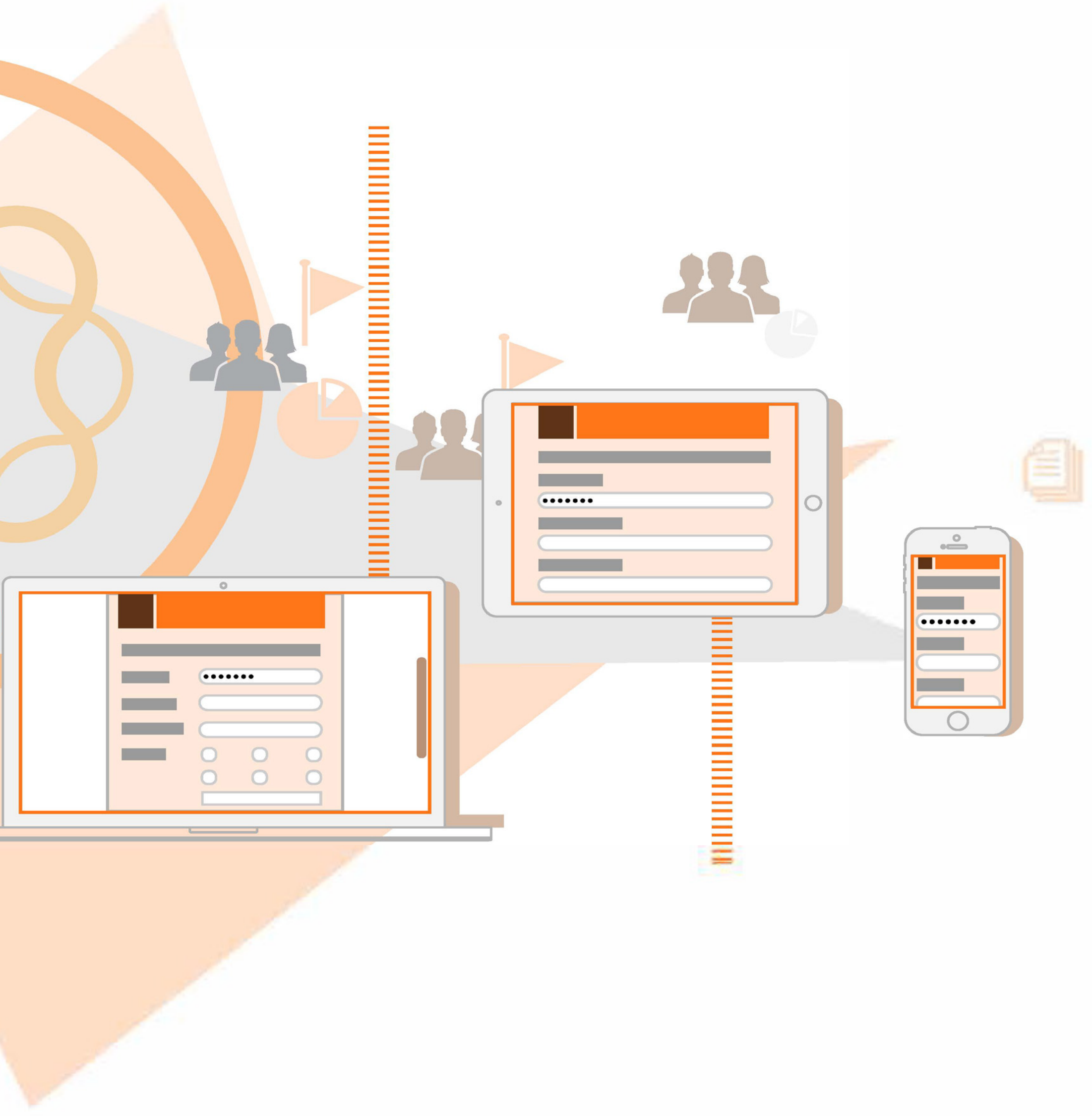
Designer Scripting Reference



AEM 6.5 Forms

Contents

About the Scripting Reference

The Adobe® XML Form Object Model, based on the Adobe XML Forms Architecture, represents the underlying technology behind the Adobe XML form solution and incorporates XML architectural concepts such as Document Object Model (DOM). Using this technology, form developers can create complex and flexible form-based applications for use with the client or the server.

Designer enables a form developer to build intelligent forms using only the options provided in the Designer graphical interface.

By scripting against the XML Form Object Model, form developers may further manipulate all aspects of the form, extending the functionality of the form beyond what is available through the Designer interface. For example, you might use a simple calculation to automatically update costs on a purchase order, or you might use scripting to modify the appearance of your form in response to the locale of the user.

Scripting is supported in two languages: FormCalc, a calculation language created by Adobe Systems Incorporated, and JavaScript, a powerful and popular scripting language.

Each host, such as Adobe® Acrobat and Adobe® Reader, is responsible for implementing the available methods. Some methods, such as beep, do not make sense on a server. The server does not implement these methods and instead can output an error message if a user tries to call the method.

For information about the basics of creating scripts, see *Scripting Basics*.

NOTE: *This document uses terms Adobe Experience Manager Forms, AEM Forms, AEM Forms on JEE, and LiveCycle interchangeably.*

Subforms and containers

In Designer, forms are documents that are created from a hierarchy of optionally repeating building-blocks known as *subforms*. Each subform controls a portion of the overall structure, presentation, and behavior of the form. Individual subforms enclose a combination of objects that produce fillable regions (fields) and non-fillable regions (draws). Subforms may also contain other subforms, and each subform may have properties that determine how and when the subform is instantiated into a constructed form.

Within each form is a concept of a container. A *container* is an object that holds data or values. Simple containers, those that are not capable of holding other containers or objects, include fields (text, numeric, buttons) and drawn objects (text, circle, line). All containers capable of holding other containers as well as non-container objects are considered *complex containers*. Subforms are an example of a complex container.

Version mapping to the XML Forms Architecture (XFA)

Each version of Designer ships with a specific version of XML Forms Architecture (XFA). XFA represents the underlying technology beneath the Adobe XML forms solution.

The version of XFA in which a scripting property or method was added is included in the description of each property and method.

XFA Version	Designer Version
3.6	No public release
3.5	10.0
3.3	No public release
3.2	9.0.1
3.1	9.0
3.0	8.2.1
2.9	No public release
2.8	8.2
2.7	No public release
2.6	8.1
2.5	8.0
2.4	7.1
2.3	No public release
2.2	7.0
2.1	6.0

XML Form Object Model Class Hierarchy

The XML Form Object Model consists of models that each contain a set of objects. Each object is derived from one of the set of classes that define common properties and methods. An object inherits these common properties and methods but may also add properties and methods that are unique to that object, relative to other objects derived from the same class.

As with traditional class structures, each class inherits properties and methods from its parent class. Objects, in turn, inherit from the parent class from which they derive.

Each model uses a hierarchy of objects. Objects do not inherit properties and methods from other objects, but instead inherit directly from the class hierarchy. The hierarchy of objects within a model represents the XML structure of that model.

object class

The `object` class is the base class from which all other classes, objects, and models are either directly or indirectly derived.

Class hierarchy

Parent class	Current class	Objects derived from this class
None	`object`	dataWindow eventPseudoModel hostPseudoModel layoutPseudoModel signaturePseudoModel

Properties

Name	Description	Type	Access
className	Determines the name of the class of this object.	String	Get

Methods

None

list class

The `list` class represents a list of nodes.

Class hierarchy

Parent class	Current class	Objects derived from this class
objectclass	`list`	None

Properties

Name	Description	Type	Access
length	Specifies the number of objects in the list.	Integer	Read

Methods

Name	Description	Returns
append	Appends a node to the end of the node list.	Empty
insert	Inserts a node before a specific node in the node list.	Empty
item	Describes a zero-based index into the collection.	Object
remove	Removes a node from the node list.	Empty

treeList class

The `treeList` class represents a list of tree nodes.

Class hierarchy

Parent class	Current class	Objects derived from this class
list	`treeList`	None

Properties

None

Methods

Name	Description	Returns
namedItem	Gets the first child of this node with the given name.	Object

tree class

The `tree` class represents the structure from which the nodeclass class is derived.

Class hierarchy

Parent class	Current class	Objects derived from this class
objectclass	`tree`	None

Properties

Name	Description	Type	Acces s
all	Returns a collection of like-named, in-scope nodes.	Object	Read
classAll	Returns a collection of like-class, in-scope nodes.	Object	Read
classIndex	Returns the position of this object in its collection of like-class, in-scope objects.	Intege r	Read
index	Returns the position of this node in its collection of like-named, in-scope nodes.	Intege r	Read
name	Specifies an identifier that may be used to specify this object or event in script expressions.	String	Read /Write
nodes	Returns a list of all child objects of the current object.	Object	Read
parent	Returns the parent object of the current object.	Object	Read
somExpres sion	Reads the reference syntax expression for this node.	String	Read

Methods

Name	Description	Retur ns
resolveNo de	Evaluates the specified reference syntax expression, beginning with the current XML form object model object, and returns the value of the object specified in the reference syntax expression.	Objec t
resolveNo des	Evaluates the specified reference syntax expression, beginning with the current XML form object model object, and returns the value of the object or objects specified in the reference syntax expression.	Objec t

node class

The `node` class represents the primary data type for XML Form Object Model objects.

Class hierarchy

Parent class	Current class	Objects derived from this class			
treeclass	node	arc assist barcode bind bindItems bookend border break(deprecated) breakAfter breakBefore button calculate caption certificates checkButton choiceList color comb command connect corner dataGroup(deprecated) dataValue dateTime	dateTimeEdit defaultUi(deprecated) desc digestMethod digestMethods dSigData edge encoding encodings encrypt event exclGroup execute exObject extras fill filter font format image imageEdit instanceManager issuers items	keep keyUsage line linear manifest map margin mdp medium message numericEdit occur oids overflow packet para passwordEdit pattern picture proto(deprecated) query radial reasons	recordSet rectangle script setProperty signature signData signing solid source stipple subjectDN subjectDNs submit textEdit timeStamp traversal traverse ui validate value wsdlConnection xmlConnection xsdConnection

Properties

Name	Description	Type	Access
id	Specifies a generic user-defined XML ID type.	String	Read /Write
isContainer	Specifies whether this object is a container object.	Boolean	Read
isNull	Indicates whether the current data value is the null value.	Boolean	Read

Name	Description	Type	Acces s
model	Specifies the model for the current object.	Object	Read
ns	Returns the namespace for the object.	String	Read
oneOfChil d	Retrieves or sets that child object in the case where a parent object can only have one of a particular child object.	Object	Read /Writ e

Methods

Name	Description	Return s
applyXSL	Applies an XSL transformation to the XML representation of the current node. It is equivalent to calling saveXML and transforming the result with the specified XSL document.	String
assignNode	Evaluates the reference syntax expression using the current context and sets the value of the found node. If the node doesn't exist, it can be created.	Object
clone	Makes a copy of an object.	Object
getAttribute	Gets a specified property value.	String
getElement	Returns a specified child object.	Object
isPropertySpecifi ed	Checks if a specific property has been defined for this node.	Boolea n
loadXML	Loads and appends a specified XML document to the current object.	Empty
saveFilteredXML	Saves the current node to a string, but includes only a subset of the child nodes.	String
saveXML	Saves the XML structure of the current "node class" on pagevii to a string.	String
setAttribute	Sets the value of a specified property.	Empty
setElement	Sets a specified object to be the current object.	Empty

container class

The `container` class provides container objects for the form model.

Class hierarchy

Parent class	Current class	Objects derived from this class
nodeclass	`container`	area contentArea draw field pageArea pageSet subform subformSet variables

Properties

None

Methods

Name	Description	Returns
getDelta	Gets a delta script object for a specific property.	Object
getDeltas	Recursively gets all the delta script objects for this container object and all its descendants.	Object

content class

The `content` class provides content objects for the form and template models. Form designs and completed forms are visually composed of objects that represent content, such as images and text.

Class hierarchy

Parent class	Current class	Objects derived from this class
nodeclass	`content`	boolean date dateTime decimal exData float integer text time

Properties

None

Methods

None

model class

The `model` class is the base class for the root objects of each model.

Class hierarchy

Parent class	Current class	Objects derived from this class
nodeclass	`model`	connectionSet dataModel form template sourceSet xfa

Properties

Name	Description	Type	Access
aliasNode	Specifies the object that is represented by the alias for this model.	Object	Read /Write
context(deprecated)	Specifies the current object, which is the starting object for the “resolveNode” on pagecccli and “resolveNodes” on pageccclii methods.	Object	Read /Write

Methods

Name	Description	Returns
clearErrorList	Removes all items from the current error log.	Empty
createNode	Creates a new node based on a valid class name.	Object
isCompatibleNS	Determines if a specified namespace is functionally equivalent, that is compatible, with the namespace of this model. It determines if the two namespaces are equivalent, even though the strings that represent them may not be identical.	Boolean

textNode class

The `textNode` class represents objects that store textual data directly instead of using the `#text` object derived from the nodeclass class.

Class hierarchy

Parent class	Current class	Objects derived from this class	
nodeclass	`textNode`	certificate connectString delete handler insert oid operation password reason ref	rootElement select soapAction soapAddress speak toolTip update uri user wsdlAddress

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

Scripting Objects

For each object supported in this scripting environment, there is a brief description of the associated properties and methods, along with links to detailed descriptions of the properties and methods.

In addition, each object has an accompanying table that shows the parent and child object hierarchy in relation to the current object. This parent and child hierarchy is meant to provide a mechanism for quickly determining the scripting syntax required to reference a particular object.

arc

The `arc` object describes an arc or an ellipse.

Hierarchy of objects

Model	Child objects
FormModel	edge fill

Parent class

nodeclass class

Properties

Name	Description	Type	Access
circular	Enables you to convert an arc into a circle.	String	Read /Write
hand	Describes the justification of a line or edge.	String	Read /Write
startAngle	Specifies the angle where the beginning of the arc renders.	String	Read /Write

Name	Description	Type	Access
sweepAngle	Specifies the length of the arc as an angle.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

area

The `area` object represents the grouping of other container objects on a form.

Hierarchy of objects

Model	Child objects
FormModel	desc extras

Parent class

containerclass

Properties

Name	Description	Type	Access
colSpan	Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.	String	Read /Write

Name	Description	Type	Access
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
x	Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

None

assist

The `assist` object supplies additional information about a container for users of interactive form applications.

It provides a means to specify the toolTip and behavior for a spoken prompt.

Hierarchy of objects

Model	Child objects
FormModel	speak toolTip

Parent class

nodeclass class

Properties

Name	Description	Type	Access
role	Specifies the role played by the parent container.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

barcode

The `barcode` object supplies the information required to display a barcode. This information includes the type of barcode and a set of options that varies from one type of barcode to another.

Designer can support two types of barcodes: hardware and software. However, an XFA application is not required to support any particular set of barcodes. Hardware barcodes are displayed by particular printers. The set of supported barcodes may vary depending on the display device, because some printers have built-in support for particular barcodes. Software barcodes are drawn stroke by stroke by the XFA application itself. When displaying on a screen, which is not accessible to barcode readers, an XFA application may also revert to displaying just a placeholder rather than an accurate barcode.

For each type of barcode there are usually two separate specifications, one for the barcode itself and one for the barcode's placement in relation to the physical page and to surrounding printed matter. The creator of the form design is responsible for ensuring that the barcode is placed correctly on the page. The XFA application is responsible for correctly rendering the barcode using the user data. The user data must be compatible with the barcode; that is, it must conform to the allowed character set and string length.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
charEncoding	Specifies the character encoding of the value that is encoded into a barcode.	String	Read /Write
checksum	Specifies an algorithm for the checksum to insert into the barcode.	String	Read /Write
dataColumnCount	Specifies an optional number of data columns to encode for supported barcodes. This property applies to two-dimensional (2D) barcodes only.	String	Read /Write
dataLength	Specifies the maximum number of characters for this instance of the barcode. This property applies to one-dimensional barcodes only.	String	Read /Write
dataPrep	Defines preprocessing that is applied to the data written in the barcode.	String	Read /Write
dataRowCount	Specifies an optional number of data rows to encode for supported barcodes. This property applies to 2D barcodes only.	String	Read /Write
endChar	Specifies an optional ending control character to append to barcode data.	String	Read /Write
errorCorrectionLevel	Specifies an optional error correction level to apply to supported barcodes. This property applies to 2D barcodes only.	String	Read /Write
moduleHeight	Determines the height of a set of bars used to encode one character of supplied text.	String	Read /Write

Name	Description	Type	Access
moduleWidth	Specifies different aspects of a barcode depending on the class of barcodes being used.	String	Read /Write
printCheckDigit	Specifies whether to print the check digits in the human-readable text.	String	Read /Write
rowColumnRatio	An optional ratio of rows to columns for supported 2D barcodes.	String	Read /Write
startChar	Specifies an optional starting control character to add to the beginning of the barcode data.	String	Read /Write
textLocation	Specifies the location of any text associated with the barcode.	String	Read /Write
truncate	Truncates the right edge of the barcode for supported formats.	String	Read /Write
type	Specifies the pattern used by an object.	String	Read /Write
upsMode	Represents the mode in a UPS Maxicode barcode.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
wideNarrowRatio	Specifies a ratio of wide bar to narrow bar in supported barcodes.	String	Read /Write

Methods

None

bind

The `bind` object controls the behavior of its parent object during merge operations.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	picture

Parent class

nodeclass class

Properties

Name	Description	Type	Access
contentType	Specifies the type of content in the referenced document, expressed as a MIME type.	String	Read /Write
match	Controls the role played by enclosing an object in a data-binding (merge) operation.	String	Read /Write
ref	Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.	String	Read /Write
transferEnco ding	Specifies the encoding of binary content in the referenced document.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

bindItems

The `bindItems` object identifies a set of data nodes for binding.

The application of the `bindItems` object is a binding operation. The links between the list items and the referenced data are active. Any change to the data causes an immediate update to the list items.

Hierarchy of objects

Model	Child objects
FormModel	ref

Parent class

nodeclass class

Properties

Name	Description	Type	Access
connection	Specifies the name of the associated connection control in the connection set.	String	Read /Write
labelRef	Resolves a data value for each data node in the set identified by the ref object.	String	Read /Write
valueRef	Resolves a data value for each data node in the set identified by the ref object.	String	Read /Write

Methods

None

bookend

The `bookend` object stores properties that identify optional subforms that bookend the contents of the parent subform.

The leader property identifies an optional `subform` or `subformSet` that is laid out first, before the contents of the parent container. The trailer property identifies an optional `subform` or `subformSet` object that is laid out last, after the contents of the parent container. In this way, these properties bookend the contents of the parent container. This is true regardless of how many `contentArea` or `pageArea` objects the parent container spans.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
leader	Specifies the subform or subformSet object to place at the top of a content or page area.	String	Read /Write
trailer	Specifies the subform or subformSet object to place at the bottom of a content or page area.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehr ef	Invokes an external prototype.	String	Read /Write

Methods

None

boolean

The `boolean` object describes a single unit of data content representing a boolean logical value.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Boolean	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	Boolean	Read /Write

Methods

None

border

The `border` object describes the border surrounding an object.

Hierarchy of objects

Model	Child objects
FormModel	corner edge extras fill margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
break	Describes the constraints on moving to a new page or content area after rendering an object.	String	Read /Write
hand	Describes the justification of a line or edge.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

break (deprecated)

The `break` object describes the constraints on moving to a new page or content area before or after rendering an object.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
after(deprecated)	Specifies the constraints on moving to a new page or content area after rendering the subform. As of XFA version 2.8, this property is deprecated. See breakAfter.	String	Read /Write
afterTarget(deprecate d)	Specifies the explicit destination page or content area for the after (deprecated) property. As of XFA version 2.8, this property is deprecated. See `breakAfter.target`.	String	Read /Write

Name	Description	Type	Access
before(deprecated)	Specifies the constraints on moving to a new page or content area before rendering the subform. As of XFA version 2.8, this property is deprecated. See breakBefore.	String	Read /Write
beforeTarget(deprecated)	Specifies the explicit destination page or content area for the before (deprecated) property. As of XFA version 2.8, this property is deprecated. See `breakBefore.target`.	String	Read /Write
bookendLeader(deprecated)	(bookendLeader)Specifies a subform to place into the current content area or page before any other content.	String	Read /Write
bookendTrailer(deprecated)	Identifies a subform to place into the current content area or page after any other content.	String	Read /Write
overflowLeader(deprecated)	Specifies the subform to place at the top of the content area or page when it is entered as a result of an overflow. As of XFA version 2.8, this property is deprecated. See leader.	String	Read /Write
overflowTarget(deprecated)	Specifies the explicit content area that will be the transition target when the current content area or page area overflows.	String	Read /Write
overflowTrailer(deprecated)	Specifies the subform to place at the bottom of the content area or page when it overflows. As of XFA version 2.8, this property is deprecated. See trailer	String	Read /Write
startNew	Determines whether it is necessary to start a new content area or page even when the current content area or page has the required name.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

breakAfter

The`breakAfter`object describes the conditional constraints on moving to a new page or content area after laying down the parent container. The breakAfter object is invoked after laying out the parent subform. The leaders or trailers are laid down before and after any jump that the breakAfter object mandates.

An optional script object associated with the`breakAfter`object determines whether it is respected. This`script`object defaults to the true condition, which means that`breakAfter`objects with no`script`object are always invoked.

The`breakAfter`object is functionally equivalent to the deprecated syntax of break(deprecated).after(deprecated) and afterTarget(deprecated).

Hierarchy of objects

Model	Child objects
FormModel	script

Parent class

nodeclass class

Properties

Name	Description	Type	Access
leader	Specifies the subform or subformSet object to place at the top of a content or page area.	String	Read /Write
startNew	Determines whether it is necessary to start a new content area or page even when the current content area or page has the required name.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write
targetType	Specifies the constraints on moving to a new page or content area before laying out the parent subform.	String	Read /Write

Name	Description	Type	Access
trailer	Specifies the subform or subformSet object to place at the bottom of a content or page area.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

breakBefore

The`breakBefore`object describes the conditional constraints for moving to a new page or content area before laying down the parent container. The breakBefore object is invoked before laying out the parent subform. The leaders and trailers are laid down before and after any jump that the break-Before object mandates.

An optional script object associated with the`breakBefore`object determines whether it is respected. This`script`object defaults to the true condition, which means that`breakBefore`objects with no`script`object are always invoked.

The breakBefore object is functionally equivalent to the deprecated syntax of break(deprecated).before(deprecated) and beforeTarget(deprecated).

Hierarchy of objects

Model	Child objects
FormModel	script

Parent class

nodeclass class

Properties

Name	Description	Type	Access
leader	Specifies the subform or subformSet object to place at the top of a content or page area.	String	Read /Write
startNew	Determines whether it is necessary to start a new content area or page even when the current content area or page has the required name.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write
targetType	Specifies the constraints on moving to a new page or content area before laying out the parent subform.	String	Read /Write
trailer	Specifies the subform or subformSet object to place at the bottom of a content or page area.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

button

The `button` object describes a push-button control.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
highlight	Specifies the visual appearance of a button when activated by a user. All values support two states (up and down) except push which supports three states (up, down, and rollover).	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

calculate

The `calculate` object controls the calculation of a field's value.

Hierarchy of objects

Model	Child objects
FormModel	extras message script

Parent class

nodeclass class

Properties

Name	Description	Type	Access
override	When used with the calculate object, the override property indicates whether the field allows overrides to occur and disables or enables calculations. When used with the value object, the override property indicates whether a calculation override has occurred.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

caption

The `caption` object describes a descriptive label associated with a form design object.

Hierarchy of objects

Model	Child objects
FormModel	extras font margin para value

Parent class

nodeclass class

Properties

Name	Description	Type	Access
placement	Specifies the placement of the caption.	String	Read /Write
presence	Specifies an object's visibility.	String	Read /Write
reserve	A measurement value that specifies the height or width of the caption.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

certificate

The `certificate` object holds a certificate.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

certificates

The `certificates` object holds a collection of certificate filters.

Hierarchy of objects

Model	Child objects
FormModel	issuers keyUsage oids signing subjectDNs

Parent class

nodeclass class

Properties

Name	Description	Type	Access
credentialServerPolicy	Specifies whether checking the certificate status is required when a digital signature is signed. The certificate status can be checked against a certificate revocation list (CRL) or an Online Certificate Status Protocol (OCSP) response.	String	Read /Write
url	Specifies the URL for this object.	String	Read /Write
urlPolicy	Specifies the type of URL represented by the certificates object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

checkButton

The `checkButton` object describes the visual appearance of a Check Box or Radio Button in Designer. Check Box and Radio Button objects are defined by the `field` object.

NOTE: *A group of Radio Button objects is enclosed within an `exclGroup` object.*

Hierarchy of objects

Model	Child objects
FormModel	border extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
allowNeutral	Specifies whether the check box or radio button can support an additional third state that represents a neutral value.	String	Read /Write
mark	Indicates the shape to use when filling a Check Box object.	String	Read /Write
shape	Specifies whether the check box or radio button displays with a square or round outline.	String	Read /Write
size	A measurement specifying the size of the check box or radio button outline representing either the height and width for a check box, or the diameter for a radio button.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

choiceList

The `choiceList` object describes the visual appearance of a Drop-down List or List Box in Designer. Drop-down List and List Box objects are defined by the `field` object.

Hierarchy of objects

Model	Child objects
FormModel	border extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
commitO n	Specifies when a user's selections are propagated to the data model.	String	Read /Write
open	Determines when the choice list is presented by interactive applications.	String	Read /Write
textEntry	Determines if a user can type a value into a drop-down list.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

color

The `color` object describes a unique color on a form.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
cSpace	Specifies the color space.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

comb

The `comb` object describes a comb field, where each letter of the field is divided by a black vertical line that spans the distance between the top and bottom edges of the field. The `comb` object is available for only dynamic or interactive PDF generation forms. Static PDF forms, and all other output formats, ignore this object.

Only single- line comb fields can be created, and to display field data as a comb, you must set the value of the hand property for the border object of the field to `right`. The `maxChars` property on the `textEdit` object determines the number of combs to create.

NOTE: *If a `textEdit` object is a multiline field or a rich-text field, the presence of a `comb` child object will not produce a comb field at runtime.*

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
numberOf Cells	Indicates the number of cells drawn for a comb field. This is not affected by the number of characters in the field's value.	Integer	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

command

The `command` object specifies a single command to execute against the data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	delete insert query update

Parent class

nodeclass class

Properties

Name	Description	Type	Access
timeout	Specifies the number of seconds to attempt a query.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

connect

The `connect` object describes the relationship between its containing object and a connection to a web service, schema, or data description. Connections are defined outside the form design in a separate packet with its own schema.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	connectString password picture user

Parent class

nodeclass class

Properties

Name	Description	Type	Access
connection	Specifies the name of the associated connection control in the connection set.	String	Read /Write
delayedOpen	Specifies the number of seconds to delay opening the data source after a connection is made.	String	Read /Write
ref	Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.	String	Read /Write
timeout	Specifies the number of seconds to attempt a query.	String	Read /Write
usage	Specifies the contexts in which to use the connection.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

connectionSet

The `connectionSet` object is the root object of the connectionSet model.

Hierarchy of objects

Model	Child objects
connectionSetModel	wsdlConnection xsdConnection

Parent class

modelclass class

Properties

None

Methods

None

connectString

The `connectString` object specifies the connection string to use to connect to the database.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

contentArea

The `contentArea` object describes a region within a page area eligible for receiving content.

Hierarchy of objects

Model	Child objects
FormModel	desc extras

Parent class

containerclass

Properties

Name	Description	Type	Access
h	A measurement of the height for the layout.	String	Read /Write
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
w	A measurement specifying the width for the layout.	String	Read /Write
x	Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

None

corner

The `corner` object describes the appearance of a vertex between two edges.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
inverted	Specifies whether the corner appears convex (it joins the edges tangentially) or is inverted and appears concave (it joins the edges at right angles).	String	Read /Write
join	Specifies the shape of the corner.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write
radius	Specifies the radius of the corner.	String	Read /Write
stroke	Specifies the appearance of a line.	String	Read /Write
thickness	Specifies the thickness or weight of the line.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

dataGroup (deprecated)

The `dataGroup` object is the parent of a list of XML data nodes within an XML data file. The nodes enclosed within the dataGroup (deprecated) object are either actual data values or other XML data objects, such as dataGroup (deprecated) objects. Subforms, as they appear in XML data files, are an example of data groups.

Hierarchy of objects

Model	Child objects
DataModel	dataGroup (deprecated) dataValue

Parent class

nodeclass class

Properties

None

Methods

None

dataModel

The `dataModel` object is the root object of the data model.

Hierarchy of objects

Model	Child objects
DataModel	dataWindow

Parent class

modelclass class

Properties

None

Methods

None

dataValue

The `dataValue` object represents a container object that stores a value or values. For example, a dataValue object would be a field on a form.

NOTE: *A `dataValue` object can have additional `dataValue` child objects that store additional data. Typically this is not the case.*

Hierarchy of objects

Model	Child objects
DataModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Varies	Read /Write
contains	Determines whether a data value should be included in value of the parent object or as a property of the parent.	String	Read /Write

Name	Description	Type	Access
contentTyp e	Specifies the type of content in the referenced document, expressed as a MIME type.	String	Read /Write
isNull	Indicates whether the current data value is the null value.	Boolean	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

dataWindow

The `dataWindow` object represents the range of records from the source data currently loaded into the data model.

Hierarchy of objects

Model	Child objects
DataModel	none

Parent class

objectclass class

Properties

Name	Description	Type	Access
currentRecord Number	Returns the current record number within the range of records contained by the current dataWindow object.	Integer	Read

Name	Description	Type	Access
isDefined	Indicates whether a valid data window is currently defined.	Boolea n	Read
recordsAfter	Returns the number of records in the data window following the current record.	Integer	Read
recordsBefore	Returns the number of records that are in the data window prior to the current record.	Integer	Read

Methods

Name	Description	Returns
gotoRecord	Moves the current record of the data window to a particular record within the range of records in the data.	Empty
isRecordGroup	Indicates if a particular dataGroup object is also a single record.	Boolean
moveCurrentRe cord	Repositions the current record to another location within the range of records.	Empty
record	Returns a record in a position relative to the current record.	Object

date

The `date` object describes a calendar date.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

dateTime

The `dateTime` object represents a date and time value.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

dateTimeEdit

The `dateTimeEdit` object describes a control intended to aid in the selection of date and time.

Hierarchy of objects

Model	Child objects
FormModel	border comb extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hScrollPolicy	Specifies whether a field can scroll horizontally.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

decimal

The `decimal` object represents a number with a fixed number of digits after the decimal.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Double	Read /Write
fracDigits	Specifies the maximum number of digits (inclusively) following the decimal point to capture and store.	String	Read /Write
leadDigits	Specifies the maximum number of digits (inclusively) preceding the decimal point to capture and store.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

defaultUi (deprecated)

The `defaultUi` object controls the depiction of objects whose appearance is delegated to the application.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

delete

The `delete` object specifies the delete current record operation from the data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

desc

The `desc` object describes human-readable metadata.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write

Name	Description	Type	Access
usehref	Invokes an external prototype.	String	Read /Write

Methods

Name	Description	Return s
metadata	Collects a comprehensive Extensible Metadata Platform (XMP) metadata packet for the document.	String

digestMethod

The `digestMethod` object lists an array of acceptable digest algorithms to use while signing. The valid values for PDF 1.7 are SHA1, SHA256, SHA384, SHA512 and RIPEMD160.

This object applies only if the digital credential that is signing contains RSA public/private keys. If it contains DSA public/private keys, then the digest algorithm is always SHA1 and this object is ignored. The default value, if not specified, is implementation-specific.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

digestMethods

The `digestMethods` object contains a list of acceptable `digestMethod` object values. If the credential contains RSA public/private keys, the valid values are SHA1, SHA256, SHA384, SHA512, RIPEMD160. If the credential contains DSA public/private keys, the only valid value is SHA1.

Hierarchy of objects

Model	Child objects
FormModel	digestMethod

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read \Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

draw

The `draw` object contains non-interactive form design content. Within Designer, for example, the draw object describes the text, static image, circle, line, and rectangle objects.

Hierarchy of objects

Model	Child objects
FormModel	assist border caption desc extras font keep margin para traversal ui value

Parent class

containerclass

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
anchorTy pe	Specifies the location of the container’s anchor point when it is placed by using a positioned layout strategy.	String	Read /Write
colSpan	Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.	String	Read /Write
h	A measurement of the height for the layout.	String	Read /Write
hAlign	Specifies the horizontal text alignment.	String	Read /Write
locale	Specifies the language, currency, and time/date formatting to use for the content of the object.	String	Read /Write
maxH	Specifies the maximum height for layout purposes.	String	Read /Write
maxW	Specifies the maximum width for layout purposes.	String	Read /Write
minH	Specifies the minimum height for layout purposes.	String	Read /Write
minW	Specifies the minimum width for layout purposes.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write
rawValue	Specifies the unformatted value of the current object.	String	Read /Write
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
rotate	Rotates the object around its anchor point by the specified angle.	String	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
vAlign	Specifies the vertical text alignment.	String	Read /Write
w	A measurement specifying the width for the layout.	String	Read /Write
x	Specifies the X coordinate of the container’s anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container’s anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

None

dSigData

The `dSigData` object describes a unit of XML digital signature data.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

Name	Description	Returns
getAttrib ute	Gets a specified property value.	String

edge

The `edge` object describes an arc, line, or one side of a border or rectangle.

TIP: *In the case where the* `edge` *object describes one side of a border or rectangle, a* `corner` *object describes the vertex between two* `edge` *objects. If you are attempting to change properties of the* `edge` *object to achieve a behavior, for example to change the border color of a form object, then you may also need to set the color of the* `corner`*objects.*

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
cap	Specifies the rendered termination of the stroke.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write
stroke	Specifies the appearance of a line.	String	Read /Write
thickness	Specifies the thickness or weight of the line.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

effectiveInputPolicy

The `effectiveInputPolicy` object is used for the web service request. Authentication policy information is found only in the `effectiveInputPolicy` object, because servers are not required to authenticate themselves to the client.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

effectiveOutputPolicy

The `effectiveOutputPolicy` object is used for the web service result of a web service request. The `effectiveOutputPolicy` is always empty.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

encoding

The `encoding` object corresponds to the PDFL subFilters element. The valid values for Adobe are adbe.x509.rsa_sha1, adbe.pkcs7.detached, and adbe.pkcs7.sha1, but other security handlers can define their own values.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

encodings

The `encodings` object contains a list of acceptable `encoding` object values.

Hierarchy of objects

Model	Child objects
FormModel	encoding

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read/ Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

encrypt

The `encrypt` object encrypts the form data when it is submitted. It contains a certificate object that holds a public key for the encryption scheme. The encryption method used depends on the value of the format property.

Hierarchy of objects

Model	Child objects
FormModel	certificate

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

event

The `event` object causes a script to execute or data to be submit whenever a particular event occurs.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
activity	Specifies the name of the event.	String	Read /Write
listen	Controls whether the event object listens to events occurring in the referenced node only, or to events occurring in the referenced node and descendents.	String	Read /Write
ref	Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

eventPseudoModel

The `eventPseudoModel` object is the root object of the event model.

Hierarchy of objects

Model	Child objects
EventModel	None

Parent class

objectclass class

Properties

Name	Description	Type	Access
cancelAction	Specifies whether to cancel a forthcoming action. This property applies only to the following scripting events: prePrint, preSubmit, preExecute, preOpen, and preSign.	Boolean	Read /Write
change	Specifies the value that a user types or pastes into a field immediately after they perform the action.	String	Read /Write
commitKey	Describes how the current value of a form field was set by the user.	Integer	Read /Write
fullText	Represents the full (untruncated) value that a user pastes into a form field.	String	Read /Write
keyDown	Determines whether a user is pressing an arrow key to make a selection. This property is available only for list boxes and drop-down lists.	Boolean	Read /Write
modifier	Determines whether the modifier key (for example, Ctrl on Microsoft® Windows®) is held down when a particular event executes.	Boolean	Read /Write
newContentType	Specifies the content type of the newText property.	String	Read /Write
newText	Specifies the content of the field after it changes in response to user actions.	String	Read /Write
prevContentType	Specifies the content type of the value specified for the prevText property.	String	Read /Write

Name	Description	Type	Access
prevText	Specifies the content of the field before it changes in response to the actions of a user.	String	Read /Write
reenter	Specifies whether the enter event is occurring for the first time. The enter event occurs each time a user clicks in a field.	Boolea n	Read /Write
selEnd	Specifies the index position of the last character of the text selection stored in the prevTextproperty during a change event.	Integer	Read /Write
selStart	Specifies the index position of the first character of the text selection stored in the prevText property during a change event.	Integer	Read /Write
shift	Specifies whether the Shift key is held down during a particular event.	Boolea n	Read /Write
soapFaultCo de	Specifies any fault code that occurs when a user attempts to execute a web service connection.	String	Read /Write
soapFaultStri ng	Specifies the descriptive message that corresponds to a particular web service connection fault code.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write

Methods

Name	Description	Returns
emit	Notifies the form event manager that an event has occurred.	Empty
reset	Resets all of the properties within the XML form event model.	Empty

exclGroup

The `exclGroup` object describes a mutual exclusion relationship between a set of containers.

An exclusion group is used to cause a set of radio buttons boxes to be mutually exclusive. When a user activates one member of the set, the other members are automatically deactivated. For example, if the set consists of radio buttons, clicking one button causes the other buttons to be deactivated.

Each member of the exclusion group is associated with an `on` value and an `off` value. When a member is activated, it assumes the `on` value. When it is deactivated, it assumes the `off` value. The `on` value for each member of a particular exclusion group must be unique.

Selecting one member of the exclusion group in the form causes each member's value to be set to its `on` or `off` value, as appropriate. Similarly, assigning the `on` value to a member of the exclusion group causes the other members to be deactivated.

Alternatively, a value may be assigned to the exclusion group itself. In this case, each member is activated only if the value matches the `on` value for that member.

Hierarchy of objects

Model	Child objects	
FormModel	assist bind border calculate caption desc	extras field margin para traversal validate

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
access	Controls user access to the contents of a container object, such as a subform.	String	Read /Write
accessKey	Specifies an accelerator key that is used by an interactive application to move the input focus to a particular field element.	String	Read /Write
anchorType	Specifies the location of the container's anchor point when it is placed by using a positioned layout strategy.	String	Read /Write

Name	Description	Type	Access
borderColor	Specifies the border color value for this field.	String	Read /Write
borderWidth	Specifies the border width for this field.	String	Read /Write
colSpan	Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.	String	Read /Write
errorText	Returns the validation message for the first failed validation test, or an empty string if this field has passed all validation tests.	String	Read
fillColor	The background color value for this field.	String	Read /Write
h	A measurement of the height for the layout.	String	Read /Write
hAlign	Specifies the horizontal text alignment.	String	Read /Write
layout	Specifies the layout strategy to be used by this object.	String	Read /Write
mandatory	Specifies the nullTest value for the field.	String	Read /Write
mandatoryMessage	Specifies the mandatory message string for this field.	String	Read /Write
maxH	Specifies the maximum height for layout purposes.	String	Read /Write
maxW	Specifies the maximum width for layout purposes.	String	Read /Write
minH	Specifies the minimum height for layout purposes.	String	Read /Write
minW	Specifies the minimum width for layout purposes.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write
rawValue	Specifies the unformatted value of the current object.	String	Read /Write

Name	Description	Type	Access
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
transient	Specifies whether the processing application must save the value of the exclusion group as part of a form submission or save operation.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
validationMessage	Specifies the validate message string for this field.	String	Read /Write
vAlign	Specifies the vertical text alignment.	String	Read /Write
w	A measurement specifying the width for the layout.	String	Read /Write
x	Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

Name	Description	Returns
execCalculate	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execEvent	Executes the event script of the object.	Empty
execInitialize	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty
execValidate	Executes any scripts on the validate event of the specified object, and any child objects.	Empty

Name	Description	Returns
selectedMember	Returns the selected member of an exclusion group.	Object

exData

The `exData` object describes a foreign data type.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
contentType	Specifies the type of content in the referenced document, expressed as a MIME type.	String	Read /Write
href	Specifies a reference to an external file or resource.	String	Read /Write
maxLength	Specifies the maximum (inclusive) allowable length of the content or -1 to indicate that no maximum length is imposed.	String	Read /Write
transferEncoding	Specifies the encoding of binary content in the referenced document.	String	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

execute

The `execute` object controls where an event is handled.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
connectio n	Specifies the name of the associated connection control in the connection set.	String	Read /Write

Name	Description	Type	Access
executeTy pe	Specifies whether to import new data into the existing form or merge new data with the original form design to create a new form.	String	Read /Write
runAt	Specifies what application can execute the script.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

exObject

The `exObject` object describes a single program or implementation-dependent foreign object.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
archive	Specifies the URI location of an archive file that may contain program code related to the `exObject` object.	String	Read /Write
classId	Specifies a URI name or location for the program code represented by the object.	String	Read /Write
codeBase	Specifies a URI location that can be used to assist the resolution of a relative classId property.	String	Read /Write
codeType	Specifies an identifier corresponding to a MIME type that identifies the program code represented by the object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

extras

The `extras` object acts as an enclosure around one or more sets of custom properties. The content of this object may be used by custom applications.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

field

The `field` object describes a single interactive container capable of capturing and presenting data content.

In terms of objects available in the Object Library of Designer, the field object is the base XML definition for the following objects:

- Barcodes
- Button
- Date/Time Field
- Decimal Field
- Signature Field
- Email Submit Button
- HTTP Submit Button
- Image Field

- Numeric Field
- Paper Forms Barcode
- Password Field
- Print Button
- Reset Button
- Text Field

You can define custom validation messages. A single field can contain up to three messages, one each for script test, picture test, and null test. When these are specified, they can be accessed with the following syntax:

```
field.validate.message.scriptTest.value
field.validate.message.formatTest.value
field.validate.message.nullTest.value
```

You can also access these validation messages with their shortcut properties:

```
field.validationMessage
field.formatMessage
field.mandatoryMessage
```

When these values are not populated, the processor constructs a default message.

A field can have a maximum of one validation test in a failure state at any given time. Validation tests are evaluated in the following order, and evaluation stops at the first test that fails:

1) `nullTest`
2) `formatTest`
3) `scriptTest`

Hierarchy of objects

Model	Child objects	
FormModel	assist bind border calculate caption connect desc extras font	format items keep margin para traversal ui validate value

Parent class

containerclass

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Varies	Read /Write
access	Controls user access to the contents of a container object, such as a subform.	String	Read /Write
accessKey	Specifies an accelerator key that is used by an interactive application to move the input focus to a particular field element.	String	Read /Write
anchorType	Specifies the location of the container's anchor point when it is placed by using a positioned layout strategy.	String	Read /Write
borderColor	Specifies the border color value for this field.	String	Read /Write
borderWidth	Specifies the border width for this field.	String	Read /Write
colSpan	Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.	String	Read /Write
editValue	Specifies the edit value for the field.	String	Read /Write
errorText	Returns the validation message for the first failed validation test, or an empty string if this field has passed all validation tests.	String	Read
fillColor	The background color value for this field.	String	Read /Write
fontColor	Specifies the foreground color value for the field. It is the equivalent of the font.fill.color.valueexpression.	String	Read /Write
formatMessage	Specifies the format validation message string for this field.	String	Read /Write

Name	Description	Type	Access
formattedValue	Specifies the formatted value for the field.	String	Read /Write
h	A measurement of the height for the layout.	String	Read /Write
hAlign	Specifies the horizontal text alignment.	String	Read /Write
length	Specifies the number of objects in the list.	Integer	Read
locale	Specifies the language, currency, and time/date formatting to use for the content of the object.	String	Read /Write
mandatory	Specifies the nullTest value for the field.	String	Read /Write
mandatoryMess age	Specifies the mandatory message string for this field.	String	Read /Write
maxH	Specifies the maximum height for layout purposes.	String	Read /Write
maxW	Specifies the maximum width for layout purposes.	String	Read /Write
minH	Specifies the minimum height for layout purposes.	String	Read /Write
minW	Specifies the minimum width for layout purposes.	String	Read /Write
parentSubform	Specifies the parent subform (page) of this field.	Object	Read
presence	Specifies an object's visibility.	String	Read /Write
rawValue	Specifies the unformatted value of the current object.	Varies	Read /Write
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
rotate	Rotates the object around its anchor point by the specified angle.	String	Read /Write
selectedIndex	The index of the first selected item.	Integer	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
validationMessa ge	Specifies the validate message string for this field.	String	Read /Write
vAlign	Specifies the vertical text alignment.	String	Read /Write
w	A measurement specifying the width for the layout.	String	Read /Write
x	Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

Name	Description	Return s
addItem	Adds new items to the current form field. For example, this method adds new items to a drop-down list.	Empty
boundItem	Gets the bound value of a specific display item of a drop-down list or list box.	String
clearItems	Removes all the items from the field. For example, it removes all the items contained within a drop-down list or a list box.	Empty
deleteItem	Deletes the specified item.	Boolea n
execCalculate	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execEvent	Executes the event script of the object.	Empty

Name	Description	Return s
execInitialize	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty
execValidate	Executes any scripts on the validate event of the specified object, and any child objects.	Empty
getDisplayItem	Retrieves the item display text for the specified item index.	String
getItemState	Returns the selection state of the specified item.	Boolea n
getSaveItem	Retrieves the data value for the specified item index.	String
setItemState	Sets the selection state of the specified item.	Empty
setItems	Adds new items and values to the current form field. For example, this method adds new items and values as arguments to a drop-down list.	Empty

fill

The `fill` object applies a color and optional rendered designs to the region enclosed by an object.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
presence	Specifies an object’s visibility.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

filter

The `filter` object describes the criteria for filtering signed certificates. The signed certificates are used to generate data signatures that follow the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	certificates digestMethods encodings handler mdp reasons timeStamp

The `mdp`, `reasons`, and `timestamp` child objects are valid only if the parent object is `signature`. If the parent object is `signData`, Designer ignores these child objects and does not generate them.

