



Synkronizer XL 8.0

User Manual

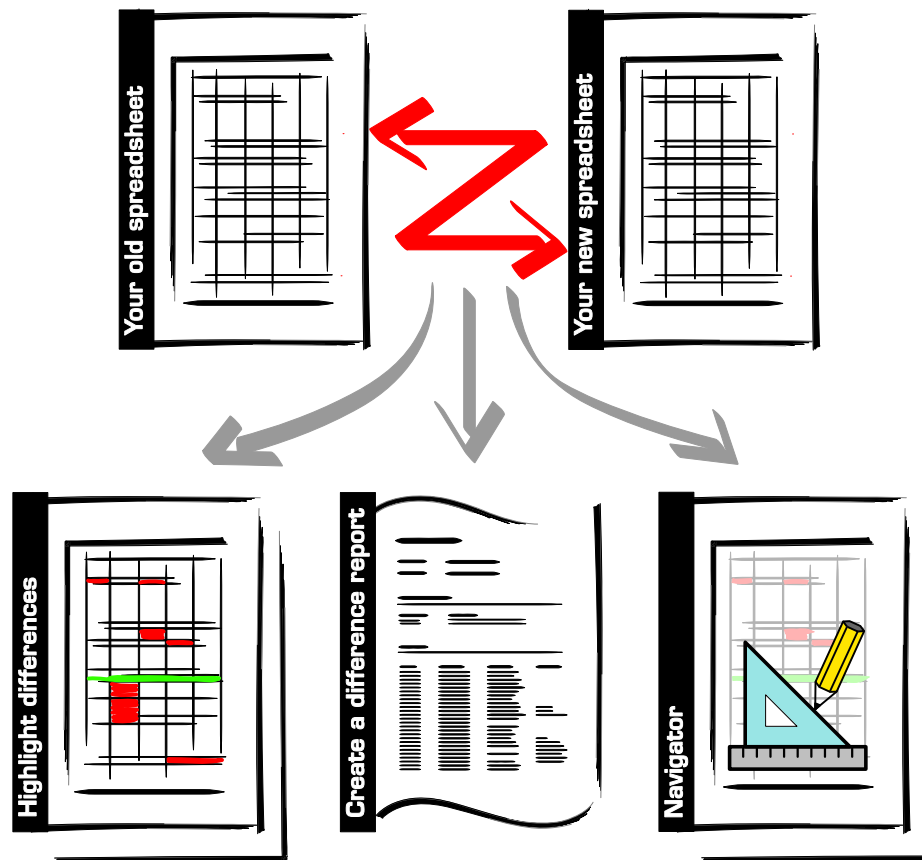


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1 Install / Uninstall Synkronizer

1.1 Versions

Versions of Synkronizer

There are five different versions of Synkronizer available. These versions contain the following:

	Light Version	Standard Version	Premium Version	Developer Version	Shareware Version
Highlight differences	ü	ü	ü	ü	ü
Create a difference report		ü	ü	ü	ü
Navigator			ü	ü	ü
Access-, ODBC-Files				ü	ü
Synkronizer VBA				ü	ü
Price	EUR 29.--	EUR 49.--	EUR 69.--	EUR 149.--	Free! *

* the shareware version expires 30 days after installation.

Please note that the user manual refers to the developer version only.

1.2 Installation Instructions

Just follow these easy steps to install Synkronizer:

Installation

1. Start the file syxl80.exe and follow the install instructions.
2. Open Excel. The menu entry "Synkronizer XL 8.0" appears in the menu "Tools". Now the installation has been completed successfully.



French Excel-Version

Problems with French Excel versions:

If you are working with a French version of Microsoft Excel the following error message may occur:

This workbook has been password protected with an encryption scheme not available in this region. This workbook cannot be opened.

This is a known error by Microsoft and is described in the following articles:

<http://support.microsoft.com/default.aspx?scid=kb:EN-US;q278679>
<http://support.microsoft.com/default.aspx?scid=KB:EN-US;213833>

If you are working with Excel 97, you can solve the problem by taking the following steps:

- change the country settings from French to English
- open Synkronizer

- reset the country settings

If you are working with Excel 2000 you can solve the problem with the following Microsoft hotfix:

<http://www.synkronizer.com/download/RC4Encr.zip>

- download the winzip file
- extract and install the hotfix

By taking these steps you will easily solve the password protection problem.

1.3 Install Synkronizer manually

You can also install Synkronizer manually by taking the following steps:

1. The install program of Synkronizer copies the Synkronizer files to the directory C:\Programs\Synkronizer XL 8.0.
2. Copy the file syxl80.xla and the Synkronizer language files (filetype "sif") to a directory of your preference
3. Open Excel and select the menu Tools → Add-Ins (if it is not possible to select the menu Add-Ins, open a new Excel worksheet. Now it is possible to select the menu)
4. Click on Browse and locate and choose the file syxl80.xla, then click on OK.
5. The menu entry "Synkronizer XL 8.0" appears in the menu "Tools". Now the installation has been completed successfully.

