

Application

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Return Types

APPLICATION_TYPES CLIENTDESIGN DRAGNDROP ELEMENT_TYPES CSSPosition Renderable JSDNDEvent JSEvent JSRenderEvent JSupload JSWindow LOGGINGLEVEL UICONSTANTS UUID WEBCONSTANTS NGCONSTANTS

Supported Clients

SmartClient WebClient NGClient MobileClient

Methods Summary

void	addClientInfo(info)	Adds a string of client information which gets stored on the server, and can be viewed on the Clients page of Servoy Server Administration Console.
void	beep()	Produces a "beep" sound; commonly used to indicate an error or warning dialog.
Boolean	closeAllWindows()	Closes all visible windows (except main application window).
void	closeSolution()	Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.
void	closeSolution(solutionToLoad)	Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.
void	closeSolution(solutionToLoad, methodArgument)	Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.
void	closeSolution(solutionToLoad, methodName)	Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.
void	closeSolution(solutionToLoad, methodName, methodArgument)	Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.
Boolean	createNewFormInstance(designFormName, newInstanceScriptName)	Create a new form instance.
JSWindow	createWindow(windowName, type)	Creates a new window that can be used for displaying forms.
JSWindow	createWindow(windowName, type, parentWindow)	Creates a new window that can be used for displaying forms.
void	executeLater(function, delay)	Runs at method at the given delay in milliseconds.
void	executeLater(function, delay, arguments)	Runs at method at the given delay in milliseconds with the arguments given to the method.
String	executeProgram(program)	Execute a program and returns output.
String	executeProgram(program, params)	Execute a program and returns output.
String	executeProgram(program, params, environmentVars)	Execute a program and returns output.
String	executeProgram(program, params, environmentVars, startDir)	Execute a program and returns output.
void	executeProgramInBackground(program)	Execute a program in the background.
void	executeProgramInBackground(program, params)	Execute a program in the background.
void	executeProgramInBackground(program, params, environmentVars)	Execute a program in the background.
void	executeProgramInBackground(program, params, environmentVars, startDir)	Execute a program in the background.
void	exit()	Stop and exit application.
Object	generateBrowserFunction(functionString)	This generates a browser function for the given function string that can be executed in the browser. The resulting object can be assigned into a config/property object that is then assigned to a component. The component will receive this function as a real function object.
Number	getActiveClientCount(currentSolutionOnly)	Get the active user count on the server (can be limited to current solution).
JSWindow	getActiveWindow()	This gets the currently focused active window; this can be the main application window or a modal dialog.
Number	getApplicationType()	Get the application type.
Number	getClientCountForInfo(info)	Gets the count for all clients displaying the same additional information in the Clients page of Servoy Server Administration Console.
Object	getClientProperty(name)	Sets a UI property.
String	getClipboardString()	Gets a string from the clipboard, null if not a string or empty.
String	getCurrentLookAndFeelName()	Gets the name of the current Look And Feel specified in Application Preferences.
String	getHostName()	Get the name of the localhost.
String	getIPAddress()	Get the clients' IP address.
Array	getLicenseNames()	Get the names of the used client licenses (as strings in array).
JSLogger	getLogger()	Get a JSLogger instance which offers an API for logging with arguments.
JSLogger	getLogger(loggerName)	Get a JSLogger instance which offers an API for logging with arguments.
String	getMediaURL(mediaName)	Get the media url that can be used to server a media in NGClient.
String	getOSName()	Returns the name of the operating system of the client.
Array	getPrinters()	Get all the printer names in an array.

Number	getScreenHeight()	Get the screen height in pixels.
Number	getScreenWidth()	Get the screen width in pixels.
Date	getServerTimeStamp()	Returns a date object initialized on server with current date and time.
String	getServerURL()	Gets the HTTP server url.
String	getServerUUID()	Get the uuid from this server instance (the same value that is shown on the admin page)
String	getSolutionName()	Returns the name of the current solution.
Number	getSolutionRelease()	Get the solution release number.
Array	getStartupArguments()	Get the parameters which are provided by startup.
Date	getTimeStamp()	Returns a date object initialized in client with current date and time.
UUID	getUUID()	Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object.
UUID	getUUID(byteArray)	Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object.
UUID	getUUID(uuidString)	Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object.
String	getUserProperty(name)	Get a persistent user property.
Array	getUserPropertyNames()	Get all persistent user property names.
Array	getValueListArray(name)	Retrieve a valuelist as array, to get real-values for display-values.
Object	getValueListDisplayValue(name, realValue)	Retrieve a valuelist display-value for a real-value.
JSDataSet	getValueListItems(name)	Get all values from a custom or database type value list as dataset (with columns displayValue,realValue).
Array	getValueListNames()	Get all the valuelist names as array.
String	getVersion()	Returns the application version.
Object	getVersionInfo()	Get the full version information of this solution and all its modules.
JSWindow	getWindow()	Get the main application window.
JSWindow	getWindow(name)	Get a window by window name.
Boolean	isInDeveloper()	Returns true if the solution is running in the developer.
Boolean	isLastPrintPreviewPrinted()	Check if the last printpreview did print.
void	output(msg)	Output something on the out stream.
void	output(msg, level)	Output something on the out stream.
void	overrideStyle(originalStyleName, newStyleName)	Overrides one style with another.
void	playSound(url)	Play a sound (AU file, an AIFF file, a WAV file, and a MIDI file).
Boolean	putClientProperty(name, value)	Sets a UI property.
void	redo()	Redo last action (if possible).
Boolean	refreshGlobalMethodValueList(element)	Refresh a global method valuelist by forcing it to call the global method.
Boolean	refreshGlobalMethodValueList(element, propertyName)	Refresh a global method valuelist by forcing it to call the global method.
void	removeAllClientInfo()	Removes all names given to the client via the admin page.
Boolean	removeClientInfo(info)	Removes a string of client information which is stored on the server and previously was added using the application.
void	setClipboardContent(string)	Sets a string object in the clipboard.
void	setNumpadEnterAsFocusNextEnabled(enabled)	Set if numpad enter should behave like focus next.
void	setStatusText(text)	Set the status area value.
void	setStatusText(text, tooltip)	Set the status area value.
void	setToolbarVisible(name, visible)	Make a toolbar visible or invisible.
void	setUserProperty(name, value)	Sets a user property for this client: In NGClient this is stored in the locale storage of the browser, so it will be persisted over restarts as long as the user didn't clear the data.
void	setValueListItems(name, dataset)	Fill a custom type valuelist with values from array(s) or dataset.
void	setValueListItems(name, dataset, autoconvert)	Fill a custom type valuelist with values from array(s) or dataset.
void	setValueListItems(name, displayValues)	Fill a custom type valuelist with values from array(s) or dataset.
void	setValueListItems(name, displayValues, autoconvert)	Fill a custom type valuelist with values from array(s) or dataset.
void	setValueListItems(name, displayValues, realValues)	Fill a custom type valuelist with values from array(s) or dataset.
void	setValueListItems(name, displayValues, realValues, autoconvert)	Fill a custom type valuelist with values from array(s) or dataset.
Date	showCalendar()	Show the calendar, returns selected date or null if canceled.
Date	showCalendar(dateFormat)	Show the calendar, returns selected date or null if canceled.
Date	showCalendar(selectedDate)	Show the calendar, returns selected date or null if canceled.
Date	showCalendar(selectedDate, dateFormat)	Show the calendar, returns selected date or null if canceled.
String	showColorChooser()	Show the colorChooser.
String	showColorChooser(colorString)	Show the colorChooser.
String	showFontChooser()	Show the font chooser dialog.
String	showFontChooser(defaultFont)	Show the font chooser dialog.
void	showForm(form)	Show the form specified by the parameter, that can be a name (is case sensitive!) or a form object.
String	showI18NDialog()	Opens the i18n dialog so users can change translations.
String	showI18NDialog(keyToSelect)	Opens the i18n dialog so users can change translations.