Parent class

nodeclass class

Properties

Name	Description	Type	Access
addRevocationInfo	Specifies whether the certificate status is checked when a digital signature is signed. The certificate status can be checked against a certificate revocation list (CRL) or an Online Certificate Status Protocol (OCSP) response.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
version	Indicates the version number of the current application.		

Methods

None

float

The `float` object describes a floating point value.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Double	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	Double	Read /Write

Methods

None

font

The `font` object describes a font used on a form.

Hierarchy of objects

Model	Child objects
FormModel	extras fill

Parent class

nodeclass class

Properties

Name	Description	Type	Access
baselineShift	Specifies a positive measurement that shifts a font up from the baseline or a negative measurement that shifts a font down from the baseline.	String	Read /Write
fontHorizontalScale	Horizontally scales font glyphs.	String	Read /Write
fontVerticalScale	Vertically scales font glyphs.	String	Read /Write
kerningMode	Applies kerning between characters.	String	Read /Write
letterSpacing	Specifies the spacing limit.	String	Read /Write
lineThrough	Specifies the activation of a single or double line extending through the text (also known as strikethrough).	String	Read /Write
lineThroughPeriod	Controls the appearance of the line extending through the text (also known as strikethrough).	String	Read /Write
posture	Specifies the posture of the font.	String	Read /Write
size	A measurement specifying the size of the check box or radio button outline representing either the height and width for a check box, or the diameter for a radio button.	String	Read /Write
typeface	Specifies the name of the typeface.	String	Read /Write
underline	Specifies the activation and type of underlining.	String	Read /Write
underlinePeriod	Controls the appearance of underlining.	String	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
weight	Controls the weight of the font typeface.	String	Read /Write

Methods

None

form

The `form` object is the root object for the form model.

Hierarchy of objects

Model	Child objects
FormModel	desc extras

Parent class

modelclass class

Properties

Name	Description	Type	Access
checksum	Specifies an algorithm for the checksum to insert into the barcode.	String	Read /Write

Methods

Name	Description	Returns
execCalculate	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execInitialize	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty
execValidate	Executes any scripts on the validate event of the specified object, and any child objects.	Empty
formNodes	Returns a list of all form model objects that are bound to a specified data object.	Object
metadata	Collects a comprehensive Extensible Metadata Platform (XMP) metadata packet for the document.	String
recalculate	Forces a specific set of scripts located on calculate events to execute. The specific events can be either pending calculate events or all calculate events.	Empty
remerge	Forces the remerging of the data model and template model to re-create the form model. After the remerge is complete, any layout model processing must be redone if necessary for the completed form.	Empty

format

The `format` object encloses input formatting and output formatting information, such as the picture clause.

Hierarchy of objects

Model	Child objects
FormModel	extras picture

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

handler

The `handler` object controls which signature handler is used for a data-signing operation, according to the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

hostPseudoModel

The `hostPseudoModel` object is the root object of the host model. Use the host properties and methods at run time.

Examples of hosts include Acrobat and XFAPresentationAgent (server). Some hosts may not support all properties and methods. For example, XFAPresentationAgent does not support `xfa.host.messageBox`.

The properties or methods return different values depending on the rendering agent. When executed on a server the scripts return values of the server environment and when executed on a client, like Adobe Acrobat or web browser, the scripts return values of the client. For example, xfa.host.version returns XMLFM version when executed on a server and returns the Adobe Acrobat version when executed in Adobe Acrobat.

For desired results, develop according to these API differences.

Hierarchy of objects

Model	Child objects
HostModel	None

Parent class

objectclass class

Properties

Name	Description	Type	Access
appType	Specifies the name of the client application in which a form currently exists.	String	Read
calculationsEnabled	Specifies whether calculate scripts will execute.	Boolean	Read /Write
currentPage	Sets the currently active page of a document at run time.	Integer	Read /Write
language	Returns the language of the running host application.	String	Read
numPages	Returns the number of pages in the current document.	Integer	Read
platform	Returns the platform of the machine running the script.	String	Read
title	Sets and gets the title of the document. It is available only for client applications.	String	Read /Write
validationsEnabled	Specifies whether the validation scripts will execute.	Boolean	Read /Write
variation	Indicates the packaging of the application that is running the script.	String	Read
version	Indicates the version number of the current application.	String	Read

Methods

Name	Description	Returns
beep	Causes the system to play a sound. It is available only for client applications.	Empty

Name	Description	Returns
currentDateTime	(currentDateTime)Returns current date and time in ISO 8601 format (YYYYMMDDTHHMMSS).	String
documentCountIn Batch	Determines the number of documents in the current batch.	Integer
documentInBatch	Determines the ordinal number of the current document within the batch.	Integer
exportData	Exports the data from the current form in either XDP or XML format to a file.	Empty
getFocus	Finds and returns the form object that currently has the input focus.	Object
gotoURL	Retrieves the specified URL. It is available only for client applications.	Empty
importData	Imports data to the current form from a specified file.	Empty
messageBox	Displays a dialog box on the screen. It is available only for client applications.	Integer
openList	Opens the drop-down list specified by the reference syntax expression.	Empty
pageDown	Moves to the next page of a form. Use the pageDown method at run time.	Empty
pageUp	Moves to the previous page of a form. Use the pageUp method at run time.	Empty
print	Prints a specific number of pages from a document. It is available only for client applications.	Empty
resetData	Resets the fields to their default values within a document.	Empty
response	Displays a dialog box containing a question and an entry field for the user to reply to the question. The return value is a string containing the user's response. If the user presses the cancel button on the dialog box, the response is null.	String
setFocus	Sets the keyboard focus to the form object specified by the reference syntax expression.	Empty

hyphenation

The `hyphenation` object specifies the default hyphenation properties to be applied to the content of an enclosing container.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
excludeAllCaps	Specifies whether or not to hyphenate words consisting entirely of capital letters.	String	Read/ Write
excludeInitialCap	Specifies whether or not to hyphenate words that begin with a capital letter.	String	Read/ Write
hyphenate	Controls whether hyphenation is allowed.	String	Read/ Write
ladderCount	Specifies the maximum number of consecutive hyphenated lines that may be generated.	String	Read/ Write
pushCharacterCount	Specifies the minimum number of grapheme clusters, exclusive of any hyphen glyphs added to the start of the next line, allowed in a suffix for the hyphenation point to be considered. If the suffix is too short, the candidate is rejected.	String	Read/ Write
remainCharacterCount	Specifies the minimum number of grapheme clusters, exclusive of any hyphen glyphs added to the end of the line, allowed in a prefix for the hyphenation point to be considered. If the prefix is too short, the candidate is rejected.	String	Read/ Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
wordCharacter Count	Specifies the minimum number of grapheme clusters that must be present in a word in order for it to be eligible for hyphenation. Words with fewer clusters will not be hyphenated.	String	Read/ Write

Methods

None

image

The `image` object describes a single image on a form.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read

Name	Description	Type	Access
aspect	Specifies how the image is to map to the nominal content region of the image's container.	String	Read /Write
contentType	Specifies the type of content in the referenced document, expressed as a MIME type.	String	Read /Write
href	Specifies a reference to an external file or resource.	String	Read /Write
transferEncod ing	Specifies the encoding of binary content in the referenced document.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read

Methods

None

imageEdit

The `imageEdit` object encloses controls intended to aid in the manipulation of image content.

Hierarchy of objects

Model	Child objects
FormModel	border extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
data	Indicates whether the image provided to the widget should be represented as a reference or should be embedded.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehre f	Invokes an external prototype.	String	Read /Write

Methods

None

insert

The `insert` object specifies the insert current record operation from the data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

instanceManager

The `instanceManager` object manages the instance creation, removal, and movement of form model objects.

Hierarchy of objects

Model	Child objects
FormModel	occur

Parent class

nodeclass class

Properties

Name	Description	Type	Access
count	Specifies the current number of subform instances on a form.	String	Read /Write

Name	Description	Type	Access
max	Specifies the maximum number of occurrences for the enclosing container, or -1 to set no upper boundary for occurrences.	String	Read
min	Specifies the minimum number of occurrences for the enclosing container.	String	Read

Methods

Name	Description	Returns
addInstance	Adds a new instance of a subform or subform set to the form model.	Object
insertInstance	Inserts a new instance of a subform or subform set into a form.	Object
moveInstance	Moves a subform object within a set of subform instances.	Empty
removeInstance	Removes a specified subform or subform set from the form model.	Empty
setInstances	Adds or removes specified subforms or subform sets from the form model.	Empty

integer

The `integer` object describes an integer value.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default }	Represents the actual value stored by an object.	Integer	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	Integer	Read /Write

Methods

None

issuers

The `issuers` object describes a collection of issuer certificates that are acceptable for data signing according to the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

items

The `items` object supplies a column of choices for a list box or a check box.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
presence	Specifies an object’s visibility.	String	Read /Write
ref	Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.	String	Read /Write
save	Determines whether the values in a particular column represent both display and bound values, or if the data in the column represents bound values only.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

keep

The `keep` object describes the constraints involved in keeping subforms together within a page or content area.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
intact	Specifies the constraints on keeping the parent object intact within a content area or page.	String	Read /Write
next	Specifies the constraints on keeping a form object together with the next container within a content area or page.	String	Read /Write
previous	Specifies the constraints on keeping a form object together with the previous container within a content area or page.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

keyUsage

The keyUsage object describes the key usage settings that are required for the signing certificate. It is constructed with a character that is used to represent each key usage type. The first through ninth characters, from left to right, represent the required value for these properties: `digitalSignature`, `nonRepudiation`, `keyEncipherment`, `dataEncipherment`, `keyAgreement`, `keyCertSign`, `crlSign`, `encipherOnly`, `decipherOnly`. Any additional characters are ignored.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
crlSign	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
dataEncipherment	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
decipherOnly	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
digitalSignature	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
encipherOnly	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
keyAgreement	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
keyCertSign	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
keyEncipherment	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
nonRepudiation	Specifies an acceptable key usage extension that must be present in the signing certificate.	String	Read /Write
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

layoutPseudoModel

The `layoutPseudoModel` object is used to query parameters that are only known after the form is laid out such as which page a form design object lies on, the total number of pages, how many pages an object spans, or the orientation of the form design object.

Hierarchy of objects

Model	Child objects
LayoutModel	None

Parent class

objectclass class

Properties

Name	Description	Type	Access
ready	Specifies whether the form layout process is complete and scripting tasks can begin.	Boolean	Read

Methods

Name	Description	Returns
absPage	Determines the page of the form that a given form design object first appears on.	Integer
absPageCount	Determines the page count of the current form.	Integer
absPageCountInBatch	Determines the page count of the current batch.	Integer
absPageInBatch	Determines which page within the batch contains the form object.	Integer

Name	Description	Returns
absPageSpan	Determines the number of pages that a specified form object spans.	Integer
h	Determines the height of a given form design object.	Double
page	Determines the page number that contains a given form design object. If the object spans multiple pages, this method returns the first page the object occurs on.	Integer
pageContent	Retrieves types of form design objects from a specified page of a form.	Object
pageCount	Determines the number of pages of the current form.	Integer
pageSpan	Determines the number of logical pages a given form design object spans.	Integer
relayout	Reapplies the layout options to the current form.	Empty
relayoutPageArea	Replaces the layout of the pageArea object content with a new layout.	Empty
sheet	Determines the sheet number that contains the form object.	Integer
sheetCount	Determines the number of sheets in the current form.	Integer
sheetCountInBatch	Determines the sheet count of the current batch.	Integer
sheetInBatch	Determines which sheet within the batch contains the form object.	Integer
w	Determines the width of a given form design object.	Double
x	Determines the x coordinate of a given form design object relative to its parent object.	Double
y	Determines the y coordinate of a given form design object relative to its parent object.	Double

line

The `line` object describes a single rendered line on a form.

Hierarchy of objects

Model	Child objects
FormModel	edge

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hand	Describes the justification of a line or edge.	String	Read /Write
slope	Specifies the orientation of the line.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehre f	Invokes an external prototype.	String	Read /Write

Methods

None

linear

The `linear` object describes a linear gradient fill on a form.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

manifest

The `manifest` object contains a list of references to all the nodes that are included in a document signature.

When the `manifest` objects is a child of the `signature` object, the document signature can protect a collection of nodes instead of the entire form.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	Boolean	Read /Write
action	Identifies the form nodes that are protected by a document signature.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

Name	Description	Returns
evaluate	Gets the list of objects referred to in the manifest.	Object
execCalculate	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execInitialize	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty
execValidate	Executes any scripts on the validate event of the specified object, and any child objects.	Empty

map

The `map` object specifies data mappings from the column names of a data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
bind	Specifies the name of a unique binding ID where columns from the data source specified by the from property are bound.	String	Read /Write
from	Specifies the original column name in the data source.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

margin

The `margin` object specifies margin values for a form design object.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
bottomInset	Specifies the size of the bottom inset.	String	Read /Write
leftInset	Specifies a the size of the left inset.	String	Read /Write
rightInset	Specifies the size of the right inset.	String	Read /Write
topInset	A measurement specifying the size of the top inset.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

mdp

The `mdp` object provides support for Modify Detection Prevention Plus (MDP+) digital signatures. Acrobat 8.0 and later supports MDP+ digital signature for XFA-based forms.

In Designer, MDP+ signatures are implemented with a Signature Field. Signature fields enable you to specify a collection of form objects that are protected by the document signature. Using document signatures prevents the form or a portion of the form from being modified.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
permissions	Specifies the access permissions granted for a form that includes an author signature.	String	Read /Write
signatureTy pe	Specifies how a form with a document signature is saved as certified PDF document.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

medium

The `medium` object describes a physical medium upon which to render.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
imagingBBox	Specifies a region within the medium that is available for rendering with four comma separated measurements representing the measurements for x, y, width, and height.	String	Read /Write
long	Specifies the length of the long edge of the medium. The length specified by the long property must be greater than the length specified by the short property.	String	Read /Write
orientation	Specifies the orientation of the medium.	String	Read /Write
short	Specifies the length of the short edge of the medium object.	String	Read /Write
stock	Specifies the name of a standard paper size.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

message

The `message` object holds one or more sub-objects containing validation failure messages.

Hierarchy of objects

Model	Child objects
FormModel	text

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

numericEdit

The `numericEdit` object describes a control intended to aid in the manipulation of numeric content.

Hierarchy of objects

Model	Child objects
FormModel	border comb extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hScrollPolicy	Specifies whether a field can scroll horizontally.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

occur

The `occur` object describes the constraints over the number of allowable instances for its enclosing container.

Modify the `occur` object on the `template:ready` event. However, the `template:ready` event is not accessible in the user interface. You cannot modify the `occur` object at the `form:ready` event, because this event occurs too late in the form processing.

Hierarchy of objects

Model	Child objects
FormModel	extras script (`occur.script`is reserved for future use)

Parent class

nodeclass class

Properties

Name	Description	Type	Access
initial	Specifies the initial number of occurrences for a subform or a subform set. This property should be used only for printed and static forms.	String	Read
max	Specifies the maximum number of occurrences for the enclosing container, or -1 to set no upper boundary for occurrences.	String	Read /Write
min	Specifies the minimum number of occurrences for the enclosing container.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

oid

The `oid` object describes an Object Identifier (OID) of the certificate policies that must be present in the signing certificate.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

oids

The `oids` object describes a collection of Object Identifiers (OIDs) that apply to signing data according to the W3C XML-Signature standards.

This object is only applicable if it has a sibling `issuers` object that is not empty.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

operation

The `operation` object represents a specific operation provided by a particular WSDL address. Each operation is a single data connection.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
input	Specifies an input message associated with a particular WSDL connection operation.	String	Read /Write
output	Specifies the output message associated with a particular WSDL connection operation.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

overflow

The `overflow` object stores properties that are used when a parent subform overflows the current contentArea.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
leader	Specifies the subform or subformSet object to place at the top of a content or page area.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write
trailer	Specifies the subform or subformSet object to place at the bottom of a content or page area.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

packet

The `packet` object stores unrecognized objects; that is, those that do not conform to any of the other XML Form Object Models. This object provides a way to copy, move, or retrieve the information in these unrecognized objects.

Hierarchy of objects

Model	Child objects
XFAModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
content	Specifies the content of the object.	String	Read /Write

Methods

Name	Description	Returns
getAttribute	Gets a specified property value.	String
removeAttrib ute	Removes an XML attribute from a custom third-party XML packet that is added to the XML source of a form design.	Empty
setAttribute	Sets the value of a specified property.	Empty

pageArea

The `pageArea` object describes a rendering surface.

Hierarchy of objects

Model	Child objects
FormModel	desc extras medium occur

Parent class

containerclass

Properties

Name	Description	Type	Access
blankOrNot Blank	Specifies whether the page area is intended to be blank and therefore may result in special treatment by the output device.	String	Read /Write
initialNumbe r	Supplies the initial page number to the first page in a group of consecutive pages that use the same pageSet.	String	Read /Write
numbered	Specifies whether the page area is considered a numbered page area.	String	Read /Write
oddOrEven	Specifies whether a page is odd or even for pagination within a set of pages.	String	Read /Write
pagePosition	Specifies a page’s position within a set of pages.	String	Read /Write
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

pageSet

The `pageSet` object describes a set of related page area objects.

Hierarchy of objects

Model	Child objects
FormModel	extras occur

Parent class

containerclass

Properties

Name	Description	Type	Access
duplexImposition	Controls the orientation of the page image when printing on both sides of the paper.	String	Read/ Write
relation	Specifies the relationship among the members of the set.	String	Read/ Write
relevant	Controls whether a form object is included when the form is printed.	String	Read/ Write
use	Invokes a prototype.	String	Read/ Write
usehref	Invokes an external prototype.	String	Read/ Write

Methods

None

para

The `para` object specifies the default paragraph and alignment properties to be applied to the content of an enclosing container.

Hierarchy of objects

Model	Child objects
FormModel	hyphenation

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hAlign	Specifies the horizontal text alignment.	String	Read /Write
lineHeight	Specifies the line height to apply to the paragraph content.	String	Read /Write
marginLeft	Specifies the size of the left indentation of the paragraph.	String	Read /Write
marginRight	Specifies the size of the right indentation of the paragraph.	String	Read /Write
preserve	Specifies widow/orphan-style constraints on the overflow behavior of the content within the enclosing container.	String	Read /Write

Name	Description	Type	Access
radixOffset	Specifies an offset value for the anchor of the paragraph.	String	Read /Write
spaceAbove	Specifies the amount of vertical spacing and the maximum font leading for the first line of the paragraph.	String	Read /Write
spaceBelow	Specifies the amount of vertical spacing and the maximum font leading for the first line of the paragraph.	String	Read /Write
tabDefault	Specifies the distance between default tab stops.	String	Read /Write
tabStops	Specifies a space-separated list of tab stop locations and leader properties.	String	Read /Write
textIndent	Specifies the horizontal positioning of the first line relative to the remaining lines in a paragraph.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
vAlign	Specifies the vertical text alignment.	String	Read /Write
wordSpacingMaximum	Specifies the maximum inter-word percentage space when text is justified, hyphenation is enabled, or both.	String	Read /Write
wordSpacingMinimum	Specifies the minimum inter-word percentage space when text is justified, hyphenation is enabled, or both.	String	Read /Write
wordSpacingOptimum	Specifies the optimal percentage width of an inter-word space when text is justified, hyphenation is enabled, or both.	String	Read /Write

Methods

None

password

The `password` object specifies the password for the data source (if required for connection).

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

passwordEdit

The `passwordEdit` object describes a control intended to aid in the manipulation of password content. Typically, the user interface will obscure any visual representation of the content.

Hierarchy of objects

Model	Child objects
FormModel	border extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hScrollPoli cy	Specifies whether a field can scroll horizontally.	String	Read /Write
passwordC har	Specifies the character the form displays for each password character a user enters.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

pattern

The `pattern` object describes a fill pattern for a form design object.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

picture

The `picture` object describes input mask and output formatting information.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

proto (deprecated)

The `proto` object describes a set of reusable object definitions.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

None

Properties

None

Methods

None

query

The `query` object represents a specific query of a particular data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	recordSet select

Parent class

nodeclass class

Properties

Name	Description	Type	Access
commandType	Specifies the type of command used by a data query.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

radial

The `radial` object describes a radial gradient fill.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

reason

The `reason` object contains an acceptable reason for signing data per the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

reasons

The `reasons` object contains acceptable reasons for signing data per the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

recordSet

The `recordSet` object contains a number of records based on a specific query of the data source. These records can be viewed, reorganized, added, and removed.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
bofAction	Specifies the action to perform if the current record is the first record in the record set.	String	Read /Write
cursorLocation	Indicates the location of the cursor library to use with the record set.	String	Read /Write

Name	Description	Type	Access
cursorType	Specifies the type of cursor to use when opening the record set.	String	Read /Write
eofAction	Specifies the action to perform if the current record is the last record in the record set.	String	Read /Write
lockType	Specifies the type of locking functionality to use with the data source.	String	Read /Write
max	Specifies the maximum number of occurrences for the enclosing container, or -1 to set no upper boundary for occurrences.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

rectangle

The `rectangle` object describes a single rendered rectangle.

Hierarchy of objects

Model	Child objects
FormModel	corner edge fill

Parent class

nodeclass class

Properties

Name	Description	Type	Access
hand	Describes the justification of a line or edge.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

ref

The `ref` object contains a reference syntax expression that identifies a node to be included in an XML digital signature.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

rootElement

The `rootElement` object specifies the XML element within an XML Schema data connection to use as the root of any data file used within the form.

Hierarchy of objects

Model	Child Objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write

Name	Description	Type	Access
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

script

The `script` object contains a script written in FormCalc or JavaScript.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
binding	Identifies the type of application to which the script is directed.	String	Read /Write
contentTyp e	Specifies the type of content in the referenced document, expressed as a MIME type.	String	Read /Write

Name	Description	Type	Access
runAt	Specifies what application can execute the script.	String	Read /Write
stateless	Determines whether a script's variables persist from one invocation to the next.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

select

The `select` object contains the select statement query information to use with the current data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

setProperty

The `setProperty` object modifies a property of its parent object. A parent object can contain any number of `setProperty` objects.

The target property is a reference syntax expression that describes a single property of the parent object. This property identifies the node for which the value is to be set to the value identified by the ref object and connection property. For example, the target specified to set the `toolTip` for a field would be`access.toolTip`.

Within the parent container, there are no restrictions on which properties the `setProperty` object can target. However, the `setProperty` object cannot target the properties of nested containers.

The application of the `setProperty` object is a template operation. The reference is resolved and the data value is applied to the `target` property when generating the form as a result of a merge. There is no permanent link between the data node and the property. Subsequent changes to the data are not propagated to the target property unless another merge occurs.

NOTE: *Using the `setProperty` object to target bind related properties, such as the `bind` object or`#name`, is unlikely to be useful, because the setProperty application occurs after the merge process has occurred.*

Hierarchy of objects

Model	Child objects
FormModel	ref

Parent class

nodeclass class

Properties

Name	Description	Type	Access
connection	Specifies the name of the associated connection control in the connection set.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write

Methods

None

signature

The `signature` object determines which other objects are signed by a signature.

Hierarchy of objects

Model	Child objects
FormModel	border extras filter manifest margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type (`signature.type`is reserved for future use)	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

signatureProperties (deprecated)

The `signatureProperties` object holds the properties of an XML-signature data signature. Objects inserted within this object are inserted into the XML-Signature as XMP data.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

signaturePseudoModel

The `signaturePseudoModel` object is the root object of the signature model.

Hierarchy of objects

Model	Child objects
SignatureModel	None

Parent class

objectclass class

Methods

Name	Description	Returns
clear	Removes a given signature.	Boolean
enumerate	Enumerates all the XML signatures found in the document.	Object
sign	Signs a given node list and places the signature in the target location.	Boolean
verify	Checks the validity of a signature.	Integer

signData

The `signData` object controls the creation of a data signature as specified by the W3C XML-Signature standard.

Hierarchy of objects

Model	Child objects
FormModel	filter manifest ref

Parent class

nodeclass class

Properties

Name	Description	Type	Access
operation	Indicates the digital signature operation to perform when used in conjunction with the signData object, or the object to link to when used in conjunction with the traverse object.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

signing

The `signing` object describes a collection of signing certificates that are acceptable for data signing according to the W3C XML-Signature standards.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

soapAction

The `soapAction` object contains a fully qualified SOAP action.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

soapAddress

The `soapAddress` object stores the fully qualified location of the SOAP end point. This location must be specified in RFC 2396 standard format.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write

Name	Description	Type	Access
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

solid

The `solid` object describes a solid fill style of a form design object.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

source

The `source` object represents an external data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	connect

Parent class

nodeclass class

Properties

Name	Description	Type	Access
db	Specifies the technology used to communicate with a database.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

Name	Description	Returns
addNew	Appends a new record to the record set.	Empty
cancel	Cancels any changes made to the current or new row of a record set object, or the field collection of a record object, prior to calling the update method.	Empty
cancelBatch	Cancels a pending batch update.	Empty
close	Closes a connection to a data source.	Empty
delete(FormCalc Only)	Deletes the current record from the record set.	Empty
deleteRecord	Deletes the current record from the record set.	Empty
first	Moves to the first record in the record set, and populates the data model with the record data.	Empty
hasDataChanged	Determines whether the current record data has changed.	Boolean
isBOF	Determines if the current location is at the beginning of the record set. The bofAction property must be set to stayBOF.	Boolean
isEOF	Determines if the current location is at the end of the record set. The eofAction property must be set tostayEOF.	Boolean
last	Moves to the last record in the record set, and populates the data model with the record data.	Empty
next	Moves to the next record in the record set, and populates the data model with the record data.	Empty
open	Connects to the data source and populates the data model with the results of the current record.	Empty
previous	Moves to the previous record in the record set, and populates the data model with the record data.	Empty
requery	Updates the current data binding by re-executing the query on which the object data is based. Calling this method is equivalent to calling the close and open methods in succession.	Empty
resync	Refreshes the current record set or data connection.	Empty
update	Updates the current record in the record set.	Empty

Name	Description	Return s
updateBatch	Writes all pending batch updates to the data source.	Empty

sourceSet

The `sourceSet` object is the root object of the sourceSet model.

Hierarchy of objects

Model	Child objects
sourceSetModel	source

Parent class

modelclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

speak

The `speak` property plays an audible prompt describing the contents of a container object, such as a field or subform. This object is ignored by non-interactive form applications.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
disable	Inhibits the audible prompt.	String	Read /Write
priority	Alters the search path for text to speak. Whichever object is named in this property moves to the front of the search path. The other objects retain their relative order.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

stipple

The `stipple` object describes a stippling effect for a form object.

Hierarchy of objects

Model	Child objects
FormModel	color extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
rate	Specifies the percentage of stipple color that is stippled over a solid background color.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

subform

The `subform` object describes a single subform capable of enclosing other containers.

In terms of objects available in the Object Library of Designer, the field object is the base XML definition for the following objects:

- Subform
- Table (including body rows, header rows, and footer rows)

Hierarchy of objects

Model	Child objects	
FormModel	assist bind bookend border break(deprecated) breakAfter breakBefore calculate connect desc event exObject	extras instanceManager keep margin occur overflow para setProperty traversal validate variables

Parent class

containerclass

Properties

Name	Description	Type	Access
access	Controls user access to the contents of a container object, such as a subform.	String	Read /Write
allowMacro	Specifies whether to permit the processing application to optimize output by generating a printer macro for all of the subform's draw content.	String	Read /Write
anchorType	Specifies the location of the container's anchor point when it is placed by using a positioned layout strategy.	String	Read /Write

Name	Description	Type	Access
borderColor	Specifies the border color value for this field.	String	Read /Write
borderWidth	Specifies the border width for this field.	String	Read /Write
colSpan	Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.	String	Read /Write
columnWidths	Specifies the widths for columns of a table.	String	Read /Write
fillColor	The background color value for this field.	String	Read /Write
h	A measurement of the height for the layout.	String	Read /Write
hAlign	Specifies the horizontal text alignment.	String	Read /Write
instanceIndex	Calculates the index of a subform or subform set based on where it is located relative to other instances of the same form object.	Integer	Read /Write
layout	Specifies the layout strategy to be used by this object.	String	Read /Write
locale	Specifies the language, currency, and time/date formatting to use for the content of the object.	String	Read /Write
maxH	Specifies the maximum height for layout purposes.	String	Read /Write
maxW	Specifies the maximum width for layout purposes.	String	Read /Write
mergeMode	Controls which data merge algorithm is used for a given subform.	String	Read /Write
minH	Specifies the minimum height for layout purposes.	String	Read /Write
minW	Specifies the minimum width for layout purposes.	String	Read /Write
presence	Specifies an object’s visibility.	String	Read /Write

Name	Description	Type	Access
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
restoreState	Restores the form nodes of a form to their original state, including resetting the visual properties of fields such as changes to border colors.	String	Read /Write
scope	Controls participation of the subform in data binding and reference syntax expressions. It is valid only on the root subform.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
validationMe ssage	Specifies the validate message string for this field.	String	Read /Write
vAlign	Specifies the vertical text alignment.	String	Read /Write
w	A measurement specifying the width for the layout.	String	Read /Write
x	Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write
y	Specifies the Y coordinate of a container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.	String	Read /Write

Methods

Name	Description	Returns
execCalculate	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execEvent	Executes the event script of the object.	Empty
execInitialize	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty

Name	Description	Returns
execValidate	Executes any scripts on the validate event of the specified object, and any child objects.	Empty
getInvalidObj ects	Returns a list of nodes contained within this subform (inclusive) that have a failed validation test.	Empty

subformSet

The `subformSet` object describes a set of related subform objects.

Hierarchy of objects

Model	Child objects
FormModel	bookend break(deprecated) desc extras instanceManager occur overflow

Parent class

containerclass

Properties

Name	Description	Type	Access
instanceInd ex	Calculates the index of a subform or subform set based on where it is located relative to other instances of the same form object.	Integer	Read /Write
relation	Specifies the relationship among the members of the set.	String	Read

Name	Description	Type	Access
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

subjectDN

The `subnectDN` object describes the attributes for a subject Distinguished Name (DN) that must be present within the signing certificate for it to be acceptable for signing. It is an array of dictionaries, where each dictionary contains key value pairs that specify the subject DN. The certificate must contain all the attributes specified in the dictionary, but it can contain additional attributes. The key can be any legal attribute identifier.

For more information about the various Subject Distinguished attributes and their types, refer to RFC 3280.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
delimiter	Separates the attributes in the Subject DN string.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

subjectDNs

The `subjectDNs` object describes the collection of key value pairs that is used to specify the subject DN.

Hierarchy of objects

Model	Child objects
FormModel	subjectDN

Parent class

nodeclass class

Properties

Name	Description	Type	Access
type	Specifies the pattern used by an object.	String	Read/ Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

submit

The `submit` object describes how to submit data to a host.

Hierarchy of objects

Model	Child objects
FormModel	encrypt

Parent class

nodeclass class

Properties

Name	Description	Type	Access
embedPDF	Determines whether PDF file will be included as part of the data.	String	Read /Write
format	Determines the format in which to submit the data.	String	Read /Write
target	Specifies the object upon which the action will occur.	String	Read /Write
textEncodin g	Specifies the encoding of text content in the document.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
xdpContent	Controls what subset of the data is submitted. This property is used only when the format property is xdp.	String	Read /Write

Methods

None

template

The `template` object describes a template. One such object exists for each template and all other objects that are descendants of the template object.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

modelclass class

Properties

None.

Methods

Name	Description	Returns
createNode	Creates a new node based on a valid class name.	Object
execCalcula te	Executes any scripts on the calculate event of the specified object, and any child objects.	Empty
execInitializ e	Executes any scripts on the initialize event of the specified object, and any child objects.	Empty
execValidat e	Executes any scripts on the validate event of the specified object, and any child objects.	Empty
formNodes	Returns a list of all form model objects that are bound to a specified data object.	Object
metadata	Collects a comprehensive Extensible Metadata Platform (XMP) metadata packet for the document.	String
recalculate	Forces a specific set of scripts located on calculate events to execute. The specific events can be either pending calculate events or all calculate events.	Empty
remerge	Forces the remerging of the data model and template model to re-create the form model. After the remerge is complete, any layout model processing must be redone if necessary for the completed form.	Empty

text

The `text` object describes a single unit of data content representing a plain text value.

Hierarchy of objects

Model	Child objects
FormModel sourceSetModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
maxChars	Specifies the maximum number of characters that this text value can enclose.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

textEdit

The `textEdit` object encloses controls intended to aid in the manipulation of text content.

Hierarchy of objects

Model	Child objects
FormModel	border comb (`textEdit.comb`is reserved for future use) extras margin

Parent class

nodeclass class

Properties

Name	Description	Type	Access
allowRic hText	Specifies whether the text can include styling (also known as rich text).	String	Read /Write
hScrollPo licy	Specifies whether a field can scroll horizontally.	String	Read /Write
multiLin e	Specifies whether the text may span multiple lines.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
vScrollPo licy	Specifies whether a field can scroll vertically.	String	Read /Write

Methods

None

time

The `time` object describes a single unit of data representing a time value.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

contentclass class

Properties

Name	Description	Type	Access
{default}	Represents the actual value stored by an object.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write
value	Specifies the value of the current object.	String	Read /Write

Methods

None

timeStamp

The `timeStamp` object appends a time stamp to a document signature. A time stamp specifies the date and time when a document was signed and removes any doubt about when the document was signed.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

nodeclass class

Properties

Name	Description	Type	Access
server	Specifies the URL for a time stamp server.	String	Read /Write
type	Specifies the pattern used by an object.	String	Read/ Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

toolTip

The `toolTip` object supplies text for a tool tip on a form. This object is ignored by non-interactive form applications.

Hierarchy of objects

Model	Child objects
FormModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

traversal

The `traversal` object links its container to other objects in sequence.

Hierarchy of objects

Model	Child objects
FormModel	extras

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

traverse

The `traverse` object declares a single link from its container to another object in a unidirectional chain of links.

Hierarchy of objects

Model	Child objects
FormModel	extras script

Parent class

nodeclass class

Properties

Name	Description	Type	Access
operation	Indicates the digital signature operation to perform when used in conjunction with the signData object, or the object to link to when used in conjunction with the traverse object.	String	Read /Write
ref	Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

ui

The `ui` object encloses the user interface description of a form object.

Hierarchy of objects

Model	Child objects
FormModel	extras picture

Parent class

nodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

update

The `update` object specifies the update current record operation from the data source.

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

uri

The `uri` object stores a fully qualified URI for a specific xmlConnection or xsdConnection object.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write

Name	Description	Type	Access
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

user

The `user` object specifies the user id for the data source (if required for connection).

Hierarchy of objects

Model	Child objects
sourceSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

validate

The `validate` object controls validation of user-supplied data on a form.

The `validate` object can be activated multiple times during the life of a form.

Hierarchy of objects

Model	Child objects
FormModel	extras message picture script

Parent class

nodeclass class

Properties

Name	Description	Type	Access
disableAll	Enables or disables validation warnings.	String	Read /Write
formatTest	Controls validation against the display picture clause.	String	Read /Write
nullTest	Controls whether a field is mandatory on a form or if it can be left empty.	String	Read /Write
scriptTest	Controls validation by the enclosed script.	String	Read /Write

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

value

The `value` object encloses a single unit of data content.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

nodeclass class

Properties

Name	Description	Type	Access
override	When used with the calculate object, the override property indicates whether the field allows overrides to occur and disables or enables calculations. When used with the value object, the override property indicates whether a calculation override has occurred.	Boolean	Read /Write

Name	Description	Type	Access
relevant	Controls whether a form object is included when the form is printed.	String	Read /Write
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

variables

The `variables` object is used to hold document variables.

Hierarchy of objects

Model	Child objects
FormModel	none

Parent class

containerclass

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write

Name	Description	Type	Access
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

wsdlAddress

The `wsdlAddress` object contains the original URL of the WSDL referenced in the wsdlConnection object.

Hierarchy of objects

Model	Child objects
connectionSetModel	None

Parent class

textNodeclass class

Properties

Name	Description	Type	Access
use	Invokes a prototype.	String	Read /Write
usehref	Invokes an external prototype.	String	Read /Write

Methods

None

wsdlConnection

The `wsdlConnection` object identifies a unique WSDL web services connection.

Hierarchy of objects

Model	Child objects
connectionSetModel	effectiveInputPolicy effectiveOutputPolicy operation soapAction soapAddress wsdlAddress

Parent class

nodeclass class

Properties

Name	Description	Type	Access
dataDescrip tion	Specifies the name of a data connection description to use with a particular type of web services connection.	String	Read /Write

Methods

Name	Description	Returns
execute	Executes a connection.	Boolean

xfa

The `xfa` object is the root node for the xfa model.

Hierarchy of objects

Model	Child objects
XFAModel	packet

Parent class

modelclass class

Properties

Name	Description	Type	Access
this	Retrieves the current node, which is the starting node when using the resolveNode and resolveNodes methods.	Object	Read
timeStamp	Specifies the date/time stamp for this node.	String	Read /Write
uuid	Specifies the Universally Unique Identifier (UUID) for this object.	String	Read /Write

None

Methods

None

xmlConnection

The `xmlConnection` object is used to store a sample XML data connection.

Hierarchy of objects

Model	Child objects
connectionSetModel	uri

Parent class

nodeclass class

Properties

Name	Description	Type	Access
dataDescripti on	Specifies the name of a data connection description to use with a particular type of web services connection.	String	Read /Write

Methods

None

xsdConnection

The `xsdConnection` object stores an XML Schema data connection entry.

Hierarchy of objects

Model	Child objects
connectionSetModel	rootElement uri

Parent class

nodeclass class

Properties

Name	Description	Type	Access
dataDescript ion	Specifies the name of a data connection description to use with a particular type of web services connection.	String	Read /Write

Methods

None

Scripting Properties

All properties supported in this scripting environment have read/write access unless otherwise specified.

NOTE: *Because the form DOM is sparse, nodes only get generated when they are accessed or needed. Accessing the nodes property is not an accurate way to determine the children or properties of an object.*

#text

A string of text.

Syntax

```
Reference_Syntax.#text.value = "text"
```

Values

Type	Values
String	Any valid string.

Version

XFA 2.1

Examples

JavaScript

```
TextField1.caption.value.resolveNode("#text").value = "This is a caption.";
```

FormCalc

```
TextField1.caption.value.#text.value = "This is a caption."
```

{default}

Represents the actual value stored by an object.

The type and possible values differ depending on the object.

Syntax

```
Reference_Syntax = "value"
```

Values

Type	Values
Varies	Values differ from object to object.

Applies to

Model	Object
DataModel	dataValue
FormModel	boolean date dateTime decimal draw exclGroup exDatafield float image integer picture text time
sourceSetModel	boolean integer text

Also applies to objects derived from the textNodeclass class.

Version

XFA 2.1

access

Controls user access to the contents of a container object, such as a subform.

Syntax

```
Reference_Syntax.access = "open | protected | readOnly | nonInteractive"
```

Values

Type	Values

String	`open`(default)
	Allows updating of a container’s contents and navigation into and out of the container without restriction. In interactive forms, you can modify the container’s content and tab or otherwise navigate into it. The container produces events.
	`protected`
	The processing application prevents the user from making any direct changes to the container’s content. Indirect changes such as calculations can occur. The container does not participate in the tabbing sequence, though an application may allow the selection of text for clipboard copying. Protected containers do not generate any events.
	`readOnly`
	The application does not allow a user to make direct changes to the container's content, but indirect changes such as calculations can occur. The container participates in the tabbing sequence and allows users to view the content. The user can select the container's content for clipboard copying. The container generates a subset of events (those not associated with the user making direct changes to the content).
	`nonInteractive`
	The application allows the container’s contents to be loaded from the document, but not updated interactively. Calculations are performed at load time but the container’s contents are not subsequently recalculated. The container’s contents cannot be modified by scripts or web service invocations.

Applies to

Model	Object
FormModel	exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.access = "readOnly";
```

FormCalc

```
TextField1.access = "readOnly"
```

RELATED LINKS:

Referencing objects

Changing the background color

Disabling all form fields

accessKey

Specifies an accelerator key that is used by an interactive application to move the input focus to a particular field element.

Syntax

```
Reference_Syntax.accessKey = "character"
```

Values

Type	Values
String	The value of this attribute is a single character. When the user synchronously presses the platform-specific modifier key and the single character, the form's focus shifts to this field. On Windows systems, the modifier key is the ALT key and on Mac OS systems, it is the OPTION key. For example, if the form author sets the accessKey of a field to `f` and a Windows user presses Alt+f, the focus shifts to that field. When designing forms that include accelerator keys, form designers should instruct the users about the availability of the accelerator keys.

Applies to

Model	Object
FormModel	exclGroup field

Version

XFA 2.2

Examples

JavaScript

```
TextField1.accessKey = "f";
```

FormCalc

```
TextField1.accessKey = "f"
```

action

Identifies the form nodes that are protected by a document signature.

Syntax

```
Reference_Syntax.action = "include | exclude | all"
```

Values

Type	Values

String	`include`(default)
	The document signature protects all the fillable form nodes in the specified collection. This option requires at least one valid ref child object whose text value is a reference syntax expression identifying the nodes that are protected by the document signature.
	`exclude`
	The document signature protects all the fillable form nodes that are not in the specified collection. This option requires at least one valid ref child object whose text value is a reference syntax expression identifying the nodes that are protected by the document signature.
	`all`
	The document signature protects all the fillable form nodes.

Applies to

Model	Object
FormModel	manifest

Version

XFA 2.4

activity

Specifies the name of the event.

The accompanying `ref` property must specify an object that can generate the named event.

Syntax

```
Reference_Syntax.activity = "change | click | docClose | docReady | enter | exit
| full | initialize | mouseDown | mouseEnter | mouseExit | mouseUp | postExecute
| postPrint | postSave | preExecute | prePrint | preSave | preSubmit | ready |
validationState"
```

Values

Type	Value
String	`change` Occurs when the user performs an action such as pasting text. Here are more examples of actions that trigger the change event: • With each key-stroke • When text is pasted • When a new choice is selected • When a check box is selected • When an item is selected
	`click`(default) Occurs when the user clicks in the field. Most systems define click as pressing and releasing the mouse button while not moving the pointer beyond a very small threshold.
	`docClose` Executes at the very end of processing a form, if, and only if, all form validations complete with no errors. This event comes too late to modify a saved document. The purpose is to provide the ability to generate an exit status or completion message.
	`docReady` Executes prior to the rendering of the document, but after data binding of the data takes place.

Type	Value
	`enter` For a field, occurs when the field gains keyboard focus. For a subform or exclusion group, occurs when some field within the subform or exclusion group gains keyboard focus, that is, keyboard focus moves from outside the object to inside it.
	`enter` For a field, occurs when the field gains keyboard focus. For a subform or exclusion group, occurs when some field within the subform or exclusion group gains keyboard focus, that is, keyboard focus moves from outside the object to inside it.
	`exit` For a field, occurs when the field loses keyboard focus. For a subform or exclusion group, occurs when all fields within the subform or exclusion group lose keyboard focus, that is, focus moves from inside the object to outside it.
	`full` Initiates when the form filler attempts to enter more than the maximum allowed amount of content into a field.
	`initialize` Executes after data binding is complete. A separate event is generated for each instance of the subform in the form model.
	`mouseDown` Occurs when the user presses the mouse button in the field, but before the button is released.
	`mouseEnter` Occurs when the user drags the pointer over the field without necessarily pressing the button.
	`mouseExit` Occurs when the user drags the pointer out of the field without necessarily pressing the button.
	`mouseUp` Occurs when the user releases the mouse button in the field.
	`postExecute` Occurs when data is sent to a web service via WSDL, just after the reply to the request has been received and the received data is marshalled in a connectionData object underneath $datasets. A script triggered by this event has the chance to examine and process the received data. After execution of this event, the received data is deleted.

Type	Value
	`postPrint` Occurs just after the rendered form has been sent to the printer, spooler, or output destination.
	`postSave` Occurs just after the form has been written out in PDF or XDP format. Does not occur when the data model or some other subset of the form is exported to XDP.
	`preExecute` Occurs when a request is sent to a web service via WSDL. A script triggered by this event has the chance to examine and alter the data before the request is sent. If the script is marked to be run only at the server, the data is sent to the server with an indication that it should run the associated script before performing the rest of the processing.
	`preSave` Occurs just before the form data is written out in PDF or XDP format. Does not occur when the data model or some other subset of the form is exported to XDP. XSLT postprocessing, if enabled, occurs after this event.
	`preSubmit` Occurs when data is submitted to the host via the HTTP protocol. A script triggered by this event can examine and alter the data before it is submitted. If the script is marked to run at the server, the data is sent to the server, with an indication that it should run the associated script before performing the rest of the processing.
	`ready` Occurs when the model has finished loading.

Type	Value
	`validationState` Fires when the validation state of a field, subform, or exclusion group changes. The validation state is considered to change when it transitions between a valid and invalid state, or when the test that caused the invalid state changes. The intended use of the event is to change the appearance of fields when they become valid or invalid. The `event.target` property is populated with the container object whose validation state has changed. The `event.name` property is populated with the activity name (`validationState`). When a field, exclusion group or subform is initialized, the `validationState` event fires immediately following the `initialize` event for that object. The event should fire again only when the validation state changes. However, form logic should be robust enough to allow the event to fire even if the validation state has not actually changed. The `validationState` event fires only after the validation state has been evaluated for all objects included in the validation operation. You can determine whether the event target is valid by testing whether the `$event.target.errorText` property has a value.

Applies to

Model	Object
FormModel	event

Version

XFA 2.1

Examples

JavaScript

```
TextField1.event.activity = "mouseEnter";
```

FormCalc

```
TextField1.event.activity = "mouseEnter"
```

addRevocationInfo

Specifies whether the certificate status is checked when a digital signature is signed. The certificate status can be checked against a certificate revocation list (CRL) or an Online Certificate Status Protocol (OCSP) response.

The signing party must have access to the Internet to retrieve the CRL or OCSP response from the appropriate server.

The `addRevocationInfo` property does not have a default value so that Acrobat can override it if the value is not specified.

Syntax

```
Reference_Syntax.addRevocationInfo = "required | optional | none"
```

Values

Type	Values

String	`Required`
	Checking the certificate status is required.
	`Optional`
	Checking the certificate status is optional.
	`None`
	A CRL or OCSP response is not included in the digital signature.

Applies to

Model	Object
FormModel	filter

Version

XFA 2.5

after (deprecated)

Specifies the constraints on moving to a new page or content area after rendering the subform.

As of XFA version 2.8, this property is now deprecated. See breakAfter.

Syntax

```
Reference_Syntax.after = "auto | contentArea | pageArea | pageEven | pageFront |
pageOdd"
```

Values

Type	Values

String	The behaviors described below can be further refined by optionally specifying a destination page or content area via the afterTarget(deprecated) property.
	`auto`(default)
	The determination of a transition to a new page or content area will be delegated to the processing application. No transition to a new page or content area will be forced.
	`contentArea`
	Rendering will transition to the next available content area.
	`pageArea`
	Rendering will transition to a new page.
	`pageBack`
	When duplexing, rendering will transition to the next available back surface, potentially causing an intervening page surface to be printed. If duplexing is not in effect, rendering will transition to a new page.
	`pageEven`
	Rendering will transition to the next available even-numbered page, potentially causing intervening numbered or unnumbered pages to be printed. This behavior does not require duplexing.
	`pageFront`
	When duplexing, rendering will transition to the next available front surface, potentially causing an intervening page surface to be printed. If duplexing is not in effect, rendering will transition to a new page.
	`pageOdd`
	Rendering will transition to the next available odd numbered page, potentially causing intervening numbered or unnumbered pages to be printed. This behavior does not require duplexing.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.after = "pageOdd";
```

FormCalc

```
Subform1.break.after = "pageOdd"
```

afterTarget (deprecated)

Specifies the explicit destination page or content area for the `after (deprecated)` property.

