Spreadsheet using jQuery.sheet

The Spreadsheet feature can be accessed through the jquery.sheet interface, added to Tiki since version 5.0

A review of jQuery.Sheet

Light years beyond other solutions at least as first impression, jQuery.sheet by Robert Plummer is a really wonderful library.
Usage

When adding a new spreadsheet, the interface is as usual in Tiki5: you have the option to allow wiki parsing of wiki content inside the spreadsheet, plus defining some parent relationship with other spreadsheets:

When editing the spreadsheet, you can add more rows and columns, add content to them, move among the cells using the cursor keys, etc. If wiki parsing was enabled for the spreadsheet, then you can add any wiki syntax to the cell (including Wiki plugins!).
That wiki markup will be parsed when saved.

```
## Shopping list

List of things to buy or exchange

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>Quantity</th>
<th>Price (€/kg)</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatoes</td>
<td>5</td>
<td>0.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Carrots</td>
<td>3</td>
<td>0.3</td>
<td>0.8999999999999999</td>
</tr>
<tr>
<td>Lettuce</td>
<td>1</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Aubergine</td>
<td>2</td>
<td>0.3333333333333333</td>
<td>0.6666666666666666</td>
</tr>
</tbody>
</table>
```

New sheets can be added when clicking at the plus sign ("+") at the bottom of the spreadsheet.
Then, this new sheet is added to the workbook.
<table>
<thead>
<tr>
<th>Function</th>
<th>Arguments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>numbers_as_array</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>values_as_array</td>
</tr>
<tr>
<td>CEILING</td>
<td>numbers_as_array</td>
</tr>
<tr>
<td>COUNT</td>
<td>html_as_string</td>
</tr>
<tr>
<td>DAYSFROM</td>
<td>url_as_string</td>
</tr>
<tr>
<td>DOLLAR</td>
<td>numbers_as_array</td>
</tr>
<tr>
<td>FALSE</td>
<td></td>
</tr>
<tr>
<td>FIXED</td>
<td>number, decimals, noCommas?</td>
</tr>
<tr>
<td>FLOOR</td>
<td>numbers_as_array</td>
</tr>
<tr>
<td>HYPERLINK</td>
<td></td>
</tr>
</tbody>
</table>
Example
"=ABS(F4)"
"=AVERAGE(F4:F14)"
"=CEILING(F4:F14)"
"=COUNT(F2:F14)"
"=DAYSFROM(2009,4,15)"
"=DOLLAR(F13)"
"=IF(F4 < 100, TRUE(), FALSE())"
"=FIXED(F4+F14)"
"=FLOOR(F4-F5)"
"=HYPERLINK("http://www.jquery.com", "jQuery's website")"
Result
62
46.92307692307692
6,21E+016
13
-11
$55.00
TRUE
41.00
-46
jQuery's website
Additional Information

Synonym: ?AVG

Two decimal places

Synonym: INT
<table>
<thead>
<tr>
<th>Sample #</th>
<th>Sample Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Hello World</td>
</tr>
<tr>
<td>45</td>
<td>True</td>
</tr>
<tr>
<td>62</td>
<td>False</td>
</tr>
<tr>
<td>108</td>
<td>To High</td>
</tr>
<tr>
<td>200</td>
<td>To Low</td>
</tr>
<tr>
<td>36</td>
<td>Perfect</td>
</tr>
<tr>
<td>17</td>
<td>number</td>
</tr>
<tr>
<td>99</td>
<td>numbers_as_array</td>
</tr>
<tr>
<td>100</td>
<td>values_as_array</td>
</tr>
<tr>
<td>-100</td>
<td>html_as_string</td>
</tr>
</tbody>
</table>
Cell Navigation
Left Arrow
Right Arrow
Up Arrow
Down Arrow
Escape
Enter
Ctrl + Enter
Tab
Result
Active cell moves left if possible.
Active cell moves right if possible.
Active cell moves up if possible.
Active cell moves down if possible.
Active cell is removed from focus.
Starts in-place edit / Active cell moves down if possible.
Ends in-place edit / Active cell moves down if possible.
Active cell moves right if possible.
Dependancy