1.4 Uninstall Synkronizer

Synkronizer is uninstalled with the following instruction: Start → Programs → Synkronizer XL 8.0 → Uninstall Synkronizer XL 8.0

1.5 Uninstall Synkronizer Manually

You can also remove Synkronizer manually by taking the following steps:

1. Select the menu Tools → Add-Ins (if it is not possible to select the menu Add-Ins, open a new Excel worksheet. Now it is possible to select the menu)
2. Remove Synkronizer from the add-ins available list.
3. Delete all files in the Synkronizer folder. Synkronizer is installed in the following folder: C:\Program Files\Synkronizer XL 8.0

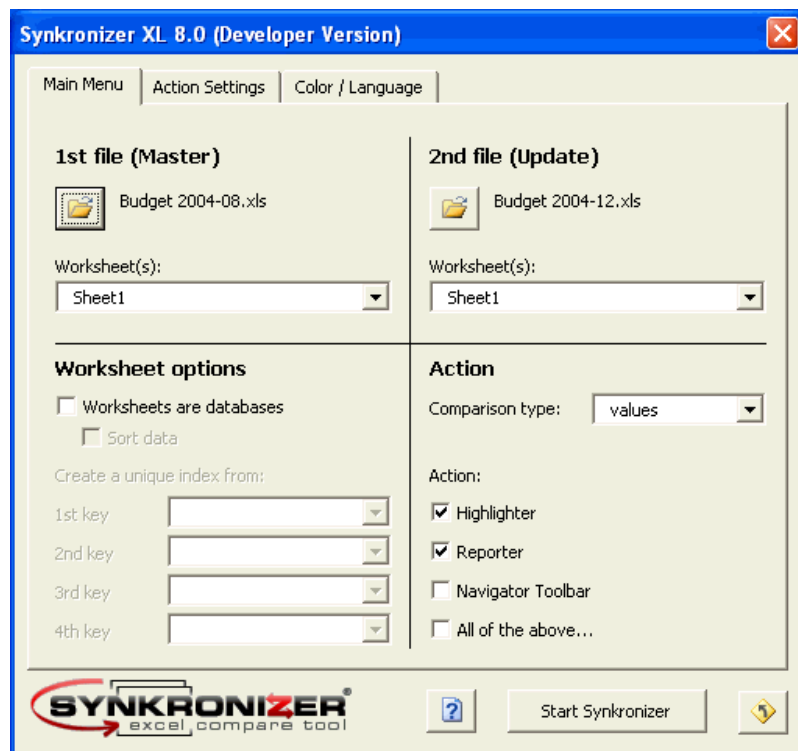
Start Synkronizer

2 Synkronizer Main Menu

Synkronizer is started with the menu instruction Tools Synkronizer XL 8.0. An input mask appears, which is divided into three registers. The functions and properties of the Synkronizer main form are explained in the following chapters.

2.1 Register "Main Menu"

In the register "Main Menu" you can determine the files and worksheets which are to be compared.



The input mask is divided into three areas which are described as follows:

Select files

2.1.1 1st file (Master) / 2nd file (Update)

Here you choose the files to be compared. The "first file" is the "Master" file and contains the older data, the "second file" the newer data or "Update". With the "Open File" buttons you can browse your file system to find the required Excel files.

With the dropdown "Worksheet(s)" you can decide which worksheets are to be compared.

You can either compare two worksheets or all worksheets of both files together. In this case select "(all worksheets)". Synkronizer then compares all worksheets with identical worksheet names.



compare all worksheets

File Types

If you are working with Excel XP (Version 10.0) and the "Developer Version" of Synkronizer, the following file types are also supported:

File type:	File extension:
Access databases	*.mdb, *.mde
External databases	*.odc, *.udl, *.dsn
Text files	*.txt, *.csv, *.prn, *.tab
Webpages	*.htm, *.html, *.mht, *.mhtm
XML files	*.xml (Excel XP)

Note:

If you wish to compare an Access or other ODBC databases, the data will be imported as snapshot. Please note that Synkronizer only compares Excel copies of the databases. This means that a maximum of 65,535 data records may be compared and that the databases cannot be updated. The option for updating the external databases will be included in a future version of Synkronizer.



Worksheet properties

2.1.2 Worksheet options

Here you can determine the worksheet properties:

normal worksheets

"normal" worksheets

are ordinary worksheets which do not contain column headings and primary keys (IDs). Please note that the data should not be sorted.

Databases

Databases

are Excel worksheets, that contain a database structure. The data must be arranged as follows:

primary key

- The first row contains unique column names.
- The database contains one column with primary keys (unique identification number, article number etc.). A primary key identifies the data records and facilitates the sorting and synchronizing of your data. The primary key does not need to be a single column, it can also be formed from two or three columns (e.g. family name, first name and city). Disadvantage of multiple column primary keys: duplicate indexes may occur.

duplicate indexes

- Duplicate indexes are data records, which contain the same identification number. Assuming the primary key is formed from the family and first name, if you have several customers called "John Miller" in your database, Synkronizer will not know which data records are to be compared. Make sure that you always operate with unique primary keys.