As of XFA version 2.8, this property is now deprecated. See `breakAfter.target`.

Syntax

```
Reference_Syntax.afterTarget = "auto | contentArea | pageArea | pageEven |
pageFront | pageOdd"
```

Values

Type	Values
String	The value of this property is expected to be compatible with the value of the after(deprecated) property. For instance, it would be considered an error for the after(deprecated) property to reference a page area and the`afterTarget`property to reference a content area, or vice versa.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.afterTarget = "pageEven";
```

FormCalc

```
Subform1.break.afterTarget = "pageEven"
```

aliasNode

Specifies the object that is represented by the alias for this model.

Syntax

```
Reference_Syntax.aliasNode = "object"
```

Values

Type	Values
Object	The object within the model referenced by the reference syntax for that model. In the case of the form model, the alias node would be the form object. For more information about reference syntax expressions, see ReferencingObjects in Calculations and Scripts.

Applies to

modelclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.aliasNode = "form";
```

FormCalc

```
xfa.aliasNode = "form"
```

all

Returns a collection of like-named, in-scope nodes.

If the node has no name, a like-class named collection is returned.

Syntax

```
Reference_Syntax.all = "object(s)"
```

Values

Type	Values
Object	An object or a collection of objects.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.all;
```

FormCalc

```
Subform1.all
```

allowMacro

Specifies whether to permit the processing application to optimize output by generating a printer macro for all of the subform’s draw content.

Syntax

```
Reference_Syntax.allowMacro = "1 | 0"
```

Values

Type	Values
String	`1`(default) The processing application is permitted to utilize a printer macro for this subform. `0` The processing application cannot utilize a printer macro for this subform.

Applies to

Model	Object
FormModel	subform

Version

XFA 2.1

Examples

JavaScript

```
Subform1.allowMacro = "0";
```

FormCalc

```
Subform1.allowMacro = "0"
```

allowNeutral

Specifies whether the check box or radio button can support an additional third state that represents a neutral value.

Syntax

```
Reference_Syntax.allowNeutral = "0 | 1"
```

Values

Type	Values
String	`0`(default) The check box or radio button supports two states representing true or false. `1` The check box or radio button supports three states. These are true, false, or neutral.

Applies to

Model	Object
FormModel	checkButton

Version

XFA 2.1

Examples

JavaScript

```
CheckBox1.resolveNode("ui.#checkButton").allowNeutral = "1";
```

FormCalc

```
CheckBox1.ui.#checkButton.allowNeutral = "1"
```

allowRichText

Specifies whether the text can include styling (also known as rich text).

NOTE: *The `allowRichText` property only relays styling information to the application interface. The setting of this property in no way restricts a user from inputting plain text markup that includes styling information. For example, regardless of the setting of this property, a user could type:*

`<b>hello</b>`

Syntax

```
Reference_Syntax.allowRichText = "0 | 1"
```

Values

Type	Values
String	`0`(default) Text styling is invalid. This is the default when the `textEdit` object does not contain an `exData` object. `1` Text styling is valid. This is the default when the `textEdit` object does contain an `exData` object.

Version

XFA 2.1

Model	Object
FormModel	textEdit

Examples

JavaScript

```
TextField1.resolveNode("ui.#textEdit").allowRichText = "1";
```

FormCalc

```
TextField1.ui.#textEdit.allowRichText = "1"
```

anchorType

Specifies the location of the container's anchor point when it is placed by using a positioned layout strategy.

Syntax

```
Reference_Syntax.anchorType = "topLeft | topCenter | topRight | middleLeft |
middleCenter | middleRight | bottomLeft | bottomCenter | bottomRight"
```

Values

Type	Values

String	`topLeft`(default)
	Top left corner of the container.
	`topCenter`
	Center of the top edge of the container.
	`topRight`
	Top right corner of the container.
	`middleLeft`
	Middle of the left edge of the container.
	`middleCenter`
	Middle of the container.
	`middleRight`
	Middle of the right edge of the container.
	`bottomLeft`
	Bottom left corner of the container.
	`bottomCenter`
	Center of the bottom edge of the container.
	`bottomRight`
	Bottom right corner of the container.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.anchorType = "bottomRight";
```

FormCalc

```
TextField1.anchorType = "bottomRight"
```

appType

Specifies the name of the client application in which a form currently exists.

The `appType` property calls the `viewerType` property from the Acrobat JavaScript object model and returns the corresponding value for the client application in which the form exists. For example, in the context of a PDF form viewed in Adobe Reader, this property returns `Reader`.

For more information on the `viewerType` property, and the values it returns, see the JavaScript for Acrobat API Reference.

Syntax

```
Reference_Syntax.appType
```

Values

Type	Values
String	A valid string representing the name of the current hosting client application.

Applies to

Model	Object
FormModel	draw exclGroup field subform
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.appType;
```

FormCalc

```
xfa.host.appType
```

archive

Specifies the URI location of an archive file that may contain program code related to the `exObject` object.

Syntax

```
Reference_Syntax.archive = "URI"
```

Values

Type	Values
String	A fully qualified URI value.

Applies to

Model	Object
FormModel	exObject

Version

XFA 2.1

aspect

Specifies how the image is to map to the nominal content region of the image’s container.

Syntax

```
Reference_Syntax.aspect = "fit | none | actual | width | height"
```

Values

Type	Values

String	`fit`(default)
	The application scales the image proportionally to the maximum size of the container’s content region.
	`none`
	The application scales the image to the size of entire container’s content region. This may result in different scale values being applied to the image's X and Y coordinates.
	`actual`
	The image is rendered using the dimensions stored in the image content. The extent of the container’s region does not affect the sizing of the image.
	`width`
	The application scales the image proportionally to the width of the container’s content region. The image might be taller or shorter than the content region.
	`height`
	The application scales the image proportionally to the height of the container’s content region. The image might be wider or narrower than the content region.

Applies to

Model	Object
FormModel	image

Version

XFA 2.1

Examples

JavaScript

```
ImageField1.resolveNode("value.#image").aspect = "actual";
```

FormCalc

```
ImageField1.value.#image.aspect = "actual"
```

baselineShift

Specifies a positive measurement that shifts a font up from the baseline or a negative measurement that shifts a font down from the baseline.

Syntax

```
Reference_Syntax.baselineShift = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.baselineShift = "-5pt";
```

FormCalc

```
TextField1.font.baselineShift = "-5pt"
```

before (deprecated)

Specifies the constraints on moving to a new page or content area before rendering the subform.

As of XFA version 2.8, this property is now deprecated. See breakBefore.

Syntax

```
Reference_Syntax.before = "auto | contentArea | pageArea | pageBack | pageEven |
pageFront | pageOdd"
```

Values

Type	Values

String	The behaviors described below can be further refined by optionally specifying a destination page or content area using the beforeTarget(deprecated) property. The startNew property also modifies some of these behaviors:
	`auto`(default)
	The determination of a transition to a new page or content area is delegated to the processing application. No transition to a new page or content area is forced.
	`contentArea`
	Rendering transitions to the next available content area. See also the startNew property.
	`pageArea`
	Rendering transitions to a new page. See also the startNew property.
	`pageBack`
	When duplexing, rendering transitions to the next available back surface, potentially causing an intervening page surface to print. If duplexing is not in effect, rendering transitions to a new page. Note that `pageBack`, unlike `pageEven`, is not affected by page numbering.
	`pageEven`
	Rendering transitions to the next available even numbered page, potentially causing intervening numbered or unnumbered pages to print. This behavior does not require duplexing.
	`pageFront`
	When duplexing, rendering transitions to the next available front surface, potentially causing an intervening page surface to be printed. If duplexing is not in effect, rendering will transition to a new page. Note that `pageFront`, unlike `pageOdd`, is not affected by page numbering.
	`pageOdd`
	Rendering transitions to the next available odd numbered page, potentially causing intervening numbered or unnumbered pages to print. This behavior does not require duplexing.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.before = "contentArea";
```

FormCalc

```
Subform1.break.before = "contentArea"
```

beforeTarget (deprecated)

Specifies the explicit destination page or content area for the before(deprecated) property.

As of XFA version 2.8, this property is now deprecated. See `breakBefore.target`.

Syntax

```
Reference_Syntax.beforeTarget = "auto | contentArea | pageArea | pageEven |
pageFront | pageOdd"
```

Values

Type	Values
String	The value of the `beforeTarget` property is expected to be compatible with the value of the before(deprecated) property. For instance, it would be considered an error for the before(deprecated) property to have a value of pageArea and the`beforeTarget`property to reference a content area, or vice versa.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.beforeTarget = "#contentArea_ID";
```

FormCalc

```
Subform1.break.beforeTarget = "#contentArea_ID"
```

bind

Specifies the name of a unique binding ID where columns from the data source specified by the from property are bound.

Syntax

```
Reference_Syntax.bind = "string"
```

Values

Type	Values
String	A valid string representing a binding ID.

Applies to

Model	Object
sourceSetModel	map

Version

XFA 2.1

binding

Identifies the type of application to which the script is directed.

Syntax

```
Reference_Syntax.binding = "XFA | Application_type"
```

Values

Type	Values
String	• `XFA`(default) • Any other valid application type. The script is to be applied by standard application. • Any other valid application type. Any value other than`XFA`signifies that the script may be ignored by standard applications.

Applies to

Model	Object
FormModel	script

Version

XFA 2.1

Examples

JavaScript

```
TextField1.resolveNode("#event.#script").binding = "XFA";
```

FormCalc

```
TextField1.#event.#script.binding = "XFA"
```

blank (deprecated)

Specifies whether the page area is intended to be blank and therefore may result in special treatment by the output device.

Syntax

```
Reference_Syntax.blank = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The page area is not intended to be blank, and any content is rendered. • `1` The page area is intended to be blank, and may be subject to special treatment by the output device. For example, a printer may charge the user on a per-printed-page basis. The user does not wish to be charged for blank backsides of printed pages on a duplexed job. This property permits the blank backsides of the document to be marked blank with the result that the processing application must not render any content on the backside and the printer may receive special instructions to ensure that the blank backside is not counted towards the user's charges.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.1

Examples

The reference syntax expression will vary, depending on the object from which it is invoked.

JavaScript

```
xfa.form.form1.pageSet.Page1.blank;
```

FormCalc

```
xfa.form.form1.pageSet.Page1.blank
```

blankOrNotBlank

Specifies whether the page area is intended to be blank and therefore may result in special treatment by the output device.

Syntax

```
Reference_Syntax.blankOrNotBlank = "any | blank | notBlank"
```

Values

Type	Values
String	• `any`(default) • `blank` • `notBlank` Matches any blank or non-blank page. • `blank` • `notBlank` Matches a page which is inserted by a break-to-even page while on an even page, or a break-to-odd page while on an odd page. • `notBlank` Matches any page inserted either to hold content or to meet minimum occurrence rules.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.5

Examples

The reference syntax expression will vary, depending on the object from which it is invoked.

JavaScript

```
xfa.form.form1.pageSet.Page1.blankOrNotBlank = "notBlank";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.blankOrNotBlank = "notBlank"
```

bofAction

Specifies the action to perform if the current record is the first record in the record set.

Syntax

```
Reference_Syntax.bofAction = "moveLast | stayEOF"
```

Values

Type	Values
String	• `moveLast`(default) • `stayEOF` Moves the current record position to a point after the last record. • `stayEOF` The current record will always be the last record in the record set.

Applies to

Model	Object
sourceSetModel	recordSet

Version

XFA 2.1

bookendLeader (deprecated)

(bookendLeader)Specifies a subform to place into the current content area or page before any other content.

If both the `bookendLeader` and bookendTrailer(deprecated) properties are supplied, the two subforms surround the content like bookends.

As of XFA version 2.8, this property is now deprecated. See leader.

Syntax

```
Reference_Syntax.bookendLeader = "string"
```

Values

Type	Values
String	A valid string representing the name or fully qualified reference syntax expression of a subform.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.bookendLeader = "xfa.form.form1.Subform2";
```

FormCalc

```
Subform1.break.bookendLeader = "xfa.form.form1.Subform2"
```

bookendTrailer (deprecated)

Identifies a subform to place into the current content area or page after any other content.

If both bookendLeader(deprecated) and `bookendTrailer` properties are supplied, the two subforms surround the content like bookends.

As of XFA version 2.8, this property is now deprecated. See trailer.

Syntax

```
Reference_Syntax.bookendTrailer = "string"
```

Values

Type	Values
String	A valid string representing the name or fully qualified reference syntax expression of a subform.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.bookendTrailer = "xfa.form.form1.Subform2";
```

FormCalc

```
Subform1.break.bookendTrailer = "xfa.form.form1.Subform2"
```

borderColor

Specifies the border color value for this field.

A border must be defined before you can change the color by scripting.

Syntax

```
Reference_Syntax.borderColor = " [0-255], [0-255], [0-255]"
```

Values

Type	Values
String	For the color-space of SRGB, the component values must be r,g,b, where r is the red component value, g is the green component value, and b is the blue component value. Each component value must be in the range 0 through 255, inclusive. 255 represents maximum display intensity. For example, 255,0,0 specifies the color red. The default is dependent upon the context of where the color is used; the default color is determined by the object enclosing the color object.

Applies to

Model	Object
FormModel	exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.borderColor = "125,154,125";
```

FormCalc

```
TextField1.borderColor = "125,154,125"
```

borderWidth

Specifies the border width for this field.

Syntax

```
Reference_Syntax.borderWidth = "0in | measurement"
```

Values

Type	Values
String	• `0in` (default) • Any valid measurement.

Applies to

Model	Object
FormModel	exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.borderWidth = "0.05in";
```

FormCalc

```
TextField1.borderWidth = "0.05in"
```

bottomInset

Specifies the size of the bottom inset.

Syntax

```
Reference_Syntax.bottomInset = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	margin

Version

XFA 2.1

Examples

JavaScript

```
Subform1.margin.bottomInset = "1in";
```

FormCalc

```
Subform1.margin.bottomInset ="1in"
```

break

Describes the constraints on moving to a new page or content area after rendering an object.

Syntax

```
Reference_Syntax.break = "close | open"
```

NOTE: *If you use JavaScript, and you want to set the break property for a border child object of a subform object, you must specify the break property and its value by using the setAttribute method. In this instance, the syntax is as follows:*

```
Reference_Syntax.setAttribute = ("close | open", "break")
```

Values

Type	Values
String	• `close`(default) • `open`

Applies to

Model	Object
FormModel	border

Version

XFA 2.1

Examples

JavaScript

```
Subform1.border.setAttribute("open", "break");
```

FormCalc

```
Subform1.border.break = "open"
```

calculationsEnabled

Specifies whether calculate scripts will execute.

JavaScript Syntax

```
*Reference_Syntax*.calculationsEnabled = false | true;
- or -
*Reference_Syntax*.calculationsEnabled = 0 | 1;
```

FormCalc Syntax

```
*Reference_Syntax*.calculationsEnabled = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` The calculate scripts execute. • `false | 0` The calculate scripts do not execute.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.calculationsEnabled = 1;
```

FormCalc

```
xfa.host.calculationsEnabled = 1
```

cancelAction

Specifies whether to cancel a forthcoming action. This property applies only to the following scripting events: `prePrint`, `preSubmit`, preExecute, `preOpen`, and `preSign`.

JavaScript Syntax

```
Reference_Syntax.cancelAction = false | true;
- or -
Reference_Syntax.cancelAction = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.cancelAction = 0 | 1
```

Values

Type	Values
Boolea n	• `false | 0`(default) • `true | 1` • `preOpen-` The drop-down list does not expand to display the list of values. • `preSubmit-` Form submission does not occur. • `preSign-` The form is not digitally signed. • `prePrint-` No print dialog boxappears, and the form is not printed. The user action, such as printing, submitting, or digitally signing, occurs as expected. • `true | 1` • `preOpen-` The drop-down list does not expand to display the list of values. • `preSubmit-` Form submission does not occur. • `preSign-` The form is not digitally signed. • `prePrint-` No print dialog boxappears, and the form is not printed. The user action, such as printing, submitting, or digitally signing, does not occur. The user experience is determined by the scripting event that contains the cancelAction reference: • `preOpen-` The drop-down list does not expand to display the list of values. • `preSubmit-` Form submission does not occur. • `preSign-` The form is not digitally signed. • `prePrint-` No print dialog boxappears, and the form is not printed.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.8

Examples

JavaScript

```
xfa.event.cancelAction = 1;
```

FormCalc

```
xfa.event.cancelAction = 1
```

cap

Specifies the rendered termination of the stroke.

Strokes that form an enclosed area do not have a rendered termination. In particular, all rectangle and border edges, as well as all 360-degree arc edges, are not considered to have any termination. Arcs with sweep angles less than 360 degrees and lines do have terminations at both endpoints.

Syntax

```
Reference_Syntax.cap = "square | butt | round"
```

Values

Type	Values
String	• `square`(default) • `butt` • `round` The stroke terminates by rendering the end of the edge squarely beyond the edge’s endpoint a distance equal to one-half the edge’s thickness. • `butt` • `round` The stroke terminates by rendering the end of the edge squarely across the endpoint. • `round` The stroke terminates by rendering the end of the edge with a semi-circle at the edge’s endpoint, having a radius equal to one-half the edge’s thickness.

Applies to

Model	Object
FormModel	edge

Version

XFA 2.1

Examples

JavaScript

```
Line1.resolveNode("value.#line.edge").cap = "round";
```

FormCalc

```
Line1.value.#line.edge.cap = "round"
```

change

Specifies the value that a user types or pastes into a field immediately after they perform the action.

Syntax

```
Reference_Syntax.change
```

Values

Type	Values
String	Any valid string value appropriate for a particular form field.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.change;
```

FormCalc

```
xfa.event.change
```

charEncoding

Specifies the character encoding of the value that is encoded into a barcode.

The value of the barcode field is serialized into a sequence of bytes according to the specified character encoding. Then it is compressed if the dataPrep property requires it and encrypted if the`encrypt`object is present. Finally, it is encoded according to the symbology.

NOTE: *The value of this property is case-insensitive and must match one of the following values.*

Syntax

```
Reference_Syntax.charEncoding = "UTF-8 | none | ISO-8859-1 | ISO-8859-2 |
SO-8859-7 | SHift-JIS | KSC-5601 | Big-Five | GB-2312 | UTF-16 | UCS-2 |
fontSpecific"
```

Values

Type	Values
String	• `UTF-8` (default) The characters are encoded using Unicode code points as defined by Unicode, and UTF-8 serialization as defined by ISO/IEC 10646. • none No special encoding is specified. The characters are encoded using the ambient encoding for the operating system. • `ISO-8859-1` The characters are encoded using ISO-8859-1, also known as Latin-1. • `ISO-8859-2` The characters are encoded using ISO-8859-2. I • `SO-8859-7` The characters are encoded using ISO-8859-7. • `Shift-JIS` The characters are encoded using JIS X 0208, more commonly known as Shift-JIS. • `KSC-5601` The characters are encoded using the Code for Information Interchange (Hangul and Hanja). • `Big-Five` The characters are encoded using Traditional Chinese (Big-Five). There is no official standard for Big-Five and several variants are in use. The Adobe form object model uses the variant implemented by Microsoft® as code. • `GB-2312` The characters are encoded using Simplified Chinese. • `UTF-16` The characters are encoded using Unicode code points as defined by Unicode, and UCS-16 serialization as defined by ISO/IEC 10646. • `UCS-2` The characters are encoded using Unicode code points as defined by Unicode, and UTF-2 serialization as defined by ISO/IEC 10646. • `fontSpecific`

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.4

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").charEncoding = "UCS-2";
```

FormCalc

```
Code11BarCode1.ui.#barcode.charEncoding = "UCS-2"
```

checksum

Specifies an algorithm for the checksum to insert into the barcode.

The calculation of the checksums is based on the barcode data.

The template model allows any one of the choices listed below. However, some barcode formats either require a particular checksum or never allow a checksum. For such barcodes, the `checksum` property is ignored. Some of the remaining barcode formats support only a limited subset of these choices. For such barcodes, the template model does not specify an unsupported choice.

Syntax

```
Reference_Syntax.checksum = "none | auto | 1mod10 | 2mod10 | 1mod10_1mod11"
```

Values

Type	Values
String	• `none`(default) • `auto` • `1mod10` • `2mod10` • `1mod10_1mod11` Do not insert a checksum. • `auto` • `1mod10` • `2mod10` • `1mod10_1mod11` Insert the default checksum for the barcode format. • `1mod10` • `2mod10` • `1mod10_1mod11` Insert a 1 modulo 10 checksum. • `2mod10` • `1mod10_1mod11` Insert a 2 modulo 10 checksum. • `1mod10_1mod11` Insert a 1 modulo 10 checksum followed by a 1 modulo 11 checksum. 1 modulo 10, 2 modulo 10, and 1 modulo 11 are barcode standards. Refer to documentation on those standards for more information on those barcodes.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").checksum  = "2mod10";
```

FormCalc

```
Code11BarCode1.ui.#barcode.checksum  = "2mod10"
```

circular

Enables you to convert an arc into a circle.

JavaScript Syntax

```
Reference_Syntax.circular = false | true;
- or -
Reference_Syntax.circular = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.circular = 0 | 1
```

Values

Type	Values
Boolea n	• `false | 0`(default) • `true | 1` Do not adjust the arc to a circular path. • `true | 1` Adjust the arc to a circular path. You can convert an arc into a circle even if the content area where the arc is located is not square. If necessary, the size of the circle is adjusted to match the size of the content area.

Applies to

Model	Object
FormModel	arc

Version

XFA 2.1

Examples

JavaScript

```
Circle1.resolveNode("value.#arc").circular = 1;
```

FormCalc

```
Circle1.value.#arc.circular = 1
```

classAll

Returns a collection of like-class, in-scope nodes.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.classAll = "objects"
```

Values

Type	Values
Object	A set of objects derived from the same class as the current object and also within the same scope.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.classAll;
```

FormCalc

```
Subform1.classAll
```

classId

Specifies a URI name or location for the program code represented by the object.

Syntax

```
Reference_Syntax.classId = "URI"
```

Values

Type	Values
String	Any fully qualified URI value.

Applies to

Model	Object
FormModel	exObject

Version

XFA 2.1

classIndex

Returns the position of this object in its collection of like-class, in-scope objects.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.classIndex = "integer"
```

Values

Type	Values
Integer	An integer representing the 0 based index position of the current object in relation to the set of objects in the same scope that derive from the same class.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.classIndex;
```

FormCalc

```
Subform1.classIndex
```

className

Determines the name of the class of this object.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.className = "string"
```

Values

Type	Values
String	A valid string representing the name of the class of the particular object.

Applies to

objectclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.className;
```

FormCalc

```
Subform1.className
```

codeBase

Specifies a URI location that can be used to assist the resolution of a relative classId property.

Syntax

```
Reference_Syntax.codeBase = "URI"
```

Values

Type	Values
String	A fully qualified URI value.

Applies to

Model	Object
FormModel	exObject

Version

XFA 2.1

codeType

Specifies an identifier corresponding to a MIME type that identifies the program code represented by the object.

Syntax

```
Reference_Syntax.codeType = "MIME-type"
```

Values

Type	Values
String	A valid MIME-type identifier. For example`application/java`.

Applies to

Model	Object
FormModel	exObject

Version

XFA 2.1

colSpan

Specifies the number of columns spanned by this object when used inside a subform with a layout type of row.

Syntax

```
Reference_Syntax.colSpan = "1 | integer"
```

Values

Type	Values
String	• `1`(default) • Any valid integer value.

Applies to

Model	Object
FormModel	area draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
StaticText1.colSpan = "1";
```

FormCalc

```
StaticText1.colSpan = "1"
```

columnWidths

Specifies the widths for columns of a table.

The `columnWidth` property is ignored unless the layout property is set to `table`.

Syntax

```
Reference_Syntax.columnWidth = "measurement | -1 [, [, measurement | -1 ] ]"
```

Values

Type	Values
String	The value of this property is a set of space-separated tokens. Each token must be a valid measurement or `-1`. The presence of a measurement causes the corresponding column to be set to that width. The presence of `-1` causes the corresponding column to grow to the width of the widest content for that column across all rows of the table.

Applies to

Model	Object
FormModel	subform

Version

XFA 2.1

Examples

JavaScript

```
Subform1.columnWidths = ".5in 1.5in";
```

FormCalc

```
Subform1.columnWidths = ".5in 1.5in"
```

commandType

Specifies the type of command used by a data query.

Syntax

```
Reference_Syntax.commandType = "unknown | text | table | storedProc"
```

Values

Type	Values
String	• `unknown`(default) • `text` • `table` • `storedProc` An explicit SQL query string that is not saved under a name in the database. • `table` • `storedProc` A table stored in the database. • `storedProc` A query, such as a SQL query, created to query one or more tables in the database and then saved as a named query within the database.

Applies to

Model	Object
sourceSetModel	query

Version

XFA 2.1

Examples

In these examples, `Titles` represents the data connection name.

JavaScript

```
xfa.sourceSet.Titles.nodes.item(1).query.setAttribute("text", "commandType");
```

FormCalc

```
xfa.sourceSet.Titles.nodes.item(1).query.setAttribute("text", "commandType")
```

commitKey

Describes how the current value of a form field was set by the user.

Syntax

```
Reference_Syntax.commitKey = "0 | 1 | 2 | 3"
```

Values

Type	Values
Integer	• 0 (default) • 1 • 2 • 3 The value was not set (for example, if the user presses the escape key prior to the form field losing focus). • 1 • 2 • 3 The value is set when a user left-clicks outside the field. • 2 • 3 The value is set when a user presses the enter key. • 3 The value is set when a user tabs to a new field.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.commitKey = "2";
```

FormCalc

```
xfa.event.commitKey = "2"
```

commitOn

Specifies when a user's selections are propagated to the data model.

Syntax

```
Reference_Syntax.commitOn = "select | exit"
```

Values

Type	Values
String	• `select` • `exit` The selected data is written to the data model when a user selects a choice list entry by using the keyboard or mouse. Having a choice list commit data as soon as selections are made may be important in forms that contain non-XFA interactive features, such as Acrobat annotations or hypertext links. People filling out such forms may mistakenly believe that selecting an item from a choice list followed by clicking a non-XFA interactive feature is the same as exiting the checklist. In fact, the check list remains the field in focus. • `exit` The selected data is not written to the data model until the field loses focus. This is the recommended setting for choice lists that support multiple selections (open="multiSelect").

Applies to

Model	Object
FormModel	choiceList

Version

XFA 2.2

Examples

JavaScript

```
DropDownList1.resolveNode("ui.#choiceList").commitOn = "exit";
```

FormCalc

```
DropDownList1.ui.#choiceList.commitOn = "exit"
```

connection

Specifies the name of the associated connection control in the connection set.

The connection named by this property must point to a web service.

Syntax

```
Reference_Syntax.connection = "string"
```

Values

Type	Values
String	A valid string representing the name of the associated connection object in the connection set. If this property is missing or empty the connection name defaults to the name of the containing subform.

Applies to

Model	Object
FormModel	bindItems connect execute setProperty
sourceSetModel	connect

Version

XFA 2.4

Examples

JavaScript

```
TextField1.resolveNode("#connect").connection = "DataConnection";
```

FormCalc

```
TextField1.#connect.connection = "DataConnection"
```

contains

Determines whether a data value should be included in value of the parent object or as a property of the parent.

Syntax

```
Reference_Syntax.contains = "data | metaData"
```

Values

Type	Values
String	• `data`(default) • `metaData` Value is included in the value of the parent object • `metaData` Value is a property of the parent object.

Applies to

Model	Object
DataModel	dataValue

Version

XFA 2.1

content

Specifies the content of the object.

Syntax

```
Reference_Syntax.content = "string"
```

Values

Type	Values
String	A valid string representing the content of the object. For packets that contain XML content, this should return an empty string.

Applies to

Model	Object
XFAModel	packet

Version

XFA 2.1

Examples

JavaScript

```
xfa.packet.content = "";
```

FormCalc

```
xfa.packet.content = ""
```

contentType

Specifies the type of content in the referenced document, expressed as a MIME type.

Syntax

```
Reference_Syntax.contentType = "text/plain | application/x-formcalc | Mime-type"
```

Values

Type	Values
String	The following values are allowed for documents containing text: • `text/plain`(default) • `application/x-formcalc` • Any valid MIME-type. Unadorned text. The application may accept content that does not conform strictly to the requirements of the MIME type. • `application/x-formcalc` • Any valid MIME-type. A FormCalc script. • Any valid MIME-type. Support for other text types, such as`text/html`as well as scripting types such as`application/x-ecmascript`is implementation-defined. When the referenced document is an image, a suitable MIME-type must be supplied for this property to tell the application that the content is an image. However, the application is free to override the supplied value if upon examining the image data it determines that the image data is of a different type. Which image types are supported is implementation-defined.

Applies to

Model	Object
DataModel	dataValue
FormModel	exData image script
sourceSetModel	bind

Version

XFA 2.1

Examples

JavaScript

```
ImageField1.resolveNode("value.#image").contentType = "application/x-formcalc";
```

FormCalc

```
ImageField1.value.#image.contentType = "application/x-formcalc"
```

context (deprecated)

Specifies the current object, which is the starting object for the resolveNode and resolveNodes methods.

Syntax

```
Reference_Syntax.content = "object"
```

Values

Type	Values
Object	The current object.

Applies to

modelclass class

Version

XFA 2.1

count

Specifies the current number of subform instances on a form.

Syntax

```
Reference_Syntax.count = "integer"
```

Values

Type	Values
Integer	• *integer* An integer greater than or equal to 0 indicating the number of subform instances on the form.

Applies to

Model	Object
FormModel	instanceManager

Version

XFA 2.5

Examples

JavaScript

```
Subform1.instanceManager.count;
```

FormCalc

```
Subform1.instanceManager.count
```

credentialServerPolicy

Specifies whether checking the certificate status is required when a digital signature is signed. The certificate status can be checked against a certificate revocation list (CRL) or an Online Certificate Status Protocol (OCSP) response.

Syntax

```
Reference_Syntax.credentialServerPolicy = "Optional | Required"
```

Values

Type	Values
String	• `Optional`(default) • `Required` Including the CRL or OCSP response is optional. • `Required` Including the CRL or OCSP response is required.

Applies to

Model	Object
FormModel	certificates

Version

XFA 2.5

crlSign

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.crlSign = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

cSpace

Specifies the color space.

The default color space, and currently the only space permitted, is `SRGB`.

Syntax

```
Reference_Syntax.cSpace = "SRGB"
```

Values

Type	Values
String	`SRBG`(default) This is the only supported value.

Applies to

Model	Object
FormModel	color

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.edge.color.cSpace = "SRGB";
```

FormCalc

```
TextField1.border.edge.color.cSpace = "SRGB"
```

currentPage

Sets the currently active page of a document at run time.

Page values are 0-based, so the first page of a document returns a value of`0`.

The `currentPage` property is available when `layout:ready` executes on a client. However, it is not available when `layout:ready` executes on the server because the property will not execute until the form layout executes.

Syntax

```
Reference_Syntax.currentPage = "integer"
```

Values

Type	Values
Integer	A valid integer representing a specific page of the document.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.currentPage = "2";
```

FormCalc

```
xfa.host.currentPage = "2"
```

RELATED LINKS:

Working with page numbers and page counts

currentRecordNumber

Returns the current record number within the range of records contained by the current dataW-indow object.

Syntax

```
Reference_Syntax.currentRecordNumber = "integer"
```

Values

Type	Values
Integer	Any valid integer value.

Applies to

Model	Object
DataModel	dataWindow

Examples

JavaScript

```
xfa.dataWindow.currentRecordNumber = "2"; // The third record
```

FormCalc

```
xfa.dataWindow.currentRecordNumber = "2" // The third record
```

currentValue

Returns the value of the property before the delta is restored.

Syntax

```
Reference_Syntax.currentValue = "typed object"
```

Values

Type	Values
Depends on the type of the property	The correctly typed object for the property.

Applies to

Model	Object
FormModel	

Version

XFA 2.1

cursorLocation

Indicates the location of the cursor library to use with the record set.

Syntax

```
Reference_Syntax.cursorLocation = "client | server"
```

Values

Type	Values
String	• `client`(default) • `server` Cursor library is located on the client computer. • `server` Cursor library is located on the server computer.

Applies to

Model	Object
sourceSetModel	recordSet

Version

XFA 2.1

cursorType

Specifies the type of cursor to use when opening the record set.

Syntax

```
Reference_Syntax.cursorType = "forwardOnly | keyset | dynamic | static |
unspecified"
```

Values

Type	Values
String	• `forwardOnly`(default) • `keyset` • `dynamic` • `static` • `unspecified` Identical to a static cursor, except that scrolling occurs only in a forward direction. This improves performance when you need to make only one pass through a record set. • `keyset` • `dynamic` • `static` • `unspecified` Similar to a dynamic cursor, except that records that other users add are not visible. Data changes by other users are visible. • `dynamic` • `static` • `unspecified` Additions, changes, and deletions by other users are visible, and all types of movement through the record set are permitted, except for bookmarks, if the provider does not support them. • `static` • `unspecified` A static copy of a set of records that can be used to find data or generate reports. Additions, changes, or deletions by other users are not visible. • `unspecified` The type of cursor is not specified.

Applies to

Model	Object
sourceSetModel	recordSet

Version

XFA 2.1

data

Indicates whether the image provided to the widget should be represented as a reference or should be embedded.

The`data`property affects the object behavior when the form is filled.

Syntax

```
Reference_Syntax.data = "link | embed"
```

Values

Type	Values
String	• `link` • `embed` The image is represented as a URI reference. If the user provides the widget with a URI, the href attribute of the container's image object is updated to reflect the new URI. If the image object was previously loaded with an embedded image, that image is removed from the object. • `embed` The image is embedded in the container's image object. If the user provides the widget with a URI, the image referenced by the URI is embedded as the content of the image object.

Applies to

Model	Object
FormModel	imageEdit

Version

XFA 2.1

Examples

JavaScript

```
TextField1.resolveNode("ui.#imageEdit").data = "embed";
```

FormCalc

```
TextField1.ui.#textEdit.data = "embed"
```

dataColumnCount

Specifies an optional number of data columns to encode for supported barcodes. This property applies to two-dimensional (2D) barcodes only.

The form design must supply this property in conjunction with the dataRowCount property to specify a fixed row and column barcode, otherwise the parser must use the rowColumnRatio property to determine the row and column count. The template must not supply the dataColumnCount property unless the dataRowCount property is also supplied. When these properties are used the size of the barcode is fixed. If the supplied data does not fill the barcode it is padded out with padding symbols.

Syntax

```
Reference_Syntax.dataColumnCount = "string"
```

Values

Type	Values
String	A valid string representing the number of data columns to encode.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").dataColumnCount = "3";
```

FormCalc

```
Code11BarCode1.ui.#barcode.dataColumnCount = "3"
```

dataDescription

Specifies the name of a data connection description to use with a particular type of web services connection.

Syntax

```
Reference_Syntax.dataDescription = "string"
```

Values

Type	Values
String	A valid string representing the name of a data description to use while exporting data.

Applies to

Model	Object
connectionSetModel	wsdlConnection xmlConnection xsdConnection

Version

XFA 2.1

dataEncipherment

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.dataEncipherment = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes` (default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

dataLength

Specifies the maximum number of characters for this instance of the barcode. This property applies to one-dimensional barcodes only.

For software barcodes, when the moduleWidth property is not specified, the`dataLength` property must be supplied by the form design. For hardware barcodes, this property is ignored.

The data being displayed is not validated. For software barcodes, the application allows the data to overflow the assigned region of the field. For hardware barcodes, the result of an overflow depends on the printer.

NOTE: *There is no corresponding minimum length restriction. Some barcode formats have a fixed number of symbols and must be filled out with padding characters. Others allow a variable number of symbols and must terminate after the last symbol.*

Syntax

```
Reference_Syntax.dataLength = "string"
```

Values

Type	Values
String	A valid string representing the maximum number of characters for this barcode instance. Each barcode type has its own default length value.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").dataLength = "10";
```

FormCalc

```
Code11BarCode1.ui.#barcode.dataLength = "10"
```

dataNode

Gets the data node to which a form node is bound after merge.

NOTE: *dataNode is a 'get' property only, and cannot be used to 'set' a data node.*

Syntax

```
Reference_Syntax.dataNode = No | "string"
```

Applies to

Model	**Object**
FormModel	subform exclGroup field

Version

XFA 2.1

Examples

JavaScript

```
Subform.dataNode.saveXML("pretty")
```

FormCalc

```
Subform.dataNode.saveXML("pretty")
```

dataPrep

Defines preprocessing that is applied to the data written in the barcode.

It does not affect the data in the object models, nor does it affect what the user sees when the field has focus in interactive contexts.

NOTE: *Recommended for 2D barcodes only.*

Syntax

```
Reference_Syntax.dataPrep = "none | flateCompress"
```

Values

Type	Values
String	• `none`(default) • `flateCompress` Uses the data as supplied. • `flateCompress` Writes a header consisting of a byte with decimal value 257, followed by another byte with decimal value 1. It then writes the data compressed with the Flate algorithm, as defined by the Internet Engineering Task Force (IETF) in RFC1951. It does not use a predictor algorithm. Do not specify this option with a type that cannot encode arbitrary binary data.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").dataPrep = "flateCompress";
```

FormCalc

```
Code11BarCode1.ui.#barcode.dataPrep = "flateCompress"
```

dataRowCount

Specifies an optional number of data rows to encode for supported barcodes. This property applies to 2D barcodes only.

The form design can supply this property in conjunction with the dataColumnCount property to specify a fixed row and column barcode. Otherwise the rowColumnRatio property plus the actual length of the data being inserted determine the row and column count. The dataRowCount property cannot be present unless the dataColumnCount property is also present. When these properties are used the size of the barcode is fixed. If the supplied data does not fill the barcode the remaining cells are padded out with padding symbols.

Syntax

```
Reference_Syntax.dataRowCount = "string"
```

Values

Type	Values
String	A valid string representing the number of data rows to encode.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").dataRowCount = "2";
```

FormCalc

```
Code11BarCode1.ui.#barcode.dataRowCount = "2"
```

db

Specifies the technology used to communicate with a database.

Syntax

```
Reference_Syntax.db = "string"
```

Values

Type	Values
String	ADO.

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

decipherOnly

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.decipherOnly = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

delayedOpen

Specifies the number of seconds to delay opening the data source after a connection is made.

Syntax

```
Reference_Syntax.delayedOpen = "string"
```

Values

Type	Values
String	A valid string representing the number of seconds.

Applies to

Model	Object
sourceSetModel	command

Version

XFA 2.1

Examples

In these examples, `Titles` represents the data connection name.

JavaScript

```
xfa.sourceSet.Titles.connect.delayedOpen = "5";
```

FormCalc

```
xfa.sourceSet.Titles.connect.delayedOpen = "5"
```

delimiter

Separates the attributes in the Subject DN string.

Syntax

```
Reference_Syntax.delimiter = ", | string"
```

Values

Type	Values
String	• `,` (default) • A valid string that separates the attributes in the Subject DN string.

Applies to

Model	Object
FormModel	subjectDN

Version

XFA 2.5

digitalSignature

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.digitalSignature = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

disable

Inhibits the audible prompt.

Syntax

```
Reference_Syntax.disable = "1 | 0"
```

Values

Type	Values
String	• `1`(default) • `0` An audible prompt is produced if the field is not hidden or invisible. • `0` There is not be an audible prompt.

Applies to

Model	Object
FormModel	speak

Version

XFA 2.1

Examples

JavaScript

```
TextField1.assist.speak.disable = "0";
```

FormCalc

```
TextField1.assist.speak.disable = "0"
```

disableAll

Enables or disables validation warnings.

Syntax

```
Reference_Syntax.disable = "1 | 0"
```

Values

Type	Values
String	• `1` (default) • `0` Validation warnings are disabled. • `0` Validation warnings are enabled.

Applies to

Model	Object
FormModel	validate

Version

XFA 2.1

duplexImposition

Controls the orientation of the page image when printing on both sides of the paper.

The `duplexImposition` property is used only if the `relation` property of the `pageSet` object is set to `duplexPaginated`.

The top-level pageSet's setting controls the imposition of all duplex pages in the document.

Syntax

```
Reference_Syntax.duplexImposition = "longEdge | shortEdge"
```

Values

Type	Values
String	• `longEdge` (default) • Sets the imposition of the form design for a portrait document bound along the left edge or a landscape document bound along the top edge. • `shortEdge` • Sets the imposition of the form design to short edge.

Applies to

Model	Object
FormModel	pageSet

Version

XFA 3.1

editValue

Specifies the edit value for the field.

Syntax

```
Reference_Syntax.editValue = "string"
```

Values

Type	Values
String	A valid string representing the edit value for the field.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

embedPDF

Determines whether PDF file will be included as part of the data.

Syntax

```
Reference_Syntax.embedPDF = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The PDF file is sent as part of in the data. • `1` The PDF file is not sent as part of the data. A URI is sent in its place.

Applies to

Model	Object
FormModel	submit

Version

XFA 2.1

Examples

JavaScript

```
Button1.resolveNode("#event.#submit").embedPDF = "1";
```

FormCalc

```
Button1.#event.#submit.embedPDF = "1"
```

encipherOnly

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.encipherOnly = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

endChar

Specifies an optional ending control character to append to barcode data.

The `endChar` property is ignored by the parser if the barcode pattern does not support the specified control character.

Syntax

```
Reference_Syntax.endChar = "character"
```

Values

Type	Values
String	A valid control character.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").endChar = "*";
```

FormCalc

```
Code11BarCode1.ui.#barcode.endChar = "*"
```

eofAction

Specifies the action to perform if the current record is the last record in the record set.

Syntax

```
Reference_Syntax.eofAction = "moveLast | stayEOF | addNew"
```

Values

Type	Values
String	• `moveLast`(default) • `stayEOF` • `addNew` Moves the current record position to a point after the last record. • `stayEOF` • `addNew` The current record will always be the last record in the record set. • `addNew` Adds a new record to the record set.

Applies to

Model	Object
sourceSetModel	recordSet

Version

XFA 2.1

errorCorrectionLevel

Specifies an optional error correction level to apply to supported barcodes. This property applies to 2D barcodes only.