jQuery.sheet.evt.cellClick()
jQuery.sheet.evt.cellClick()
jQuery.sheet.evt.cellClick()
jQuery.sheet.evt.cellClick()
jQuery.sheet.evt.cellEditAbandon()
jQuery.sheet.evt.formulaKeyDown()
jQuery.sheet.evt.formulaKeyDown()
jQuery.sheet.evt.formulaKeyDown()
jQuery.sheet.evt.cellClick()
Synonym

jS.evt.cellClick()
jS.evt.cellClick()
jS.evt.cellClick()
jS.evt.cellClick()
jS.evt.cellClick()
jS.evt.cellClick()
jS.evt.cellEditAbandon()
jS.evt.formulaKeyDown()
jS.evt.formulaKeyDown()
jS.evt.formulaKeyDown()
jS.evt.cellClick()

Chart Type  Example
Vertical Bar  "=BARCHART(D2:D13)
9.1       Jun       2006
14.1      Jul       2007
16         Aug      2008
17.9       Sep      2009
22         Oct      2010
30         Nov      2011
32         Dec      2012

Inputs are for capturing fixed data, such as a drop down list (INPUT.SELECT), or a checkbox (INPUT.CHECKBOX)
Input Type
Select List
Radio List
Checkbox
Get Select List Value
Get Radio List Value
Get Checkbox Value
Detect if Checkbox is Checked
Example

"=INPUT.SELECT(D3:D10)"

"=INPUT.RADIO(E3:E10)"

"=INPUT.CHECKBOX(E3)"

"=INPUT.SELECTVAL(C3)"

"=INPUT.RADIOVAL(C4)"

"=INPUT.CHECKBOXVAL(C5)"

"=INPUT.ISCHECKED(C5)"
<table>
<thead>
<tr>
<th>Data Number</th>
<th>Data String</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Lorem</td>
</tr>
<tr>
<td>-20</td>
<td>Proin</td>
</tr>
<tr>
<td>123</td>
<td>Aliquam</td>
</tr>
<tr>
<td>123</td>
<td>Quisque</td>
</tr>
<tr>
<td>4</td>
<td>Aliquam</td>
</tr>
<tr>
<td>534456</td>
<td>Vivamus</td>
</tr>
<tr>
<td>3</td>
<td>Etiam</td>
</tr>
<tr>
<td>1</td>
<td>Donec</td>
</tr>
</tbody>
</table>

**Function Arguments**

- **FACTORIAL**
  - number
<table>
<thead>
<tr>
<th>Example</th>
<th>Results</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>'＝FACTORIAL(5)'</td>
<td>120</td>
<td></td>
</tr>
</tbody>
</table>
Sample #  Sample Text
<table>
<thead>
<tr>
<th>Function</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMBINATION</td>
<td>number, Â number</td>
</tr>
<tr>
<td>PERMUTATION</td>
<td>number, Â number</td>
</tr>
<tr>
<td>GAMMA</td>
<td>number</td>
</tr>
<tr>
<td>PRECISION</td>
<td>num, Â precision</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>array</td>
</tr>
<tr>
<td>MODE</td>
<td>array</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>array</td>
</tr>
<tr>
<td>MEAN</td>
<td>array</td>
</tr>
<tr>
<td>SUM</td>
<td>array</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>array</td>
</tr>
<tr>
<td>QUARTILES</td>
<td>array</td>
</tr>
<tr>
<td>VARIANCE</td>
<td>array</td>
</tr>
<tr>
<td>MEANDEV</td>
<td>array</td>
</tr>
<tr>
<td>STDEV</td>
<td>array</td>
</tr>
<tr>
<td>COVARIANCE</td>
<td>array, array</td>
</tr>
<tr>
<td>CORR_COEFF</td>
<td>array, array</td>
</tr>
<tr>
<td>UNIFORMCDF</td>
<td>number, number, number</td>
</tr>
<tr>
<td>BINOMIAL</td>
<td>number, number, number</td>
</tr>
<tr>
<td>BIONOMIALCDF</td>
<td>num, num, num</td>
</tr>
<tr>
<td>NEGBIN</td>
<td>N, m, n, x</td>
</tr>
<tr>
<td>NEGBINCDF</td>
<td>N, m, n, x</td>
</tr>
<tr>
<td>HYPGEOM</td>
<td>N, m, n, x</td>
</tr>
<tr>
<td>HYPGEOMCDF</td>
<td>N, m, n, x</td>
</tr>
<tr>
<td>EXPONENTIALCDF</td>
<td>l, x</td>
</tr>
<tr>
<td>POISSON</td>
<td>l, x</td>
</tr>
<tr>
<td>POISSONCDF</td>
<td>l, x</td>
</tr>
<tr>
<td>NORMCDF</td>
<td>u, s, t</td>
</tr>
<tr>
<td>LINEAR_REQ_EQ</td>
<td>array, array</td>
</tr>
<tr>
<td>EXP_REG_EQ</td>
<td>array, array</td>
</tr>
<tr>
<td>SECANTMETHOD</td>
<td>func, min, max, error, maxiter</td>
</tr>
<tr>
<td>FIVEPT</td>
<td>func, x, h</td>
</tr>
<tr>
<td>FCRIT</td>
<td>f, a, b</td>
</tr>
<tr>
<td>ASR</td>
<td>f, a, b, precision</td>
</tr>
</tbody>
</table>
'\text{COMBINATION}(7,5) \quad 21

