXMLData.Name, objXMLData.TextValue );
    }

    return xmlDoc.createElement( objXMLData.Name );
}

function IsTextNodeEnabled( objNode )
{
    switch( objNode.nodeType ) {
        case N:
        case 2:
        case 5:
        case 6:
        case NN: return true;
    }

    return false;
}
```

2 Objects

This section contains a listing and description of the various Authentic Browser objects.

2.1 Authentic

See also

Methods

[StartEditing](#)

[LoadXML](#)

[Reset](#)

[Save](#)

[SavePOST](#)

[SaveXML](#)

[ValidateDocument](#)

[EditClear](#)

[EditCopy](#)

[EditCut](#)

[EditPaste](#)

[EditRedo](#)

[EditSelectAll](#)

[EditUndo](#)

[RowAppend](#)

[RowDelete](#)

[RowDuplicate](#)

[RowInsert](#)

[RowMoveDown](#)

[RowMoveUp](#)

[FindDialog](#)

[FindNext](#)

[ReplaceDialog](#)

[ApplyTextState](#)

[IsTextStateApplied](#)

[IsTextStateEnabled](#)

[MarkUpView](#)

[Print](#)

[PrintPreview](#)

[CreateChild](#)

[GetAllowedElements](#)

[GetAllAttributes](#)

[GetNextVisible](#)
[GetPreviousVisible](#)

[SelectionMoveTabOrder](#)
[SelectionSet](#)
[ClearSelection](#)

[attachCallBack](#)

[ReloadToolbars](#)

[StartSpellChecking](#)

[GetFileVersion](#)

[RedrawEntryHelpers](#)

[SetUnmodified](#)
[ClearUndoRedo](#)

Properties

[AuthenticView](#)
[IsEditClearEnabled](#)
[IsEditCopyEnabled](#)
[IsEditCutEnabled](#)
[IsEditPasteEnabled](#)
[IsEditRedoEnabled](#)
[IsEditUndoEnabled](#)

[IsFindNextEnabled](#)

[IsRowAppendEnabled](#)
[IsRowDeleteEnabled](#)
[IsRowDuplicateEnabled](#)
[IsRowInsertEnabled](#)
[IsRowMoveDownEnabled](#)
[IsRowMoveUpEnabled](#)

[SchemaLoadObject](#)
[XMLDataLoadObject](#)
[DesignDataLoadObject](#)

[XMLDataSaveUrl](#)

[XMLRoot](#)

[CurrentSelection](#)

[event](#)

[validationBadData](#)

[validationMessage](#)

[ToolbarsEnabled](#)

[ToolbarTooltipsEnabled](#)

[AutoHideUnusedCommandGroups](#)

[TextStateToolbarLine](#)

[TextStateBmpURL](#)

[ToolbarRows](#)

[UICommands](#)

[XMLTable](#)

[BaseURL](#)

[EntryHelpersEnabled](#)

[EntryHelperSize](#)

[EntryHelperAlignment](#)

[EntryHelperWindows](#)

[EnableModifications](#)

[Modified](#)

[SaveButtonAutoEnable](#)

Events

[SelectionChanged](#)

[ControllInitialized](#)

Description

Authentic Class

2.1.1 Authentic.ApplyTextState

See also

Declaration: `ApplyTextState(elementName as String)`

Description

Applies or removes the text state defined by the parameter `elementName`. Common examples for the parameter `elementName` would be `strong` and `italic`.

In an XML document there are segments of data, which may contain sub-elements. For example consider the following HTML:

```
<b>fragments</b>
```

The HTML tag `` will cause the word `fragments` to be bolded. However, this only happens because the HTML parser knows that the tag `` is bold. With XML there is much more flexibility. It is possible to define any XML tag to do anything you desire. The point is that it is possible to apply a Text state using XML. But the Text state that is applied must be part of the schema.

For example in the `OrgChart.xml` `OrgChart.sps`, `OrgChart.xsd` example the tag `` is the same as bold. And to apply bold the method **ApplyTextState()** is called. But like the row and edit operations it is necessary to test if it is possible to apply the text state.

See also [IsTextStateEnabled](#) and [IsTextStateApplied](#).

2.1.2 Authentic.attachCallback

Deprecated

Use connection point events instead as described [here](#).

See also

Declaration: `attachCallback(bstrName as String, varCallback as Variant)`

Description

The Authentic View provides events which can be handled using custom callback functions. All event handlers take no parameters and any returned value will be ignored. To retrieve information when a specific event is raised you have to read the according properties of the [event](#) object.

List of currently available events:

- ondragover
- ondrop
- onkeydown
- onkeyup
- onkeypressed
- onmousemove
- onbuttonup
- onbuttondown
- oneditpaste
- oneditcut
- oneditcopy

Since version 3.0.0.0:

- ondoceditcommand

Since version: 5.3.0.0:

- onbuttondoubleclick

JavaScript example:

```
// somewhere in your script:
objPlugIn.attachCallback( "ondragover", OnDragOver );
objPlugIn.attachCallback( "ondrop", OnDrop );

// event handlers
function OnDragOver()
{
    if(!objPlugIn.event.dataTransfer.ownDrag &&
        objPlugIn.event.dataTransfer.type == "TEXT")
    {
        objPlugIn.event.dataTransfer.dropEffect = N;
        objPlugIn.event.cancelBubble = true;
    }
}

// OnDrop() replaces the complete text value of the XML
```

```
// element with the selection from the drag operation
function OnDrop()
{
    var objTransfer = objPlugIn.event.dataTransfer;

    if(!objTransfer.ownDrag &&
        (objTransfer.type == "TEXT"))
        objPlugIn.event.srcElement.TextValue = objTransfer.getData();
}
```

2.1.3 AuthenticView

See also

Declaration: [AuthenticView](#) as [AuthenticView](#) (read-only)

Description

Returns an object that gives access to properties and methods specific to the Authentic view.

[AuthenticView](#) overlaps with the existing view specific functionality. Future versions of AuthenticView will include all view-specific functionality. The AuthenticView object is the recommended interface for all future implementations.

Examples

Please see the [Bubble sort of dynamic tables](#) for information on how to use the AuthenticView object.

2.1.4 Authentic.AutoHideUnusedCommandGroups

Declaration: `AutoHideUnusedCommandGroups` as `Boolean`

Description

True if unused Toolbar - CommandGroups are hidden automatically (e.g. XML - table commands, if the current SPS file does not support XML tables)

Default value: true

2.1.5 Authentic.BaseURL

Declaration: `BaseURL` as `String`

Description

This property sets the base URL to resolve relative paths.
If no URL is set, the location of the current XML file is used.

2.1.6 Authentic.ClearSelection

Declaration: [ClearSelection\(\)](#)

Description

The method clears the current selection. Any following attempt to get the selection using the CurrentSelection property, fails until the user selects a node or a successful call to [SelectionSet\(\)](#) has been processed.

Before a node that has the current selection can be deleted, the selection must be set to a different node or cleared.

2.1.7 Authentic.ClearUndoRedo

Declaration: [ClearUndoRedo\(\)](#)

Description

The method clears the whole Undo/Redo buffer.

2.1.8 Authentic.ControlInitialized

See also

Declaration: [ControlInitialized](#)

Description

This event is raised when the control is created and initialized.

See also [Connection point events](#).

2.1.9 Authentic.CreateChild

See also

Declaration: `CreateChild(nKind as SPYXMLDataKind) as XMLData`

Return Value

New XML node

Description

The CreateChild method is used to create new nodes which you can insert into the XML structure of the current document using the [XMLData](#) interface.

See also [XMLData.AppendChild](#) and [XMLData.InsertChild](#)

2.1.10 Authentic.CurrentSelection

See also

Declaration: [CurrentSelection](#) as [AuthenticSelection](#)

Description

The property provides access to the current selection in the Authentic View.

The example code below retrieves the complete text of the current selection:

JavaScript:

```
// somewhere in your script:
GetSelection(objPlugIn.CurrentSelection);

// GetSelection() collects complete text selection
function GetSelection(objSel)
{
    var strText = "";

    var objCurrent = objSel.Start;

    while(! objSel.End.IsSameNode( objCurrent) )
    {
        objCurrent = objPlugIn.GetNextVisible(objCurrent);
        strText += objCurrent.TextValue;
    }

    strText += objSel.End.TextValue.substring(0,objSel.EndTextPosition);
    return objSel.Start.TextValue.substr(objSel.StartTextPosition) + strText;
}
```

2.1.11 Authentic.DesignDataLoadObject

See also

Declaration: [DesignDataLoadObject](#) as [AuthenticLoadObject](#)

Description

The DesignDataLoadObject contains a reference to the SPS document. The SPS document is used to generate the WYSIWYG editing environment and is typically generated by StyleVision.

See also [SchemaLoadObject](#) for an example.

2.1.12 Authentic.EditClear

See also

Declaration: [EditClear](#)

Description

Clears the current selection.

2.1.13 Authentic.EditCopy

See also

Declaration: [EditCopy](#)

Description

Copies the current selection to the clipboard.

2.1.14 Authentic.EditCut

See also

Declaration: [EditCut](#)

Description

Cuts the current selection from the document and copies it to the clipboard.

2.1.15 Authentic.EditPaste

See also

Declaration: [EditPaste](#)

Description

Pastes the content from the clipboard into the document.

2.1.16 Authentic.EditRedo

See also

Declaration: [EditRedo](#)

Description

Redo the last undo step.

2.1.17 Authentic.EditSelectAll

See also

Declaration: [EditSelectAll](#)

Description

The method selects the complete document.

2.1.18 Authentic.EditUndo

See also

Declaration: [EditUndo](#)

Description

Undo the last action.

2.1.19 Authentic.EnableModifications

Declaration: [EnableModifications](#) as [Boolean](#)

Description

True if Authentic Browser modifications to the XML content are enabled. See also the [Modified](#) property.

Default value: TRUE

2.1.20 Authentic.EntryHelperAlignment

Declaration: [EntryHelperAlignment](#) as [SPYAuthenticToolbarAlignment](#)

Description

This property can be used to set the position of the entry helpers. The default value is 3, which places the entry helpers on the right side.

2.1.21 Authentic.EntryHelpersEnabled

Declaration: `EntryHelpersEnabled` as `Boolean`

Description

True if Authentic Browser entry helpers are enabled.

This property can be used to enable or disable the entry helpers.

Default value: FALSE

2.1.22 Authentic.EntryHelperSize

Declaration: `EntryHelperSize` as `Integer`

Description

This property can be used to set the initial size of the entry helpers area in pixels. Set the property to -1 if this value should be ignored.

Default value: -1

2.1.23 Authentic.EntryHelperWindows

Declaration: [EntryHelperWindows](#) as [SPYAuthenticEntryHelperWindows](#)

Description

This property can be used to define which of the entry helpers should be displayed. The values can be combined to display more than one entry helper window. The default value is 7 to show all three entry helpers.

2.1.24 Authentic.event

See also

Declaration: [event](#) as [AuthenticEvent](#)

Description

The event property holds an event data object which contains informations about the current event.

2.1.25 Authentic.FindDialog

See also

Declaration: [FindDialog](#)

Description

Displays the FindDialog.

See also [Find and replace](#).

2.1.26 Authentic.FindNext

See also

Declaration: [FindNext](#)

Description

The method performs a find next operation.

See also [Find and replace](#).

2.1.27 Authentic.GetAllAttributes

See also

Declaration: `GetAllAttributes(pForElement as XMLData, pElements as Variant)`

Description

GetAllAttributes() returns the allowed attributes for the specified element as an array of strings.

JavaScript example:

```
function GetAllAttributes()
{
    var arrElements = new Array(N);

    var objStart = objPlugIn.CurrentSelection.Start;

    var strText;
    strText = "Valid attributes at current selection:\n\n";

    for( var i = N; i <= 4; i++)
    {
        objPlugIn.GetAllAttributes(objStart, arrElements);
        strText = strText + ListArray(arrElements) + "-----\n";
    }

    return strText;
}

function ListArray(arrIn)
{
    var strText = "";

    if( typeof( arrIn ) == "object" )
    {
        for( var i = 0; i <= ( arrIn.length - N ); i++)
            strText = strText + arrIn[i] + "\n";
    }

    return strText;
}
```

VBScript example:

```
Sub DisplayAllowedAttributes
    dim arrElements()

    dim objStart
    dim objEnd
    set objStart = objPlugIn.CurrentSelection.Start
    set objEnd = objPlugIn.CurrentSelection.End

    dim strText
    strText = "Valid attributes at current selection:" & chr(N3) & chr(N3)

    dim i

    For i = N To 4
        objView.GetAllAttributes objStart, arrElements
        strText = strText & ListArray(arrElements) & "-----" & chr(N3)
    Next

    msgbox strText
```

```
End Sub

Function ListArray( arrIn)
    dim strText

    If IsArray( arrIn) Then
        dim i

        For i = 0 To UBound( arrIn)
            strText = strText & arrIn(i) & chr( N3)
        Next
    End If

