

CHAPTER 5

WDDX JavaScript Objects

This chapter provides information about JavaScript objects and functions used when implementing WDDX in a ColdFusion application.

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WddxSerializer Object

The WddxSerializer object includes functions that serialize a WddxRecordset instance. The only function that developers typically call is `serialize`.

serialize

Creates a WDDX packet for a passed WddxRecordset instance.

Syntax `object.serialize(rootobj)`

object

Instance name of the WddxSerializer object.

rootobj

WddxRecordset instance to be serialized.

Return value String. Returns the serialized WDDX packet if the function succeeds and a null value if an error occurs.

Usage Call this function to serialize the data in a WddxRecordset instance.

Example This example illustrates a JavaScript function that you can call to serialize a WddxRecordset instance. The function copies serialized data to a form field for display:

```
function serializeData(data, formField)
{
    wddxSerializer = new WddxSerializer();
    wddxPacket = wddxSerializer.serialize(data);
    if (wddxPacket != null)
    {
        formField.value = wddxPacket;
    }
    else
    {
        alert("Couldn't serialize data");
    }
}
```

serializeVariable

Serializes a property of a structure. If an object is not a string, number, array, Boolean, or a date, WddxSerializer treats it as a structure.

Syntax `object.serializeVariable(name, obj)`

object

Instance name of the `WddxSerializer` object.

name

Property to be serialized.

obj

Instance name of the `WddxRecordset` object to be serialized.

Return value Boolean. Returns `True` if serialization was successful and `False` if an error occurs.

Usage Internal. You do not typically call this function.

Example This example is from the `WddxSerializer` `serializeValue` function:

```
...
// Some generic object; treat it as a structure
this.write("<struct>");
for (prop in obj)
{
    bSuccess = this.serializeVariable(prop, obj[prop]);
    if (! bSuccess)
    {
        break;
    }
}
this.write("</struct>");
...
```

serializeValue

Recursively serializes all eligible data in a passed `WddxRecordset` instance. Data that can be serialized includes:

- String
- Number
- Boolean
- Date
- Array
- Structure

This function serialize null values as empty strings.

Syntax `object.serializeValue(obj)`

object

Instance name of the `WddxSerializer` object.

obj

Instance name of the `WddxRecordset` object to be serialized.

Return value Boolean. Returns True if *obj* was serialized successfully and False if an error occurs.

Usage Internal. You do not typically call this function.

Example This example is from the `WddxSerializer` `serialize` function:

```
...
this.wddxPacket = "";
this.write("<wddxPacket version='0.9'><header/><data>");
bSuccess = this.serializeValue(rootObj);
this.write("</data></wddxPacket>");

if (bSuccess)
{
    return this.wddxPacket;
}
else
{
    return null;
}
...
```

write

Appends data to the serialized data stream.

Syntax `object.write(str)`

object

Instance name of the `WddxSerializer` object.

str

String to be copied to the serialized data stream.

Return value String. Returns the updated serialized data stream.

Usage Internal. You do not typically call this function.

Example This example is from the `WddxSerializer` `serializeValue` function:

```
...
else if (typeof(obj) == "number")
{
    // Number value
}
```

```
    this.write("<number>" + obj + "</number>");
  }
  else if (typeof(obj) == "boolean")
  {
    // Boolean value
    this.write("<boolean value='" + obj + "'/>");
  }
  ...
```

WddxRecordset Object

The WddxRecordset object includes functions that you call as needed when constructing a WDDX record set.

addColumn

Adds the specified column to all rows in the WddxRecordset instance.

Syntax *object*.addColumn(*name*)

object

Instance name of the WddxRecordset object.

name

Name of the column to add.

Return value None.

Usage This function adds the specified column to every row of the WDDX record set. Initially the new column's values are set to NULL.

Example This example calls the addColumn function:

JavaScript example

addRows

Adds the specified number of rows to all columns in the WddxRecordset instance.

Syntax *object*.addRows(*n*)

object

Instance name of the WddxRecordset object.

n

Integer specifying the number of rows to add.

Return value None.

Usage This function adds the specified number of rows to every column of the WDDX record set. Initially, the row/column values are set to NULL.

Example This example calls the addRows function:

JavaScript example

getField

Returns the element in the specified row/column position.

Syntax *object.addColumn(row, col)*

object

Instance name of the WddxRecordset object.

row

Integer specifying the row number of the value to be returned.

col

Integer or string specifying the column of the value to be returned.

Return value Returns the value in the specified row/column position.

Usage Call this function to access a value in a WDDX record set.

Example This example calls the getField function (the variable *r* is a reference to a WddxRecordset instance):

```
for (row = 0; row < nRows; ++row)
{
  o += "<tr>";
  for (i = 0; i < colNames.length; ++i)
  {
    o += "<td>" + r.getField(row, colNames[i]) + "</td>";
  }
  o += "</tr>";
}
```

getRowCount

Indicates the number of rows in the WddxRecordset instance.

Syntax *object*.**getRowCount**()

object

Instance name of the WddxRecordset object.

Return value Integer. Returns the number of rows in the WddxRecordset instance.

Usage Call this function before a looping construct to determine the number of rows in the record set.

Example This example calls the getRowCount function:

```
function dumpWddxRecordset(r)
{
    // Get row count
    nRows = r.getRowCount();
    ...
    for (row = 0; row < nRows; ++row)
    ...
}
```

setField

Sets the element in the specified row/column position.

Syntax *object*.**setField**(*row*, *col*, *value*)

object

Instance name of the WddxRecordset object.

row

Integer specifying the row containing the element to be set.

col

Integer or string specifying the column containing the element to be set.

value

Value to be set.

Return value None.

Usage Call this function to set a value in a WddxRecordset instance.

Example This example calls the `setField` function:

JavaScript example

wddxSerialize

Serializes a record set.

Syntax `object.wddxSerialize(serializer)`

object

Instance name of the `WddxRecordset` object.

serializer

`WddxSerializer` instance.

Return value Boolean. Returns `True` if serialization was successful and `False` if an error occurs.

Usage Internal. You do not typically call this function.

Example This example is from the `WddxSerializer.serializeValue` function:

```
...
else if (typeof(obj) == "object")
{
  if (obj == null)
  {
    // Null values become empty strings
    this.write("<string></string>");
  }
  else if (typeof(obj.wddxSerialize) == "function")
  {
    // Object knows how to serialize itself
    bSuccess = obj.wddxSerialize(this);
  }
}
...
```