Altova Authentic 2024 Browser Edition

User & Reference Manual

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1 Introduction

Altova® Authentic® 2024 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 **Microsoft Internet Explorer** browser.

Authentic Browser is available in a trusted version and an untrusted version[9], for both of which licenses are required.

1.1 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, **Microsoft Internet Explorer 5.5 or higher** is supported. The 64-bit versions of Internet Explorer 10 and 11 are not supported.
- 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 Altova's Authentic View, which is based on the widely used and easily available Internet Explorer browser. 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 a browser add-on.
- The Authentic Browser is an ActiveX control where the COM interface is defined by the Authentic 63 object. The complete object model is described in the User Reference: Objects 63 section of this documentation.

1.2 How It Works

To implement an Authentic Browser project, you will need one server machine, and one or more client machines that are connected to the server.

Authentic Browser Server

The Authentic Browser server carries out the following functions:

- The server stores files related to the Altova Authentic XML document that is to be edited. These files are:

  1. The XML Schema (XSD) on which the editable XML document is based;
  2. The XML document to be edited;
  3. The SPS or PXF file that controls the layout and input mechanisms of the XML document in Authentic View.

- The server stores the HTML Page for Authentic Plug-in[19]. This HTML page is the access point for Authentic View editing. It contains instructions to access the XML document, and it serves as a container for the Authentic View window in which the XML document is loaded and edited. To access this page, its URL is typed into client browsers.
- If you are deploying the Enterprise edition of Authentic Browser, then the Enterprise license must be stored on the server. Enterprise licenses are issued for one or more specified servers.
- If on-demand installation of the Authentic Browser plug-in is planned, the server stores the Authentic Browser extension package/s (CAB file/s) for the download and installation of the plug-in on client machines. (Otherwise, the plug-in is installed directly in client browsers.)

The steps required to prepare the server are described in the section, Server Setup[12].

Authentic Browser Clients

An XML document can be viewed and edited in Altova's Authentic View if the XML document has an SPS or PXF file assigned to it. Authentic View editing is carried out on client machines, which must be set up as follows:

- Each client must have **Internet Explorer 5.5 or higher (32-bit or 64-bit)**.
- Unless on-demand installation has been planned, the Authentic Browser plug-in must be directly installed on client machines.

The steps required to prepare clients are described in the section, Client Setup[35].

Authentic Browser mechanism

After the server and clients have been prepared as described above, the user enters the URL of the HTML page for Authentic Plug-in in the client browser. If the plug-in has not already been installed in the client browser, the HTML page can contain instructions to perform an on-demand installation of the plug-in in the client browser.

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 from the server and the user can start editing it and saving changes directly to the XML document.

1.3 Authentic Browser Versions

Authentic Browser versions are available according to the following criteria:

- *Language:* English (EN), German (DE), Spanish (ES), French (FR), Japanese (JA)
- *Trusted/Untrusted:* Trusted, Untrusted
- *Client browser:* Microsoft Internet Explorer (32-bit or 64-bit). Also see Browser Requirements 36.

For each supported language (English, German, Spanish, French, Japanese), separate trusted and untrusted versions are available for the Internet Explorer 32-bit and 64-bit browsers. One, some, or all of these versions of the Authentic Browser plug-in can be installed on a client machine. Each will be displayed as a separate plug-in in the browser's Add-on Manager.

The different versions for English (EN), German (DE), Spanish (ES), French (FR), and Japanese (JA) are listed below with their class IDs (for CAB files). You will need to specify the relevant class ID in the HTML page for Authentic Plug-in 19.

- ***CAB files and their Class IDs (identical Class IDs for 32-bit and 64-bit Internet Explorer)***

EN	Trusted	`B4628728-E3F0-44a2-BEC8-F838555AE780`
EN	Untrusted	`A5985EA9-3332-4ddf-AD7F-F6E98BFEAF94`
DE	Trusted	`91DDF44A-DFD1-4F47-8EE3-4CBE874584F7`
DE	Untrusted	`28A640E8-EAEE-4B5D-BEBE-BFA956081E66`
ES	Trusted	`23B503E7-269B-45CE-BAB2-22AA97BED8E2`
ES	Untrusted	`8AD3EF86-AC1E-4574-8C13-DE5B6CBECEBE`
FR	Trusted	`1B768F46-A9E8-4a88-91B0-2917FE47612A`
FR	Untrusted	`070F4B50-26F7-48cc-9AC1-52D562C1E749`
JA	Trusted	`5B15DB5A-1720-4264-BB65-70C3F7A860DA`
JA	Untrusted	`4B9512D2-A3D3-46e3-82C1-34248BBDCE58`

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 are supported on the following client workstations: Windows 10, Windows 11.
- Although there is a separate CAB file each for the 32-bit and 64-bit Internet Explorer versions, the Class IDs of the two `.CAB` files (for 32-bit and 64-bit IE browsers) are identical and are as given in the table above for various EN/DE/ES/JA 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. You can decide whether ActiveX controls should be disabled or enabled, or whether the browser should prompt for permission to enable ActiveX controls (see the browser-specific section for details: Internet Explorer 9 40).

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

1.4 About This Documentation

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

- An Introduction 6 that explains: (i) the benefits of using Authentic Browser 7; (ii) how Authentic Browser works 8; and (iii) the various Authentic Browser Versions 9.
- A Server Setup 12 section, which describes the steps required to set up a server for an Authentic Browser project, including a detailed description of the HTML Page for Authentic Plug-in 19, and a section explaining how the Authentic Browser extension packages can be used for on-demand installation 34.
- A Client Setup 35 section, which includes a section explaining the various ways of installing the Authentic Browser plug-in in client browsers 37.
- A three-part reference section (User Reference: Mechanisms 44, User Reference: Objects 63, and User Reference: Enumerations 181) 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.

2 Server Setup

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

Configuring the Browser Service

Install and configure the browser service of your server[13]. 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.

Setting up the XSD, XML, and SPS/PXF files

An SPS file enables the XML document to be displayed in an editable format in Authentic View. It is based on an XML Schema (XSD file) and is designed in Altova's StyleVision product. The SPS file, together with the XSD file and XML document to be edited must be stored at a network location that is accessible to all client machines (typically on the Authentic Browser server). The section XSD, XML, and SPS/PXF Files[17] describes this server preparation step in more detail.

Creating the HTML page for Authentic Plug-in

The HTML Page for Authentic Plug-in[19] is the access point for Authentic View editing. It contains instructions to access the XML document, and it serves as a container for the Authentic View window in which the XML document is loaded and edited. To access this page, its URL is typed into client browsers. This HTML page must be created correctly and stored on the server. How to create the HTML page is described in the section, HTML Page for Authentic Plug-in[19].

Storing extension packages for on-demand installation

Download Authentic Browser (a zipped CAB 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, for each language version (English, German, Spanish, French, and Japanese), there are trusted and untrusted versions of Authentic Browser, each in four formats (CAB 32-bit, CAB 64-bit). For information about which version[9] 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 plug-in by running: `regsvr32 C:\Windows\Downloaded Program Files\AuthenticPlugin.dll`. (Note that you need administrative privileges to run the program `regsvr32.exe`.)

2.1 IIS: 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.

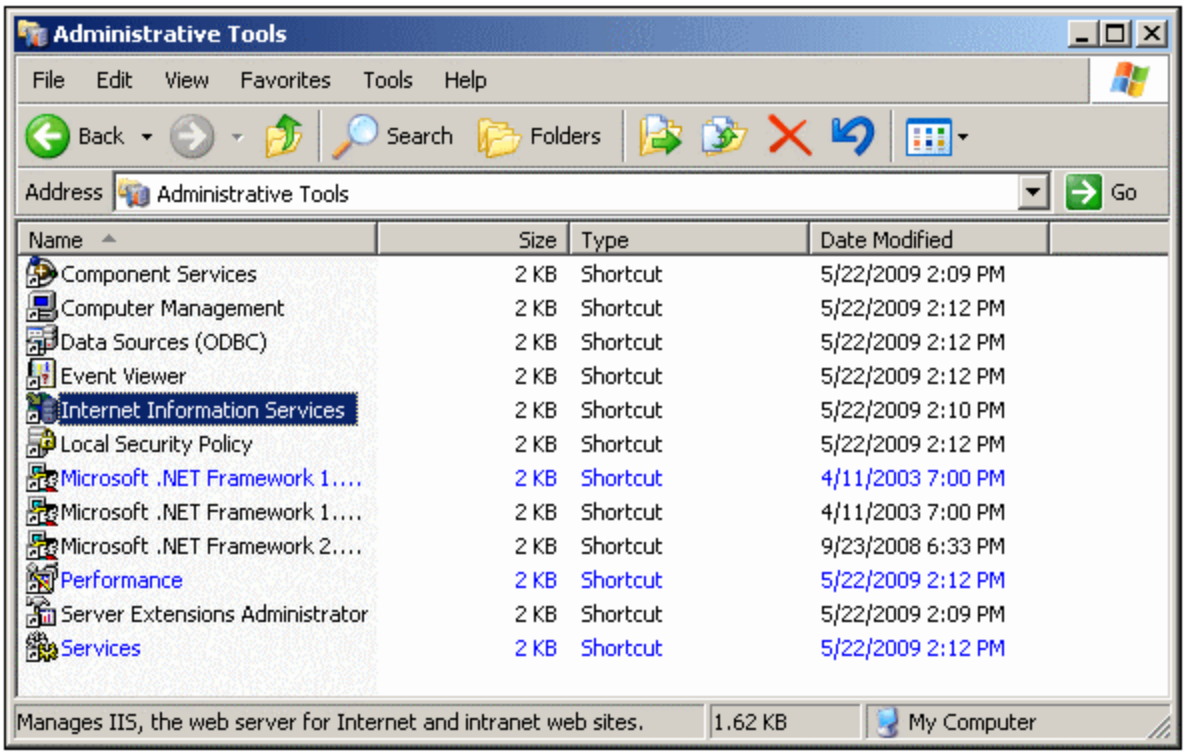
For working with Authentic Browser, the following filetypes are required and must be added:

File extension	MIME type	Comment
xsd	text/plain	
sps	text/plain	
pxf	application/x-zip-compressed	

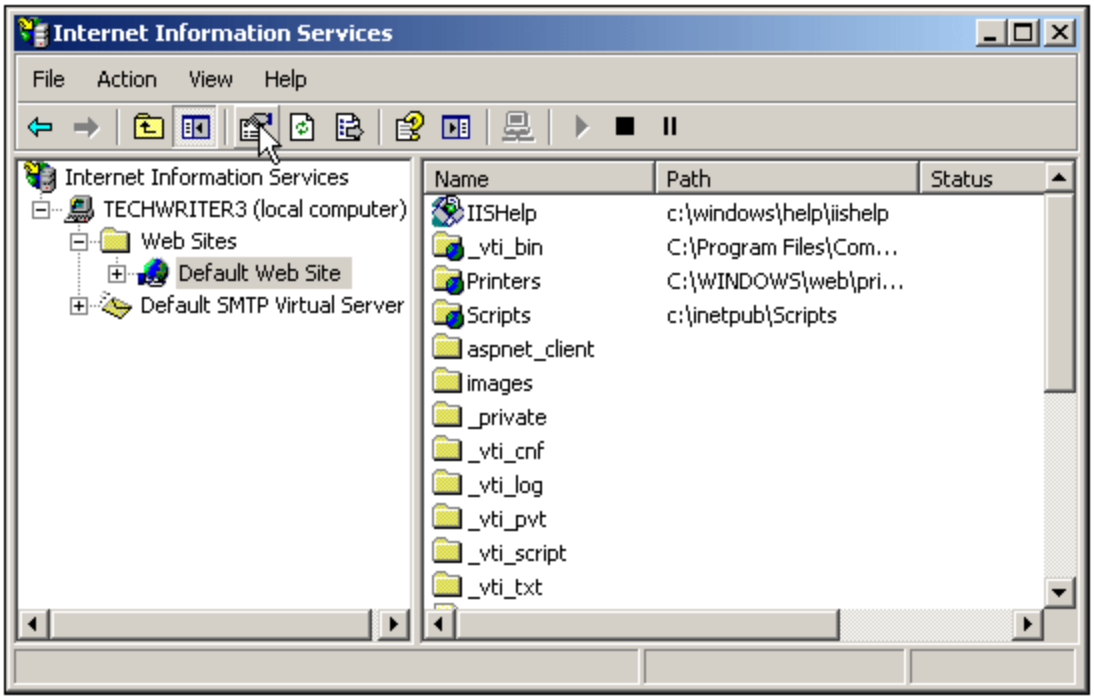
Adding MIME types for a site in Internet Information Services

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 10, Windows 11).

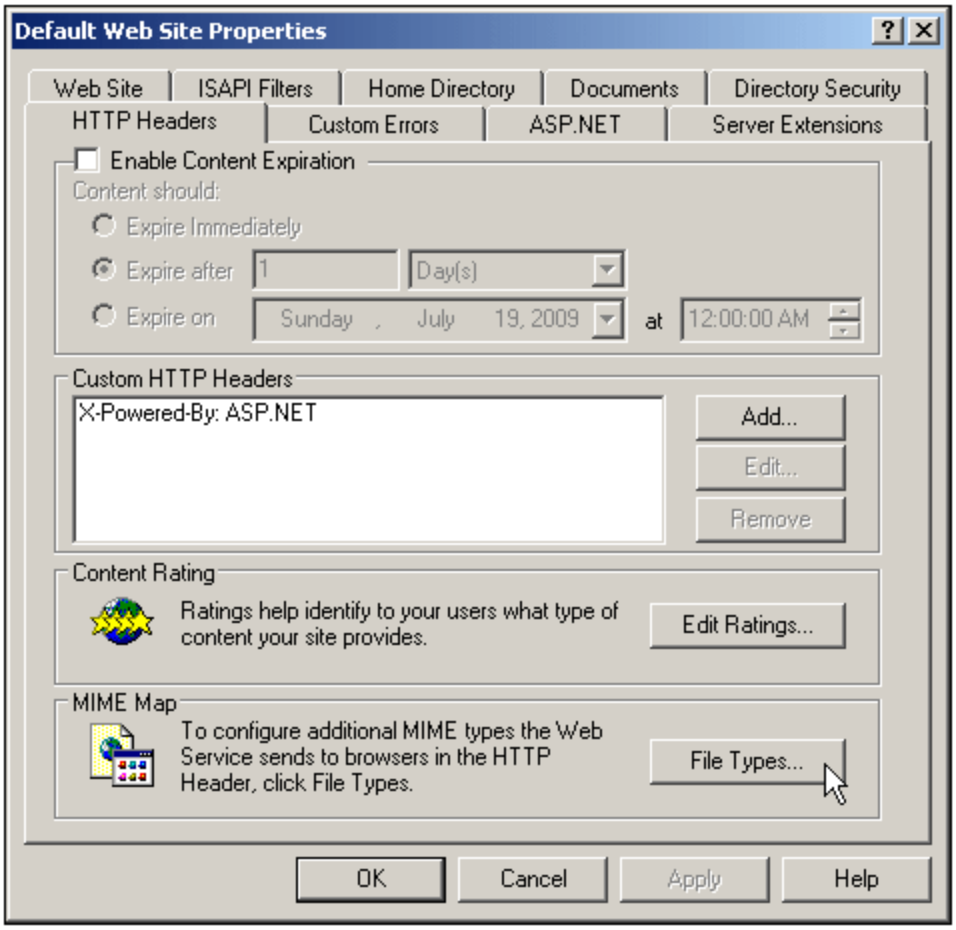
1. Open Control Panel and double-click Administrative Tools.
2. In the folder that pops up (*screenshot below*), double-click Internet Information Services.



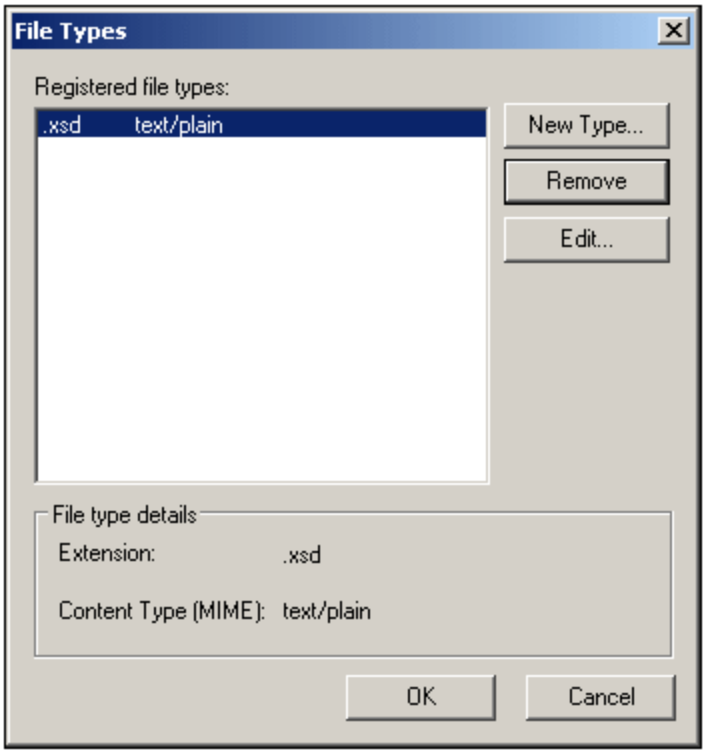
3. In the Internet Information Services (IIS) folder that appears (*screenshot below*), first select the required site (website or folder) in the folders pane (at left) and then click the **Properties** icon (*under cursor in screenshot below*) or the **Properties** command from the context menu (accessed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



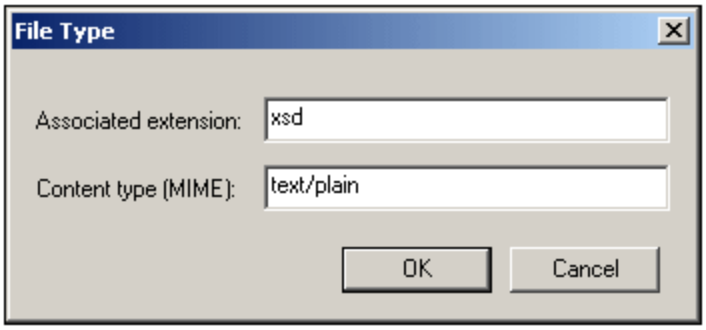
4. In the HTTP Headers tab of the Properties dialog, click the **File Types** button in the MIME Map pane (*see screenshot below*).