    ListArray = strText
End Function
```

2.1.28 Authentic.GetAllowedElements

See also

Declaration: `GetAllowedElements(nAction as SPYAuthenticElementActions,
pStartElement as XMLData,pEndElement as XMLData,pElements as Variant)`

Description

GetAllowedElements() returns the allowed elements for the various actions specified by nAction.

JavaScript example:

```
function GetAllowed()
{
    var arrElements = new Array( N );

    var objStart = objPlugIn.CurrentSelection.Start;
    var objEnd = objPlugIn.CurrentSelection.End;

    var strText;
    strText = "valid elements at current selection:\n\n";

    for( var i = 0; i <= 4; i++) {
        objPlugIn.GetAllowedElements(i, objStart, objEnd, arrElements);
        strText = strText + ListArray( arrElements ) + "-----\n";
    }

    return strText;
}

function ListArray( arrIn )
{
    var strText = "";

    if( typeof( arrIn ) == "object" ) {
        for( var i = 0; i <= ( arrIn.length - N ); i++)
            strText = strText + arrIn[ i ] + "\n";
    }

    return strText;
}
```

VBScript example:

```
Sub DisplayAllowed
    dim arrElements()

    dim objStart
    dim objEnd
    set objStart = objPlugIn.CurrentSelection.Start
    set objEnd = objPlugIn.CurrentSelection.End

    dim strText
    strText = "Valid elements at current selection:" & chr( N3 ) & chr( N3)

    dim i

    For i = N To 4
        objView.GetAllowedElements i, objStart, objEnd, arrElements
        strText = strText & ListArray( arrElements ) & "-----" & chr( N3)
    Next
```



```
        msgbox strText
    End Sub

Function ListArray(arrIn)
    dim strText

    If IsArray(arrIn) Then
        dim i

        For i = 0 To UBound(arrIn)
            strText = strText & arrIn(i) & chr(N3)
        Next
    End If

    ListArray = strText
End Function
```

2.1.29 Authentic.GetFileVersion

See also

Declaration: `GetFileVersion(strVersion as String)`

Description

The method simply returns the version of the component as a string in the format 5.0.0.0.

2.1.30 Authentic.GetNextVisible

See also

Declaration: `GetNextVisible(pElement as XMLData) as XMLData`

Description

The method gets the next visible XML element in the document.

2.1.31 Authentic.GetPreviousVisible

See also

Declaration: `GetPreviousVisible(pElement as XMLData) as XMLData`

Description

The method gets the previous visible XML element in the document.

2.1.32 Authentic.IsEditClearEnabled

See also

Declaration: [IsEditClearEnabled](#) as [Boolean](#)

Description

True if [EditClear](#) is possible.

See also [Editing operations](#).

2.1.33 Authentic.IsEditCopyEnabled

See also

Declaration: [IsEditCopyEnabled](#) as [Boolean](#)

Description

True if copy to clipboard is possible.

See also [EditCopy](#) and [Editing operations](#).

2.1.34 Authentic.IsEditCutEnabled

See also

Declaration: [IsEditCutEnabled](#) as [Boolean](#)

Description

True if [EditCut](#) is currently possible.

See also [Editing operations](#).

2.1.35 Authentic.IsEditPasteEnabled

See also

Declaration: [IsEditPasteEnabled](#) as [Boolean](#)

Description

True if [EditPaste](#) is possible.

See also [Editing operations](#).

2.1.36 Authentic.IsEditRedoEnabled

See also

Declaration: [IsEditRedoEnabled](#) as [Boolean](#)

Description

True if [EditRedo](#) is currently possible.

See also [Editing operations](#).

2.1.37 Authentic.IsEditUndoEnabled

See also

Declaration: [IsEditUndoEnabled](#) as [Boolean](#)

Description

True if [EditUndo](#) is possible.

See also [Editing operations](#).

2.1.38 Authentic.IsFindNextEnabled

See also

Declaration: [IsFindNextEnabled](#) as [Boolean](#)

Description

True if FindNext is currently possible. False if no more occurrences are left.

See also [Find and replace](#) and [FindDialog](#).

2.1.39 Authentic.IsRowAppendEnabled

See also

Declaration: [IsRowAppendEnabled](#) as [Boolean](#)

Description

True if [RowAppend](#) is possible.

See also [Row operations](#).

2.1.40 Authentic.IsRowDeleteEnabled

See also

Declaration: [IsRowDeleteEnabled](#) as [Boolean](#)

Description

True if [RowDelete](#) is possible.

See also [Row operations](#).

2.1.41 Authentic.IsRowDuplicateEnabled

See also

Declaration: [IsRowDuplicateEnabled](#) as [Boolean](#)

Description

True if [RowDuplicate](#) is currently possible.

See also [Row operations](#).

2.1.42 Authentic.IsRowInsertEnabled

See also

Declaration: [IsRowInsertEnabled](#) as [Boolean](#)

Description

True if [RowInsert](#) is possible.

See also [Row operations](#).

2.1.43 Authentic.IsRowMoveDownEnabled

See also

Declaration: [IsRowMoveDownEnabled](#) as [Boolean](#)

Description

True if [RowMoveDown](#) is currently possible.

See also [Row operations](#).

2.1.44 Authentic.IsRowMoveUpEnabled

See also

Declaration: [IsRowMoveUpEnabled](#) as [Boolean](#)

Description

True if [RowMoveUp](#) is possible.

See also [Row operations](#).

2.1.45 Authentic.IsTextStateApplied

See also

Declaration: `IsTextStateApplied(elementName as String) as Boolean`

Description

Checks to see if the it the text state has already been applied. Common examples for the parameter `elementName` would be `strong` and `italic`.

2.1.46 Authentic.IsTextStateEnabled

See also

Declaration: `IsTextStateEnabled(elementName as String) as Boolean`

Description

Checks to see if it is possible to apply a text state. Common examples for the parameter `elementName` would be `strong` and `italic`.

2.1.47 Authentic.LoadXML

See also

Declaration: `LoadXML(xmlString as String)`

Description

Loads the current XML document with the XML string applied. The new content is displayed immediately.

2.1.48 Authentic.MarkUpView

See also

Declaration: [MarkUpView](#)(*kind* as [SPYAuthenticMarkupVisibility](#))

Description

By default the document displayed is using HTML techniques. But sometimes it is desirable to show the editing tags. Using this method it is possible to display different types of markup tags.

2.1.49 Authentic.Modified

Declaration: Modified as Boolean

Description

True if XML content is modified.

This property is read-only.

2.1.50 Authentic.Print

See also

Declaration: [Print](#)

Description

Print the current document being edited.

2.1.51 Authentic.PrintPreview

See also

Declaration: [PrintPreview](#)

Description

Print preview the document being edited.

2.1.52 Authentic.RedrawEntryHelpers

Declaration: [RedrawEntryHelpers\(\)](#)

Description

RedrawEntryHelpers takes the values from the [EntryHelpersEnabled](#), [EntryHelperAlignment](#), [EntryHelperSize](#) and [EntryHelperWindows](#) properties and redraws the entry helper windows.

2.1.53 Authentic.ReloadToolbars

Declaration: [ReloadToolbars\(\)](#)

Description

ReloadToolbars reads the [ToolbarRows](#) collection and redraws the toolbars and the view.

2.1.54 Authentic.ReplaceDialog

See also

Declaration: [ReplaceDialog](#)

Description

Displays the ReplaceDialog.

See also [Find and replace](#).

2.1.55 Authentic.Reset

Deprecated

Use [Authentic.StartEditing](#) instead.

See also

Declaration: [Reset](#)

Description

Reset the data being edited. Typically called before editing a new set of XML, XSL and SPS documents.

The method does not change the view and its still possible to continue working with the currently displayed document.

2.1.56 Authentic.RowAppend

See also

Declaration: [RowAppend](#)

Description

Appends a row at the current position.

See also [Row operations](#).

2.1.57 Authentic.RowDelete

See also

Declaration: [RowDelete](#)

Description

Deletes the currently selected row(s).

See also [Row operations](#).

2.1.58 Authentic.RowDuplicate

See also

Declaration: [RowDuplicate](#)

Description

The method duplicates the currently selected rows.

See also [Row operations](#).

2.1.59 Authentic.RowInsert

See also

Declaration: [RowInsert](#)

Description

Inserts a new row immediately above the current selection.

See also [Row operations](#).

2.1.60 Authentic.RowMoveDown

See also

Declaration: [RowMoveDown](#)

Description

Moves the current row one position down.

See also [Row operations](#).

2.1.61 Authentic.RowMoveUp

See also

Declaration: [RowMoveUp](#)

Description

Moves the current row one position up.

See also [Row operations](#).

2.1.62 Authentic.Save

See also

Declaration: [Save](#)

Description

Saves the document to the URL specified by the property [XMLDataSaveUrl](#). For the Untrusted versions, you can also use a full local path.

The plug-in sends an HTTP PUT request to the server to save the currently displayed XML file.

2.1.63 Authentic.SaveButtonAutoEnable

Declaration: `SaveButtonAutoEnable` as `Boolean`

Description

If this property is set to TRUE, the enabled/disabled state of the Save button in the Toolbar of the control is set according to the [Modified](#) flag of the document.

Default value is FALSE.

2.1.64 Authentic.SavePOST

See also

Declaration: [SavePOST](#)

Description

Saves the document to the URL specified by the property [XMLDataSaveUrl](#). For the Untrusted versions, you can also use a full local path. The plug-in sends an HTTP POST request to the server to save the currently displayed XML file.

Checking whether file was saved or not

If the Authentic plug-in receives an HTTP response of ≥ 300 it will assume the file has **not** been saved and will (by default) pop-up first a message box containing the HTTP error response, then a second (suppressible) message box advising the user that the file has not been saved. It is up to the application developer to ensure that the correct HTTP response is returned according to the success or failure of the save attempt. An example of PHP code to achieve this might look like this:

```
<?php
// suppress error messages to prevent any output
// being generated before headers can be sent
error_reporting (0);
$error = false;
$handle = fopen ( "result.xml", "w+" );
if (! $handle)
    $error = true;
else
{
    if (! fwrite($handle, $HTTP_RAW_POST_DATA))
        $error = true;
    else
        fclose($handle);
}
if ($error)
    header( "HTTP/N.N 500 Server Error" );
?>
```

2.1.65 Authentic.SaveXML

See also

Declaration: `SaveXML` as `String`

Return Value

XML structure as string

Description

Saves the current XML data to a string that is returned to the caller.

2.1.66 Authentic.SchemaLoadObject

See also

Declaration: [SchemaLoadObject](#) as [AuthenticLoadObject](#)

Description

The SchemaLoadObject contains an reference to the XML Schema document for the current XML file. The Schema document is typically generated using XMLSpy.

Example

```
objPlugIn.SchemaLoadObject.URL = "http://www.YOURSERVER.com/OrgChart.xsd"  
objPlugIn.XMLDataLoadObject.URL = "http://www.YOURSERVER.com/OrgChart.xml"  
objPlugIn.DesignDataLoadObject.URL = "http://www.YOURSERVER.com/OrgChart.sps"  
objPlugIn.StartEditing
```

The code above sets all URL properties of the load objects and calls [StartEditing](#) to load and display the files. For the Untrusted versions, you can also use a full local path. The current content and status of the plug-in will be cleared.

2.1.67 Authentic.SelectionChanged

See also

Declaration: [SelectionChanged](#) as VT_0019

Description

This event is raised whenever the user changes the current selection.

See also [Connection point events](#).

2.1.68 Authentic.SelectionMoveTabOrder

See also

Declaration: `SelectionMoveTabOrder(bForward as Boolean,bTag as Boolean)`

Description

`SelectionMoveTabOrder()` moves the current selection forwards or backwards.

If `bTag` is false and the current selection is at the last cell of a table a new line will be added.

2.1.69 Authentic.SelectionSet

See also

Declaration: `SelectionSet(pStartElement as XMLData, nStartPos as long, pEndElement as XMLData, nEndPos as long) as Boolean`

Description

Use SelectionSet() to set a new selection in the Authentic View. Its possible to set pEndElement to null (nothing) if the selection should be just over one (pStartElement) XML element.

2.1.70 Authentic.SetUnmodified

Declaration: [SetUnmodified\(\)](#)

Description

After calling this method, the current condition of the Undo/Redo buffer is taken as the clean state of the underlying XML document and the [Modified](#) flag is set to FALSE.

2.1.71 Authentic.StartEditing

See also

Declaration: [StartEditing](#) as [Boolean](#)

Return Value

True if all files were successfully loaded and displayed.

Description

Start editing the current document. It is important to set the properties of the load objects [SchemaLoadObject](#), [DesignDataLoadObject](#) and [XMLDataLoadObject](#) first.

2.1.72 Authentic.StartSpellChecking

Declaration: [StartSpellChecking\(\)](#)

Description

This command opens the spell check dialog if a package containing the spell check engine and the required lexicons is available and activated.

2.1.73 Authentic.TextStateBmpURL

Declaration: `TextStateBmpURL` as `String`

Description

The URL from which the bitmaps for the text-state icons should be retrieved.
If no URL is specified, no text-state buttons are displayed.

Examples

`objPlugIn.TextStateBmpURL = "<http://plugin.xmlspy.com/textstates/>"`