String	show18NDialog(keyToSelect, languageToSelect)	Opens the i18n dialog so users can change translations.
Boolean	showURL(url)	Shows an URL in a browser.
Boolean	showURL(url, browserTarget)	Shows an URL in a browser.
Boolean	showURL(url, browserTarget, timeout)	Shows an URL in a browser.
Boolean	showURL(url, browserTarget, browserTargetOptions)	Shows an URL in a browser.
Boolean	showURL(url, browserTarget, browserTargetOptions, timeout)	Shows an URL in a browser.
void	sleep(ms)	Sleep for specified time (in milliseconds).
void	undo()	Undo last action (if possible).
void	updateUI()	Updates the UI (painting).
void	updateUI(milliseconds)	Updates the UI (painting).

Methods Details

addClientInfo(info)

Adds a string of client information which gets stored on the server, and can be viewed on the Clients page of Servoy Server Administration Console.

The new piece of client information is added on behalf of the running Servoy client.

This function can be called more than once, if you want to add multiple lines of client information.

NOTE:

This function can also be used with the function `<em>getClientCountForInfo</em>` to count the number of clients with matching additional client information.

Parameters

[String](#) info A line of text to be added as additional client information on behalf of the running Servoy client.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.addClientInfo('SaaS company name');
application.addClientInfo('For any issues call +31-SA-AS');
```

beep()

Produces a "beep" sound; commonly used to indicate an error or warning dialog.

Supported Clients

SmartClient

Sample

```
application.beep();
```

closeAllWindows()

Close all visible windows (except main application window). Returns true if operation was successful.

Returns

[Boolean](#) Boolean true if all windows were closed and false otherwise.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```

var win = application.createWindow("aWindowName", JSWindow.WINDOW, null);
win.setInitialBounds(10, 10, 300, 300);
win.title = "This is a window";
controller.show(win);

var win2 = application.createWindow("anotherWindowName", JSWindow.WINDOW, null);
win2.setInitialBounds(100, 100, 300, 300);
win2.title = "This is another window";
controller.show(win2);

var qdialog = plugins.dialogs.showQuestionDialog("QuestionDialog","Do you want to close the windows?","Yes","No");
if (qdialog == "Yes") {
    application.closeAllWindows();
    controller.show(null);
}

```

closeSolution()

Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.

If the user has been logged in, this function keeps the user logged in and in the newly open solution, the login is skipped and the solution goes straight to the first form.

If you want to go to a different url, you need to call `application.showURL(url)` before calling `application.closeSolution()` (this is only applicable for Web Client).

An alternative option is `security.logout()` which also does a log out for the user (for solutions that require authentication).

Supported Clients

SmartClient,WebClient,NGClient

Sample

```

//application.showURL('http://www.servoy.com', '_self'); //Web Client only
application.closeSolution();
//close current solution, open solution 'solution_name', call global method 'global_method_name' with argument 'my_argument'.
//if the user has been logged in, he will stay logged in
//application.closeSolution('solution_name','global_method_name','my_argument');
//application.closeSolution('solution_name', {a: 'my_string_argument', p1: 'param1', p2: 'param2'});//close current solution, open solution 'solution_name', call solution's onOpen with argument 'my_argument' and queryParams p1,p2
//Note: specifying a solution will not work in the Developer due to debugger dependencies
//specified solution should be of compatible type with client (normal type or client specific(Smart client only /Web client only) type )

```

closeSolution(solutionToLoad)

Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.

If the user has been logged in, this function keeps the user logged in and in the newly open solution, the login is skipped and the solution goes straight to the first form.

If you want to go to a different url, you need to call `application.showURL(url)` before calling `application.closeSolution()` (this is only applicable for Web Client).

An alternative option is `security.logout()` which also does a log out for the user (for solutions that require authentication).

Parameters

[String](#) solutionToLoad Name of the solution to load

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//application.showURL('http://www.servoy.com', '_self'); //Web Client only
application.closeSolution();
//close current solution, open solution 'solution_name', call global method 'global_method_name' with argument
'my_argument'.
//if the user has been logged in, he will stay logged in
//application.closeSolution('solution_name','global_method_name','my_argument');
//application.closeSolution('solution_name', {a: 'my_string_argument', p1: 'param1', p2: 'param2'});//close
current solution, open solution 'solution_name', call solution's onOpen with argument 'my_argument' and
queryParams p1,p2
//Note: specifying a solution will not work in the Developer due to debugger dependencies
//specified solution should be of compatible type with client (normal type or client specific(Smart client only
/Web client only) type )
```

closeSolution(solutionToLoad, methodArgument)

Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.

If the user has been logged in, this function keeps the user logged in and in the newly open solution, the login is skipped and the solution goes straight to the first form.

If you want to go to a different url, you need to call application.showURL(url) before calling application.closeSolution() (this is only applicable for Web Client).

An alternative option is security.logout() which also does a log out for the user (for solutions that require authentication).

Parameters

String solutionToLoad Name of the solution to load

Object methodArgument Argument passed to the solution onOpen

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//application.showURL('http://www.servoy.com', '_self'); //Web Client only
application.closeSolution();
//close current solution, open solution 'solution_name', call global method 'global_method_name' with argument
'my_argument'.
//if the user has been logged in, he will stay logged in
//application.closeSolution('solution_name','global_method_name','my_argument');
//application.closeSolution('solution_name', {a: 'my_string_argument', p1: 'param1', p2: 'param2'});//close
current solution, open solution 'solution_name', call solution's onOpen with argument 'my_argument' and
queryParams p1,p2
//Note: specifying a solution will not work in the Developer due to debugger dependencies
//specified solution should be of compatible type with client (normal type or client specific(Smart client only
/Web client only) type )
```

closeSolution(solutionToLoad, methodName)

Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.

If the user has been logged in, this function keeps the user logged in and in the newly open solution, the login is skipped and the solution goes straight to the first form.