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.

2.2 XSD, XML, and SPS/PXF Files

The main purpose of implementing an Authentic Browser plug-in project is to view and edit an XML document in Authentic View format. This format hides the XML markup of an XML document and enables the editing of the document in a custom-designed WYSIWYG interface. The layout and data input mechanisms of an XML document in Authentic View is defined in an SPS file. The SPS file, the XML file, and the XML Schema file (XSD file) on which both the SPS and XML documents are based must therefore be stored on the network so that they are accessible to Authentic Browser clients.

SPS files

An SPS file is created in Altova's StyleVision product. It is based on the same XML Schema as that on which the XML file is based. In StyleVision, an SPS designer can use drag-and-drop and page layout mechanisms to design the SPS. The SPS file determines the layout and data input mechanisms of the XML document when it is displayed in Authentic View.

In the HTML Page for Authentic Plug-in[19], the locations of the XML file, SPS file, and XSD file are specified. The XML file is loaded in the Authentic View window (in the HTML page) and displayed according to the design specified in the SPS file. Both the XML file and the SPS file are based on the same XML Schema (though the XML file can be based on a part of the larger schema the SPS uses).

Note: 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. You can also read a description of the StyleVision product at the Altova website

XML files

The Authentic View user edits the XML document on a client machine by accessing the HTML Page for Authentic Plug-in[19]. This page contains an Authentic View window in which the XML file is loaded. The Authentic View user edits the document in the client browser and saves changes back to the XML document.

XSD files

The XSD file serves two purposes. It is used to validate the XML document, and it provides the generic document structure on which the SPS is based. Both the XML file and the SPS file reference the XSD file. So the XSD file must also be stored in at the correct location as referenced by the XML and SPS files.

Storage location of XSD, XML and SPS/PXF files

The XSD, XML, and SPS (or PXF) files must be saved at network locations that can be accessed by all client machines. The best location is the Authentic Browser server. It is best to locate these files in a single folder on the server and to specify the references within them to each other as relative paths. So, for example, the XML file should be created with the XSD reference within it specified as a relative path.

Note about 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.

Note about PXF Files

An SPS design that uses XSLT 2.0 can be saved as a Power XML Form (PXF) file. The PXF file format has been specially developed by Altova to package the SPS design with related files (such as the schema file, source XML file, image files used in the design, and XSLT files for transformation of the source XML to an output format). The benefit of the PXF file format is that all the files required for Authentic View editing and for the generation of output from Authentic View can be conveniently distributed in a single file.

Note: If a PXF file is located on a web server and will be used with the Authentic Browser Plug-in, you must ensure that the server does not block the file. You can do this by adding (via the IIS administration panel, for example) the following MIME type for PXF (`.pxf`) file extensions: `application/x-zip-compressed`.

2.3 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 CAB file on the server.
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 26.

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.

Embedding Authentic Browser

To use the Authentic Browser plug-in with Internet Explorer, an object that identifies the plug-in must be embedded in the HTML page that downloads the plug-in. This is done with the HTML `OBJECT` element:

```
<OBJECT clsid="clsid:<CLSID>"/>
```

For information on what CLSID type values to use, see Authentic Browser Versions 9.

This section

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 20 describes the licensing mechanism for the Enterprise Edition of Authentic Browser
- Internet Explorer 21 describes how to download a CAB file (having a `.cab` extension) via an HTML `OBJECT` element.
- Independent browsers 30 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` 21 and `SCRIPT` 25 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 63 in the Reference section 43.

2.3.1 Licensing for Enterprise Edition

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[19]. 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[19] is valid, Enterprise Edition functionality in the Authentic Browser File will be unlocked.
- The HTML Page for Authentic Plug-in[19] 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[19] and can be done in the following ways:

- As parameter values of the `OBJECT` element. How to do this is described in the HTML page section for Internet Explorer[21].
- 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[30].
- 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[30].

```
<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>
```

2.3.2 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 21 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 21 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 (except 64-bit IE 10 and 11), so the correct Authentic Browser plug-in version (.cab file) must be downloaded to the client. See the section, Browser-Independent Example 30, 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 25 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

This section is organized into the following sub-sections:

- The OBJECT Element 21, which describes how the HTML OBJECT 21 element is to be used in an HTML page for the Authentic plug-in.
- The SCRIPT Element 25, which describes how HTML SCRIPT 25 elements are to be used in an HTML page for the Authentic plug-in.
- Examples of full HTML pages: IE Example 1: Simple 26 and IE Example 2: Sort a Table 27.

For information about individual objects, see the respective Object descriptions 63 in the Reference section 43.

Note: The Authentic Browser plug-in is supported for **Internet Explorer 5.5 or higher**. However the 64-bit versions of Internet Explorer 10 and 11 are not supported.

2.3.2.1 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 9 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 [9].

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.

Sample OBJECT element

Given below 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: The version number given below may not be the current version number. See codebase [22] 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=12,3,0,0"
   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=12,3,0,0"
   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 [25] 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 (right-click the file and select the Properties command).

`classid`
The Class IDs for 32-bit and 64-bit `.CAB` files are identical to each other and are listed in the topic Authentic Browser Versions [9].

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.

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.

`LicKey`
The license key for validating the use of Authentic Browser Enterprise Edition.

`LicCompany`
The company name for validating the use of Authentic Browser Enterprise 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
Speficies 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
1 = 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.

1 = Elements
2 = Attributes
4 = Entities

Any combination is allowed (bit-check)

SaveButtonAutoEnable
See Authentic.SaveButtonAutoEnable 85

LoaderSettingsFileURL
Gives the URL of the LoaderSettingsFile for package management.

2.3.2.2 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>
```

Scripting languages
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 46.

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.

2.3.2.3 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 21 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=12,3,0,0"
    <!-- 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>
```

2.3.2.4 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 [21] 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 strField1 = "";
           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=12,3,0,0"
    <!-- 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>
```

2.3.3 Browser-Independent

In some projects, it may not be known what browser will be used on the client. In such cases, Authentic Browser for different Internet Explorer versions[9] 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[9] 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.

The example file listed below 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[63] in the Reference section[43].

Example file

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

- It checks what browser is installed on the client.
- 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[21] (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 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" onunload="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> </span>
     <center>
     <script language="JavaScript" type="text/javascript">
        // 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
        // -IE uses <OBJECT> tag for embeding 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 ( 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" type="text/javascript">
            // event subscription if running on Firefox
             if ( isFirefoxOnWindows() )
             {
             objPlugIn.addEventListener("ControlInitialized", InitAuthenticPluginPage,
false);
             }
      </script>

      <script event="ControlInitialized" for="objPlugIn" language="javascript"
type="text/javascript">
            // event subscription if running on Internet Explorer
             if ( isIEOnWindows() )
             {
             InitAuthenticPluginPage();
             //if ( isIEx64OnWindows() ) alert("IE x64");
             }
      </script>

   </body>
</html>
```

Note: The script above contains license information for activating Authentic Browser Enterprise Edition.

2.4 Extension Packages for On-Demand Installation

If on-demand installation of the Authentic Browser plug-in is planned, the zipped Authentic Browser extension package/s (CAB file/s) must be stored on the server. When the HTML page for Authentic Plug-in[19] is accessed in the client browser for the first time, instructions in the HTML page cause the relevant extension package to be downloaded from the server to the client, unzipped, and installed on the client.

The required Authentic Browser extension package/s for on-demand installation can be downloaded from the Altova website. They must be stored on the server as a zipped CAB file.

Internet Explorer v5.5 or higher (32-bit)	CAB file (for 32-bit IE)
Internet Explorer (64-bit)	CAB file (for 64-bit IE)

CAB files for Internet Explorer are available for 32-bit IE browsers and 64-bit IE browsers. 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[19] 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[30].

Downloading and storing the CAB file

The CAB 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**.

The installer file (CAB) is a zipped file format. **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[19] for the first time. The location of the CAB file on the server is specified in the HTML page for Authentic Plug-in[19].

3 Client Setup

The client machine is the machine on which the HTML Page for Authentic Plug-in[19] is opened and on which the Altova Authentic XML page is edited. To achieve this functionality, the Authentic Browser plug-in must be installed as an add-on in the client browser that will be used to open the HTML Page for Authentic Plug-in[19].

The Authentic Browser plug-in can be installed in the client browser automatically from the server[37] when the HTML Page for Authentic Plug-in[19] is opened in the client browser. Alternatively, the Authentic Browser plug-in can be installed directly in the client browser, either manually[37] or by using a centrally administered MSI-based push system[38].

This section describes how to set up the client machine for these functions. It describes the following:

- The Internet browser requirements[36] for enabling Authentic Browser functionality.
- The different methods of installing the Authentic Browser plug-in[37] as an add-on in supported browsers on the client machine. It also describes how to upgrade[39] and de-install[39] the Authentic Browser plug-in.
- IE9 Security Settings[40] to allow the proper functioning of the plug-in.
- IE10 Security Settings[42] to allow the proper functioning of the plug-in. Note that, for Authentic Browser plug-in to be allowed in Internet Explorer 10, the IE 10 mode should be set to Compatible Mode.

3.1 Browser Requirements

For a client machine to display an Altova Authentic XML page, it requires an Internet browser that allows plug-ins. Since a number of browser providers discontinued support for the NPAPI architecture, Authentic Browser Edition is currently supported only on **Microsoft Internet Explorer 32-bit version 9 and newer**. If you wish to use another Internet browser, you will need to use an older version that supports plug-ins.

The list below provides information about support levels for Authentic Browser plug-in among the major Internet browsers.

- *Microsoft Internet Explorer 32-bit* version 9 and newer support Authentic Browser.
- *Microsoft Internet Explorer 64-bit* version 9 is the last 64-bit version that can be used. Versions newer than that are Microsoft Edge.
- *Microsoft Edge* does not support Authentic Browser since it never supported ActiveX controls as plug-ins.

Note: Internet Explorer **must** be installed because the Authentic View interface (which will be displayed within the browser window) is generated using Internet Explorer.

3.2 Authentic Browser Plug-in

This section describes the various ways in which Authentic Browser can be installed on a client machine, as well as how the plug-in can be upgraded and de-installed.

Installation of multiple versions

There are several versions of Authentic Browser. For each supported language (English, German, Spanish, French, Japanese), separate trusted and untrusted versions are available for Microsoft Internet Explorer 32-bit and 64-bit.

One, some, or all of these versions of the Authentic Browser plug-in can be installed on a client machine. Each will be displayed as a separate plug-in in the browser's Add-on Manager.

For more information about versions, see Authentic Browser Versions 9

3.2.1 Installation on Demand

The best way of installing the Authentic Browser plug-in is to have it automatically installed when needed. This mechanism works as follows:

1. The extension CAB packages are stored on the server.
2. When the HTML page for Authentic Plug-in 19 is opened in the client's browser, instructions in the HTML page download the relevant extension package and install the Authentic Browser plug-in in the client browser.

Use the `CODEBASE` attribute of the `OBJECT` element to specify the URL of the CAB file. See the example for Internet Explorer 21 for details.

3.2.2 Manual Installation via MSI

There is no way to manually install an Internet Explorer add-on contained in a CAB file. However, you can manually install via MSI.

Download an MSI installer (Microsoft Windows Installer) file for Authentic Browser from the Altova website. This file is an executable installer file (with a `.exe` extension) that installs the Authentic Browser plug-in in the supported browsers (Microsoft Internet Explorer 32-bit and 64-bit) currently installed on the client machine.

Installation

Download the MSI installer file to the client machine and double-click it to start the installation. The plug-in will be installed (by default to the folder: `C:\Program Files (x86)\Altova\AuthenticBrowserPlugin\...`) and integrated in the currently installed supported browsers in one step. Selective installation for different browsers is possible via the Custom Installation dialog.

The *Add/Remove Programs* list on a client machine will show the installed browser edition.

MSI versions

There is an MSI installer file for each supported language (English, German, Spanish, French, Japanese), each trusted/untrusted type, and each 32-bit/64-bit browser-type. So, for example, there will be one MSI installer file for English Trusted 32-bit browsers, another for English Trusted 64-bit browsers, another for English Untrusted 32-bit browsers, and so on.

For more information about versions, see Authentic Browser Versions 9

3.2.3 Push Installation using MSI

Where installation of new software is managed by a central IT team and installers are pushed out within an administration framework, installation via a native MSI installer (Microsoft Windows Installer) is an advantage. This is especially true for Internet Explorer where installation of a plug-in requires administration rights.

You can download an MSI installer (Microsoft Windows Installer) file for Authentic Browser from the Altova website. This file is an executable installer file (with a `.exe` extension) that installs the Authentic Browser plug-in in the supported browsers supported browsers (Microsoft Internet Explorer 32-bit and 64-bit) currently installed on the client machine.

Installation

Download the MSI installer file to the administration server and include it in your administrative procedures for installing to client machines. The plug-in will be installed (by default to the folder: `C:\Program Files (x86)\Altova\AuthenticBrowserPlugin\...`) and integrated in the currently installed supported browsers in one step. Selective installation for different browsers is possible via the Custom Installation dialog.

For silent installation, use the command line input parameter `/q`.

The *Add/Remove Programs* list on a client machine will show the installed browser edition.

MSI versions

There is an MSI installer file for each supported language (English, German, Spanish, French, Japanese), each trusted/untrusted type, and each 32-bit/64-bit browser-type. So, for example, there will be one MSI installer file for English Trusted 32-bit browsers, another for English Trusted 64-bit browsers, another for English Untrusted 32-bit browsers, and so on.

For more information on versions, see Authentic Browser Versions 9

3.2.4 Automatic Updates

The availability of Authentic Browser upgrades and the installation of these updates for Internet Explorer works as follows:

- Set the `codebase` attribute value of the `object` element in the HTML Page for Authentic Plug-in[19] with the suffix `#Version=...` to indicate the version number of the plug-in available on the server.
- If the version of the plug-in installed on the user's machine is less than that version, the user will be asked whether the plug-in should be upgraded.

3.2.5 De-installation, Disabling

If installation has been via MSI, then the *Add/Remove Programs* list on a client machine will show the installed browser edition. If you uninstall the product via the *Add/Remove Programs* list, the plug-in will be removed from the browser and from the MSI list.

When a plug-in is installed in a browser, it is displayed as enabled in the browser's Add-on Manager. If you remove the plug-in from the browser's Add-on Manager, the plug-in will be disabled but stays on disk.