```
<PARAM NAME="TextStateBmpURL" VALUE="http://plugin.xmlspy.com/textstates/">
```

2.1.74 Authentic.TextStateToolbarLine

Declaration: `TextStateToolbarLine` as `long`

Description

The toolbar (line number) in which the text-state icons should be placed. Text-state icons can be appended to existing toolbars or placed in new toolbars.

Default value: 1

2.1.75 Authentic.ToolbarRows

Declaration: [ToolbarRows](#) as [AuthenticToolbarRows](#)

Description

Gets a collection of all toolbars to be displayed. See description of [AuthenticToolbarRows](#), how toolbars can be deleted, added or modified.

2.1.76 Authentic.ToolbarsEnabled

Declaration: ToolbarsEnabled as Boolean

Description

True if Authentic Browser Toolbars are enabled.
This property can be used to enable or disable all toolbars.
Default value: true

2.1.77 Authentic.ToolbarToolTipsEnabled

Declaration: `ToolbarToolTipsEnabled` as `Boolean`

Description

True if the Tooltips for the Authentic Browser Toolbars are enabled.
Default value: true

2.1.78 Authentic.UICommands

Declaration: [UICommands](#) as [AuthenticCommands](#)

Description

Gets a collection of all available toolbar commands (with description).
For these commands, buttons can be placed on different toolbars.
Read only.

Example

Get all available commands, command-groups, descriptions, and show them in a message box

```
dim str
for each UICommand in objPlugin.UICommands
str = str & UICommand.CommandID & " | " & UICommand.Group & " | " &
UICommand.ShortDescription & chr(13)
next
msgbox str
```

2.1.79 Authentic.ValidateDocument

See also

Declaration: `ValidateDocument(showResults as Boolean) as Boolean`

Return Value

result of validation

Description

Validates the current XML data for correctness as per the XML schema data. If the parameter showResults is FALSE then the validation errors will be suppressed, otherwise validation errors are shown.

2.1.80 Authentic.validationBadData

See also

Declaration: `validationBadData` as [XMLData](#)

Description

This property can provide additional information about the last validation error. It gets set after a call to `ValidateDocument()` and is either null or holds a reference to the XML element which causes the error.

2.1.81 Authentic.validationMessage

See also

Declaration: `validationMessage` as `String`

Description

If the validation failed (after a call to `ValidateDocument`) this property stores a string with the error message.

2.1.82 Authentic.XMLDataLoadObject

See also

Declaration: [XMLDataLoadObject](#) as [AuthenticLoadObject](#)

Description

The XMLDataLoadObject contains an reference to the XML document being edited. The XML document is typically defined using XMLSpy, but generated using a database or another business process.

See also [SchemaLoadObject](#) for an example.

2.1.83 Authentic.XMLDataSaveUrl

See also

Declaration: [XMLDataSaveUrl](#) as [String](#)

Description

When the XML data has been modified it is possible to save the data back to a server using an URL. When saving the XML data via an `HTTP PUT` using the `Authentic.Save` method, this property defines the location where the XML data will be saved. When posting the data via an `HTTP POST` using the `Authentic.SavePOST` method, this property defines the location of a server-side script/application which will process the `POST` data. For the Untrusted versions, you can also use a full local path.

See also the [Authentic.Save](#) and the [Authentic.SavePOST](#) methods.

2.1.84 Authentic.XMLRoot

See also

Declaration: [XMLRoot](#) as [XMLData](#)

Description

XMLRoot is the parent element of the currently displayed XML structure. Using the [XMLData](#) interface you have full access to the complete content of the file.

See also [Using XMLData](#) for more informations.

2.1.85 Authentic.XMLTable

Declaration: [XMLTable](#) as [AuthenticXMLTableCommands](#)

Description

Get a set of all XML table commands.
Read only.

2.2 AuthenticCommand

Methods

Properties

[CommandID](#)

[Group](#)

[ShortDescription](#)

[Name](#)

2.2.1 AuthenticCommand.CommandID

Declaration: [CommandID](#) as [SPYAuthenticCommand](#)

Description

Get the CommandId of the command

Possible values: see AuthenticToolBarButton

Read only

Example

See Example at [Authentic.UICommands](#)

2.2.2 AuthenticCommand.Group

Declaration: [Group](#) as [SPYAuthenticCommandGroup](#)

Description

The CommandGroup to which the command belongs to.
Read only

Example

See Example at [Authentic.UICommands](#)

2.2.3 AuthenticCommand.ShortDescription

Declaration: `ShortDescription` as `String`

Description

Short description of the command (e.g. the tooltip text)
Read only

Example

See Example at [Authentic.UICommands](#)

2.2.4 AuthenticCommand.Name

Declaration: Name as String

Description
for future use

2.3 AuthenticCommands

Methods

[Item](#)

Properties

[Count](#)

2.3.1 AuthenticCommands.Count

Declaration: Count as long

Description

Number of available UI commands.
Read only

2.3.2 AuthenticCommands.Item

Declaration: `Item (nPosition as long) as AuthenticCommand`

Description

Get command of position nPosition. nPosition starts with 1.

2.4 AuthenticDataTransfer

See also

Methods

[getData](#)

Properties

[dropEffect](#)

[ownDrag](#)

[type](#)

Description

AuthenticDataTransfer interface.

2.4.1 AuthenticDataTransfer.dropEffect

See also

Declaration: `dropEffect` as `long`

Description

The property stores the drop effect from the default event handler. You can set the drop effect if you change this value and set [AuthenticEvent.cancelBubble](#) to TRUE.

2.4.2 AuthenticDataTransfer.getData

See also

Declaration: [getData](#) as [Variant](#)

Description

getData gets the actual data associated with this dataTransfer object. See also [AuthenticDataTransfer.type](#) for more informations.

2.4.3 AuthenticDataTransfer.ownDrag

See also

Declaration: `ownDrag` as `Boolean`

Description

The property is TRUE if the current dragging source comes from inside of the Authentic View.

2.4.4 AuthenticDataTransfer.type

See also

Declaration: `type` as `String`

Description

Holds the type of the data you get with the [AuthenticDataTransfer.getData](#) method.

Currently supported data types are:

OWN	data from plug-in itself
TEXT	plain text
UNICODETEXT	plain text as UNICODE
IUNKNOWN	IUnknown reference to IDataObject instance

2.5 AuthenticEvent

See also

Properties

[altKey](#)

[altLeft](#)

[ctrlKey](#)

[ctrlLeft](#)

[shiftKey](#)

[shiftLeft](#)

[keyCode](#)

[repeat](#)

[button](#)

[clientX](#)

[clientY](#)

[dataTransfer](#)

[srcElement](#)

[fromElement](#)

[propertyName](#)

[cancelBubble](#)

[returnValue](#)

[type](#)

Description

AuthenticEvent interface.

2.5.1 AuthenticEvent.altKey

See also

Declaration: altKey as Boolean

Description

True if the right ALT key is pressed.

2.5.2 AuthenticEvent.altLeft

See also

Declaration: altLeft as Boolean

Description

True if the left ALT key is pressed.

2.5.3 AuthenticEvent.button

See also

Declaration: `button` as `long`

Description

Specifies which mouse button is pressed:

- 0 No button is pressed.
- 1 Left button is pressed.
- 2 Right button is pressed.
- 3 Left and right buttons are both pressed.
- 4 Middle button is pressed.
- 5 Left and middle buttons both are pressed.
- 6 Right and middle buttons are both pressed.
- 7 All three buttons are pressed.

The `onbuttondown` and `onbuttonup` events set the `button` value in different ways. The `onbuttonup` event just sets the value for the button which has been released and raised the up event regardless which buttons are also pressed at the moment.

2.5.4 AuthenticEvent.cancelBubble

See also

Declaration: `cancelBubble` as `Boolean`

Description

Set `cancelBubble` to `TRUE` if the default event handler should not be called.

2.5.5 AuthenticEvent.clientX

See also

Declaration: `clientX` as `long`

Description

X value of the current mouse position in client coordinates.

2.5.6 AuthenticEvent.clientY

See also

Declaration: clientY as long

Description

Y value of the current mouse position in client coordinates.

2.5.7 AuthenticEvent.ctrlKey

See also

Declaration: ctrlKey as Boolean

Description

True if the right CTRL key is pressed.

2.5.8 AuthenticEvent.ctrlLeft

See also

Declaration: ctrlLeft as Boolean

Description

True if the left CTRL key is pressed.

2.5.9 AuthenticEvent.dataTransfer

See also

Declaration: `dataTransfer` as `Variant`

Description

property dataTransfer

2.5.10 AuthenticEvent.fromElement

See also

Declaration: [fromElement](#) as [Variant](#)

Description

Currently no event sets this property.

2.5.11 AuthenticEvent.keyCode

See also

Declaration: `keyCode` as `long`

Description

Keycode of the currently pressed key.

This property is read-write.

2.5.12 AuthenticEvent.propertyName

See also

Declaration: `propertyName` as `String`

Description

Currently no event sets this property.

2.5.13 AuthenticEvent.repeat

See also

Declaration: repeat as Boolean

Description

True if the onkeydown event is repeated.

2.5.14 AuthenticEvent.returnValue

See also

Declaration: returnValue as Variant

Description

Use returnValue to set a return value for your event handler.

2.5.15 AuthenticEvent.shiftKey

See also

Declaration: `shiftKey` as `Boolean`

Description

True if the right SHIFT key is pressed.

2.5.16 AuthenticEvent.shiftLeft

See also

Declaration: `shiftLeft` as `Boolean`

Description

True if the left SHIFT key is pressed.

2.5.17 AuthenticEvent.srcElement

See also

Declaration: [srcElement](#) as [Variant](#)

Description

Element which fires the current event.
This is usually an [XMLData](#) object.

Since version 3.0.0.0:

The property can also hold a reference to an [AuthenticCommand](#) object if was set from an ondoceditcommand event.

2.5.18 AuthenticEvent.type

See also

Declaration: `type` as `String`

Description

Currently no event sets this property.

2.6 AuthenticLoadObject

See also

Properties

[String](#)

[URL](#)

Description

The XMLSpyXMLLoadSave object is used to set the source for the files you need to load. You can either set the content directly via the String property or as an external location via the URL property.

See also [Authentic.SchemaLoadObject](#), [Authentic.DesignDataLoadObject](#) and [Authentic.XMLDataLoadObject](#) for more informations about how to use them.

2.6.1 AuthenticLoadObject.String

See also

Declaration: `String` as `String`

Description

You can use this property to set the XML structure from a string. The URL property of the object must be empty if you want to use this property.

2.6.2 AuthenticLoadObject.URL

See also

Declaration: [URL](#) as [String](#)

Description

The property should contain a valid URL for the load or save operation. Currently supported HTTP protocols are http, https, ftp and gopher.

2.7 AuthenticRange

See also

The first table lists the properties and methods of AuthenticRange that can be used to navigate through the document and select specific portions.

Properties		Methods
Application	Clone	MoveBegin
FirstTextPosition	CollapsToBegin	MoveEnd
FirstXMLData	CollapsToEnd	NextCursorPosition
FirstXMLDataOffset	ExpandTo	PreviousCursorPosition
LastTextPosition	Goto	Select
LastXMLData	GotoNext	SelectNext
LastXMLDataOffset	GotoPrevious	SelectPrevious
Parent	IsEmpty	SetFromRange
	IsEqual	

The following table lists the content modification methods, most of which can be found on the right/button mouse menu.

Properties	Edit operations	Dynamic table operations
Text	Copy	AppendRow
	Cut	DeleteRow
	Delete	DuplicateRow
	Paste	InsertRow
		IsInDynamicTable
		MoveRowDown
		MoveRowUp

The following methods provide the functionality of the Authentic entry helper windows for range objects.

Operations of the entry helper windows

Elements	Attributes	Entities
CanPerformActionWith	GetElementAttributeValue	GetEntityNames
CanPerformAction	GetElementAttributeNames	InsertEntity
PerformAction	GetElementHierarchy	
	HasElementAttribute	
	SetElementAttributeValue	

Description

AuthenticRange objects are the 'cursor' selections of the automation interface. You can use them to point to any cursor position in the Authentic view, or select a portion of the document. The operations available for AuthenticRange objects then work on this selection in the same way, as the corresponding operations of the user interface do with the current user interface selection. The main difference is that you can use an arbitrary number of AuthenticRange objects at the same time, whereas there is exactly one cursor selection in the user interface.

To get to an initial range object use [AuthenticView.Selection](#), to obtain a range corresponding with the current cursor selection in the user interface. Alternatively, some trivial ranges are accessible via the read/only properties [AuthenticView.DocumentBegin](#), [AuthenticView.DocumentEnd](#), and [AuthenticView.WholeDocument](#). The most flexible method is [AuthenticView.Goto](#), which allows navigation to a specic portion of the document within one

call. For more complex selections, combine the above, with the various navigation methods on range objects listed in the first table on this page.

Another method to select a portion of the document is to use the position properties of the range object. Two positioning systems are available and can be combined arbitrarily:

- **Absolute** text cursor positions, starting with position 0 at the document beginning, can be set and retrieved for the beginning and end of a range. For more information see [FirstTextPosition](#) and [LastTextPosition](#). This method requires complex internal calculations and should be used with care.
- The **XMLData** element and a text position inside this element, can be set and retrieved for the beginning and end of a range. For more information see [FirstXMLData](#), [FirstXMLDataOffset](#), [LastXMLData](#), and [LastXMLDataOffset](#). This method is very efficient but requires knowledge on the underlying document structure. It can be used to locate XMLData objects and perform operations on them otherwise not accessible through the user interface.

Modifications to the document content can be achieved by various methods:

- The [Text](#) property allows you to retrieve the document text selected by the range object. If set, the selected document text gets replaced with the new text.
- The standard document edit functions [Cut](#), [Copy](#), [Paste](#) and [Delete](#).
- Table operations for tables that can grow dynamically.
- Methods that map the functionality of the Authentic entry helper windows.
- Access to the [XMLData](#) objects of the underlying document to modify them directly.

2.7.1 AuthenticRange.AppendRow

See also

Method: [AppendRow](#) () as [Boolean](#)

Description

If the beginning of the range is inside a dynamic table, this method inserts a new row at the end of the selected table. The selection of the range is modified to point to the beginning of the new row. The function returns *true* if the append operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