NOTE: *For barcode types that accept this property, the parser ignores the checksum.*

Syntax

```
Reference_Syntax.errorCorrectionLevel = "0 | integer"
```

Values

Type	Values
String	• `0`(default) For PDF417, the valid values are integers in the range 0 through 8, inclusive.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").errorCorrectionLevel = "5";
```

FormCalc

```
Code11BarCode1.ui.#barcode.errorCorrectionLevel = "5"
```

errorText

Returns the validation message for the first failed validation test, or an empty string if this field has passed all validation tests.

Syntax

```
Reference_Syntax.errorText = "string"
```

Values

Type	Values
String	If the field is in a valid state, `errorText` will be empty. If the field is in an invalid state, `errorText` will hold the validation message text for the validation that failed.

Applies to

Model	Object
FormModel	field

Version

XFA 2.9

excludeAllCaps

Specifies whether or not to hyphenate words consisting entirely of capital letters.

Syntax

```
Reference_Syntax.excludeAllCaps = "0 | 1"
```

Values

Type	Values
String	• `0` • `1` When the value is 0 and the value of the`hyphenate`property is`1`, words that consist entirely of capital letters are hyphenated. • `1` When the value is 1 or the value of the`hyphenate`property is`0`, words that consist entirely of capital letters are not hyphenated.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

excludeInitialCap

Specifies whether or not to hyphenate words that begin with a capital letter.

Syntax

```
Reference_Syntax.excludeInitialCap = "0 | 1"
```

Values

Type	Values
String	• 0 • 1 When the value is`0`and the value of the`hyphenate`property is`1`, words that begin with a capital letter are hyphenated. • 1 When the value is`1` or the value of the`hyphenate`property is`0`, words that begin with a capital letter are not hyphenated.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

executeType

Specifies whether to import new data into the existing form or merge new data with the original form design to create a new form.

Syntax

```
Reference_Syntax.executeType = "import | remerge"
```

Values

Type	Values
String	• `import`(default) • `remerge` Imports data into the current form without merging that data with the form design. • `remerge` Merges the data in the connectionData dataset with the form design. The merge process creates dynamic subforms, if necessary, depending on the data returned by the web service.

Applies to

Model	Object
FormModel	execute

Version

XFA 2.1

Examples

JavaScript

```
Button1.resolveNode("#event.#execute").executeType = "remerge";
```

FormCalc

```
Button1.#event.#execute.executeType = "remerge"
```

fillColor

The background color value for this field.

A fill color must be defined before you can change the color.

Syntax

```
Reference_Syntax.fillColor = "[0-255], [0-255], [0-255]"
```

Values

Type	Values
String	For the color-space of SRGB, the component values must be r,g,b, where r is the red component value, g is the green component value, and b is the blue component value. Each component value must be in the range 0 through 255, inclusive. 255 represents maximum display intensity. For example, 255,0,0 specifies the color red. The default is dependent upon the context of where the color is used; the default color is determined by the object enclosing the color object.

Applies to

Model	Object
FormModel	exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.fillColor = "150,130,33";
```

FormCalc

```
TextField1.fillColor = "150,130,33"
```

RELATED LINKS:

Changing the background color

fontColor

Specifies the foreground color value for the field. It is the equivalent of the `font.fill.color.value` expression.

The `fontColor` property affects both the caption and the value of a field, except when the caption color is set through scripting.

For example, the script `this.fontColor="0,0,255";` applies to both the caption and the value of a field.

You cannot use the `fontColor` property to change the font color of the field caption. To change the font color of the field caption, use `caption.font.fill.color.value`.

Syntax

```
Reference_Syntax.fontColor = "[0-255], [0-255], [0-255]"
```

Values

Type	Values
String	A valid string that represents the font color.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
TextField1.fontColor = "150,130,33";
```

FormCalc

```
TextField1.fontColor = "150,130,33"
```

fontHorizontalScale

Horizontally scales font glyphs.

Syntax

```
Reference_Syntax.fontHorizontalScale = "[0-100]%"
```

Values

Type	Values
String	A valid percentage between 0 and 100.

Applies to

Model	Object
FormModel	font

Version

XFA 2.8

Examples

JavaScript

```
TextField1.font.fontHorizontalScale = 50%;
```

FormCalc

```
TextField1.font.fontHorizontalScale = 50%
```

fontVerticalScale

Vertically scales font glyphs.

Syntax

```
Reference_Syntax.fontVerticalScale = "[0-100]%"
```

Values

Type	Values
String	A valid percentage between 0 and 100.

Applies to

Model	Object
FormModel	font

Version

XFA 2.8

Examples

JavaScript

```
TextField1.font.fontVerticalScale = 50%;
```

FormCalc

```
TextField1.font.fontVerticalScale = 50%
```

format

Determines the format in which to submit the data.

Syntax

```
Reference_Syntax.format = "pdfEnvelope | xmlEnvelope"
```

Values

Type	Values
String	For the`encrypt`object: • `pdfEnvelope` • `xmlEnvelope` Adds the contents being submitted to a PDF document as an encrypted attachment. • `xmlEnvelope` Encrypts the contents being submitted using W3C XML encryption and contains them within an XML envelope.
String	For the`submit`object: • `xdp`(default) • `formdata` • `pdf` The data is packaged in XDP format. • `formdata` • `pdf` The data is packaged in URL-encoded format as described in Uniform Resource Locators (URL). • `pdf` The data is packaged in PDF as described in the Adobe PDF Specifications.

Applies to

Model	Object
FormModel	encrypt submit

Version

XFA 2.1

Examples

JavaScript

```
Button1.resolveNode("#event.#submit").format = "pdf"
```

FormCalc

```
Button1.#event.#submit.format = "pdf"
```

formatMessage

Specifies the format validation message string for this field.

Syntax

```
Reference_Syntax.formatMessage = "string"
```

Values

Type	Values
String	A valid string representing the format validation message.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
TextField1.formatMessage = "Please use the format: LASTNAME, FIRSTNAME";
```

FormCalc

```
TextField1.formatMessage = "Please use the format: LASTNAME, FIRSTNAME"
```

formattedValue

Specifies the formatted value for the field.

Syntax

```
Reference_Syntax.formattedValue = "string"
```

Values

Type	Values
String	A valid string representing the value of the field with formatting, including picture formats and symbols.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
TextField2.rawValue = TextField1.formattedValue;
```

FormCalc

```
TextField2 = TextField1.formattedValue
```

RELATED LINKS:

Getting or setting object values

formatTest

Controls validation against the display picture clause.

The`formatTest`property can be used for validations. The `formatTest` property is not evaluated on null fields. The `formatTest` property can be an evaluated context during the lifetime of a form, such as when focus leaves a field.

To differentiate between `nullTest` and `scriptTest`, use `formatTest` to check the value of the field in question. If it is null or empty, the validation failed as a result of a `nullTest` validation.

Syntax

```
Reference_Syntax.formatTest = "warning | disabled | error"
```

Values

Type	Values
String	• `disabled` • `error` • `warning`(default) • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Do not perform any test. The form object is permitted to have a value that does not conform to the picture clause. The field can be left with a non-conforming value and it will not invalidate the form. • `error` • `warning`(default) • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Emit a message and refuse to accept data that does not fit the picture clause. The form object must conform to a picture clause. • `warning`(default) • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Emit a message if the data does not fit the picture clause, but allow the user to proceed to the next field. The message must inform the user that the form object should have a value that conforms to the picture clause. It must provide two choices: • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint.

Applies to

Model	Object
FormModel	validate

Version

XFA 2.1

Examples

Set the validation pattern if has not already been defined.

JavaScript

```
TextField1.validate.picture.value = "A9A 9A9";
TextField1.validate.formatTest = "error";
```

FormCalc

```
TextField1.validate.picture = "A9A 9A9"
TextField1.validate.formatTest = "error"
```

fracDigits

Specifies the maximum number of digits (inclusively) following the decimal point to capture and store.

Syntax

```
Reference_Syntax.fracDigits = "2 | integer"
```

Values

Type	Values
String	• `2`(default) • A string representing any valid integer value.

Applies to

Model	Object
FormModel	decimal

Version

XFA 2.1

Examples

The numeric field data type should be set to decimal.

JavaScript

```
NumericField1.resolveNode("value.#decimal").fracDigits = "3";
```

FormCalc

```
NumericField1.value.#decimal.fracDigits = "3"
```

from

Specifies the original column name in the data source.

Syntax

```
Reference_Syntax.from = "string"
```

Values

Type	Values
String	A valid string representing the name of the column in the data source where data will be mapped from.

Applies to

Model	Object
sourceSetModel	map

Version

XFA 2.1

fullText

Represents the full (untruncated) value that a user pastes into a form field.

Fields may truncate pasted text if it exceeds the allowable content region. The `fullText` property stores the untruncated value in memory for use with scripting operations.

The value of the newContentType determines the content type of this property.

Syntax

```
Reference_Syntax.fullText = "string"
```

Values

Type	Values
String	Any valid string value.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.fullText;
```

FormCalc

```
xfa.event.fullText
```

h

A measurement of the height for the layout.

When height is specified as a measurement, that value overrides any growth range allowed by the minH property and the maxH property. When this property is omitted or set to an empty string, the growth range is set by the minH property and the maxH property.

Syntax

```
Reference_Syntax.h = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.h = "2in";
```

FormCalc

```
TextField1.h = "2in"
```

hAlign

Specifies the horizontal text alignment.

Syntax

```
Reference_Syntax.hAlign = "left | center | right | justifyAll | justify | radix"
```

Values

Type	Values
String	• `left`(default) • `center` • `right` • `justifyAll` • `justify` Align with the left edge of the available region. • `center` • `right` • `justifyAll` • `justify` Center horizontally within the available region. • `right` • `justifyAll` • `justify` Align with the right edge of the available region. • `justifyAll` • `justify` Spread-justify all lines to fill the available region. • `justify` Left-align the last line and spread-justify the rest.

Applies to

Model	Object
FormModel	draw exclGroup field para subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.hAlign = "right";
```

FormCalc

```
TextField1.para.hAlign = "right"
```

hand

Describes the justification of a line or edge.

NOTE: *If you want to display field data as a comb, you must set the value of the hand property for the border object of the field to* `right`*. For example:*

```
TextField1.border.hand = "right"; // JavaScript
TextField1.border.hand = "right" // FormCalc
```

Syntax

```
Reference_Syntax.hand = "even | left | right"
```

Values

Type	Values
String	• `even`(default) • `left` • `right` Center the displayed line on the underlying vector or arc. • `left` • `right` Position the displayed line immediately to the left of the underlying vector or arc, when following that line from its start point to its end point. • `right` Position the displayed line immediately to the right of the underlying vector or arc, when following that line from its start point to its end point. This value must be set to display field data using a comb.

Applies to

Model	Object
FormModel	arc border line rectangle

Version

XFA 2.1

Examples

JavaScript

```
Line1.resolveNode("value.#line").hand = "left";
```

FormCalc

```
Line1.value.#line.hand = "left"
```

highlight

Specifies the visual appearance of a button when activated by a user. All values support two states (up and down) except`push`which supports three states (up, down, and rollover).

Syntax

```
Reference_Syntax.highlight="none | inverted | push | outline"
```

Values

Type	Values
String	• `push`(default) • `none` • `inverted` • `outline` Buttons that are set to highlight mode "push" can assign different captions to the alternate button states (down and rollover).

Applies to

Model	Object
FormModel	button

Version

XFA 2.5

Examples

JavaScript

```
Button1.resolveNode("ui.#button").highlight = "push";
```

FormCalc

```
Button1.ui.#button.highlight = "push"
```

href

Specifies a reference to an external file or resource.

The transferEncoding property does not apply to external images.

Syntax

```
Reference_Syntax.href = "URL"
```

Values

Type	Values
String	A valid HTML reference. For example: • `http://www.adobe.com/data` • `ftp://255.255.0.0/dataFiles`

Applies to

Model	Object
FormModel	exData image

Version

XFA 2.1

Examples

JavaScript

```
ImageField1.resolveNode("value.#image").href = "/E/dev/Logos/adobe.jpg";
```

FormCalc

```
ImageField1.value.#image.href = "/E/dev/Logos/adobe.jpg"
```

hScrollPolicy

Specifies whether a field can scroll horizontally.

NOTE: *This property does not apply to Text Fields that can expand to accommodate data or text.*

Syntax

```
Reference_Syntax.hScrollPolicy = "auto | on | off"
```

Values

Type	Values
String	• `auto`(default) • `on` • `off` Single-line fields scroll horizontally and multi-line fields scroll vertically (displaying a vertical scroll bar when necessary). • `on` • `off` Horizontal scroll bars appear regardless of whether the text or data overflows the boundaries of the field. • `off` Restricts the user from entering characters in the field beyond what can physically fit within the field width. Note that this restriction does not apply to data with the field.

Applies to

Model	Object
FormModel	dateTimeEdit numericEdit textEdit

Version

XFA 2.5

Examples

JavaScript

```
TextField1.resolveNode("ui.#textEdit").hScrollPolicy = "off";
```

FormCalc

```
TextField1.ui.#textEdit.hScrollPolicy = "off"
```

hyphenate

Controls whether hyphenation is allowed.

Syntax

```
Reference_Syntax.hyphenate = "0 | 1"
```

Values

Type	Values
String	• `0` • `1` Hyphenation is not allowed. • `1` Hyphenation is allowed.

Applies to

Model	Object
FormModel	para

Version

XFA 2.8

id

Specifies a generic user-defined XML ID type.

Syntax

```
Reference_Syntax.id = "string"
```

Values

Type	Values
String	A valid string representing a user-defined XML identification.

Applies to

nodeclass class

Version

XFA 2.1

imagingBBox

Specifies a region within the medium that is available for rendering with four comma separated measurements representing the measurements for x, y, width, and height.

Syntax

```
Reference_Syntax.bind = "none | x, y, width, height"
```

Values

Type	Values
String	• `none`(default) • `x, y, width, height` The entire area of the paper is available for rendering. • `x, y, width, height` The content of the subform is not available for manipulation by the user. A user-agent should treat the subform as a pass-through container in sequencing operations, and you must not be permitted to modify the content of the subform. The content of the subform is still modifiable via indirect means such as scripting operations and calculations.

Applies to

Model	Object
FormModel	medium

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.medium = "100, 100, 50, 50";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.medium = "100, 100, 50, 50"
```

index

Returns the position of this node in its collection of like-named, in-scope nodes.

If the node has no name, the position in its like-class named collection is returned.

Syntax

```
Reference_Syntax.index = "integer"
```

Values

Type	Values
Integer	An integer representing the 0 based index position of the current object relative to objects of the same name within the same scope.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.parent.index;
```

FormCalc

```
Subform1.parent.index
```

RELATED LINKS:

Referencing objects

Manipulating instances of a subform

Changing the background color

initial

Specifies the initial number of occurrences for a subform or a subform set. This property should be used only for printed and static forms.

Syntax

```
Reference_Syntax.initial = "1 | string"
```

Values

Type	Values
String	• `1`(default) • A valid string representing any valid integer.

Applies to

Model	Object
FormModel	occur

Version

XFA 2.1

Examples

Modifying the `occur` object on the `form:ready` event is too late in the form life cycle. It needs to be modified on the `template:ready` event. However, the `template:ready` event is not accessible in the user interface.

JavaScript

```
Subform1.occur.initial = "3";
```

FormCalc

```
Subform1.occur.initial = "3"
```

initialNumber

Supplies the initial page number to the first page in a group of consecutive pages that use the same pageSet.

When you use separate numbering runs within a single document, use `initialNumber` to control the initial number of each run. For example you can use i - iv for the table of contents, followed by 1 - 27 for the body of the document.

Syntax

```
Reference_Syntax.initialNumber = "1 | string"
```

Values

Type	Values
String	• `1`(default) • A valid string representing any integer.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.initialNumber = "4";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.initialNumber = "4"
```

input

Specifies an input message associated with a particular WSDL connection operation.

Syntax

```
Reference_Syntax.input = "string"
```

Values

Type	Values
String	A valid string representing an input message.

Applies to

Model	Object
connectionSetModel	operation

Version

XFA 2.1

instanceIndex

Calculates the index of a subform or subform set based on where it is located relative to other instances of the same form object.

Syntax

```
Reference_Syntax.instanceIndex = "integer"
```

Version

2.5

Values

Type	Values
Integer	A valid integer representing the zero-based index of the specified subform or subform set.

Applies to

Model	Object
FormModel	subform subformSet

Version

XFA 2.5

intact

Specifies the constraints on keeping the parent object intact within a content area or page.

Splitting across a content area or page is only relevant for text based `field` and `draw` objects; specifically, those using the `textEdit` object.

Syntax

```
Reference_Syntax.intact = "none | contentArea"
```

Values

Type	Values
String	• `none`(default for subforms and field objects) • `contentArea`(default for draw objects) The determination of whether an object will be rendered intact within a content area or page is delegated to the processing application. It is possible that a subform could be split across a content area or page. This value is the default when the parent container's layout is`tb`,`lr-tb`, or`table`. The field and draw objects will not split if the parent container does not allow splitting, itself. • `contentArea`(default for draw objects) The object is requested to be rendered intact within a content area. This value is the default when the parent container's layout is position or row.

Applies to

Model	Object
FormModel	keep

Version

XFA 2.1

Examples

JavaScript

```
Subform1.keep.intact = "contentArea";
```

FormCalc

```
Subform1.keep.intact = "contentArea"
```

inverted

Specifies whether the corner appears convex (it joins the edges tangentially) or is inverted and appears concave (it joins the edges at right angles).

Syntax

```
Reference_Syntax.inverted = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The corner appears convex. • `1` The corner appears concave.

Applies to

Model	Object
FormModel	corner

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.corner.inverted = "1";
```

FormCalc

```
TextField1.border.corner.inverted = "1"
```

isContainer

Specifies whether this object is a container object.

NOTE: *This property is read only.*

JavaScript Syntax

```
Reference_Syntax.isContainer = false | true;
- or -
Reference_Syntax.isContainer = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.isContainer = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` The object is a type of container object. • `false | 0` The object is not a type of container object.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
TextField1.isContainer;
```

FormCalc

```
TextField1.isContainer
```

isDefined

Indicates whether a valid data window is currently defined.

A data window is considered valid if the current record index points to a record within the data. A data window is not defined if there are no records, or if the current record index is beyond the end of the range of records.

NOTE: This property is read only.

JavaScript Syntax

```
Reference_Syntax.isDefined = false | true;
- or -
Reference_Syntax.isDefined = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.isDefined = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` The current data window is defined. • `false | 0` The current data window is not defined.

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.isDefined;
```

FormCalc

```
$dataWindow.isDefined
```

isNull

Indicates whether the current data value is the null value.

JavaScript Syntax

```
Reference_Syntax.isNull = false | true;
- or -
Reference_Syntax.isNull = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.isNull = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` The current data value is the null value. • `false | 0` The current data window is not the null value.

Applies to

nodeclass class

Model	Object
DataModel	dataValue

Version

XFA 2.1

Examples

JavaScript

```
TextField1.isNull = 0;
```

FormCalc

```
TextField1.isNull = 0
```

join

Specifies the shape of the corner.

Syntax

```
Reference_Syntax.join = "square | round"
```

Values

Type	Values
String	• `square`(default) • `round` The corner has the shape of a right-angle between the adjoining edges. • `round` The corner has the shape of a round curve between the adjoining edges.

Applies to

Model	Object
FormModel	corner

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.corner.join = "round";
```

FormCalc

```
TextField1.border.corner.join = "round"
```

kerningMode

Applies kerning between characters.

Syntax

```
Reference_Syntax.kerningMode = "none | pair"
```

Values

Type	Values
String	• `none` • `pair` Kerning is disabled. • `pair` Kerning is enabled. When kerning is enabled and letter spacing is not `0`, kerning is applied first.

Applies to

Model	Object
FormModel	font

Version

XFA 2.8

Examples

JavaScript

```
TextField1.font.kerningMode = "pair";
```

FormCalc

```
TextField1.font.kerningMode = "pair"
```

keyAgreement

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.keyAgreement = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

keyCertSign

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.keyCertSign = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

keyDown

Determines whether a user is pressing an arrow key to make a selection. This property is available only for list boxes and drop-down lists.

Syntax

```
Reference_Syntax.keyDown = "True | False"
```

Values

Type	Values
String	• `True`(default) • Arrow key was used to make the selection. • `False` • Arrow key was not used to make the selection.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.keyDown;
```

FormCalc

```
xfa.event.keyDown
```

keyEncipherment

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.keyEnciphement = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

labelRef

Resolves a data value for each data node in the set identified by the `ref` object.

The data values are then used to populate the label items, such as `<items save='0'>`.

The `labelRef` property is a relative reference syntax expression.

The `labelRef` property is optional. You might want to define a list using only a set of values with no labels. In that case, the rendered object uses labels that default to the actual values.

Syntax

```
Reference_Syntax.labelRef = "string"
```

Values

Type	Values
String	A string representing a data value for each data node in the set.

Applies to

Model	Object
FormModel	bindItems

Version

XFA 2.4

ladderCount

Specifies the maximum number of consecutive hyphenated lines that may be generated.

Syntax

```
Reference_Syntax.ladderCount = [0..n]
```

Values

Type	Values
Integer	A valid integer representing the number of consecutive hyphenated lines. The default value is 2.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

language

Returns the language of the running host application.

Syntax

```
Reference_Syntax.language
```

Values

Type	Values
String	A valid string representing the locale language of the host computer.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.language;
```

FormCalc

```
xfa.host.language
```

layout

Specifies the layout strategy to be used by this object.

Syntax

```
Reference_Syntax.layout = "position | lr-tb | rl-tb | row | table | tb"
```

Values

Type	Values
String	• `position`(default) • `lr-tb` • `rl-tb` • `row` • `table` • `tb` The content of the control is positioned according to the to the location information expressed on the content objects. • `lr-tb` • `rl-tb` • `row` • `table` • `tb` The content of the object flows from left to right and top to bottom. • `rl-tb` • `row` • `table` • `tb` Reserved for future use. The content of the object flows from right to left and top to bottom. • `row` • `table` • `tb` This is an inner object of a table, representing one or more rows. The objects contained in this object are cells of the table and their height and width properties, if any, are ignored. The cells are laid out from right to left and each one is adjusted to the height of the row and the width of one or more contiguous columns. • `table` • `tb` This is the outer object of a table. Each of its child subforms or exclusion groups must have its layout property set to row. The rows of the table are laid out from top to bottom. • `tb` The content of the object flows from top to bottom.

Applies to

Model	Object
FormModel	exclGroup subform

Version

XFA 2.1

Examples

JavaScript

```
Subform1.layout = "tb";
```

FormCalc

```
Subform1.layout = "tb"
```

RELATED LINKS:

Referencing objects

Working with page numbers and page counts

Disabling all form fields

leadDigits

Specifies the maximum number of digits (inclusively) preceding the decimal point to capture and store.

Syntax

```
Reference_Syntax.leadDigits = "0 | integer"
```

Values

Type	Values
String	• `0`(default) • A valid string representing any integer value.

Applies to

Model	Object
FormModel	decimal

Version

XFA 2.1

Examples

For these examples, the numeric field data type should be set to decimal.

JavaScript

```
NumericField1.resolveNode("value.#decimal").leadDigits = "2";
```

FormCalc

```
NumericField1.value.#decimal.leadDigits = "2"
```

leader

Specifies the`subform`or `subformSet`object to place at the top of a content or page area.

The leader property replaces the deprecated overflowLeader(deprecated) and bookend-Leader(deprecated) properties.

Syntax

```
Reference_Syntax.leader = "string"
```

Values

Type	Values
String	A valid string representing the ID or fully qualified reference syntax expression of a subform or subform set. The default is an empty string.

Applies to

Model	Object
FormModel	bookend breakAfter breakBefore overflow

Version

XFA 2.4

Examples

JavaScript

```
Subform1.leader = "xfa.form.form1.Subform2";
```

FormCalc

```
Subform1.leader = "xfa.form.form1.Subform2"
```

leftInset

Specifies a the size of the left inset.

Syntax

```
Reference_Syntax.leftInset = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	margin

Version

XFA 2.1

Examples

JavaScript

```
Subform1.margin.leftInset = "0.25in";
```

FormCalc

```
Subform1.margin.leftInset = "0.25in"
```

length

Specifies the number of objects in the list.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.length
```

Values

Type	Values
Integer	A valid integer representing the number of objects.

Applies to

listclass

Version

XFA 2.5

Examples

JavaScript

```
// Display the number of child nodes under root node.
xfa.host.messageBox("Number of nodes under rootNode after appending clone: " +
xfa.record.nodes.length);
```

FormCalc

```
// Display the number of child nodes under root node.
xfa.host.messageBox("Number of nodes under rootNode after appending clone: " +
xfa.record.nodes.length)
```

RELATED LINKS:

Referencing objects

Creating a node in the data model

Calculating totals

Changing the background color

Populating a drop-down list

Disabling all form fields

letterSpacing

Specifies the spacing limit.

Syntax

```
Reference_Syntax.letterSpacing = "[0..100]% | measurement"
```

Values

Type	Values
String	The spacing limit may be one of the following: • An absolute measurement, specified in numeric values and units. A value of zero doesn't require any units. • A measurement relative to the current font's em width. • A percentage value, relative to the width of the font's glyph for the space character (U+0020). If the font does not have a space character, the percentage is applied to the font's em width.

Applies to

Model	Object
FormModel	font

Version

XFA 2.8

Examples

JavaScript

```
TextField1.font.letterSpacing = "10%";
```

FormCalc

```
TextField1.font.letterSpacing = "10%"
```

lineHeight

Specifies the line height to apply to the paragraph content.

Omitting a value or specifying an empty value indicates that the font size determines the line height.

Syntax

```
Reference_Syntax.lineHeight = "0pt | measurement"
```

Values

Type	Values
String	• `0pt`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.lineHeight = "20pt";
```

FormCalc

```
TextField1.para.lineHeight = "20pt"
```

lineThrough

Specifies the activation of a single or double line extending through the text (also known as strike-through).

Syntax

```
Reference_Syntax.lineThrough = "0 | 1 | 2"
```

Values

Type	Values
String	• `0`(default) • `1` • `2` The font renders without a line through the text. • `1` • `2` The font renders with a single line through the text. • `2` The font renders with a double line through the text.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.lineThrough = "2";
```

FormCalc

```
TextField1.font.lineThrough = "2"
```

lineThroughPeriod

Controls the appearance of the line extending through the text (also known as strikethrough).

Syntax

```
Reference_Syntax.lineThroughPeriod = "all | word"
```

Values

Type	Values
String	• `all`(default) • `word` The rendered line shall extend across word breaks. • `word` The rendered line shall be interrupted at word breaks.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.lineThroughPeriod = "word";
```

FormCalc

```
TextField1.font.lineThroughPeriod = "word"
```

listen

Controls whether the event object listens to events occurring in the referenced node only, or to events occurring in the referenced node and descendents.

Syntax

```
Reference_Syntax.listen = "refOnly | refAndDescendents"
```

Values

Type	Values
String	• `refOnly`(default): Listens to the event only on the container specified by the `ref` property. • `refAndDescendents`: Listens to the event as it fires on the `ref` node and any of its descendents.

Applies to

Model	Object
FormModel	event

Version

XFA 3.0

locale

Specifies the language, currency, and time/date formatting to use for the content of the object.

The locale affects the representation of data formatted, validated, or normalized by picture clauses. When this property is absent or empty, the default behavior is to inherit the parent object's locale. If the outermost subform does not specify a locale, the default behavior derives from the ambient locale of the operating system. If the operating system does not supply a locale, `en_US` is used.

Syntax

```
Reference_Syntax.locale = "ambient | locale"
```

Values

Type	Values
String	• `ambient`(default) • A valid locale name, for example en_US. For a complete list of valid locale values, refer to the IETF RFC 1766 and ISO 639/ISO 3166 specifications. The application uses its own ambient locale. • A valid locale name, for example en_US. For a complete list of valid locale values, refer to the IETF RFC 1766 and ISO 639/ISO 3166 specifications.

Applies to

Model	Object
FormModel	draw field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.locale = "en_US";
```

FormCalc

```
TextField1.locale = "en_US"
```

lockType

Specifies the type of locking functionality to use with the data source.

Syntax

```
Reference_Syntax.lockType = "unspecified | readOnly | pessimistic | optimistic |
batchOptimistic"
```

Values

Type	Values
String	• `unspecified`(default) • `readOnly` • `pessimistic` • `optimistic` • `batchOptimistic` Does not specify a type of lock. • `readOnly` • `pessimistic` • `optimistic` • `batchOptimistic` Indicates read-only records. Data cannot be altered. • `pessimistic` • `optimistic` • `batchOptimistic` Records are locked at the data source immediately after editing. • `optimistic` • `batchOptimistic` Records are locked only when a user-instigated update of the data occurs. • `batchOptimistic` Indicates optimistic batch updates. This is required for batch update mode.

Applies to

Model	Object
sourceSetModel	recordSet

Version

XFA 2.1

Examples

In these examples, `Titles` represents the data connection name.

JavaScript

```
xfa.sourceSet.Titles.nodes.item(1).query.recordSet.lockType = "optimistic";
```

FormCalc

```
xfa.sourceSet.Titles.nodes.item(1).query.recordSet.lockType = "optimistic"
```

long

Specifies the length of the long edge of the medium. The length specified by the `long` property must be greater than the length specified by the short property.

Syntax

```
Reference_Syntax.long = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	medium

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.medium.long = "4in";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.medium.long = "4in"
```

mandatory

Specifies the nullTest value for the field.

Syntax

```
Reference_Syntax.mandatory = "string"
```

Values

Type	Values
String	A string that represents the null test value.

Applies to

Model	Object
FormModel	exclGroup field

Version

XFA 2.1

Examples

JavaScript

```
Textfield1.mandatory = "error";
```

FormCalc

```
TextField1.mandatory = "error"
```

mandatoryMessage

Specifies the mandatory message string for this field.

Syntax

```
Reference_Syntax.mandatoryMessage = "string"
```

Values

Type	Values
String	A string that represents the mandatory message.

Applies to

Model	Object
FormModel	exclGroup field

Version

XFA 2.1

Examples

JavaScript

```
Textfield1.mandatoryMessage = "This field is required.";
```

FormCalc

```
TextField1.mandatoryMessage = "This field is required."
```

marginLeft

Specifies the size of the left indentation of the paragraph.

Syntax

```
Reference_Syntax.marginLeft = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.marginLeft = "0.5in";
```

FormCalc

```
TextField1.para.marginLeft = "0.5in"
```

marginRight

Specifies the size of the right indentation of the paragraph.

Syntax

```
Reference_Syntax.marginRight = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.marginRight = "0.5in";
```

FormCalc

```
TextField1.para.marginRight = "0.5in"
```

mark

Indicates the shape to use when filling a Check Box object.

Syntax

```
Reference_Syntax.mark = "default | check | circle | cross | diamond | square |
star"
```

Values

Type	Values
String	• `default`(default) • `check` • `circle` • `cross` • `diamond` • `square` • `star` The default marks vary depending on the shape of the Checkbox object. A corner to corner for square and a filled circle for round. The new marks are font-based symbols. • `check` • `circle` • `cross` • `diamond` • `square` • `star`

Applies to

Model	Object
FormModel	checkButton

Version

XFA 2.5

Examples

JavaScript

```
CheckBox1.resolveNode("ui.#checkButton").mark = "diamond";
```

FormCalc

```
CheckBox1.ui.#checkButton.mark = "diamond"
```

match

Controls the role played by enclosing an object in a data-binding (merge) operation.

Syntax

```
Reference_Syntax.mark = "once | none | global | dataref"
```

Values

Type	Values
String	• `once`(default) • `none` • `global` • `dataRef` The node representing the enclosing object binds to a node in the Data model in accordance with the standard matching rules. • `none` • `global` • `dataRef` The node representing the enclosing object is transient. It will not be bound to any node in the Data model. • `global` • `dataRef` The containing field is global. If the normal matching rules fail to provide a match for it, the data-binding process looks outside the current record for data to bind to the field. • `dataRef` The containing field binds to the node in the Data model specified by the accompanying ref property.

Applies to

Model	Object
FormModel	bind
sourceSetModel	bind

Version

XFA 2.1

Examples

You should set the field global property before the merge.

JavaScript

```
TextField1.bind.match = "global";
```

FormCalc

```
TextField1.bind.match = "global"
```

max

Specifies the maximum number of occurrences for the enclosing container, or `-1` to set no upper boundary for occurrences.

The`max`property defaults to the value of the min property. In the absence of a min property, the default is `1`.

Syntax

```
Reference_Syntax.max = "1 | -1 | integer"
```

Values

Type	Values
String	• `1`(default) • `-1` • Any valid integer. No upper boundary limit. • Any valid integer.

Applies to

Model	Object
FormModel	instanceManager occur
sourceSetModel	recordSet

Version

XFA 2.1

Examples

JavaScript

```
Subform1.occur.max = "3";
```

FormCalc

```
Subform1.occur.max = "3"
```

maxChars

Specifies the maximum number of characters that this text value can enclose.

Syntax

```
Reference_Syntax.maxChars = "0 | integer"
```

Values

Type	Values
String	• `0`(default) • Any valid integer value. If you do not specify a value for this property, or if the value is an empty string, there is no maximum.

JavaScript

```
TextField1.value.text.maxChars = "5";
```

FormCalc

```
TextField1.value.text.maxChars = "5"
```

maxH

Specifies the maximum height for layout purposes.

The maxH property is relevant only if the enclosing container object is growable and has an `h` property whose value is null. If you do not specify a value for this property, there is no upper limit. If you specify a value for the `h` property, the container cannot grow vertically and this property is ignored.

Syntax

```
Reference_Syntax.maxH = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.maxH = "3in";
```

FormCalc

```
TextField1.maxH = "3in"
```

maxLength

Specifies the maximum (inclusive) allowable length of the content or `-1` to indicate that no maximum length is imposed.

The interpretation of this property is affected by the content type. In this case this property specifies the maximum (inclusive) allowable length of the content in characters. For instance, where the content type is `text/plain` this property represents the maximum (inclusive) number of characters of plain text content. Similarly, where the content type is `text/html` this property represents the maximum (inclusive) number of characters of content excluding markup, and insignificant whitespace.

Syntax

```
Reference_Syntax.maxLength = "-1 | integer"
```

Values

Type	Values
String	• `-1`(default) • Any valid integer value.

Applies to

Model	Object
FormModel	exData

Version

XFA 2.1

maxW

Specifies the maximum width for layout purposes.

If you do not specify a value for this property, there is no maximum. This property is relevant only if the enclosing container object is growable and has a `w` property whose value is null. If you specify a value for the `w` property, the container cannot grow horizontally and this property is ignored.

Syntax

```
Reference_Syntax.maxW = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.maxW = "3in";
```

FormCalc

```
TextField1.maxW = "3in"
```

mergeMode

Controls which data merge algorithm is used for a given subform.

Fragments inherit the `mergeMode` setting that is specified by the root subform of the hosting document.

Designer sets the `mergeMode` property of the root subform to `consumeData` unless a model or schema that contains associations is used as the data connection for the form. In those cases, the `mergeMode` property is set to `matchTemplate`.

Syntax

```
Reference_Syntax.mergeMode = "consumeData | matchTemplate"
```

Values

Type	Values
String	• `consumeData` (default) • Uses a data merge algorithm where a single data element can cause the creation of only a single subform. • `matchTemplate` • Uses a data merge algorithm that supports relational data models and allows a single data element to generate a single instance of multiple subforms. Disables the `addInstance`, `removeInstance`, and `moveInstance` functions of the `instanceManager` object.

Applies to

Model	Object
FormModel	subform

Version

XFA 3.1

min

Specifies the minimum number of occurrences for the enclosing container.

Syntax

```
Reference_Syntax.min = "1 | integer"
```

Values

Type	Values
String	• `1`(default) • Any valid integer.

Applies to

Model	Object
FormModel	instanceManager occur

Version

XFA 2.1

Examples

JavaScript

```
Subform1.occur.min = "0";
```

FormCalc

```
Subform1.occur.min = "0"
```

RELATED LINKS:

Manipulating instances of a subform

minH

Specifies the minimum height for layout purposes.

The `minH` property is relevant only if the enclosing container object is growable and has an `h` property whose value is null. If you supply a value for the `h` property, the container cannot grow vertically, and this property is ignored.

Syntax

```
Reference_Syntax.minH = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.minH = "0.5in";
```

FormCalc

```
TextField1.minH = "0.5in"
```

minW

Specifies the minimum width for layout purposes.

The `minW` property is relevant only if the enclosing container object is growable and has a `w` property whose value is null. If you supply a value for the `w` property, the container cannot grow horizontally, and this property is ignored.

Syntax

```
Reference_Syntax.minW = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.minW = "0.5in";
```

FormCalc

```
TextField1.minW = "0.5in"
```

model

Specifies the model for the current object.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.model
```

Values

Type	Values
Object	The root object for the particular XML Form Object Model, such as connectionSet or dataModel.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.model.name;
```

FormCalc

```
xfa.model.name
```

modifier

Determines whether the modifier key (for example, Ctrl on Microsoft Windows®) is held down when a particular event executes.

JavaScript Syntax

```
Reference_Syntax.modifier = false | true;
- or -
Reference_Syntax.modifier = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.modifier = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` Modifier key is held down during event execution. • `false | 0` Modifier key is not held down during event execution.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.modifier;
```

FormCalc

```
xfa.event.modifier
```

moduleHeight

Determines the height of a set of bars used to encode one character of supplied text.

The allowable range of heights varies from one barcode pattern to another. The form design must not specify a height outside the allowable range.

Syntax

```
Reference_Syntax.moduleHeight = "5mm | measurement"
```

Values

Type	Values
String	• `5mm`(default for 2D barcodes) • Any valid measurement. When this property is not supplied, the default behavior depends on the type of barcode. One-dimensional barcodes grow to the height of the enclosing field, limited by the allowable height range. 2D barcodes default to a module height of`5mm`.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").moduleHeight = "5mm";
```

FormCalc

```
Code11BarCode1.ui.#barcode.moduleHeight = "5mm"
```

moduleWidth

Specifies different aspects of a barcode depending on the class of barcodes being used.

For one-dimensional software barcodes the parser sets the width of the narrow bars to the value of this property. The width of the wide bars is derived from that of the narrow bars. The allowable range of widths varies from one barcode format to another. The form design must not specify a value outside the allowable range. If `moduleWidth` is supplied, then the dataLength property is ignored. Conversely moduleWidth has no default, so when the dataLength property is not supplied, then `moduleWidth` must be supplied.

For 2D hardware barcodes, `moduleWidth` either has no effect or has the same effect as for a software barcode, depending upon the printer and barcode. The allowable range for the value varies between printers and between barcodes.

For 2D barcodes the value of this property determines the module width. A module is a set of bars encoding one symbol. Usually a symbol corresponds to a character of supplied data. The allowable range of widths varies from one barcode format to another. The form design must not specify a value outside the allowable range.

Syntax

```
Reference_Syntax.moduleWidth = "0.25mm | measurement"
```

Values

Type	Values
String	• `0.25mm`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").moduleWidth = "25mm";
```

FormCalc

```
Code11BarCode1.ui.#barcode.moduleHeight = "25mm"
```

multiLine

Specifies whether the text may span multiple lines.

The`multiLine`property is useful for clients such as HTML browsers that have two types of text editing interfaces.

Syntax

```
Reference_Syntax.multiLine = "1 | 0"
```

Values

Type	Values
String	• `1`(default) • `0` The text may span multiple lines. • `0` The text is limited to a single line.

Applies to

Model	Object
FormModel	textEdit

Version

XFA 2.1

Examples

JavaScript

```
TextField1.resolveNode("ui.#textEdit").multiLine = "0";
```

FormCalc

```
TextField1.ui.#textEdit.multiLine = "0"
```

RELATED LINKS:

Concatenating data values

name

Specifies an identifier that may be used to specify this object or event in script expressions.

For example, this property specifies the name of the host application, and on an interactive PDF form, it returns Acrobat.

Syntax

```
Reference_Syntax.name
```

Values

Type	Values
String	A string up to 255 characters.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.name;
```

FormCalc

```
xfa.host.name
```

RELATED LINKS:

Referencing objects

Changing the background color

newContentType

Specifies the content type of the newText property.

For example, if newContentType='text/html', newText will contain an XHTML fragment.

Syntax

```
Reference_Syntax.newContentType = "allowRichText | plainTextOnly"
```

Values

Type	Values
String	• `allowRichText`(default) • `plainTextOnly` The field supports rich text. • `plainTextOnly` The field does not support rich text. Even if markup is present in the data, it should be passed through rather than interpreted. However, it is not guaranteed whether downstream processing will respond to the markup.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.newContentType = "plainTextOnly";
```

FormCalc

```
xfa.event.newContentType = "plainTextOnly"
```

newText

Specifies the content of the field after it changes in response to user actions.

Syntax

```
Reference_Syntax.newtext = "string"
```

Values

Type	Values
String	A string up to 255 characters.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
TextField2.rawValue = xfa.event.newText;
```

FormCalc

```
TextField2 = xfa.event.newText
```

RELATED LINKS:

Referencing objects

Populating a drop-down list

next

Specifies the constraints on keeping a form object together with the next container within a content area or page.

Syntax

```
Reference_Syntax.next = "none | contentArea | pageArea"
```

Values

Type	Values
String	• `none`(default) • `contentArea` • `pageArea` The determination of whether a form object is rendered in the same content area or page together with the next container, respectively, is delegated to the processing application. No special keep constraints will be forced. • `contentArea` • `pageArea` The form object is requested to be rendered in the same content area with the next container. • `pageArea` The form object is requested to be rendered in the same page with the next container.

Applies to

Model	Object
FormModel	keep

Version

XFA 2.1

Examples

JavaScript

```
Subform1.keep.next = "contentArea";
```

FormCalc

```
Subform1.keep.next = "contentArea"
```

nodes

Returns a list of all child objects of the current object.

NOTE: *Because the form DOM is sparse, nodes only get generated when they are accessed or needed. Accessing the nodes property is not an accurate way to determine the children or properties of an object.*

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.nodes
```

Values

Type	Values
Object	A list of XML Form Object Model objects.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.nodes; // Single line example

// This example displays the names of the children of Subform1
var oNodes = this.nodes;
var nodesLength = oNodes.length;

for (var i = 0; i < nodesLength; i++) {
xfa.host.messageBox(oNodes.item(i).name)
}
```

FormCalc

```
Subform1.nodes // Single line example

// This example displays the names of the children of Subform1
var oNodes = Subform1.nodes
var nodesLength = oNodes.length;

for (var i = 0; i < nodesLength; i++) {
xfa.host.messageBox(oNodes.item(i).name)
}
```

RELATED LINKS:

Creating a node in the data model

Changing the background color

Populating a drop-down list

nonRepudiation

Specifies an acceptable key usage extension that must be present in the signing certificate.

Syntax

```
Reference_Syntax.nonRepudiation = "Yes | No | empty_string"
```

Values

Type	Values
String	• `Yes`(default) • `No` • `""` The value must be set in the certificate for it to be acceptable. • `No` • `""` The value must not be set in the certificate for it to be acceptable. • `""` If unspecified or specified as an empty string, the certificate's attribute is disregarded.

Applies to

Model	Object
FormModel	keyUsage

Version

XFA 2.5

ns

Returns the namespace for the object.

If the particular object is the root of a model, then this property returns the namespace for the model.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.ns
```

Values

Type	Values
Object	A valid string representing the namespace of the current object, or the namespace of the current model if the root object is the currently selected object.

Applies to

nodeclass class

Version

XFA 2.1

nullTest

Controls whether a field is mandatory on a form or if it can be left empty.

The`nullTest`property can be used for validations. A `nullTest` validation is evaluated only as a result of pre-event validation , such as preSubmit, prePrint, preSave, or preExecute, depending on the value of `$config.present.validate`, or an explicit scripting call to `execValidate`.

A container becomes invalid as the result of evaluating the first validation test that fails. A container becomes valid if no validation tests fail. A container is valid when no validation tests are evaluated for that container. In that validation context, `nullTest` is not evaluated and there is no other validation test.

For example, a field that is currently invalid because of a `nullTest` validation could become valid as a result of a value being entered. Returning to the field and entering an empty value does not cause the `nullTest` validation to be executed automatically, so the field could become valid again. A subsequent attempt to submit the form would cause the field to become invalid again because of the `nullTest`.

If the `rawValue` for a field is null or empty, the `nullTest`validation failed .

Syntax

```
Reference_Syntax.nullTest = "disabled | error | warning"
```

Values

Type	Values
String	• `disabled`(default) • `error` • `warning` • `dismiss`: The user understands the form's recommendation and wishes to return to the form and satisfy this constraint. • `override`: The user understands the form's recommendation, but has chosen to contravene this constraint. Do not perform this test (default). The form object is permitted to have a value of null. The field can be left without a value and it will not negatively impact the validity of the form. This value disables the validation test. • `error` • `warning` • `dismiss`: The user understands the form's recommendation and wishes to return to the form and satisfy this constraint. • `override`: The user understands the form's recommendation, but has chosen to contravene this constraint. Emit an error message and refuse to accept an empty field. The form object is required to have a non-null value. • `warning` • `dismiss`: The user understands the form's recommendation and wishes to return to the form and satisfy this constraint. • `override`: The user understands the form's recommendation, but has chosen to contravene this constraint. Emit a warning message if the field is empty, but allow the user to proceed to the next field. The message must inform the user that the form object is recommended to have a value, and provide two choices: • `dismiss`: The user understands the form's recommendation and wishes to return to the form and satisfy this constraint. • `override`: The user understands the form's recommendation, but has chosen to contravene this constraint.

Applies to

Model	Object
FormModel	validate

Version

XFA 2.1

Examples

JavaScript

```
TextField1.validate.nullTest = "error";
```

FormCalc

```
TextField1.validate.nullTest = "error"
```

numbered

Specifies whether the page area is considered a numbered page area.