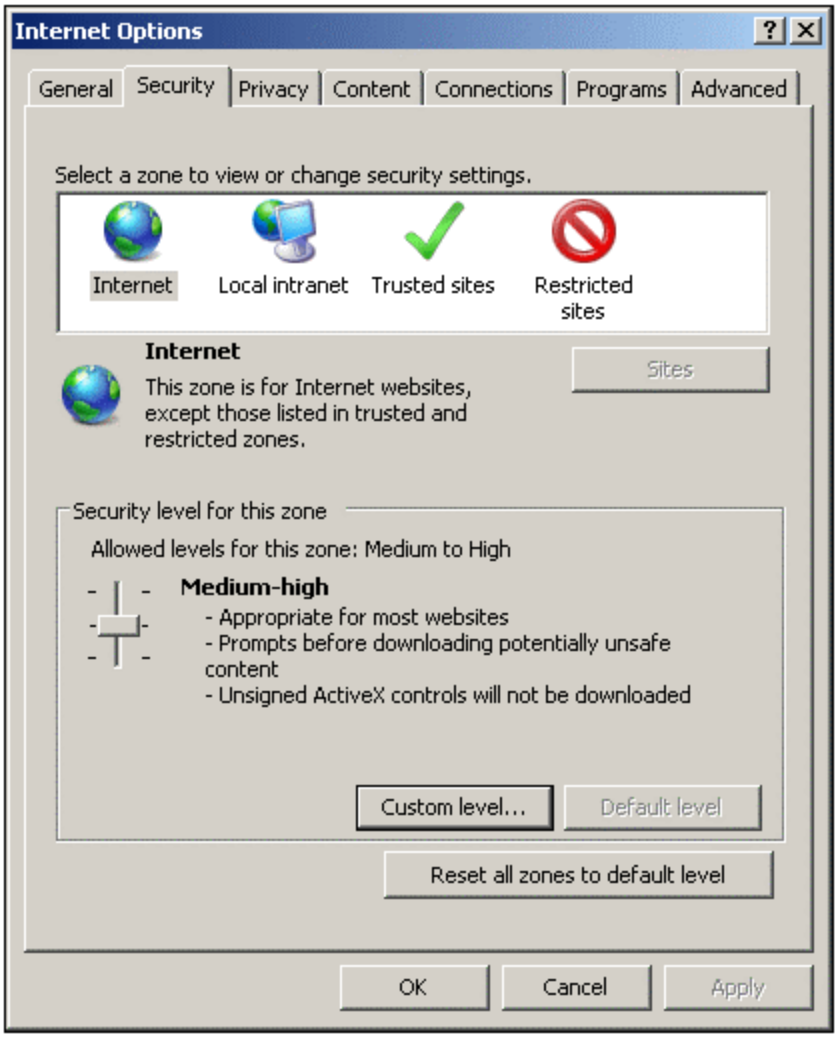
3.3 IE9 Security Settings

If the Untrusted version of Authentic Browser[9] is being used in Internet Explorer 9, you might get the following error message:

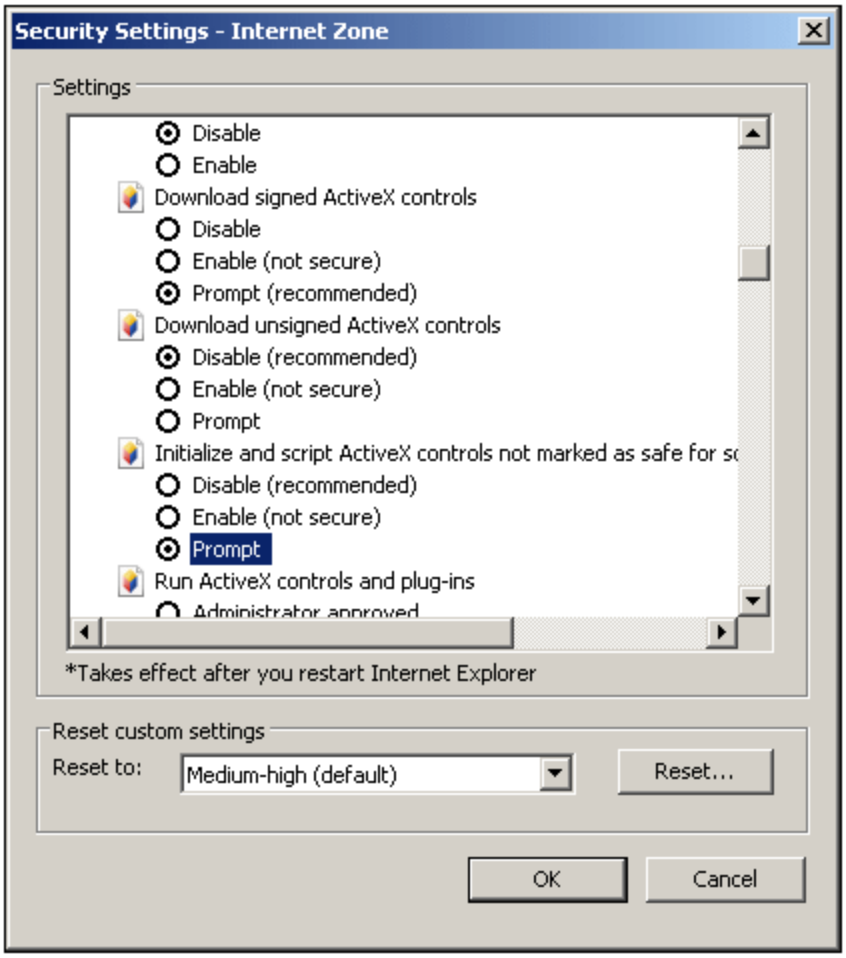
Internet Explorer blocked an ActiveX control, so this page might not display correctly.

To enable ActiveX controls, you must set the relevant security option in the Internet Options of Internet Explorer. Do this as follows:

1. Open the Internet Options dialog (*screenshot below*) of Internet Explorer by clicking the menu command **Tools | Internet Options**.



2. Select the Security tab (*see screenshot above*), then the zone for which you wish to make the setting (Internet or Local intranet).
3. Next, click the **Custom Level** button. This pops up the Security Settings dialog (*screenshot below*).



4. Scroll down to the *ActiveX controls and plug-ins* section, and within this to the setting *Initialize and script ActiveX controls not marked as safe for scripting*. Select the *Prompt* option (*see screenshot above*).
5. Restart Internet Explorer for the new setting to take effect.

From now onwards, each time an HTML Page for Authentic Plug-in[19] attempts to load an ActiveX file, Internet Explorer will prompt you about whether you wish to load the control or not.

3.4 IE10 Security Settings

Internet Explorer 10 (IE10) has two browser modes:

- Metro-style, which runs Enhanced Protection Mode security, and
- Desktop, which runs Compatible Mode security.

To run Authentic Browser plug-in, you must set IE10 to Compatible mode (**Tool| Options | Security**).

4 User Reference

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

4.1 Mechanisms

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

4.1.1 Events: Connection Point for IE

Authentic Browser provides various connection point events (see also Events: Reference 46), 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 72 object is not populated when this event occurs. If event handlers are registered in your script, the Authentic.event 72 object properties contain values from the last event to have occurred. The Authentic.CurrentSelection 68 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=12,3,0,0"
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>
```

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. Also see The OBJECT Element 21 for details.

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">
```

4.1.2 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 toobar icon. Note that not every command (from the Authentic.UICommands 89 collection) has its own associated event. To find out which icon the user clicked, the script has to check the AuthenticEvent.srcElement 100 property, which contains a reference to a corresponding AuthenticCommand 91 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 == 1)
 {
  // 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[136].

4.1.3 Events: Reference

List of connection point events

Name	since TypeLib	Description
SelectionChanged	1.0	Selection in the editor has changed. The Authentic.CurrentSelection[68] object now contains valid information. The properties of the Authentic.event[72] object are not set.
ControlInitialized	1.2	The control is now fully loaded and initialized. The properties of the Authentic.event[72] object are not set.
dragover	1.8	A drag-over operation is occuring.
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[45]. The properties of the Authentic.event[72] 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[72] object are set on calling the event handler.

Note: These event-handlers are synchronous, that is, they are called immediately when the event occurs.

4.1.4 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.

4.1.5 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 71	Undo an editing operation
IsEditRedoEnabled	Authentic.EditRedo 70	Redo an editing operation
IsEditCopyEnabled	Authentic.EditCopy 70	Copy the selected text to the clipboard
IsEditCutEnabled	Authentic.EditCut 70	Cut the selected text to the clipboard
IsEditPasteEnabled	Authentic.EditPaste 70	Paste clipboard text to current cursor position
IsEditClearEnabled	Authentic.EditClear 69	Clear the selected text from the XML document

4.1.6 Find and Replace

The Authentic.FindDialog 72 method, opens a Find dialog box, in which the user can enter a search term. The Authentic.FindNext 73 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 82 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.

4.1.7 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 84	Row insertion operation.
IsRowAppendEnabled	Authentic.RowAppend 83	Append row operation.
IsRowDeleteEnabled	Authentic.RowDelete 83	Delete row operation.
IsRowMoveUpEnabled	Authentic.RowMoveUp 84	Move the XML data up one row.
IsRowMoveDownEnabled	Authentic.RowMoveDown 84	Move the XML data down one row.
IsRowDuplicateEnabled	Authentic.RowDuplicate 83	Duplicate the current row.

4.1.8 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

4.1.9 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 or custom button in the toolbar. This URL to the icon's image file is provided as the value of the Authentic.TextStateBmpURL[88].

4.1.10 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 explicity activated. To enable entry helpers, use the following `PROPERTYBAG` parameters in the `OBJECT` tag of Internet Explorer[21]:

`EntryHelpersEnabled`	TRUE / FALSE
`EntryHelperSize`	Size in pixels
`EntryHelperAlignment`	Takes SPYAuthenticToolbarAllignment[185] values
`EntryHelperWindows`	Takes SPYAuthenticEntryHelperWindows[184] values. Any combination is allowed (bit-check)

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

Properties

- Authentic.EntryHelpersEnabled[71]
- Authentic.EntryHelperAlignment[71]
- Authentic.EntryHelperSize[72]
- Authentic.EntryHelperWindows[72]

Method

- Authentic.RedrawEntryHelpers[82]

4.1.11 Packages

Authentic Browser Plug-in supports packages that extend program module functionality. Packages are stored on the server and are installed locally (on the client) on demand via the Authentic Browser GUI. Once a package is installed locally, it is activated on every startup until the user removes it.

Currently, Authentic Browser supports spellchecker packages.

This section is organized into two parts:

- Working with packages[49], which describes how the packages mechanism works
- Spellchecker packages[51], which explains how spellchecker packages are to be stored on the server and how they are installed and used

4.1.11.1 Working with Packages

Packages are stored on the server and are installed locally (on the client), on demand via the Authentic Browser GUI. Once a package is installed locally, it is activated on every startup until the user removes it.

Package management

Package management is an Authentic Browser functionality that gives the Authentic Browser user control over available packages. This functionality is available via the Package Management dialog.

To enable package management functionality, you must use the `LoaderSettingsFileURL` parameter in the HTML Page for Authentic Plug-in [19]. This parameter specifies the URL of the LoaderSettings file for package management (which can reside at any accessible location):

In an HTML page for Internet Explorer [21], the `LoaderSettingsFileURL` parameter is used as a child `PARAM` element of the `OBJECT` element:

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

The LoaderSettings file contains the definitions of the packages, along with the URLs of the respective packages. Given below is the listing of a LoaderSettings file.

Example of a LoaderSettings XML file

The document element of the LoaderSettings XML file is `loadersettings` (*see listing below*). This element can contain multiple child `package` and/or multiple `zippackage` elements.

- The `package` element is used to reference the older `.pck` spelling packages and is used by Authentic Browser versions previous to version 2011r3. These Authentic Browser versions ignore the `zippackage` element.
- The `zippackage` element is used to reference the `.zip` spelling packages and is used by Authentic Browser versions from version 2011r3 onwards. These Authentic Browser versions ignore the `package` element.

For more details about the spelling packages, see the section, Spellchecker Packages [51].

```
<?xml version="1.0" encoding="UTF-8"?>
<loadersettings>

   <zippackage mode="user_demand"  category="spelling">
      <packageurl>Portuguese (Brazilian).zip</packageurl>
      <description>Portuguese (BR) language pack.</description>
   </zippackage>

   <zippackage mode="user_demand"  category="spelling">
      <packageurl>Portuguese (Brazilian).zip</packageurl>
      <description>Portuguese (BR) language pack.</description>
   </zippackage>

   <package mode="user_demand" id="SentrySpellChecker_EAM_only"
      category="spelling" version="1">
      <packageurl>PlugIn/SentrySpellChecker_EAM_only.pck</packageurl>
      <description>Sentry Spellchecker (EN-US)</description>
   </package>
```

```
   <package mode="user_demand" id="SentrySpellChecker_EALL"
      category="spelling" version="1">
      <packageurl>PlugIn/SentrySpellChecker_EALL.pck</packageurl>
      <description>Sentry SpellChecker EN with Legal and Medical.</description>
   </package>

</loadersettings>
```

The following should be noted:

- The location of a package must be specified as content of the `packageurl` child of the package or `zippackage` element. The location path can be absolute, or be relative to the HTML file that calls the LoaderSettings file. The package can be located anywhere on the server.

- Removing a package from the XML file (by removing a package element) causes the package to not be available for installation on the client.

- The `mode` attribute of the `package` element specifies the level of user influence over the decision to install the package. The following values may be used:

  1. user: Causes the user to be asked at every Authentic Browser startup whether the package should be installed.
  2. user_demand: Installs the package when this is specifically asked for by the user. The user specifically requests this by clicking either the toolbar button to spellcheck or to open the Package Management dialog.
  3. force: Causes the package to be installed without notifying the user.

- The content of the `description` child of `package` can be edited and will be used as descriptive text in the package management dialog.

One-time installation of packages

If Authentic Browser is updated to a newer version, there is no need to reinstall a package that was previously installed on the client. The already installed package will be used by the new version. Authentic Browser on the client PC reads the LoaderSettings file on the server, retrieves package information from this file, and checks whether the package is locally installed.

Note: Spelling packages supported in version 2011r3 and later (.zip packages) use a different spellchecker than the spelling packages of previous versions (.pck packages). Authentic Browser versions from version 2011r3 onwards use either the .zip spelling packages. Older versions of Authentic Browser use the .pck spelling packages.

4.1.11.2 Spellchecker Packages

From version 2011r3 onwards, Authentic Browser uses Hunspell dictionaries.

Installation location

On a client machine, these dictionaries are located in a `Lexicons` folder at the following location:

On Windows 7/8: `C:\ProgramData\Altova\SpellChecker\Lexicons`
On Windows XP: `C:\Documents and Settings\All Users\Application Data\Altova\SharedBetweenVersions\SpellChecker\Lexicons`

If any Altova product has been installed on the client machine, then a set of built-in dictionaries will have been installed in the `Lexicons` folder at the location listed above. All installed dictionaries are shared by the different users of the machine and the different major versions of Altova products (whether 32-bit or 64-bit).

Additional dictionaries can be downloaded from the Altova website. Hunspell dictionaries can also be downloaded from other websites, for example, from http://wiki.services.openoffice.org/wiki/Dictionaries or http://extensions.services.openoffice.org/en/dictionaries. Also note that since Hunspell dictionaries are based on Myspell dictionaries, Myspell dictionaries can also be installed in the `Lexicons` folder. OpenOffice zips dictionary files as `.oxt` files. So one can change the extension to `.zip` and then unzip the necessary `.aff` and `.dic` files. Users must ensure that they are in conformance with the license agreement governing the use of any dictionary files they install.

Note: The selection of built-in dictionaries that ship with Altova software does not constitute any language preferences by Altova, but is largely based on the availability of dictionaries that permit redistribution with commercial software, such as the MPL, LGPL, or BSD licenses. Many other open-source dictionaries exist, but are distributed under more restrictive licenses, such as the GPL license. Many of these dictionaries are available as part of a separate installer located at http://www.altova.com/dictionaries. It is your choice as to whether you can agree to the terms of the license applicable to the dictionary and whether the dictionary is appropriate for your use with the software on your computer.

Dictionary files and dictionary folder structure on the client

Each installed dictionary on the client machine consists of two Hunspell dictionary files that work together: a `.aff` file and `.dic` file.

All language dictionaries are installed in the `Lexicons` folder at the location listed above. Within the `Lexicons` folder, different language dictionaries are each stored in a different folder: `<language name>\<dictionary files>`. These language folder names will be the dictionary names that are displayed in Authentic Browser. The structure of the `Lexicons` folder and the corresponding dictionary names as they would appear in Authentic Browser are as listed below.

```
Lexicons
       |
       |-- English (British)        Dictionary name: English (British)
       |          |
       |          |-- .aff file
       |          |   .dic file
       |
       |-- English (US)             Dictionary name: English (US)
       |          |
       |          |-- .aff file
       |          |   .dic file
       |
       |-- German                   Dictionary name: German
       |          |
       |          |-- .aff file
       |          |   .dic file
```

Dictionary files on the server

A language dictionary must be saved on the server as a ZIP file. When the ZIP file is downloaded to the client and installed, a language folder is created in the `Lexicons` folder (see Installation Location above) and the unzipped `.aff` and `.dic` files are placed in this folder. For example, the file `English (British).zip` is creates the folder: `<path>\Lexicons\English (British)` and installs the `.aff` and `.dic` files in this folder.

Also, multiple ZIP files can be zipped in a single ZIP file and this single file can be placed on the server. When this ZIP file is downloaded to the client and installed there, the name of the innermost ZIP files are used as the names of the folders in the Lexicons folder. For example, the files `English (British).zip` and `English (US).zip` can be zipped into a file called `English.zip`, which is placed on the server. On installation, two folders will be created in the `Lexicons` folder: `<path>\Lexicons\English (British)` and `<path>\Lexicons\English (US)`.