If you want to go to a different url, you need to call application.showURL(url) before calling application.closeSolution() (this is only applicable for Web Client).

An alternative option is security.logout() which also does a log out for the user (for solutions that require authentication).

Parameters

String solutionToLoad Name of the solution to load

String methodName Name of the global method to call

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//application.showURL('http://www.servoy.com', '_self'); //Web Client only
application.closeSolution();
//close current solution, open solution 'solution_name', call global method 'global_method_name' with argument
'my_argument'.
//if the user has been logged in, he will stay logged in
//application.closeSolution('solution_name','global_method_name','my_argument');
//application.closeSolution('solution_name', {a: 'my_string_argument', p1: 'param1', p2: 'param2'});//close
current solution, open solution 'solution_name', call solution's onOpen with argument 'my_argument' and
queryParams p1,p2
//Note: specifying a solution will not work in the Developer due to debugger dependencies
//specified solution should be of compatible type with client (normal type or client specific(Smart client only
/Web client only) type )
```

closeSolution(solutionToLoad, methodName, methodArgument)

Closes the currently open solution and optionally opens another solution, calling a specified global method with the specified arguments.

If the user has been logged in, this function keeps the user logged in and in the newly open solution, the login is skipped and the solution goes straight to the first form.

If you want to go to a different url, you need to call application.showURL(url) before calling application.closeSolution() (this is only applicable for Web Client).

An alternative option is security.logout() which also does a log out for the user (for solutions that require authentication).

Parameters

String solutionToLoad Name of the solution to load
String methodName Name of the global method to call
Object methodArgument Argument passed to the global method

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//application.showURL('http://www.servoy.com', '_self'); //Web Client only
application.closeSolution();
//close current solution, open solution 'solution_name', call global method 'global_method_name' with argument
'my_argument'.
//if the user has been logged in, he will stay logged in
//application.closeSolution('solution_name','global_method_name','my_argument');
//application.closeSolution('solution_name', {a: 'my_string_argument', p1: 'param1', p2: 'param2'});//close
current solution, open solution 'solution_name', call solution's onOpen with argument 'my_argument' and
queryParams p1,p2
//Note: specifying a solution will not work in the Developer due to debugger dependencies
//specified solution should be of compatible type with client (normal type or client specific(Smart client only
/Web client only) type )
```

createNewFormInstance(designFormName, newInstanceScriptName)

Create a new form instance.

Parameters

String designFormName Name of the design form
String newInstanceScriptName Name of the new form instance

Returns

Boolean Boolean (true) if the instance was created succesfully, (false) otherwise

Supported Clients

SmartClient,WebClient,NGClient

Sample

```

var ok = application.createNewFormInstance('orders','orders_view');
if (ok)
{
    var dialog = application.createWindow("myDialog", JSWindow.DIALOG);
    dialog.show('orders_view')
    //forms['orders_view'].controller.show()
    //forms.xyz.elements.myTabPanel.addTab(forms['orders_view'])
    //forms['orders_view'].elements.mylabel.setLocation(10,20)
}

```

createWindow(windowName, type)

Creates a new window that can be used for displaying forms. Initially the window is not visible. If there is already a window with the given name, it will be closed and destroyed prior to creating the new window. Use the form controller show() and showRecords() methods in order to show a form in this window.

Parameters

String	windowName	the name of the window. Should not be null.
Number	type	the type of the window. Can be one of JSWindow.DIALOG, JSWindow.MODAL_DIALOG, JSWindow.WINDOW. (WINDOW does not work for NGClient)

Returns

JSWindow the newly created window.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```

// create and show a window, with specified title, initial location and size
// type of the window can be one of JSWindow.DIALOG, JSWindow.MODAL_DIALOG, JSWindow.WINDOW (WINDOW does not
work for NGClient)
// If parentWindow is not specified, the current window will be used as parent; parentWindow parameter is only
used by dialogs
var win = application.createWindow("windowName", JSWindow.WINDOW);
win.setInitialBounds(10, 10, 300, 300);
win.title = "This is a window";
controller.show(win);
// create and show a non-modal dialog with default initial bounds/title
var nmd = application.createWindow("nonModalDialogName", JSWindow.DIALOG);
controller.showRecords(15, nmd); // 15 is a single-number pk in this case

```

createWindow(windowName, type, parentWindow)

Creates a new window that can be used for displaying forms. Initially the window is not visible. If there is already a window with the given name, it will be closed and destroyed prior to creating the new window. Use the form controller show() and showRecords() methods in order to show a form in this window.

Parameters

String	windowName	the name of the window. Should not be null.
Number	type	the type of the window. Can be one of JSWindow.DIALOG, JSWindow.MODAL_DIALOG, JSWindow.WINDOW (WINDOW doesn't work in NGClient).
JSWindow	parentWindow	the parent JSWindow object. If it is not specified, the current window will be used as parent. This parameter is only used by dialogs.

Returns

JSWindow the newly created window.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// create and show a window, with specified title, initial location and size (WINDOW does not work for NGClient)
var win = application.createWindow("windowName", JSWindow.WINDOW);
win.setInitialBounds(10, 10, 300, 300);
win.title = "This is a window";
controller.show(win);
// create and show a non-modal dialog with default initial bounds/title
var nmd = application.createWindow("nonModalDialogName", JSWindow.DIALOG);
controller.showRecords(15, nmd); // 15 is a single-number pk in this case
```

executeLater(function, delay)

Runs at method at the given delay in milliseconds.

This is like a simple scheduler to quickly run something after a bit of delay

Parameters

Function function The function to call

Number delay The millis that has to elapse before the function is called.

Supported Clients

SmartClient,WebClient,NGClient

Sample**executeLater(function, delay, arguments)**

Runs at method at the given delay in milliseconds with the arguments given to the method.

This is like a simple scheduler to quickly run something after a bit of delay

Parameters

Function function The function to call

Number delay The millis that has to elapse before the function is called.

Array arguments The arguments that are given to the function when called.

Supported Clients

SmartClient,WebClient,NGClient

Sample**executeProgram(program)**

Execute a program and returns output. Specify the cmd as you would do in a console.

Parameters

String program (fullpath) of the program to execute

Returns

String The output generated by the program execution.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "/home
/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgram("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgram("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgram("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgram(program, params)

Execute a program and returns output. Specify the cmd as you would do in a console.

Parameters

String program (fullpath) of the program to execute
Array params an array of strings as program arguments

Returns

String The output generated by the program execution.

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "/home
/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgram("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgram("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgram("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgram(program, params, environmentVars)

Execute a program and returns output. Specify the cmd as you would do in a console.

Parameters

String program (fullpath) of the program to execute

Array params an array of strings as program arguments

Array environment array of strings, each element of which has environment variable settings in the format name=value, or null if the subprocess should inherit the environment of the current process.

Vars

Returns

String The output generated by the program execution.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "/home
/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgram("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgram("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgram("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgram(program, params, environmentVars, startDir)

Execute a program and returns output. Specify the cmd as you would do in a console.

