Spreadsheet using jQuery.sheet

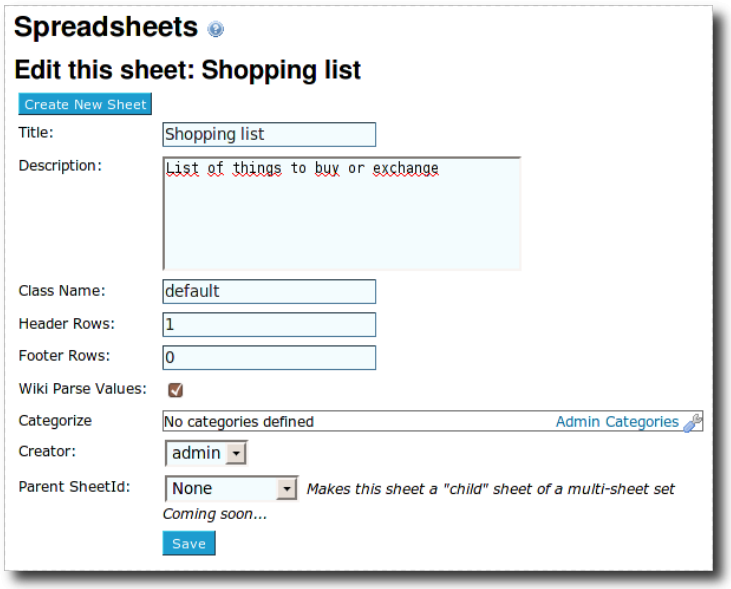
The Spreadsheet feature can be be accessed through the jquery.sheet interface, added to Tiki since version 5.0

A review of jQuery.Sheet

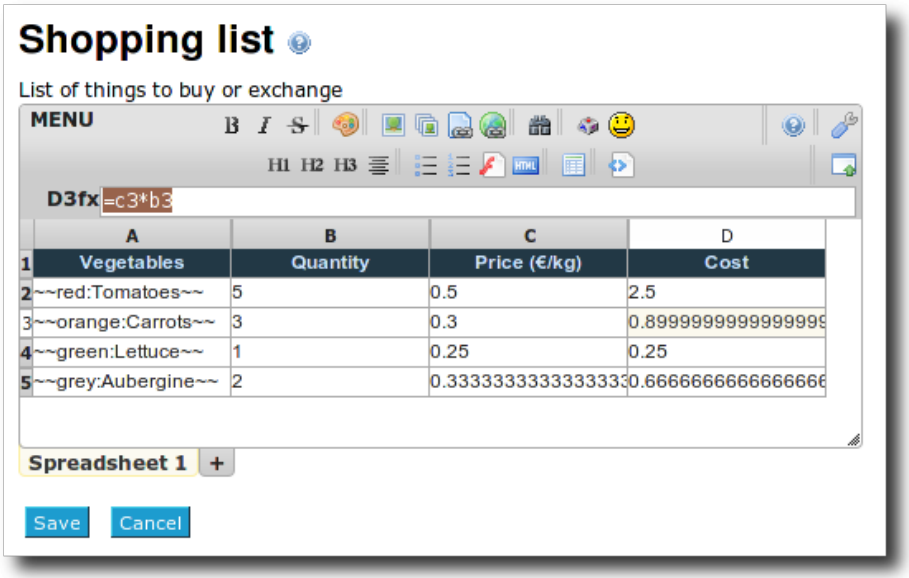
Light years beyond other solutions at least as first impression, jQuery.sheet by Robert Plummer is a really wonderful library.

Usage

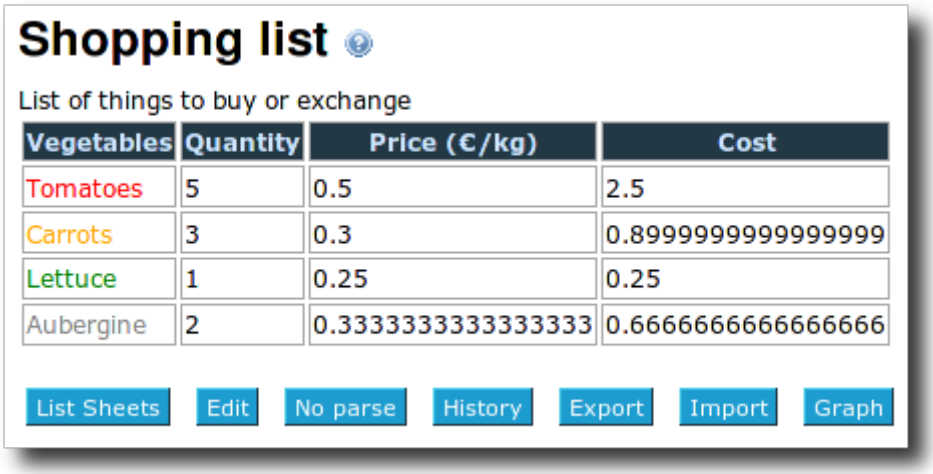
When adding a new spreadsheet, the interface is as usual in Tiki5: you have the option to allow wiki parsing of wiki content inside the spreadsheet, plus defining some parent relationship with other spreadsheets:



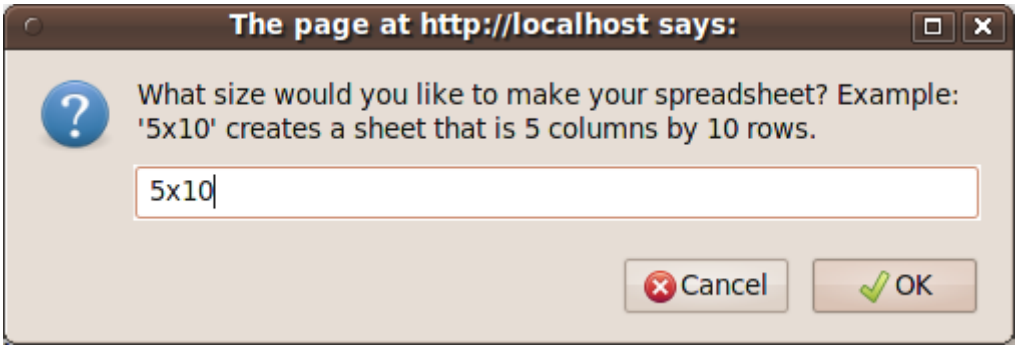
When editing the spreadsheet, you can add more rows and columns, add content to them, move among the cells using the cursor keys, etc. If wiki parsing was enabled for the spreadsheet, then you can add any wiki syntax to the cell (including Wiki plugins!)



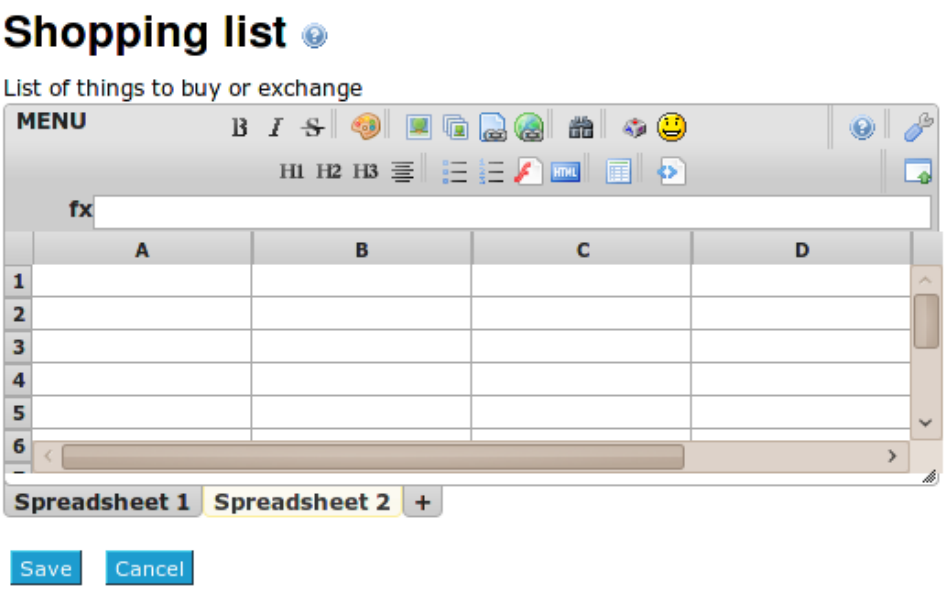
That wiki markup will be parsed when saved.



New sheets can be added when clickling at the plus sign ("+") at the bottom of the spreadsheet.



Then, this new sheet is added to the workbook.