Dictionary installation mechanism

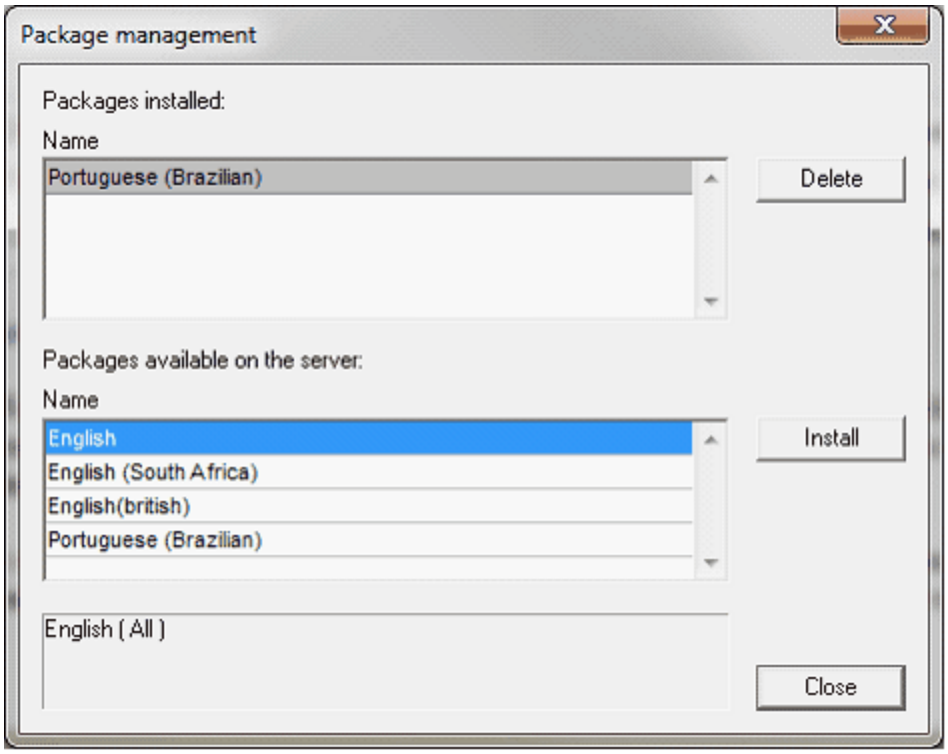
When an HTML page for Authentic Plug-in is opened, the dictionary packages can be installed on the client, either automatically or when the user requests it. The installation mechanism works as follows:

1. The HTML page that is opened in Authentic Browser references the LoaderSettings file[49].
2. The LoaderSettings file[49] references the spelling package on the server. The LoaderSettings file[49] also specifies, for each spelling package, whether that package should be installed automatically immediately after the HTML page is loaded or whether the user should be asked about installation.
3. The spelling package is installed from the zipped file on the server to the client

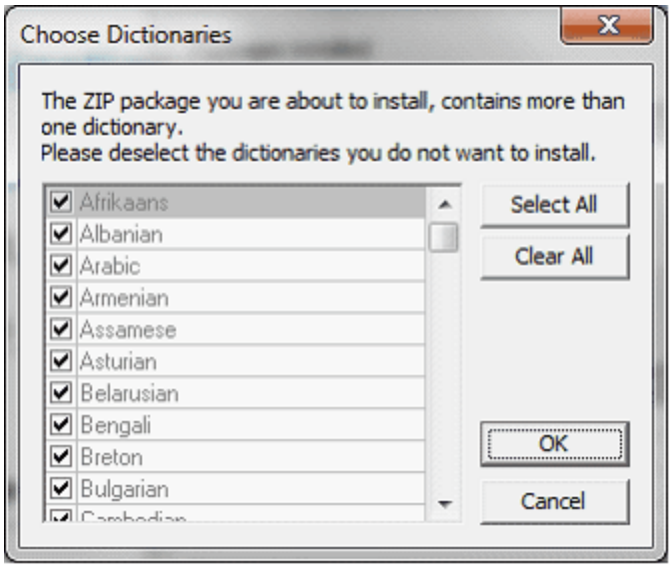
Dictionary installation

Spellchecker packages are stored on the server as ZIP (`.zip`) files and can be installed locally via the Authentic Browser GUI. To install a spellchecker package, click the Package Management icon in the Authentic Browser GUI. This pops up the Package Management dialog (*screenshot below*). The Package Management dialog also pops up if no dictionary is installed and the Spellchecker icon is clicked.

In the Package Management dialog (*screenshot below*), all the packages available on the server are listed in the lower pane. The names displayed are the names of the ZIP files on the server. Select the files you wish to install and then click **Install**. Installed packages can be deleted by selecting them in the upper pane and clicking **Delete**.



If a ZIP file selected for installation contains multiple ZIP packages, then the Choose Packages dialog (*screenshot below*) pops up. In this dialog, you can check the packages you wish to install, or uncheck the packages you wish not to install. Click **OK** to install the checked packages. This mechanism enables you to store each language dictionary separately on the server or within a single ZIP file.



If the installation of a package will overwrite an existing package, a warning message is displayed. The Authentic Browser user can then either go ahead with the overwriting or cancel.

4.1.12 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

The XMLData interface works differently in the Authentic API from the way it works in the XMLSpy API, specifically if new elements are inserted into the XML file or existing elements are renamed. See the sections below named *Creation and Insertion of New XMLData objects* and *Name and Value of Elements*.

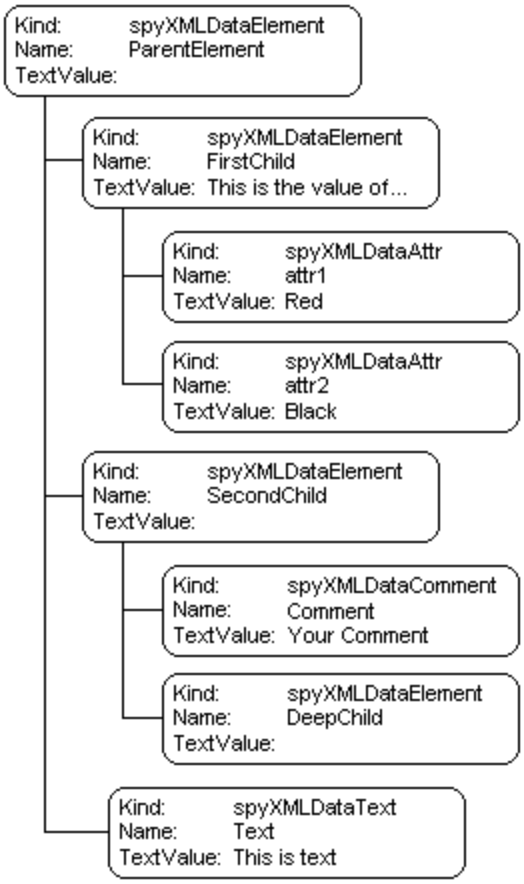
Structure of XMLData

In order to use the XMLData interface, you must know how an existing XML file is mapped to an XMLData structure. One important point is this: XMLData has no separate objects for attributes; the attributes of an element are children of the element. An element can have other types of children (such as child elements and text content). The XMLData.Kind[179] property gives you the opportunity to distinguish between the different types of children of an element. Given below is an example:

The following XML code,

```
<ParentElement>
  <FirstChild attr1="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 a file is the property Authentic.XMLRoot[91]. Use this XMLData object to get references to all other XML elements in the structure.

Name and value of elements

To get and modify the name and value of all types of XML elements, use the XMLData.Name[179] and XMLData.TextValue[180] 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 Authentic View because the name has a bearing on how Authentic View displays the content of the element. See the StyleVision documentation for information.

Creation and insertion of new XMLData objects

Create a new XMLData object (such as an element, attribute or text node) as follows:

1. Use the Authentic.CreateChild[68] method to create a new XMLData object. Set the name and value of the new object before you insert it.
2. Insert the new object at the correct location with reference to its parent: (i) If the new child is to become the last child of the parent, use the XMLData.AppendChild[171] method. (ii) To insert the new child elsewhere in the sequence of child objects, use either the XMLData.GetFirstChild[175] or XMLData.GetNextChild[176] method to locate the child before which the new child should be inserted; then insert the new child with XMLData.InsertChild[178]. The new child will be inserted immediately before the current child.

Note: In Authentic View, a new element can be created together with its substructure because the element's structure is defined in the XML Schema. However, whether the substructure is created or not can be set in the node settings of the SPS. See the StyleVision documentation for information.

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

```
Dim objParent
Dim objChild
Dim objNewChild

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

'objParent is set to <ParentElement>
'GetFirstChild(-1) gets all children of the parent element
'and move to <SecondChild>
Set objChild = objParent.GetFirstChild(-1)
Set objChild = objParent.GetNextChild

objParent.InsertChild objNewChild
Set objNewChild = Nothing
```

An element's child nodes must be inserted in a specific order: insert the element's attributes first, then the element's child elements. Text content of an element must be added as a child node of type text; use Authentic.CreateChild 68 with the parameter value 6. An element's text content is entered as the text value of the child node.

Copying 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, you need 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(-1);

  while(objChild){
   try {
    objNew.AppendChild(GetCopy(objChild));
    objChild = objXMLData.GetNextChild();
```

```
    }
    catch(e) {
     objChild = null;
    }
   }
  }

  return objNew;
}
```

Removing XMLData objects

XMLData provides two methods for removing child objects: XMLData.EraseAllChildren[172] and XMLData.EraseCurrentChild[173]. To remove XMLData objects, first access the parent of the elements you want to remove. Use XMLData.GetFirstChild[175]" and XMLData.GetNextChild[176] to get a reference to the parent XMLData object. See the method descriptions of XMLData.EraseAllChildren[172] and XMLData.EraseCurrentChild[173] for examples how to erase XML elements.

4.1.13 DOM and XMLData

The XMLData interface gives you full access to the XML structure of the current document with fewer methods than the 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 if you can access one from an external source or if you prefer the MSXML DOM implementation.

The **`ProcessDOMNode()`** and **`ProcessXMLDataNode()`** functions noted 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

The code below shows how to convert from DOM to XMLData.

```
////////////////////////////////////////////////////////////
// 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

The code below shows how to convert from XMLData to DOM.

```
////////////////////////////////////////////////////////////
// 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 1:
  case 2:
  case 5:
  case 6:
  case 11:return true;
 }

 return false;
}
```

4.1.14 Authentic Scripting

The **Authentic Scripting** feature provides more flexibility and interactivity to SPS designs. These designs can be created or edited in StyleVision Enterprise and Professional editions, and can be viewed in the Authentic View of the Enterprise and Professional editions of Altova products.

A complete listing of support for this feature in Altova products is given in the table below. Note, however, that in the trusted version of Authentic Browser plug-in, internal scripting is turned off because of security concerns.

Altova Product	Authentic Scripts Creation	Authentic Scripts Enabled
StyleVision Enterprise	Yes	Yes

StyleVision Professional	Yes	Yes
StyleVision Basic *	No	No
XMLSpy Enterprise	No	Yes
XMLSpy Professional	No	Yes
AuthenticDesktop Enterprise	No	Yes
Authentic Browser Ent Trusted **	No	Yes
Authentic Browser Ent Untrusted	No	Yes

* *No AuthenticView*
** *Scripted designs displayed. No internal macro execution or event handling. External events fired.*

Authentic Scripts behave in the same way in all Altova products, so no product-specific code or settings are required.

How Authentic Scripting works

The designer of the SPS design can use Authentic Scripting in two ways to make Authentic documents interactive:

- By assigning scripts for user-defined actions (macros) to design elements, toolbar buttons, and context menu items.
- By adding to the design event handlers that react to Authentic View events.

All the scripting that is required for making Authentic documents interactive is done within the StyleVision GUI (Enterprise and Professional editions). Forms, macros and event handlers are created within the Scripting Editor interface of StyleVision and these scripts are saved with the SPS. Then, in the Design View of StyleVision, the saved scripts are assigned to design elements, toolbar buttons, and context menus. When an XML document based on the SPS is opened in an Altova product that supports Authentic Scripting (*see table above*), the document will have the additional flexibility and interactivity that has been created for it.

Documentation for Authentic Scripting

The documentation for Authentic Scripting is available in the documentation of StyleVision. It can be viewed online via the Product Documentation page of the Altova website.

4.2 Objects

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

4.2.1 Authentic

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Description
Authentic Class

4.2.1.1 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>f r agment </ b>
```

The HTML tag <b> will cause the word fragment to be bolded. However, this only happens because the HTML parser knows that the tag <b> 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[80] and IsTextStateApplied[80].

4.2.1.2 Authentic.attachCallBack

Deprecated

Use connection point events instead as described here[44].

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[72] 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:

```
// somwhere 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 = 1;
  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();
}
```

4.2.1.3 AuthenticView

See also

Declaration: AuthenticView as AuthenticView[141] (read-only)

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

AuthenticView[141] 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 dyamic tables [27] for information on how to use the AuthenticView object.

4.2.1.4 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

4.2.1.5 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.

4.2.1.6 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() [87] 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.

4.2.1.7 Authentic.ClearUndoRedo

Declaration: ClearUndoRedo()

Description
The method clears the whole Undo/Redo buffer.

4.2.1.8 Authentic.ControlInitialized

See also

Declaration: ControlInitialized

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

See also Connection point events [44].

4.2.1.9 Authentic.CreateChild

See also

Declaration: CreateChild(*nKind* as SPYXMLDataKind [185]) as XMLData [170]

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 [170] interface.

See also XMLData.AppendChild [171] and XMLData.InsertChild [178]

4.2.1.10 Authentic.CurrentSelection

See also

Declaration: CurrentSelection as AuthenticSelection [135]

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;
}
```

4.2.1.11 Authentic.DesignDataLoadObject

See also

Declaration: DesignDataLoadObject as AuthenticLoadObject[104]

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[86] for an example.

4.2.1.12 Authentic.EditClear

See also

Declaration: EditClear

Description
Clears the current selection.

4.2.1.13 Authentic.EditCopy

See also

Declaration: EditCopy

Description
Copies the current selection to the clipboard.

4.2.1.14 Authentic.EditCut

See also

Declaration: EditCut

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

4.2.1.15 Authentic.EditPaste

See also

Declaration: EditPaste

Description
Pastes the content from the clipboard into the document.

4.2.1.16 Authentic.EditRedo

See also

Declaration: EditRedo

Description
Redo the last undo step.

4.2.1.17 Authentic.EditSelectAll

See also

Declaration: EditSelectAll

Description
The method selects the complete document.

4.2.1.18 Authentic.EditUndo

See also

Declaration: EditUndo

Description
Undo the last action.

4.2.1.19 Authentic.EnableModifications

Declaration: EnableModifications as Boolean

Description
True if Authentic Browser modifications to the XML content are enabled. See also the Modified[81] property.

Default value: TRUE

4.2.1.20 Authentic.EntryHelperAlignment

Declaration: EntryHelperAlignment as SPYAuthenticToolbarAllignment[185]

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

4.2.1.21 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

4.2.1.22 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

4.2.1.23 Authentic.EntryHelperWindows

Declaration: EntryHelperWindows as SPYAuthenticEntryHelperWindows[184]

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.

4.2.1.24 Authentic.event

See also

Declaration: event as AuthenticEvent[96]

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

4.2.1.25 Authentic.FindDialog

See also

Declaration: FindDialog

Description
Displays the FindDialog.

See also Find and replace[47].

4.2.1.26 Authentic.FindNext

See also

Declaration: FindNext

Description
The method performs a find next operation.

See also Find and replace [47].

4.2.1.27 Authentic.GetAllAttributes

See also

Declaration: GetAllAttributes(*pForElement* as XMLData [170], *pElements* as Variant)

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

JavaScript example:

```
function GetAttributes()
{
 var arrElements = new Array(1);

 var objStart = objPlugIn.CurrentSelection.Start;

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

 for(var i = 1;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 - 1);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(13) & chr(13)

  dim i

  For i = 1 To 4
   objView.GetAllAttributes objStart, arrElements
   strText = strText & ListArray(arrElements) & "---------------" & chr(13)
  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(13)
   Next
  End If

  ListArray = strText
 End Function
```

4.2.1.28 Authentic.GetAllowedElements

See also

Declaration: GetAllowedElements(*nAction* as SPYAuthenticElementActions[183],*pStartElement* as XMLData[170],*pEndElement* as XMLData[170],*pElements* as Variant)

Description

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

JavaScript example:

```
function GetAllowed()
{
 var arrElements = new Array(1);

 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 - 1);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(13) & chr(13)

 dim i

 For i = 1 To 4
```

```
   objView.GetAllowedElements i,objStart,objEnd,arrElements
   strText = strText & ListArray(arrElements) & "---------------" & chr(13)
  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(13)
   Next
  End If