Parameters

String program (fullpath) of the program to execute

Array params an array of strings as program arguments

Array environment array of strings, each element of which has environment variable settings in the format name=value, or null if the subprocess should inherit the environment of the current process.

Vars

String startDir the working directory of the subprocess, or null if the subprocess should inherit the working directory of the current process.

ng

Returns

String The output generated by the program execution.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgram("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgram("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "/home
/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgram("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgram("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgram("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgramInBackground(program)

Execute a program in the background. Specify the cmd as you would do in a console.

Parameters

[String](#) program (fullpath) of the program to execute

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"],
["MY_ENV_VAR=something"], "c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"/home/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgramInBackground("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgramInBackground("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgramInBackground("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgramInBackground(program, params)

Execute a program in the background. Specify the cmd as you would do in a console.

Parameters

[String](#) program (fullpath) of the program to execute

[Array](#) params an array of strings as program arguments

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"],
["MY_ENV_VAR=something"], "c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"/home/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgramInBackground("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgramInBackground("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgramInBackground("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgramInBackground(program, params, environmentVars)

Execute a program in the background. Specify the cmd as you would do in a console.

Parameters

String	program	(fullpath) of the program to execute
Array	params	an array of strings as program arguments
Array	environmentVars	array of strings, each element of which has environment variable settings in the format name=value, or null if the subprocess should inherit the environment of the current process.

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:
\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"],
["MY_ENV_VAR=something"], "c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"],
"/home/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgramInBackground("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgramInBackground("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgramInBackground("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

executeProgramInBackground(program, params, environmentVars, startDir)

Execute a program in the background. Specify the cmd as you would do in a console.

Parameters

String program	(fullpath) of the program to execute
Array params	an array of strings as program arguments
Array environment Vars	array of strings, each element of which has environment variable settings in the format name=value, or null if the subprocess should inherit the environment of the current process.
String startDir	the working directory of the subprocess, or null if the subprocess should inherit the working directory of the current process.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// For Windows systems:
// Runs a binary located in the user's home directory. The application will run in the current working
// directory, which in general is the one where Servoy was started from.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"]);
// The same as above, but run the application in the user's home directory.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], null, "c:\\Users\\myself\\");
// The same as above, but also set an environment variable for the called program.
application.executeProgramInBackground("c:\\Users\\myself\\myapp.exe", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "c:\\Users\\myself\\");
// For non-Windows systems:
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"]);
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], null, "/home/myself/");
application.executeProgramInBackground("/home/myself/myapp", ["arg1", "arg2", "arg3"], ["MY_ENV_VAR=something"], "/home/myself/");
// Open a file with the default application associated with it. (on Windows)
application.executeProgramInBackground("rundll32.exe", ["url.dll,FileProtocolHandler", "filename"]);
// Open a file with the default application associated with it. (on Linux)
application.executeProgramInBackground("xdg-open", ["filename"]);
// Open a file with the default application associated with it. (on MacOS)
application.executeProgramInBackground("open", ["filename"]);
// Open a file with a specific application (on MacOS).
application.executeProgram("open", ["-a", "OpenOffice.org.app", "filename.doc"]);
```

exit()

Stop and exit application.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// exit application
application.exit();
```

generateBrowserFunction(functionString)

This generates a browser function for the given function string that can be executed in the browser. The resulting object can be assigned into a config/property object that is then assigned to a component. The component will receive this function as a real function object.

This is a more dynamic variant of the spec property "clientfunction" <https://wiki.servoy.com/display/DOCS/Property+Types>

Parameters

String functionString The function string of a js function that should be running in the clients browser.

Returns

Object An object that can be assigned to a javascript/json object that is send to the client

Supported Clients

NGClient

Sample

```
var options = { myfunction: application.generateBrowserFunction("function(param) { return param + 1 }") };
elements.component.setOptions(options);
```

getActiveClientCount(currentSolutionOnly)

Get the active user count on the server (can be limited to current solution).

Parameters

[Boolean](#) currentSolutionOnly Boolean (true) to get the active user count on server only to the current solution

Returns

[Number](#) Active user count on the server

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var count = application.getActiveClientCount(true);
```

getActiveWindow()

This gets the currently focused active window; this can be the main application window or a modal dialog. For a webclient getWindow() can return the main window that is not really the main for the current tab in the browser that can return the previous tab that a user could have opened. For this method is better suited because this will give you the actual tab in the browser. Another call would be form.controller.getWindow() of a form that you know in which window it resides.

Returns

[JSWindow](#) the current active/focussed window.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// get the currently active/focused window or dialog
var activeWindow = application.getActiveWindow();
```

getApplicationType()

Get the application type.

Returns

[Number](#) Constant application type

Supported Clients

SmartClient,WebClient,NGClient,MobileClient

Sample

```
var type = application.getApplicationType();
//see application type constant
```

getClientCountForInfo(info)

Gets the count for all clients displaying the same additional information in the Clients page of Servoy Server Administration Console.

Parameters

[String](#) info The additional client info string to search for.

Returns

[Number](#) Number of clients

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var count = application.getClientCountForInfo('SaaS company name');
application.output('Including yourself, there are ' + count + ' client(s) running on behalf of the company.');
```

getClientProperty(name)

Sets a UI property.

Parameters

[Object](#) name Name of the client property

Returns

[Object](#) the property value for the given name/key, null if nothing was found

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
//Only use this function from the solution on open method!
//In smart client, use this to set javax.swing.UIManager defaults properties.
application.putClientProperty('ToolTip.hideAccelerator', true)
//To change the comboboxes selection background color, do this:
application.putClientProperty('ComboBox.selectionBackground', new Packages.java.awt.Color.RED))

//In web client, use this to change the template directory.
//To change the default dir of templates/default to templates/green_skin, do this:
application.putClientProperty('templates.dir', 'green_skin');
```

getClipboardString()

Gets a string from the clipboard, null if not a string or empty.

Returns

[String](#) The string from the clipboard

Supported Clients

SmartClient, NGClient

Sample

```
var fromClipboard = application.getClipboardString();
```

getCurrentLookAndFeelName()

Gets the name of the current Look And Feel specified in Application Preferences.

Returns

[String](#) Current Look And Feel

Supported Clients

SmartClient

Sample

```
var laf = application.getCurrentLookAndFeelName();
```

getHostName()

Get the name of the localhost.

Returns

[String](#) Name of the localhost

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var hostName = application.getHostName();
```

getIPAddress()

Get the clients' IP address.

Returns

[String](#) IP address of the client

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var ip = application.getIPAddress();
```

getLicenseNames()

Get the names of the used client licenses (as strings in array).