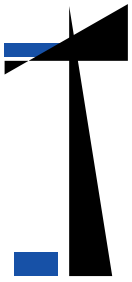
Spreadsheet Help

{sheet(id=2)}

Function	Arguments	Example	Result	Additional Information	Sample #	Sample Text
ABS	numbers_as_array	"=ABS(F4)"	62		23	Hello World
AVERAGE	values_as_array	"=AVERAGE(F4:F14)"	46.92307692307692	Synonym:?AVG	45	True
CEILING	numbers_as_array	"=CEILING(F4:F14)"	6,21E+016		62	False
COUNT	html_as_string	"=COUNT(F2:F14)"	13		108	To High
DAYSFROM	url_as_string	"=DAYSFROM(2009,4,15)"	-11		200	To Low
DOLLAR	numbers_as_array	"=DOLLAR(F13)"	$55.00		36	Perfect
FALSE		"=IF(F4 < 100, TRUE(), FALSE())"	TRUE		17	number
FIXED	number, decimals, noCommas?	"=FIXED(F4+F14)"	41.00	Two decimal places	99	numbers_as_array
FLOOR	numbers_as_array	"=FLOOR(F4-F5)"	-46	Synonym: INT	100	values_as_array
HYPERLINK		"=HYPERLINK("http://www.jquery.com", "jQuery's website")"	jQuery's website		-100	html_as_string
IF	IF(logical_test, value_if_true, value_if_false)	"=IF(F12 < 100, TRUE(), FALSE())"	TRUE	Can have nested IF functions.	-14	url_as_string

IMG		"=IMG("http://ui.jquery.com/images/logo.gif")"		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 :).	55	values
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			
RAND		"=RAND()"	0.24056883838333392	Synonym: RND		

Cell Navigation	Result	Dependancy	Synonym
Left Arrow	Active cell moves left if possible.	jQuery.sheet.evt.cellClick()	jS.evt.cellClick()
Right Arrow	Active cell moves right if possible.	jQuery.sheet.evt.cellClick()	jS.evt.cellClick()
Up Arrow	Active cell moves up if possible.	jQuery.sheet.evt.cellClick()	jS.evt.cellClick()
Down Arrow	Active cell moves down if possible.	jQuery.sheet.evt.cellClick()	jS.evt.cellClick()
Escape	Active cell is removed from focus.	jQuery.sheet.evt.cellEditAbandon()	jS.evt.cellEditAbandon()
Enter	Starts in-place edit / Active cell moves down if possible.	jQuery.sheet.evt.formulaKeyDown()	jS.evt.formulaKeyDown()
Ctrl + Enter	Ends in-place edit / Active cell moves down if possible.	jQuery.sheet.evt.formulaKeyDown()	jS.evt.formulaKeyDown()
Tab	Active cell moves right if possible.	jQuery.sheet.evt.cellClick()	jS.evt.cellClick()

Chart Type	**Example**	**Chart**	**Data Month Year**
Vertical Bar	"=BARCHART(D2:D13)		

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
UNIFORMCDF	number, number, number
BINOMIAL	number, number, number
BIONOMIALCDF	num, num, num
NEGBIN	num, num, num
NEGBINCDF	N, m, n, x
HYPGEOM	N, m, n, x
HYPGEOMCDF	N, m, n, x
EXPONENTIALCDF	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)}

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References:

- Jquery.sheet: http://www.visop-dev.com/jquerysheet.html

updated link to jQuery.sheet

- 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.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:
  - ❝

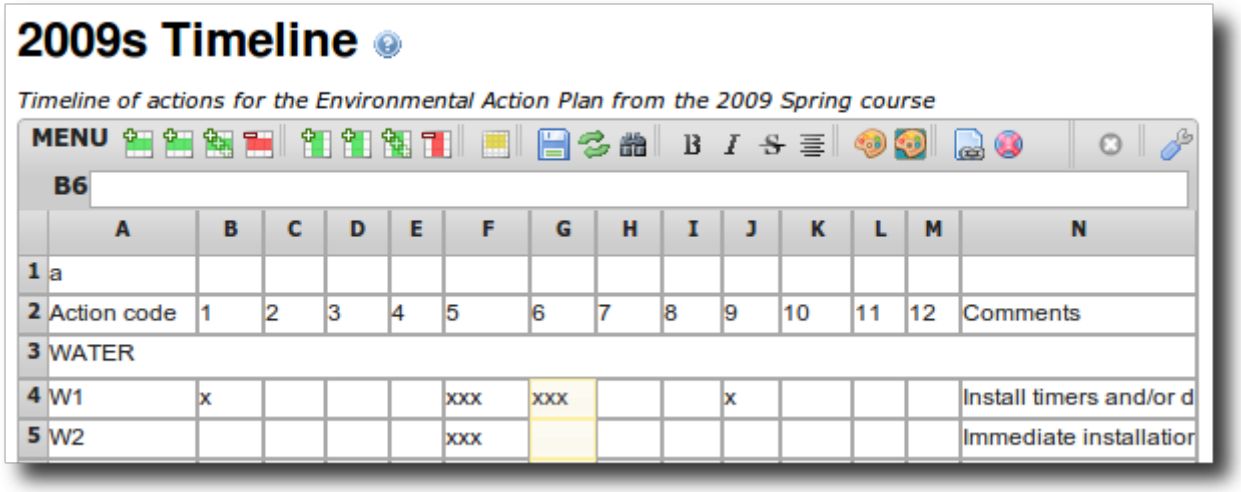
FACTORIAL: jQuery.factorial,
COMBINATION: jQuery.combination,
PERMUTATION: jQuery.permutation,
GAMMA: jQuery.gamma,
PRECISION: jQuery.precision,
MINIMUM: jQuery.minimum,
MAXIMUM: jQuery.maximum,
MEAN: jQuery.mean,
SUM: jQuery.sum,
MODE: jQuery.mode,
MEDIAN: jQuery.median,
QUARTILES: jQuery.quartiles,
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,
NEGBINCDF: jQuery.negbincdf,
HYPGEOM: jQuery.hypgeom,
HYPGEOMCDF: jQuery.hypgeomcdf,
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,
FCRIT: jQuery.fcrit,
ASR: jQuery.asr