  ListArray = strText
End Function
```

4.2.1.29 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.

4.2.1.30 Authentic.GetNextVisible

See also

Declaration: GetNextVisible(*pElement* as XMLData[170]) as XMLData[170]

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

4.2.1.31 Authentic.GetPreviousVisible

See also

Declaration: GetPreviousVisible(*pElement* as XMLData[170]) as XMLData[170]

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

4.2.1.32 Authentic.IsEditClearEnabled

See also

Declaration: IsEditClearEnabled as Boolean

Description
True if EditClear[69] is possible.

See also Editing operations[47].

4.2.1.33 Authentic.IsEditCopyEnabled

See also

Declaration: IsEditCopyEnabled as Boolean

Description
True if copy to clipboard is possible.

See also EditCopy[70] and Editing operations[47].

4.2.1.34 Authentic.IsEditCutEnabled

See also

Declaration: IsEditCutEnabled as Boolean

Description
True if EditCut[70] is currently possible.

See also Editing operations[47].

4.2.1.35 Authentic.IsEditPasteEnabled

See also

Declaration: IsEditPasteEnabled as Boolean

Description
True if EditPaste[70] is possible.

See also Editing operations[47].

4.2.1.36 Authentic.IsEditRedoEnabled

See also

Declaration: IsEditRedoEnabled as Boolean

Description
True if EditRedo[70] is currently possible.

See also Editing operations[47].

4.2.1.37 Authentic.IsEditUndoEnabled

See also

Declaration: IsEditUndoEnabled as Boolean

Description
True if EditUndo[71] is possible.

See also Editing operations[47].

4.2.1.38 Authentic.IsFindNextEnabled

See also

Declaration: IsFindNextEnabled as Boolean

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

See also Find and replace[47] and FindDialog[72].

4.2.1.39 Authentic.IsRowAppendEnabled

See also

Declaration: IsRowAppendEnabled as Boolean

Description
True if RowAppend[83] is possible.

See also Row operations[48].

4.2.1.40 Authentic.IsRowDeleteEnabled

See also

Declaration: IsRowDeleteEnabled as Boolean

Description
True if RowDelete[83] is possible.

See also Row operations[48].

4.2.1.41 Authentic.IsRowDuplicateEnabled

See also

Declaration: IsRowDuplicateEnabled as Boolean

Description
True if RowDuplicate[83] is currently possible.

See also Row operations[48].

4.2.1.42 Authentic.IsRowInsertEnabled

See also

Declaration: IsRowInsertEnabled as Boolean

Description
True if RowInsert[84] is possible.

See also Row operations[48].

4.2.1.43 Authentic.IsRowMoveDownEnabled

See also

Declaration: IsRowMoveDownEnabled as Boolean

Description
True if RowMoveDown 84 is currently possible.

See also Row operations 48.

4.2.1.44 Authentic.IsRowMoveUpEnabled

See also

Declaration: IsRowMoveUpEnabled as Boolean

Description
True if RowMoveUp 84 is possible.

See also Row operations 48.

4.2.1.45 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.

4.2.1.46 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.

4.2.1.47 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.

4.2.1.48 Authentic.MarkUpView

See also

Declaration: MarkUpView(*kind* as SPYAuthenticMarkupVisibility[184])

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.

4.2.1.49 Authentic.Modified

Declaration: Modified as Boolean

Description
True if XML content is modified.

This property is read-only.

4.2.1.50 Authentic.Print

See also

Declaration: Print

Description
Print the current document being edited.

4.2.1.51 Authentic.PrintPreview

See also

Declaration: PrintPreview

Description
Print preview the document being edited.

4.2.1.52 Authentic.RedrawEntryHelpers

Declaration: RedrawEntryHelpers()

Description
RedrawEntryHelpers takes the values from the EntryHelpersEnabled[71], EntryHelperAlignment[71], EntryHelperSize[72] and EntryHelperWindows[72] properties and redraws the entry helper windows.

4.2.1.53 Authentic.ReloadToolbars

Declaration: ReloadToolbars()

Description
ReloadToolbars reads the ToolbarRows[88] collection and redraws the toolbars and the view.

4.2.1.54 Authentic.ReplaceDialog

See also

Declaration: ReplaceDialog

Description
Displays the ReplaceDialog.

See also Find and replace[47].

4.2.1.55 Authentic.Reset

Deprecated

Use `Authentic.StartEditing`[87] 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.

4.2.1.56 Authentic.RowAppend

See also

Declaration: RowAppend

Description
Appends a row at the current position.

See also Row operations 48.

4.2.1.57 Authentic.RowDelete

See also

Declaration: RowDelete

Description
Deletes the currently selected row(s).

See also Row operations 48.

4.2.1.58 Authentic.RowDuplicate

See also

Declaration: RowDuplicate

Description
The method duplicates the currently selected rows.

See also Row operations 48.

4.2.1.59 Authentic.RowInsert

See also

Declaration: RowInsert

Description
Inserts a new row immediately above the current selection.

See also Row operations [48].

4.2.1.60 Authentic.RowMoveDown

See also

Declaration: RowMoveDown

Description
Moves the current row one position down.

See also Row operations [48].

4.2.1.61 Authentic.RowMoveUp

See also

Declaration: RowMoveUp

Description
Moves the current row one position up.

See also Row operations [48].

4.2.1.62 Authentic.Save

See also

Declaration: Save

Description
Saves the document to the URL specified by the property XMLDataSaveUrl [90]. 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.

4.2.1.63 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[81] flag of the document.

Default value is FALSE.

4.2.1.64 Authentic.SavePOST

See also

Declaration: SavePOST

Description
Saves the document to the URL specified by the property XMLDataSaveUrl[90]. 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/1.1 500 Server Error" );
?>
```

4.2.1.65 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.

4.2.1.66 Authentic.SchemaLoadObject

See also

Declaration: SchemaLoadObject as AuthenticLoadObject[104]

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[87] 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.

4.2.1.67 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[44].

4.2.1.68 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.

4.2.1.69 Authentic.SelectionSet

See also

Declaration: SelectionSet(*pStartElement* as XMLData[170],*nStartPos* as long,*pEndElement* as XMLData[170],*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.

4.2.1.70 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[81] flag is set to FALSE.

4.2.1.71 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 86, DesignDataLoadObject 69 and XMLDataLoadObject 90 first.

4.2.1.72 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.

4.2.1.73 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/">
```

4.2.1.74 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

4.2.1.75 Authentic.ToolbarRows

Declaration: ToolbarRows as AuthenticToolbarRows 140

Description
Gets a collection of all toolbars to be displayed. See description of AuthenticToolbarRows 140, how toolbars can be deleted, added or modified.

4.2.1.76 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

4.2.1.77 Authentic.ToolbarTooltipsEnabled

Declaration: ToolbarTooltipsEnabled as Boolean

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

4.2.1.78 Authentic.UICommands

Declaration: UICommands as AuthenticCommands 93

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
```

4.2.1.79 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.

4.2.1.80 Authentic.validationBadData

See also

Declaration: validationBadData as XMLData[170]

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.

4.2.1.81 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.

4.2.1.82 Authentic.XMLDataLoadObject

See also

Declaration: XMLDataLoadObject as AuthenticLoadObject[104]

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[86] for an example.

4.2.1.83 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[84] and the Authentic.SavePOST[85] methods.

4.2.1.84 Authentic.XMLRoot

See also

Declaration: XMLRoot as XMLData[170]

Description
XMLRoot is the parent element of the currently displayed XML structure. Using the XMLData[170] interface you have full access to the complete content of the file.

See also Using XMLData[55] for more informations.

4.2.1.85 Authentic.XMLTable

Declaration: XMLTable as AuthenticXMLTableCommands[162]

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

4.2.2 AuthenticCommand

Methods

Properties
CommandID[92]
Group[92]
ShortDescription[92]
Name[92]

4.2.2.1 AuthenticCommand.CommandID

Declaration: CommandID as SPYAuthenticCommand 181

Description
Get the CommandId of the command
Possible values: see AuthenticToolbarButton
Read only

Example
See Example at Authentic.UICommands 89

4.2.2.2 AuthenticCommand.Group

Declaration: Group as SPYAuthenticCommandGroup 183

Description
The CommandGroup to which the command belongs to.
Read only

Example
See Example at Authentic.UICommands 89

4.2.2.3 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 89

4.2.2.4 AuthenticCommand.Name

Declaration: Name as String

Description
for future use

4.2.3 AuthenticCommands

Methods
Item 93

Properties
Count 93

4.2.3.1 AuthenticCommands.Count

Declaration: Count as long

Description
Number of available UI commands.
Read only

4.2.3.2 AuthenticCommands.Item

Declaration: Item (nPosition as long) as AuthenticCommand 91

Description
Get command of position nPosition. nPosition starts with 1.

4.2.4 AuthenticContextMenu

The context menu interface provides the mean for the user to customize the context menus shown in Authentic. The interface has the methods listed in this section.

4.2.4.1 CountItems

Method: `CountItems()`

Return Value
Returns number of menu items.

Errors
2501 Invalid object.

4.2.4.2 DeleteItem

Method: `DeleteItem(position as integer)`

Return Value
Deletes an existing menu item.

Errors
2501 Invalid object
2502 Invalid index

4.2.4.3 GetItemText

Method: `GetItemText(position as integer)` menu item name as string

Return Value
Gets the menu item's name.

Errors
2501 Invalid object
2502 Invalid index

4.2.4.4 InsertItem

Method: `InsertItem(position as integer, menu item name as string, macro name as string)`

Return Value
Inserts a user-defined menu item. The menu item will start a macro, so a valid macro name must be submitted.

Errors
2501 Invalid object
2502 Invalid index
2503 No such macro
2504 Internal error

4.2.4.5 SetItemText

Method: `SetItemText(position as integer, menu item name as string)`

Return Value
Sets the menu item's name.

Errors
2501 Invalid object

2502 Invalid index

4.2.5 AuthenticDataTransfer

Methods
getData 95

Properties
dropEffect 95
ownDrag 95
type 96

Description
AuthenticDataTransfer interface.

4.2.5.1 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 98 to TRUE.

4.2.5.2 AuthenticDataTransfer.getData

See also

Declaration: getData as Variant

Description
getData gets the actual data associated with this dataTransfer object. See also AuthenticDataTransfer.type 96 for more informations.

4.2.5.3 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.

4.2.5.4 AuthenticDataTransfer.type

See also

Declaration: type as String

Description
Holds the type of the data you get with the AuthenticDataTransfer.getData 95 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

4.2.6 AuthenticEvent

Properties
altKey 97
altLeft 97
ctrlKey 98
ctrlLeft 98
shiftKey 100
shiftLeft 100
keyCode 99
repeat 100
button 97
clientX 98
clientY 98
dataTransfer 99
srcElement 100
fromElement 99
propertyName 99
cancelBubble 98
returnValue 100
type 101

Description
AuthenticEvent interface.

4.2.6.1 AuthenticEvent.altKey

See also

Declaration: altKey as Boolean

Description
True if the right ALT key is pressed.

4.2.6.2 AuthenticEvent.altLeft

See also

Declaration: altLeft as Boolean

Description
True if the left ALT key is pressed.

4.2.6.3 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.

4.2.6.4 AuthenticEvent.cancelBubble

See also

Declaration: cancelBubble as Boolean

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

4.2.6.5 AuthenticEvent.clientX

See also

Declaration: clientX as long

Description
X value of the current mouse position in client coordinates.

4.2.6.6 AuthenticEvent.clientY

See also

Declaration: clientY as long

Description
Y value of the current mouse position in client coordinates.

4.2.6.7 AuthenticEvent.ctrlKey

See also

Declaration: ctrlKey as Boolean

Description
True if the right CTRL key is pressed.

4.2.6.8 AuthenticEvent.ctrlLeft

See also

Declaration: ctrlLeft as Boolean

Description
True if the left CTRL key is pressed.

4.2.6.9 AuthenticEvent.dataTransfer

See also

Declaration: dataTransfer as Variant

Description
property dataTransfer

4.2.6.10 AuthenticEvent.fromElement

See also

Declaration: fromElement as Variant

Description
Currently no event sets this property.

4.2.6.11 AuthenticEvent.keyCode

See also

Declaration: keyCode as long

Description
Keycode of the currently pressed key.

This property is read-write.

4.2.6.12 AuthenticEvent.propertyName

See also

Declaration: propertyName as String

Description
Currently no event sets this property.

4.2.6.13 AuthenticEvent.repeat

See also

Declaration: repeat as Boolean

Description
True if the onkeydown event is repeated.

4.2.6.14 AuthenticEvent.returnValue

See also

Declaration: returnValue as Variant

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

4.2.6.15 AuthenticEvent.shiftKey

See also

Declaration: shiftKey as Boolean

Description
True if the right SHIFT key is pressed.

4.2.6.16 AuthenticEvent.shiftLeft

See also

Declaration: shiftLeft as Boolean

Description
True if the left SHIFT key is pressed.

4.2.6.17 AuthenticEvent.srcElement

See also

Declaration: srcElement as Variant

Description
Element which fires the current event.
This is usually an XMLData[170] object.

Since version 3.0.0.0:

The property can also hold a reference to an AuthenticCommand[91] object if was set from an ondoceditcommand event.

4.2.6.18 AuthenticEvent.type

See also

Declaration: type as String

Description
Currently no event sets this property.

4.2.7 AuthenticEventContext

The `EventContext` interface gives access to many properties of the context in which a macro is executed.

4.2.7.1 EvaluateXPath

Method: `EvaluateXPath` (`string` expression) as string

Return Value
The method evaluates the XPath expression in the context of the node within which the event was triggered and returns a string.

Description
`EvaluateXPath()` executes an XPath expressions with the given event context. The result is returned as string, in the case of a sequence it is a space-separated string.

Errors

2201	Invalid object.
2202	No context.
2209	Invalid parameter.
2210	Internal error.
2211	XPath error.

4.2.7.2 GetEventContextType

Method: `GetEventContextType()` as `EventContextType` enumeration

Return Value
Returns the context node type.

Description
`GetEventContextType` allows the user to determine whether the macro is in an XML node or in an XPath atomic item context. The enumeration `AuthenticEventContextType` is defined as follows:

```
authenticEventContextXML,
authenticEventContextAtomicItem,
authenticEventContextOther
```

If the context is a normal XML node, the `GetXMLNode()` function gives access to it (returns `NULL` if not).

Errors

2201	Invalid object.
2202	No context.
2209	Invalid parameter.

4.2.7.3 GetNormalizedTextValue

Method: `GetNormalizedTextValue()` value as string

Return Value
Returns the value of the current node as string

Errors

2201	Invalid object.
2202	No context.
2203	Invalid context
2209	Invalid parameter.

4.2.7.4 GetVariableValue

Method: `GetVariableValue(name as string, value as string)`

Return Value
Gets the value of the named variable.

Description
`GetVariableValue` gets the variable's value in the scope of the context.

```
nZoom = parseInt( AuthenticView.EventContext.GetVariableValue( 'Zoom' ) );
```

```
if ( nZoom > 1 )
{
	AuthenticView.EventContext.SetVariableValue( 'Zoom', nZoom - 1 );
}
```

Errors

2201	Invalid object.
2202	No context.
2204	No such variable in scope
2205	Variable cannot be evaluated
2206	Variable returns sequence
2209	Invalid parameter

4.2.7.5 GetXMLNode

Method: `GetXMLNode()` XMLData[170] object

Return Value
Returns the context XML node or `NULL`

Errors

2201	Invalid object.
2202	No context.
2203	Invalid context
2209	Invalid parameter.

4.2.7.6 IsAvailable

Method: `IsAvailable()`

Return Value
Returns true if `EventContext` is set.

Errors

2201	Invalid object.

4.2.7.7 SetVariableValue

Method: `SetVariableValue(name as string, value as string)`

Return Value
Sets the value of the named variable.

Description
`SetVariableValue` sets the variable's value in the scope of the context.

```
nZoom = parseInt( AuthenticView.EventContext.GetVariableValue( 'Zoom' ) );
if ( nZoom > 1 )
{
	AuthenticView.EventContext.SetVariableValue( 'Zoom', nZoom - 1 );
}
```

Errors

2201	Invalid object.
2202	No context.
2204	No such variable in scope
2205	Variable cannot be evaluated
2206	Variable returns sequence
2207	Variable read-only
2208	No modification allowed

4.2.8 AuthenticLoadObject

Properties
String 104
URL 104

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 86, Authentic.DesignDataLoadObject 69 and Authentic.XMLDataLoadObject 90 for more informations about how to use them.

4.2.8.1 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.

4.2.8.2 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.

4.2.9 AuthenticRange

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 107	Clone 108	MoveBegin 128
FirstTextPosition 112	CollapsToBegin 109	MoveEnd 128
FirstXMLData 113	CollapsToEnd 109	NextCursorPosition 119
FirstXMLDataOffset 114	ExpandTo 112	PreviousCursorPosition 120
LastTextPosition 125	Goto 117	Select 131
LastXMLData 126	GotoNext 118	SelectNext 131
LastXMLDataOffset 127	GotoPrevious 119	SelectPrevious 132
Parent 129	IsEmpty 123	SetFromRange 134
	IsEqual 123	

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 135	Copy 109	AppendRow 106
	Cut 110	DeleteRow 110
	Delete 110	DuplicateRow 111
	Paste 130	InsertRow 121
		IsInDynamicTable 124
		MoveRowDown 129
		MoveRowUp 129

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 108	GetElementAttributeValue 116	GetEntityNames 117
CanPerformAction 107	GetElementAttributeNames 115	InsertEntity 120
PerformAction 130	GetElementHierarchy 116	

	HasElementAttribute 120	
	SetElementAttributeValue 133	

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 currrent 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 160, 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 154, AuthenticView.DocumentEnd 155, and AuthenticView.WholeDocument 162. The most flexible method is AuthenticView.Goto 157, 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 112 and LastTextPosition 125. 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 113, FirstXMLDataOffset 114, LastXMLData 126, and LastXMLDataOffset 127. 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 135 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 110, Copy 109, Paste 130 and Delete 110.
- 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.

4.2.9.1 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
```

4.2.9.2 AuthenticRange.Application

See also

Property: Application as Authentic [63] (read-only)

Description
Access the 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.

4.2.9.3 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 modifcation 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[108].

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[130].

4.2.9.4 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[130].

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[130].

4.2.9.5 AuthenticRange.Clone

See also

Method: Clone () as AuthenticRange[105]

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.

4.2.9.6 AuthenticRange.CollapsToBegin

See also

Method: CollapsToBegin () as AuthenticRange[105]

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.

4.2.9.7 AuthenticRange.CollapsToEnd

See also

Method: CollapsToEnd () as AuthenticRange[105]

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.

4.2.9.8 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.

4.2.9.9 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.

4.2.9.10 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.

4.2.9.11 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
```

4.2.9.12 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
' dupplicate 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
```

4.2.9.13 AuthenticRange.EvaluateXPath

Method: `EvaluateXPath` (string expression) as string

Return Value
The method returns a string

Description
`EvaluateXPath()` executes an XPath expressions with the context node being the beginning of the range selection. The result returned as string, in the case of a sequence it is a space-separated string. If XML context node is irrelevant, the user may provide any node, like `AuthenticView.XMLDataRoot`.

Errors
2001 Invalid object
2005 Invalid parameter
2008 Internal error
2202 Missing context node
2211 XPath error

4.2.9.14 AuthenticRange.ExpandTo

See also

Method: ExpandTo (*eKind* as SPYAuthenticElementKind) as AuthenticRange[105]

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.

4.2.9.15 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[125]. 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[125], LastTextPosition[125] 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 "Ooops!"
End If
```

4.2.9.16 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[114] attribute.