'\text{PERMUTATION}(7,5) \quad 2520
<table>
<thead>
<tr>
<th><strong>Function</strong></th>
<th><strong>Arguments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
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</tr>
<tr>
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<td><code>values_as_array</code></td>
</tr>
<tr>
<td>CEILING</td>
<td><code>numbers_as_array</code></td>
</tr>
<tr>
<td>COUNT</td>
<td><code>html_as_string</code></td>
</tr>
<tr>
<td>DAYSFROM</td>
<td><code>url_as_string</code></td>
</tr>
<tr>
<td>DOLLAR</td>
<td><code>numbers_as_array</code></td>
</tr>
<tr>
<td>FALSE</td>
<td></td>
</tr>
<tr>
<td>FIXED</td>
<td><code>number, decimals, noCommas?</code></td>
</tr>
</tbody>
</table>
Example

"=ABS(F4)"

"=AVERAGE(F4:F14)"

"=CEILING(F4:F14)"

"=COUNT(F2:F14)"

"=DAYSFROM(2009,4,15)"

"=DOLLAR(F13)"

"=IF(F4 < 100, TRUE(), FALSE())"

"=FIXED(F4+F14)"
Additional Information

Synonym: ?AVG

Two decimal places
<table>
<thead>
<tr>
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<td>To Low</td>
</tr>
<tr>
<td>36</td>
<td>Perfect</td>
</tr>
<tr>
<td>17</td>
<td>number</td>
</tr>
<tr>
<td>99</td>
<td>numbers_as_array</td>
</tr>
</tbody>
</table>
FLOOR

numbers_as_array

HYPERLINK

IF

IF(logical_test, value_if_true, value_if_false)

IMG

MAX

values_as_array

MIN

values_as_array

N

numbers_as_array

PI
"=FLOOR(F4-F5)"

"=HYPERLINK("http://www.jquery.com", "jQuery's website")"

"=IF(F12 < 100, TRUE(), FALSE())"

"=IMG("http://ui.jquery.com/images/logo.gif")"

"=MAX(F3:F13)"

"=MIN(F3:F13)"

"=N(F3)"

"=PI()"

"=TODAY()"

"=TRUE() || FALSE()"

"=SUM(F2:F13)"

"=ROUND(1.6)"

"=RAND()"
jQuery's website

TRUE

TRUE

-46

200

-100

45

3.141592653589793
Synonym: INT

Can have nested IF functions.

The url can be sensitive to numbers. Also, on initial load, because the image doesn't really have a size, the outerheight can be distorted. An easy way to offset this is to have some text in front of it that's taller than the image :).