History: sheet differences shown

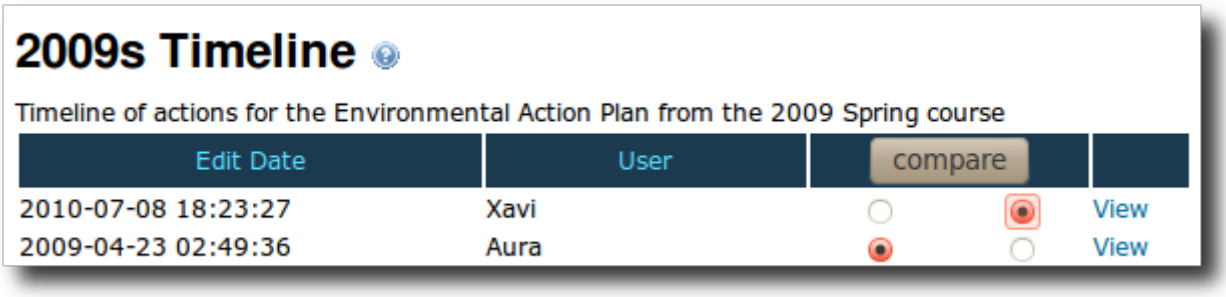
Since Tiki6 spreadsheets versions can be compared showing easily differences between any pair of versions: pink background for deleted content, green background when new content has been added, and prepending a "+" sign for the new text added, and a negative "-" sign for text deleted.

Example:

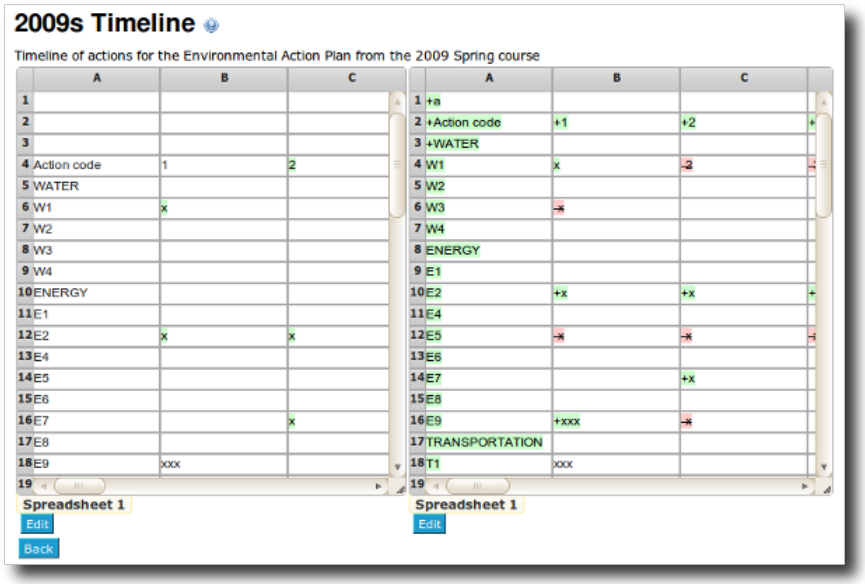
Sheet in edit mode, showing the new toolbar specific from the spreadsheet feature:



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 sme 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):

```
=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