Returns

[Array](#) Client licenses names

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var array = application.getLicenseNames();
```

getLogger()

Get a JSLogger instance which offers an API for logging with arguments.

Available logging levels are (in order): fatal, error, warn, info, debug and trace.

If no loggerName is given to this method, it returns the default logger (LoggerFactory.getLogger(Debug.class))

NOTE: the default logging level of the the default logger is 'warn', so info, debug and trace events are not logged.

Returns

[JSLogger](#) a new JSLogger instance

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var log = application.getLogger(); // returns the default logger.
application.output("is logging level 'warn' enabled? " + log.isWarnEnabled); // if false, next line won't log
log.warn.log("this logger logs {} {} {}", "all", "my", "arguments");
```

getLogger(loggerName)

Get a JSLogger instance which offers an API for logging with arguments.

Available logging levels are (in order): fatal, error, warn, info, debug and trace.

The argument should be the name of a logger that is configured in myServoyInstallationDir/application_server/log4j.xml.

A new logger can be configured in log4j.xml by adding the following line:

```
<Logger name="myLogger" level="INFO"/>
```

Parameters

[String](#) loggerName the name of the logger, as configured in log4j.xml

Returns

[JSLogger](#) a new JSLogger instance

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var log = application.getLogger("myLogger");
application.output("is logging level 'warn' enabled? " + log.isWarnEnabled); // if false, next line won't log
log.warn.log("this logger logs {} {} {}", "all", "my", "arguments");
```

getMediaURL(mediaName)

Get the media url that can be used to server a media in NGClient.

Parameters

[String](#) mediaName Name of the media

Returns

[String](#)

Supported Clients

NGClient

Sample

```
application.getMediaURL('solution.css');
```

getOSName()

Returns the name of the operating system of the client.
In Smart Client this will return os.name system property. In Web/NG Client will return "OSFamily majorVersion.minorVersion".

Returns

[String](#) Name of the operating system of the client

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var osname = application.getOSName();
```

getPrinters()

Get all the printer names in an array.

Returns

[Array](#) All printer names

Supported Clients

SmartClient,WebClient

Sample

```
var printersArray = application.getPrinters();
```

getScreenHeight()

Get the screen height in pixels.

Returns

[Number](#) Screen height

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var height = application.getScreenHeight();
```

getScreenWidth()

Get the screen width in pixels.

Returns

[Number](#) Screen width

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var width = application.getScreenWidth();
```

getServerTimeStamp()

Returns a date object initialized on server with current date and time.
For NG and web clients this is the same as new Date() in scripting.

Returns

[Date](#) Server time

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var serverTime = application.getServerTimeStamp();
```

getServerURL()

Gets the HTTP server url.

This url will end with a / so don't append to this server url something that starts with a / again because RFC 3986 says that the path of a url (the part after the domain[:poort]) can not start with 2 slashes.

Returns

[String](#) HTTP server URL

Supported Clients

SmartClient,WebClient,NGClient,MobileClient

Sample

```
var url = application.getServerURL();
```

getServerUUID()

Get the uuid from this server instance (the same value that is shown on the admin page)

Returns

[String](#)

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var uuid = application.getServerUUID();
```

getSolutionName()

Returns the name of the current solution.

Returns

[String](#) Current solution name

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var solutionName = application.getSolutionName();
```

getSolutionRelease()

Get the solution release number.

Returns

[Number](#) Current solution release number

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var release = application.getSolutionRelease();
```

getStartupArguments()

Get the parameters which are provided by startup.

It returns an array with 2 elements, a string that is the startup argument and a map containing all named startup arguments, or null if there is no argument passed

Returns

[Array](#) Array with 2 elements, a string that is the startup argument and a map containing all named startup arguments, or null if there is no argument passed

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var args_array = application.getStartupArguments();
// the first element in the array is the 'argument' value from the startup
var argument = args_array[0];
// the second element is a map containing all the named startup arguments
var startupArgumentObj = args_array[1];
var arg1 = startupArgumentObj['arg1_name'];
var arg2 = startupArgumentObj['arg2_name'];
```

getTimeStamp()

Returns a date object initialized in client with current date and time.
 This should be used instead of new Date() for webclients when the clients are in different times zones then the server.
 Then this call will really return a time that is the locals webclients time.
 For NG clients this is only useful when displaying on the client using format property (Use local time), and then this is equivalent to new Date() on the client side, so basically this can be used to pre-fill with 'now' such a display.

Returns[Date](#) Current time at the client**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
var clienttime = application.getTimeStamp();
```

getUUID()

Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object. A table column marked as UUID will work with such objects.

Returns[UUID](#) The new UUID object**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
var new_uuid_object = application.getUUID(); // generate new uuid object
var uuid_object1 = application.getUUID(new_uuid_object.toString()); // convert a string representing an uuid to an uuid object
var uuid_object2 = application.getUUID(new_uuid_object.toBytes()); // convert a byte array representing an uuid to an uuid object
```

getUUID(byteArray)

Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object. A table column marked as UUID will work with such objects.

Parameters[Array](#) byteArray Byte array representing an uuid**Returns**[UUID](#) The new UUID object**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
var new_uuid_object = application.getUUID(); // generate new uuid object
var uuid_object1 = application.getUUID(new_uuid_object.toString()); // convert a string representing an uuid to
an uuid object
var uuid_object2 = application.getUUID(new_uuid_object.toBytes()); // convert a byte array representing an uuid
to an uuid object
```

getUUID(uuidString)

Get a new UUID object (also known as GUID) or convert the parameter (that can be string or byte array) to an UUID object. A table column marked as UUID will work with such objects.

Parameters

[String](#) uuidString String representing an uuid

Returns

[UUID](#) The new UUID object

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var new_uuid_object = application.getUUID(); // generate new uuid object
var uuid_object1 = application.getUUID(new_uuid_object.toString()); // convert a string representing an uuid to
an uuid object
var uuid_object2 = application.getUUID(new_uuid_object.toBytes()); // convert a byte array representing an uuid
to an uuid object
```

getUserProperty(name)

Get a persistent user property.

In NGClient this is stored in the locale storage of the browser, so it will be persisted over restarts as long as the user didn't clear the data.

Parameters

[String](#) name Name of the property

Returns

[String](#) Property value

Supported Clients

SmartClient,WebClient,NGClient,MobileClient

Sample

```
var value = application.getUserProperty('showOrders');
```

getUserPropertyNames()

Get all persistent user property names.

Returns

[Array](#) Array of all user property names

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// display all user properties
allPropertyNames = application.getUserPropertyNames();
for(var i = 0; i < allPropertyNames.length; i++)
{
    application.output(allPropertyNames[i] + " = " + application.getUserProperty(allPropertyNames[i]));
}
```

getValueListArray(name)

Retrieve a valuelist as array, to get real-values for display-values.

NOTE: this doesn't return a value for a valuelist that depends on a database relation or is a global method valuelist.