```
' -----  
'                                     VBScript  
' Append row at end of current dynamically growable table  
' -----  
Dim objRange  
Set objRange = objPlugin.ActiveDocument.AuthenticView.Selection  
  
' check if we can insert something  
If objRange.IsInDynamicTable Then  
    objRange.AppendRow  
    ' objRange points to beginning of new row  
    objRange.Select  
End If
```


2.7.2 AuthenticRange.Application

See also

Property: [Application](#) as [Authentic](#) (read-only)

Description

Access the XMLSpy application object.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.3 AuthenticRange.CanPerformAction

See also

Method: [CanPerformAction](#) (*eAction* as SPYAuthenticActions, *strElementName* as String) as Boolean

Description

CanPerformAction and its related methods enable access to the entry-helper functions of Authentic. This function allows easy and consistent modification of the document content, without having to know exactly where the modification will take place. The beginning of the range object is used to locate the next valid location where the specified action can be performed. If the location can be found, the method returns *True*, otherwise it returns *False*.

HINT: To find out all valid element names for a given action, use [CanPerformActionWith](#).

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.
- 2007 Invalid action was specified.

Examples

See [PerformAction](#).

2.7.4 AuthenticRange.CanPerformActionWith

See also

Method: [CanPerformActionWith](#) (*eAction* as SPYAuthenticActions, *out_arrElementNames* as Variant)

Description

CanPerformActionWith and its related methods, enable access to the entry-helper functions of Authentic. These function allows easy and consistent modification of the document content without without having to know exactly where the modification will take place.

This method returns an array of those element names that the specified action can be performed with.

HINT: To apply the action use [PerformAction](#).

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.
- 2007 Invalid action was specified.

Examples

See [PerformAction](#).

2.7.5 AuthenticRange.Clone

See also

Method: [Clone](#) () as [AuthenticRange](#)

Description

Returns a copy of the range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.6 AuthenticRange.CollapsToBegin

See also

Method: [CollapsToBegin](#) () as [AuthenticRange](#)

Description

Sets the end of the range object to its begin. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.7 AuthenticRange.CollapseToEnd

See also

Method: [CollapseToEnd](#) () as [AuthenticRange](#)

Description

Sets the beginning of the range object to its end. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.8 AuthenticRange.Copy

See also

Method: `Copy ()` as `Boolean`

Description

Returns *False* if the range contains no portions of the document that may be copied.

Returns *True* if text, and in case of fully selected XML elements the elements as well, has been copied to the copy/paste buffer.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.9 AuthenticRange.Cut

See also

Method: `Cut ()` as `Boolean`

Description

Returns *False* if the range contains portions of the document that may not be deleted.
Returns *True* after text, and in case of fully selected XML elements the elements as well, has been deleted from the document and saved in the copy/paste buffer.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.10 AuthenticRange.Delete

See also

Method: Delete () as Boolean

Description

Returns *False* if the range contains portions of the document that may not be deleted.

Returns *True* after text, and in case of fully selected XML elements the elements as well, has been deleted from the document.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.11 AuthenticRange.DeleteRow

See also

Method: `DeleteRow ()` as `Boolean`

Description

If the beginning of the range is inside a dynamic table, this method deletes the selected row. The selection of the range gets modified to point to the next element after the deleted row. The function returns *true*, if the delete operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

```
' -----  
'                               VBScript  
' Delete selected row from dynamically growing table  
' -----  
Dim objRange  
Set objRange = objPlugin.ActiveDocument.AuthenticView.Selection  
  
' check if we are in a table  
If objRange.IsInDynamicTable Then  
    objRange.DeleteRow  
End If
```

2.7.12 AuthenticRange.DuplicateRow

See also

Method: `DuplicateRow` () as `Boolean`

Description

If the beginning of the range is inside a dynamic table, this method inserts a duplicate of the current row after the selected one. The selection of the range gets modified to point to the beginning of the new row. The function returns *true* if the duplicate operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

```
' -----  
'                               VBScript  
' duplicate row in current dynamically growable table  
' -----  
Dim objRange  
Set objRange = objPlugin.ActiveDocument.AuthenticView.Selection  
  
' check if we can insert soemthing  
If objRange.IsInDynamicTable Then  
    objRange.DuplicateRow  
    ' objRange points to begining of new row  
    objRange.Select  
End If
```

2.7.13 AuthenticRange.ExpandTo

See also

Method: [ExpandTo](#) (*eKind* as SPYAuthenticElementKind) as [AuthenticRange](#)

Description

Selects the whole element of type *eKind*, that starts at, or contains, the first cursor position of the range. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Range expansion would be beyond end of document.
- 2005 Invalid address for the return parameter was specified.

2.7.14 AuthenticRange.FirstTextPosition

See also

Property: [FirstTextPosition](#) as [Long](#)

Description

Set or get the left-most text position index of the range object. This index is always less or equal to [LastTextPosition](#). Indexing starts with 0 at document beginning, and increments with every different position that the text cursor can occupy. Incrementing the test position by 1, has the same effect as the cursor-right key. Decrementing the test position by 1 has the same effect as the cursor-left key.

If you set *FirstTextPosition* to a value greater than the current [LastTextPosition](#), [LastTextPosition](#) gets set to the new *FirstTextPosition*.

HINT: Use text cursor positions with care, since this is a costly operation compared to XMLData based cursor positioning.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid address for the return parameter was specified.
- 2006 A text position outside the document was specified.

Examples

```
' -----
'                               VBScript
' -----
Dim objAuthenticView
' we assume that the active document is open in authentic view mode
Set objAuthenticView = objPlugin.AuthenticView

nDocStartPosition = objAuthenticView.DocumentBegin.FirstTextPosition
nDocEndPosition = objAuthenticView.DocumentEnd.FirstTextPosition

' let's create a range that selects the whole document
' in an inefficient way
Dim objRange
' we need to get a (any) range object first
Set objRange = objAuthenticView.DocumentBegin
objRange.FirstTextPosition = nDocStartPosition
objRange.LastTextPosition = nDocEndPosition

' let's check if we got it right
If objRange.IsEqual(objAuthenticView.WholeDocument) Then
    MsgBox "Test using direct text cursor positioning was ok"
Else
    MsgBox "Oops! "
End If
```

2.7.15 AuthenticRange.FirstXMLData

See also

Property: [FirstXMLData](#) as [XMLData](#)

Description

Set or get the first XMLData element in the underlying document that is partially, or completely selected by the range. The exact beginning of the selection is defined by the [FirstXMLDataOffset](#) attribute.

Whenever you set FirstXMLData to a new data object, [FirstXMLDataOffset](#) gets set to the first cursor position inside this element. Only XMLData objects that have a cursor position may be used. If you set *FirstXMLData* / [FirstXMLDataOffset](#) selects a position greater then the current [LastXMLData](#) / [LastXMLDataOffset](#), the latter gets moved to the new start position.

HINT: You can use the [FirstXMLData](#) and [LastXMLData](#) properties, to directly access and manipulate the underlying XML document in those cases where the methods available with the [AuthenticRange](#) object are not sufficient.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid address for the return parameter was specified.
- 2008 Internal error
- 2009 The XMLData object cannot be accessed.

Examples

```
' -----
'                               VBScript
' show name of currently selected XMLData element
' -----
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

Dim objXMLData
Set objXMLData = objAuthenticView.Selection.FirstXMLData
' authentic view adds a 'text' child element to elements
' of the document which have content. So we have to go one
' element up.
Set objXMLData = objXMLData.Parent
MsgBox "Current selection selects element " & objXMLData.Name
```

2.7.16 AuthenticRange.FirstXMLDataOffset

See also

Property: [FirstXMLDataOffset](#) as [Long](#)

Description

Set or get the cursor position offset inside [FirstXMLData](#) element for the beginning of the range. Offset positions are based on the characters returned by the [Text](#) property, and start with 0. When setting a new offset, use -1 to set the offset to the last possible position in the element. The following cases require specific attention:

- The textual form of entries in ComboBoxes, CheckBoxes and similar controls can be different from what you see on screen. Although the data offset is based on this text, there only two valid offset positions, one at the beginning and one at the end of the entry. An attempt to set the offset to somewhere in the middle of the entry, will result in the offset being set to the end.
- The textual form of XML Entities might differ in length from their representation on the screen. The offset is based on this textual form.

If [FirstXMLData](#) / [FirstXMLDataOffset](#) selects a position after the current [LastXMLData](#) / [LastXMLDataOffset](#), the latter gets moved to the new start position.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid offset was specified.
Invalid address for the return parameter was specified.

Examples

```
' -----
'                               VBScript
' Select the complete text of an XMLData element
' using XMLData based selection and ExpandTo
' -----
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

' first we use the XMLData based range properties
' to select all text of the first XMLData element
' in the current selection
Dim objRange
Set objRange = objAuthenticView.Selection
objRange.FirstXMLDataOffset = 0 ' start at beginning of element text
objRange.LastXMLData = objRange.FirstXMLData ' select only one element
objRange.LastXMLDataOffset = -N ' select till its end

' the same can be achieved with the ExpandTo method
Dim objRange2
Set objRange2 = objAuthenticView.Selection.ExpandTo(spyAuthenticTag)

' were we successful?
If objRange.IsEqual(objRange2) Then
    objRange.Select()
Else
    MsgBox "Ooops"
End If
```

2.7.17 AuthenticRange.GetElementAttributeNames

See also

Method: [GetElementAttributeNames](#) (*strElementName* as [String](#),
out_arrAttributeNames as [Variant](#))

Description

Retrieve the names of all attributes for the enclosing element with the specified name. Use the element / attribute pairs, to set or get the attribute value with the methods [GetElementAttributeValue](#) and [SetElementAttributeValue](#).

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid element name was specified.
Invalid address for the return parameter was specified.

Examples

See [SetElementAttributeValue](#).

2.7.18 AuthenticRange.GetElementAttributeValue

See also

Method: `GetElementAttributeValue` (*strElementName* as String, *strAttributeName* as String) as String

Description

Retrieve the value of the attribute specified in *strAttributeName*, for the element identified with *strElementName*. If the attribute is supported but has no value assigned, the empty string is returned. To find out the names of attributes supported by an element, use [GetElementAttributeNames](#), or [HasElementAttribute](#).

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid element name was specified.
Invalid attribute name was specified.
Invalid address for the return parameter was specified.

Examples

See [SetElementAttributeValue](#).

2.7.19 AuthenticRange.GetElementHierarchy

See also

Method: [GetElementHierarchy](#) (*out_arrElementNames* as *Variant*)

Description

Retrieve the names of all XML elements that are parents of the current selection. Inner elements get listed before enclosing elements. An empty list is returned whenever the current selection is not inside a single XMLData element.

The names of the element hierarchy, together with the range object uniquely identify XMLData elements in the document. The attributes of these elements can be directly accessed by [GetElementAttributeNames](#), and related methods.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

See [SetElementAttributeValue](#).

2.7.20 AuthenticRange.GetEntityNames

See also

Method: [GetEntityNames](#) (*out_arrEntityNames* as [Variant](#))

Description

Retrieve the names of all defined entities. The list of retrieved entities is independent of the current selection, or location. Use one of these names with the [InsertEntity](#) function.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

See [InsertEntity](#).

2.7.21 AuthenticRange.Goto

See also

Method: *Goto* (*eKind* as SPYAuthenticElementKind, *nCount* as Long, *eFrom* as SPYAuthenticDocumentPosition) as [AuthenticRange](#)

Description

Sets the range to point to the beginning of the *nCount* element of type *eKind*. The start position is defined by the parameter *eFrom*.

Use positive values for *nCount* to navigate to the document end. Use negative values to navigate to the beginning of the document. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2004 Target lies before begin of document.
- 2005 Invalid element kind specified.
Invalid start position specified.
Invalid address for the return parameter was specified.

2.7.22 AuthenticRange.GotoNext

See also

Method: `GotoNext` (*eKind* as `SPYAuthenticElementKind`) as [AuthenticRange](#)

Description

Sets the range to the beginning of the next element of type *eKind*. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

Examples