Numbered page areas contribute to the normal incrementing of page numbers, whereas unnumbered pages occur without incrementing page numbering.

Syntax

```
Reference_Syntax.numbered = "auto | none"
```

Values

Type	Values
String	• `auto`(default) • `none` The page area represents a numbered page area. Therefore the instantiation of the page area contributes to the incrementing of the current page area number. • `none` The page area does not contribute to the incrementing of the current page area numbering.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.numbered = "none";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.numbered = "none"
```

numberOfCells

Indicates the number of cells drawn for a comb field. This is not affected by the number of characters in the field's value.

Syntax

```
Reference_Syntax.numberOfCells = "0 | integer"
```

Values

Type	Values
Integer	• `0`(default) • *integer* A single cell is drawn for the comb field, or if the maxChars property is set, the number of cells corresponds to the value of maxChars. • *integer* A valid integer representing the total number of cells drawn for the comb field.

Applies to

Model	Object
FormModel	comb

Version

XFA 2.5

Examples

JavaScript

```
TextField1.resolveNode("ui.#textEdit.comb").numberOfCells = "6";
```

FormCalc

```
TextField1.ui.#textEdit.comb.numberOfCells = "6"
```

numPages

Returns the number of pages in the current document.

Syntax

```
Reference_Syntax.numPages
```

Values

Type	Values
Integer	A valid integer representing the total number of pages.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.numPages;
```

FormCalc

```
xfa.host.numPages
```

RELATED LINKS:

Referencing objects

Working with page numbers and page counts

Disabling all form fields

oddOrEven

Specifies whether a page is odd or even for pagination within a set of pages.

Syntax

```
Reference_Syntax.oddOrEven = "any | odd | even"
```

Values

Type	Values
String	• `any`(default) • `odd` • `even` Matches any page within a document. • `odd` • `even` Matches the first page within a document and every other page after that, irrespective of page numbering. • `even` Matches the second page within a document and every other page after that, irrespective of page numbering.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.5

Examples

The reference syntax expression will vary, depending on the object from which it is invoked.

JavaScript

```
xfa.form.form1.pageSet.Page1.oddOrEven = "even";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.oddOrEven = "even"
```

oneOfChild

Retrieves or sets that child object in the case where a parent object can only have one of a particular child object.

Syntax

```
Reference_Syntax.oneOfChild = "object"
```

Values

Type	Values
Object	The one of child object.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
TextField1.value.oneOfChild;
```

FormCalc

```
TextField1.value.oneOfChild
```

RELATED LINKS:

Referencing objects

Concatenating data values

open

Determines when the choice list is presented by interactive applications.

Syntax

```
Reference_Syntax.open = "userControl | onEntry | always | multiSelect"
```

Values

Type	Values
String	• `userControl`(default) • `onEntry` • `always` • `multiSelect` The list drops down when the user clicks on a button or makes some other appropriate gesture. The list disappears when the cursor moves outside the list or some other appropriate user-interface event occurs. • `onEntry` • `always` • `multiSelect` The list drops down on entry into the field. It disappears upon exit from the field. • `always` • `multiSelect` The list is displayed when the field is visible. • `multiSelect` The user can select multiple entries from the list by pressing the Shift key while making selections. The list of choices is displayed when the field is visible.

Applies to

Model	Object
FormModel	choiceList

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.resolveNode("ui.#choiceList").open = "always";
```

FormCalc

```
DropDownList1.ui.#choiceList.open = "always"
```

operation

Indicates the digital signature operation to perform when used in conjunction with the signData object, or the object to link to when used in conjunction with the traverse object.

Syntax

```
Reference_Syntax.signData.operation = "sign | verify | clear"
```

- or -

```
Reference_Syntax.traverse.operation = "next | up | down | left | right | back |
first"
```

Values

Type	Values
String	For digital signatures (using the`signData`object): • `sign` • `verify` • `clear` Add an XML signature to the XML data being submitted. This operation does not modify the application's active document. • `verify` • `clear` Verifies an XML signature. If the verification fails, the submission processes are canceled and the application issues a message indicating why the submission failed. This operation is performed before any signature is created or cleared. • `clear` Removes an XML signature, if it exists, from the XML data being submitted. This operation does not modify the application's active document and is performed before any signature is created.
	For object-linking (using the`traverse`object): • `next`(default) Used when the user presses the Tab key or enters the final character in a fixed-width field. However, the same chain of next links is also traversed by the screen reader when reading the form. Defaults to left-to-right top-to-bottom order. The chain of next links can include boilerplate objects, but these objects cannot accept input focus. Therefore, when advancing focus to the next form object, tabbing continues until an object that accepts input focus is reached. You must ensure that the form design does not present a non-terminating loop. This property is used only when the container is a subform or subform set. The link points to the object that gains focus when the container is entered. In effect the container delegates focus via this link. Defaults to the first container that is a child of this container, in top-to-bottom left-to-right order.

Applies to

Model	Object
connectionSetModel	wsdlConnection
FormModel	signData traverse

Version

XFA 2.4

orientation

Specifies the orientation of the medium.

Syntax

```
Reference_Syntax.orientation = "portrait | landscape"
```

Values

Type	Values
String	• `portrait`(default) • `landscape` The orientation of the medium places the short edge at the top. • `landscape` The orientation of the medium places the long edge at the top.

Applies to

Model	Object
FormModel	medium

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.medium.orientation = "landscape";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.medium.orientation = "landscape"
```

output

Specifies the output message associated with a particular WSDL connection operation.

Syntax

```
Reference_Syntax.output = "string"
```

Values

Type	Values
String	A valid string representing the output message.

Applies to

Model	Object
connectionSetModel	operation

Version

XFA 2.1

Examples

JavaScript

```
xfa.connectionSet.DataConnection.operation.output = "Connection successful.";
```

FormCalc

```
xfa.connectionSet.DataConnection.operation.output = "Connection successful."
```

overflowLeader (deprecated)

Specifies the subform to place at the top of the content area or page when it is entered as a result of an overflow.

As of XFA version 2.8, this property is now deprecated. See leader.

Syntax

```
Reference_Syntax.overflowLeader = "string"
```

Values

Type	Values
String	A valid string representing the name or fully qualified reference syntax expression of a subform.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.overflowLeader = "Subform2";
```

FormCalc

```
Subform1.break.overflowLeader = "Subform2"
```

overflowTarget (deprecated)

Specifies the explicit content area that will be the transition target when the current content area or page area overflows.

As of XFA version 2.8, this property is now deprecated. See `overflow.target`.

Syntax

```
Reference_Syntax.overflowTarget = "string"
```

Values

Type	Values
String	The name or fully qualified reference syntax expression of a content area.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.overflowTarget = "xfa.form.form1.pageSet.Page1.Content_Main";
```

FormCalc

```
Subform1.break.overflowTarget = "xfa.form.form1.pageSet.Page1.Content_Main"
```

overflowTrailer (deprecated)

Specifies the subform to place at the bottom of the content area or page when it overflows.

The vertical space required for the overflow trailer must be reserved.

As of XFA version 2.8, this property is now deprecated. See trailer.

Syntax

```
Reference_Syntax.overflowTrailer = "string"
```

Values

Type	Values
String	A valid string representing the name or fully qualified reference syntax expression of a subform.

Applies to

Model	Object
FormModel	break(deprecated)

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.overflowTrailer = "Subform2";
```

FormCalc

```
Subform1.break.overflowTrailer = "Subform2"
```

override

When used with the calculate object, the `override` property indicates whether the field allows overrides to occur and disables or enables calculations. When used with the value object, the `override` property indicates whether a calculation override has occurred.

When there is no accompanying calculate object, this property has no effect and the user can enter a value in the field.

Syntax

```
Reference_Syntax.override = "error | ignore | disabled | warning"
```

Values

Type	Values
String	• `error` • `ignore` • `disabled` • `warning` • `Dismiss`indicates that the user wants to use the calculated value. • `Override`indicates that the user understands the message, but chooses to override the calculated value. The calculation is enabled and the user cannot override the calculated value. If the user tries to override the calculated value, the processing application displays an error message. To avoid the need for error messages, form designers can define these fields as read-only. This is the default override value if the`calculate`object is included in the container object. • `ignore` • `disabled` • `warning` • `Dismiss`indicates that the user wants to use the calculated value. • `Override`indicates that the user understands the message, but chooses to override the calculated value. The calculated value is supplied as a default. If the user overrides the value, the processing application allows the override to occur without displaying any warning message to the user. This is the default override value if the`calculate`object is omitted from the container. • `disabled` • `warning` • `Dismiss`indicates that the user wants to use the calculated value. • `Override`indicates that the user understands the message, but chooses to override the calculated value. The calculation is disabled. In an interactive context, the user can enter data in the field. The effect of this override value is independent of user action. The`disabled`value allows an event script to dynamically enable or disable a calculate object. • `warning` • `Dismiss`indicates that the user wants to use the calculated value. • `Override`indicates that the user understands the message,

Applies to

Model	Object
FormModel	calculate value

Version

XFA 2.1

Examples

JavaScript

```
TextField1.calculate.override = "disabled";
```

FormCalc

```
TextField1.calculate.override = "disabled"
```

pagePosition

Specifies a page’s position within a set of pages.

Syntax

```
Reference_Syntax.pagePosition = "any | first | last | rest | only"
```

Values

Type	Values
String	• `any`(default) • `first` • `last` • `rest` • `only` Matches any pages with a contiguous set of pages. • `first` • `last` • `rest` • `only` Matches the first page within a contiguous sequence of pages. • `last` • `rest` • `only` Matches the last page within a contiguous sequence of pages. • `rest` • `only` Matches any page that is both not the first or the last in a sequence of pages. • `only` Matches a single page sequence.

Applies to

Model	Object
FormModel	pageArea

Version

XFA 2.5

Examples

The reference syntax expression will vary, depending on the object from which it is invoked.

JavaScript

```
xfa.form.form1.pageSet.Page1.pagePosition = "only";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.pagePosition = "only"
```

parent

Returns the parent object of the current object.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.parent
```

Values

Type	Values
Object	An XML Form Object Model object.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
TextField1.parent;
```

FormCalc

```
TextField1.parent
```

RELATED LINKS:

Referencing objects

Manipulating instances of a subform

Changing the background color

parentSubform

Specifies the parent subform (page) of this field.

Syntax

```
Reference_Syntax.parentSubform = "string"
```

Values

Type	Values
String	A valid string representing the name or fully qualified reference syntax expression of the parent subform object.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
TextField1.parentSubform;
```

FormCalc

```
TextField1.parentSubform
```

passwordChar

Specifies the character the form displays for each password character a user enters.

Syntax

```
Reference_Syntax.passwordChar = "* | character"
```

Values

Type	Values
String	• "*"(asterisk) (default) • Any valid single character.

Applies to

Model	Object
FormModel	passwordEdit

Version

XFA 2.1

Examples

JavaScript

```
PasswordField1.resolveNode("ui.#passwordEdit").passwordChar = "*";
```

FormCalc

```
PasswordField1.ui.#passwordEdit.passwordChar = "*"
```

permissions

Specifies the access permissions granted for a form that includes an author signature.

For information about author signatures, see signatureType.

Syntax

```
Reference_Syntax.permissions = "1 | 2 | 3"
```

Values

Type	Values
String	• `1` • `2`(default) • `3` No changes to the document are permitted. Any change to the document invalidates the signature. • `2`(default) • `3` The permitted changes are filling in forms, instantiating page templates, and signing. Other changes invalidate the signature. • `3` The permitted changes are those allowed by 2, as well as annotation creation, deletion, and modification. Other changes invalidate the signature.

Applies to

Model	Object
FormModel	mdp

Version

XFA 2.5

placement

Specifies the placement of the caption.

Syntax

```
Reference_Syntax.placement = "left | right | top | bottom | inline"
```

Values

Type	Values
String	• `left`(default) • `right` • `top` • `bottom` • `inline` Locates the caption to the left of the content. • `right` • `top` • `bottom` • `inline` Locates the caption to the right of the content. • `top` • `bottom` • `inline` Locates the caption above the content. • `bottom` • `inline` Locates the caption below of the content. • `inline` Locates the caption inline immediately before to the content.

Applies to

Model	Object
FormModel	caption

Version

XFA 2.1

Examples

JavaScript

```
TextField1.caption.placement = "left";
```

FormCalc

```
TextField1.caption.placement = "left"
```

platform

Returns the platform of the machine running the script.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.platform
```

Values

Type	Values
String	A valid string representing the operating system. For example, in the case of a PDF form in Acrobat, this property returns one of:`WIN`,`MAC`, or`UNIX`.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.platform;
```

FormCalc

```
xfa.host.platform
```

posture

Specifies the posture of the font.

Syntax

```
Reference_Syntax.posture = "normal | italic"
```

Values

Type	Values
String	• `normal`(default) • `italic` The font has a normal posture. • `italic` The font is italicized.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.posture = "italic";
```

FormCalc

```
TextField1.font.posture = "italic"
```

presence

Specifies an object’s visibility.

Syntax

```
Reference_Syntax.presence = "visible | invisible | hidden | inactive"
```

Values

Type	Values
String	• `visible`(default) • The object is visible. • `invisible` • The object is transparent. Although invisible, the object still takes up space. • `hidden` • The object is hidden. The form does not display the object and the object does not take up space on the form's layout. • `inactive` • Applies only to objects that represent containers: `field`, `exclGroup`, `subform`. For all other objects the inactive state should be treated the same as `hidden`. The container participates in the data merge process. Associated calculations and validations within the container must not fire. All event processing associated with the container must not occur. The rendering of the container must be the same as for the `hidden` state. • This value is available only for XFA 2.9 and newer processors. Older processors treat `presence="inactive"` as `presence="visible"`.

Applies to

Model	Object
FormModel	border caption corner draw edge exclGroup field fill items subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.presence = "hidden";
```

FormCalc

```
TextField1.presence = "hidden"
```

RELATED LINKS:

Making an object visible or invisible

preserve

Specifies widow/orphan-style constraints on the overflow behavior of the content within the enclosing container.

Syntax

```
Reference_Syntax.preserve = "0 | integer | all"
```

Values

Type	Values
String	• `0`(default) • `integer` • `all` The content is broken across an overflow boundary. • `integer` • `all` An integer value greater than zero specifies the minimum quantity of content that must transition across the overflow boundary. For instance, specifying an integer value of`2`would prevent a single line of content from being widowed across the overflow boundary; it would result in a minimum of two lines of content transitioning across the overflow boundary. • `all` Each paragraph of content must be kept intact and therefore cannot be broken across an overflow boundary.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.preserve = "all";
```

FormCalc

```
TextField1.para.preserve = "all"
```

prevContentType

Specifies the content type of the value specified for the prevText property.

For example, if `prevContentType='text/html'`, `prevText` contains an XHTML fragment.

Syntax

```
Reference_Syntax.prevContentType = "allowRichText | plainTextOnly"
```

Values

Type	Values
String	• `allowRichText`(default) • `plainTextOnly` The field supports rich text. • `plainTextOnly` The field does not support rich text.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.prevContentType = "plainTextOnly";
```

FormCalc

```
xfa.event.prevContentType = "plainTextOnly"
```

previous

Specifies the constraints on keeping a form object together with the previous container within a content area or page.

Syntax

```
Reference_Syntax.previous = "none | contentArea | pageArea"
```

Values

Type	Values
String	• `none`(default) • `contentArea` • `pageArea` The determination of whether a form object renders in the same content area or page together with the previous object or subform will be delegated to the processing application. No special constraints are forced. • `contentArea` • `pageArea` The form object is requested to be rendered in the same content area with the previous object or subform. • `pageArea` The form object is requested to be rendered in the same page with the previous object or subform.

Applies to

Model	Object
FormModel	keep

Version

XFA 2.1

Examples

JavaScript

```
Subform1.keep.previous = "contentArea";
```

FormCalc

```
Subform1.keep.previous = "contentArea"
```

prevText

Specifies the content of the field before it changes in response to the actions of a user.

The`prevText`value can be recalled, similar to an undo feature.

Syntax

```
Reference_Syntax.prevText
```

Values

Type	Values
String	A string up to 255 characters.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.prevText;
```

FormCalc

```
xfa.event.prevText
```

RELATED LINKS:

Referencing objects

Populating a drop-down list

printCheckDigit

Specifies whether to print the check digits in the human-readable text.

The parser ignores this property if the checksum property has a value of`0`, or if the checksum property has a value of `1` and the standard behavior for the barcode type is to not include a checksum.

Syntax

```
Reference_Syntax.printCheckDigit = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` Do not print the check digit in the human-readable text, only in the barcode itself. • `1` Append the check digit to the end of the human-readable text.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").printCheckDigit = "1";
```

FormCalc

```
Code11BarCode1.ui.#barcode.printCheckDigit = "1"
```

priority

Alters the search path for text to speak. Whichever object is named in this property moves to the front of the search path. The other objects retain their relative order.

Syntax

```
Reference_Syntax.priority = "custom | caption | name | tooltip"
```

Values

Type	Values
String	• `custom`(default) • `caption` • `name` • `tooltip` The search order is speak, tooltip, caption, the container’s name. • `caption` • `name` • `tooltip` The search order is caption, speak, tooltip, the container’s name. • `name` • `tooltip` The search order is the container’s name, speak, tooltip, caption. • `tooltip` The search order is tooltip, speak, caption, the container’s name.

Applies to

Model	Object
FormModel	speak

Version

XFA 2.1

Examples

JavaScript

```
TextField1.assist.speak.priority = "tooltip";
```

FormCalc

```
TextField1.assist.speak.priority = "tooltip"
```

pushCharacterCount

Specifies the minimum number of grapheme clusters, exclusive of any hyphen glyphs added to the start of the next line, allowed in a suffix for the hyphenation point to be considered. If the suffix is too short, the candidate is rejected.

Syntax

```
Reference_Syntax.pushCharacterCount = "integer"
```

Values

Type	Values
Integer	A valid integer representing the minimum grapheme clusters. The default value is 3.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

radius

Specifies the radius of the corner.

The`radius`property always influences the appearance of round corners, but will also determine the depth of an inverted square corner. Each edge is trimmed from its end points by the corner radius, regardless of the values of the inverted and join properties. In general, this is of no consequence, because the corner will visibly join with the edges at their trim points. However, if the corner specifies a presence if invisible, the trimming of the edges will become apparent, even when the corner is square and not inverted.

Syntax

```
Reference_Syntax.radius = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	corner

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.corner.radius = "0.5in";
```

FormCalc

```
TextField1.border.corner.radius = "0.5in"
```

radixOffset

Specifies an offset value for the anchor of the paragraph.

Syntax

```
Reference_Syntax.radixOffset = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
NumericField1.para.radixOffset = "0in";
```

FormCalc

```
NumericField1.para.radixOffset = "0in"
```

rate

Specifies the percentage of stipple color that is stippled over a solid background color.

The background color is not specified by the stipple object.

Syntax

```
Reference_Syntax.rate = "50 | integer"
```

Values

Type	Values
String	• `50`(default) • Any valid integer value between`0`and `100`, where`0`results in no visible stippling drawn over the background color and`100`results in a complete obscuring of the background color by filling the area completely with stipple color. Any stipple rate between`0`and`100`results in a varying blend of background color and an overlaid stipple color. For example, a stipple rate of`50`results in an equal blend of background color and stipple color.

Applies to

Model	Object
FormModel	stipple

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.fill.stipple.rate = "75";
```

FormCalc

```
TextField1.border.fill.stipple.rate = "75"
```

rawValue

Specifies the unformatted value of the current object.

For example, this property can return or set the value of a field.

Syntax

```
Reference_Syntax.rawValue = "value"
```

Values

Type	Values
Varies	Values differ depending on the referencing object. For example, for objects that require a color value, this property specifies a comma-separated list of values for each color component of the color space in the form `r,g,b`. Alternatively, the `rawValue` property of a `field` object is a string representing the actual value displayed in the field, or the field's bound value.

Applies to

Model	Object
FormModel	draw exclGroup field

Version

XFA 2.1

Examples

JavaScript

```
TextField1.rawValue = "Hello";
```

FormCalc

```
TextField1.rawValue = "Hello"
```

RELATED LINKS:

Referencing objects

Creating a node in the data model

Getting or setting object values

Working with page numbers and page counts

Concatenating data values

Calculating totals

Populating a drop-down list

Using radio buttons and check boxes

Determining that a form has changed

ready

Specifies whether the form layout process is complete and scripting tasks can begin.

NOTE: *This property is read only.*

JavaScript Syntax

```
Reference_Syntax.ready;
```

FormCalc Syntax

```
Reference_Syntax.ready
```

Values

Type	Values
Boolean	`true | 1`(default) Layout process is complete. • `false | 0` Layout process is not complete.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.ready;
```

FormCalc

```
xfa.layout.ready
```

recordsAfter

Returns the number of records in the data window following the current record.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.recordsAfter
```

Values

Type	Values
Integer	A valid integer value between `0` and the index value of the last record in the source data.

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.recordsAfter;
```

FormCalc

```
xfa.dataWindow.recordsAfter
```

For an example of using the `recordsAfter` property to browse data records, see the example *Browsing records stored in a data file* available at www.adobe.com/go/dev_lc_scripting_samples.

recordsBefore

Returns the number of records that are in the data window prior to the current record.

***NOTE:** This property is read only.*

Syntax

```
Reference_Syntax.recordsBefore
```

Values

Type	Values
Integer	A valid integer value between `0` and the index value of the first record in the source data.

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.recordsBefore;
```

FormCalc

```
xfa.dataWindow.recordsBefore
```

For an example of using the `recordsBefore` property to browse data records, see the example *Browsing records stored in a data file* available at www.adobe.com/go/dev_lc_scripting_samples.

reenter

Specifies whether the `enter` event is occurring for the first time. The `enter` event occurs each time a user clicks in a field.

The first time a user clicks in a field, an `enter` event is sent with the `reenter` property set to `false`. If the user clicks in the field again or presses the Enter key, another `enter` event is sent with the `reenter` property set to `true`.

JavaScript Syntax

```
Reference_Syntax.reenter = false | true;
- or -
Reference_Syntax.reenter = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.reenter = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1` • `false | 0` The enter event has already occurred. • `false | 0` The enter event occurs for the first time.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.reenter = 0;
```

FormCalc

```
xfa.event.reenter = 0
```

ref

Specifies a reference syntax expression defining the node in the data model to which the enclosing container will bind.

Syntax

```
Reference_Syntax.ref = "string"
```

Values

Type	Values
String	A valid reference syntax expression.

Applies to

Model	Object
FormModel	bind bindItems connect event items traverse

Model	Object
sourceSetModel	bind connect

Version

XFA 2.1

relation

Specifies the relationship among the members of the set.

NOTE: *Beginning with Acrobat 8.0, this property is read only.*

Syntax

`Reference_Syntax.relation` (Acrobat 8.x and later)

`Reference_Syntax.relation = "ordered | unordered | choice"` (Acrobat 7.x and earlier)

Values

Type	Values
String	• `ordered`(default) • `unordered` • `choice` Instantiates members in the order in which they are declared in the form design. This has the effect of potentially re-ordering the content to satisfy the document order of the form design. • `unordered` • `choice` Instantiates the members in data order regardless of the order in which they are declared. This has the effect of potentially re-ordering the set to satisfy the ordering of the content. • `choice` The members are exclusive of each other, and only one member may be instantiated. The determination of which member to instantiate is based upon the data.

Applies to

Model	Object
FormModel	subformSet

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.resolveNode("#subformSet").relation;
```

FormCalc

```
xfa.form.form1.#subformSet.relation
```

relevant

Controls whether a form object is included when the form is printed.

Syntax

```
Reference_Syntax.relevant = "+print | -print"
```

Values

Type	Values
String	• `+print | print`(default for visible objects) Forces a particular object to appear when the form is printed, regardless of the object's presence property setting. • `-print`(default for invisible or hidden objects) Forces an object not to appear when the form is printed, regardless of the object's presence property setting.

Applies to

Model	Object
FormModel	area border contentArea draw exclGroup field pageArea pageSet subform subformSet value

Version

XFA 2.1

Examples

JavaScript

```
Button1.relevant = "-print";
```

FormCalc

```
Button1.relevant = "-print"
```

RELATED LINKS:

Making an object visible or invisible

remainCharacterCount

Specifies the minimum number of grapheme clusters, exclusive of any hyphen glyphs added to the end of the line, allowed in a prefix for the hyphenation point to be considered. If the prefix is too short, the candidate is rejected.

Syntax

```
Reference_Syntax.remainCharacterCount = "integer"
```

Values

Type	Values
Integer	A valid integer representing the number of grapheme clusters. The default value is `3`.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

reserve

A measurement value that specifies the height or width of the caption.

The effect of this property is determined by the placement property. When the caption is placed at the left or right, the`reserve`property specifies the height of the caption region. When the caption is placed at the top or bottom, the`reserve`property specifies the width. When the caption is placed inline, the`reserve`property is ignored.

A reserve of `0`sets the caption area to auto-fit. It adjusts the size of the object to fit the caption.

Syntax

```
Reference_Syntax.reserve = "measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	caption

Version

XFA 2.1

Examples

JavaScript

```
TextField1.caption.reserve = "1.5in";
```

FormCalc

```
TextField1.caption.reserve = "1.5in"
```

restoreState

Restores the form nodes of a form to their original state, including resetting the visual properties of fields such as changes to border colors.

Syntax

```
Reference_Syntax.restoreState = "none | manual | auto"
```

Values

Type	Values
String	• `none`(default): The state and restore information are not saved. • `manual`: Specific properties are saved and restored using script objects. • The checksum is verified. • All state information is restored using the restore method. • Field values and calculation overrides are restored if the checksum was valid. • `auto`(default for new forms): Automatically saves and restores the form to its original state. When opening a certified form, the state will not be restored. On an uncertified form, certification of the document will not be allowed. • The checksum is verified • After the merge step is complete but prior to calculations being executed, each form node will have its state restored using the saved form model only if the checksum was valid. • Field values and calculation overrides are restored if the checksum was valid. If the root subform uses this value, the following properties are saved and restored: • The checksum is verified. • All state information is restored using the restore method. • Field values and calculation overrides are restored if the checksum was valid. • `auto`(default for new forms): Automatically saves and restores the form to its original state. When opening a certified form, the state will not be restored. On an uncertified form, certification of the document will not be allowed. • The checksum is verified • After the merge step is complete but prior to calculations being executed, each form node will have its state restored using the saved form model only if the checksum was valid. • Field values and calculation overrides are restored if the checksum was valid. The`auto`setting can not be used for certified documents. If the root subform uses this value, the following properties and saved and restored: • The checksum is verified • After the merge step is complete but prior to calculations

Applies to

Model	Object
FormModel	subform

Version

XFA 2.5

Examples

JavaScript

```
Subform1.restoreState = "auto";
```

FormCalc

```
Subform1.restoreState = "auto"
```

rightInset

Specifies the size of the right inset.

Syntax

```
Reference_Syntax.rightInset = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	margin

Version

XFA 2.1

Examples

JavaScript

```
Subform1.margin.rightInset = "0.25in";
```

FormCalc

```
Subform1.margin.rightInset = "0.25in"
```

role

Specifies the role played by the parent container.

Syntax

```
Reference_Syntax.role = "string"
```

Values

Type	Values
String	A valid string specifying the role of the parent container. It may be used by speech-enabled XFA processing applications to provide information. For example, it may be assigned values borrowed from HTML, such as`TH`(table headings) and`TR`(table rows).

Applies to

Model	Object
FormModel	assist

Version

XFA 2.2

Examples

JavaScript

```
TextField1.assist.role = "TH";
```

FormCalc

```
TextField1.assist.role = "TH"
```

rotate

Rotates the object around its anchor point by the specified angle.

The angle represents degrees counter-clockwise with respect to the default position. The value must be a non-negative multiple of 90.

NOTE: *The direction of rotation is the same as for positive angles in PostScript®, PDF, and PCL but opposite to that in SVG.*

Syntax

```
Reference_Syntax.rotate = "0 | measurement"
```

Values

Type	Values
String	• `0`(default) • Any valid angle measurement.

Applies to

Model	Object
FormModel	draw field

Version

XFA 2.1

Examples

JavaScript

```
TextField1.rotate = "90";
```

FormCalc

```
TextField1.rotate = "90"
```

rowColumnRatio

An optional ratio of rows to columns for supported 2D barcodes.

The parser ignores this property if dataRowCount and dataColumnCount properties are specified.

When `rowColumnRatio` is supplied, the barcode grows to the number of rows required to hold the supplied data. If the last row is not filled by the supplied data it is padded out with padding symbols.

Syntax

```
Reference_Syntax.rowColumnRatio = "string"
```

Values

Type	Values
String	A valid string representing the ratio of rows to columns.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

runAt

Specifies what application can execute the script.

Keep in mind these points when specifying the application that can execute a script:

- The runAt setting is enforced even if another script calls the script.

- Scripts in forms designed for printing run at the server even when you set the scripts to run at the client.
- The preSubmit event does not execute in interactive forms and forms designed for printing when you set the script to run at the server.

Syntax

```
Reference_Syntax.runAt = "client | server | both"
```

Values

Type	Values
String	• `client`(default) • `server` • `both` The script runs only on the client. • `server` • `both` The script runs only on the server. • `both` The script runs on both client and server.

Applies to

Model	Object
FormModel	execute script

Version

XFA 2.1

Examples

JavaScript

```
NumericField1.calculate.script.runAt = "both";
```

FormCalc

```
NumericField1.calculate.script.runAt = "both"
```

save

Determines whether the values in a particular column represent both display and bound values, or if the data in the column represents bound values only.

Syntax

```
Reference_Syntax.save = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The values supplied by this object are for display only. • `1` The values supplied by this object may be entered into the field. At least one column must have a value of`1`. If multiple columns have a value set to`1`, then the parser saves the first column first column with a value of`1`that is encountered.

Applies to

Model	Object
FormModel	items

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.resolveNode("#items").save = "1";
```

FormCalc

```
DropDownList1.#items.save = "1"
```

savedValue

Returns a typed object, but you cannot assign this value. If the property is not saved, the value is the same as the currentValue.

Syntax

```
Reference_Syntax.savedValue = "typed object"
```

Values

Type	Values
Depends on the type of the property	The typed object for the property.

Applies to

Model	Object
FormModel	

Version

XFA 2.5

scope

Controls participation of the subform in data binding and reference syntax expressions. It is valid only on the root subform.

By default, a named subform takes part in data binding and can be referenced using a reference syntax expression. This property allows a subform to be given a name but remain transparent to data binding and reference syntax expressions.

Syntax

```
Reference_Syntax.scope = "name | none"
```

Values

Type	Values
String	• `name`(default) • `none` If the subform has a name it takes part in data binding and reference syntax expressions. Otherwise it does not. • `none` The subform does not take part in data binding and reference syntax expressions, even if it has a name.

Applies to

Model	Object
FormModel	subform

Version

XFA 2.1

Examples

JavaScript

```
Subform1.scope = "none";
```

FormCalc

```
Subform1.scope = "none"
```

scriptTest

Controls validation by the enclosed script.

Scripts specified as part of a validation should make no assumptions as to how the processing application might use the validation results, or when the `validate` object is invoked. In particular, the script should not attempt to provide feedback to a user or alter the state of the form in any way.

The`scriptTest`property can be used for validations. The `scriptTest` property is not evaluated on null fields. The `scriptTest` property can be an evaluated context during the lifetime of a form, such as when focus leaves a field.

Syntax

```
Reference_Syntax.scriptTest = "error | disabled | warning"
```

Values

Type	Values
String	• `disabled` • `error`(default) • `warning` • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Do not perform this test. The form object is permitted to have a value that does not conform to the script. The field can be left with a non-conforming value, and it will not negatively affect the validity of the form. This value disables the validation test. • `error`(default) • `warning` • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Emit a message and refuse to accept data that the script reports is erroneous. The form object is required to have a value that conforms to the script. • `warning` • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint. Emit a message if the script reports the data is erroneous but allow the user to proceed to the next field. The message must inform the user that the form object is recommended to have a value that conforms to the script's constraints, and provide two choices: • `dismiss`: The user understands the message and wants to return to the form to satisfy this constraint. • `override`: The user understands the message, but chooses to contravene this constraint.

Applies to

Model	Object
FormModel	validate

Version

XFA 2.1

Examples

JavaScript

```
NumericField1.validate.scriptTest = "disabled";
```

FormCalc

```
NumericField1.validate.scriptTest = "disabled"
```

selectedIndex

The index of the first selected item.

Setting this property sets the specified index and deselects any previously selected items. If you want to preserve the multiple selection state, use the getItemState or setItemState methods instead. Specifying an index value of `-1` clears the list. Getting this property returns a value of `-1` when no items are selected.

Syntax

```
Reference_Syntax.selectedIndex
```

Version

2.5

Values

Type	Values
Integer	A valid integer representing the index value of the first selected item. Specifying an index value of `-1`clears the list. Specifying any other valid value results in only that item being selected.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

selEnd

Specifies the index position of the last character of the text selection stored in the prevText property during a change event.

Syntax

```
Reference_Syntax.selEnd
```

Values

Type	Values
Integer	A valid integer representing the 0 based index value of the last character of the text selection. If no text is selected, this property is set to the position of the text entry cursor at the time the change is made. Changing the value of this property changes which characters will be replaced by the value of change and also repositions the text entry cursor.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.selEnd;
```

FormCalc

```
xfa.event.selEnd
```

selStart

Specifies the index position of the first character of the text selection stored in the prevText property during a change event.

Syntax

```
Reference_Syntax.selStart
```

Values

Type	Values
Integer	A valid integer representing the 0-based index value of the first character of the text selection. If no text is selected, this property is set to the position of the text entry cursor at the time the change is made. Changing the value of this property changes which characters will be replaced by the value of change and also repositions the text entry cursor.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.selStart;
```

FormCalc

```
xfa.event.selStart
```

server

Specifies the URL for a time stamp server.

Syntax

```
Reference_Syntax.server = "string"
```

Values

Type	Values
String	A valid string representing the URL for the time stamp server.

Applies to

Model	Object
FormModel	timeStamp

Version

XFA 2.5

shape

Specifies whether the check box or radio button displays with a square or round outline.

Syntax

```
Reference_Syntax.shape = "square | round"
```

Values

Type	Values
String	• `square`(default) • `round` The button appears with a square outline. • `round` The button appears with a round outline.

Applies to

Model	Object
FormModel	checkButton

Version

XFA 2.1

Examples

JavaScript

```
CheckButton1.resolveNode("ui.#checkButton").shape = "square";
```

FormCalc

```
CheckButton.ui.#checkButton.shape = "square"
```

shift

Specifies whether the Shift key is held down during a particular event.

JavaScript Syntax

```
Reference_Syntax.shift = false | true;
- or -
Reference_Syntax.shift = 0 | 1;
```

FormCalc Reference

```
Reference_Syntax.shift = 0 | 1
```

Values

Type	Values
Boolean	• `true | 1`(default) • `false | 0` The Shift key is pressed during event execution. • `false | 0` The Shift key is not pressed during event execution.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.shift;
```

FormCalc

```
xfa.event.shift
```

short

Specifies the length of the short edge of the `medium` object.

The length specified by the short property must be smaller than the length specified by the long property.

Syntax

```
Reference_Syntax.short = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	medium

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.medium.short;
```

FormCalc

```
xfa.form.form1.pageSet.Page1.medium.short
```

signatureType

Specifies how a form with a document signature is saved as certified PDF document.

Syntax

```
Reference_Syntax.signatureType = "filler | author"
```

Values

Type	Values
String	• `filler`(default) • `author` Saves the form as a certified PDF document. • `author` Documents with author signatures are referred to as certified. After the form is saved as a PDF document and opened in Acrobat, the user can click the signature field to certify the entire document.

Applies to

Model	Object
FormModel	mdp

Version

XFA 2.5

size

A measurement specifying the size of the check box or radio button outline representing either the height and width for a check box, or the diameter for a radio button.

Syntax

```
Reference_Syntax.size = "10pt | measurement"
```

Values

Type	Values
String	• `10pt`(default) • Any valid measurement. • For the`font`object, this property specifies the size of the font. • For the`checkButton`object, this property specifies either the height or width of a check box or the diameter of a radio button. The values for this property depend on the referencing object: • For the`font`object, this property specifies the size of the font. • For the`checkButton`object, this property specifies either the height or width of a check box or the diameter of a radio button.

Applies to

Model	Object
FormModel	checkButton font

Version

XFA 2.1

Examples

JavaScript

```
CheckBox1.resolveNode("ui.#checkButton").size = "20pt";
```

FormCalc

```
CheckBox1.ui.#checkButton.size = "20pt"
```

slope

Specifies the orientation of the line.

Syntax

```
Reference_Syntax.slope = "\ | /"
```

Values

Type	Values
String	• \\(backslash character) (default) • /(forward slash character) The line extends from the top-left to the bottom-right. • /(forward slash character) The line extends from the bottom-left to the top-right.

Applies to

Model	Object
FormModel	line

Version

XFA 2.1

Examples

JavaScript

```
Line1.resolveNode("value.#line").slope = "/";
```

FormCalc

```
Line1.value.#line.slope = "/"
```

soapFaultCode

Specifies any fault code that occurs when a user attempts to execute a web service connection.

Syntax

```
Reference_Syntax.soapFaultCode = "string"
```

Values

Type	Values
String	A valid string representing the SOAP fault code.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

soapFaultString

Specifies the descriptive message that corresponds to a particular web service connection fault code.

Syntax

```
Reference_Syntax.size = "10pt | measurement"
```

Values

Type	Values
String	A valid string representing the SOAP fault code message.

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

somExpression

Reads the reference syntax expression for this node.

Syntax

```
*Reference_Syntax*.somExpression
```

Values

Type	Values
String	A valid string representing a fully qualified reference syntax expression.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
TextField1.somExpression;
```

FormCalc

```
TextField1.somExpression
```

spaceAbove

Specifies the amount of vertical spacing and the maximum font leading for the first line of the paragraph.

Syntax

```
Reference_Syntax.spaceAbove = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.spaceAbove = "2pt";
```

FormCalc

```
TextField1.para.spaceAbove = "2pt"
```

spaceBelow

Specifies the amount of vertical spacing and the maximum font leading for the first line of the paragraph.

Syntax

```
Reference_Syntax.spaceAbove = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.spaceBelow = "2pt";
```

FormCalc

```
TextField1.para.spaceBelow = "2pt"
```

startAngle

Specifies the angle where the beginning of the arc renders.

Syntax

```
Reference_Syntax.startAngle = "0 | angle"
```

Values

Type	Values
String	• `0`(default) • A value greater than 0 and less than or equal to`360`.

Applies to

Model	Object
FormModel	arc

Version

XFA 2.1

Examples

JavaScript

```
Circle1.resolveNode("value.#arc").startAngle = "12";
```

FormCalc

```
Circle1.value.#arc.startAngle = "12"
```

startChar

Specifies an optional starting control character to add to the beginning of the barcode data.

The`starChar` property is ignored by the parser if the barcode pattern does not support the specified starting control character.

Syntax

```
Reference_Syntax.startChar = "character"
```

Values

Type	Values
String	A valid string representing a control character.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").startChar = "*";
```

FormCalc

```
Code11BarCode1.ui.#barcode.startChar = "*"
```

startNew

Determines whether it is necessary to start a new content area or page even when the current content area or page has the required name.

This property has no effect unless the before(deprecated) property has the value `contentArea` or `pageArea`.

Syntax

```
Reference_Syntax.startNew = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` Does not start a new content area or page area if the current one has the specified name. • `1` Starts a new content area or page. The name of the content area or page is supplied by the accompanying beforeTarget(deprecated) property.

Applies to

Model	Object
FormModel	break(deprecated) breakAfter breakBefore

Version

XFA 2.1

Examples

JavaScript

```
Subform1.break.startNew = "1";
```

FormCalc

```
Subform1.break.startNew = "1"
```

stateless

Determines whether a script’s variables persist from one invocation to the next.

Syntax

```
Reference_Syntax.stateless = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The script’s variables do persist (it is stateful). • `1` The script’s variables do not persist (it is stateless).

Applies to

Model	Object
FormModel	script

Version

XFA 2.1

Examples

JavaScript

```
TextField1.resolveNode("#event.#script").stateless = "1";
```

FormCalc

```
TextField1.#event.#script.stateless = "1"
```

stock

Specifies the name of a standard paper size.

Syntax

```
Reference_Syntax.stock = "letter | paper_size"
```

Values

Type	Values
String	• `letter`(default) • Any valid paper size value.

Applies to

Model	Object
FormModel	medium

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.form1.pageSet.Page1.medium.stock = "A4";
```

FormCalc

```
xfa.form.form1.pageSet.Page1.medium.stock = "A4"
```

stroke

Specifies the appearance of a line.

Syntax

```
Reference_Syntax.stroke = "solid | dashed | dotted | dashDot | dashDotDot |
lowered | raised | etched | embossed"
```

Values

Type	Values
String	• `solid`(default) • `dashed` • `dotted` • `dashDot` • `dashDotDot` • `lowered` • `raised` • `etched` • `embossed` Solid. • `dashed` • `dotted` • `dashDot` • `dashDotDot` • `lowered` • `raised` • `etched` • `embossed` A series of rectangular dashes. • `dotted` • `dashDot` • `dashDotDot` • `lowered` • `raised` • `etched` • `embossed` A series of round dots. • `dashDot` • `dashDotDot` • `lowered`

	• `raised` • `etched`

Type	Values
String (Continu ed)	Alternating rectangular dashes and dots. • `dashDotDot` • `lowered` • `raised` • `etched` • `embossed` A series of a single rectangular dash followed by two round dots. • `lowered` • `raised` • `etched` • `embossed` The line appears to enclose a lowered region. • `raised` • `etched` • `embossed` The line appears to enclose a raised region. • `etched` • `embossed` The line appears to be a groove lowered into the drawing surface. embossed The line appears to be a ridge raised out of the drawing surface.

Applies to

Model	Object
FormModel	corner edge

Version

XFA 2.1

Examples

JavaScript

```
Line1.resolveNode("value.#line.edge").stroke = "etched";
```

FormCalc

```
Line1.value.#line.edge.stroke = "etched"
```

sweepAngle

Specifies the length of the arc as an angle.

Syntax

```
Reference_Syntax.sweepAngle = "360 |angle"
```

Values

Type	Values
String	• `360`(default) • A value less than`360`and greater than or equal to`0`.

Applies to

Model	Object
FormModel	arc

Version

XFA 2.1

Examples

JavaScript

```
Circle1.resolveNode("value.#arc").sweepAngle = "45";
```

FormCalc

```
Circle1.value.#arc.sweepAngle = "45"
```

tabDefault

Specifies the distance between default tab stops.

By default, no default tab stops are defined.

Syntax

```
Reference_Syntax.tabDefault = "string"
```

Values

Type	Values
String	A valid string representing the distance between the default tab stops.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.tabDefault = "3in";
```

FormCalc

```
TextField1.para.tabDefault = "3in"
```

tabStops

Specifies a space-separated list of tab stop locations and leader properties.

Within the region from the left margin to the rightmost tab stop in the list, the tab stop locations replace the default tab stops specified by the tabDefault property. The default tab stops resume to the right of this region.

Each entry in the list of tab stops consists of a keyword specifying the alignment at the tab stop, followed by a space, followed by the distance of the tab stop from the left margin.

Tab stop leader properties including pattern and pattern width can also be specified.

Syntax

```
Reference_Syntax.tabStops = alignment leader (leaderPattern (leaderAlign
leaderPatterWidth)) measurement
```

Values

Type	Values
String	The tab stop alignment is one of the following values: • `center` • `left` • `right` • `decimal` Specifies a center-aligned tab stop. • `left` • `right` • `decimal` Specifies a left-aligned tab stop. • `right` • `decimal` Specifies a right-aligned tab stop. • `decimal` Specifies a tab stop that aligns content around a radix point.

Type	Values
String	The tab-stop leader properties include the following values: • `leaderPattern` • `leaderAlign` • Specifies how to align the repeating leader pattern in the inline progression direction. If the value is`none`, there are no special alignment requirements. If the value is`page`, the pattern is aligned as if its cycle started at the start edge of the page. Specifies the leader pattern to fill the space between a tab and the character following it. The values are`space | rule | dots | use-content`. If the value is set to`rule`, the leader is filled with a line. The`ruleThickness`is any valid measurement that specifies the thickness of the line. The ruleStyle may be one of`solid` (default),`dotted, dashed, none, double, groove,`or`ridge`. If the value is set to dots, the leader is filled with a repeating pattern of dots. The leader value can also be set to any quoted string. • `leaderAlign` • Specifies how to align the repeating leader pattern in the inline progression direction. If the value is`none`, there are no special alignment requirements. If the value is`page`, the pattern is aligned as if its cycle started at the start edge of the page.
	• `leaderPatternWidth` Specifies the period of the pattern cycle for the leader patterns of`dots, use-content`, and in some cases`rule`. The value may be a valid measurement. If the content width is shorter that the value of this property, each repetition of the pattern content is padded with a blank space to fill out the width. If the content width is longer than the value of this property, the leader pattern width is ignored.
String	The tab-stop measurement is any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.tabStops = "left leader (rule(solid 0.5pt)) 4in”;
```

FormCalc

```
TextField1.para.tabStops = "left leader (rule(solid 0.5pt)) 4in”
```

target

Specifies the object upon which the action will occur.

