The Tiki spreadsheet feature was added to Tiki in 2004 (version 1.9) using Tiki specific PHP and JavaScript code. Starting in Tiki5, the Tiki spreadsheet front-end was upgraded to use jQuery.sheet for a much nicer interface, and more features. It worked well for years, and eventually, jQuery.sheet was renamed to WickedGrid. However, WickedGrid has been inactive for years so we need to switch to one of the many impressive modern alternatives. If you would like to help with this, we are looking for financial sponsors and/or volunteer developers. And later, testers. Please contact Marc Laporte.

This page should merge with Spreadsheet

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:

That wiki markup will be parsed when saved.

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.

Spreadsheet Help

<table>
<thead>
<tr>
<th>Function</th>
<th>Arguments</th>
<th>Example</th>
<th>Result</th>
<th>Additional Information</th>
<th>Sample #</th>
<th>Sample Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>numbers_as_array=&quot;ABS(F4)&quot;</td>
<td>=ABS(F4)</td>
<td>62</td>
<td></td>
<td>23</td>
<td>Hello World</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>values_as_array=&quot;=AVERAGE(F4:F14)&quot;</td>
<td>=AVERAGE(F4:F14)</td>
<td>46.92307692307692</td>
<td>Synonym:?AVG 45</td>
<td>True</td>
<td></td>
</tr>
<tr>
<td>CEILING</td>
<td>numbers_as_array=&quot;=CEILING(F4:F14)&quot;</td>
<td>=CEILING(F4:F14)</td>
<td>6,21E+016</td>
<td></td>
<td>62</td>
<td>False</td>
</tr>
<tr>
<td>COUNT</td>
<td>html_as_string=&quot;=COUNT(F2:F14)&quot;</td>
<td>=COUNT(F2:F14)</td>
<td>13</td>
<td></td>
<td>108</td>
<td>To High</td>
</tr>
<tr>
<td>DAYSFROM</td>
<td>url_as_string=&quot;=DAYSFROM(2009,4,15)&quot;</td>
<td>=DAYSFROM(2009,4,15)</td>
<td>-11</td>
<td></td>
<td>200</td>
<td>To Low</td>
</tr>
</tbody>
</table>
DOLLAR numbers_as_array "=DOLLAR(F13)" $55.00 36 Perfect
FALSE number, decimals, noCommas? "=IF(F4 < 100, TRUE(), FALSE())" TRUE 17
FIXED number, decimals, noCommas? "=FIXED(F4+F14)" 41.00 Two decimal places 99
FLOOR numbers_as_array "=FLOOR(F4-F5)" -46 Synonym: INT 100
HYPERLINK "=HYPERLINK("http://www.jquery.com", "jQuery's website")" jQuery's website -100
IF (logical test, value_if_true, value_if_false) "=IF(F12 < 100, TRUE(), FALSE())" TRUE 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 :) 14
IMG "=IMG("http://ui.jquery.com/images/logo.gif")" 55
MAX values_as_array "=MAX(F3:F13)" 200 -21
MIN values_as_array "=MIN(F3:F13)" -100
N numbers_as_array "=N(F3)" 45
PI "=PI()" 3.141592653589793 If you use "=PI" it will return the actual function as text, which is incorrect. Use "=PI()".
TODAY "=TODAY()" Wed Sep 15 2010 14:32:35 GMT-0400 (Eastern Daylight Time)
TRUE "=TRUE() || FALSE()" TRUE
SUM values_as_array "=SUM(F2:F13)" 631
ROUND numbers_as_array "=ROUND(1.6)" 2 0.2405688383392992 Synonym: RND
RAND "=RAND()" 0.2405688383392992