Parameters

[String](#) name The name of the valuelist

Returns

[Array](#) Named array for the valuelist

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var packet_types = application.getValueListArray('packet_types');
if (a_realValue == packet_types['displayValue'])
{
}
```

getValueListDisplayValue(name, realValue)

Retrieve a valuelist display-value for a real-value.

NOTE: this doesn't return a value for a valuelist that depends on a database relation or is a global method valuelist.

Parameters

[String](#) name Name of the valuelist

[Object](#) realValue Real value of the valuelist

Returns

[Object](#) Display value of the real value from the valuelist

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var displayable_status = application.getValueListDisplayValue('case_status',status);
```

getValueListItems(name)

Get all values from a custom or database type value list as dataset (with columns displayValue,realValue).

NOTE: this doesn't return a value for a valuelist that depends on a database relation or is a global method valuelist.

Parameters

[String](#) name Name of the valuelist

Returns

[JSDataSet](#) DataSet with valuelist's display values and real values

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//Note:see databaseManager.JSDataSet for full details of dataset
var dataset = application.getValueListItems('my_en_types');
//example to calc a strange total
global_total = 0;
for( var i = 1 ; i <= dataset.getMaxRowIndex() ; i++ )
{
    global_total = global_total + dataset.getValue(i,1);
}
//example to assign to dataprovider
//employee_salary = dataset.getValue(1,1)
```

getValueListNames()

Get all the valuelist names as array.

Returns

[Array](#) Array with all valuelist names

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
var array = application.getValueListNames();
```

getVersion()

Returns the application version.

Returns[String](#) Application version**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
application.getVersion();
```

getVersionInfo()

Get the full version information of this solution and all its modules.

This will return an object that is a map of Name(String)->Version(String) of the solution and all its modules.

Returns[Object](#) Name->Version map object.**Supported Clients**

SmartClient,WebClient,NGClient

Sample**getWindow()**

Get the main application window. This is the window that is created first for this client.

In a smart client this is always just the first started window where the solution is loaded in.

In a webclient the user may open the same solution in a new tab in the same browser. In that case the main solution

window will always be the first opened tab, even if that one was already closed.

application.getActiveWindow() will always return the currently active/focused window or dialog.

If you need the window of the current top-level form, controller.getWindow() of that form will always return the correct window.

Returns[JSWindow](#) the main application JSWindow.**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
// close and dispose window resources
var mainAppWindow = application.getWindow();
```

getWindow(name)

Get a window by window name. When not supplying a name, the main application window is grabbed.

Parameters[String](#) name the name of the window. If not specified, the main application JSWindow will be returned.**Returns**[JSWindow](#) the JSWindow with the specified name, or null if no such window exists.**Supported Clients**

SmartClient,WebClient,NGClient

Sample

```
// close and dispose window resources
var win = application.getWindow("someWindowName");
if (win != null) {
    win.destroy();
}
```

isInDeveloper()

Returns true if the solution is running in the developer.

Returns

[Boolean](#) Boolean (true) if the solution is running in the developer, (false) otherwise

Supported Clients

SmartClient, WebClient, NGClient, MobileClient

Sample

```
var flag = application.isInDeveloper();
```

isLastPrintPreviewPrinted()

Check if the last printpreview did print.

Returns

[Boolean](#) Boolean (true) is the last print preview did print, (false) otherwise

Supported Clients

SmartClient, WebClient

Sample

```
//attached this method to onShow on the form being shown after printpreview
//set a global called scopes.globals.showPrintPreview to 1 in the onPrintPreview method
if (scopes.globals.showPrintPreview == 1)
{
    scopes.globals.showPrintPreview = 0;//clear for next time
    if (application.isLastPrintPreviewPrinted())
    {
        plugins.dialogs.showInfoDialog('Alert', 'There is printed in printpreview', 'OK')
    }
}
```

output(msg)

Output something on the out stream. (if running in debugger view output console tab)

Parameters

[Object](#) msg Object to send to output stream

Supported Clients

SmartClient, WebClient, NGClient, MobileClient

Sample

```
// log level is used to determine how/if to log in servoy_log.txt; for smart client java out and err streams are
used
application.output('my very important trace msg');// default log level: info
```

output(msg, level)

Output something on the out stream. (if running in debugger view output console tab)

Parameters

[Object](#) msg Object to send to output stream

[Number](#) level the log level where it should log to.

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
// log level is used to determine how/if to log in servoy_log.txt; for smart client java out and err streams are used
application.output('my very important msg',LOGGINGLEVEL.ERROR);// log level: error
```

overrideStyle(originalStyleName, newStyleName)

Overrides one style with another. In NGClient, it overrides the original stylesheet media defined on a solution with another media.

Parameters

[String](#) originalStyleName Name of the style to override
[String](#) newStyleName Name of the new style

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
// Smart Client/Web Client usage
//This function will only have effect on forms not yet created, so solution onLoad is the best place to override'
//For example overriding the use of default/designed style anywhere in the solution from 'mystyle' to 'mystyle_mac'
application.overrideStyle('mystyle','mystyle_mace')//in this case both styles should have about the same classes

//NGClient usage
application.overrideStyle('oldstylesheet.css','mystylesheets/newstylesheet.css');
//Also less is supported also with compiling it at runtime
applicaiton.overrideStyle('solution.less', 'tenant.less'); // tenant.less can be a solution model changed or generated file, then it will be recompiled at runtime.
```

playSound(url)

Play a sound (AU file, an AIFF file, a WAV file, and a MIDI file).

Parameters

[String](#) url URL of the sound file

Supported Clients

SmartClient,WebClient

Sample

```
application.playSound('media:///click.wav');
```

putClientProperty(name, value)

Sets a UI property.

Parameters

[Object](#) name Name of the client property
[Object](#) value New value of the client property

Returns

[Boolean](#) Boolean (true) if the client property was set with the new value

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//Only use this function from the solution on open method!
//In smart client, use this to set javax.swing.UIDefaults properties.
application.putClientProperty('ToolTip.hideAccelerator', true)
//To change the comboboxes selection background color, do this:
application.putClientProperty('ComboBox.selectionBackground', new Packages.java.swing.plaf.ColorUIResource(java.awt.Color.RED))

//In web client, use this to change the template directory.
//To change the default dir of templates/default to templates/green_skin, do this:
application.putClientProperty('templates.dir', 'green_skin');
```

redo()

Redo last action (if possible).

Supported Clients

SmartClient

Sample

```
application.redo();
```

refreshGlobalMethodValueList(element)

Refresh a global method valuelist by forcing it to call the global method. The element which has the valuelist must be provided.

If there is no propertyName specified, the element must have only one valuelist property.

Parameters

[Object](#) element form element

Returns

[Boolean](#) boolean indicating if valuelist was refreshed

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.refreshGlobalMethodValueList(elements.mytypeahead);
```

refreshGlobalMethodValueList(element, propertyName)

Refresh a global method valuelist by forcing it to call the global method. The element which has the valuelist must be provided.

The valuelist is searched under provided property from the spec - for usage in NGClient custom components.