If you use "=PI" it will return the actual function as text, which is incorrect. Use "=PI()".
100 values_as_array
-100 html_as_string
-14 url_as_string
55 values
-21
Tiki6 features

A lot of work has happened from Tiki5 to Tiki6,

- Fill down, fill right
  - including formulas which update
- colors of cell and text
- Copy-paste from Excel
- Make cells referencing variable names
  - Done - through use of calculations engine function CELLREF (example: "=CELLREF('mycell')"), but you must first set the cell's name using jQuery.sheet.instancei.setCellRef()
- Remember columns size
- Added startup option "minSize: {rows: 15, cols: 5}" and fn "checkMinSize" that will
automatically add columns/rows
• Merge & unmerge cell
• Better error reporting (ex.: if a formula has a loop)
• Uses AJAX for smoother user experience

• **PluginSheet**
  - Show a range of cells (or single cell). Default shows all. e.g. "D1:F3" (or "e14:e14")
    - This allows using in a wiki page the result from a spreadsheet cell! (that's going to be very powerful for dynamic reports in wiki pages, not only of graphs but also from specific results from calculations). Budgets for projects, shown in wiki pages dynamically, etc. Templates of invoices, etc.
  - Now handles multisheet

• The project plugin "jsanalysis" was dropped due to license issues, but it has been migrated those same functions to a new library for sheet: "jquery.sheet.advancedfn". Thus, we can now use this in the future for more advanced functions used in sheet for those users who need them. List of functions included:

```
• **FACTORIAL**: jQuery.factorial,
• **COMBINATION**: jQuery.combination,
• **PERMUTATION**: jQuery.permutation,
• **GAMMA**: jQuery.gamma,
• **PRECISION**: jQuery.precision,
• **MINIMUM**: jQuery.minimum,
```
MAXIMUM: jQuery.maximum,
MEAN: jQuery.mean,
SUM: jQuery.sum,
MODE: jQuery.mode,
MEDIAN: jQuery.median,
QUARTILES: jQuery.quartiles,
VARIANCE: jQuery.variance,
MEANDEV: jQuery.meandev,
STDEV: jQuery.stdev,
COVARIANCE: jQuery.covariance,
CORR_COEFF: jQuery.corr_coeff,
UNIFORM: jQuery.uniform,
BINOMIAL: jQuery.binomial,
BINOMIALCDF: jQuery.binomialcdf,
NEGBIN: jQuery.negbin,
NEGBINCFD: jQuery.negbincdf,
HYPGEOM: jQuery.hypgeom,
HYPGEOMCDF: jQuery.hypgeomcdf,
EXPONENTIALCDF: jQuery.exponentialcdf,
POISSON: jQuery.poisson,
POISSONCDF: jQuery.poissoncdf,
NORMCDF: jQuery.normcdf,
LINEAR_REG_EQU: jQuery.linear_reg_eq,
SECANTMETHOD: jQuery.secantmethod,
FIVEPT: jQuery.fivept,
Since Tiki6 spreadsheets versions can be compared showing easily differences between any pair of versions: pink background for deleted content, green background when new content has been added, and prepending a "+" sign for the new text added, and a negative "-" sign for text deleted.

Example:

Sheet in edit mode, showing the new toolbar specific from the spreadsheet feature:

![2009s Timeline](image)

When you click in the "History" button below each spreadsheet when it is in view mode, you are shown a table to choose which versions you want to compare:
Then, after you select any pair, you can click on "compare", and you can see the differences between those two versions of the same spreadsheet:

Note that scrollbars will be locked together to ease navigation on them both synchronized on the same columns at the same time with a single scrollbar movement.
You can use some formulas like in OOo Calc or MS Excel, using slightly different syntax (because the JQ Spreadsheet is using Javascript for the formulas):

```
=IF(E10=="Y",695,IF(E10=="N",495,"ERROR"))
```

or like this

```
=IF(SHEET1:E10=="N",0.08,IF(SHEET1:E10=="Y",0.25,"ERROR"))
```

Aliases:

- Spreadsheet Jquery
- Spreadsheet jquery.sheet
- jquery.sheet