

mit Hilfe der String-Methoden `parseInt` oder `parseFloat` in Zahlen umgewandelt werden. Nach Durchführung der Berechnung erfolgt die Ausgabe wieder in einem TEXT-Feld, daher muß die entstandene Zahl wieder in einen String verwandelt werden. Das geschieht durch Addition mit einem String:

String = "" + 5



```
<HTML>
<HEAD>
  <TITLE>BSP 14: Eingaben</TITLE>
</HEAD>
<BODY>
  <H2>Rechnen</H2>
  <FORM>
    X
    <INPUT TYPE="TEXT"
      NAME="X"
      VALUE=2>
    + Y
    <INPUT TYPE="TEXT"
```

```
      NAME="Y"
      VALUE=3>
    <INPUT TYPE="BUTTON"
      VALUE=""
      onClick= 'this.form.Z.value= "" +
        (parseFloat(this.form.X.value) +
          parseFloat(this.form.Y.value))' >
    Z
    <INPUT TYPE="TEXT"
      NAME="Z"
      VALUE=0>
  </FORM>
</BODY>
</HTML>
```

Diese Einführung ist kein Ersatz für eine eingehende Beschäftigung mit weiterführenden Materialien, wie z.B.: JavaScript Handbook, Danny Goodman, IDG Books, ISBN 0-7645-3003-8, inklusive CD.

Referenz (<http://pcnews.at/edu/tk/javascr/ref/~ref.htm>)

Beispiele (<http://pcnews.at/edu/tk/javascr/bsp/~bsp.htm>)
Beachten Sie auch die Kurzreferenz nach dieser Einführung

JavaScript

- Kurzreferenz

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Eingebaute Objekte

```
window      history
            location
            document
            link
            anchor
            form
            text, textarea, password
            radio
            button, reset, submit
            checkbox
            select
string
Date
Math
navigator
```

Windows & Frames

Creating Windows

```
windowObject = window.open([parameters])
<BODY>
  ...
  [onLoad="handlerTextOrFunction"]
  [onUnload="handlerTextOrFunction"]>
</BODY>
```

Creating Frames

```
<FRAMESET>
  ROWS="ValueList"
  COLS="ValueList"
  onLoad="handlerTextOrFunction"
  onUnload="handlerTextOrFunction">
  <FRAME SRC="locationOrURL" NAME="
firstFrameName">
  ...
  <FRAME SRC="locationOrURL" NAME="lastFrameName"
```

```
„>
</FRAMESET>
```

Properties

```
status (string)
defaultStatus (string)
frames (array)
parent (Window object)
Self (Window object)
top (Window object)
window (Window object)
```

```
alert(message )
confirm(message )
prompt(message, defaultReply )
open(„URL“, „windowName“ [, „windowFeatures“])
close()
setTimeout(„expression“, millisecondsDelay )
clearTimeout(timeoutIDnumber )
```

Event Handlers

```
onLoad=
onUnload=
```

Location Object

Properties

```
href (string)
hash (string)
host (string)
hostname (string)
pathname (string)
port (string)
protocol (string)
search (string)
```

```
window.location = „http://www.dannyg.com“
```

Methods

(None)

Event Handlers

(None)

History Object

Property

```
length (integer)
  histLength = history.length
```

Methods

```
back()
forward()
go(relativeNumber | „URLorTitleSubstring“)
  // refresh current frame
  history.go(0)
```

Event Handlers

(None)

Document Object

Creating a Document

```
<BODY
  [BACKGROUND="backgroundImageURL"]
  [BGCOLOR="#backgroundColor"]
  [TEXT="#foregroundColor"]
  [LINK="#unfollowedLinkColor"]
  [ALINK="#activatedLinkColor"]
  [VLINK="#followedLinkColor"]
  [onLoad="handlerTextOrFunction"]
  [onUnload="handlerTextOrFunction"]>
</BODY>
```

Properties

```
forms (array)
location (string)
title (string)
alinkColor (hexadecimal triplet or constant)
vlinkColor (hexadecimal triplet or constant)
bgColor (hexadecimal triplet or constant)
fgColor (hexadecimal triplet or constant)
linkColor (hexadecimal triplet or constant)
lastModified (date string)
anchors (array)
links (array)
referrer (string)
cookie (string)
  docTitle = document.title
```

Methods

```
write(„string“)
writeln(„string“)
open([„mimeType“])
close()
clear()
  document.writeln(„<H1>Howdy</H1>“)
```

Event Handlers

(None)