Whenever you set FirstXMLData to a new data object, FirstXMLDataOffset[114] 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[114] selects a position greater then the current LastXMLData[126] / LastXMLDataOffset[127], the latter gets moved to the new start position.

HINT: You can use the FirstXMLData[113] and LastXMLData[126] properties, to directly access and manipulate the underlying XML document in those cases where the methods available with the AuthenticRange[105] 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 canot 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
```

4.2.9.17 AuthenticRange.FirstXMLDataOffset

See also

Property: FirstXMLDataOffset as Long

Description

Set or get the cursor position offset inside FirstXMLData[113] element for the beginning of the range. Offset positions are based on the characters returned by the Text[135] 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[114] selects a position after the current LastXMLData[126] / LastXMLDataOffset[127], 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 = -1  ' 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
```

4.2.9.18 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[116] and SetElementAttributeValue[133].

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[133].

4.2.9.19 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[115], or HasElementAttribute[120].

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[133].

4.2.9.20 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[115], 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[133].

4.2.9.21 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[120] 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[120].

4.2.9.22 AuthenticRange.GetVariableValue

Method: `GetVariableValue(name as string, value as string)`

Return Value
Gets the value of the named variable.

Errors
2001 Invalid object.
2005 Invalid parameter
2202 No context.
2204 No such variable in scope
2205 Variable cannot be evaluated
2206 Variable returns sequence

4.2.9.23 AuthenticRange.Goto

See also

Method: Goto (*eKind* as SPYAuthenticElementKind, *nCount* as Long, *eFrom* as SPYAuthenticDocumentPosition) as AuthenticRange[105]

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.

4.2.9.24 AuthenticRange.GotoNext

See also

Method: GotoNext (*eKind* as SPYAuthenticElementKind) as AuthenticRange[105]

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
```

4.2.9.25 AuthenticRange.GotoNextCursorPosition

See also

Method: GotoNextCursorPosition () as AuthenticRange[105]

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.

4.2.9.26 AuthenticRange.GotoPrevious

See also

Method: GotoPrevious (*eKind* as SPYAuthenticElementKind) as AuthenticRange[105]

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
```

4.2.9.27 AuthenticRange.GotoPreviousCursorPosition

See also

Method: GotoPreviousCursorPosition () as AuthenticRange[105]

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.

4.2.9.28 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.

4.2.9.29 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[117].

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 availabel 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
```

4.2.9.30 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
```

4.2.9.31 AuthenticRange.IsCopyEnabled

See also

Property: `IsCopyEnabled` as Boolean (read-only)

Description
Checks if the copy operation is supported for this range.

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

4.2.9.32 AuthenticRange.IsCutEnabled

See also

Property: `IsCutEnabled` as Boolean (read-only)

Description
Checks if the cut operation is supported for this range.

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

4.2.9.33 AuthenticRange.IsDeleteEnabled

See also

Property: `IsDeleteEnabled` as Boolean (read-only)

Description
Checks if the delete operation is supported for this range.

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

4.2.9.34 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.

4.2.9.35 AuthenticRange.IsEqual

See also

Method: IsEqual (*objCmpRange* as AuthenticRange[105]) 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.

4.2.9.36 AuthenticRange.IsFirstRow

See also

Property: `IsFirstRow()` as Boolean (read-only)

Description
Test if the range is in the first row of a table. Which table is taken into consideration depends on the extend of the range. If the selection exceeds a single row of a table, the check is if this table is the first element in an embedding table. See the entry helpers of the user manual for more information.

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

4.2.9.37 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.

4.2.9.38 AuthenticRange.IsLastRow

See also

Property: `IsLastRow()` as Boolean (read-only)

Description
Test if the range is in the last row of a table. Which table is taken into consideration depends on the extend of the range. If the selection exceeds a single row of a table, the check is if this table is the last element in an embedding table. See the entry helpers of the user manual for more information.

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

4.2.9.39 AuthenticRange.IsPasteEnabled

See also

Property: `IsPasteEnabled` as Boolean (read-only)

Description
Checks if the paste operation is supported for this range.

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

4.2.9.40 AuthenticRange.IsSelected

Property: `IsSelected` as Boolean

Description
Returns true() if selection is present. The selection range still can be empty: that happens when e.g. only the cursor is set.

4.2.9.41 AuthenticRange.IsTextStateApplied

See also

Method: `IsTextStateApplied` (*`i_strElementName`* as String) as Boolean

Description
Checks if all the selected text is embedded into an XML Element with name `i_strElementName`. Common examples for the parameter `i_strElementName` are "strong", "bold" or "italic".

Errors

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

4.2.9.42 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[112]. 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[112], FirstTextPosition[112] 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
```

4.2.9.43 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[127] attribute.

Whenever you set *LastXMLData* to a new data object, LastXMLDataOffset[127] 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[127], select a position less then the current FirstXMLData[113] / FirstXMLDataOffset[114], the latter gets moved to the new end position.

HINT: You can use the FirstXMLData[113] and LastXMLData[126] properties to directly access and manipulate the underlying XML document in those cases, where the methods available with the AuthenticRange[105] 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 canot be accessed.

4.2.9.44 AuthenticRange.LastXMLDataOffset

See also

Property: LastXMLDataOffset as Long

Description
Set or get the cursor position inside LastXMLData[126] element for the end of the range.

Offset positions are based on the characters returned by the Text[135] 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[126] / LastXMLDataOffset[127] selects a position before FirstXMLData[113] / FirstXMLDataOffset[114], 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 = -1  ' 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
```

4.2.9.45 AuthenticRange.MoveBegin

See also

Method: MoveBegin (*eKind* as SPYAuthenticElementKind, *nCount* as Long) as AuthenticRange[105]

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.

4.2.9.46 AuthenticRange.MoveEnd

See also

Method: MoveEnd (*eKind* as SPYAuthenticElementKind, *nCount* as Long) as AuthenticRange[105]

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.

4.2.9.47 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.

4.2.9.48 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 27.

4.2.9.49 AuthenticRange.Parent

See also

Property: Parent as AuthenticView 141 (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.

4.2.9.50 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.

4.2.9.51 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[108].

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
```

4.2.9.52 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()
```

4.2.9.53 AuthenticRange.SelectNext

See also

Method: SelectNext (*eKind* as SPYAuthenticElementKind) as AuthenticRange[105]

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
```

4.2.9.54 AuthenticRange.SelectPrevious

See also

Method: GotoPrevious (*eKind* as SPYAuthenticElementKind) as AuthenticRange[105]

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
```

4.2.9.55 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[115], or HasElementAttribute[120].

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
```

4.2.9.56 AuthenticRange.SetFromRange

See also

Method: SetFromRange (*objSrcRange* as AuthenticRange[105])

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.

4.2.9.57 AuthenticRange.SetVariableValue

Enter topic text ***Method:*** `SetVariableValue(name as string, value as string)`

Return Value
Sets the value of the named variable.

Errors

2001	Invalid object.
2002	Missing context node.
2204	No such variable in scope
2205	Variable cannot be evaluated
2206	Variable returns a sequence
2207	Variable read-only
2208	No modification allowed

4.2.9.58 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 then 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[110], Delete[110] or PerformAction[130] 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.

4.2.10 AuthenticSelection

See also

Properties
Start[136]
StartTextPosition[136]
End[135]
EndTextPosition[136]

4.2.10.1 AuthenticSelection.End

See also

Declaration: End as XMLData[170]

Description
XML element where the current selection ends.

4.2.10.2 AuthenticSelection.EndTextPosition

See also

Declaration: EndTextPosition as long

Description
Position in Authentic.End[135] where the selection ends.

4.2.10.3 AuthenticSelection.Start

See also

Declaration: Start as XMLData[170]

Description
XML element where the current selection starts.

4.2.10.4 AuthenticSelection.StartTextPosition

See also

Declaration: StartTextPosition as long

Description
Position in Authentic.Start[136] where the selection starts.

4.2.11 AuthenticToolbarButton

Methods

Properties
CommandID[136]

4.2.11.1 AuthenticToolbarButton.CommandID

Declaration: CommandID as SPYAuthenticCommand[181]

Description
The CommandId of the toolbar button.

4.2.12 AuthenticToolbarButtons

Methods

Properties

4.2.12.1 AuthenticToolbarButtons.Count

Declaration: Count as long

Description

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

4.2.12.2 AuthenticToolbarButtons.Item

Declaration: Item(n as long) as AuthenticToolbarButton 136

Description

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

Example

See the example at AuthenticToolbarButtons.NewButton 137

4.2.12.3 AuthenticToolbarButtons.NewButton

Declaration: NewButton(nPosition as long, nCommandId as SPYAuthenticCommand 181)

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.

4.2.12.4 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 88 property.

Example

Imagine you have inserted a custom button with the name "MyFunction" to your toolbars. The following event handler for doceditcommand 46 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 = 1;
   else
    objPlugIn.event.returnValue = 0;

   objPlugIn.event.cancelBubble = true;
  }
```

```
 }
</SCRIPT>
```

4.2.12.5 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 137

4.2.12.6 AuthenticToolbarButtons.Remove

Declaration: Remove(nPosition as long)

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

4.2.13 AuthenticToolbarRow

Methods
Alignment 139

Properties
Buttons 140

4.2.13.1 AuthenticToolbarRowAlignment

Declaration: Alignment(nAlign as SPYAuthenticToolbarAllignment 185)

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
```

4.2.13.2 AuthenticToolbarRowButtons

Declaration: Buttons as AuthenticToolbarButtons[137]

Description
Get all Buttons of the toolbar

Example
See the example at AuthenticToolbarButtons.NewButton[137]

4.2.14 AuthenticToolbarRows

Methods
Item[140]
RemoveRow[141]
NewRow[141]

Properties
Count[140]

4.2.14.1 AuthenticToolbarRows.Count

Declaration: Count as long

Description
Get the actual number of defined toolbars
Read only.

4.2.14.2 AuthenticToolbarRows.Item

Declaration: Item(nPosition as long) as AuthenticToolbarRow[139]

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

Example
See the example at AuthenticToolbarButtons.NewButton[137]

4.2.14.3 AuthenticToolbarRows.RemoveRow

Declaration: RemoveRow(nPosition as long)

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

4.2.14.4 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 137

4.2.15 AuthenticView

Properties	Methods	Events
Application 152	Goto 157	
DocumentBegin 154	Print 159	
DocumentEnd 155	Redo 159	
MarkupVisibility 158	Undo 161	
Parent 159	UpdateXMLInstanceEntities 161	
Selection 160		
WholeDocument 162		

Description

AuthenticView and its child object AuthenticRange 105 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, makeing 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 105 to make navigation inside the document straight-forward, and to allow for the flexible selection of logical text elements. Use the properties DocumentBegin 154, DocumentEnd 155, or WholeDocument 162 for simple selections, while using the Goto 157 method for more

complex selections. To navigate relative to a given document range, see the methods and properties of the AuthenticRange[105] object.

4.2.15.1 Events

4.2.15.1.1 OnBeforeCopy

Event: `OnBeforeCopy()` as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticBeforeCopy()
    ' On_AuthenticBeforeCopy = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticBeforeCopy()
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (21, ...)  //  nEventId = 21
```

Description

This event gets triggered before a copy operation gets performed on the document. Return *True* (or nothing) to allow copy operation. Return *False* to disable copying.

4.2.15.1.2 OnBeforeCut

Event: `OnBeforeCut()` as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticBeforeCut()
    ' On_AuthenticBeforeCut = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticBeforeCut()
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (20, ...)  //  nEventId = 20
```

Description
This event gets triggered before a cut operation gets performed on the document. Return *True* (or nothing) to allow cut operation. Return *False* to disable operation.

4.2.15.1.3 OnBeforeDelete

Event: `OnBeforeDelete()` as Boolean

XMLSpy scripting environment - VBScript:
```
Function On_AuthenticBeforeDelete()
    ' On_AuthenticBeforeDelete = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:
```
function On_AuthenticBeforeDelete()
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:
```
IXMLSpyPlugIn.OnEvent (22, ...) // nEventId = 22
```

Description
This event gets triggered before a delete operation gets performed on the document. Return *True* (or nothing) to allow delete operation. Return *False* to disable operation.

4.2.15.1.4 OnBeforeDrop

Event: `OnBeforeDrop (i_nXPos` as Long, `i_nYPos` as Long, `i_ipRange` as `AuthenticRange`, `i_ipData` as `cancelBoolean`

XMLSpy scripting environment - VBScript:
```
Function On_AuthenticBeforeDrop(nXPos, nYPos, objRange, objData)
    ' On_AuthenticBeforeDrop = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:
```
function On_AuthenticBeforeDrop(nXPos, nYPos, objRange, objData)
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:
```
IXMLSpyPlugIn.OnEvent (11, ...) // nEventId = 11
```

Description

This event gets triggered whenever a previously dragged object gets dropped inside the application window. All event related information gets passed as parameters.

The first two parameters specify the mouse position at the time when the event occurred. The parameter *objRange* passes a range object that selects the XML element below the mouse position. The value of this parameter might be *NULL*. Be sure to check before you access the range object. The parameter *objData* allows to access information about the object being dragged.

Return *False* to cancle the drop operation. Return *True* (or nothing) to continue normal operation.

Examples

```
' ------------------------------------------------------------------------
' VB code snippet - connecting to object level events
' ------------------------------------------------------------------------
' access XMLSpy (without checking for any errors)
Dim objSpy As XMLSpyLib.Application
Set objSpy = GetObject("", "XMLSpy.Application")

' this is the event callback routine connected to the OnBeforeDrop
' event of object objView
Private Function objView_OnBeforeDrop(ByVal i_nXPos As Long, ByVal i_nYPos As Long,
                                      ByVal i_ipRange As IAuthenticRange,
                                      ByVal i_ipData As IAuthenticDataTransfer) As
Boolean

    If (Not i_ipRange Is Nothing) Then
        MsgBox ("Dropping on content is prohibited");
        Return False;
    Else
        Return True;
    End If
End Function

' use VBA keyword WithEvents to connect to object-level event
Dim WithEvents objView As XMLSpyLib.AuthenticView
Set objView = objSpy.ActiveDocument.AuthenticView

' continue here with something useful ...
' and serve the windows message loop
```

4.2.15.1.5 OnBeforePaste

Event: `OnBeforePaste` (*objData* as Variant, *strType* as String) as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticBeforePaste(objData, strType)
    ' On_AuthenticBeforePaste = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticBeforePaste(objData, strType)
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (19, ...)    // nEventId = 19
```

Description

This event gets triggered before a paste operation gets performed on the document. The parameter *strType* is one of "TEXT", "UNICODETEXT" or "IUNKNOWN". In the first two cases *objData* contains a string representation of the object that will be pasted. In the later case, *objData* contains a pointer to an IUnknown COM interface.

Return *True* (or nothing) to allow paste operation. Return *False* to disable operation.

4.2.15.1.6 OnBeforeSave

Event: `OnBeforeSave` (SaveAs flag) as Boolean

Description: `OnBeforeSave` gives the opportunity to e.g. warn the user about overwriting the existing XML document, or to make the document read-only when specific circumstances are not met. The event will be fired before the file dialog is shown. (Please note, that the event fires when saving the XML document, and not when saving the SPS design in StyleVision.)