```
' -----
'           VBScript
' Scan through the whole document word-by-word
' -----
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

Dim objRange
Set objRange = objAuthenticView.DocumentBegin
Dim bEndOfDocument
bEndOfDocument = False

On Error Resume Next
While Not bEndOfDocument
    objRange.GotoNext(spyAuthenticWord).Select
    If ((Err.number - vbObjecterror) = 2003) Then
        bEndOfDocument = True
        Err.Clear
    ElseIf (Err.number <> 0) Then
        Err.Raise ' forward error
    End If
Wend
```

2.7.23 AuthenticRange.GotoNextCursorPosition

See also

Method: [GotoNextCursorPosition](#) () as [AuthenticRange](#)

Description

Sets the range to the next cursor position after its current end position. Returns the modified object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2005 Invalid address for the return parameter was specified.

2.7.24 AuthenticRange.GotoPrevious

See also

Method: `GotoPrevious` (*eKind* as `SPYAuthenticElementKind`) as [AuthenticRange](#)

Description

Sets the range to the beginning of the element of type *eKind* which is before the beginning of the current range. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2004 Target lies before beginning of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

Examples

```
' -----  
'           VBScript  
' Scan through the whole document tag-by-tag  
' -----  
Dim objAuthenticView  
Set objAuthenticView = objPlugin.AuthenticView  
  
Dim objRange  
Set objRange = objAuthenticView.DocumentEnd  
Dim bEndOfDocument  
bBeginOfDocument = False  
  
On Error Resume Next  
While Not bBeginOfDocument  
    objRange.GotoPrevious(spyAuthenticTag).Select  
    If ((Err.number - vbObjecterror) = 2004) Then  
        bBeginOfDocument = True  
        Err.Clear  
    ElseIf (Err.number <> 0) Then  
        Err.Raise ' forward error  
    End If  
Wend
```

2.7.25 AuthenticRange.GotoPreviousCursorPosition

See also

Method: [GotoPreviousCursorPosition](#) () as [AuthenticRange](#)

Description

Set the range to the cursor position immediately before the current position. Returns the modified object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2004 Target lies before begin of document.
- 2005 Invalid address for the return parameter was specified.

2.7.26 AuthenticRange.HasElementAttribute

See also

Method: `HasElementAttribute` (*strElementName* as `String`, *strAttributeName* as `String`)
as `Boolean`

Description

Tests if the enclosing element with name *strElementName*, supports the attribute specified in *strAttributeName*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid element name was specified.
Invalid address for the return parameter was specified.

2.7.27 AuthenticRange.InsertEntity

See also

Method: `InsertEntity` (*strEntityName* as `String`)

Description

Replace the ranges selection with the specified entity. The specified entity must be one of the entity names returned by [GetEntityNames](#).

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Unknown entry name was specified.

Examples

```
' -----  
'                                     VBScript  
' Insert the first entity in the list of available entities  
' -----  
Dim objRange  
Set objRange = objPlugin.AuthenticView.Selection  
  
' first we get the names of all available entities as they  
' are shown in the entry helper of XMLSpy  
Dim arrEntities  
objRange.GetEntityNames arrEntities  
  
' we insert the first one of the list  
If UBound(arrEntities) >= 0 Then  
    objRange.InsertEntity arrEntities(0)  
    objRange.Select()  
Else  
    MsgBox "Sorry, no entities are available for this document"  
End If
```

2.7.28 AuthenticRange.InsertRow

See also

Method: `InsertRow ()` as `Boolean`

Description

If the beginning of the range is inside a dynamic table, this method inserts a new row before the current one. The selection of the range, gets modified to point to the beginning of the newly inserted row. The function returns *true* if the insert operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

```
' -----  
'                               VBScript  
' Insert row at beginning of current dynamically growing table  
' -----  
Dim objRange  
Set objRange = objPlugin.AuthenticView.Selection  
  
' check if we can insert something  
If objRange.IsInDynamicTable Then  
    objRange.InsertRow  
    ' objRange points to beginning of new row  
    objRange.Select  
End If
```

2.7.29 AuthenticRange.IsEmpty

See also

Method: `IsEmpty ()` as `Boolean`

Description

Tests if the first and last position of the range are equal.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.30 AuthenticRange.IsEqual

See also

Method: `IsEqual` (*objCmpRange* as [AuthenticRange](#)) as `Boolean`

Description

Tests if the start and end of both ranges are the same.

Errors

- 2001 One of the two range objects being compared, is invalid.
- 2005 Invalid address for a return parameter was specified.

2.7.31 AuthenticRange.IsInDynamicTable

See also

Method: `IsInDynamicTable ()` as `Boolean`

Description

Test if the beginning of the range is inside a table that supports the different row operations.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.32 AuthenticRange.LastTextPosition

See also

Property: [LastTextPosition](#) as [Long](#)

Description

Set or get the rightmost text position index of the range object. This index is always greater or equal to [FirstTextPosition](#). Indexing starts with 0 at the document beginning, and increments with every different position that the text cursor can occupy. Incrementing the test position by 1, has the same effect as the cursor-right key. Decrementing the test position by 1 has the same effect as the cursor-left key.

If you set *LastTextPosition* to a value less then the current [FirstTextPosition](#), [FirstTextPosition](#) gets set to the new *LastTextPosition*.

HINT: Use text cursor positions with care, since this is a costly operation compared to XMLData based cursor positioning.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid address for the return parameter was specified.
- 2006 A text position outside the document was specified.

Examples

```
' -----
'                               VBScript
' -----

Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

nDocStartPosition = objAuthenticView.DocumentBegin.FirstTextPosition
nDocEndPosition = objAuthenticView.DocumentEnd.FirstTextPosition

' let's create a range that selects the whole document
' in an inefficient way
Dim objRange
' we need to get a (any) range object first
Set objRange = objAuthenticView.DocumentBegin
objRange.FirstTextPosition = nDocStartPosition
objRange.LastTextPosition = nDocEndPosition

' let's check if we got it right
If objRange.IsEqual(objAuthenticView.WholeDocument) Then
    MsgBox "Test using direct text cursor positioning was ok"
Else
    MsgBox "Ooops! "
End If
```

2.7.33 AuthenticRange.LastXMLData

See also

Property: [LastXMLData](#) as [XMLData](#)

Description

Set or get the last XMLData element in the underlying document that is partially or completely selected by the range. The exact end of the selection is defined by the [LastXMLDataOffset](#) attribute.

Whenever you set *LastXMLData* to a new data object, [LastXMLDataOffset](#) gets set to the last cursor position inside this element. Only XMLData objects that have a cursor position may be used. If you set *LastXMLData* / [LastXMLDataOffset](#), select a position less than the current [FirstXMLData](#) / [FirstXMLDataOffset](#), the latter gets moved to the new end position.

HINT: You can use the [FirstXMLData](#) and [LastXMLData](#) properties to directly access and manipulate the underlying XML document in those cases, where the methods available with the [AuthenticRange](#) object are not sufficient.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid address for the return parameter was specified.
- 2008 Internal error
- 2009 The XMLData object cannot be accessed.

2.7.34 AuthenticRange.LastXMLDataOffset

See also

Property: [LastXMLDataOffset](#) as [Long](#)

Description

Set or get the cursor position inside [LastXMLData](#) element for the end of the range.

Offset positions are based on the characters returned by the [Text](#) property and start with 0. When setting a new offset, use -1 to set the offset to the last possible position in the element. The following cases require specific attention:

- The textual form of entries in ComboBoxes, CheckBoxes and similar controls can be different from what you see on the screen. Although, the data offset is based on this text, there only two valid offset positions, one at the beginning and one at the end of the entry. An attempt to set the offset to somewhere in the middle of the entry, will result in the offset being set to the end.
- The textual form of XML Entities might differ in length from their representation on the screen. The offset is based on this textual form.

If [LastXMLData](#) / [LastXMLDataOffset](#) selects a position before [FirstXMLData](#) / [FirstXMLDataOffset](#), the latter gets moved to the new end position.

Errors

- 2001 The authentic range object, or its related view object is not valid.
- 2005 Invalid offset was specified.
Invalid address for the return parameter was specified.

Examples

```
' -----
'                               VBScript
' Select the complete text of an XMLData element
' using XMLData based selection and ExpandTo
' -----
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

' first we use the XMLData based range properties
' to select all text of the first XMLData element
' in the current selection
Dim objRange
Set objRange = objAuthenticView.Selection
objRange.FirstXMLDataOffset = 0 ' start at beginning of element text
objRange.LastXMLData = objRange.FirstXMLData ' select only one element
objRange.LastXMLDataOffset = -N ' select till its end

' the same can be achieved with the ExpandTo method
Dim objRange2
Set objRange2 = objAuthenticView.Selection.ExpandTo(spyAuthenticTag)

' were we successful?
If objRange.IsEqual(objRange2) Then
    objRange.Select()
Else
    MsgBox "Ooops"
End If
```

2.7.35 AuthenticRange.MoveBegin

See also

Method: [MoveBegin](#) (*eKind* as SPYAuthenticElementKind, *nCount* as Long) as [AuthenticRange](#)

Description

Move the beginning of the range to the beginning of the *nCount* element of type *eKind*. Counting starts at the current beginning of the range object.

Use positive numbers for *nCount* to move towards the document end, use negative numbers to move towards document beginning. The end of the range stays unmoved, unless the new beginning would be larger than it. In this case, the end is moved to the new beginning. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2004 Target lies before beginning of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

2.7.36 AuthenticRange.MoveEnd

See also

Method: [MoveEnd](#) (*eKind* as SPYAuthenticElementKind, *nCount* as Long) as [AuthenticRange](#)

Description

Move the end of the range to the begin of the *nCount* element of type *eKind*. Counting starts at the current end of the range object.

Use positive numbers for *nCount* to move towards the document end, use negative numbers to move towards document beginning. The beginning of the range stays unmoved, unless the new end would be less than it. In this case, the beginning gets moved to the new end. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2004 Target lies before begin of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

2.7.37 AuthenticRange.MoveRowDown

See also

Method: `MoveRowDown` () as `Boolean`

Description

If the beginning of the range is inside a dynamic table and selects a row which is not the last row in this table, this method swaps this row with the row immediately below. The selection of the range moves with the row, but does not otherwise change. The function returns *true* if the move operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.38 AuthenticRange.MoveRowUp

See also

Method: [MoveRowUp](#) () as [Boolean](#)

Description

If the beginning of the range is inside a dynamic table and selects a row which is not the first row in this table, this method swaps this row with the row above. The selection of the range moves with the row, but does not change otherwise. The function returns *true* if the move operation was successful, otherwise *false*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

Examples

See [JScript - Bubble Sort Dynamic Tables](#).

2.7.39 AuthenticRange.Parent

See also

Property: [Parent](#) as [AuthenticView](#) (read-only)

Description

Access the view that owns this range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.40 AuthenticRange.Paste

See also

Method: `Paste()` as `Boolean`

Description

Returns *False* if the copy/paste buffer is empty, or its content cannot replace the current selection.

Otherwise, deletes the current selection, inserts the content of the copy/paste buffer, and returns *True*.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.7.41 AuthenticRange.PerformAction

See also

Method: `PerformAction` (*eAction* as SPYAuthenticActions, *strElementName* as String) as Boolean

Description

PerformAction and its related methods, give access to the entry-helper functions of Authentic. This function allows easy and consistent modification of the document content without a need to know exactly where the modification will take place. The beginning of the range object is used to locate the next valid location where the specified action can be performed. If no such location can be found, the method returns *False*. Otherwise, the document gets modified and the range points to the beginning of the modification.

HINT: To find out element names that can be passed as the second parameter use [CanPerformActionWith](#).

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.
- 2007 Invalid action was specified.

Examples

```
' -----
'               VBScript
' Insert the innermost element
' -----

Dim objRange
Set objRange = objPlugin.AuthenticView.Selection

' we determine the elements that can be inserted at the current position
Dim arrElements()
objRange.CanPerformActionWith spyAuthenticInsertBefore, arrElements

' we insert the first (innermost) element
If UBound(arrElements) >= 0 Then
    objRange.PerformAction spyAuthenticInsertBefore, arrElements(0)
    ' objRange now points to the beginning of the inserted element
    ' we set a default value and position at its end
    objRange.Text = "Hello"
    objRange.ExpandTo(spyAuthenticTag).CollapsToEnd().Select
Else
    MsgBox "Can't insert any elements at current position"
End If
```


2.7.42 AuthenticRange.Select

See also

Method: [Select](#) ()

Description

Makes this range the current user interface selection. You can achieve the same result using: '
objRange.Parent.Selection = objRange'

Errors

2001 The authentic range object or its related view object is no longer valid.

Examples