Once you have followed all steps as noted above, Synkronizer will recognize all differences between the two files and list them accordingly.

Comparison type

Checkbox "Sort data:"

If this checkbox is selected, the data are sorted according to the primary key. Otherwise no sorting is done.

2.1.3 Action

Here you can select the Action to be taken by Synkronizer. You can also determine whether the comparison should be made based on (1) values, (2) formulas or (3) comments.

Comparison Type

Synkronizer compares the data using the following criteria:

- "normal" values
- "case sensitive" values
- "normal" formulas
- "case sensitive" formulas
- comments

Difference between "normal" and "case sensitive" comparisons

You can compare either "normal" or "case sensitive" cell entries. If you make a "normal" comparison, Synkronizer ignores differences between small and capital letters (e.g. "John Miller", "JOHN MILLER"), however with a "case sensitive" comparison all differences are recognized.

Comparison by values

Difference between values and formulas

The two examples below illustrate the differences between values and formulas.

The January turnover increases from \$10.00 to \$10.50. Accordingly, the first quarter turnover changes from \$30.00 to \$30.50. Based on a value comparison the difference between the quarterly amounts is highlighted as monetary differences.

Comparison by formulas

The formula comparison on the other hand only recognizes the January difference, as the formula for the first quarter is identical.

Comparison
by comments

Comparison by values:			
Old		New	
	Turnover		Turnover
January	10.00	January	10.50
February	11.00	February	11.00
March	9.00	March	9.00
1st Quarter	30.00	1st Quarter	30.50

Comparison by formulas:			
Old		New	
	Turnover		Turnover
January	10.00	January	10.50
February	11.00	February	11.00
March	9.00	March	9.00
1st Quarter	30.00	1st Quarter	30.50

With a comparison by comments, all comments are compared. Values or formulas are ignored.

Synkronizer performs the following functions:

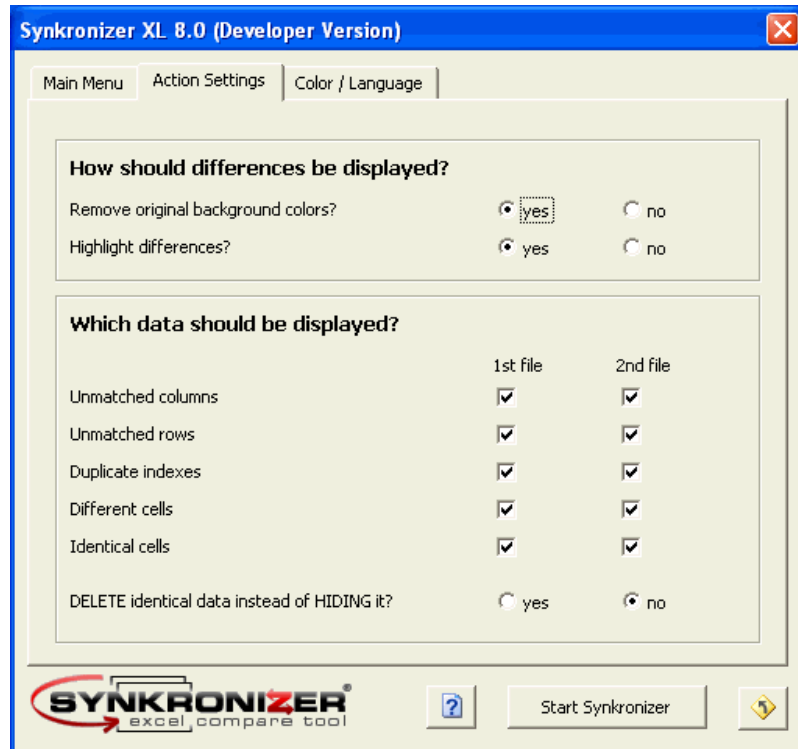
- Highlighter
- Reporter
- Navigator Toolbar
- All of the above...

In chapter 3 of the user manual the actions are described in detail.

Form
Display differences

2.2 Register "Action Settings"

In this register you can determine how Synkronizer is to display the data.



2.2.1 Remove original background colors?

Here you can select whether Synkronizer removes the background color of the cells before highlighting the differences.

Differences
to be highlighted

2.2.2 Highlight differences?

If you select "yes" the differences in the underlying worksheets are highlighted.

Rows to be hidden

2.2.3 Which data should be displayed?

With this function you determine whether Synkronizer displays, hides or deletes data. For each file you can determine individually which data to be shown (1st file = Master, 2nd File = Update). If the checkboxes are marked, the desired data are shown, otherwise they are hidden or deleted.

The following options can be selected:

Unmatched columns

If these checkboxes are selected, deleted or added columns are shown. If not, columns will be hidden or deleted.

Unmatched rows

If you select these checkboxes, deleted or added rows are displayed.