Parameters

[Object](#) element form element

[String](#) propertyName name of property from the spec

Returns

[Boolean](#) boolean indicating if valuelist was refreshed

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.refreshGlobalMethodValueList(elements.mycustomcomponent, 'myvaluelistProperty');
```

removeAllClientInfo()

Removes all names given to the client via the admin page.

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.removeAllClientInfo();
```

removeClientInfo(info)

Removes a string of client information which is stored on the server and previously was added using the `application.addClientInfo('client info')`

This function can be called more than once, if you want to delete multiple lines of client information.

Parameters

[String](#) info A line of text to be removed from the client information on behalf of the running Servoy client.

Returns

[Boolean](#) boolean indicator if info was removed successfully

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
var removed = application.removeClientInfo('SaaS company name');
```

setClipboardContent(string)

Sets a string object in the clipboard.

Parameters

[Object](#) string New content of the clipboard

Supported Clients

SmartClient, NGClient

Sample

```
application.setClipboardContent('test');
```

setNumpadEnterAsFocusNextEnabled(enabled)

Set if numpad enter should behave like focus next.

Parameters

[Boolean](#) enabled Boolean (true) if numpad enter should behave like focus next

Supported Clients

SmartClient

Sample

```
application.setNumpadEnterAsFocusNextEnabled(true);
```

setStatusText(text)

Set the status area value.

Parameters

[String](#) text New status text

Supported Clients

SmartClient, WebClient

Sample

```
application.setStatusText('Your status text');
```

setStatusText(text, tooltip)

Set the status area value.

NOTE: Most modern browsers do not support status bar and status text anymore. This method sets status property of the window using javascript.

Parameters

`String` text New status text
`String` tooltip Status tooltip text

Supported Clients

SmartClient, WebClient

Sample

```
application.setStatusText('Your status text','Your status tooltip text');
```

setToolbarVisible(name, visible)

Make a toolbar visible or invisible.

Parameters

`String` name Name of the toolbar
`Boolean` visible Visibility of the toolbar

Supported Clients

SmartClient

Sample

```
//example: hide the text toolbar
application.setToolbarVisible('text',false);
```

setUserProperty(name, value)

Sets a user property for this client:

In NGClient this is stored in the locale storage of the browser, so it will be persisted over restarts as long as the user didn't clear the data.

For headless clients(including Batch Processors and Authentication clients) the user property is stored in memory and will be lost upon client restart.

For Web Client the user property will be stored in a persistent cookie

For Smart Client it will be stored in a properties file on the client machine.

Parameters

`String` name Name of the user property
`String` value New value of the user property

Supported Clients

SmartClient, WebClient, NGClient, MobileClient

Sample

```
application.setUserProperty('showOrders','1');
```

setValueListItems(name, dataset)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

`String` name Name of the valuelist
`JSDataSet` dataset Dataset with display/real values

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

setValueListItems(name, dataset, autoconvert)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

String	name	Name of the valuelist
JSDataSet	dataset	Dataset with display/real values
Boolean	autoconvert	Boolean (true) if display values and return values should be converted to numbers

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

setValueListItems(name, displayValues)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

String	name	Name of the valuelist
Array	displayValues	Display values array

Supported Clients

SmartClient,WebClient,NGClient,MobileClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

setValueListItems(name, displayValues, autoconvert)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

String name Name of the valuelist
Array displayValues Display values array
Boolean autoconvert Boolean (true) if display values and return values should be converted to numbers

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

setValueListItems(name, displayValues, realValues)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

String name Name of the valuelist
Array displayValues Display values array
Array realValues Real values array

Supported Clients

SmartClient,WebClient,NGClient,MobileClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

setValueListItems(name, displayValues, realValues, autoconvert)

Fill a custom type valuelist with values from array(s) or dataset.

NOTE: if you modify values for checkbox/radio field, note that having one value in valuelist is a special case, so switching between one value and 0/multiple values may have side effects

NOTE: This is expensive operation, which triggers refresh of all visible forms. Over usage of this method may inflict performance issues.

Parameters

String name ;
Array displayValues Display values array
Array realValues Real values array
Boolean autoconvert Boolean (true) if display values and return values should be converted to numbers

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//set display values (return values will be same as display values)
application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'));
//set display values and return values (which are stored in dataprovider)
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array
(10000,10010,10456));
//set display values and return values converted to numbers
//application.setValueListItems('my_en_types',new Array('Item 1', 'Item 2', 'Item 3'),new Array('10000','10010',
'10456'), true);
//do query and fill valuelist (see databaseManager for full details of queries/dataset)
//var query = 'select display_value,optional_real_value from test_table';
//var dataset = databaseManager.getDataSetByQuery(databaseManager.getDataSourceServerName(controller.
getDataSource()), query, null, 25);

//application.setValueListItems('my_en_types',dataset);
```

showCalendar()

Show the calendar, returns selected date or null if canceled. Initial value and date format can be also specified.

Returns

Date Selected date or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedDate = application.showCalendar();
```

showCalendar(dateFormat)

Show the calendar, returns selected date or null if canceled. Initial value and date format can be also specified.

Parameters

[String](#) dateFormat Date format

Returns

[Date](#) Selected date or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedDate = application.showCalendar();
```

showCalendar(selectedDate)

Show the calendar, returns selected date or null if canceled. Initial value and date format can be also specified.

Parameters

[Date](#) selectedDate Default selected date

Returns

[Date](#) Selected date or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedDate = application.showCalendar();
```

showCalendar(selectedDate, dateFormat)

Show the calendar, returns selected date or null if canceled. Initial value and date format can be also specified.

Parameters

[Date](#) selectedDate Default selected date

[String](#) dateFormat Date format

Returns

[Date](#) Selected date or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedDate = application.showCalendar();
```

showColorChooser()

Show the colorChooser. Returned value is in format #RRGGBB or null if canceled.

Returns

[String](#) selected color or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedColor = application.showColorChooser();
```

showColorChooser(colorString)

Show the colorChooser. Returned value is in format #RRGGBB or null if canceled.

Parameters

[String](#) colorString Default color

Returns

[String](#) selected color or null if canceled

Supported Clients

SmartClient

Sample

```
var selectedColor = application.showColorChooser();
```

showFontChooser()

Show the font chooser dialog. Returns the selected font. Can specify a default font.

Returns

[String](#) selected font

Supported Clients

SmartClient

Sample

```
var selectedFont = application.showFontChooser();
elements.myfield.font = selectedFont
```

showFontChooser(defaultFont)

Show the font chooser dialog. Returns the selected font. Can specify a default font.

Parameters

[String](#) defaultFont Default font

Returns

[String](#) selected font

Supported Clients

SmartClient

Sample

```
var selectedFont = application.showFontChooser();
elements.myfield.font = selectedFont
```

showForm(form)

Show the form specified by the parameter, that can be a name (is case sensitive!) or a form object. This will show the form in the active/currently focused window. So when called from a form in a dialog the dialog will show the form.

Parameters

[Object](#) form Form object or name

Supported Clients

SmartClient, WebClient, NGClient

Sample