4.2.15.1.7 OnDragOver

Event: `OnDragOver` (*nXPos* as Long, *nYPos* as Long, *eMouseEvent* as `SPYMouseEvent`, *objRange* as `AuthenticRange`, *objData* as `AuthenticDataTransfer`) as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticDragOver(nXPos, nYPos, eMouseEvent, objRange, objData)
    ' On_AuthenticDragOver = False  ' to disable operation
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticDragOver(nXPos, nYPos, eMouseEvent, objRange, objData)
{
    // return false;  /* to disable operation */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (10, ...)  // nEventId = 10
```

Description

This event gets triggered whenever an object from within our outside of Authentic View gets dragged with the mouse over the application window. All event related information gets passed as parameters.

The first three parameters specify the mouse position, the mouse button status and the status of the virtual keys at the time when the event occurred. The parameter *objRange* passes a range object that selects the XML element below the mouse position. The value of this parameter might be *NULL*. Be sure to check before you access the range object. The parameter *objData* allows to access information about the object being dragged.

Return *False* to cancel the drag operation. Return *True* (or nothing) to continue normal operation.

Examples

```
' ------------------------------------------------------------------------
' VB code snippet - connecting to object level events
' ------------------------------------------------------------------------
' access XMLSpy (without checking for any errors)
Dim objSpy As XMLSpyLib.Application
Set objSpy = GetObject("", "XMLSpy.Application")

' this is the event callback routine connected to the OnDragOver
' event of object objView
Private Function objView_OnDragOver(ByVal i_nXPos As Long, ByVal i_nYPos As Long,
                                    ByVal i_eMouseEvent As SPYMouseEvent,
                                    ByVal i_ipRange As IAuthenticRange,
                                    ByVal i_ipData As IAuthenticDataTransfer) As Boolean

    If (((i_eMouseEvent And spyShiftKeyDownMask) <> 0) And
              (Not i_ipRange Is Nothing)) Then
        MsgBox ("Floating over element " & i_ipRange.FirstXMLData.Parent.Name);
    End If

    Return True;
End Function

' use VBA keyword WithEvents to connect to object-level event
Dim WithEvents objView As XMLSpyLib.AuthenticView
Set objView = objSpy.ActiveDocument.AuthenticView

' continue here with something useful ...
' and serve the windows message loop
```

4.2.15.1.8 OnKeyboardEvent

Event: `OnKeyboardEvent` (*`eKeyEvent`* as SPYKeyEvent, *`nKeyCode`* as Long, *`nVirtualKeyStatus`* as Long) as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticKeyboardEvent(eKeyEvent, nKeyCode, nVirtualKeyStatus)
    ' On_AuthenticKeyboardEvent = True  ' to cancel bubbling of event
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticKeyboardEvent(eKeyEvent, nKeyCode, nVirtualKeyStatus)
{
    // return false;  /* to cancel bubbling of event */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (30, ...)  //  nEventId = 30
```

Description

This event gets triggered for *WM_KEYDOWN*, *WM_KEYUP* and *WM_CHAR* Windows messages.

The actual message type is available in the *eKeyEvent* parameter. The status of virtual keys is combined in the parameter *nVirtualKeyStatus*. Use the bit-masks defined in the enumeration datatype `SPYVirtualKeyMask`, to test for the different keys or their combinations.

REMARK: The following events from the scripting environment and IDE Plugin of XMLSpy are still supported but become obsolete with this event:

```
On_AuthenticKeyUp()          IXMLSpyPlugIn.OnEvent (13, ...)   //  nEventId = 13
On_AuthenticKeyDown()        IXMLSpyPlugIn.OnEvent (12, ...)   //  nEventId = 12
On_AuthenticKeyPressed()     IXMLSpyPlugIn.OnEvent (14, ...)   //  nEventId = 14
```

Examples

```
' ------------------------------------------------------------------------
' VB code snippet - connecting to object level events
' ------------------------------------------------------------------------
' access XMLSpy (without checking for any errors)
Dim objSpy As XMLSpyLib.Application
Set objSpy = GetObject("", "XMLSpy.Application")

' this is the event callback routine connected to the OnKeyboard
' event of object objView
Private Function objView_OnKeyboardEvent(ByVal i_keyEvent As Long, ByVal io_pnKeyCode As
Long, ByVal i_nVirtualKeyStatus As Long) As Boolean
    If ((i_keyEvent = XMLSpyLib.spyKeyUp) And ((i_nVirtualKeyStatus And
XMLSpyLib.spyCtrlKeyMask) <> 0)) Then
        MsgBox ("Ctrl " & io_pnKeyCode & " pressed")
        objView_OnKeyboardEvent = True
    Else
        objView_OnKeyboardEvent = False
    End If
End Function

' use VBA keyword WithEvents to connect to object-level event
Dim WithEvents objView As XMLSpyLib.AuthenticView
Set objView = objSpy.ActiveDocument.AuthenticView

' continue here with something useful ...
' and serve the windows message loop
```

4.2.15.1.9 OnLoad

Event: `OnLoad` ()

Description: `OnLoad` can be used e.g. to restrict some AuthenticView functionality, as shown in the example below:

```
function On_AuthenticLoad(  )
{
	// We are disabling all entry helpers in order to prevent user from manipulating XML
tree
	AuthenticView.DisableElementEntryHelper();
	AuthenticView.DisableAttributeEntryHelper();

	// We are also disabling the markup buttons for the same purpose
	AuthenticView.SetToolbarButtonState( 'AuthenticMarkupSmall',
authenticToolbarButtonDisabled );
	AuthenticView.SetToolbarButtonState( 'AuthenticMarkupLarge',
authenticToolbarButtonDisabled );
	AuthenticView.SetToolbarButtonState( 'AuthenticMarkupMixed',
authenticToolbarButtonDisabled );
}
```

In the example the status of the Markup Small, Markup Large, Markup Mixed toolbar buttons are manipulated with the help of button identifiers. See complete list 150.

4.2.15.1.10 OnMouseEvent

Event: `OnMouseEvent` (*`nXPos`* as Long, *`nYPos`* as Long, *`eMouseEvent`* as `SPYMouseEvent`, *`objRange`* as `AuthenticRange`) as Boolean

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticMouseEvent(nXPos, nYPos, eMouseEvent, objRange)
    ' On_AuthenticMouseEvent = True  ' to cancel bubbling of event
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticMouseEvent(nXPos, nYPos, eMouseEvent, objRange)
{
    // return false;  /* to cancel bubbling of event */
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (31, ...)  //  nEventId = 31
```

Description

This event gets triggered for every mouse movement and mouse button Windows message.

The actual message type and the mouse buttons status, is available in the *eMouseEvent* parameter. Use the bit-masks defined in the enumeration datatype `SPYMouseEvent` to test for the different messages, button status, and their combinations.

The parameter *objRange* identifies the part of the document found at the current mouse cursor position. The range objects always selects a complete tag of the document. (This might change in future versions, when a more precise positioning mechanism becomes available). If no selectable part of the document is found at the current position, the range object is *null*.

REMARK: The following events from the scripting environment and IDE Plugin of XMLSpy are still supported but become obsolete with this event:

```
On_AuthenticMouseMove()                IXMLSpyPlugIn.OnEvent (15, ...)    //
nEventId = 15
On_AuthenticButtonUp()             IXMLSpyPlugIn.OnEvent (16, ...)    //  nEventId =
16
On_AuthenticButtonDown()               IXMLSpyPlugIn.OnEvent (17, ...)    //
nEventId = 17
On_AuthenticButtonDoubleClick()    IXMLSpyPlugIn.OnEvent (24, ...)    //  nEventId =
24
```

Examples

```
' ------------------------------------------------------------------------
' VB code snippet - connecting to object level events
' ------------------------------------------------------------------------
' access XMLSpy (without checking for any errors)
Dim objSpy As XMLSpyLib.Application
Set objSpy = GetObject("", "XMLSpy.Application")

' this is the event callback routine connected to the OnMouseEvent
' event of object objView. If you click with the left mouse button
' while pressing a control key, the current selection will be set
' to the tag below the current mouse cursor position
Private Function objView_OnMouseEvent(ByVal i_nXPos As Long, ByVal i_nYPos As Long, ByVal
i_eMouseEvent As XMLSpyLib.SPYMouseEvent, ByVal i_pRange As XMLSpyLib.IAuthenticRange) As
 Boolean
    If (i_eMouseEvent = (XMLSpyLib.spyLeftButtonDownMask Or
XMLSpyLib.spyCtrlKeyDownMask)) Then
        On Error Resume Next
        i_pRange.Select
        objView_OnMouseEvent = True
    Else
        objView_OnMouseEvent = False
    End If
End Function

' use VBA keyword WithEvents to connect to object-level event
Dim WithEvents objView As XMLSpyLib.AuthenticView
Set objView = objSpy.ActiveDocument.AuthenticView

' continue here with something useful ...
' and serve the windows message loop
```

4.2.15.1.11 OnSelectionChanged

Event: `OnSelectionChanged` (*`objNewSelection`* as `AuthenticRange`)

XMLSpy scripting environment - VBScript:

```
Function On_AuthenticSelectionChanged (objNewSelection)
End Function
```

XMLSpy scripting environment - JScript:

```
function On_AuthenticSelectionChanged (objNewSelection)
{
}
```

XMLSpy IDE Plugin:

```
IXMLSpyPlugIn.OnEvent (23, ...)  // nEventId = 23
```

Description

This event gets triggered whenever the selection in the user interface changes.

Examples

```
' ---------------------------------------------------------------------------
' VB code snippet - connecting to object level events
' ---------------------------------------------------------------------------
' access XMLSpy (without checking for any errors)
Dim objSpy As XMLSpyLib.Application
Set objSpy = GetObject("", "XMLSpy.Application")

' this is the event callback routine connected to the OnSelectionChanged
' event of object objView
Private Sub objView_OnSelectionChanged (ByVal i_ipNewRange As XMLSpyLib.IAuthenticRange)
    MsgBox ("new selection: " & i_ipNewRange.Text)
End Sub

' use VBA keyword WithEvents to connect to object-level event
Dim WithEvents objView As XMLSpyLib.AuthenticView
Set objView = objSpy.ActiveDocument.AuthenticView

' continue here with something useful ...
' and serve the windows message loop
```

4.2.15.1.12 OnToolbarButtonClicked

Event: `OnToolbarButtonClicked` (Button identifier)

Description: `OnToolbarButtonClicked` is fired when a toolbar button was clicked by user. The parameter button identifier helps to determine which button was clicked. The list of predefined button identifiers is below:

- `AuthenticPrint`
- `AuthenticPrintPreview`

- AuthenticUndo
- AuthenticRedo
- AuthenticCut
- AuthenticCopy
- AuthenticPaste
- AuthenticClear
- AuthenticMarkupHide
- AuthenticMarkupLarge
- AuthenticMarkupMixed
- AuthenticMarkupSmall
- AuthenticValidate
- AuthenticChangeWorkingDBXMLCell
- AuthenticSave
- AuthenticSaveAs
- AuthenticReload
- AuthenticTableInsertRow
- AuthenticTableAppendRow
- AuthenticTableDeleteRow
- AuthenticTableInsertCol
- AuthenticTableAppendCol
- AuthenticTableDeleteCol
- AuthenticTableJoinCellRight
- AuthenticTableJoinCellLeft
- AuthenticTableJoinCellAbove
- AuthenticTableJoinCellBelow
- AuthenticTableSplitCellHorizontally
- AuthenticTableSplitCellVertically
- AuthenticTableAlignCellContentTop
- AuthenticTableCenterCellVertically
- AuthenticTableAlignCellContentBottom
- AuthenticTableAlignCellContentLeft
- AuthenticTableCenterCellContent
- AuthenticTableAlignCellContentRight
- AuthenticTableJustifyCellContent
- AuthenticTableInsertTable
- AuthenticTableDeleteTable
- AuthenticTableProperties
- AuthenticAppendRow
- AuthenticInsertRow
- AuthenticDuplicateRow
- AuthenticMoveRowUp
- AuthenticMoveRowDown
- AuthenticDeleteRow
- AuthenticDefineEntities

For custom buttons the user might add his own identifiers. Please, note that the user must take care, as the identifiers are not checked for uniqueness. The same identifiers can be used to identify buttons in the `Set/GetToolbarState()` COM API calls. By adding code for different buttons, the user is in the position to completely redefine the AuthenticView toolbar behavior, adding own methods for table manipulation, etc.

4.2.15.1.13 OnToolbarButtonExecuted

Event: `OnToolbarButtonExecuted` (Button identifier)

Description: `OnToolbarButtonClicked` is fired when a toolbar button was clicked by user. The parameter button identifier helps to determine which button was clicked. See the list of predefined button identifiers [150].

`OnToolbarButtonExecuted` is fired after the toolbar action was executed. It is useful e.g. to add update code, as shown in the example below:

```
//event fired when a toolbar button action was executed
function On_AuthenticToolbarButtonExecuted( varBtnIdentifier )
{
	// After whatever command user has executed - make sure to update toolbar button
states
	UpdateOwnToolbarButtonStates();
}
```

In this case `UpdateOwnToolbarButtonStates` is a user function defined in the Global Declarations.

4.2.15.1.14 OnUserAddedXMLNode

Event: `OnUserAddedXMLNode` (XML node)

Description: `OnUserAddedXMLNode` will be fired when the user adds an XML node as a primary action. This happens in the situations, where the user clicks on

- auto-add hyperlinks (see example OnUserAddedXMLNode.sps)
- the Insert…, Insert After…, Insert Before… context menu items
- Append row, Insert row toolbar buttons
- Insert After…, Insert Before… actions in element entry helper (outside StyleVision)

The event doesn't get fired on Duplicate row, or when the node was added externally (e.g. via COM API), or on Apply (e.g. Text State Icons), or when in XML table operations or in DB operations.

The event parameter is the XML node object, which was added giving the user an opportunity to manipulate the XML node added. An elaborate example for an event handler can be found in the `OnUserAddedXMLNode.sps` file (in the `Authentic/Scripting` folder of the `Examples` project in the Project Window).

4.2.15.2 AuthenticView.Application

See also

Property: Application as Authentic [63] (read-only)

Description
Access the application object.

Errors

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

4.2.15.3 AuthenticView.AsXMLString

See also

Property: `AsXMLString` as String

Description

Returns or sets the document content as an XML string. Setting the content to a new value does not change the schema file or sps file in use. If the new `XMLString` does not match the actual schema file error 2011 gets returned.

Errors

2000 The authentic view object is no longer valid.
2011 `AsXMLString` was set to a value which is no valid XML for the current schema file.

4.2.15.4 AuthenticView.ContextMenu

Property: `ContextMenu` as `ContextMenu`

Description

The property `ContextMenu` gives access to customize the context menu. The best place to do it is in the event handler `OnContextMenuActivated`.

Errors

2000 Invalid object.
2005 Invalid parameter.

4.2.15.5 AuthenticView.CreateXMLNode

Method: `CreateXMLNode` (*`nKind`* as `SPYXMLDataKind`) as `XMLData`

Return Value

The method returns the new XMLData 170 object.

Description

To create a new `XMLData` object use the `CreateXMLNode()` method. See also Using XMLData.

Errors

2000 Invalid object.

2012 Cannot create XML node.

4.2.15.6 AuthenticView.DisableAttributeEntryHelper

Method: `DisableAttributeEntryHelper()`

Description

`DisableAttributeEntryHelper()` disables the attribute entry helper in XMLSpy, Authentic Desktop and Authentic Browser plug-in.

Errors

2000 Invalid object.

4.2.15.7 AuthenticView.DisableElementEntryHelper

Method: `DisableElementEntryHelper()`

Description

`DisableElementEntryHelper()` disables the element entry helper in XMLSpy, Authentic Desktop and Authentic Browser plug-in.

Errors

2000 Invalid object.

4.2.15.8 AuthenticView.DisableEntityEntryHelper

Method: `DisableEntityEntryHelper()`

Description

`DisableEntityEntryHelper()` disables the entity entry helper in XMLSpy, Authentic Desktop and Authentic Browser plug-in.

Errors

2000 Invalid object.

4.2.15.9 AuthenticView.DocumentBegin

See also

Property: DocumentBegin as AuthenticRange[105] (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.

4.2.15.10 AuthenticView.DocumentEnd

See also

Property: DocumentEnd as AuthenticRange[105] (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.

4.2.15.11 AuthenticView.DoNotPerformStandardAction

Method: `DoNotPerformStandardAction ()`

Description
`DoNotPerformStandardAction()` serves as cancel bubble for macros; stops further execution after macro has finished.

Errors
2000 Invalid object.

4.2.15.12 AuthenticView.EvaluateXPath

Method: `EvaluateXPath` (XMLData[170], string expression) as string

Return Value
The method returns a string

Description
`EvaluateXPath()` executes an XPath expressions with the given XML context node. The result returned as string, in the case of a sequence it is a space-separated string.

Errors
2000 Invalid object.
2005 Invalid parameter.

2008 Internal error.
2013 XPath error.

4.2.15.13 AuthenticView.Event

See also

Property: `Event` as `AuthenticEvent` (read-only)

Description
This property gives access to parameters of the last event in the same way as `OldAuthenticView.event` does. Since all events for the scripting environment and external clients are now available with parameters this `Event` property should only be used from within IDE-Plugins.

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

4.2.15.14 AuthenticView.EventContext

Property: `EventContext` as `EventContext`

Description
`EventContext` property gives access to the running macros context. See the `EventContext` interface description for more below details.

Errors
2000 Invalid object.

4.2.15.15 AuthenticView.GetToolbarButtonState

Method: `GetToolbarButtonState` (`ButtonIdentifier` as `string`) as `AuthenticToolbarButtonState`

Return Value
The method returns `AuthenticToolbarButtonState`

Description
`GetToolbarButtonState` queries the status of a toolbar button, and lets the user disable or enable the button, identified via its button identifier (see list above 150). One usage is to disable toolbar buttons permanently. Another usage is to put `SetToolbarButtonState` in the `OnSelectionChanged` event handler, as toolbar buttons are updated regularly when the selection changes in the document.

Toolbar button states are given by the listed enumerations 185.

The default state means that the enable/disable of the button is governed by AuthenticView. When the user sets the button state to enable or disable, the button remains in that state as long as the user does not change it.

Errors

2000	Invalid object.
2005	Invalid parameter.
2008	Internal error.
2014	Invalid button identifier.

4.2.15.16 AuthenticView.Goto

See also

Method: Goto (*eKind* as SPYAuthenticElementKind, *nCount* as Long, *eFrom* as SPYAuthenticDocumentPosition) as AuthenticRange[105]

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, 1, spyAuthenticDocumentBegin)
If (Err.number = 0) Then
     objRange.Select()
Else
     MsgBox "No table found in document"
End If
```

4.2.15.17 AuthenticView.IsRedoEnabled

See also

Property: `IsRedoEnabled` as Boolean (read-only)

Description
True if redo steps are available and `Redo` is possible.