Syntax

```
Reference_Syntax.target = "ObjectName | Reference_Syntax | URL"
```

Values

Type	Values
String	A valid string representing the name of a form design object, a reference syntax expression, or a URL where data is sent. The value of this property is expected to be compatible with the value of the targetType property. For instance, it would be considered an error for the targetType property to reference a page area and the`target` property to reference a content area, or vice versa.

Applies to

Model	Object
EventModel	eventPseudoModel
FormModel	breakAfter breakBefore overflow setProperty signData submit

Version

XFA 2.4

Examples

JavaScript

```
xfa.event.target = "click";
- or -
Subform1.breakAfter.targetType = "contentArea";
Subform1.breakAfter.target = "#ContentArea2";
```

FormCalc

```
xfa.event.target = "click"
- or -
Subform1.breakAfter.targetType = "contentArea"
Subform1.breakAfter.target = "#ContentArea2"
```

RELATED LINKS:

Referencing objects

Saving a form

targetType

Specifies the constraints on moving to a new page or content area before laying out the parent subform.

The `targetType` property replaces the deprecated`break.`before(deprecated) property.

Syntax

```
Reference_Syntax.targetType = "auto | contentArea | pageArea"
```

Values

Type	Values
String	The value of this property is expected to be compatible with the value of the target property. For instance, it would be considered an error for the target property to reference a page area and the`targetType`property set to`contentArea`, or vice versa. • `auto`(default) • `contentArea` • `pageArea` The determination of a transition to a new page or content area is delegated to the processing application. No transition to a new page or content area is forced. • `contentArea` • `pageArea` Rendering transitions to the next available content area. • `pageArea` Rendering transitions to a new page. The startNew property also modifies some of these behaviors.

Applies to

Model	Object
FormModel	breakAfter breakBefore

Version

XFA 2.4

Examples

JavaScript

```
Subform1.breakAfter.targetType = "contentArea";
Subform1.breakAfter.target = "#ContentArea2";
```

FormCalc

```
Subform1.breakAfter.targetType = "contentArea"
Subform1.breakAfter.target = "#ContentArea2"
```

textEncoding

Specifies the encoding of text content in the document.

Syntax

```
Reference_Syntax.textEncoding = "UTF-8 | UTF-16 | Shift-JIS | Big-Five
|ISO-8859-1 | ISO-8859-2 | ISO-8859-7 | KSC-5601 | GB-2312 | UCS-2 | fontSpecific"
```

Values

The value of this property is case-sensitive and must match one of the following values.

***NOTE:** Use values `ISO-8859-1`, `ISO-8859-2`, and `ISO-8859-7` only when you know that Adobe Acrobat will not be used to submit form data.*

Type

String

Values

- `none`(default)
- `ISO-8859-1`
- `ISO-8859-2`
- `ISO-8859-7`
- `Shift-JIS`
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

  No special encoding is specified. The characters are encoded using the ambient encoding for the operating system.

- `ISO-8859-1`
- `ISO-8859-2`
- `ISO-8859-7`
- `Shift-JIS`
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

The characters are encoded using ISO-8859-1, also known as Latin-1.

- `ISO-8859-2`
- `ISO-8859-7`
- `Shift-JIS`
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

The characters are encoded using ISO-8859-2.

- `ISO-8859-7`
- `Shift-JIS`
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

The characters are encoded using ISO-8859-7.

- `Shift-JIS`
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`

- `fontSpecific`

  The characters are encoded using JIS X 0208, more commonly known as Shift-JIS.
- `KSC-5601`
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

  The characters are encoded using the Code for Information Interchange (Hangul and Hanja).
- `Big-Five`
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

  The characters are encoded using Traditional Chinese (Big-Five). There is no official standard for Big-Five and several variants are in use. The Adobe form object model uses the variant implemented by Microsoft as code.
- `GB-2312`
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

  The characters are encoded using Simplified Chinese.
- `UTF-8`
- `UTF-16`
- `UCS-2`
- `fontSpecific`

The characters are encoded using Unicode code points as defined by Unicode, and UTF-8 serialization as defined by ISO/IEC 10646.

- `UTF-16`
- `UCS-2`
- `fontSpecific`

  The characters are encoded using Unicode code points as defined by Unicode, and UTF-16 serialization as defined by ISO/IEC 10646.

- `UCS-2`
- `fontSpecific`

  The characters are encoded using Unicode code points as defined by Unicode, and UCS-2 serialization as defined by ISO/IEC 10646.

- `fontSpecific`

  The characters are encoded in a font-specific way. Each character is represented by one 8-bit byte.

Applies to

Model	Object
FormModel	submit

Version

XFA 2.1

Examples

JavaScript

```
Button1.event.submit.textEncoding = "UCS-2";
```

FormCalc

```
Button1.event.submit.textEncoding = "UCS-2"
```

textEntry

Determines if a user can type a value into a drop-down list.

Syntax

```
Reference_Syntax.textEntry = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` Prevents the user from typing in the current field. The value is chosen by selecting a value from the drop-down list. • `1` Allows a user to type a value into a drop-down list or select from the drop-down list. This opens up the field value to be anything that the user might type. If the`open`property is set to`multiSelect`, the user is not allowed to enter values in the field.

Applies to

Model	Object
FormModel	choiceList

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.resolveNode("ui.#choiceList").textEntry = "1";
```

FormCalc

```
DropDownList1.ui.#choiceList.textEntry = "1"
```

textIndent

Specifies the horizontal positioning of the first line relative to the remaining lines in a paragraph.

A negative value indicates a hanging indent whereas a positive value indicates a first-line indent.

Syntax

```
Reference_Syntax.textIndent = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	para

Version

XFA 2.1

Examples

JavaScript

```
TextField1.para.textIndent = "3in";
```

FormCalc

```
TextField1.para.textIndent = "3in"
```

textLocation

Specifies the location of any text associated with the barcode.

The region available for embedded text, if any, is determined by the barcode format. For most barcode formats it is a single, contiguous region. However, for EAN series barcodes, it is divided into four regions that inherit the typeface property and size property from the enclosing field. The form design must specify a typeface property and size property for the field that will fit into the provided space without overlapping any bars. The typeface property should be non-proportional.

Syntax

```
Reference_Syntax.textLocation = "below | none | above | aboveEmbedded |
belowEmbedded"
```

Values

Type	Values
String	• `below`(default) • `above` • `belowEmbedded` • `aboveEmbedded` • `none` Places text below the barcode. • `above` • `belowEmbedded` • `aboveEmbedded` • `none` Places text above the barcode. • `belowEmbedded` • `aboveEmbedded` • `none` Partially embeds text at the bottom of the barcode aligned with the bottom of the bars. • `aboveEmbedded` • `none` Partially embeds text at the top of the barcode aligned with the top of the bars. • `none` Displays no text.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").textLocation = "aboveEmbedded";
```

FormCalc

```
Code11BarCode1.ui.#barcode.textLocation = "aboveEmbedded"
```

thickness

Specifies the thickness or weight of the line.

Syntax

```
Reference_Syntax.thickness = "0.5pt | measurement"
```

Values

Type	Values
String	• `0.5pt`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	corner edge

Version

XFA 2.1

Examples

JavaScript

```
TextField1.border.edge.thickness = "0.2in";
```

FormCalc

```
TextField1.border.edge.thickness = "0.2in"
```

this

Retrieves the current node, which is the starting node when using the resolveNode and resolveNodes methods.

NOTE: *This property is read only.*

Syntax

```
this
```

Values

Type	Values
Object	The current object.

Applies to

Model	Object
XFAModel	xfa

Version

XFA 2.1

Examples

JavaScript

```
this
```

FormCalc

```
this
```

RELATED LINKS:

Referencing objects

Working with page numbers and page counts

Changing the background color

timeout

Specifies the number of seconds to attempt a query.

Syntax

```
Reference_Syntax.timeout = "string"
```

Values

Type	Values
String	A valid string representing the number of seconds before the query times out.

Applies to

Model	Object
sourceSetModel	command connect

Version

XFA 2.1

Examples

In these examples, `Titles` represents the data connection name.

JavaScript

```
xfa.sourceSet.Titles.connect.timeout = "10";
```

FormCalc

```
xfa.sourceSet.Titles.connect.timeout = "10"
```

timeStamp

Specifies the date/time stamp for this node.

Syntax

```
Reference_Syntax.timeStamp = "string"
```

Values

Type	Values
String	A valid string representing a date and time.

Applies to

Model	Object
XFAModel	xfa

Version

XFA 2.1

title

Sets and gets the title of the document. It is available only for client applications.

Syntax

```
Reference_Syntax.title
```

Values

Type	Values
String	A valid string representing the title of the current form.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.title;
```

FormCalc

```
xfa.host.title
```

topInset

A measurement specifying the size of the top inset.

Syntax

```
Reference_Syntax.topInset = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	margin

Version

XFA 2.1

Examples

JavaScript

```
Subform1.margin.topInset "1in";
```

FormCalc

```
Subform1.margin.topInset "1in"
```

trailer

Specifies the`subform`or`subformSet`object to place at the bottom of a content or page area.

The trailer property replaces the deprecated overflowTrailer(deprecated) and book-endTrailer(deprecated) properties.

Syntax

```
Reference_Syntax.trailer = "string"
```

Values

Type	Values
String	A valid string representing the ID or fully qualified reference syntax expression of a subform or subform set. The default is an empty string.

Applies to

Model	Object
FormModel	bookend breakAfter breakBefore overflow

Version

XFA 2.4

Examples

JavaScript

```
Subform1.breakBefore.trailer = "Subform2";
```

FormCalc

```
Subform1.breakBefore.trailer = "Subform2"
```

transferEncoding

Specifies the encoding of binary content in the referenced document.

Syntax

```
Reference_Syntax.transferEncoding = "none | base64"
```

Values

Type	Values
String	• `none`(default) • `base64` The referenced document is not encoded. If the referenced document is specified via a URI then it will be transferred as a byte stream. If the referenced document is inline it must conform to the restrictions on the PCDATA data type. • `base64` The binary content is encoded in accordance with the base64 transfer encoding standard.

Applies to

Model	Object
FormModel	exData image
sourceSetModel	bind

Version

XFA 2.1

transient

Specifies whether the processing application must save the value of the exclusion group as part of a form submission or save operation.

Syntax

```
Reference_Syntax.transient = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` The exclusion group value must be saved. • `1` The exclusion group must not be saved.

Applies to

Model	Object
FormModel	exclGroup

Version

XFA 2.1

truncate

Truncates the right edge of the barcode for supported formats.

The truncation applies only to barcode type PDF417. The parser ignores this property for barcode formats to which it does not apply.

Syntax

```
Reference_Syntax.truncate = "0 | 1"
```

Values

Type	Values
String	• `0`(default) • `1` Include the right-hand synchronization mark. • `1` Omit the right-hand synchronization mark.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Code11BarCode1.resolveNode("ui.#barcode").truncate = "1";
```

FormCalc

```
Code11BarCode1.ui.#barcode.truncate = "1"
```

type

Specifies the pattern used by an object.

For the radial object, the `type` property specifies the direction of flow for a color transition.

For the subjectDNs object, the`type`property specifies whether the values provided in the element should be treated as a restrictive or a non-restrictive set.

Syntax

```
Reference_Syntax.type = "toRight | toLeft | toTop | toBottom"
```

Values

Type	Values
String	The values for this property depend on the referencing object.
	For the`barcode`object: A string that identifies the barcode pattern. This property must be supplied. The set of supported values for this property is specific to the display device. The following values have been defined for this property as indicating particular barcode types: • `codabar` • Codabar, as defined in ANSI/AIM BC3-1995, USS Codabar.
	• `code2Of5Industrial` • Code 2 of 5 Industrial; no official standard.
	• `code2Of5Interleaved` • Code 2 of 5 Interleaved, as defined in ANSI/AIM BC2-1995, USS Interleaved 2-of-5.
	• `code2Of5Matrix` • Code 2 of 5 Matrix; no official standard.

Type	Values
	• `code2Of5Standard` • Code 2 of 5 Standard; no official standard.
	• `code3Of9` • Code 39 (also known as code 3 of 9), as defined in ANSI/AIM BC1-1995, USS Code 39.
	• `code3Of9extended` • Code 39 extended; no official standard.
	• `code11` • Code 11 (USD-8); no official standard.
	• `code49` • Code 49, as defined in ANSI/AIM BC6-1995, USS Code 49.
	• `code93` • Code 93, as defined in ANSI/AIM BC5-1995, USS Code 93.
	• `code128` • Code 128, as defined in ANSI/AIM BC4-1995, Code 128.
	• `code128A` • Code 128 A, as defined in ANSI/AIM BC4-1995, ISS Code 128.
	• `code128B` • Code 128 B, as defined in ANSI/AIM BC4-1995, ISS Code 128.
	• `code128C` • Code 128 C, as defined in ANSI/AIM BC4-1995, ISS Code 128.
	• `code128SSCC` • Code 128 serial shipping container code, as defined in ANSI/AIM BC4-1995, ISS Code 128.
	• `ean8` • EAN-8, as defined in ISO/EEC 15420.
	• `ean8add2` • EAN-8 with 2-digit Addendum, as defined in ISO/EEC 15420.

Type	Values
	• `ean8add5` • EAN-8 with 5-digit Addendum, as defined in ISO/EEC 15420.
	• `ean13` • EAN-13, as defined in ISO/EEC 15420.
	• `ean13pwcd` • EAN-13 with price/weight customer data.
	• `ean13add2` • EAN-13 with a 2-digit addendum.
	• `ean13add5` • EAN-13 with a 5-digit addendum.
	• `fim` • United States Postal Service facing identification mark (FIM), as defined in First-Class Mail (USPS-C100).
	• `logmars` • Logistics Applications of Automated Marking and Reading Symbols (logmars) as definied by United States Military Standard MIL-STD-1189B .
	• `maxicode` • UPS Maxicode, as defined in ANSI/AIM BC10-ISS Maxicode.
	• `msi` • Modified Plessey (MSI). May once have had a formal specification, but no longer does.
	• `pdf417` • PDF417, as defined in USS PDF417.
	• `pdf417macro` • PDF417, but allows the data to span multiple PDF417 barcodes. The barcodes are marked so that the bacrode reader knows when it still has additional barcodes to read and can prompt the operator if necessary.

Type	Values
	• `plessey` • Plessey; no official standard.
	• `postAUSCust2` • Australian Postal Customer 2, as defined in Customer Barcoding Technical Specifications.
	• `postAUSCust3` • Australian Postal Customer 3, as defined in Customer Barcoding Technical Specifications.
	• `postAUSReplyPaid` • Australian Postal Reply Paid, as defined in Customer Barcoding Technical Specifications.
	• `postAUSStandard` • Australian Postal Standard, as defined in Customer Barcoding Technical Specifications.
	• `postUKRM4SCC` • United Kingdom RM4SCC (Royal Mail 4-State Customer Code), as defined in the How to Use Mailsort Guide.
	• `postUSDPBC` • United States Postal Service Delivery Point barcode, as defined in DMM C840 Barcoding Standards for Letters and Flats.
	• `postUSStandard` • United States Postal Service POSTNET barcode (Zip+4), as defined in DMM C840 Barcoding Standards for Letters and Flats.
	• `postUSZip` • United States Postal Service POSTNET barcode (5 digit Zip), as defined in DMM C840 Barcoding Standards for Letters and Flats.
	• `qr` • QR Code, as defined in ISS - QR Code.

Type	Values
	• `telepen` • Telepen, as defined in USS Telepen.
	• `ucc128` • UCC/EAN 128, as defined in International Symbology Specification - Code 128 (1999).
	• `ucc128random` • UCC/EAN 128 Random Weight, as defined in International Symbology Specification - Code 128 (1999).
	• `ucc128sscc` • UCC/EAN 128 serial shipping container code (SSCC), as defined in International Symbology Specification - Code 128 (1999).
	• `upcA` • UPC-A, as defined in ISO/EEC 15420.
	• `upcAadd2` • UPC-A with 2-digit Addendum, as defined in ISO/EEC 15420.
	• `upcAadd5` • UPC-A with 5-digit Addendum, as defined in ISO/EEC 15420.
	• `upcApwcd` • UPC-A with Price/Weight customer data, as defined in ISO/EEC 15420.
	• `upcE` • UPC-E, as defined in ISO/EEC 15420.
	• `upcEadd2` • UPC-E with 2-digit Addendum, as defined in ISO/EEC 15420.
	• `upcEadd5` • UPC-E with 5-digit Addendum, as defined in ISO/EEC 15420.
	• `upcean2` • UPC/EAN with 2-digit Addendum, as defined in ISO/EEC 15420.

Type	Values
	• `upcean5` • UPC/EAN with 5-digit Addendum, as defined in ISO/EEC 15420.
	For the`digestMethods`,`encodings`, subjectDNs, and`timeStamp`objects: Specifies whether the signing options are restricted to the filter settings. • `optional`(default) • `required` The signing options are not restricted to the filter settings. The values provided in the element are optional seed values that the XFA processing application may choose from. The XFA processing application may also supply its own value. • `required` The signing options are restricted to the filter settings. The values provided in the element are seed values that the XFA processing application must choose from.
	For the`linear`object: Specifies the direction of flow for a color transition. • `toRight`(default) • `toLeft` • `toTop` • `toBottom` The start color appears at the left side of the object and transitions into the end color at the right side. • `toLeft` • `toTop` • `toBottom` The start color appears at the right side of the object and transitions into the end color at the left side. • `toTop` • `toBottom` The start color appears at the bottom side of the object and transitions into the end color at the top side. • `toBottom` The start color appears at the top side of the object and transitions into the end color at the bottom side.

Type	Values
	For the`radial`object: Specifies the direction of the color transition. • `toEdge`(default) • `toCenter` The start color appears at the center of the object and transitions into the end color at the outer edge. • `toCenter` The start color appears at the outer edge of the object and transitions into the end color at the center.

Applies to

Model	Object	
FormModel	barcode handler issuers linear oids	pattern radial reasons signing subjectDNs timeStamp
sourceSetModel	extras	

Version

XFA 2.1

typeface

Specifies the name of the typeface.

Syntax

```
*Reference_Syntax*.typeface = "Courier | *typeface*"
```

Values

Type	Values
String	• `Courier`(default) • Any valid typeface identifier.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.typeface = "Myriad Pro";
```

FormCalc

```
TextField1.font.typeface = "Myriad Pro"
```

underline

Specifies the activation and type of underlining.

Syntax

```
Reference_Syntax.underline = "0 | 1 | 2"
```

Values

Type	Values
String	• `0`(default) • The font renders without underlining. • `1` • The font renders with a single underline. • `2` • The font renders with a double underline.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.underline = "2";
```

FormCalc

```
TextField1.font.underline = "2"
```

underlinePeriod

Controls the appearance of underlining.

Syntax

```
Reference_Syntax.underlinePeriod = "all | word"
```

Values

Type	Values
String	• `all`(default) • The rendered line shall extend across word breaks. • `word` • The rendered line shall be interrupted at word breaks.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.underlinePeriod = "word";
```

FormCalc

```
TextField1.font.underlinePeriod = "word"
```

upsMode

Represents the mode in a UPS Maxicode barcode.

Syntax

```
Reference_Syntax.upsMode = “usCarrier | internationalCarrier | standardSymbol |
secureSymbol”
```

Values

Type	Values
String	• `usCarrier`(default) • United States carrier with postal codes that contain up to nine digits. • `internationalCarrier` • International carrier with alphanumeric postal codes that contain up to six digits. • `standardSymbol` • Non-shipping encoded information up to 90 characters in length. • `secureSymbol` • Non-shipping encoded information up to 74 characters in length (it has more error correction than four).

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.5

url

Specifies the URL for this object.

Syntax

```
Reference_Syntax.url = "string"
```

Values

Type	Values
String	A valid string representing a URL for this individual node.

Applies to

Model	Object
FormModel	certificates

Version

XFA 2.5

urlPolicy

Specifies the type of URL represented by the certificates object.

It is equivalent to the urlType attribute for PDF documents and its values are encoded as Browser, ASSP, or the string the user entered for the urlType key.

Syntax

```
Reference_Syntax.urlPolicy = "enrollmentServer | roamingCredentialServer |
string"
```

Values

Type	Values
String	• `enrollmentServer` • The URL references a web server where a signing party can enroll for a digital certificate. • `roamingCredentialServer` • The URL references web service that holds the digital credentials that a signing party uses to sign a document or data. • A valid string that extends the use of this property with unique values.

Applies to

Model	Object
FormModel	certificates

Version

XFA 2.5

usage

Specifies the contexts in which to use the connection.

Syntax

```
Reference_Syntax.usage = "exportAndImport | exportOnly | importOnly"
```

Values

Type	Values
String	• `exportAndImport`(default) • Used during both import and export. • `exportOnly` • Used during export, ignored during import. • `importOnly` • Used during import, ignored during export.

Applies to

Model	Object
FormModel	connect

Version

XFA 2.1

Examples

JavaScript

```
TextField1.connect.usage = "importOnly";
```

FormCalc

```
TextField1.connect.usage = "importOnly"
```

use

Invokes a prototype.

Syntax

```
Reference_Syntax.use = "string"
```

Values

Type	Values
String	The value of this property is a ‘#’ character followed by the prototype’s identifier.

Applies to

Model	Object
connectionSetModel	effectiveInputPolicy effectiveOutputPolicy operation rootElement soapAction soapAddress uri wsdlAddress

Model	Object
FormModel	arc area assist barcode bookend boolean border break(deprecated) breakAfter breakBefore button calculate caption certificate certificates checkButton choiceList color comb
sourceSetModel	boolean command connect connectString

Version

XFA 2.1

usehref

Invokes an external prototype.

NOTE: *The`usehref`property cannot target PDF files, even if the PDF files contain XML Form Object Model objects.*

If an object contains both a`use`and a`usehref`property, the`usehref`property has precedence over the`use`property. This precedence allows a different prototype to be used when rendering form designs on legacy systems. Legacy systems will ignore the`usehref`property.

To mitigate security issues, specify HTTPS for the`usehref`URI or ensure that all prototype references occur behind a firewall.

Syntax

```
Reference_Syntax.usehref = "string"
```

Values

Type	Values

String	A valid string representing an external prototype. The value of this property includes a “#” character and the prototype’s identifier:
	`usehref="URL#XML_ID"`
	`usehref="URL#ref(reference_syntax)"`

Applies to

Model	Object
connectionSetModel	effectiveInputPolicy effectiveOutputPolicy operation rootElement soapAction soapAddress uri wsdlAddress

Model	Object
FormModel	arc area assist barcode bookend boolean border break(deprecated) breakAfter breakBefore button calculate caption certificate certificates checkButton choiceList color comb
sourceSetModel	bind boolean command connect

Version

XFA 2.4

uuid

Specifies the Universally Unique Identifier (UUID) for this object.

Syntax

```
Reference_Syntax.uuid = "string"
```

Values

Type	Values
String	A valid string representing a universally unique identifier for this individual node.

Applies to

Model	Object
XFAModel	xfa

Version

XFA 2.1

validationMessage

Specifies the validate message string for this field.

Syntax

```
Reference_Syntax.validationMessage = "string"
```

Values

Type	Values
String	A valid string representing a validation message to display to the user.

Applies to

Model	Object
FormModel	exclGroup field

Version

XFA 2.1

Examples

JavaScript

```
NumericField1.validationMessage = "This is the validation message."
```

FormCalc

```
NumericField1.validationMessage = "This is the validation message."
```

validationsEnabled

Specifies whether the validation scripts will execute.

JavaScript Syntax

```
Reference_Syntax.validationsEnabled = false | true;
- or -
Reference_Syntax.validationsEnabled = 0 | 1;
```

FormCalc Syntax

```
Reference_Syntax.validationsEnabled = 0 | 1
```

Values

Type	Values
Boolean	• `false | 0`(default) • Validation scripts are disabled. • `true | 1` • Validation scripts are enabled.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.validationsEnabled = 1;
```

FormCalc

```
xfa.host.validationsEnabled = 1
```

vAlign

Specifies the vertical text alignment.

Syntax

```
Reference_Syntax.vAlign = "top | middle | bottom"
```

Values

Type	Values
String	• `top`(default) • Align with the top of the available region. • `middle` • Center vertically within the available region. • `bottom` • Align with the bottom of the available region.

Applies to

Model	Object
FormModel	draw exclGroup field para subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.vAlign = "top";
```

FormCalc

```
TextField1.vAlign = "top"
```

value

Specifies the value of the current object.

Specifies a comma separated list of values for each color component of the color space.

Syntax

```
Reference_Syntax.value = "various"
```

Values

Type	Values
Varies	Values differ depending on the referencing object. For example, the `value` property of a `field` object is a string representing the actual value displayed in the field, or the field’s bound value. Alternatively, for objects that require an color value, this property specifies a comma-separated list of values for each color component of the color space. For the color-space of SRGB, the component values must be r,g,b, where r is the red component value, g is the green component value, and b is the blue component value. Each component value must be in the range 0 through 255, inclusive. 255 represents maximum display intensity. For example, 255,0,0 specifies the color red. The default is dependent upon the context of where the color is used; the default color is determined by the object enclosing the color object.

Applies to

Model	Object
DataModel	dataValue

Model	Object
FormModel	boolean color date dateTime decimal float image integer picture script text time
sourceSetModel	boolean integer text

Also applies to objects derived from the textNodeclass class.

Version

XFA 2.1

Examples

JavaScript

```
// Use the value property to set and get the document variable’s value.
TextField1.rawValue = docVar.value;
```

FormCalc

```
// Use the value property to set and get the document variable’s value.
TextField1 = docVar.value
```

RELATED LINKS:

Creating a node in the data model

Manipulating instances of a subform

Getting or setting object values

Concatenating data values

Changing the background color

Populating a drop-down list

valueRef

Resolves a data value for each data node in the set identified by the `ref` object.

The data values are then used to populate the value items, such as`<items save='1'>`.

The `valueRef` property is a relative reference syntax expression.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.valueRef = "string"
```

Values

Type	Values
String	A valid string representing a data value for each data node in the set.

Applies to

Model	Object
FormModel	bindItems

Version

XFA 2.4

variation

Indicates the packaging of the application that is running the script.

It is available only for client applications.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.variation
```

Values

Type	Values
String	A valid string representing the packaging of the application. For example, in the case of a PDF form in Acrobat, this property returns one of:`Reader`, `Fill-in`,`Business Tools`, or`Full`.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.variation;
```

FormCalc

```
xfa.host.variation
```

version

Indicates the version number of the current application.

NOTE: *This property is read only.*

Syntax

```
Reference_Syntax.version
```

Values

Type	Values
String	A valid string representing the packaging of the application. For example, in Acrobat 6.0.1 this property returns `6.0.1`.

Applies to

Model	Object
FormModel	handler
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.version;
```

FormCalc

```
xfa.host.version
```

vScrollPolicy

Specifies whether a field can scroll vertically.

NOTE: *This property does not apply to Text Fields that can expand to accommodate data or text.*

Syntax

```
Reference_Syntax.vScrollPolicy = "auto | on | off"
```

Values

Type	Values
String	• `auto`(default) • Single-line fields scroll horizontally and multi-line fields scroll vertically (displaying a vertical scroll bar when necessary). • `on` • Vertical scroll bars appear regardless of whether the text or data overflows the boundaries of the field. • `off` • Restricts the user from entering characters in the field beyond what can physically fit within the field width. Note that this restriction does not apply to data with the field.

Applies to

Model	Object
FormModel	textEdit

Version

XFA 2.5

Examples

JavaScript

```
TextField1.resolveNode("ui.#textEdit").vScrollPolicy = "off";
```

FormCalc

```
TextField1.ui.#textEdit.vScrollPolicy = "off"
```

W

A measurement specifying the width for the layout.

When you specify a width, that value overrides any growth range allowed by the minW property and the maxW property. Omitting this property or specifying an empty string indicates that the minW property and the maxW property define the width for the object.

Syntax

```
Reference_Syntax.w = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement.

Applies to

Model	Object
FormModel	draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.w = "3in";
```

FormCalc

```
TextField1.w = "3in"
```

weight

Controls the weight of the font typeface.

Syntax

```
Reference_Syntax.weight = "bold | normal"
```

Values

Type	Values
String	• `bold`(default) • The typeface is rendered with a bold weight. • `normal` • The typeface is rendered at the default typeface weight.

Applies to

Model	Object
FormModel	font

Version

XFA 2.1

Examples

JavaScript

```
TextField1.font.weight = "normal";
```

FormCalc

```
TextField1.font.weight = "normal"
```

wideNarrowRatio

Specifies a ratio of wide bar to narrow bar in supported barcodes.

The allowable range of ratios varies between barcode formats and also, for hardware barcodes, the output device. The template must not specify a value outside the allowable range. The parser ignores this property for barcode formats which do not allow a variable ratio of wide to narrow bar widths.

Syntax

```
Reference_Syntax.wideNarrowRatio = "3:1 | wide[:narrow]"
```

Values

Type	Values
String	• `3:1`(default) • `wide[:narrow]` Any valid ratio that uses the syntax: • `wide[:narrow]` where*wide*is a positive number representing the numerator of the ratio, and *narrow* is an optional positive number representing the denominator of the ratio. If narrow is not supplied it defaults to`1`.

Applies to

Model	Object
FormModel	barcode

Version

XFA 2.1

Examples

JavaScript

```
Barcode1.resolveNode("ui.#barcode").wideNarrowRatio = "5:1";
```

FormCalc

```
Barcode1.ui.#barcode.wideNarrowRatio = "5:1"
```

wordCharacterCount

Specifies the minimum number of grapheme clusters that must be present in a word in order for it to be eligible for hyphenation. Words with fewer clusters will not be hyphenated.

Syntax

```
Reference_Syntax.wordCharacterCount = "integer"
```

Values

Type	Values
Integer	A valid integer representing the number of grapheme clusters. The default value is 7.

Applies to

Model	Object
FormModel	hyphenation

Version

XFA 2.8

wordSpacingMaximum

Specifies the maximum inter-word percentage space when text is justified, hyphenation is enabled, or both.

If the maximum space is specified or defaulted to be less than the optimal word spacing, the specified maximum space is ignored and the optimal space value is used for the maximum.

Syntax

```
Reference_Syntax.wordSpacingMaximum = "[0..100]%"
```

Values

Type	Values
String	A percentage value between 0 and 100. The default value is`100%`.

Applies to

Model	Object
FormModel	draw exclGroup field para subform

Version

XFA 2.8

Examples

JavaScript

```
TextField1.para.wordSpacingMaximum = "40%";
```

FormCalc

```
TextField1.para.wordSpacingMaximum = "40%"
```

wordSpacingMinimum

Specifies the minimum inter-word percentage space when text is justified, hyphenation is enabled, or both.

If the minimum space is specified or defaulted to be greater than the optimal word spacing, the specified minimum space is ignored and the optimal space value is used for the minimum.

Syntax

```
Reference_Syntax.wordSpacingMinimum = "[0..100]%"
```

Values

Type	Values
String	A percentage value between 0 and 100. The default value is`100%`.

Applies to

Model	Object
FormModel	draw exclGroup field para subform

Version

XFA 2.8

Examples

JavaScript

```
TextField1.para.wordSpacingMinimum = "40%";
```

FormCalc

```
TextField1.para.wordSpacingMinimum = "40%"
```

wordSpacingOptimum

Specifies the optimal percentage width of an inter-word space when text is justified, hyphenation is enabled, or both.

Syntax

```
Reference_Syntax.wordSpacingOptimum = "[0..100]%"
```

Values

Type	Values
String	A percentage value between 0 and 100. The default value is `100%`.

Applies to

Model	Object
FormModel	draw exclGroup field para subform

Version

XFA 2.8

Examples

JavaScript

```
TextField1.para.wordSpacingOptimum = "80%";
```

FormCalc

```
TextField1.para.wordSpacingOptimum = "80%"
```

x

Specifies the X coordinate of the container's anchor point relative to the top-left corner of the parent container when placed with positioned layout.

Containers with flowed content do not use x coordinates.

Syntax

```
Reference_Syntax.x = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement value.

Applies to

Model	Object
FormModel	area contentArea draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.x = "5in";
```

FormCalc

```
TextField.x = "5in"
```

xdpContent

Controls what subset of the data is submitted. This property is used only when the format property is `xdp`.

Syntax

```
Reference_Syntax.xdpContent = "string"
```

Values

Type	Values
String	• `datasets pdf xfdf`(default) • Submits objects with the tags datasets, pdf, and xfdf to the host. • `tag1 tag2 ... tagN` • Submits objects with tags matching any of the specified tags. • `*` (asterisk) • Submits all data objects to the host.

Applies to

Model	Object
FormModel	submit

Version

XFA 2.1

Examples

JavaScript

```
Button1.resolveNode("#event.#submit").xdpContent = "*"
```

FormCalc

```
Button1.#event.#submit.xdpContent = "*"
```

y

Specifies the Y coordinate of a container’s anchor point relative to the top-left corner of the parent container when placed with positioned layout.

Containers with flowed content do not use y coordinates.

Syntax

```
Reference_Syntax.y = "0in | measurement"
```

Values

Type	Values
String	• `0in`(default) • Any valid measurement value.

Applies to

Model	Object
FormModel	area contentArea draw exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
TextField1.y = "5in";
```

FormCalc

```
TextField.y = "5in"
```

Scripting Methods

These methods are supported in this scripting environment.

Each host, such Acrobat, Adobe Reader or Designer®, is responsible for implementing the available methods. Some methods, such as beep, do not make sense on a server. The server does not implement these methods and instead can output an error message if a user tries to call the method.

Scripting methods for Acrobat and Adobe Reader

absPage

Determines the page of the form that a given form design object first appears on.

Syntax

```
Reference_Syntax.absPage( OBJECT param )
```

Parameters

param	The fully qualified reference syntax expression of one of the following form design objects: field, draw, subform, area, pageArea, contentArea.

Returns

An integer representing the page of the form (0-based).

NOTE: *If a subform is hidden, the fields residing in it will not be found and the method does not return the page number. However, if the subform is visible but the fields in it are hidden, the method returns the page number on which fields reside.*

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
TextField2.rawValue = xfa.layout.absPage(this);
```

FormCalc

```
TextField2 = xfa.layout.absPage($)
```

RELATED LINKS:

Working with page numbers and page counts

absPageCount

Determines the page count of the current form.

Syntax

```
Reference_Syntax.absPageCount()
```

Parameters

None

Returns

An integer representing the number of pages in the current form.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
TextField2.rawValue = xfa.layout.absPageCount();
```

FormCalc

```
TextField2 = xfa.layout.absPageCount()
```

RELATED LINKS:

Working with page numbers and page counts

absPageCountInBatch

Determines the page count of the current batch.

Syntax

```
Reference_Syntax.absPageCountInBatch()
```

Version

2.5

Parameters

None

Returns

An integer representing the page count of the current batch.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

absPageInBatch

Determines which page within the batch contains the form object.

Syntax

```
Reference_Syntax.absPageInBatch( OBJECT param )
```

Version

2.5

Parameters

para m	The fully qualified reference syntax expression of one of the following form objects: field, draw, subform, area, pageArea, contentArea.

Returns

An integer representing the page number that contains the form object.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.5

absPageSpan

Determines the number of pages that a specified form object spans.

Syntax

```
Reference_Syntax.absPageSpan( OBJECT param )
```

Parameters

para m	The fully qualified reference syntax expression of one of the following form objects: field, draw, subform, area, pageArea, contentArea.

Returns

An integer representing the number of pages the specified form object spans.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.absPageSpan(Subform1);
```

FormCalc

```
xfa.layout.absPageSpan(Subform1)
```

addInstance

Adds a new instance of a subform or subform set to the form model.

Syntax

`Reference_Syntax.addInstance( BOOLEAN param )`

Parameters

param (Optional)	Indicates if the new subform or subform set has a corresponding data value in the data model. • `true | 1`(JavaScript) or`1`(FormCalc)(default) • Merge the new subform or subform set with the data model. • `false | 0`(JavaScript) or`0`(FormCalc) • Do not perform a merge operation.

Returns

The new form object, or null if no object was added.

Applies to

Model	Object
FormModel	instanceManager

Version

XFA 2.1

Examples

JavaScript

```
Subform1.instanceManager.addInstance(1);
```

FormCalc

```
Subform1.instanceManager.addInstance(1)
```

RELATED LINKS:

Manipulating instances of a subform

addItem

Adds new items to the current form field. For example, this method adds new items to a drop-down list.

Syntax

```
Reference_Syntax.addItem( STRING param1 [, STRING param2 ] )
```

Parameters

param 1	A valid string representing the value to display in the field.

param 2 (Optional)	A valid string representing the new item’s bound value. If empty, the default value is an empty string.

Returns

Empty

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.addItem("Human Resources");
```

FormCalc

```
DropDownList1.addItem("Human Resources")
```

RELATED LINKS:

Populating a drop-down list

addNew

Appends a new record to the recordset.

Syntax

```
Reference_Syntax.addNew()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.addNew();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.addNew();
```

append

Appends a node to the end of the node list.

Syntax

```
Reference_Syntax.append( OBJECT param )
```

Parameters

para m	A valid reference syntax expression representing the node to be appended.

Returns

Empty

Applies to

listclass

Version

XFA 2.1

Examples

JavaScript

```
// Append a data group node to another data model node.
xfa.record.nodes.append(oGroupNode);
```

FormCalc

```
// Append a data group node to another data model node.
xfa.record.nodes.append(oGroupNode)
```

RELATED LINKS:

Creating a node in the data model

applyXSL

Applies an XSL transformation to the XML representation of the current node. It is equivalent to calling `saveXML` and transforming the result with the specified XSL document.

Syntax

```
Reference_Syntax.applyXSL( STRING param )
```

Parameters

para m	A valid string representing the XSL transformation input to apply.

Returns

A valid string representing the result of the XSL transformation.

Applies to

nodeclass class

Version

XFA 2.1

assignNode

Evaluates the reference syntax expression using the current context and sets the value of the found node. If the node doesn't exist, it can be created.

Syntax

```
Reference_Syntax.assignNode( STRING param1 [, STRING param2 [, INTEGER param3 ]
] )
```

Parameters

param 1	A valid string representing a reference syntax expression that points to a particular node.
param 2 (Optio nal)	A valid string representing the value to assign to the node.

param 3 (Optional)	An integer value representing the action to take when creating new nodes. The following are the valid parameter values: • `0` • If the node exists, the value is updated. If the node doesn't exist, it is created. • `1` • If the node exists, an error is thrown. If the node doesn't exist, it is created. • `2` • If the node exists, no action is taken. If the node doesn't exist, it is created. • `3` • A new node is always created.

Returns

An object corresponding to the specified node.

Applies to

nodeclass class

Version

XFA 2.1

beep

Causes the system to play a sound. It is available only for client applications.

Syntax

```
Reference_Syntax.beep( [ INTEGER param ] )
```

Parameters

param(Optional)	The system code for the appropriate sound. Each system code corresponds to a specific Windows program event. • `0`(Error) - Corresponds to the Critical Stop program event. • `1`(Warning) - Corresponds to the Exclamation program event. • `2`(Question) - Corresponds to the Question program event. • `3`(Status) - Corresponds to the Asterisk program event. • `4`(Default) - Corresponds to the Default Beep program event. To view the list of Windows program events, click Start > Settings > Control Panel > Sounds and Audio Devices, and then click the Sounds tab. The Program Events list displays a list of system events. Events marked with a speaker icon have an associated sound.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.beep("3");
```

FormCalc

```
xfa.host.beep("3")
```

boundItem

Gets the bound value of a specific display item of a drop-down list or list box.

Syntax

```
Reference_Syntax.boundItem( STRING param )
```

Parameters

param	A valid string representing the display value that appears in the list box or drop-down list.

Returns

A valid string representing the bound value of a specified display value.

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.boundItem("Text");
```

FormCalc

```
DropDownList1.boundItem("Text")
```

cancel

Cancels any changes made to the current or new row of a recordset object, or the field collection of a record object, before calling the update method.

Syntax

```
Reference_Syntax.cancel()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.cancel();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.cancel()
```

cancelBatch

Cancels a pending batch update.

Syntax

```
Reference_Syntax.cancelBatch()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

clear

Removes a given signature.

Syntax

```
Reference_Syntax.clear( OBJECT param1 [, BOOLEAN param2 ] )
```

Parameters

param1	input	A valid XML signature node.
param2 (Optional)	input (Optional)	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Displays a confirmation dialog box indicating that the signature field is cleared. • `false | 0`(JavaScript) or`0`(FormCalc) • Does not display a confirmation dialog box indicating that the signature field is cleared.

Returns

`True`if the signature was removed successfully. `False`if the signature was not removed successfully. An exception if the node specified in *param1* is not a signature node.

Applies to

Model	Object
SignatureModel	signaturePseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// This example removes the signature from all signed objects on a form.
var oSigs = xfa.signature.enumerate();
var iNum = oSigs.length;
for (var i=0; i < iNum; i++)
{
var oChild = oSigs.item(i);
xfa.signature.clear(child);
}
```

FormCalc

```
// This example removes the signature from all signed objects on a form.
var oSigs = xfa.signature.enumerate()
var iNum = oSigs.length - 1
for i=0 upto iNum step 1 do
var oChild = oSigs.item(i)
xfa.signature.clear(child)
endfor
```

clearErrorList

Removes all items from the current error log.

Syntax

Reference_Syntax`.clearErrorList()`

Parameters

None

Returns

Empty

Applies to

modelclass class

Version

XFA 2.1

clearItems

Removes all the items from the field. For example, it removes all the items contained within a drop-down list or a list box.

Syntax

```
Reference_Syntax.clearItems()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
FormModel	field

Version

XFA 2.1

Examples

JavaScript

```
DropDownList1.clearItems();
```

FormCalc

```
DropDownList1.clearItems()
```

RELATED LINKS:

Populating a drop-down list

clone

Makes a copy of an object.

Syntax

```
Reference_Syntax.clone( BOOLEAN param )
```

Parameters

param	A Boolean value indicating if cloning should occur recursively. • `true | 1`(JavaScript) or`1`(FormCalc) (Default) • Clone the object recursively. • `false | 0`(JavaScript) or`0`(FormCalc) • Do not clone the object recursively.

Returns

The duplicate copy of the object.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.record.NewGroupNode.clone(1);
```

FormCalc

```
xfa.record.NewGroupNode.clone(1)
```

RELATED LINKS:

Creating a node in the data model

close

Closes a connection to a data source.

Syntax

```
Reference_Syntax.close()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.nodes.item(nIndex).close();
```

FormCalc

```
xfa.sourceSet.nodes.item(nIndex).close()
```

createNode

Creates new node based on a valid class name.

NOTE: *You cannot use the* `createNode` *method to create any of the following XML Form Object Model objects:*

Syntax

```
Reference_Syntax.createNode( STRING param1 [, STRING param2 [, STRING param3 ] ]
)
```

Parameters

param 1	A valid string representing the class name of the object to create.
param 2 (Optional)	A valid string representing the name to assign to the node. If empty, the value of this parameter defaults to an empty string.
param 3 (Optional)	A valid string representing the XML namespace that the created node will exist in. If empty, the value of this parameter defaults to an empty string.

Returns

An object representing a valid node.

Applies to

modelclass class.

Version

XFA 2.1

Examples

JavaScript

```
// Create a node of type dataGroup.
var oGroupNode = xfa.datasets.createNode("dataGroup", "NewGroupNode");
```

FormCalc

```
// Create a node of type dataGroup.
var oGroupNode = xfa.datasets.createNode("dataGroup", "NewGroupNode")
```

RELATED LINKS:

Creating a node in the data model

currentDateTime

(currentDateTime)Returns current date and time in ISO 8601 format (YYYYMMDDTHHMMSS).

Syntax

```
Reference_Syntax.currentDateTime()
```

Parameters

None

Returns

The current date and time in ISO 8601 format (YYYYMMDDTHHMMSS).

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.8

delete (FormCalc Only)

Deletes the current record from the recordset.