<table>
<thead>
<tr>
<th>Cell Navigation</th>
<th>Result</th>
<th>Dependancy</th>
<th>Synonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Arrow</td>
<td>Active cell moves left if possible.</td>
<td>jQuery.sheet.evt.cellClick()</td>
<td>jS.evt.cellClick()</td>
</tr>
<tr>
<td>Right Arrow</td>
<td>Active cell moves right if possible.</td>
<td>jQuery.sheet.evt.cellClick()</td>
<td>jS.evt.cellClick()</td>
</tr>
<tr>
<td>Up Arrow</td>
<td>Active cell moves up if possible.</td>
<td>jQuery.sheet.evt.cellClick()</td>
<td>jS.evt.cellClick()</td>
</tr>
<tr>
<td>Down Arrow</td>
<td>Active cell moves down if possible.</td>
<td>jQuery.sheet.evt.cellClick()</td>
<td>jS.evt.cellClick()</td>
</tr>
<tr>
<td>Escape</td>
<td>Active cell is removed from focus.</td>
<td>jQuery.sheet.evt.cellEditAbandon()</td>
<td>jS.evt.cellEditAbandon()</td>
</tr>
<tr>
<td>Enter</td>
<td>Starts in-place edit / Active cell moves down if possible.</td>
<td>jQuery.sheet.evt.formulaKeyDown()</td>
<td>jS.evt.formulaKeyDown()</td>
</tr>
<tr>
<td>Ctrl + Enter</td>
<td>Ends in-place edit / Active cell moves down if possible.</td>
<td>jQuery.sheet.evt.formulaKeyDown()</td>
<td>jS.evt.formulaKeyDown()</td>
</tr>
<tr>
<td>Tab</td>
<td>Active cell moves right if possible.</td>
<td>jQuery.sheet.evt.cellClick()</td>
<td>jS.evt.cellClick()</td>
</tr>
<tr>
<td>Chart Type</td>
<td>Example</td>
<td>Chart</td>
<td>Data Month Year</td>
</tr>
<tr>
<td>Type</td>
<td>Example</td>
<td>Chart</td>
<td>Data Month Year</td>
</tr>
</tbody>
</table>
Inputs are for capturing fixed data, such as a drop down list (INPUT.SELECT), or a checkbox (INPUT.CHECKBOX)

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Example</th>
<th>Data Number</th>
<th>Data String</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select List</td>
<td>&quot;=INPUT.SELECT(D3:D10)&quot;</td>
<td>34</td>
<td>Lorem</td>
</tr>
</tbody>
</table>
Radio List

"=INPUT.RADIO(E3:E10)"

Checkbox

"=INPUT.CHECKBOX(E3)"

Get Select List Value

"=INPUT.SELECTVAL(C3)"

Get Radio List Value

"=INPUT.RADIOVAL(C4)"

Get Checkbox Value

"=INPUT.CHECKBOXVAL(C5)"

Detect if Checkbox is Checked

"=INPUT.ISCHECKED(C5)"

Function | Arguments | Example | Results | Additional Information | Sample | Sample Text
--- | --- | --- | --- | --- | --- | ---
FACTORIAL | number | ‘=FACTORIAL(5)’ | 120 |  |  |  
COMBINATION | number, number | ‘=COMBINATION(7,5)’ | 21 |  |  |  
PERMUTATION | number, number | ‘=PERMUTATION(7,5)’ | 2520 |  |  |  
GAMMA | number |  |  |  |  |  
PRECISION | num, precision |  |  |  |  |  
MINIMUM | array |  |  |  |  |  
MODE | array |  |  |  |  |  
MAXIMUM | array |  |  |  |  |  
MEAN | array |  |  |  |  |  
SUM | array |  |  |  |  |  
MEDIAN | array |  |  |  |  |  
QUARTILES | array |  |  |  |  |  
VARIANCE | array |  |  |  |  |  
MEANDEV | array |  |  |  |  |  
STDEV | array |  |  |  |  |  
COVARIANCE | array, array |  |  |  |  |  
CORR COEFF | array, array |  |  |  |  |  
UNIFORMCcdf | number, number, number |  |  |  |  |  
BINOMIAL | number, number, number |  |  |  |  |  
BINOMIALCDF | num, num, num |  |  |  |  |  
NEGBIN | num, num, num |  |  |  |  |  
NEGBINCDF | N, m, n, x |  |  |  |  |  
HYPGEOM | N, m, n, x |  |  |  |  |  
HYPGEOMCDF | N, m, n, x |  |  |  |  |  
EXPONENTIALCcdf | l, x |  |  |  |  |  
POISSON | l, x |  |  |  |  |  
POISSONCDF | l, x |  |  |  |  |  
NORMCDF | u, s, t |  |  |  |  |  
LINEAR_REQ_EQ | array, array |  |  |  |  |  
EXP_REG_EQ | array, array |  |  |  |  |  
SECANTMETHOD | func, min, max, error, maxiter |  |  |  |  |  
FIVEPT | func, x, h |  |  |  |  |  
FCRIT | f, a b |  |  |  |  |  
ASR | f, a b, precision |  |  |  |  |  