Duplicate indexes

A database comparison can result in the creation of duplicate indexes. If you desire to see these duplicate indexes, mark these checkboxes.

Different cells

If you select these checkboxes, all rows with different cell entries are displayed.

Identical cells

All rows with no differences are shown, if you select this checkbox.

DELETE identical data instead of HIDING it?

Here you can determine whether non-marked data are to be hidden or deleted. The deletion of the desired data is only possible with the "Highlighter".



Show rows

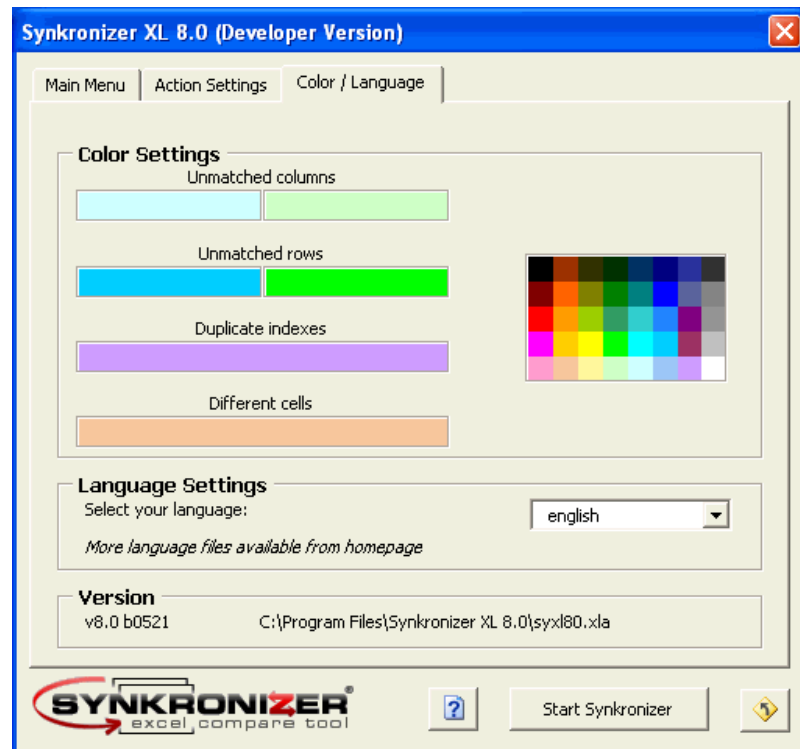
Show columns / rows

If the columns and/or rows are hidden and to be shown, please proceed as follows:

1. Select the entire worksheet (Keyboard Shortcut Ctrl-A)
2. Execute the following menu instruction: Format → Rows → Unhide

2.3 Register "Color / Language"

In this form you can select the language and color settings.



2.3.1 Color Settings

In this section you can determine the colors, with which Synkronizer highlights the differences. To change a color, just click with the mouse on the appropriate color surfaces (left) and select then the desired color (right).

2.3.2 Language Settings

Here you can change the language settings. The language data are stored in the same folder in which Synkronizer is installed (normally C:\Program Files\Synkronizer XL 8.0\). The language files have the extension ".sif". At the moment, Synkronizer is available in the following languages:

- English
- German
- Spanish
- French
- Italian
- Dutch
- Swedish
- Polish

The languages are being constantly extended. New languages can be downloaded at <http://www.synkronizer.com/>

Free registration for translators!

We will give you a free Synkronizer registration (Developer Version) if you help us translate Synkronizer material into your native language.

Just send us a mail at support@synkronizer.com for your free copy. Before starting your translation, please contact us for detailed instructions.

Highlight Differences

3 Action

3.1 Highlighter

If you choose this action, Synkronizer just highlights the differences in the underlying worksheets:

	A	B	C	D	E	F	G	H	I	J
81	1975	279'090	332'332	-53'242	216'633	271'892	-55'260	62'458	60'440	2'018
82	1976	298'060	371'792	-73'732	231'671	302'183	-70'512	66'389	69'609	-3'220
83	TQ	81'232	95'975	-14'744	63'216	76'555	-13'339	18'016	19'421	-1'405
84	1977	355'559	409'218	-53'659	278'741	328'502	-49'760	76'817	80'716	-3'899
85	1978	399'561	458'746	-59'186	314'169	369'089	-54'920	85'391	89'657	-4'266
86	1979	463'302	504'032	-40'729	365'309	404'054	-38'745	97'994	99'978	-1'984
87	1980	517'112	590'947	-73'835	403'903	476'618	-72'715	113'209	114'329	-1'120
88	1981	599'272	678'249	-78'976	469'097	543'053	-73'956	130'176	135'196	-5'020
89	1982	617'766	745'755	-127'989	474'299	594'351	-120'052	143'467	151'404	-7'937
90	1983	600'561	808'385	-207'822	453'242	661'277	-208'035	147'320	147'108	212
91	1984	666'486	851'874	-185'388	500'411	686'061	-185'650	166'075	165'813	262
92		734'088	946'423	0	547'918	769'615	-221'698	186'171	176'807	9'363
93	1986	769'215	990'460	-221'244	568'986	806'962	-237'976	200'228	183'498	16'731
94	1987	854'353	1'004'122	-149'769	640'951	810'290	-169'339	213'402	193'832	19'570
95	1988	909'303	1'064'489	-155'187	667'812	861'798	-193'986	241'491	202'691	38'800
96	1989	991'190	1'143'683	-152'493	727'525	932'772	-205'247	263'666	210'911	52'754
97	1990	1'031'969	1'253'198	-221'229	750'314	1'028'133	-277'819	281'656	225'065	56'590
98	1991	1'055'041	1'324'403	-269'361	761'157	1'082'716	-321'559	293'885	241'687	52'198
99	1992	1'091'279	1'381'684	-290'404	788'853	1'129'345	-340'492	302'426	252'339	50'087
100	1993	1'154'401	1'409'512	-255'110	842'467	1'142'925	-300'457	311'934	266'587	45'347
101	1994	1'258'627	1'461'902	-203'275	923'601	1'182'530	-258'929	335'026	279'372	55'654
102	1995	1'351'830	1'515'837	-164'007	1'000'751	1'227'173	-226'422	351'079	288'664	62'415
103	1996	1'453'062	1'560'572	-107'510	1'085'570	1'259'668	-174'098	367'492	300'904	66'588
104	1997	1'579'292	1'601'282	-21'990	1'187'302	1'290'656	-103'354	391'990	310'626	81'364
105	1998	1'721'798	1'652'619	69'179	1'305'999	1'336'015	-30'016	415'799	316'604	99'195
106	1999	1'827'454	1'701'932	125'522	1'382'986	1'381'154	1'832	444'468	320'778	123'690
107	2000	2'025'218	1'788'826	236'392	1'544'634	1'458'061	86'573	480'584	330'765	149'819
108	2001	1'991'030	1'863'926	127'104	1'483'511	1'516'933	-33'422	507'519	346'993	160'526
109	2002 estimate	1'946'136	2'052'320	-106'184	1'428'938	1'690'621	-261'683	517'198	361'699	155'499
110	2003 estimate	2'048'060	2'128'230	-80'170	1'502'717	1'761'470	-258'753	545'343	366'760	178'583
111	2004 estimate	2'175'354	2'189'095	-13'741	1'601'882	1'810'132	-208'250	573'472	378'963	194'509
112	2005 estimate	2'338'035	2'276'896	61'139	1'729'842	1'885'468	-155'626	608'193	391'428	216'765
113	2006 estimate	2'455'301	2'369'105	86'196	1'821'637	1'963'396	-141'759	633'664	405'709	227'955
114	2007 estimate	2'571'672	2'467'702	103'970	1'906'373	2'045'777	-139'404	665'299	421'925	243'374
115	2008 estimate	2'571'672	2'467'702	103'970	1'906'373	2'045'777	-139'404	665'299	421'925	243'374
116	* \$500 thousand or less.									
117	Note: Budget figures prior to 1933 are based on the "Administrative Budget" concepts rather than the "Unified Budget"									

Differences are highlighted with the following colors:

- orange for different cell entries
- light blue for deleted columns and rows
- green for added and columns and rows
- lavender for duplicate indexes

At one glance Synkronizer clearly displays all differences and you can decide with which version of the worksheet you wish to proceed.

The colors listed above are the default values, you can specify your own color settings as described in section 2.3 Register " Color / Language".

Versions:

The action "Highlight Differences" can be used with all versions of Synkronizer.



Versions

Create a
Difference Report

3.2 Create a Difference Report

If desired, you can display the result of the comparison in a reader friendly difference report. On this report you not only see the rows or columns deleted and/or added, but also each individual cell with different values. The difference report displays the values entered in worksheet 1 and worksheet 2. This report is a great help in tracing differences and updating your Excel files.

Difference Report



Comparison type: values		21.05.2004 19:33	
Budget 2004-08.xls		Budget 2004-12.xls	
H:\Documents\Budget 2004-08.xls		H:\Documents\Budget 2004-12.xls	
21.05.2004 19:24:01		21.05.2004 19:24:02	
synkronized worksheets		these worksheets were compared	
▼ Sheet1	▼ Sheet1		
worksheets: sheet1 / sheet1 (55) ▲			
unmatched rows (1/2)		these rows were found in only one of the worksheets	
row 12		row 5	row 115
different values (52)		these cells have different values	
A3	Year	A3	Fiscal Year
B90	600562	B90	600561
A92	1985	A92	
D92	-212334	D92	0
D93	-221245	D93	-221244
B108	1990866	B108	1991030
D108	126940	D108	127104



Versions

Versions:

The action "Create a Difference Report" can be used with the following versions of Synkronizer:

- Standard Version
- Premium Version
- Developer Version

Navigator Toolbar

3.3 Navigator Toolbar

The third function of Synkronizer is the "Navigator" toolbar: After the comparison process the worksheets are displayed vertically or horizontally and a user friendly tool bar is displayed, with which you can easily navigate through the differences.