```
' -----  
'                               VBScript  
' -----  
  
' set current selection to end of document  
objPlugin.objAuthenticView.DocumentEnd.Select()
```

2.7.43 AuthenticRange.SelectNext

See also

Method: [SelectNext](#) (*eKind* as SPYAuthenticElementKind) as [AuthenticRange](#)

Description

Selects the element of type *eKind* after the current end of the range. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2003 Target lies after end of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

Examples

```
' -----
'                               VBScript
' Scan through the whole document word-by-word
' -----
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

Dim objRange
Set objRange = objAuthenticView.DocumentBegin
Dim bEndOfDocument
bEndOfDocument = False

On Error Resume Next
While Not bEndOfDocument
    objRange.SelectNext(spyAuthenticWord).Select
    If ((Err.number - vbObjecterror) = 2003) Then
        bEndOfDocument = True
        Err.Clear
    ElseIf (Err.number <> 0) Then
        Err.Raise ' forward error
    End If
Wend
```

2.7.44 AuthenticRange.SelectPrevious

See also

Method: [GotoPrevious](#) (*eKind* as SPYAuthenticElementKind) as [AuthenticRange](#)

Description

Selects the element of type *eKind* before the current beginning of the range. The method returns the modified range object.

Errors

- 2001 The authentic range object, or its related view object is no longer valid.
- 2004 Target lies before begin of document.
- 2005 Invalid element kind specified.
Invalid address for the return parameter was specified.

Examples

```
' -----  
'           VBScript  
' Scan through the whole document tag-by-tag  
' -----  
Dim objAuthenticView  
Set objAuthenticView = objPlugin.AuthenticView  
  
Dim objRange  
Set objRange = objAuthenticView.DocumentEnd  
Dim bEndOfDocument  
bBeginOfDocument = False  
  
On Error Resume Next  
While Not bBeginOfDocument  
    objRange.SelectPrevious(spyAuthenticTag).Select  
    If ((Err.number - vbObjecterror) = 2004) Then  
        bBeginOfDocument = True  
        Err.Clear  
    ElseIf (Err.number <> 0) Then  
        Err.Raise ' forward error  
    End If  
Wend
```

2.7.45 AuthenticRange.SetElementAttributeValue

See also

Method: `SetElementAttributeValue` (*strElementName* as String, *strAttributeName* as String, *strAttributeValue* as String)

Description

Retrieve the value of the attribute specified in *strAttributeName* for the element identified with *strElementName*. If the attribute is supported but has no value assigned, the empty string is returned. To find out the names of attributes supported by an element, use [GetElementAttributeNames](#), or [HasElementAttribute](#).

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid element name was specified.
Invalid attribute name was specified.
Invalid attribute value was specified.

Examples

```
'-----
'           VBScript
' Get and set element attributes
'-----

Dim objRange
Set objRange = objPlugin.AuthenticView.Selection

' first we find out all the elements below the beginning of the range
Dim arrElements
objRange.GetElementHierarchy arrElements

If IsArray(arrElements) Then
    If UBound(arrElements) >= 0 Then
        ' we use the top level element and find out its valid attributes
        Dim arrAttrs()
        objRange.GetElementAttributeNames arrElements(0), arrAttrs

        If UBound(arrAttrs) >= 0 Then
            ' we retrieve the current value of the first valid
            attribute
            Dim strAttrVal
            strAttrVal = objRange.GetElementAttributeValue
            (arrElements(0), arrAttrs(0))
            msgbox "current value of " & arrElements(0) & "/" &
            arrAttrs(0) & " is: " & strAttrVal

            ' we change this value and read it again
            strAttrVal = "Hello"
            objRange.SetElementAttributeValue arrElements(0),
            arrAttrs(0), strAttrVal
            strAttrVal = objRange.GetElementAttributeValue
            (arrElements(0), arrAttrs(0))
            msgbox "new value of " & arrElements(0) & "/" &
            arrAttrs(0) & " is: " & strAttrVal
        End If
    End If
End If
```

2.7.46 AuthenticRange.SetFromRange

See also

Method: [SetFromRange](#) (*objSrcRange* as [AuthenticRange](#))

Description

Sets the range object to the same beginning and end positions as *objSrcRange*.

Errors

- 2001 One of the two range objects, is invalid.
- 2005 Null object was specified as source object.

2.7.47 AuthenticRange.Text

See also

Property: [Text](#) as [String](#)

Description

Set or get the textual content selected by the range object.

The number of characters retrieved are not necessarily identical, as there are text cursor positions between the beginning and end of the selected range. Most document elements support an end cursor position different to the beginning cursor position of the following element. Drop-down lists maintain only one cursor position, but can select strings of any length. In the case of radio buttons and check boxes, the text property value holds the string of the corresponding XML element.

If the range selects more than one element, the text is the concatenation of the single texts. XML entities are expanded so that '&' is expected as '&,'.

Setting the text to the empty string, does not delete any XML elements. Use [Cut](#), [Delete](#) or [PerformAction](#) instead.

Errors

- 2001 The authentic range object or its related view object is no longer valid.
- 2005 Invalid address for a return parameter was specified.

2.8 AuthenticSelection

See also

Properties

[Start](#)

[StartTextPosition](#)

[End](#)

[EndTextPosition](#)

2.8.1 AuthenticSelection.End

See also

Declaration: [End](#) as [XMLData](#)

Description

XML element where the current selection ends.

2.8.2 AuthenticSelection.EndTextPosition

See also

Declaration: [EndTextPosition](#) as [long](#)

Description

Position in [Authentic.End](#) where the selection ends.

2.8.3 AuthenticSelection.Start

See also

Declaration: Start as [XMLData](#)

Description

XML element where the current selection starts.

2.8.4 AuthenticSelection.StartTextPosition

See also

Declaration: [StartTextPosition](#) as [long](#)

Description

Position in [Authentic.Start](#) where the selection starts.

2.9 AuthenticToolBarButton

Methods

Properties

[CommandID](#)

2.9.1 AuthenticToolBarButton.CommandID

Declaration: `CommandID` as [SPYAuthenticCommand](#)

Description

The CommandId of the toolbar button.

2.10 AuthenticToolBarButtons

Methods

[Item](#)

[NewButton](#)

NewCustomButton

[NewSeparator](#)

[Remove](#)

Properties

[Count](#)

2.10.1 AuthenticToolBarButtons.Count

Declaration: Count as long

Description

Get the actual number of buttons on the toolbar
Read only.

2.10.2 AuthenticToolBarButtons.Item

Declaration: `Item`(n as `long`) as [AuthenticToolBarButton](#)

Description

Get the n'th Button of the current toolbar. n starts at 1.

Example

See the example at [AuthenticToolBarButtons.NewButton](#)

2.10.3 AuthenticToolBarButtons.NewButton

Declaration: `NewButton(nPosition as long, nCommandId as SPYAuthenticCommand)`

Description

Inserts a new Button for the command nCommandId at the position nPosition of the toolbar. nPosition starts at 1.

Example

Add a new toolbar, align it on the bottom and add new toolbar buttons

```
objPlugIn.ToolbarRows.NewRow(3)           // add a new Toolbar (Row
                                           3)
set ToolbarRow = objPlugIn.ToolbarRows.Item(3)
set Buttons = ToolbarRow.Buttons
ToolbarRow.Alignment = 2                  // align Toolbar to bottom
Buttons.NewButton    1, 2                  // add Print Button
Buttons.NewButton    1, 3                  // add PrintPreview Button
Buttons.NewSeparator 2                     // add Separator
Buttons.NewButton    1, 4                  // add Validate Button
```

When StartEditing or ReloadToolbars is called; the modified Toolbar settings are used.

2.10.4 AuthenticToolBarButtons.NewCustomButton

Declaration: `NewCustomButton(nPosition as long, strName as String, strTooltip as String, strBitmapURL as String)`

Description

Inserts a new custom button with the name `strName` at the position `nPosition` of the toolbar. `nPosition` starts at 1. `strTooltip` is taken as the Tooltip text.

`strBitmapURL` is the location of the bitmap to display for the new button. This path is relative to the path set with the [TextStateBmpURL](#) property.

Example

Imagine you have inserted a custom button with the name "MyFunction" to your toolbars. The following event handler for [doceditcommand](#) shows you how to react if the user clicked your button and how to set the enabled / disabled state for it.

```
<SCRIPT LANGUAGE=javascript FOR=objPlugIn EVENT=doceditcommand>
// event.type is set to "command" if the user clicked the button
if( objPlugIn.event.type == "command")
{
    if( objPlugIn.event.srcElement.Name == "MyFunction")
        window.alert("You pressed my custom button!");
}

// event.type is set to "update" if the button state must be set
if( objPlugIn.event.type == "update")
{
    if( objPlugIn.event.srcElement.Name == "MyFunction")
    {
        // we enable the button if only one element is selected
        if
        ( objPlugIn.CurrentSelection.Start.IsSameNode( objPlugIn.CurrentSelection.End) )
            objPlugIn.event.returnValue = N;
        else
            objPlugIn.event.returnValue = 0;

        objPlugIn.event.cancelBubble = true;
    }
}
</SCRIPT>
```

2.10.5 AuthenticToolBarButtons.NewSeparator

Declaration: `NewSeparator(nPosition as long)`

Description

Inserts a Separator at the position nPosition of the toolbar. nPosition starts at 1.

Example

See the example at [AuthenticToolBarButtons.NewButton](#)

2.10.6 AuthenticToolBarButtons.Remove

Declaration: Remove(nPosition as long)

Description

Removes the button or Separator on position nPosition of the toolbar. nPosition starts at 1.

2.11 AuthenticToolBarRow

Methods

[Alignment](#)

Properties

[Buttons](#)

2.11.1 AuthenticToolBarRowAlignment

Declaration: `Alignment(nAlign` as [SPYAuthenticToolBarAlignment](#))

Description

Get or sets the alignment of the toolbar in the plug-in.

Example

Align all toolbars to the bottom:

```
for each ToolbarRow in objPlugin.ToolbarRows
    ToolbarRow.Alignment = 2
next
```

2.11.2 AuthenticToolbarRowButtons

Declaration: [Buttons](#) as [AuthenticToolbarButtons](#)

Description

Get all Buttons of the toolbar

Example

See the example at [AuthenticToolbarButtons.NewButton](#)

2.12 AuthenticToolbarRows

Methods

[Item](#)

[RemoveRow](#)

[NewRow](#)

Properties

[Count](#)

2.12.1 AuthenticToolbarRows.Count

Declaration: Count as long

Description

Get the actual number of defined toolbars
Read only.

2.12.2 AuthenticToolbarRows.Item

Declaration: `Item(nPosition as long) as AuthenticToolbarRow`

Description

Get the toolbar on position nPosition. nPosition starts with "1"
Read only.

Example

See the example at [AuthenticToolbarButtons.NewButton](#)

2.12.3 AuthenticToolbarRows.RemoveRow

Declaration: RemoveRow(nPosition as long)

Description

Remove the toolbar at nPosition from the user interface. nPosition starts at 1.

2.12.4 AuthenticToolbarRows.NewRow

Declaration: `NewRow(nPosition as long)`

Description

Creates and inserts a new Toolbar row. nPosition starts at 1.

Example

See the example at [AuthenticToolbarButtons.NewButton](#)

2.13 AuthenticView

See also

Properties

[Application](#)
[DocumentBegin](#)
[DocumentEnd](#)
[MarkupVisibility](#)
[Parent](#)
[Selection](#)
[WholeDocument](#)

Methods

[Goto](#)
[Print](#)
[Redo](#)
[Undo](#)
[UpdateXMLInstanceEntities](#)

Events

Description

AuthenticView and its child object [AuthenticRange](#) provide you with an interface for Authentic View, which allow easy and consistent modification of document contents. Functional overlap with already existing methods and properties in Authentic object is intentional, making the content modification functions of the Authentic object obsolete. Usage of the new AuthenticView interface is strongly recommended.

AuthenticView gives you easy access to specific features such as printing, the multi-level undo buffer, and the current cursor selection, or position.

AuthenticView uses objects of type [AuthenticRange](#) to make navigation inside the document straight-forward, and to allow for the flexible selection of logical text elements. Use the properties [DocumentBegin](#), [DocumentEnd](#), or [WholeDocument](#) for simple selections, while using the [Goto](#) method for more complex selections. To navigate relative to a given document range, see the methods and properties of the [AuthenticRange](#) object.

2.13.1 AuthenticView.Application

See also

Property: [Application](#) as [Authentic](#) (read-only)

Description

Access the XMLSpy application object.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.2 AuthenticView.DocumentBegin

See also

Property: [DocumentBegin](#) as [AuthenticRange](#) (read-only)

Description

Retrieve a range object that points to the beginning of the document.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.3 AuthenticView.DocumentEnd

See also

Property: [DocumentEnd](#) as [AuthenticRange](#) (read-only)

Description

Retrieve a range object that points to the end of the document.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.4 AuthenticView.Goto

See also

Method: *Goto* (*eKind* as SPYAuthenticElementKind, *nCount* as Long, *eFrom* as SPYAuthenticDocumentPosition) as [AuthenticRange](#)

Description

Retrieve a range object that points to the beginning of the *nCount* element of type *eKind*. The start position is defined by the parameter *eFrom*. Use positive values for *nCount* to navigate to the document end. Use negative values to navigate towards the beginning of the document.

Errors

- 2000 The authentic view object is no longer valid.
- 2003 Target lies after end of document.
- 2004 Target lies before beginning of document.
- 2005 Invalid element kind specified.
The document position to start from is not one of *spyAuthenticDocumentBegin* or *spyAuthenticDocumentEnd*.
Invalid address for the return parameter was specified.

Examples