Form Object

Creating a Form Object

```
<FORM
  NAME="formName"
  [TARGET="windowName"]
```

```
[ACTION="serverURL"]
[METHOD=GET | POST]
[ENCTYPE="MIMEType"]
[onSubmit="handlerTextOrFunction"] >
</FORM>
```

Properties

```
elements (array)
action (URL)
method (GET or POST)
target (window name)
encoding (MIME type)
  howMany = document.forms[0].elements.length
```

Method

```
submit()
  document.forms[0].submit()
```

Event Handler

onSubmit=

Text, Textarea, & Password Objects

Creating a Text Object

```
<FORM>
<INPUT
  TYPE="text"
  NAME="fieldName"
  [VALUE="contents"]
  [SIZE="characterCount"]
  [onBlur="handlerTextOrFunction"]
  [onChange="handlerTextOrFunction"]
  [onFocus="handlerTextOrFunction"]
  [onSelect="handlerTextOrFunction"]>
</FORM>
```

Creating a Textarea Object

```
<FORM>
<TEXTAREA
  NAME="fieldName"
  ROWS="rowCount"
  COLS="columnCount"
  [onBlur="handlerTextOrFunction"]
  [onChange="handlerTextOrFunction"]
  [onFocus="handlerTextOrFunction"]
  [onSelect="handlerTextOrFunction"]>
  defaultText
</TEXTAREA>
</FORM>
```

Creating a Password Object

```
<FORM>
<INPUT
  TYPE="password"
  NAME="fieldName"
  [VALUE="contents"]
  [SIZE="characterCount"]>
</FORM>
```

Properties

```
value (string)*
name (string)
defaultValue (string)
*For password object, only the default value
specified in a VALUE= attribute.
  var cityString = document.forms[0].city.value
```

Methods

```
select()
focus()
blur()
```

Event Handlers

onChange=
onFocus=
onBlur=
onSelect=

Hidden Object

Creating a Hidden Object

```
<FORM>
<INPUT
  TYPE="hidden"
  NAME="fieldName"
  [VALUE="contents"]>
</FORM>
```

Properties

value (string)
name (string)
defaultValue (string)

Methods

(None)

Event Handlers

(None)

Button, Submit, & Reset Objects

Creating Button Objects

```
<FORM>
<INPUT
  TYPE="text" | „submit“ | „reset“
  NAME="buttonName"
  VALUE="buttonLabelText"
  [onClick="handlerTextOrFunction"] >
</FORM>
```

Properties

value (string)
name (string)
document.forms[0].clickMe.value

Method

click()

Event Handler

onClick=

Checkbox Object

Creating a Checkbox Object

```
<FORM>
<INPUT
  TYPE="checkbox"
  NAME="boxName"
  VALUE="buttonValue"
  [CHECKED]
  [onClick="handlerTextOrFunction"]>
  buttonText
</FORM>
```

Properties

checked (Boolean)
name (string)
value (string)
defaultChecked (Boolean)
var setting = document.forms[0].citizen.checked

Method

click()

Event Handler

onClick=

Radio Object

Creating a Radio Object

```
<FORM>
<INPUT
  TYPE="radio"
  NAME="buttonGroupName"
  VALUE="buttonValue"
  [CHECKED]
  [onClick="handlerTextOrFunction"]>
  buttonText
</FORM>
```

(All buttons in a group must have the same NAME assigned to them.)

Properties

checked (Boolean)
name (string)
length (integer)
value (string)
defaultChecked (Boolean)
var isModern = document.forms[0].style[2].checked

Method

onClick()
Event Handler
onClick=

Select Object

Creating a Select Object

```
<FORM>
<SELECT
  NAME="listName"
  [SIZE="number"]
  [MULTIPLE]
  [onBlur="handlerTextOrFunction"]
  [onChange="handlerTextOrFunction"]
  [onFocus="handlerTextOrFunction"]>
  <OPTION [SELECTED] [VALUE="string"]>listItem
  [...<OPTION [VALUE="string"]>listItem]
</SELECT>
</FORM>
```

Properties

selectedIndex (integer)
length (integer)
name (string)
options[index] (array)
options[index].text (string)
options[index].value (string)
options[index].selected (Boolean)
options[index].index (integer)
options[index].defaultSelected (Boolean)
var choice = document.forms[0].popup1.
options[document.forms[0].popup1.
selectedIndex].value

Methods

(None)

Event Handler

onChange=

Link Object

Creating a Link Object

```
<A HREF="locationOrURL"
  [NAME="anchorName"]
  [TARGET="windowName"]
  [onClick="handlerTextOrFunction"]
  [onMouseOver="handlerTextOrFunction"]>
  linkDisplayTextOrImage
</A>
```