	A	B	C	D	E	F	G
85 1978		399'561	458'746	-5			
86 1979		463'302	504'032	-4			
87 1980		517'112	590'947	-7			
88 1981		599'272	678'249	-78'976	469'097	543'053	-7
89 1982		617'766	745'755	-127'989	474'299	594'351	-12
90 1983		600'562	808'385	-207'822	453'242	661'277	-20
91 1984		666'486	851'874	-185'388	500'411	686'061	-18
92 1985		734'088	946'423	-212'334	547'918	769'615	-22
93 1986		769'215	990'460	-221'245	568'986	806'962	-23
94 1987		854'353	1'004'122	-149'769	640'951	810'290	-16
95 1988		909'303	1'064'489	-155'187	667'812	861'798	-19
96 1989		991'190	1'143'683	-152'493	727'525	932'772	-20
97 1990		1'031'969	1'253'198	-221'229	750'314	1'028'133	-27
98 1991		1'055'041	1'324'403	-269'361	761'157	1'082'716	-32
99 1992		1'091'279	1'381'684	-290'404	788'853	1'129'345	-30
100 1993		1'154'401	1'409'512	-255'110	842'467	1'142'925	-34
101 1994		1'258'627	1'461'902	-203'275	923'601	1'182'530	-25
102 1995		1'351'830	1'515'837	-164'007	1'000'751	1'227'173	-22
103 1996		1'453'062	1'560'572	-107'510	1'085'570	1'259'668	-17
104 1997		1'579'292	1'601'282	-21'990	1'187'302	1'290'656	-10
105 1998		1'721'798	1'652'619	69'179	1'305'999	1'336'015	-3
106 1999		1'827'454	1'701'932	125'522	1'382'986	1'381'154	1
107 2000		2'025'218	1'788'826	236'392	1'544'634	1'458'061	8
108 2001		1'990'866	1'863'926	126'940	1'483'347	1'517'088	-3
109 2002 estimate		1'946'136	2'052'320	-106'184	1'428'938	1'690'781	-26
110 2003 estimate		2'048'049	2'128'219	-80'170	1'502'706	1'761'627	-25
111 2004 estimate		2'175'342	2'189'083	-13'741	1'601'870	1'810'288	-20
112 2005 estimate		2'338'022	2'276'883	61'139	1'729'829	1'885'623	-15
113 2006 estimate		2'455'287	2'369'091	86'196	1'821'623	1'963'550	-14
114 2007 estimate		2'571'657	2'467'687	103'970	1'906'358	2'045'930	-13
115		* \$500 thousand or less.					
116		Note: Budget figures prior to 1933 are based on the "Administrative Budget" concept					
117							

Detailed information is described in chapter 4 Navigator.



Versions

Versions:

The "Navigator" can be used with the following versions of Synkronizer:

- Premium Version
- Developer Version

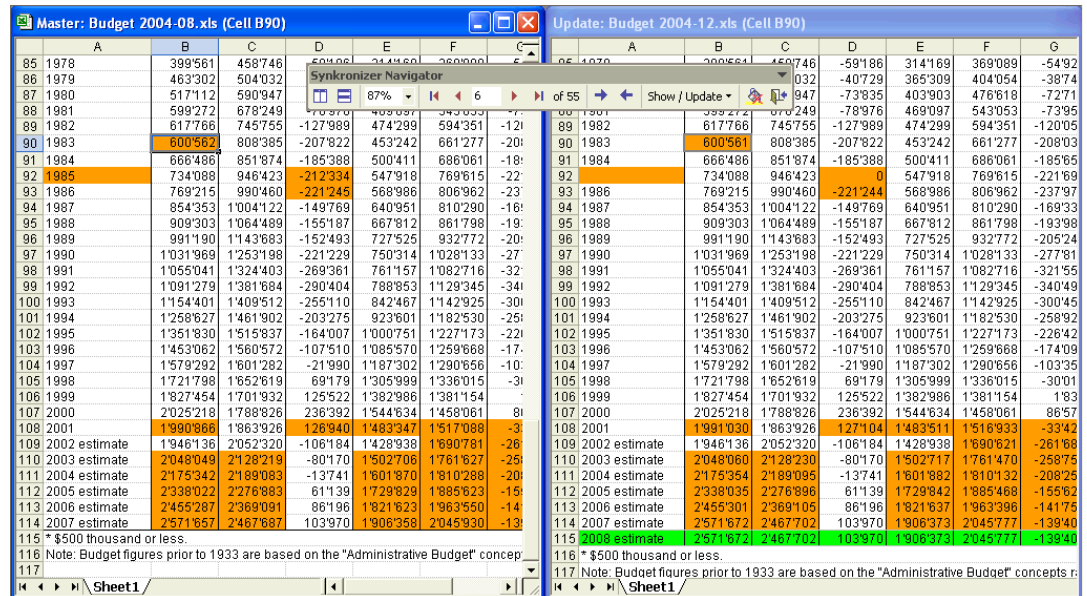
3.4 All of the above...