```
application.showForm('MyForm');
```

showI18NDialog()

Opens the i18n dialog so users can change translations. Returns the key selected by the user (not it's translation) or null if cancel is pressed. Optional parameters specify the initial selections in the dialog.

Returns

[String](#) selected I18N key or null if cancel is pressed

Supported Clients

SmartClient

Sample

```
application.showI18NDialog("servoy.button.close", "en");
```

showI18NDialog(keyToSelect)

Opens the i18n dialog so users can change translations. Returns the key selected by the user (not it's translation) or null if cancel is pressed. Optional parameters specify the initial selections in the dialog.

Parameters

[String](#) keyToSelect Default selected key

Returns

[String](#) selected I18N key or null if cancel is pressed

Supported Clients

SmartClient

Sample

```
application.showI18NDialog("servoy.button.close", "en");
```

showI18NDialog(keyToSelect, languageToSelect)

Opens the i18n dialog so users can change translations. Returns the key selected by the user (not it's translation) or null if cancel is pressed. Optional parameters specify the initial selections in the dialog.

Parameters

[String](#) keyToSelect Default selected key

[String](#) languageToSelect Default selected language

Returns

[String](#) selected I18N key or null if cancel is pressed

Supported Clients

SmartClient

Sample

```
application.showI18NDialog("servoy.button.close", "en");
```

showURL(url)

Shows an URL in a browser.

Parameters

[String](#) url URL to show

Returns

[Boolean](#) Boolean (true) if URL was shown

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.showURL('http://www.example.com');

//NGClient and webclient specific additional parameters...
//2nd parameter: target frame or named dialog/window, so its possible to control in which (internal) frame or
dialog the url is loaded, '_self' is current window, '_blank' is new dialog, '_top' is main window; default is
'_blank'
//3rd parameter: dialog options used when a dialog is specified, example: 'height=200,width=400,status=yes,
toolbar=no,menubar=no,location=no'
//3rd or 4th parameter: a timeout in seconds when the url should be shown, immediately/0 is default'
```

showURL(url, browserTarget)

Shows an URL in a browser.

Parameters

[String](#) url URL to show

[String](#) browserTarget Target frame or named dialog/window

Returns

[Boolean](#) Boolean (true) if URL was shown

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.showURL('http://www.example.com');

//NGClient and webclient specific additional parameters...
//2nd parameter: target frame or named dialog/window, so its possible to control in which (internal) frame or
dialog the url is loaded, '_self' is current window, '_blank' is new dialog, '_top' is main window; default is
'_blank'
//3rd parameter: dialog options used when a dialog is specified, example: 'height=200,width=400,status=yes,
toolbar=no,menubar=no,location=no'
//3rd or 4th parameter: a timeout in seconds when the url should be shown, immediately/0 is default'
```

showURL(url, browserTarget, timeout)

Shows an URL in a browser.

Parameters

String url URL to show
String browserTarget Target frame or named dialog/window
Number timeout A timeout in seconds when the url should be shown

Returns

Boolean Boolean (true) if URL was shown

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.showURL('http://www.example.com');

//NGClient and webclient specific additional parameters...
//2nd parameter: target frame or named dialog/window, so its possible to control in which (internal) frame or
dialog the url is loaded, '_self' is current window, '_blank' is new dialog, '_top' is main window; default is
'_blank'
//3rd parameter: dialog options used when a dialog is specified, example: 'height=200,width=400,status=yes,
toolbar=no,menubar=no,location=no'
//3rd or 4th parameter: a timeout in seconds when the url should be shown, immediately/0 is default'
```

showURL(url, browserTarget, browserTargetOptions)

Shows an URL in a browser.

Parameters

String url URL to show
String browserTarget Target frame or named dialog/window
String browserTargetOptions Dialog options used when a dialog is specified / a timeout in seconds when the url should be shown

Returns

Boolean Boolean (true) if URL was shown

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.showURL('http://www.example.com');

//NGClient and webclient specific additional parameters...
//2nd parameter: target frame or named dialog/window, so its possible to control in which (internal) frame or
dialog the url is loaded, '_self' is current window, '_blank' is new dialog, '_top' is main window; default is
'_blank'
//3rd parameter: dialog options used when a dialog is specified, example: 'height=200,width=400,status=yes,
toolbar=no,menubar=no,location=no'
//3rd or 4th parameter: a timeout in seconds when the url should be shown, immediately/0 is default'
```

showURL(url, browserTarget, browserTargetOptions, timeout)

Shows an URL in a browser.

Parameters

<code>String</code>	<code>url</code>	URL to show
<code>String</code>	<code>browserTarget</code>	Target frame or named dialog/window
<code>String</code>	<code>browserTargetOptions</code>	Dialog options used when a dialog is specified / a timeout in seconds when the url should be shown
<code>Number</code>	<code>timeout</code>	A timeout in seconds when the url should be shown

Returns

`Boolean` Boolean (true) if URL was shown

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
application.showURL('http://www.example.com');

//NGClient and webclient specific additional parameters...
//2nd parameter: target frame or named dialog/window, so its possible to control in which (internal) frame or
dialog the url is loaded, '_self' is current window, '_blank' is new dialog, '_top' is main window; default is
'_blank'
//3rd parameter: dialog options used when a dialog is specified, example: 'height=200,width=400,status=yes,
toolbar=no,menubar=no,location=no'
//3rd or 4th parameter: a timeout in seconds when the url should be shown, immediately/0 is default'
```

sleep(ms)

Sleep for specified time (in milliseconds).

Parameters

`Number` ms Sleep time in milliseconds

Supported Clients

SmartClient,WebClient,NGClient

Sample

```
//Sleep for 3 seconds
application.sleep(3000);
```

undo()

Undo last action (if possible).

Supported Clients

SmartClient

Sample

```
application.undo();
```

updateUI()

Updates the UI (painting). If in a script an element changed and the script continues doing things, you can give an number in ms how long this can take.
Warning: this gives the UI time to paint, but this also means that it will give the ui time to respond to all other events, so if a user keeps clicking on other stuff this will also be handled right away inside this call.

NOTE:In NGClient, this method will send to browser all outstanding changes. If called too often (with many changes), can cause performance issues.

Supported Clients

SmartClient,NGClient

Sample

```
application.updateUI(500);
//continue doing things
```

updateUI(milliseconds)

Updates the UI (painting). If in a script an element changed and the script continues doing things, you can give an number in ms how long this can take.
Warning: this gives the UI time to paint, but this also means that it will give the ui time to respond to all other events,
so if a user keeps clicking on other stuff this will also be handled right away inside this call.

NOTE:In NGClient, this method will send to browser all outstanding changes. If called too often (with many changes), can cause performance issues.

Parameters

[Number](#) milliseconds How long the update should take in milliseconds

Supported Clients

SmartClient,NGClient

Sample

```
application.updateUI(500);  
//continue doing things
```