Properties

```
links[index].target (window name)
length (integer)
  var linkCount = document.links.length
```

Methods

(None)

Event Handlers

```
onMouseOver= (must end with ;return true)
onClick=
```

Anchor Object

Creating an Anchor Object

```
<A NAME="anchorName">
  anchorDisplayTextOrImage
</A>
```

Properties

(None)

Methods

(None)

Event Handlers

(None)

Navigator Object

Properties

```
appName (string)
appVersion (string)
appName (string)
userAgent (string)
```

Methods

(None)

Event Handlers

(None)

String Object

Property

```
string.length
  var strLen = „Howdy Doody“.length
```

Methods

```
string.toLowerCase()
string.toUpperCase()
string.indexOf(searchString [, startIndex])
string.lastIndexOf(searchString [, startIndex])
string.charAt(index)
string.substring(indexA , indexB)
string.anchor(„anchorName“)
string.big()
```

```
string.blink()
string.bold()
string.fixed()
string.fontcolor(colorValue)
string.fontSize(integer1to7)
string.italics()
string.link(locationOrURL)
string.small()
string.strike()
string.sub()
string.sup()
```

Event Handlers

(None)

Math Object

Properties

```
Math.E
Math.LN2
Math.LN10
Math.LOG2E
Math.LOG10E
Math.PI
Math.SQRT1_2
Math.SQRT2
  var circumf = Math.PI * 4
```

Methods

```
Math.abs(val)
Math.acos(val)
Math.asin(val)
Math.atan(val)
Math.ceil(val)
Math.cos(val)
Math.exp(val)
Math.floor(val)
Math.log(val)
Math.max(val1, val2)
Math.min(val1, val2)
Math.pow(val1, val2)
Math.random()*
Math.round(val)
Math.sin(val)
Math.sqrt(val)
Math.tan(val)
*Not available in Navigator 2.0 for Windows or Mac.
  var circArea = Math.PI * Math.pow(diam,2)
```

Event Handlers

(None)

Date Object

Properties

(None)

Methods

```
dateObj.getTime() (0-...)
dateObj.getYear() (70-...)
dateObj.getMonth() (0-11)
dateObj.getDate() (1-31)
dateObj.getDay() (0-6)
dateObj.getHours() (0-23)
dateObj.getMinutes() (0-59)
dateObj.getSeconds() (0-59)
dateObj.setTime(val) (0-...)
dateObj.setYear(val) (70-...)
dateObj.setMonth(val) (0-11)
dateObj.setDate(val) (1-31)
dateObj.setDay(val) (0-6)
dateObj.setHours(val) (0-23)
dateObj.setMinutes(val) (0-59)
dateObj.setSeconds(val) (0-59)
```

```
dateObj.getTimezoneOffset() (0-...)
dateObj.toGMTString() (string)
dateObj.toLocaleString() (string)
Date.parse(„dateString“)
Date.UTC(date value )
In Navigator 2.0 for Macintosh, most date methods
produce erroneous results.
```

Event Handlers

(None)

Programmablauf

if decisions

```
if (condition)
    statementsIfTrue
if (condition)
    statementsIfTrue
else
    statementsIfFalse
```

for loops

```
for ([initial expr] ; [condition] ; [update expr]) {
    statements
}
for (var i = 0; i <= maxValue; i++){
}
for (var in object ) {
    statements
}
```

while loop

```
while (condition) {
    statements
}
```

with statement

```
with (object) {
    statements
}
with (Math) {
    var circArea = PI * pow(diam,2)
}
```

Conditional Expressions

```
variable = (condition) ? val1 : val2
var sign = (if x >= 0) ? „positive“ : „negative“
```

Comparison Operators

```
== Equals
!= Does not equal
> Is greater than
>= Is greater than or equal to
< Is less than
<= Is less than or equal to
```

Connubial Operators

```
+ Plus and string concatenate
- Minus
* Multiply
/ Divide
% Modulo
++ Increment
- Decrement
-va1 Negation
```

Assignment Operators

```
= Equals
+= Add by value
-= Subtract by value
*= Multiply by value
/= Divide by value
%= Modulo by value
```

Boolean Operators

```
&& And
|| Or
! Not
```

Bitwise Operators

```
& Bitwise And
| Bitwise Or
^ Bitwise XOR
<< Left Shift
>> Right Shift
>>> Zero Fill Right Shift
```

```
windowObject = window.open([parameters])
```

Warum sind Datenbanken etwas unnatürliches ???
Alle normalen Wörter schreibt man im
Zehnfinger-System mit beiden Händen, aber
DATABASE schreibt man nur mit der linken Hand.



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