Syntax

```
Reference_Syntax.delete()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Example

FormCalc

```
xfa.sourceSet.dataConnectionName.delete()
```

deleteItem

Deletes the specified item.

Syntax

```
Reference_Syntax.deleteItem( INTEGER param )
```

Parameters

para m	A valid integer representing the zero-based index into the item.

Returns

True if the item was deleted and false if it was not deleted.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

JavaScript

```
ListBox1.deleteItem(ListBox1.selectedIndex);
```

FormCalc

```
ListBox1.deleteItem(ListBox1.selectedIndex)
```

deleteRecord

Deletes the current record from the recordset.

Syntax

```
Reference_Syntax.deleteRecord( )
```

Parameters

None

Returns

Empty.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

JavaScript

```
xfa.sourceSet.dataConnectionName.deleteRecord();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.deleteRecord()
```

documentCountInBatch

Determines the number of documents in the current batch.

Syntax

```
Reference_Syntax.documentCountInBatch()
```

Version

2.5

Parameters

None

Returns

An integer representing the total number of documents in the batch. Hosts that do not support batching return `1`.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.5

documentInBatch

Determines the ordinal number of the current document within the batch.

Syntax

```
Reference_Syntax.documentInBatch()
```

Version

2.5

Parameters

None

Returns

An integer representing a physical document number (zero based). Hosts that do not support batching return `0`.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.5

emit

Notifies the form event manager that an event has occurred.

Syntax

```
Reference_Syntax.emit()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.emit();
```

FormCalc

```
xfa.event.emit()
```

enumerate

Enumerates all the XML signatures found in the document.

Syntax

```
Reference_Syntax.enumerate()
```

Parameters

None

Returns

An object representing an XFA node list of all the XML signature nodes.

Applies to

Model	Object
SignatureModel	signaturePseudoModel

Version

XFA 2.1

Examples

JavaScript

```
//This example removes the signature from all signed objects on a form.
//In this case, enumerate() is used to determine the list of objects signed
//by the signature.
var oSigs = xfa.signature.enumerate();
var iNum = oSigs.length;
for (var i=0; i < iNum; i++)
{
var oChild = oSigs.item(i);
xfa.signature.clear(child);
}
```

FormCalc

```
//This example removes the signature from all signed objects on a form.
//In this case, enumerate() is used to determine the list of objects signed
//by the signature.
var oSigs = xfa.signature.enumerate()
var iNum = oSigs.length - 1
for i=0 upto iNum step 1 do
var oChild = oSigs.item(i)
xfa.signature.clear(child)
endfor
```

evaluate

Gets the list of objects seen in the manifest.

Syntax

Reference_Syntax.evaluate()

Parameters

None

Returns

An object representing the list of objects.

Applies to

Model	Object
FormModel	manifest

Version

XFA 2.1

execCalculate

Executes any scripts on the calculate event of the specified object, and any child objects.

Ensure that you do not inadvertently execute this method with a larger scope than is necessary. Depending on the nature of your scripts, the calculate event could trigger multiple times in response to a single method execution, and could trigger the calculate events of other objects if the value of those objects changes because of the execution of any script.

Syntax

```
Reference_Syntax.execCalculate()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
FormModel	exclGroup field form manifest subform

Version

XFA 2.1

Examples

JavaScript

`xfa.form.execCalculate();`	Executes the scripts contained on the calculate event for all objects on the form.
`Subform1.execCalculate();`	Executes the scripts contained on the calculate event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execCalculate();`	Executes the scripts contained on the calculate event of the object named`TextField1`.

FormCalc

`xfa.form.execCalculate()`	Executes the scripts contained on the calculate event for all objects on the form.
`Subform1.execCalculate()`	Executes the scripts contained on the calculate event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execCalculate()`	Executes the scripts contained on the calculate event of the object named`TextField1`.

execEvent

Executes the event script of the object.

Syntax

```
Reference_Syntax.execEvent( STRING param )
```

Parameters

param	A valid string representing the name of the event to execute.

Returns

Empty

Applies to

Model	Object
FormModel	exclGroup field subform

Version

XFA 2.1

Examples

JavaScript

```
Button1.execEvent("click");
```

FormCalc

```
Button1.execEvent("click")
```

execInitialize

Executes any scripts on the initialize event of the specified object, and any child objects.

Syntax

```
Reference_Syntax.execInitialize()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
FormModel	exclGroup field form manifest subform

Version

XFA 2.1

Examples

JavaScript

`xfa.form.execInitialize();`	Executes the scripts contained on the initialize event for all objects on the form.
`Subform1.execInitialize();`	Executes the scripts contained on the initialize event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execInitialize();`	Executes the scripts contained on the initialize event of the object named`TextField1`.

FormCalc

`xfa.form.execInitialize()`	Executes the scripts contained on the initialize event for all objects on the form.
`Subform1.execInitialize()`	Executes the scripts contained on the initialize event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execInitialize()`	Executes the scripts contained on the initialize event of the object named`TextField1`.

execute

Executes a connection.

Syntax

```
Reference_Syntax.execute( BOOLEAN param )
```

Parameters

param	• `true | 1`(JavaScript) or`1`(FormCalc) (Default) • Forces the remerging of the form design and the imported WSDL data. • `false | 0`(JavaScript) or`0`(FormCalc) • Imports the WSDL data into current Form without merging it with the form design.

Returns

`True` if the connection was executed successfully, and `false` if it is unsuccessful.

Applies to

Model	Object
connectionSetModel	wsdlConnection

Version

XFA 2.1

execValidate

Executes any scripts on the validate event of the specified object, and any child objects.

Syntax

```
Reference_Syntax.execValidate()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
FormModel	field form manifest subform

Version

XFA 2.1

Examples

JavaScript

`xfa.form.execValidate();`	Executes the scripts contained on the validate event for all objects on the form.
`Subform1.execValidate();`	Executes the scripts contained on the validate event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execValidate();`	Executes the scripts contained on the validate event of the object named`TextField1`.

FormCalc

`xfa.form.execValidate()`	Executes the scripts contained on the validate event for all objects on the form.
`Subform1.execValidate()`	Executes the scripts contained on the validate event of the object named`Subform1`, and for any objects contained within the subform.
`TextField1.execValidate()`	Executes the scripts contained on the validate event of the object named`TextField1`.

exportData

Exports the data from the current form in either XDP or XML format to a file.

For security reasons, if you provide the first parameter, the`exportData`method executes only when performed on certified documents. If you do not provide the first parameter, the document does not need to be certified and the user is prompted to provide a location and filename.

Syntax

```
Reference_Syntax.exportData( [ STRING param1 [, BOOLEAN param2 ] ])
```

Parameters

param1(Optional)	Specifies the location and file name of the file where the data will export. If you omit this parameter, a dialog box opens to let the user select the file manually. This parameter is only valid on certified documents where the user has sufficient permissions.
param2 (Optional)	Specifies the export format for the data. • `true	1`(JavaScript) or`1`(FormCalc) (Default) • Export to XDP format. • `false	0`(JavaScript) or`0`(FormCalc) • Export plain XML data. To change the export type without specifying a file name, you must provide an empty string as the first parameter. For example: `xfa.host.exportData("",0); //JavaScript` `xfa.host.exportData("", 0) //FormCalc`

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.exportData("filename.xdp");
```

FormCalc

```
xfa.host.exportData("filename.xdp")
```

RELATED LINKS:

Saving a form

first

Moves to the first record in the recordset, and populates the data model with the record data.

***NOTE:** The data connection method`xfa.sourceSet.DataConnection.first`looks up a table and updates the table if the data has changed. It uses the hasDataChanged method to determine whether the data has changed.*

Syntax

```
Reference_Syntax.first()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.first();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.first()
```

formNodes

Returns a list of all form model objects that are bound to a specified data object.

Syntax

```
Reference_Syntax.formNodes( OBJECT param )
```

Parameters

*param*1	A valid reference syntax expression representing a data model object.

Returns

An object representing the list of all form model objects that have a relationship with the specified data object.

Applies to

Model	Object
FormModel	form

Version

XFA 2.1

getAttribute

Gets a specified property value.

Syntax

```
Reference_Syntax.getAttribute( STRING param )
```

Parameters

param	A valid string representing the name of the property to retrieve.

Returns

A valid string representing the value of the property.

Applies to

Model	Object
XFAModel	packet

Also applies to the nodeclass class.

Version

XFA 2.1

Examples

JavaScript

```
var sBOFBackup =
oDB.nodes.item(nIndex).query.recordSet.getAttribute("bofAction");
```

FormCalc

```
var sBOFBackup =
oDB.nodes.item(nIndex).query.recordSet.getAttribute("bofAction")
```

getDelta

Gets a delta script object for a specific property.

Syntax

```
Reference_Syntax.getDelta( STRING param )
```

Version

2.5

Parameters

param	A string representing the reference syntax to a property.

Returns

A valid object representing a delta script object.

Applies to

containerclass

Version

XFA 2.5

getDeltas

Recursively gets all the `delta` script objects for this container object and all its descendants.

NOTE: *Depending on the number of deltas script objects, this method can negatively affect the runtime performance of your form.*

Syntax

```
Reference_Syntax.getDeltas( )
```

Version

2.5

Parameters

None

Returns

A valid object representing a `delta` script object.

Applies to

containerclass

Version

XFA 2.5

getDisplayItem

Retrieves the item display text for the specified item index.

Syntax

```
Reference_Syntax.getDisplayItem( INTEGER param )
```

Version

2.5

Parameters

param1	An integer representing the zero-based index into the item.

Returns

A valid string representing the text of the item or null if no display item exists.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

getElement

Returns a specified child object.

NOTE: *This method returns only child objects that are not container objects, such as field or subform.*

Syntax

```
Reference_Syntax.getElement( STRING param1 [, INTEGER param2 ] )
```

Parameters

param1	A valid string representing the name of the object to retrieve.
param2 (Optiona l)	An integer value representing the instance of the object to retrieve.

Returns

The specified object.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
Subform1.getElement("border");
```

FormCalc

```
Subform1.getElement("border")
```

getFocus

Finds and returns the form object that currently has the input focus.

Syntax

```
Reference_Syntax.getFocus()
```

Parameters

None

Returns

The form object that currently has the input focus, or null if no form object has the input focus.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.6

getInvalidObjects

Returns a list of nodes contained within this subform (inclusive) that have a failed validation test.

Generates a list of all the invalid container objects, such as afield, exclusion group, or subform, contained within descendants of that subform. If the subform that this script method is called on is itself invalid, that subform is included in the returned list. The list is only generated on demand by recursively traversing the subform. The returned list is in document order.

The `getInvalidObjects` method does not return the list of mandatory fields until after the submit has fired. If the list of mandatory fields is required, the `execValidate` method must be called first.

Syntax

```
Reference_Syntax.getInvalidObjects()
```

Parameters

None

Returns

A list of invalid container objects in the order they exist on the form.

Applies to

Model	Object
FormModel	field

Version

XFA 2.9

getItemState

Returns the selection state of the specified item.

Syntax

```
Reference_Syntax.getItemState( INTEGER param )
```

Version

2.5

Parameters

param	A valid integer representing the zero-based index into the item.

Returns

True if the item was selected and false if it was not selected.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

getSaveItem

Retrieves the data value for the specified item index.

Syntax

```
Reference_Syntax.getSaveItem( INTEGER param )
```

Parameters

param	A valid integer representing the zero-based index into the item.

Returns

A valid string representing the text of the data item or null if no data item exists.

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

gotoRecord

Moves the current record of the data window to a particular record within the range of records in the data.

Syntax

```
Reference_Syntax.gotoRecord( INTEGER param )
```

Parameters

param	A valid integer value representing the specified record in the range of records.

Returns

Empty

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.gotoRecord(2);
```

FormCalc

```
xfa.dataWindow.gotoRecord(2)
```

For an example of using the `gotorecord` method to browse data records, see the example *Browsing records stored in a data file* available at www.adobe.com/go/dev_lc_scripting_samples.

gotoURL

Retrieves the specified URL. It is available only for client applications.

Syntax

```
Reference_Syntax.gotoURL( STRING param1 )
```

Parameters

para m1	A valid string representing a fully qualified or a relative URL. It is possible to include a query string at the end of the URL. If the form is being viewed inside a browser or Acroba®t Capture® is not available, the Weblink plug-in retrieves the requested URL. If the form is running inside Acrobat, the URL of the current document is obtained either from the document's base URL, from the URL of page 0 (if the document was Web Captured), or from the file system.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.gotoURL("http://www.adobe.com");
```

FormCalc

```
xfa.host.gotoURL("http://www.adobe.com")
```

h

Determines the height of a given form design object.

Syntax

```
Reference_Syntax.h( OBJECT param1 [, STRING param2 [, INTEGER param3 ] ] )
```

Parameters

param1	The fully qualified reference syntax expression of one of the following container XML Form Object Model objects: area, contentArea, draw, field, pageArea, subform.
param2 (Optional)	A string representing the unit type of the return value. If left blank, the default unit type is points.
param3 (Optional)	An integer representing a zero-based index value indicating the content area in which you want to obtain the object's height. If left blank, the default value is`0`. This parameter allows you to calculate the height of an object that is distributed across multiple content areas, such as pages. For example, if you want to find the height of a subform object that spans multiple content areas, you would use this parameter to enumerate the height of the subform in each of the content areas and add the totals together.

Returns

The height of the form design object in the specified content area.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// Returns the height of a single instance of TextField1
xfa.layout.h(TextField1,"in");

// Calculates the height of Subform1 across two content areas and displays
// the total in a message box.
var iHeight = xfa.layout.h(Subform1,"in",0) + xfa.layout.h(Subform1,"in",1);
xfa.host.messageBox(iHeight);
```

FormCalc

```
// Returns the height of a single instance of TextField1
xfa.layout.h(TextField1,"in")

// Calculates the height of Subform1 across two content areas and displays
// the total in a message box.
var iHeight = xfa.layout.h(Subform1,"in",0) + xfa.layout.h(Subform1,"in",1)
xfa.host.messageBox(iHeight)
```

hasDataChanged

Determines whether the current record data has changed.

This method is a pre-commit test of the active record. It compares the current record data with the record data from the current data source. If the data has changed, then this method returns`true`.

NOTE: *The data connection methods xfa.sourceSet.DataConnection.first, xfa.sourceSet.DataConnection.next, xfa.sourceSet.DataConnection.previous, and xfa.sourceSet.DataConnection.last perform an implicit update if the data has changed.*

Syntax

```
Reference_Syntax.hasDataChanged()
```

Parameters

None

Returns

`True` if the data has changed, and `false` if the data has not changed.

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

importData

Imports data to the current form from a specified file.

For security reasons, if you provide the parameter, the`importData`method executes only when performed on certified documents. If you do not provide the parameter, the document does not need to be certified and the user is prompted to provide a location and filename.

Syntax

```
Reference_Syntax.importData( [ STRING param ] )
```

Parameters

param(Optional)	A valid string representing the location and name of the file from which the data will be imported. If you omit this parameter, a dialog box opens to let the user select the file manually. This parameter is valid only on certified documents where the user has sufficient permissions.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.importData("filename.xdp");
```

FormCalc

```
xfa.host.importData("filename.xdp")
```

insert

Inserts a node before a specific node in the node list.

Syntax

```
Reference_Syntax.insert( OBJECT param1, OBJECT param2 )
```

Parameters

param1	A valid reference syntax expression representing the node to be inserted.
param2	A valid reference syntax expression representing the node to insert before.

Returns

Empty

Applies to

listclass

Version

XFA 2.1

Examples

JavaScript

```
xfa.datasets.connectionData.DataConnection.nodes.insert(oHeader,oFirst);
```

FormCalc

```
xfa.datasets.connectionData.DataConnection.nodes.insert(oHeader,oFirst)
```

insertInstance

Inserts a new instance of a subform or subform set into a form.

Syntax

```
Reference_Syntax.insertInstance( INTEGER param1 [, BOOLEAN param2 ] )
```

Parameters

param1	An integer specifying the zero-indexed position to insert the instance within a set of instances.

param2 (optional)	A Boolean value indicating if data must be merged with the new subform instance. • `true | 1`(JavaScript) or`1`(FormCalc) • Merges the new subform instance with the available data. • `false | 0`(JavaScript) or`0`(FormCalc) • The new subform instance is not merged with data.

Returns

An object representing the new instance of the subform or subform set.

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
Subform1.instanceManager.insertInstance(3, 0);
```

FormCalc

```
Subform1.instanceManager.insertInstance(3, 0)
```

isBOF

Determines if the current location is at the beginning of the recordset. The bofAction property must be set to`stayBOF`.

Syntax

```
Reference_Syntax.isBOF()
```

Parameters

None

Returns

`True` if the current location is at the beginning of the recordset. `False` if the current location is not at the beginning of the recordset.

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.nodes.item(nIndex).isBOF();
```

FormCalc

```
xfa.sourceSet.nodes.item(nIndex).isBOF()
```

isCompatibleNS

Determines if a specified namespace is functionally equivalent, that is compatible, with the namespace of this model. It determines if the two namespaces are equivalent, even though the strings that represent them is not identical.

Syntax

```
Reference_Syntax.isCompatibleNS( STRING param )
```

Parameters

param	A valid string representing the namespace to compare.

Returns

`True`if the namespaces are equivalent and`False`if they are not compatible.

Applies to

modelclass class

Version

XFA 2.1

isEOF

Determines if the current location is at the end of the recordset. The eofAction property must be set to`stayEOF`.

Syntax

```
Reference_Syntax.isEOF()
```

Parameters

None

Returns

`True` if the current location is at the end of the recordset. `False` if the current location is not at the end of the recordset.

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.nodes.item(nIndex).isEOF();
```

FormCalc

```
xfa.sourceSet.nodes.item(nIndex).isEOF()
```

isPropertySpecified

Checks if a specific property has been defined for this node.

Syntax

Reference_Syntax.isPropertySpecified(STRING *param1* [, BOOLEAN *param2* [, INTEGER *param3*]])

Parameters

param1	A valid string representing the name of the object property to search on.

param2 (Option al)	A Boolean value that indicates if inheritance from parent classes should be taken into consideration. • `true | 1`(JavaScript) or`1`(FormCalc) (default) • Determines if this property is inherited from a parent class. • `false | 0`(JavaScript) or`0`(FormCalc) • Determines if this property is defined for the current object, regardless of inheritance.
param3 (Option al)	An integer value specifying which occurrence of the property to examine. This parameter is only valid for those properties that can have multiple instances.

Returns

`True` if the property is specified and `false` if it is not specified.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
TextField1.isPropertySpecified("ui");
```

FormCalc

```
TextField1.isPropertySpecified("ui")
```

isRecordGroup

Indicates if a particular dataGroup object is also a single record.

Syntax

```
Reference_Syntax.isRecordGroup( OBJECT param )
```

Parameters

param	A valid dataGroup object from the current data source.

Returns

`True` if the specified data group is also a single record, and `false` if it is not.

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.isRecordGroup(xfa.datasets.data.dataNodeName);
```

FormCalc

```
xfa.dataWindow.isRecordGroup(xfa.datasets.data.dataNodeName)
```

item

Describes a zero-based index into the collection.

Syntax

```
Reference_Syntax.item( INTEGER param )
```

Parameters

param	A zero-based index into the collection.

Returns

An object representing an XFA tree.

Applies to

listclass

Version

XFA 2.1

RELATED LINKS:

Referencing objects

Changing the background color

Populating a drop-down list

Disabling all form fields

last

Moves to the last record in the recordset, and populates the data model with the record data.

NOTE: *The data connection method*`xfa.sourceSet.DataConnection.last`*looks up a table and updates the table if the data has changed. It uses the hasDataChanged method to determine whether the data has changed.*

Syntax

```
Reference_Syntax.last()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.last();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.last()
```

loadXML

Loads and appends a specified XML document to the current object.

Syntax

```
Reference_Syntax.loadXML( STRING param1 [, BOOLEAN param2 [, BOOLEAN param3 ] ] )
```

Parameters

param1	A valid string representing the XML document.
param2 (Optional)	A Boolean value indicating if the root node within the XML document should be ignored. • `true | 1`(JavaScript) or`1`(FormCalc) (default) • Ignores the root node of the XML document, and appends the remaining XML nodes directly to the current XML Form Object Model object. • `false | 0`(JavaScript) or`0`(FormCalc) • Appends the root node of the XML document directly to the current XML Form Object Model object.
param3 (Optional)	A Boolean value indicating if the data from the XML document should overwrite the information for the current XML Form Object Model object. • `true | 1`(JavaScript) or`1`(FormCalc) • Replaces the content of the current XML Form Object Model object with the XML document data. • `false | 0`(JavaScript) or`0`(FormCalc) (default) • Appends the XML document data to the current XML Form Object Model object.

Returns

Empty

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.datasets.data.loadXML(xmlData,0,1);
```

FormCalc

```
xfa.datasets.data.loadXML(xmlData,0,1)
```

messageBox

Displays a dialog box on the screen. It is available only for client applications.

Syntax

```
Reference_Syntax.messageBox( STRING param1 [, STRING param2 [, INTEGER param3 [,
INTEGER param4 ] ] ] )
```

Parameters

param1	A valid string representing the message to display.
param2 (Optional)	A valid string representing the title to appear in the title bar of the dialog window. To help protect against Internet spoofing, the dialog window title begins with the text “Warning: JavaScript Window -”. The window title that you specify in this parameter displays after the warning text.
param3 (Optional)	An integer representing the icon to display in the dialog box. • `0`(Error) - This is the default. • `1`(Warning) • `2`(Question) • `3`(Status)

param4 (Optional)	An integer representing the buttons to display. • `0`(OK) - This is the default. • `1`(OK, Cancel) • `2`(Yes, No) • `3`(Yes, No, Cancel)

While *param2*, *param3*, and *param4* are optional, if you want to include a particular parameter, include all of the preceding parameters. For example, the following JavaScript is incorrect:

```
xfa.host.messageBox("Hello World!",3,1);
```

In this case you must also specify a value for *param2* for the JavaScript to execute correctly.

Returns

A valid integer representing the value of the button pressed by the user:

- `1` (OK)
- `2` (Cancel)
- `3` (No)
- `4` (Yes)

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.messageBox("This is a message", "This is a title", 3, 1);
```

FormCalc

```
xfa.host.messageBox("This is a message", "This is a title", 3, 1)
```

RELATED LINKS:

Creating a node in the data model

Populating a drop-down list

Making an object visible or invisible

Using radio buttons and check boxes

Determining that a form has changed

metadata

Collects a comprehensive Extensible Metadata Platform (XMP) metadata packet for the document.

Any third-party metadata is collected and converted to XMP as follows:

- All elements are given the namespace http://ns.adobe.com/xfa/promoted-desc/, with the suggested prefix `desc:`.
- The value of the `name` object becomes the object name.
- A `desc:ref` property qualifier is added, whose value is an XPath expression pointing back to the parent of the original `desc`. The order of desc objects within a single parent is not preserved. Multiple desc objects of the same name are not collected. Only the first desc object appears in the output.
- Content under the desc object is converted as follows:

Object	XMP type
boolean	Boolean
date	Date
dateTime	Date
decimal	Real
exData	external: URI embedded: Thumbnail
float	Real
image	external: URI embedded: Thumbnail
integer	Integer
text	Text
time	Date

When the XDP file is rendered as a PDF file, the collected metadata is written to the PDF file's XMP packet. Copies of the same metadata continue to exist in the XFA stream inside the PDF file.

Syntax

```
Reference_Syntax.metadata ( INTEGER param )
```

Parameters

param	(Optional) An integer representing the serialization format. • `0`(RDF) (default) • `1`(PlainXMP)

Returns

A valid string representing the XML serialization of the XMP metadata.

Applies to

Model	Object
FormModel	desc template

Version

XFA 2.5

moveCurrentRecord

Repositions the current record to another location within the range of records.

Syntax

```
Reference_Syntax.moveCurrentRecord( INTEGER param )
```

Parameters

para m	A valid integer representing the number of records separating the current record and the desired destination record. A positive integer indicates a record between the current record and the end of the range of records, a negative value indicates a record between the current record and the beginning of the range.

Returns

Empty

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.moveCurrentRecord(1);
```

FormCalc

```
xfa.dataWindow.moveCurrentRecord(1)
```

For an example of using the `moveCurrentrecord` method to browse data records, see the example *Browsing records stored in a data file* available at www.adobe.com/go/dev_lc_scripting_samples.

moveInstance

Moves a `subform` object within a set of subform instances.

The corresponding data model information for the subform is also relocated within the data model.

Syntax

```
Reference_Syntax.moveInstance( INTEGER param1, INTEGER param2 )
```

Parameters

param1	A valid integer representing the 0 based index position of the form model object to move.
param2	A valid integer representing the 0 based position of the child object within the set of instances.

Returns

Empty

Applies to

Model	Object
FormModel	instanceManager

Version

XFA 2.1

Examples

JavaScript

```
Subform1.instanceManager.moveInstance(0,6);
```

FormCalc

```
Subform1.instanceManager.moveInstance(0,6)
```

RELATED LINKS:

Manipulating instances of a subform

namedItem

Gets the first child of this node with the given name.

Syntax

```
Reference_Syntax.namedItem( STRING param )
```

Parameters

param	A valid string representing the name of this node.

Returns

An object representing the first child of this node with the given name.

Applies to

treeListclass class

Version

XFA 2.1

next

Moves to the next record in the recordset, and populates the data model with the record data.

NOTE: *The data connection method `xfa.sourceSet.DataConnection.next` looks up a table and updates the table if the data has changed. It uses the hasDataChanged method to determine whether the data has changed.*

Syntax

```
Reference_Syntax.next()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.next();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.next()
```

open

Connects to the data source and populates the data model with the results of the current record.

Syntax

```
Reference_Syntax.open()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.nodes.item(nIndex).open();
```

FormCalc

```
xfa.sourceSet.nodes.item(nIndex).open()
```

openList

Opens the drop-down list specified by the reference syntax expression.

It is available only for client applications.

Syntax

```
Reference_Syntax.openList( OBJECT param )
Reference_Syntax.openList( STRING param ) (deprecated)
```

Parameters

param	A fully qualified reference syntax expression that specifies a drop-down list.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.6

XFA 2.1 (deprecated)

page

Determines the page number that contains a given form design object. If the object spans multiple pages, this method returns the first page the object occurs on.

Syntax

```
Reference_Syntax.page( OBJECT param )
```

Parameters

para m	The fully qualified reference syntax expression of one of the following a container form design objects: field, draw, subform, area, pageArea, contentArea.

Returns

An integer representing the logical page number (based on the initial page number) that contains the specified form object. This method returns `0` if the object specified in *param* cannot be found on the form.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.page(this);
```

FormCalc

```
xfa.layout.page($)
```

RELATED LINKS:

Working with page numbers and page counts

pageContent

Retrieves types of form design objects from a specified page of a form.

Syntax

```
Reference_Syntax.pageContent( INTEGER param1 [, STRING param2 [, BOOLEAN param3
] ] )
```

Parameters

param1	An integer representing the desired page number. This value is 0-based.

param2 (Optional)	Return the following types of containers: • `field` • Returns all of the following form design objects: Button, Check Box, Date/Time Field, Drop-down List, Signature Field, Image Field, List Box, Numeric Field, Password Field, Radio Button, and Text Field. • `draw` • Returns all of the following form design objects: Circle, Line, Rectangle, Static Image, and Static Text. • `subform` • Returns all subform form design objects. • `area` • Returns all area form design objects. • pageArea • Returns all pageArea form design objects. • `contentArea` • Returns all contentArea form design objects. • `empty`(default) • Returns all containers.
param3 (Optional)	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Returns only pageArea content nodes. • `false | 0`(JavaScript) or`0`(FormCalc) • Returns all non-pageArea content nodes.

Returns

A collection of form design objects from the specified page number.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// Get the fields in a document
var oFields = xfa.layout.pageContent(i, "field");
```

FormCalc

```
// Get the fields in a document
var oFields = xfa.layout.pageContent(i, "field")
```

RELATED LINKS:

Referencing objects

Disabling all form fields

pageCount

Determines the number of pages of the current form.

Syntax

```
Reference_Syntax.pageCount()
```

Parameters

None

Returns

An integer representing the total number of pages of the form.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.pageCount();
```

FormCalc

```
xfa.layout.pageCount()
```

RELATED LINKS:

Referencing objects

Working with page numbers and page counts

Disabling all form fields

pageDown

Moves to the next page of a form. Use the pageDown method at runtime.

Syntax

```
Reference_Syntax.pageDown()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.pageDown();
```

FormCalc

```
xfa.host.pageDown()
```

RELATED LINKS:

Working with page numbers and page counts

pageSpan

Determines the number of logical pages a given form design object spans.

Syntax

```
Reference_Syntax.pageSpan( OBJECT param )
```

Parameters

param	The fully qualified reference syntax expression of one of the following a container form design objects: • area • contentArea • draw • field • pageArea • subform

Returns

An integer representing the number of logical pages a form object spans. For example, consider an 8-page form with a form object that exists only on pages 2, 4, 5, and 6. In this case, using the pageSpan method on the form object returns a value of 5, which is the number of pages of the form the object spans.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.pageSpan(this);
```

FormCalc

```
xfa.layout.pageSpan($)
```

pageUp

Moves to the previous page of a form. Use the pageUp method at runtime.

Syntax

```
Reference_Syntax.pageUp()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.pageUp();
```

FormCalc

```
xfa.host.pageUp()
```

RELATED LINKS:

Working with page numbers and page counts

previous

Moves to the previous record in the recordset, and populates the data model with the record data.

NOTE: *The data connection method*`xfa.sourceSet.DataConnection.previous`*looks up a table and updates the table if the data has changed. It uses the hasDataChanged method to determine whether the data has changed.*

Syntax

```
Reference_Syntax.previous()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.previous();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.previous()
```

print

Prints a specific number of pages from a document. It is available only for client applications.

Syntax

```
Reference_Syntax.print( BOOLEAN param1, INTEGER param2, INTEGER param3, BOOLEAN
param4, BOOLEAN param5, BOOLEAN param6, BOOLEAN param7, BOOLEAN param8 )
```

Parameters

param 1	• `true | 1`(JavaScript) or `1`(FormCalc) (default) • Displays a print dialog box and prompts the user for printing setup information and confirmation of the action. • `false | 0`(JavaScript) or`0`(FormCalc) • Does not display a print dialog box. Printing proceeds without prompting the user for information or confirmation.
param 2	A valid string representing the page number of the beginning of the range to print. Page values are 0-based, so you represent page 1 with a value of`0`. The start page is included in the printing.
param 3	A valid string representing the page number of the end of the range to print. Page values are 0-based, so you represent page 1 with a value of`0`. The end page is included in the printing.
param 4	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Does not display a cancel dialog box during the printing process. • `false | 0`(JavaScript) or`0`(FormCalc) • Displays a cancel dialog box to stop the printing process.

param 5	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Shrinks the page (if necessary) to fit within the imageable area of the printed page. • `false | 0`(JavaScript) or`0`(FormCalc) • Does not shrink the page to fit within the imageable area of the printed page.
param 6	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Prints each page as an image. • `false | 0`(JavaScript) or`0`(FormCalc) • Prints each page as a page of text.
param 7	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Prints the pages in reverse order. • `false | 0`(JavaScript) or`0`(FormCalc) • Prints the pages in order.
param 8	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Prints all annotations. • `false | 0`(JavaScript) or`0`(FormCalc) • Does not print annotations.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.print(1, "0", "0", 0, 1, 0, 0, 0);
```

FormCalc

```
xfa.host.print(1, "0", "0", 0, 1, 0, 0, 0)
```

recalculate

Forces a specific set of scripts located on calculate events to execute. The specific events can be either pending calculate events or all calculate events.

Syntax

Reference_Syntax`.recalculate( BOOLEAN` *param* `)`

Parameters

param	A Boolean value indicating which calculation scripts should execute. • `true	1`(JavaScript) or`1`(FormCalc) (default) • All calculation scripts are re-executed. • `false	0`(JavaScript) or`0`(FormCalc) • Only pending calculation scripts should execute.

Returns

Empty

Applies to

Model	Object
FormModel	form template

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.recalculate(1);
```

FormCalc

```
xfa.form.recalculate(1)
```

record

Returns a record in a position relative to the current record.

Syntax

```
Reference_Syntax.record( INTEGER param )
```

Parameters

param	A valid integer representing the number of records separating the current record and the desired destination record. A positive integer indicates a record between the current record and the end of the range of records, a negative value indicates a record between the current record and the beginning of the range.

Returns

Object

Applies to

Model	Object
DataModel	dataWindow

Version

XFA 2.1

Examples

JavaScript

```
xfa.dataWindow.record(0).dataNodeName.value;
```

FormCalc

```
xfa.dataWindow.record(0).dataNodeName.value
```

RELATED LINKS:

Creating a node in the data model

Concatenating data values

Populating a drop-down list

relayout

Reapplies the layout options to the current form.

Syntax

```
Reference_Syntax.relayout()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.relayout();
```

FormCalc

```
xfa.layout.relayout()
```

relayoutPageArea

Replaces the layout of the pageArea object content with a new layout.

Syntax

```
Reference_Syntax.relayoutPageArea( [ INTEGER param ] )
```

Parameters

param(Optional)	The page number of the page to substitute. Page number values are 0 based.

Returns

Empty

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.layout.relayoutPageArea(0);
```

FormCalc

```
xfa.layout.relayoutPageArea(0)
```

remerge

Forces the remerging of the data model and template model to re-create the form model. After the remerge is complete, any layout model processing must be redone if necessary for the completed form.

Syntax

```
Reference_Syntax.remerge()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
FormModel	form

Version

XFA 2.1

Examples

JavaScript

```
xfa.form.remerge();
```

FormCalc

```
xfa.form.remerge()
```

remove

Removes a node from the node list.

Syntax

```
Reference_Syntax.remove( OBJECT param )
```

Parameters

param	A valid reference syntax expression representing the node to be removed.

Returns

Empty

Applies to

listclass

Version

XFA 2.1

Examples

JavaScript

```
xfa.record.nodes.remove(oNode);
```

FormCalc

```
xfa.record.nodes.remove(oNode)
```

RELATED LINKS:

Creating a node in the data model

removeAttribute

Removes an XML attribute from a custom third-party XML packet that is added to the XML source of a form design.

Syntax

```
Reference_Syntax.removeAttribute( STRING param )
```

Parameters

param	A valid string representing the name of the property to remove.

Returns

Empty

Applies to

Model	Object
XFAModel	packet

Version

XFA 2.1

Examples

Using a custom XML packet named `myCustomPacket` with an attribute named `id`, you could remove the attribute using the following scripts:

JavaScript

```
xfa.myCustomPacket.removeAttribute("id");
```

FormCalc

```
xfa.myCustomPacket.removeAttribute("id")
```

removeInstance

Removes a specified subform or subform set from the form model.

When removing a subform instance, avoid subform occurrence violations. You cannot remove a subform instance if it has reached the minimum number of instances. When a subform reaches the minimum number of instances, the JavaScript debugger displays an error message:

```
The element [min] has violated its allowable number of occurrences.
```

If the end user is allowed to remove every instance of a subform, reset the minimum number of instances to`0`before attempting to remove an instance. Otherwise, the script should prevent any attempt to remove subform instances beyond the minimum number.

Syntax

```
Reference_Syntax.removeInstance( INTEGER param )
```

Parameters

param	A valid integer representing the 0 based index position within the form model of the subform or subform set to remove.

Returns

Empty

Applies to

Model	Object
FormModel	instanceManager

Version

XFA 2.1

Examples

JavaScript

```
Subform2.instanceManager.removeInstance(3);
```

FormCalc

```
Subform2.instanceManager.removeInstance(3)
```

RELATED LINKS:

Manipulating instances of a subform

requery

Updates the current data binding by re-executing the query on which the object data is based. Calling this method is equivalent to calling the close and open methods in succession.

Syntax

```
Reference_Syntax.requery()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

reset

Resets all of the properties within the XML form event model.

Syntax

```
Reference_Syntax.reset()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
EventModel	eventPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.event.reset();
```

FormCalc

```
xfa.event.reset()
```

resetData

Resets the fields to their default values within a document.

Syntax

```
Reference_Syntax.resetData([ STRING param ])
```

Parameters

param (Option al)	A valid string listing either the names or the equivalent reference syntax expressions of the fields to reset. The list entries are delimited by the “,” (comma) character. If the string is not present or empty, all the fields in the form are reset to their default value.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.resetData("xfa.form.form1.TextField1,xfa.form.form1.TextField2");
```

FormCalc

```
xfa.host.resetData("xfa.form.form1.TextField1,xfa.form.form1.TextField2")
```

resolveNode

Evaluates the specified reference syntax expression, beginning with the current XML form object model object, and returns the value of the object specified in the reference syntax expression.

The search for an object starts at a different point in the form hierarchy, depending on how the resolveNode property was accessed:

- `this.resolveNode()` The search starts from the current object and moves up the form hierarchy.
- `xfa.resolveNode()` The search starts at the top of the form hierarchy and moves down.

  ***NOTE:** The search could return unexpected results if the form contains several objects that use the same name. It returns the value of the first object that it finds.*

Syntax

```
Reference_Syntax.resolveNode( STRING param )
```

Parameters

param	A valid string representing a reference syntax expression that evaluates to a specific XML form object model object.

Returns

A single object corresponding to the reference syntax expression, if it exists. If no such object exists, this method returns `null`.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.resolveNode("#subform").x = "2in";
```

```
TextField1.resolveNode("ui.#textEdit").border.edge.stroke = "lowered";
```

RELATED LINKS:

Referencing objects

Creating a node in the data model

Manipulating instances of a subform

Populating a drop-down list

resolveNodes

Evaluates the specified reference syntax expression, beginning with the current XML form object model object, and returns the value of the object or objects specified in the reference syntax expression.

The search for an object starts at a different point in the form hierarchy, depending on how the resolveNode property was accessed:

- `this.resolveNodes()` The search starts from the current object and moves up the form hierarchy.
- `xfa.resolveNodes()` The search starts at the top of the form hierarchy and moves down.

  NOTE: *The search could return unexpected results if the form contains several objects that use the same name. It returns the value of the first object that it finds.*

Syntax

```
Reference_Syntax.resolveNodes( STRING param )
```

Parameters

param	A valid string representing a reference syntax expression that evaluates to one or many XML form object model objects.

Returns

A single object corresponding to the reference syntax expression, if it exists. If no such object exists, this method returns `empty`.

Applies to

treeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.resolveNodes("Subform1[*]");
```

FormCalc

```
xfa.resolveNodes("Subform1[*]")
```

RELATED LINKS:

Referencing objects

Concatenating data values

Using radio buttons and check boxes

response

Displays a dialog box containing a question and an entry field for the user to reply to the question. The return value is a string containing the user's response. If the user presses the cancel button on the dialog box, the response is null.

Syntax

```
Reference_Syntax.response(STRING param1 [, STRING param2 [, STRING param3 [,
BOOLEAN param4 ] ] ])
```

Parameters

param1	A valid string representing a question for the user.
param2 (Optional)	A valid string representing the title that appears in the title bar of the dialog box.
param3 (Optional)	A valid string representing the default value for the answer to the question.

param4 (Optional)	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Masks the user’s answer with * (asterisks). • `false | 0`(JavaScript) or`0`(FormCalc) • Does not mask the user’s answer.

Returns

A string representing the user’s answer. If the user presses the cancel button on the dialog box, the answer is the null object.

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
xfa.host.response("Question", "Title", "Default Value");
```

FormCalc

```
xfa.host.response("Question", "Title", "Default Value")
```

restore

Updates the property’s current value with the saved value.

The script performs any required validations before calling the `restore` property.

Syntax

```
Reference_Syntax.restore()
```

Parameters

None

Returns

Null

Applies to

Model	Object
FormModel	

Version

XFA 2.5

resync

Refreshes the current recordset or data connection.

Syntax

```
Reference_Syntax.resync()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

saveFilteredXML

Saves the current node to a string, but includes only a subset of the child nodes.

Syntax

```
Reference_Syntax.saveFilteredXML( OBJECT param1 [, "pretty" ] )
```

Parameters

param1	A node list that includes the subset of nodes to include in the string.
`pretty` (Optional)	Outputs the XML string is an easier to read format.

Returns

A valid string representing the XML fragment that includes only the specified subset of the current node.

Applies to

nodeclass

Version

XFA 2.4

saveXML

Saves the XML structure of the current nodeclass to a string.

Syntax

```
Reference_Syntax.saveXML( [ "pretty" ] )
```

Parameters

`pretty` (Optional)	Outputs the XML string in an easier to read format.

Returns

A valid string representing the XML fragment of the current object.

Applies to

nodeclass class

Version

XFA 2.1

Examples

JavaScript

```
xfa.data.saveXML();
xfa.data.saveXML("pretty");
```

FormCalc

```
xfa.data.saveXML()
xfa.data.saveXML("pretty")
```

RELATED LINKS:

Determining that a form has changed

selectedMember

Returns the selected member of an exclusion group.

Syntax

```
Reference_Syntax.selectedMember( [ STRING param ] )
```

Parameters

param (Optional)	A valid string representing the name of the exclusion group member, provided the exclusion group member is within the same scope as the referencing object. Otherwise, a valid string representing the reference syntax expression of the exclusion group member to select.

Returns

The object representing the selected member of the exclusion group. In Designer, for example, this method would return the selected radio button.

Applies to

Model	Object
FormModel	exclGroup

Version

XFA 2.1

setAttribute

Sets the value of a specified property.

Syntax

```
Reference_Syntax.setAttribute( STRING param1, STRING param2 )
```

Parameters

param1	A valid string representing the new value of the property.
param2	A valid string representing the name of the property.

Returns

Empty

Applies to

Model	Object
XFAModel	packet

Also applies to the nodeclass class.

Version

XFA 2.1

Examples

JavaScript

```
Subform1.border.setAttribute("open", "break");
```

setElement

Sets a specified object to be the current object.

Syntax

```
Reference_Syntax.setElement( OBJECT param1 [, STRING param2 ] )
```

Parameters

param1	An object representing the new object.
param2 (Optional)	A valid string representing the name of the object to replace.

Returns

Empty

Applies to

nodeclass class

Version

XFA 2.1

setFocus

Sets the keyboard focus to the form object specified by the reference syntax expression.

It is available only for client applications.

When the *param1* argument is omitted or null, `setFocus` performs a clear focus operation. If any form object has the input focus, the focus is removed from that object and any pending edits in that object are committed, dirtying the document if appropriate. If committing the changes causes a validation error, that error is displayed. If no form object has the input focus, the zero-argument `setFocus` does nothing.

You cannot use `setFocus` with the `form:ready`, `layout:ready`, or `initialize` events.

Syntax

```
Reference_Syntax.setFocus( OBJECT param )
Reference_Syntax.setFocus( STRING param ) (deprecated)
```

Parameters

param	(Optional) A valid string representing a fully qualified reference syntax expression for the form object.

Returns

Empty

Applies to

Model	Object
HostModel	hostPseudoModel

Version

XFA 2.6

XFA 2. 1 (deprecated)

Examples

JavaScript

```
xfa.host.setFocus(xfa.form.form1.TextField1);
```

FormCalc

```
xfa.host.setFocus("xfa.form.form1.TextField1")
```

setInstances

Adds or removes specified subforms or subform sets from the form model.

Syntax

Reference_Syntax.setInstance(INTEGER *param*)

Parameters

param	A valid integer representing the desired number of instances of a particular subform or subform set in the form model.

Returns

Empty

Applies to

Model	Object
FormModel	instanceManager

Version

XFA 2.1

Examples

JavaScript

```
Subform1.instanceManager.setInstances(5);
```

FormCalc

```
Subform1.instanceManager.setInstances(5)
```

RELATED LINKS:

Manipulating instances of a subform

setItems

Adds new items and values to the current form field. For example, this method adds new items and values as arguments to a drop-down list.

Syntax

```
Reference_Syntax.setItems( STRING param1 [, INTEGER param2] )
```

Version

2.8

Parameters

param 1	A list of items and values separated by a comma. For example, “One,Two,Three” or “One,1,Two,2,Three,3”. For items without values, leave the value blank. For example, “item1,value1,item2,item3”.
param 2	The number of columns per item. For example, the itemValueList string, "One,1,Two,2,Three,3" has numColumns=2. An itemValueList "One,Uno,1,Two,Due,2,Three,Tre,3" has numColumns=3 while an itemValueList "One,Two,Three" has numColumns=1. The value of 1 is the default.

Returns

`True` if the list was created successfully, `False` if the number of items do not match number of columns.

Applies to

Model	Object
FormModel	field

Version

XFA 2.8

setItemState

Sets the selection state of the specified item.

Syntax

```
Reference_Syntax.setItemState( INTEGER param1, BOOL param2 )
```

Version

2.8

Parameters

param1	A valid integer representing the zero-based index into the item.
param2	• `true | 1`(JavaScript) or`1`(FormCalc) • Adds this item to the current selection. • `false | 0`(JavaScript) or`0`(FormCalc) • Removes this item from the current selection.

Returns

None

Applies to

Model	Object
FormModel	field

Version

XFA 2.5

sheet

Determines the sheet number that contains the form object.

Some duplex documents use sheet numbers to number only the front surfaces. For example, you can use sheet numbers when the front surfaces contain variable data and the back surfaces contain boil-erplate text, such as instructions, disclaimers, or legends.

Syntax

```
Reference_Syntax.sheet( OBJECT param )
```

Version

2.5

Parameters

param	The fully qualified reference syntax expression of one of the following form objects: field, draw, subform, area, pageArea, contentArea.

Returns

A zero-based integer representing the sheet number.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.5

sheetCount

Determines the number of sheets in the current form.

Syntax

```
Reference_Syntax.sheetCount( )
```

Version

2.5

Parameters

None

Returns

An integer representing the total number of sheets.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.5

sheetCountInBatch

Determines the sheet count of the current batch.

Syntax

```
Reference_Syntax.sheetCountInBatch( )
```

Version

2.5

Parameters

None

Returns

An integer representing the sheet count of the current batch.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.5

sheetInBatch

Determines which sheet within the batch contains the form object.

Syntax

```
Reference_Syntax.sheetInBatch( OBJECT param )
```

Version

2.5

Parameters

para m	The fully qualified reference syntax expression of one of the following form objects: field, draw, subform, area, pageArea, contentArea.

Returns

An integer representing the sheet number that contains the form object.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.5

sign

Signs a given node list and places the signature in the target location.

Syntax

```
Reference_Syntax.sign( OBJECT param1, STRING param2, STRING param3 [, STRING
param4 [, BOOLEAN param5 [, OBJECT param6 [, OBJECT param7 ] ] ] ] )
```

Parameters

param 1	input	A valid XFA node list of all the nodes to be signed.
param 2	input	A valid string representing a reference syntax expression to the parent of the signature node.
param 3	input	A valid string representing an XML identification value for the signature.
param 4 (Optional)	input (Optional)	The only valid value is`open`(default) indicating that data nodes are open for edit and can be manipulated at runtime.

param 5 (Optional)	input (Optional)	Represents whether to use a dialog to allow a user to sign the form. • `true | 1`(JavaScript) or`1`(FormCalc) (default) • Indicates that a dialog is used for this operation. • `false | 0`(JavaScript) or`0`(FormCalc) • Indicates that a dialog is not used for this operation. If you specify this value you must provide an alternative security handler in param6 so that the application hosting the form can retrieve the correct password and credentials to use when signing the form.
param 6 (Optional)	input (Optional)	Represents the SecurityHandler object that is used to sign. Security objects normally require initialization before they can be used for signing. You must provide a value for this parameter if you set *param5* to`False`.
param 7 (Optional)	output (Optional)	Represents an output SignatureInfo object containing the writable properties of the signature.