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

4.2.15.18 AuthenticView.IsUndoEnabled

See also

Property: `IsUndoEnabled` as Boolean (read-only)

Description
True if undo steps are available and `Undo` is possible.

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

4.2.15.19 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.

4.2.15.20 AuthenticView.Parent

See also

Property: Parent as Authentic[63] (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.

4.2.15.21 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.

4.2.15.22 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.

4.2.15.23 AuthenticView.Selection

See also

Property: Selection as AuthenticRange[105]

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
```

4.2.15.24 AuthenticView.SetToolbarButtonState

Method: `SetToolbarButtonState` (`ButtonIdentifier` as string, `AuthenticToolbarButtonState` state)

Description
`SetToolbarButtonState` queries the status of a toolbar button, and lets the user disable or enable the button, identified via its button identifier (see list above[150]). One usage is to disable toolbar buttons permanently. Another usage is to put `SetToolbarButtonState` in the `OnSelectionChanged` event handler, as toolbar buttons are updated regularly when the selection changes in the document.

Toolbar button states are given by the listed enumerations[185].

The default state means that the enable/disable of the button is governed by AuthenticView. When the user sets the button state to enable or disable, the button remains in that state as long as the user does not change it.

Errors
2000 Invalid object.
2008 Internal error.

2014 Invalid button identifier.

4.2.15.25 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.

4.2.15.26 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(10);

if(objDocType)
{
     var objEntity = objPlugin.CreateChild(14);
     objEntity.Name = "child";
     objEntity.TextValue = "SYSTEM \"child.xml\"";
     objDocType.AppendChild(objEntity);

     objPlugin.AuthenticView.UpdateXMLInstanceEntities();
}
```

4.2.15.27 AuthenticView.WholeDocument

See also

Property: WholeDocument as AuthenticRange[105] (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.

4.2.15.28 AuthenticView.XMLDataRoot

See also

Property: `XMLDataRoot` as `XMLData` (read-only)

Description
Returns or sets the top-level XMLData element of the current document. This element typically describes the document structure and would be of kind spyXMLDataXMLDocStruct, spyXMLDataXMLEntityDocStruct or spyXMLDataDTDDocStruct..

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

4.2.16 AuthenticXMLTableCommands

Methods
Insert[166]
Delete[165]
AppendRow[165]
InsertRow[166]
DeleteRow[165]
AppendColumn[164]
InsertColumn[166]
DeleteColumn[165]
JoinLeft[166]
JoinRight[166]
JoinUp[167]
JoinDown[166]
SplitHorizontal[170]
SplitVertical[170]
AlignVerticalTop[164]

Properties

4.2.16.1 AuthenticXMLTableCommands.AlignHorizontalCenter

Declaration: AlignHorizontalCenter()

Description
Sets the horizontal alignment attribute to "center" or clears the attribute if it was set to "center" before.

4.2.16.2 AuthenticXMLTableCommands.AlignHorizontalJustify

Declaration: AlignHorizontalJustify()

Description
Sets the horizontal alignment attribute to "justify" or clears the attribute if it was set to "justify" before.

4.2.16.3 AuthenticXMLTableCommands.AlignHorizontalLeft

Declaration: AlignHorizontalLeft()

Description
Sets the horizontal alignment attribute to "left" or clears the attribute if it was set to "left" before.

4.2.16.4 AuthenticXMLTableCommands.AlignHorizontalRight

Declaration: AlignHorizontalRight()

Description
Sets the horizontal alignment attribute to "right" or clears the attribute if it was set to "right" before.

4.2.16.5 AuthenticXMLTableCommands.AlignVerticalBottom

Declaration: AlignVerticalBottom()

Description
Sets the vertical alignment attribute to "bottom", or clears the attribute if it was set to "bottom" before.

4.2.16.6 AuthenticXMLTableCommands.AlignVerticalCenter

Declaration: AlignVerticalCenter()

Description
Sets the vertical alignment attribute to "center", or clears the attribute if it was set to "center" before.

4.2.16.7 AuthenticXMLTableCommands.AlignVerticalTop

Declaration: AlignVerticalTop()

Description
Sets the vertical alignment attribute to "top", or clears the attribute if it was set to "top" before.

4.2.16.8 AuthenticXMLTableCommands.AppendCol

Declaration: AppendCol()

Description
Appends a column to the current table.

4.2.16.9 AuthenticXMLTableCommands.AppendRow

Declaration: AppendRow()

Description
Appends a row to the current table.

4.2.16.10 AuthenticXMLTableCommands.Delete

Declaration: Delete()

Description
If the user confirmed the dialog the method deletes the currently selected table.

4.2.16.11 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.

4.2.16.12 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.

4.2.16.13 AuthenticXMLTableCommands.EditProperties

Declaration: EditProperties()

Description
Displays the properties dialog for the selected table/cell.

4.2.16.14 AuthenticXMLTableCommands.Insert

Declaration: Insert()

Description
Displays a dialog and inserts a new table into the existing XML.

4.2.16.15 AuthenticXMLTableCommands.InsertCol

Declaration: InsertCol()

Description
Inserts a new column before the currently selected column.

4.2.16.16 AuthenticXMLTableCommands.InsertRow

Declaration: InsertRow()

Description
Inserts a row before the currently selected row.

4.2.16.17 AuthenticXMLTableCommands.JoinDown

Declaration: JoinDown()

Description
Joins the current cell to the cell immediately below it.

4.2.16.18 AuthenticXMLTableCommands.JoinLeft

Declaration: JoinLeft()

Description
Joins the current cell with the cell immediately to its left.

4.2.16.19 AuthenticXMLTableCommands.JoinRight

Declaration: JoinRight()

Description
Joins the current cell with the cell immediately to its right.

4.2.16.20 AuthenticXMLTableCommands.JoinUp

Declaration: JoinUp()

Description
Joins the current cell to the cell immediately above it.

4.2.16.21 AuthenticXMLTableCommands.MayAlignHorizontal

Declaration: MayAlignHorizontal as Boolean

Description
True if the attributes for horizontal alignment can be set for the current cell.

4.2.16.22 AuthenticXMLTableCommands.MayAlignVertical

Declaration: MayAlignVertical as Boolean

Description
True if the attributes for vertical alignment can be set for the current cell.

4.2.16.23 AuthenticXMLTableCommands.MayAppendCol

Declaration: MayAppendCol as Boolean

Description
True if a column can be appended.

4.2.16.24 AuthenticXMLTableCommands.MayAppendRow

Declaration: MayAppendRow as Boolean

Description
True if a row can be appended.
Enter topic text here.

4.2.16.25 AuthenticXMLTableCommands.MayDelete

Declaration: MayDelete as Boolean

Description
The property is true if a table is selected.

4.2.16.26 AuthenticXMLTableCommands.MayDeleteCol

Declaration: MayDeleteCol as Boolean

Description
True if the current column can be deleted.

4.2.16.27 AuthenticXMLTableCommands.MayDeleteRow

Declaration: MayDeleteRow as Boolean

Description
True if the current row can be deleted.

4.2.16.28 AuthenticXMLTableCommands.MayEditProperties

Declaration: MayEditProperties as Boolean

Description
The property is true if the properties dialog is available for the selected table/cell.

4.2.16.29 AuthenticXMLTableCommands.MayInsert

Declaration: MayInsert as Boolean

Description
The property is true if the insertion of a new table is possible at the current selection.

4.2.16.30 AuthenticXMLTableCommands.MayInsertCol

Declaration: MayInsertCol as Boolean

Description
True if a column can be inserted.

4.2.16.31 AuthenticXMLTableCommands.MayInsertRow

Declaration: MayInsertRow as Boolean

Description
True if a row can be inserted.

4.2.16.32 AuthenticXMLTableCommands.MayJoinDown

Declaration: MayJoinDown as Boolean

Description
The property is true if the join down operation is possible for the currently selected cell.

4.2.16.33 AuthenticXMLTableCommands.MayJoinLeft

Declaration: MayJoinLeft as Boolean

Description
The property is true if the join left operation is possible for the currently selected cell.

4.2.16.34 AuthenticXMLTableCommands.MayJoinRight

Declaration: MayJoinRight as Boolean

Description
The property is true if the join right operation is possible for the currently selected cell.

4.2.16.35 AuthenticXMLTableCommands.MayJoinUp

Declaration: MayJoinUp as Boolean

Description
The property is true if the join up operation is possible for the currently selected cell.

4.2.16.36 AuthenticXMLTableCommands.MaySplitHorizontal

Declaration: MaySplitHorizontal as Boolean

Description
True if the current cell can be splitted horizontally.

4.2.16.37 AuthenticXMLTableCommands.MaySplitVertical

Declaration: MaySplitVertical as Boolean

Description
True if the current cell can be splitted vertically.

4.2.16.38 AuthenticXMLTableCommands.SplitHorizontal

Declaration: SplitHorizontal()

Description
The method splits the current cell horizontally.

4.2.16.39 AuthenticXMLTableCommands.SplitVertical

Declaration: SplitVertical()

Description
The method splits the current cell vertically.

4.2.17 XMLData

Methods
InsertChild 178

Properties

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.

4.2.17.1 XMLData.AppendChild

See also

Declaration: AppendChild(*pNewData* as XMLData 170)

Description

AppendChild appends pNewData as last child to the XMLData object. See also "Using XMLData 55".

Example

```
Dim objCurrentParent
Dim objNewChild

Set objNewChild = objPlugIn.CreateChild(spyXMLDataElement)
Set objCurrentParent = objPlugIn.XMLRoot

objCurrentParent.AppendChild objNewChild

Set objNewChild = Nothing
```

4.2.17.2 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.

4.2.17.3 XMLData.CountChildrenKind

See also

Declaration: CountChildrenKind (*`nKind`* as SPYXMLDataKind[185]) 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.

4.2.17.4 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
```

4.2.17.5 XMLData.EraseChild

Method: `EraseChild` (Child node and new node as XMLData[170])

Description
Deletes the given child node.

Errors

1500	Invalid object.
1506	Invalid input xml
1510	Invalid parameter.

4.2.17.6 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[175].

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(-1);

  while(objChild){
   DeleteXMLElements(objChild);

   try{
    if(objChild.Name == "EraseMe")
     objXMLData.EraseCurrentChild();

    objChild = objXMLData.GetNextChild();
```

```
    }
    catch(Err) {
     objChild = null;
    }
   }
  }
 }
```

4.2.17.7 XMLData.GetChild

See also

Declaration: `GetChild` (*`position`* as long) as XMLData[170]

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.

4.2.17.8 XMLData.GetChildAttribute

Method: `GetChildAttribute` (Name as string) as XMLData object (`NULL` on error)

Description
Retrieves the attribute having the given name.

Errors
1500 Invalid object.
1510 Invalid parameter.

4.2.17.9 XMLData.GetChildElement

Method: `GetChildElement` (Name as string, position as integer) as XMLData object (`NULL` on error)

Description
Retrieves the Nth child element with the given name.

Errors
1500 Invalid object.
1510 Invalid parameter.

4.2.17.10 XMLData.GetChildKind

See also

Declaration: GetChildKind (*position* as long, *nKind* as SPYXMLDataKind[185]) as XMLData[170]

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.

4.2.17.11 XMLData.GetCurrentChild

See also

Declaration: GetCurrentChild as XMLData[170]

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[175].

4.2.17.12 XMLData.GetFirstChild

See also

Declaration: GetFirstChild(*nKind* as SPYXMLDataKind[185]) as XMLData[170]

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 176.

4.2.17.13 XMLData.GetNamespacePrefixForURI

Method: `GetNamespacePrefixForURI` (URI as string) Prefix as string

Description
Returns the namespace prefix of the supplied URI.

Errors
1500 Invalid object.
1510 Invalid parameter.

4.2.17.14 XMLData.GetNextChild

See also

Declaration: GetNextChild as XMLData 170

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 175.

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(-1)

Do
 'do something useful with the child
```

```
  'step to next child
  Set objCurrentChild = objParent.GetNextChild
 Loop Until (Err.Number - vbObjectError = 1503)
```

4.2.17.15 XMLData.GetTextValueXMLDecoded

Method: `GetTextValueXMLDecoded` as string

Description
Gets the decoded text value of the XML.

Errors
1500 Invalid object.
1510 Invalid parameter.

4.2.17.16 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.

4.2.17.17 XMLData.HasChildrenKind

See also

Declaration: HasChildrenKind (*nKind* as SPYXMLDataKind[185]) 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.

4.2.17.18 XMLData.InsertChild

See also

Declaration: InsertChild(*pNewData* as XMLData[170])

Description
InsertChild inserts the new child before the current child (see also XMLData.GetFirstChild[175], XMLData.GetNextChild[176] to set the current child).

4.2.17.19 XMLData.InsertChildAfter

Method: `InsertChildAfter` (Child node and new node as XMLData)

Description
Inserts a new XML node after the given node.

Errors

1500	Invalid object.
1506	Invalid input xml
1507	No children allowed
1510	Invalid parameter.
1512	Child is already added
1514	Invalid kind at position

4.2.17.20 XMLData.InsertChildBefore

Method: `InsertChildBefore` (Child node and new node as XMLData)

Description
Inserts a new XML node before the given node.

Errors

1500	Invalid object.
1506	Invalid input xml
1507	No children allowed
1510	Invalid parameter.
1512	Child is already added
1514	Invalid kind at position

4.2.17.21 XMLData.IsSameNode

See also

Declaration: IsSameNode(*pNodeToCompare* as XMLData[170]) as Boolean

Description
Returns true if pNodeToCompare references to the same node as the object itself.

4.2.17.22 XMLData.Kind

See also

Declaration: Kind as SPYXMLDataKind[185]

Description
Kind of this XMLData object.

This property is read-only.

4.2.17.23 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.

4.2.17.24 XMLData.Name

See also

Declaration: Name as String

Description
Used to modify and to get the name of the XMLData object.

4.2.17.25 XMLData.Parent

See also

Declaration: Parent as XMLData[170]

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.

4.2.17.26 XMLData.SetTextValueXMLDecoded

Method: `SetTextValueXMLDecoded` (string value)

Description
Sets the encoded text value of the XML.

Errors
1500 Invalid object.
1513 Modification not allowed.

4.2.17.27 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[55]".

4.3 Enumerations

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

4.3.1 SPYAuthenticActions

Description
Actions that can be performed on AuthenticRange[105] objects.

Possible values:

spyAuthenticInsertAt	= 0
spyAuthenticApply	= 1
spyAuthenticClearSurr	= 2
spyAuthenticAppend	= 3
spyAuthenticInsertBefore	= 4
spyAuthenticRemove	= 5

4.3.2 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_CommandRowMoveDown = 19
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

4.3.3 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

4.3.4 SPYAuthenticDocumentPosition

Description

Relative and absolute positions used for navigating with AuthenticRange[105] objects.

Possible values:

spyAuthenticDocumentBegin	= 0
spyAuthenticDocumentEnd	= 1
spyAuthenticRangeBegin	= 2
spyAuthenticRangeEnd	= 3

4.3.5 SPYAuthenticElementActions

Description

Actions that can be used with GetAllowedElements[74].

Possible values:

k_ActionInsertAt	= 0
k_ActionApply	= 1
k_ActionClearSurr	= 2

k_ActionAppend	= 3
k_ActionInsertBefore	= 4
k_ActionRemove	= 5

4.3.6 SPYAuthenticElementKind

Description

Enumeration of the different kinds of elements used for navigation and selection within the AuthenticRange[105] and AuthenticView[141] objects.

Possible values:

spyAuthenticChar	= 0
spyAuthenticWord	= 1
spyAuthenticLine	= 3
spyAuthenticParagraph	= 4
spyAuthenticTag	= 6
spyAuthenticDocument	= 8
spyAuthenticTable	= 9
spyAuthenticTableRow	= 10
spyAuthenticTableColumn	= 11

4.3.7 SPYAuthenticEntryHelperWindows

Description

Identification of the available entry helper windows.

Possible values:

k_Elements	= 1
k_Attributes	= 2
k_Entities	= 4

4.3.8 SPYAuthenticMarkupVisibility

Description

Enumeration values to customize the visibility of markup.

Possible values:

spyAuthenticMarkupHidden	= 0

spyAuthenticMarkupSmall	= 1
spyAuthenticMarkupLarge	= 2
spyAuthenticMarkupMixed	= 3

4.3.9 SPYAuthenticToolbarAllignment

Description

Values to specify toolbar alignment.

Possible values:

k_ToolbarAlignTop	= 0
k_ToolbarAlignLeft	= 1
k_ToolbarAlignBottom	= 2
k_ToolbarAlignRight	= 3

4.3.10 SPYAuthenticToolbarButtonState

Description

Authentic toolbar button states are given by the following enumeration:

Possible values:

authenticToolbarButtonDefault	= 0
authenticToolbarButtonEnabled	= 1
authenticToolbarButtonDisabled	= 2

4.3.11 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

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