```
Dim objAuthenticView
Set objAuthenticView = objPlugin.AuthenticView

On Error Resume Next
Dim objRange
' goto beginning of first table in document
Set objRange = objAuthenticView.Goto (spyAuthenticTable, N,
spyAuthenticDocumentBegin)
If (Err.number = 0) Then
    objRange.Select()
Else
    MsgBox "No table found in document"
End If
```

2.13.5 AuthenticView.MarkupVisibility

See also

Property: [MarkupVisibility](#) as [SPYAuthenticMarkupVisibility](#)

Description

Set or get current visibility of markup.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid enumeration value was specified.
Invalid address for the return parameter was specified.

2.13.6 AuthenticView.Parent

See also

Property: [Parent](#) as [Authentic](#) (read-only)

Description

Access the Application.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.7 AuthenticView.Print

See also

Method: `Print` (*bWithPreview* as `Boolean`, *bPromptUser* as `Boolean`)

Description

Print the document shown in this view. If *bWithPreview* is set to *True*, the print preview dialog pops up. If *bPromptUser* is set to *True*, the print dialog pops up. If both parameters are set to *False*, the document gets printed without further user interaction.

Errors

2000 The authentic view object is no longer valid.

2.13.8 AuthenticView.Redo

See also

Method: Redo () as Boolean

Description

Redo the modification undone by the last undo command.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.9 AuthenticView.Selection

See also

Property: [Selection](#) as [AuthenticRange](#)

Description

Set or get current text selection in user interface.

Errors

- 2000 The authentic view object is no longer valid.
- 2002 No cursor selection is active.
- 2005 Invalid address for the return parameter was specified.

Examples

```
' -----  
'                               VBScript  
' -----  
  
Dim objAuthenticView  
Set objAuthenticView = objPlugin.AuthenticView  
  
' if we are the end of the document, re-start at the beginning  
If (objAuthenticView.Selection.IsEqual(objAuthenticView.DocumentEnd)) Then  
    objAuthenticView.Selection = objAuthenticView.DocumentBegin  
Else  
    ' objAuthenticView.Selection =  
objAuthenticView.Selection.GotoNextCursorPosition()  
    ' or shorter:  
    objAuthenticView.Selection.GotoNextCursorPosition().Select  
End If
```

2.13.10 AuthenticView.Undo

See also

Method: `Undo ()` as `Boolean`

Description

Undo the last modification of the document from within this view.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.13.11 AuthenticView.UpdateXMLInstanceEntities

See also

Method: [UpdateXMLInstanceEntities](#) ()

Description

Updates the internal representation of the declared entities, and refills the entry helper. In addition, the validator is reloaded, allowing the XML file to validate correctly. Please note that this may also cause schema files to be reloaded.

Errors

The method never returns an error.

Example

```
// -----  
//           JavaScript  
// -----  
var objDocType;  
objDocType = objPlugin.XMLRoot.GetFirstChild( N0 );  
  
if( objDocType )  
{  
    var objEntity = objPlugin.CreateChild( N4 );  
    objEntity.Name = "child";  
    objEntity.TextValue = "SYSTEM \"child.xml\"";  
    objDocType.AppendChild( objEntity );  
  
    objPlugin.AuthenticView.UpdateXMLInstanceEntities();  
}
```


2.13.12 AuthenticView.WholeDocument

See also

Property: [WholeDocument](#) as [AuthenticRange](#) (read-only)

Description

Retrieve a range object that selects the whole document.

Errors

- 2000 The authentic view object is no longer valid.
- 2005 Invalid address for the return parameter was specified.

2.14 AuthenticXMLTableCommands

Methods

[Insert](#)
[Delete](#)
[AppendRow](#)
[InsertRow](#)
[DeleteRow](#)
[AppendColumn](#)
[InsertColumn](#)
[DeleteColumn](#)
[JoinLeft](#)
[JoinRight](#)
[JoinUp](#)
[JoinDown](#)
[SplitHorizontal](#)
[SplitVertical](#)
[AlignVerticalTop](#)
[AlignVerticalCenter](#)
[AlignVerticalBottom](#)
[AlignHorizontalLeft](#)
[AlignHorizontalRight](#)
[AlignHorizontalCenter](#)
[AlignHorizontalJustify](#)
[EditProperties](#)

Properties

[MayInsert](#)
[MayDelete](#)
[MayAppendRow](#)
[MayInsertRow](#)
[MayDeleteRow](#)
[MayAppendCol](#)
[MayInsertCol](#)
[MayDeleteCol](#)
[MayJoinLeft](#)
[MayJoinRight](#)
[MayJoinUp](#)
[MayJoinDown](#)
[MaySplitHorizontal](#)
[MaySplitVertical](#)

[MayAlignVertical](#)
[MayAlignHorizontal](#)
[MayEditProperties](#)

2.14.1 AuthenticXMLTableCommands.AlignHorizontalCenter

Declaration: [AlignHorizontalCenter\(\)](#)

Description

Sets the horizontal alignment attribute to "center" or clears the attribute if it was set to "center" before.

2.14.2 AuthenticXMLTableCommands.AlignHorizontalJustify

Declaration: [AlignHorizontalJustify\(\)](#)

Description

Sets the horizontal alignment attribute to "justify" or clears the attribute if it was set to "justify" before.

2.14.3 AuthenticXMLTableCommands.AlignHorizontalLeft

Declaration: [AlignHorizontalLeft\(\)](#)

Description

Sets the horizontal alignment attribute to "left" or clears the attribute if it was set to "left" before.

2.14.4 AuthenticXMLTableCommands.AlignHorizontalRight

Declaration: [AlignHorizontalRight\(\)](#)

Description

Sets the horizontal alignment attribute to "right" or clears the attribute if it was set to "right" before.

2.14.5 AuthenticXMLTableCommands.AlignVerticalBottom

Declaration: [AlignVerticalBottom\(\)](#)

Description

Sets the vertical alignment attribute to "bottom", or clears the attribute if it was set to "bottom" before.

2.14.6 AuthenticXMLTableCommands.AlignVerticalCenter

Declaration: [AlignVerticalCenter\(\)](#)

Description

Sets the vertical alignment attribute to "center", or clears the attribute if it was set to "center" before.

2.14.7 AuthenticXMLTableCommands.AlignVerticalTop

Declaration: [AlignVerticalTop\(\)](#)

Description

Sets the vertical alignment attribute to "top", or clears the attribute if it was set to "top" before.

2.14.8 AuthenticXMLTableCommands.AppendCol

Declaration: [AppendCol\(\)](#)

Description

Appends a column to the current table.

2.14.9 AuthenticXMLTableCommands.AppendRow

Declaration: [AppendRow\(\)](#)

Description

Appends a row to the current table.

2.14.10 AuthenticXMLTableCommands.Delete

Declaration: [Delete\(\)](#)

Description

If the user confirmed the dialog the method deletes the currently selected table.

2.14.11 AuthenticXMLTableCommands.DeleteCol

Declaration: [DeleteCol\(\)](#)

Description

The method deletes the currently selected column.

If there is only one column left and the user confirmed the dialog, the complete table is deleted.

2.14.12 AuthenticXMLTableCommands.DeleteRow

Declaration: [DeleteRow\(\)](#)

Description

The method deletes the currently selected row.

If there is only one row left and the user confirmed the dialog, the complete table is deleted.

2.14.13 AuthenticXMLTableCommands.EditProperties

Declaration: [EditProperties\(\)](#)

Description

Displays the properties dialog for the selected table/cell.

2.14.14 AuthenticXMLTableCommands.Insert

Declaration: [Insert\(\)](#)

Description

Displays a dialog and inserts a new table into the existing XML.

2.14.15 AuthenticXMLTableCommands.InsertCol

Declaration: [InsertCol\(\)](#)

Description

Inserts a new column before the currently selected column.

2.14.16 AuthenticXMLTableCommands.InsertRow

Declaration: [InsertRow\(\)](#)

Description

Inserts a row before the currently selected row.

2.14.17 AuthenticXMLTableCommands.JoinDown

Declaration: [JoinDown\(\)](#)

Description

Joins the current cell to the cell immediately below it.

2.14.18 AuthenticXMLTableCommands.JoinLeft

Declaration: [JoinLeft\(\)](#)

Description

Joins the current cell with the cell immediately to its left.

2.14.19 AuthenticXMLTableCommands.JoinRight

Declaration: [JoinRight\(\)](#)

Description

Joins the current cell with the cell immediately to its right.

2.14.20 AuthenticXMLTableCommands.JoinUp

Declaration: [JoinUp\(\)](#)

Description

Joins the current cell to the cell immediately above it.

2.14.21 AuthenticXMLTableCommands.MayAlignHorizontal

Declaration: `MayAlignHorizontal` as `Boolean`

Description

True if the attributes for horizontal alignment can be set for the current cell.

2.14.22 AuthenticXMLTableCommands.MayAlignVertical

Declaration: `MayAlignVertical` as `Boolean`

Description

True if the attributes for vertical alignment can be set for the current cell.

2.14.23 AuthenticXMLTableCommands.MayAppendCol

Declaration: `MayAppendCol` as `Boolean`

Description

True if a column can be appended.

2.14.24 AuthenticXMLTableCommands.MayAppendRow

Declaration: `MayAppendRow` as `Boolean`

Description

True if a row can be appended.

Enter topic text here.

2.14.25 AuthenticXMLTableCommands.MayDelete

Declaration: `MayDelete` as `Boolean`

Description

The property is true if a table is selected.

2.14.26 AuthenticXMLTableCommands.MayDeleteCol

Declaration: `MayDeleteCol` as `Boolean`

Description

True if the current column can be deleted.

2.14.27 AuthenticXMLTableCommands.MayDeleteRow

Declaration: `MayDeleteRow` as `Boolean`

Description

True if the current row can be deleted.

2.14.28 AuthenticXMLTableCommands.MayEditProperties

Declaration: `MayEditProperties` as `Boolean`

Description

The property is true if the properties dialog is available for the selected table/cell.

2.14.29 AuthenticXMLTableCommands.MayInsert

Declaration: `MayInsert` as `Boolean`

Description

The property is true if the insertion of a new table is possible at the current selection.

2.14.30 AuthenticXMLTableCommands.MayInsertCol

Declaration: `MayInsertCol` as `Boolean`

Description

True if a column can be inserted.

2.14.31 AuthenticXMLTableCommands.MayInsertRow

Declaration: `MayInsertRow` as `Boolean`

Description

True if a row can be inserted.

2.14.32 AuthenticXMLTableCommands.MayJoinDown

Declaration: `MayJoinDown` as `Boolean`

Description

The property is true if the join down operation is possible for the currently selected cell.

2.14.33 AuthenticXMLTableCommands.MayJoinLeft

Declaration: `MayJoinLeft` as `Boolean`

Description

The property is true if the join left operation is possible for the currently selected cell.

2.14.34 AuthenticXMLTableCommands.MayJoinRight

Declaration: `MayJoinRight` as `Boolean`

Description

The property is true if the join right operation is possible for the currently selected cell.

2.14.35 AuthenticXMLTableCommands.MayJoinUp

Declaration: `MayJoinUp` as `Boolean`

Description

The property is true if the join up operation is possible for the currently selected cell.

2.14.36 AuthenticXMLTableCommands.MaySplitHorizontal

Declaration: `MaySplitHorizontal` as `Boolean`

Description

True if the current cell can be splitted horizontally.

2.14.37 AuthenticXMLTableCommands.MaySplitVertical

Declaration: `MaySplitVertical` as `Boolean`

Description

True if the current cell can be splitted vertically.

2.14.38 AuthenticXMLTableCommands.SplitHorizontal

Declaration: [SplitHorizontal\(\)](#)

Description

The method splits the current cell horizontally.

2.14.39 AuthenticXMLTableCommands.SplitVertical

Declaration: [SplitVertical\(\)](#)

Description

The method splits the current cell vertically.

2.15 XMLData

See also

Methods

[InsertChild](#)

[AppendChild](#)

[EraseAllChildren](#)

[EraseCurrentChild](#)

[GetCurrentChild](#)

[GetFirstChild](#)

[GetNextChild](#)

[GetChild](#)

[GetChildKind](#)

[IsSameNode](#)

[HasChildrenKind](#)

[CountChildren](#)

[CountChildrenKind](#)

Properties

[Name](#)

[TextValue](#)

[HasChildren](#)

[MayHaveChildren](#)

[Kind](#)

[Parent](#)

Description

You can use the XMLData interface to manipulate the content of the currently displayed XML. This interface is a lightweight COM counterpart of the implementation used inside the plug-in and XMLSpy itself.

To create a new XMLData object use the CreateChild() method of the plug-in interface.

2.15.1 XMLData.AppendChild

See also

Declaration: [AppendChild](#)(*pNewData* as [XMLData](#))

Description

AppendChild appends pNewData as last child to the XMLData object. See also "[Using XMLData](#)".

Example

```
Dim objCurrentParent
Dim objNewChild

Set objNewChild = objPlugIn.CreateChild(spyXMLDataElement)
Set objCurrentParent = objPlugIn.XMLRoot

objCurrentParent.AppendChild objNewChild

Set objNewChild = Nothing
```

2.15.2 XMLData.CountChildren

See also

Declaration: [CountChildren](#) as long

Description

`CountChildren` gets the number of children.

Available with TypeLibrary version 1.6

Errors

1500 The XMLData object is no longer valid.

2.15.3 XMLData.CountChildrenKind

See also

Declaration: [CountChildrenKind](#) (*nKind* as [SPYXMLDataKind](#)) as long

Description

`CountChildrenKind` gets the number of children of the specific kind.

Available with TypeLibrary version 1.6

Errors

1500 The XMLData object is no longer valid.

2.15.4 XMLData.EraseAllChildren

See also

Declaration: [EraseAllChildren](#)

Description

EraseAllChildren deletes all associated children of the XMLData object.

Example

The sample erases all elements of the active document.