This option highlights the differences, creates an Excel report and then automatically starts the Navigator toolbar.

4 Navigator Toolbar

Certainly the most comfortable function of Synkronizer is the "Navigator" toolbar. After the comparison process the worksheets are displayed vertically or horizontally and a user friendly tool bar is displayed, with which you can easily navigate through the differences. Synkronizer ensures that both tables are displayed on your screen in order for you to directly compare all differences. At this point you can decide with which version you wish to continue. With mouse-clicks you can transfer values from table 1 to table 2 or vice versa. This is the quickest way to eliminate all differences and within a short period of time you will have your Excel worksheet perfectly updated.

After the comparison process the worksheets are tiled vertically and a user friendly tool bar appears:



4.1 Tool Bar

The Navigator tool bar is as follows:



The Navigator tool bar contains the following functions:

- 1 - 2) Tile worksheets
By using these buttons you can tile the worksheets vertically (1) or horizontally (2).

Navigator worksheets view

Navigator tool bar

Description symbols

- 3) Zoom
With this command you can zoom the worksheets.
- 4 - 8) Navigation command
With these commands you can navigate through each difference (commands 4, 5, 7, 8) or jump directly to a particular difference (6).
- 9) Total differences
This describes the total number of differences found between the two files.
- 10) Update "Update"
With this command the differences are transferred from the "Master"-file (left) to the "Update" file (right). This overwrites the change with the original data.

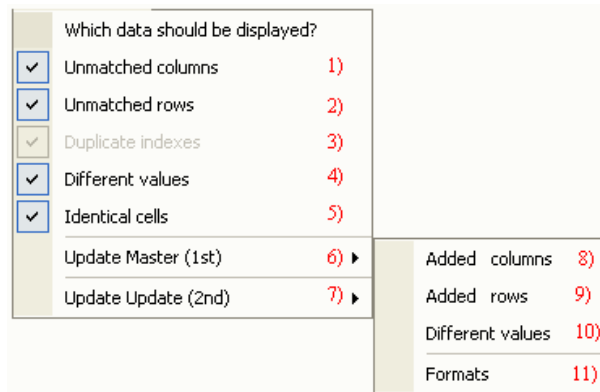
Note:
only the highlighted difference is updated.
- 11) Update "Master"
With this command the differences are transferred from the "Update"-file (right) to the "Master" file (left). This overwrites the original data with the updated data.

Note:
only the highlighted difference is updated.
- 12) Show / Update
If you click on this switching surface a menu appears with which you can show/hide the data and update them.
- 13) Remove background color
By using this command the background color of the differences will be deleted. All other background colors remain unchanged.
- 14) Close tool bar
With this command the tool bar will be closed.

Show / Update

4.2 Show / Update

With this menu you can show or hide differences. The show menu contains the following functions:



Show / hide differences

4.2.1 Show / hide differences

With the menu commands 1 to 5 you can show or hide the desired differences dynamically. Depending on whether the menu commands have a checkmark on the left, differences are shown or hidden. With a checkmark differences are shown, without one they are hidden.

The following is an explanation of the different menu commands:

- 1) Unmatched columns
If this menu option is selected, deleted (only in "Master" file) and added (only in "Update" file) columns are shown.
- 2) Unmatched rows
With this option, deleted and/or added rows are shown.
- 3) Duplicate indexes
With a database comparison duplicates can occur. According to whether this menu option is marked or not, duplicates are visible (or not).
- 4) Different values
With this selection, rows with different cell values (or formulas or comments) are shown.
- 5) Unchanged rows
Unchanged rows contain the same data in both files. These rows can be shown or not if you select this menu.

Update Master

4.2.2 Update Master

In this menu (6) you can update the "Master" file (table left hand side) by using the following functions:

- 8) Added columns
the added columns (of the file "Update") can be added to the "Master"-file. The columns will be transferred from the right to the left worksheet.
- 9) Added rows
the added rows (of the file "Update") can be added to the "Master"-file. The rows will be transferred from the right to the left worksheet.
- 10) Different values
the cells, which contain different values, can be transferred to the "Master"-file. The differences can be transferred directly or by manual confirmation.
- 11) Formats
the cell formats can be transferred from the "Update"-file to the "Master"-file.

the following formats will be transferred:

- number
- alignment
- font
- border
- patterns
- protection

these formats remain unchanged:

- merged cells

Update "Update"

4.2.3 Update "Update"

Within this menu (7) you can update the "Update"-file. The menu functions are identical with the menu "Update Master" with the difference that the data are transferred from the "Master"-file to the "Update"-file (or from left to right).

5 Synkronizer with Visual Basic for Applications

Synkronizer can also be controlled using Visual Basic for Applications (VBA). This has the advantage that recurring, standardized or complex comparison processes can be automated.