Returns

`True`if the signature was applied successfully and`False`if the signing option was canceled. An exception is returned if the signing operation fails.

Applies to

Model	Object
SignatureModel	signaturePseudoModel

Version

XFA 2.1

Examples

JavaScript

```
//This example signs all of the form objects that currently contain data.
var oData = xfa.resolveNode("xfa.data.form1");
xfa.signature.sign(oData, "xfa.data.signatures", "mySignature");
```

FormCalc

```
//This example signs all of the form objects that currently contain data.
var oData = xfa.resolveNode("xfa.data.form1")
xfa.signature.sign(oData, "xfa.data.signatures", "mySignature")
```

update

Updates the current record in the record set.

Syntax

```
Reference_Syntax.update()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

Examples

JavaScript

```
xfa.sourceSet.dataConnectionName.update();
```

FormCalc

```
xfa.sourceSet.dataConnectionName.update()
```

updateBatch

Writes all pending batch updates to the data source.

Syntax

```
Reference_Syntax.updateBatch()
```

Parameters

None

Returns

Empty

Applies to

Model	Object
sourceSetModel	source

Version

XFA 2.1

verify

Checks the validity of a signature.

Syntax

```
Reference_Syntax.verify( OBJECT param1 [, BOOLEAN param2 [, OBJECT param3 [,
OBJECT param4 ] ] ] )
```

Parameters

param 1	input	A valid XML signature node.
param 2 (Optional)	input (Optional)	• `true | 1`(JavaScript) or`1`(FormCalc) (default) • Indicates that a dialog box is used for this operation. • `false | 0`(JavaScript) or`0`(FormCalc) • Indicates that a dialog box is not used for this operation.
param 3(Optional)	input (Optional)	The SecurityHandler object that is used to sign. Security objects normally require initialization before they can be used for signing.
param 4 (Optional)	output (Optional)	An output SignatureInfo object containing the writable properties of the signature.

Returns

An integer representing the validity of the signature or an exception if the node is not a signature node. The following table describes the validity values:

Value	Description
0	Signature is blank.
1	Unknown status. In this case, no attempt to validate the signature was made. One possible cause is a software or hardware issue that is preventing the validation from occurring.
2	Signature is invalid.

Val ue	Description
3	Signature is valid, but the identity of the signer could not be verified.
4	Signature is valid and the identity of the signer is valid.

Applies to

Model	Object
SignatureModel	signaturePseudoModel

Version

XFA 2.1

Examples

JavaScript

```
//This example examines the validity of all signed objects on a form. For
//each signed object, the integer return value of the verify() method
// displays in a message box.
var oSigs = xfa.signature.enumerate();
var iNum = oSigs.length;
for (var i=0; i < iNum; i++)
{
var oChild = oSigs.item(i);
var iVerify = xfa.signature.signer(child);
xfa.host.messageBox(iVerify);
}
```

FormCalc

```
//This example examines the validity of all signed objects on a form. For
//each signed object, the integer return value of the verify() method
// displays in a message box.
var oSigs = xfa.signature.enumerate()
var iNum = oSigs.length - 1
for i=0 upto iNum step 1 do
var oChild = oSigs.item(i)
var iVerify = xfa.signature.signer(child)
```

```
xfa.host.messageBox(iVerify)
endfor
```

w

Determines the width of a given form design object.

Syntax

```
Reference_Syntax.w( OBJECT param1 [, STRING param2 [, INTEGER param3 ] ] )
```

Parameters

param1	The fully qualified reference syntax expression of one of the following container XML Form Object Model objects: area, contentArea, draw, field, pageArea, subform.
param2 (Optiona l)	A string representing the unit type of the return value. If left blank, the default unit type is points.
param3 (Optiona l)	An integer representing a zero-based index value indicating the content area in which you want to obtain the object's width. If left blank, the default value is`0`. This parameter allows you to calculate the width of an object that is distributed across multiple content areas, such as pages. For example, if you want to find the width of a subform object that spans multiple content areas, you would use this parameter to enumerate the width of the subform in each of the content areas and add the totals together.

Returns

The width of the form design object in the current content area.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// Returns the width of a single instance of TextField1
xfa.layout.w(TextField1,"in");

// Calculates the width of Subform1 across two content areas and displays
// the total in a message box.
var iWidth = xfa.layout.w(Subform1,"in",0) + xfa.layout.w(Subform1,"in",1);
xfa.host.messageBox(iWidth);
```

FormCalc

```
// Returns the width of a single instance of TextField1
xfa.layout.w(TextField1,"in")

// Calculates the width of Subform1 across two content areas and displays
// the total in a message box.
var iWidth = xfa.layout.w(Subform1,"in",0) + xfa.layout.w(Subform1,"in",1)
xfa.host.messageBox(iWidth)
```

x

Determines the x coordinate of a given form design object relative to its parent object.

Syntax

`*Reference_Syntax*.x( OBJECT *param1* [, STRING *param2* [, INTEGER *param3* ] ] )`

Parameters

param1	The fully qualified reference syntax expression of one of the following container XML Form Object Model objects: area, contentArea, draw, field, pageArea, subform.
param2 (Optional)	A string representing the unit type of the return value. If left blank, the default unit type is points.

param3 (Option al)	An integer representing a zero-based index value indicating the content area in which you want to obtain the object’s x coordinate. If left blank, the default value is`0`. This parameter allows you to calculate the x coordinate of an object that is distributed across multiple content areas, such as pages. For example, if you want to find the absolute x positioning of a subform object that spans multiple content areas, you would use this parameter to enumerate the x coordinate of the subform in each of the content areas and add the totals together. If the object for which you want to calculate an x coordinate is nested within several layers of parent objects, you must factor in the x coordinate of each parent object when computing the actual x coordinate of the object.

Returns

The x coordinate of the form design object relative to its parent object.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// Returns the x coordinate of a single instance of TextField1, relative to
// its parent object.
xfa.layout.x(TextField1,"in");

// Calculates the x coordinate of Subform1 across two content areas and
// displays the total in a message box.
var iX = xfa.layout.x(Subform1,"in",0) + xfa.layout.x(Subform1,"in",1);
xfa.host.messageBox(iX);
```

FormCalc

```
// Returns the x coordinate of a single instance of TextField1, relative to
// its parent object.
xfa.layout.x(TextField1,"in")

// Calculates the x coordinate of Subform1 across two content areas and
// displays the total in a message box.
var iX = xfa.layout.x(Subform1,"in",0) + xfa.layout.x(Subform1,"in",1)
xfa.host.messageBox(iX)
```

y

Determines the y coordinate of a given form design object relative to its parent object.

Syntax

`Reference_Syntax``.y( OBJECT `*`param1`*` [, STRING `*`param2`*` [, INTEGER `*`param3`*` ] ] )`

Parameters

param1	The fully qualified reference syntax expression of one of the following container XML Form Object Model objects: area, contentArea, draw, field, pageArea, subform.
param2 (Optiona l)	A string representing the unit type of the return value. If left blank, the default unit type is points.
param3 (Optiona l)	An integer representing a zero-based index value indicating the content area in which you want to obtain the object's y coordinate. If left blank, the default value is`0`. This parameter allows you to calculate the y coordinate of an object that is distributed across multiple content areas, such as pages. For example, if you want to find the absolute y positioning of a subform object that spans multiple content areas, you would use this parameter to enumerate the y coordinate of the subform in each of the content areas and add the totals together. If the object for which you want to calculate a y coordinate is nested within several layers of parent objects, you must factor in the y coordinate of each parent object when computing the actual y coordinate of the object.

Returns

The y coordinate of the form design object as a double.

Applies to

Model	Object
LayoutModel	layoutPseudoModel

Version

XFA 2.1

Examples

JavaScript

```
// Returns the y coordinate of a single instance of TextField1, relative to
// its parent object.
xfa.layout.y(TextField1,"in");

// Calculates the y coordinate of Subform1 across two content areas and
// displays the total in a message box.
var iY = xfa.layout.y(Subform1,"in",0) + xfa.layout.y(Subform1,"in",1);
xfa.host.messageBox(iY);
```

FormCalc

```
// Returns the y coordinate of a single instance of TextField1, relative to
// its parent object.
xfa.layout.y(TextField1,"in")

// Calculates the y coordinate of Subform1 across two content areas and
// displays the total in a message box.
var iY = xfa.layout.y(Subform1,"in",0) + xfa.layout.y(Subform1,"in",1)
xfa.host.messageBox(iY)
```

Scripting methods for Designer Macros

alert

Shows a message box in Designer with sMsg as the text.

Syntax

```
designer.alert( STRING param )
```

Parameters

param	A valid string representing the message to display in the message box.

Returns

Empty.

callExternalFunction

Provides a method for a macros script to call out to native code. Typically, used for bringing up a custom graphical user interface developed in a technology other than Flash.

When the script calls callExternalFunction, the specified DLL filename is loaded from the folder containing the currently executing script file. The DLL extension is added automatically to the specified filename. The DLL filename cannot include path elements and must include a filename without an extension such as myMacroExtension.

GetProcAddress is used to find the function identified by the sFunctionName parameter.

Sample call:

```
designer.callExternalFunction("DesignerExtension", "ShowMyDialog", "user data
here");
```

This call loads a DLL called DesignerExtension.dll from the same directory in which the macro is installed, looks up a function called ShowMyDialog, and passes the "user data here" string as a wide character string (const wchar_t *).

The function can return a string, which is returned from the designer.callExternalFunction call. The string is returned as an HGLOBAL containing a wide character string.

The following example of a function in a DLL, shows the passed-in string in a dialog, and returns "yes" or "no" based on which option the user clicks. The C function must have the function prototype like this example.

```
extern "C" __declspec(dllexport) HGLOBAL _cdecl ShowMyDialog(HWND hwndParent,
const wchar_t *pszArgument)
{
   int nResult = ::MessageBox(hwndParent, pszArgument, L"DLL Function Sample",
MB_YESNO);
// Allocate some memory for the result string
```

```
    HGLOBAL hMem = GlobalAlloc(0, 64);
    if (!hMem)
        return 0;
wchar_t *pMem = (wchar_t *)GlobalLock(hMem);
    wcscpy_s(pMem, 30, nResult == IDYES ? L"yes" : L"no");
    ::GlobalUnlock(hMem);
    return hMem;
}
```

Syntax

```
designer.callExternalFunction ( STRING param1, STRING param2, STRING param3)
```

Parameters

param1	A string representing the DLL name. Specify the root filename of the DLL without the filename extension.
param2	A string representing the function name.
param3	The string parameter that is passed to the function.

Returns

String.

getDialogString

Retrieves data from the Flex dialog box started by designer.showFlexDialog(). The Flex dialog box can send data to Designer by calling an external interface:

ExternalInterface.call("setDialogString", "SomeVariableName", "VariableValue");

If the Flex dialog box makes this external call to Designer, after the dialog box is closed. "SomeVariableName" is available for inspection in the macro script through a call to designer.getDialogString(). In this particular example, the call would be designer.getDialogString("SomeVariableName") and the return value would be "VariableValue".

Syntax

```
designer.getDialogString ( STRING param )
```

Parameters

param	A valid string representing the name of the field to inspect. This field is only available for inspection if the form application built with Flex made the appropriate ExternalInterface call.

Returns

A valid string representing the value of sFieldName. Empty if the application built by Flex did not set that value.

getLocale

Returns the current locale in Designer.

Syntax

```
designer.getLocal ()
```

Parameters

None.

Returns

A string representing the current locale in Designer in a format like en_US.

getSelection

Returns the object or objects that are currently selected in the Layout Editor or in the Hierarchy palette. If no objects are selected, an empty list is returned.

Syntax

```
designer.getSelection ()
```

Parameters

None.

Returns

Returns an XFANodeList containing the nodes that make up the current selection. Returns an empty list if there is no selection.

filterNodeTree

Filters a node tree by the specified filter type and filter parameter.

Syntax

```
designer.filterNodeTree (OBJECT param1, STRING param2, STRING param3)
```

Parameters

*param*1	The reference syntax expression representing the XFANodeTree.
*param*2	A string representing the filter type.
*param*3	A string representing the filter parameter.

Filters

classNam e	Class name of the object you want.
name	Name of the object you want.

Returns

Returns a list of nodes that match.

println

Outputs sMsg to the Log tab in the Report palette.

Syntax

```
designer.println( STRING param )
```

Parameters

param	A valid string representing the message output to the log window.

Returns

Empty.

saveTextToFile

Saves text to a file after prompting the user for the save location. The default name in the Save As dialog box is populated with sDefaultFileName.

Syntax

```
designer.saveTextToFile (STRING param1, STRING param2 )
```

Parameters

param1	A valid string representing the text data to save. Can be empty.
param2	A valid string representing the default filename that populates the Save As dialog box, which the user is prompted with. Can be empty.

Returns

Returns TRUE if saved successfully, returns FALSE otherwise.

setDialogString

Pushes data into the Flex dialog box before calling designer.showFlexDialog(). If the macro script wants to set data inside the Flex dialog box, it must call designer.setDialogString() with the data before starting designer.showFlexDialog().

Syntax

```
designer.setDialogString ( STRING param1, STRING param2 )
```

Parameters

param1	A valid string representing the name of the variable that the application built with Flex must look in with its ExternalInterface call.
param2	A valid string representing the value of sFieldName.

Returns

Empty.

showFlexDialog

Creates a new modal dialog box, instantiates a Flash Player inside the dialog box, and loads the SWF file. This is a way to provide graphical user interfaces inside Designer.

NOTE: *Locate the SWF file in the same folder that the macros script is installed in. The sSWF parameter must only contain a filename, and no path information. Designer only loads the SWF file from the same folder as the currently running JavaScript file.*

Syntax

```
designer.showFlexDialog( STRING param1, INTEGER param2, INTEGER param3)
```

Parameters

*param*1	A valid string value representing the name of a SWF file to load.
*param*2	A valid integer value representing the width of the user interface contained in the SWF file. This parameter indicates the width of the host dialog box. If this parameter is set to a value that is less than the minimum width for the dialog box, it is adjusted to that value. If this parameter is set to a value that is greater than the dialog box's desktop width, it is adjusted to that value.

*param*3	A valid integer value representing the height of the user interface contained in the SWF file. This parameter indicates the height of the host dialog box. If this parameter is set to a value that is less than the minimum width for the dialog box, the dialog box is adjusted to that value. If this value is set to a value that is greater than the dialog box's desktop height, the dialog box is adjusted to that value.

Returns

A string from the form application built with Flex. When the form application built with Flex stops, it calls back to Designer to indicate that it has stopped running. With the callback, it passes back a string. A common use for this is for the form application built with Flex to send back its closing status, such as OK or Cancel.

showHelp

Opens a topic in a Windows HTML Help (CHM) file.

Syntax

```
designer.showHelp( STRING param1, STRING param2 )
```

Parameters

*param*1	A valid string value representing the filename (without the CHM filename extension) of the CHM Help file. This file must be in the same directory as the macro script.
*param*2 (optional)	A valid string value representing the name of the topic to display. The topic path is specified with a path that can contain forward slashes.

Returns

Empty.

showTextWindow

Creates a text file (scriptOutput.txt) in the system's temporary directory with the content of sText, and then opens the system's default text file editor with that file as a parameter. Each invocation of this method overwrites the content of the temporary file. Multiple invocations do not concatenate text together.

This method allows a non-modal way of showing output. The Flex and the Alert dialog boxes are both modal, which makes it impossible for a user to interact with the output of a macro script at the same time as they interact with Designer. In some cases, you can look at the output to make changes in Designer.

Syntax

```
designer.showTextWindow( STRING param )
```

Parameters

*param*1	A valid string value representing the text to show in the system's default text editor.

Returns

No return.

showXDPinAcrobat

Takes the dataPacket that you supply and writes it into an XDP file. The XDP file references the PDF file to load, and the data to merge and display. This method provides rich reporting from a macro script.

Syntax

```
designer.showXDPinAcrobat( STRING param1, STRING param2)
```

Parameters

*param*1	A valid string value representing the XML data to write out.
*param*2	A valid string value representing the base name of the PDF file to display, which must be in the same folder as the macro script.

Returns

Empty.

Understanding the XML Form Object Model

A DOM is a platform- and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document. DOMs are commonly used with data expressed in XML.

All of the DOMs used in the XML Form Object Model share the following characteristics:

- They are strictly tree-structured.
- A node may have mandatory children. In such cases, the mandatory child nodes are created at the same time as their parent.
- The non-mandatory children of each node in the tree are ordered by age. That is, the DOM is aware of the order in which the non-mandatory child nodes were added.

  For each step in the form processing, there is a DOM that holds the data structures for that stage. Scripts can examine and modify each DOM. DOMs are responsible for maintaining internal consistency but not external consistency. For instance, when a script turns on a radio button by assigning the corresponding field, all the other buttons coupled to that one are automatically turned off. This is a matter of internal consistency so it is managed by the Form DOM itself.

  By contrast, the Data DOM does nothing to prevent a script from violating the rules of XML, for instance, by giving an object two properties with the same name. This is a matter of external consistency so it is the responsibility of the script author, not the DOM.

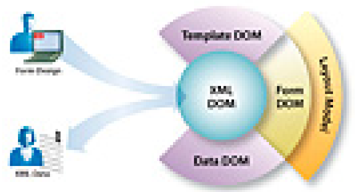
  Each time a form design is combined with data, the XML Form Object Model is used to facilitate the process of combining template and data to create the resulting form. This process begins by using the existing XML DOMs' representations of the form design and the XML data to create separate models. These separate models store a structured representation of the original form design and original XML data. The Template DOM corresponds to the form design, and the Data DOM corresponds to the user-supplied XML data.

  After the template and data models are created, a third model, the Form DOM, is created that represents the merged information. The Form DOM acts as a medium for combining the specific values from the XML data with the presentation rules defined by the form design.

  If you are creating an interactive form, after the form DOM is created, the form is complete and ready for deployment to users. Interactive form designs may have associated data that they are merged with, but most interactive forms are designed to support user-entered data.

  The process up to and including the creation of the form DOM is identical for all forms. However, non-interactive forms have a set of data to merge with their form design. In the case of forms that have a fixed layout, data merging does not determine the presentation rules for the form; that is, data is merged into the appropriate fields without changing the field properties. In contrast, when data is merged with forms that have a flowable layout, the fields grow or shrink to accommodate the amount of data merged into them.

The Form DOM for forms with both fixed and flowable layouts looks very similar; it is one long form with no pagination. When the data and presentation rules are applied to these types of forms, they must be formatted according to the layout information. A Layout DOM is created from the Form DOM that structures the form into pages and applies any other page-based rules, such as page numbering, headers, and trailers. The following diagram illustrates this process.



After the layout rules are applied to forms that have a fixed or flowable layout, both types of forms are complete.

XML Form Object Model DOMs

connectionSet Model

The connectionSet model controls a data schema as well as a data source used by a particular form. This model describes connections to XML schema, sample XML data, or web services. Using the connectionSet model, it is possible to extract the details, such as a URL, for a referenced schema or WSDL for reporting purposes.

The connectionSet model consists of the following objects:

RELATED LINKS:

connectionSet

effectiveInputPolicy

effectiveOutputPolicy

operation

rootElement

soapAction

soapAddress

uri

wsdlAddress

wsdlConnection

xmlConnection

xsdConnection

Data Model

The Data model is the in-memory representation of user data. When a form design and data are merged using the data-binding process, the data model supplies the content for fields on the final form.

Using this model, you can access and manipulate data from one of the following data sources:

- XML document
- OLEDB database
- XML schema file
- WSDL file

  The Data model consists of the following objects:

- dataGroup(deprecated)
- dataModel
- dataValue
- dataWindow

Event Model

The Event model controls the changes in a form that occur before, during, and after actions take place. These actions include dynamic form events, such as the point when the data and form design are merged but before any pagination is applied, as well as interactive form events such as when a user updates the value of a field.

The Event model consists of the following object:

- eventPseudoModel

Form Model

The Form model is the in-memory representation of the merged Template model and Data model. Using this model, you can affect the look of the form, adjust field values, or perform other changes prior to either displaying the completed form to a user or processing the form through the Layout model.

Scripts run against the Form model by default; therefore, you do not need to specify the Form model in your reference syntax.

The Form model consists of the following objects:

arc area assist barcode bind bindItems bookend boolean border break(deprecated) breakAfter breakBefore button calculate caption certificate certificates checkButton choiceList color comb connect contentArea corner date dateTime dateTimeEdit decimal	defaultUi(deprecated) desc digestMethod digestMethods draw edge dSigData encoding encodings encrypt event exclGroup exData execute exObject extras field fill filter float font form format handler hyphenation image imageEdit instanceManager	integer issuers items keep keyUsage line linear manifest margin mdp medium message numericEdit occur oid oids overflow pageArea pageSet para passwordEdit pattern picture proto(deprecated) radial reason reasons rectangle	ref script setProperty signature signatureProperties(deprecated) signData signing solid speak stipple subform subformSet subjectDN subjectDNs submit template text textEdit time timeStamp toolTip traversal traverse ui validate value variables

Host Model

The Host model provides a set of properties and methods for working at the application level. These properties and methods are available for scripting regardless of the hosting application.

The Host model consists of the following object:

- hostPseudoModel

Layout Model

The Layout model is the in-memory representation of a form after it is merged with data. This representation is the final layout of a form.

The Layout model consists of the following object:

- layoutPseudoModel

Signature Model

The Signature model provides a set of methods for working with XML digital signatures that conform to the W3C XML-Signature standard (http://www.w3.org/TR/xmldsig-core/). It lets you specify script commands to sign, clear, enumerate, and verify signatures.

The Signature model consists of the following object:

RELATED LINKS:
signaturePseudoModel

sourceSet Model

The sourceSet model provides a connection between an external OLEDB database and the Data model. Using this model, you can control connections to the data source, as well as manage records within the data source.

The sourceSet model consists of the following objects:

- bind
- boolean
- command
- connect
- connectString
- delete

- extras
- insert
- integer
- map
- password
- query
- recordSet
- select
- source
- sourceSet
- text
- update
- user

XFA Model

The XFA model defines the application model that Designer uses to implement the XML Form Object Model. The application model is the base model from which all other models are derived.

The XFA model consists of the following objects:

packet

xfa

JavaScript Examples

These examples illustrate the properties and methods that are supported in this scripting environment.

Referencing objects

These examples illustrate several ways to reference an object.

When accessing a specific instance of an object, be aware of the occurrence number of the object where the script resides. The script will return the object with the same occurrence number as the object where the script resides. For example, there are three buttons with the same name (Button1[0], Button1[1] and Button1[2]) and three text fields with the same name (TF1[0], TF1[1] and TF1[2]). If the script on Button1[2] is `xfa.host.messageBox(TF1.rawValue)`, the result will be `TF1[2].rawValue` , and not `TF1[0].rawValue`.

Uses

Properties	Methods
access index layout length name newText numPages oneOfChild parent prevText rawValue target this	item resolveNode resolveNodes pageContent pageCount

Scripts

Accessing the first instance of a text field

```
// Access a sibling field using the field name.
// Access the first instance of TextField1.
TextField1.rawValue = "Hello";
```

Accessing the first instance of a text field

```
// Access the first instance of TextField1. When scripting with JavaScript, use
// xfa.resolveNode to start the search at the top and move down the form
// hierarchy.
xfa.resolveNode("TextField1").rawValue = "Hello";
xfa.resolveNode("TextField1[0]").rawValue = "Hello";
```

Accessing a field with accessors

```
// When scripting with JavaScript, use the resolveNode() method to access a
// field with a SOM expression that contains a # or [] operator. When searching
// with this.resolveNode, the search starts at the current object and moves up
// the form hierarchy.
this.resolveNode("Subform2[1].NumericField4").rawValue = 25;
```

Accessing a subform with an index number

```
// Access a subform with an index number. When using xfa.resolveNode,the search
// starts at the top of the form hierarchy and moves down.
var nIndex = 2;
var sSOM = "Subform2[" + nIndex + "]";
var oSubform = xfa.resolveNode(sSOM);
oSubform.NumericField4.rawValue = "25";
```

Accessing a field property

```
// Access a field property using a property name and value.
// Change the field properties of a specific subform.
// Use the [] operator to access an object’s property.
var sProperty = "access";
var sValue = "readOnly";

// First, get the subform nodes.
var oNodes = Subform2.nodes;
var nNodesLength = oNodes.length;
```

```
// Loop through the subform's nodes and look for fields.
for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount ++) {
// Set the field property.
if (oNodes.item(nNodeCount).className == "field") {
oNodes.item(nNodeCount)[sProperty] = sValue;
}
}
```

Counting the text fields in a document

```
// Count the number of text fields in a document.
// Get the field containers from each page.
for (var nPageCount = 0; nPageCount < xfa.host.numPages; nPageCount++) {

var oFields = xfa.layout.pageContent(nPageCount, "field");
var nNodesLength = oFields.length;
var nCount = 0;

for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {

if (oFields.item(nNodeCount).ui.oneOfChild.className == "textEdit") {
nCount++;
}
}
TextField1.rawValue = nCount;
}
```

Accessing fields using partial object names

```
// Access fields using partial object names.
// Get the field containers from each page.
for (var nPageCount = 0; nPageCount < xfa.host.numPages; nPageCount++) {

var oFields = xfa.layout.pageContent(nPageCount, "field");
var nNodesLength = oFields.length;

for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {
if (oFields.item(nNodeCount).name.substr(0,2) == "Te") {
xfa.host.messageBox(oFields.item(nNodeCount).name);
}
}
}
```

Accessing a choice list value

```
// Use the newText or prevText property to access the choice list value before
// or after the value changed.
// Trigger the script on a change event.
```

```
TextField1.rawValue = xfa.event.prevText;
TextField2.rawValue = xfa.event.newText;
```

Accessing a field in a subform

```
// Access a field nested inside a sibling subform by prefixing the field name
// with its parent name.
Subform2.TextField3.rawValue = "Hello";
```

Accessing fields in a subform

```
// Access the first-level fields nested inside a subform.
Subform1.resoveNodes("#field[*]")
```

Getting the fields from each page

```
// Get the field containers from each page.
for (var i = 0; i < xfa.host.numPages; i++) {

var oFields = xfa.layout.pageContent(i, "field");
var nodesLength = oFields.length;

// Set the access type.
for (var j = 0; j < nodesLength; j++) {

var oItem = oFields.item(j);

if (oItem != this) {

oItem.access = "readOnly";
}
}
}
```

Creating a node in the data model

This example illustrates how to create or clone a new data model node.

Uses

Properties	Methods
length nodes rawValue value	append clone createNode messageBox record remove resolveNode

Script

Creating a data node

```
// Display the number of child nodes under the rootNode (xfa.record).
// rootNode is the data file’s root node.
xfa.host.messageBox("Initial number of nodes under rootNode: " +
xfa.record.nodes.length);
// Create a node of type dataGroup.
var oGroupNode = xfa.datasets.createNode("dataGroup", "NewGroupNode");

// Append the data group node to an existing data model node.
xfa.record.nodes.append(oGroupNode);

// Display the number of child nodes under rootNode.
xfa.host.messageBox("Number of nodes under rootNode after first append: " +
xfa.record.nodes.length);

// Create a node of type dataValue.
var oValueNode = xfa.datasets.createNode("dataValue", "NewValueNode");

// Set the value of the new data value node.
oValueNode.value = "The item value";

// Append the data value node to the data group created above.
xfa.record.NewGroupNode.nodes.append(oValueNode);

// Get the value from the data model.
TextField1.rawValue = xfa.record.NewGroupNode.NewValueNode.value;

// Append a cloned data group node.
xfa.record.nodes.append(xfa.record.NewGroupNode.clone(1));

// Display the number of child nodes under rootNode.
xfa.host.messageBox("Number of nodes under rootNode after appending clone: " +
xfa.record.nodes.length);
```

```
// Set the value of the new data value node.
xfa.resolveNode("xfa.record.NewGroupNode[1].NewValueNode").value = "The clone
value";

// Get the value of the cloned data value node.
TextField2.rawValue =
xfa.resolveNode("xfa.record.NewGroupNode[1].NewValueNode").value;

// Remove the cloned data group from the node list.
var oRemoveNode = xfa.resolveNode("xfa.record.NewGroupNode[1]");
xfa.record.nodes.remove(oRemoveNode);

// Display the number of child nodes under rootNode.
xfa.host.messageBox("Number of nodes under rootNode once clone node removed: " +
xfa.record.nodes.length);
```

Manipulating instances of a subform

These examples illustrate several ways to add or remove instances of a subform at run time.

Use the instance manager to manipulate the pages of a form that has a fixed layout. Each page is a subform; therefore, adding or removing a subform will look like adding or removing a page. However, at run time, you cannot change the layout of a form that has a fixed layout. You can add and delete instances at the `form:ready` event; however, if the script is on a run-time event, such as `click`, nothing will happen.

Uses

Properties	Methods
min index parent value	addInstance moveInstance removeInstance resolveNode setInstances

Scripts

Adding an instance by invoking the instance manager

```
// Add an instance of a subform by using the underscore syntax to invoke the
// instance manager directly.
// Forms rendered in a web browser do not support the underscore syntax.
// However, the underscore syntax is supported if the script runs at the
// server.
_Subform2.addInstance(1);
```

Adding an instance by invoking the instanceManager property

```
// Add an instance of a subform by invoking the instanceManager property. Be
// careful to ensure that adding a subform will not violate the max occur
// value.
Subform2.instanceManager.addInstance(1);
```

Removing an instance

```
// Remove an instance of a subform. Set the min occur value only if removing an
// instance will violate it. For example, set the min occur to 0 if you want to
// remove the last, or the only, instance of a subform.
// Forms rendered in a web browser do not support the underscore syntax.
// However, the underscore syntax is supported if the script runs at the
// server.
Subform2.occur.min = "0";
_Subform2.removeInstance(0);
```

Removing the parent subform

```
// Remove the parent subform.
parent.occur.min = "0";
parent.instanceManager.removeInstance(parent.index);
```

Setting the number of instances

```
// Set the number of instances of a subform.
var oSubform = xfa.resolveNode("Subform2");
oSubform.instanceManager.setInstances(5);
```

Inserting a new subform instance

```
// Insert a new subform instance. This script will not work with a static form.
// The script is invoked by a button, named Insert Subform, that is nested
// inside a repeating subform. The new subform is inserted below the current
// subform.
var oSubform = this.resolveNode("Subform2");
var oNewInstance = oSubform.instanceManager.addInstance(1);
var nIndexFrom = oNewInstance.index;
var nIndexTo = this.parent.index + 1;
// Invoke the instanceManager to insert the subform below the current one.
oSubform.instanceManager.moveInstance(nIndexFrom, nIndexTo);
```

Adding and removing a subform

```
// Invoke the instance manager to add and remove the comments subform.
if (fComments.value == "0") {
// In this example, fComments is a document variable used as a flag.
// The fComments variable equals 1 when the comments subform is displayed.
_comments.setInstance(1);
// Add the comments subform. Change the button's caption.
this.resolveNode("caption.value.#text").value = "Clear Comments";
// Set the flag value.
fComments.value = "1";
}
else {
// Remove the comments subform.
_comments.setInstance(0);
// Change the button's caption.
this.resolveNode("caption.value.#text").value = "Add Comments";
// Reset the flag value.
fComments.value = "0";
}
```

Getting or setting object values

These examples illustrate several ways to get or set a value for an object.

Uses

Properties
formattedValue rawValue value

Scripts

Using rawValue

```
// Use the rawValue property to set and get a field’s raw value.
TextField1.rawValue = "K1V1W3"; // Set the field’s raw value.
TextField2.rawValue = TextField1.rawValue // Get the field’s raw value.
```

Using value

```
// Use the value property to set and get the field’s raw value.
TextField1.rawValue = "k1V1W3";
TextField2.rawValue = TextField1.value.oneOfChild.value
```

Using formattedValue

```
// Use the formattedValue property to set and get the field’s formatted value.
// Use the value property to set and get an object’s value (picture).
TextField1.rawValue = "K1V1W3"; // Set the field’s raw value.
TextField1.format.picture.value = "A9A 9A9"; // Set the field’s display picture
format.
TextField2.rawValue = TextField1.formattedValue; // Get the field’s formatted
value.
```

Setting a data object’s value

```
// Use the value property to set and get a data object’s value.
// In this script, groupNode is a data group and addressL1 is a data value in
// the data file.
TextField1.rawValue = xfa.record.groupNode.address.line1.value;
```

Setting the document variable’s value

```
// Use the value property to set and get the document variable’s value.
TextField1.rawValue = docVar.value;
```

Working with page numbers and page counts

These examples illustrate several ways to use the host and layout models to work with page numbers and page counts.

The host and layout models have several different properties and methods for working with page numbers and page counts. The properties and methods that you should use depend on what the script does and when it executes.

Many of the host properties and methods are unavailable on the server. Use the host properties and methods to set or get page numbers at run time.

None of the layout methods set the page number. Use the layout methods to get the current page at `layout:ready` or to display the page numbers at the bottom of the page and see the page number when you open a form on a client.

Uses

Properties	Methods
currentPage layout numPages rawValue this	absPage absPageCount page pageCount pageDown pageUp

Scripts

Getting the page number

```
// Use the page layout methods to get the current page number.
TextField1.rawValue = xfa.layout.page(this); // 1-based.
TextField2.rawValue = xfa.layout.absPage(this); // 0-based.
```

Getting the page count using the pageCount method

```
// Use the layout pageCount methods to get the number of pages in a document.
TextField1.rawValue = xfa.layout.pageCount(); // Get the logical number of pages.
TextField2.rawValue = xfa.layout.absPageCount(); // Get the physical number of
pages.
```

Formatting the pagination

```
// Use the layout page and pageCount methods to format the pagination.
TextField1.rawValue = "Page " + xfa.layout.page(this) + " of " +
xfa.layout.pageCount();
```

Getting and setting the current page number

```
// Use the host currentPage property to get and set the current page number at
// run time.
// This script cannot be used during a layout:ready, form:ready, or initialize
// event. However, it will work if the script is on a button.
xfa.host.currentPage = 1; // Go to page 2 (0-based).
```

Getting the page count using the numPages property

```
// Use the host numPages property to get the number of pages in a document.
TextField1.rawValue = xfa.host.numPages; // Get the number of pages.
```

Navigating down a document

```
// Use the host pageDown() method to navigate through a document.
xfa.host.pageDown(); // Go to the next page.
```

Navigating up a document

```
// Use the host pageUp() method to navigate through a document.
xfa.host.pageUp(); // Go to the previous page.
```

Concatenating data values

This example illustrates how to concatenate data values into an address block and ensure that there are no blank lines.

Uses

Properties	Methods
multiLine oneOfChild rawValue value	record

Script

Concatenating data values

```
// Get the values from the data model.
var sName = xfa.record.groupNode.address.line1.value;
var sPostbox = xfa.record.groupNode.address.line2.value;
var sStreet = xfa.record.groupNode.address.line3.value;
var sCity = xfa.record.groupNode.address.line4.value;
var sRegion = xfa.record.groupNode.address.line5.value;
var sCountry = xfa.record.groupNode.address.line6.value;
var sPostcode = xfa.record.groupNode.address.line7.value;
var addressArray = new
Array(sName,sPostbox,sStreet,sCity,sRegion,sCountry,sPostcode);

var sAddressBlock = "";

// Don’t display the postbox if the value is not provided.
if (addressArray[1] == null) {
sAddressBlock = addressArray[0] + "\n" + addressArray[2] + "\n" + addressArray[3]
+ "\n";
} else {
sAddressBlock = addressArray[0] + "\n" + addressArray[1] + "\n" + addressArray[3]
+ "\n";
}

// Do not display the region if the value is not provided.
if (addressArray[4] == null) {
sAddressBlock = sAddressBlock + addressArray[5] + " " + addressArray[6];
} else {
sAddressBlock = sAddressBlock + addressArray[4] + ", " + addressArray[5] + " " +
addressArray[6];
}
TextField2.rawValue = sAddressBlock;
// Make sure the field is set to display a multiple line value. To set the
// multiLine property programmatically, add the following line:
TextField2.ui.oneOfChild.multiLine = "1";
```

Calculating totals

This example illustrates how to calculate totals.

Uses

Properties	Methods
length rawValue	resolveNodes

Script

Calculating totals

```
// Access a field in a repeating subform by looping through the node list.
var oFields = xfa.resolveNodes("Subform2[*].NumericField4");
var nNodesLength = oFields.length;
var nSum = 0;
for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {
nSum += oFields.item(nNodeCount).rawValue;
}
TextField1.rawValue = nSum;
```

Changing the background color

These examples illustrate how to change the background color of a subform or fields.

In a form that has a flowable layout, you can change the background color of the entire field, including the caption and the field area, at run time. However, in a form that has a fixed layout, you can only change the background color of the field area at run time.

Uses

Properties	Methods
fillColor index length name nodes parent value this	item resetData resolveNode resolveNodes

Scripts

Changing the background color of a subform

```
// Alternate the background color of a repeating subform.
var oNodes = xfa.resolveNodes("Subform2[*]");
var nNodesLength = oNodes.length;

for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {
if (oNodes.item(nNodeCount).index%2 != 0) {
oNodes.item(nNodeCount).border.fill.color.value = "200,200,250";
} else {
oNodes.item(nNodeCount).border.fill.color.value = "200,150,250";
}
}
```

Changing the background color of a field

```
// Alternate the background color of the NumericField4 field.
// Before running this script, set a background color or set the
// border.fill.presence property to visible.
var oNodes = xfa.resolveNodes("Subform2[*]");
var nNodesLength = oNodes.length;
var sFillColor;
```

```
for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {

if (oNodes.item(nNodeCount).index%2 != 0) {
sFillColor = "200,200,250";

} else {
sFillColor = "200,150,250";

}
oNodes.item(nNodeCount).NumericField4.fillColor = sFillColor;
}
```

Changing the background color of rows in a subform

```
// Reset the fields of the current subform.
var dString = "xfa.form.form1.dtls[" + this.parent.index + "]";
var oDetails = xfa.form.resolveNode(dString);
var sDtlFields;

// Build the string of field names to reset.
for (var i = 0; i < oDetails.nodes.length; i++) {
sDtlFields = sDtlFields + "," + dString + "." + oDetails.nodes.item(i).name;
}
// Pass the string variable as a parameter.
xfa.host.resetData(sDtlFields); OR
// Alternate the background color of the repeating rows.
if (this.index%2 != 0)  this.border.fill.color.value = "255,255,255"; else
this.border.fill.color.value = "201,201,146";
```

Populating a drop-down list

These examples illustrate several ways to add or remove list items in a drop-down list.

Save the item list before you populate a drop-down list at run time; otherwise, the items will be lost. Only the value is saved in the data.

Uses

Properties	Methods
length	addItem
newText	clearItems
nodes	item
prevText	messageBox
rawValue	record
value	resolveNode

Scripts

Populating a drop-down list from a web service

```
// Populate the drop-down list with values from a web service.
// The web service used in this example is fictional.
SOAP.wireDump = false;
var oListURL = "http://www.webservice.net/wsdl/query.wsdl";
var e;
try
{
xfa.host.messageBox("Starting list retrieval.");

var service = SOAP.connect(oListURL);

if(typeof service != "object") {
xfa.host.messageBox("Couldn't get List object.");
}
if(service.getAllServiceNames == "undefined") {
xfa.host.messageBox("Couldn't get getAllServiceNames Call.");
}

// Start the query
var oItems = service.getAllServiceNames();
if(oItems == null) {
xfa.host.messageBox("List empty.");
}
var nCount = 0;
var nLimit = 10;

for(var nItemCount in oItems)
{
for(var nItemNode in oItems[nItemCount])
{
if (nItemNode == "name")
DropDownList1.addItem(oItems[nItemCount][nItemNode]);
}
if (++nCount >= nLimit)
break;
}
}
catch(e)
{
xfa.host.messageBox("Problem with list Call: " + e);
}
```

Clearing a drop-down list

```
// Clear the items in a drop-down list.
DropDownList1.clearItems();
```

Populating a drop-down list from a data file

```
// Populate the drop-down list with values from a data file.
var oItems = xfa.resolveNode("xfa.record.groupNode.list");
var nItemsLength = oItems.nodes.length;

for (var nItemCount = 0; nItemCount < nItemsLength; nItemCount++) {
DropDownList1.addItem(oItems.nodes.item(nItemCount).value);
}
DropDownList1.rawValue = "Second item in list";
```

Saving the values from a drop-down list in another field

```
// Access the items in a drop-down list box and save their values in a separate
// field.
var oItems = xfa.resolveNode("DropDownList1.#items");
var nItemsLength = oItems.nodes.length;

for (nItemCount = 0; nItemCount < nItemsLength; nItemCount++){

if (TextField2.rawValue == null) {
TextField2.rawValue = oItems.nodes.item(nItemCount).value;
} else {
TextField2.rawValue = TextField2.rawValue + "\n" +
oItems.nodes.item(nItemCount).value;
}
}
```

Accessing a drop-down list value using newText or prevText properties

```
// Use the newText or prevText properties to access a drop-down list value
// before or after the value changes.
// Execute the script on a change event.
TextField1.rawValue = xfa.event.prevText;
TextField2.rawValue = xfa.event.newText;
```

Saving a form

These examples illustrate how to export data from a form and save a form.

Uses

Properties	Methods
target	exportData

Scripts

Exporting form data without specifying a file name

```
// Export a form’s data without specifying a file name. The end user is
// prompted to provide the file name.
xfa.host.exportData();      // Will generate data in XDP format.
xfa.host.exportData("", 0); // Will generate data in XML format.
```

Exporting form data using a filename

```
// If you specify a file name, the script must run on a certified form.
xfa.host.exportData("filename.xdp");    // Will generate data in XDP format.
xfa.host.exportData("filename.xml", 0); // Will generate data in XML format.
```

Saving a form

```
// Saving the form is done at the application level, so you need to invoke the
// Acrobat app model.
App.executeMenuItem("SaveAs"); // The end user will be prompted to specify a
// file name.
// However, you must save the form silently if the form needs to be certified
// and the certificate must be trusted for privileged JavaScript.
var mydoc = event.target;
mydoc.saveAs();
```

Making an object visible or invisible

This example illustrates how to make an object visible or invisible. If a print button is invisible, it will prevent the user from printing a form.

The prePrint event triggers immediately before the form is rendered for printing. Similarly, the post-Print event triggers immediately after the form has been printed.

Uses

Properties
presence relevant

Scripts

Setting a field to be visible or invisible

```
// If a field is visible, make it invisible and vice versa.
if(Field1.presence == "visible")
{
Field1.presence = "invisible";
}
else
{
Field1.presence = "visible";
}
```

Setting a button to be visible but non-printing

```
// Set a button to be visible but non-printing at design time.
Button1.relevant="-print"
```

Using radio buttons and check boxes

These examples illustrate how to select and clear radio buttons and check boxes.

Uses

Properties	Methods
rawValue	messageBox resolveNodes

Scripts

Selecting a radio button

```
// Select the first radio button.
RadioButtonList.rawValue = '1';
xfa.host.messageBox('Value of RadioButtonList: ' + RadioButtonList.rawValue);

// Select the second radio button.
RadioButtonList.rawValue = '2';
xfa.host.messageBox('Value of RadioButtonList: ' + RadioButtonList.rawValue);
```

Accessing radio buttons

```
// Access the radio buttons.
RadioButtonList.resolveNodes("#field[*]")
```

Clearing a radio button

```
// Clear a RadioButtonList value. Any invalid value will clear the list.
RadioButtonList.rawValue = '3';
xfa.host.messageBox('Value of RadioButtonList: ' + RadioButtonList.rawValue);
```

Selecting a check box

```
// Select a check box.
CheckBox1.rawValue = 1;
xfa.host.messageBox('Value of checkbox: ' + CheckBox1.rawValue);
```

Deselecting a check box

```
// Deselect a check box.
CheckBox1.rawValue = 0;
xfa.host.messageBox('Value of checkbox: ' + CheckBox1.rawValue);
```

Determining that a form has changed

This example illustrates how to determine that a form has changed.

Uses

Properties	Methods
rawValue	messageBox saveXML

Script

Determining that a form has changed

```
// Save a copy of the original XML file.
var sOriginalXML = xfa.data.saveXML();

// Change the form data.
```

```
TextField1.rawValue = "changed";

// Determine whether the form data has changed.
if(sOriginalXML == xfa.data.saveXML())
{
xfa.host.messageBox("Form has not changed.");
}
else
{
xfa.host.messageBox("Form has changed.");
}
```

Disabling all form fields

This example illustrates how to disable all the fields on a form.

Uses

Properties	Methods
access layout length numPages	item pageContent pageCount

Script

Disabling all form fields

```
// Get the field containers from each page.
for (var nPageCount = 0; nPageCount < xfa.host.numPages; nPageCount++) {
var oFields = xfa.layout.pageContent(nPageCount, "field");
var nNodesLength = oFields.length;

// Set the field property.
for (var nNodeCount = 0; nNodeCount < nNodesLength; nNodeCount++) {
oFields.item(nNodeCount).access = "readOnly";
}
}
```