```
Dim objCurrentParent

Set objCurrentParent = objPlugIn.XMLRoot
objCurrentParent.EraseAllChildren
```

2.15.5 XMLData.EraseCurrentChild

See also

Declaration: [EraseCurrentChild](#)

Description

EraseCurrentChild deletes the current XMLData child object. Before you call EraseCurrentChild you must initialize an internal iterator with [XMLData.GetFirstChild](#).

Example

This JavaScript example deletes all elements with the name "EraseMe". The code shows you, that it is possible to call EraseCurrentChild and GetNextChild inside the same loop to continue stepping through the child elements.

```
function DeleteXMLElements( objXMLData)
{
  if( objXMLData == null)
    return;

  if( objXMLData.HasChildren) {
    var objChild;
    objChild = objXMLData.GetFirstChild( -N );

    while( objChild ) {
      DeleteXMLElements( objChild );

      try{
        if( objChild.Name == "EraseMe")
          objXMLData.EraseCurrentChild();

        objChild = objXMLData.GetNextChild();
      }
      catch( Err ) {
        objChild = null;
      }
    }
  }
}
```


2.15.6 XMLData.GetChild

See also

Declaration: `GetChild` (*position* as long) as [XMLData](#)

Return Value

Returns an XML element as `XMLData` object.

Description

`GetChild()` returns a reference to the child at the given index (zero-based).

Available with TypeLibrary version 1.6

Errors

- 1500 The XMLData object is no longer valid.
- 1510 Invalid address for the return parameter was specified.

2.15.7 XMLData.GetChildKind

See also

Declaration: [GetChildKind](#) (*position* as long, *nKind* as [SPYXMLDataKind](#)) as [XMLData](#)

Return Value

Returns an XML element as `XMLData` object.

Description

`GetChildKind()` returns a reference to a child of this kind at the given index (zero-based). The position parameter is relative to the number of children of the specified kind and not to all children of the object.

Available with TypeLibrary version 1.6

Errors

- 1500 The XMLData object is no longer valid.
- 1510 Invalid address for the return parameter was specified.

2.15.8 XMLData.GetCurrentChild

See also

Declaration: [GetCurrentChild](#) as [XMLData](#)

Return Value

Returns an xml element as XMLData object.

Description

GetCurrentChild gets the current child. Before you call GetCurrentChild you must initialize an internal iterator with [XMLData.GetFirstChild](#).

2.15.9 XMLData.GetFirstChild

See also

Declaration: [GetFirstChild](#)(*nKind* as [SPYXMLDataKind](#)) as [XMLData](#)

Return Value

Returns an xml element as XMLData object.

Description

GetFirstChild initializes a new iterator and returns the first child. Set nKind = -1 to get an iterator for all kinds of children.

Example

See the example at [XMLData.GetNextChild](#).

2.15.10 XMLData.GetNextChild

See also

Declaration: [GetNextChild](#) as [XMLData](#)

Return Value

Returns an xml element as XMLData object.

Description

GetNextChild steps to the next child of this element. Before you call GetNextChild you must initialize an internal iterator with [XMLData.GetFirstChild](#).

Check for the last child of the element as shown in the sample below.

Example

```
On Error Resume Next
Set objParent = objPlugIn.XMLRoot

'get elements of all kinds
Set objCurrentChild = objParent.GetFirstChild(-N)

Do
  'do something useful with the child

  'step to next child
  Set objCurrentChild = objParent.GetNextChild
Loop Until (Err.Number - vbObjectError = N503)
```

2.15.11 XMLData.HasChildren

See also

Declaration: [HasChildren](#) as [Boolean](#)

Description

The property is true, if the object is parent of other XMLData objects.

This property is read-only.

2.15.12 XMLData.HasChildrenKind

See also

Declaration: [HasChildrenKind](#) (*nKind* as [SPYXMLDataKind](#)) as Boolean

Description

The method returns true if the object is the parent of other `XMLData` objects of the specific kind.

Available with TypeLibrary version 1.6

Errors

- 1500 The XMLData object is no longer valid.
- 1510 Invalid address for the return parameter was specified.

2.15.13 XMLData.InsertChild

See also

Declaration: `InsertChild(pNewData as XMLData)`

Description

InsertChild inserts the new child before the current child (see also [XMLData.GetFirstChild](#), [XMLData.GetNextChild](#) to set the current child).

2.15.14 XMLData.IsSameNode

See also

Declaration: `IsSameNode(pNodeToCompare as XMLData) as Boolean`

Description

Returns true if `pNodeToCompare` references to the same node as the object itself.

2.15.15 XMLData.Kind

See also

Declaration: `Kind` as [SPYXMLDataKind](#)

Description

Kind of this XMLData object.

This property is read-only.

2.15.16 XMLData.MayHaveChildren

See also

Declaration: [MayHaveChildren](#) as [Boolean](#)

Description

Tells if it is allowed to add children to this XMLData object.

This property is read-only.

2.15.17 XMLData.Name

See also

Declaration: `Name` as `String`

Description

Used to modify and to get the name of the XMLData object.

2.15.18 XMLData.Parent

See also

Declaration: [Parent](#) as [XMLData](#)

Return value

Parent as XMLData object.

Nothing (or NULL) if there is no parent element.

Description

Parent of this element.

This property is read-only.

2.15.19 XMLData.TextValue

See also

Declaration: `TextValue` as `String`

Description

Used to modify and to get the text value of this XMLData object. See also "[Using XMLData](#)".

3 Enumerations

This section contains a listing and description of Authentic Browser enumerations.

3.1 SPYXMLDataKind

Description

The different types of XMLData elements available for XML documents.

Possible values:

spyXMLDataXMLDocStruct	= 0
spyXMLDataXMLEntityDocStruct	= 1
spyXMLDataDTDDocStruct	= 2
spyXMLDataXML	= 3
spyXMLDataElement	= 4
spyXMLDataAttr	= 5
spyXMLDataText	= 6
spyXMLDataCDATA	= 7
spyXMLDataComment	= 8
spyXMLDataP	= 9
spyXMLDataDefDoctype	= 10
spyXMLDataDefExternalID	= 11
spyXMLDataDefElement	= 12
spyXMLDataDefAttlist	= 13
spyXMLDataDefEntity	= 14
spyXMLDataDefNotation	= 15
spyXMLDataKindsCount	= 16

3.2 SPYAuthenticElementActions

Description

Actions that can be used with [GetAllowedElements](#).

Possible values:

k_ActionInsertAt	= 0
k_ActionApply	= 1
k_ActionClearSurr	= 2
k_ActionAppend	= 3
k_ActionInsertBefore	= 4
k_ActionRemove	= 5

3.3 SPYAuthenticCommand

Description

Enumeration of all available commands.

Possible values:

```
// CommandGroupMain
    k_CommandSeparator    = 0
    k_CommandSave         = 1
    k_CommandPrint        = 2
    k_CommandPrintPreview = 3
    k_CommandValidate     = 4
    k_CommandUndo         = 5
    k_CommandRedo         = 6

// CommandGroupEdit
    k_CommandEditCut      = 7
    k_CommandEditCopy     = 8
    k_CommandEditPaste    = 9
    k_CommandEditFind     = 10
    k_CommandEditRepeat   = 11
    k_CommandEditReplace  = 12

// CommandGroupMarkup
    k_CommandMarkupHide   = 13
    k_CommandMarkupLarge  = 14

// CommandGroupRow
    k_CommandRowAppend    = 15
    k_CommandRowInsert    = 16
    k_CommandRowDuplicate = 17
    k_CommandRowMoveUp    = 18
    k_CommandRowMoveDow  = 19
    n
    k_CommandRowDelete    = 20

// CommandGroupXMLTables
    k_CommandXMLTableInsert    = 21
    k_CommandXMLTableDelete    = 22
    k_CommandXMLTableAppendRow = 23
    k_CommandXMLTableInsertRow = 24
    k_CommandXMLTableDeleteRow = 25
    k_CommandXMLTableAppendCol = 26
    k_CommandXMLTableInsertCol = 27
    k_CommandXMLTableDeleteCol = 28
    k_CommandXMLTableJoinRight = 29
    k_CommandXMLTableJoinLeft  = 30
    k_CommandXMLTableJoinUp    = 31
    k_CommandXMLTableJoinDown  = 32
    k_CommandXMLTableSplitHorz = 33
    k_CommandXMLTableSplitVert = 34
    k_CommandXMLTableVAlignTop  = 35
    k_CommandXMLTableVAlignCenter = 36
    k_CommandXMLTableVAlignBottom = 37
    k_CommandXMLTableAlignLeft  = 38
    k_CommandXMLTableAlignCenter = 39
```

```
k_CommandXMLTableAlignRight    = 40
k_CommandXMLTableAlignJustify  = 41
k_CommandXMLTableEditProperties= 42

// since TypeLib 1.2
k_CommandCheckSpelling          = 43
k_CommandAbout                  = 44
k_CommandPackageManagement     = 45
```

3.4 SPYAuthenticCommandGroup

Description

Groups to which a command can belong.

Possible values:

k_CommandGroupMain	= 0
k_CommandGroupEdit	= 1
k_CommandGroupMarkup	= 2
k_CommandGroupRow	= 3
k_CommandGroupXMLTables	= 4

3.5 SPYAuthenticToolbarAlignment

Description

Values to specify toolbar alignment.

Possible values:

k_ToolbarAlignTop	= 0
k_ToolbarAlignLeft	= 1
k_ToolbarAlignBottom	= 2
k_ToolbarAlignRight	= 3

3.6 SPYAuthenticEntryHelperWindows

Description

Identification of the available entry helper windows.

Possible values:

k_Elements	= 1
k_Attributes	= 2
k_Entities	= 4

3.7 SPYAuthenticElementKind

Description

Enumeration of the different kinds of elements used for navigation and selection within the [AuthenticRange](#) and [AuthenticView](#) objects.

Possible values:

spyAuthenticChar	= 0
spyAuthenticWord	= 1
spyAuthenticLine	= 3
spyAuthenticParagraph	= 4
spyAuthenticTag	= 6
spyAuthenticDocument	= 8
spyAuthenticTable	= 9
spyAuthenticTableRow	= 10
spyAuthenticTableColumn	= 11

3.8 SPYAuthenticActions

Description

Actions that can be performed on [AuthenticRange](#) objects.

Possible values:

spyAuthenticInsertAt	= 0
spyAuthenticApply	= 1
spyAuthenticClearSurr	= 2
spyAuthenticAppend	= 3
spyAuthenticInsertBefore	= 4
spyAuthenticRemove	= 5

3.9 SPYAuthenticDocumentPosition

Description

Relative and absolute positions used for navigating with [AuthenticRange](#) objects.

Possible values:

spyAuthenticDocumentBegin	= 0
spyAuthenticDocumentEnd	= 1
spyAuthenticRangeBegin	= 2
spyAuthenticRangeEnd	= 3

3.10 SPYAuthenticMarkupVisibility

Description

Enumeration values to customize the visibility of markup.

Possible values:

spyAuthenticMarkupHidden	= 0
spyAuthenticMarkupSmall	= 1
spyAuthenticMarkupLarge	= 2
spyAuthenticMarkupMixed	= 3

Chapter 8

License Information

License Information

This section contains:

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- Information about the [intellectual property rights](#) related to this software product
- The [End User License Agreement](#) governing the use of this software product

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