And

```
{sheet(id=2 simple=y width="100%" height="100%" subsheets=n)}
```
<table>
<thead>
<tr>
<th>Function</th>
<th>Arguments</th>
<th>Result</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEILING</td>
<td>numbers as array</td>
<td>6.21E+016</td>
<td>Returns the smallest integer greater than or equal to the argument.</td>
</tr>
<tr>
<td>COUNT</td>
<td>html as string</td>
<td>62</td>
<td>Returns the number of non-blank cells in the range.</td>
</tr>
<tr>
<td>DAYSFROM</td>
<td>url as string</td>
<td>-11</td>
<td>Returns the number of days between two dates.</td>
</tr>
<tr>
<td>DOLLAR</td>
<td>numbers as array</td>
<td>$55.00</td>
<td>Formats a number as currency.</td>
</tr>
<tr>
<td>FALSE</td>
<td>&quot;=IF(F4 &lt; 100, TRUE(), FALSE())&quot;</td>
<td>TRUE</td>
<td>Returns FALSE if the condition is TRUE.</td>
</tr>
<tr>
<td>FIXED</td>
<td>number, decimals, noCommas?</td>
<td>41.00</td>
<td>Formats a number with fixed decimals.</td>
</tr>
<tr>
<td>FLOOR</td>
<td>numbers as array</td>
<td>-46</td>
<td>Returns the largest integer less than or equal to the argument.</td>
</tr>
<tr>
<td>HYPERLINK</td>
<td>&quot;=HYPERLINK(&quot;<a href="http://www.jquery.com">http://www.jquery.com</a>&quot;, &quot;jQuery's website&quot;)&quot;</td>
<td>jQuery's website</td>
<td>Opens a hyperlink in the web browser.</td>
</tr>
<tr>
<td>IF</td>
<td>IF(logical test, value_if_true, value_if_false)</td>
<td>TRUE</td>
<td>Evaluates a condition and returns one value if TRUE, another if FALSE.</td>
</tr>
<tr>
<td>IMG</td>
<td>&quot;=IMG(&quot;<a href="http://ui.jquery.com/images/logo.gif">http://ui.jquery.com/images/logo.gif</a>&quot;)&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAX</td>
<td>values as array</td>
<td>200</td>
<td>Returns the maximum value in a range.</td>
</tr>
<tr>
<td>MIN</td>
<td>values as array</td>
<td>-100</td>
<td>Returns the minimum value in a range.</td>
</tr>
<tr>
<td>N</td>
<td>numbers as array</td>
<td>45</td>
<td>Returns the number of cells in the range.</td>
</tr>
<tr>
<td>PI</td>
<td>&quot;=PI()&quot;</td>
<td>3.141592653589793</td>
<td>Returns the value of PI.</td>
</tr>
<tr>
<td>TODAY</td>
<td>&quot;=TODAY()&quot;</td>
<td>Wed Sep 15 2010 14:32:35 GMT-0400 (Eastern Daylight Time)</td>
<td>Returns the current date.</td>
</tr>
<tr>
<td>TRUE</td>
<td>&quot;=TRUE()</td>
<td></td>
<td>FALSE()&quot;</td>
</tr>
<tr>
<td>SUM</td>
<td>values as array</td>
<td>631</td>
<td>Returns the sum of a range.</td>
</tr>
<tr>
<td>ROUND</td>
<td>numbers as array</td>
<td>2</td>
<td>Formats a number with a specified number of decimal places.</td>
</tr>
<tr>
<td>RAND</td>
<td>&quot;=RAND()&quot;</td>
<td>0.240568838383392</td>
<td>Returns a random number.</td>
</tr>
</tbody>
</table>

References:
- **Jquery**
- **Spreadsheet**
- **Tiki5**

**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.instance.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,
    NEGBINCFDF: jQuery.negbincdf,
    HYPGEOM: jQuery.hypgeom,
    HYPGEOMCDF: jQuery.hypgeomiCDF,
    EXPONENTIALCDF: jQuery.exponentialcdf,
    POISSON: jQuery.poisson,
    POISSONCDF: jQuery.poissoncdf,
    NORMCDF: jQuery.normcdf,
    LINEAR_REG_EQ: jQuery.linear_reg_eq,
    SECANTMETHOD: jQuery.secantmethod,
    FIVEPT: jQuery.fivept,
History: sheet differences shown

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:

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.

New syntax for formulas

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):

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

or like this

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

Aliases:

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