Versions

Versions:

Synkronizer VBA can be used with the following version of Synkronizer:

- Developer Version

5.1 Syntax

Syntax

The syntax of the Synkronizer functions is as follows:

```
Synkronizer(sFileOld As String, _
            sFileNew As String, _
            sSheetOld As Variant, _
            sSheetNew As Variant, _
            Optional sRangeOld As String, _
            Optional sRangeNew As String, _
            Optional sKeyFields As String, _
            Optional iCompareType As Integer, _
            Optional iActionFlags As Integer, _
            Optional sReportFile As String) As Variant
```

5.2 Return Value

Return Value

The return value of the Synkronizer function is presented as follows :

False	Synkronizer could not interpret one or more of the arguments or errors during processing.
""	Synkronizer found no differences and returns an empty string.
Character sequence	Synkronizer detected differences and returns the differences in a character sequence, whereby the individual differences are separated by commas and semicolons.

Example:

Synkronizer returns the following character sequence:

```
new rows,5;different cell values,14
```

This means that Synkronizer could detect 5 new lines and 14 different cell values.

Arguments

5.3 Arguments

The function contains the following arguments.

sFileOld	File (incl. Path) of the 1 st file (Master). You can use Excel-, text- and odc-files. Access databases must be entered in an odc file.
sFileNew	File (incl. Path) of the 2 nd file (Update).
sSheetOld	Worksheet name or number of the 1 st file. You can enter the following values: 1 the first worksheet of the 1 st file will be compared 3 the third worksheet of the 1 st file will be compared "sheet1" the worksheet with the caption "sheet1" will be compared "" all worksheets will be compared.
sSheetNew	Worksheet name or number of the 2 nd file.
sRangeOld	Optional. A1-Range of 1 st worksheet. If this argument is empty, all cells will be compared.
aRangeNew	Optional. A1-Range of 2 nd worksheet.
sKeyFields	Optional. If you want to make a database-comparison, please enter the names of the keys in this section. The keys are divided with semicolons ";" (e.g. Family name; Fist name; City). If you do not make a database-comparison, leave the field empty.
iCompareType	Optional. This argument contains the comparison function. You can enter the following arguments: 1 comparison by "normal" values 2 comparison by "case sensitive" values 3 comparison by "normal" formulas 4 comparison by "case sensitive" formulas 5 comparison by comments If the argument is empty, a comparison by "normal" values is executed (see also 2.1.3 Action).
iActionFlags	Optional. This argument contains the action function. You can enter the following arguments: 1 the differences are highlighted 2 a difference report is created 4 Navigator toolbar The values can be combined. E.g. if a 3 is entered, then the differences are highlighted and a difference report is provided. If the field is empty, the differences are highlighted.

sReportFile

Optional. If you want to create a difference report, just enter the filename (incl. Path) for the report to be created (e.g. C:\Documents\Report.xls).

5.4 Using Synkronizer in your VBA Scripts

To execute Synkronizer with VBA, set a reference to Synkronizer in your scripts. To set a reference, proceed as follows:

1. open the Excel worksheet that contains the VBA script
2. open the VBA Editor (Keyboard Shortcut Alt-F11)
3. set the focus to your VBA script
4. go to the Tools menu and select References
5. find 'SynkronizerXL' in the list, and put a check next to it

Now you are able to use the Synkronizer-function. You can see some examples of VBA scripts below. Please feel free to use them.

VBA Examples

5.5 VBA-Examples

5.5.1 Example 1

This example highlights the differences between the worksheets named "Addresses" in the files FileOld and FileNew.

```
Public Sub Example_1()
    Dim varSynk As Variant

    On Error GoTo Err_Message

    varSynk = Synkronizer(sFileOld:="C:\Documents\FileOld.xls", _
                        sFileNew:="C:\Documents\FileNew.xls", _
                        sSheetOld:"Addresses", _
                        sSheetNew:"Addresses")

    Select Case varSynk
        Case False
            MsgBox "Error", _
                vbOKOnly + vbExclamation
        Case ""
            MsgBox "No differences noted", _
                vbOKOnly + vbInformation
        Case Else
            MsgBox "Synkronizer found differences:" & _
                Chr(10) & Chr(10) & varSynk, _
                vbOKOnly + vbInformation
    End Select

    Exit Sub

Err_Message:

    MsgBox Err.Description, vbOKOnly + vbExclamation

End Sub
```

5.5.2 Example 2

This example highlights the differences in all worksheets of the two files.

```
Public Sub Example_2()  
    Dim varSynk As Variant  
  
    On Error GoTo Err_Message  
  
    varSynk = Synkronizer(sFileOld:="C:\Documents\FileOld.xls", _  
                        sFileNew:="C:\Documents\FileNew.xls", _  
                        sSheetOld:"", _  
                        sSheetNew: "")  
  
    Select Case varSynk  
        Case False  
            MsgBox "Error", _  
                vbOKOnly + vbExclamation  
        Case ""  
            MsgBox "No differences noted", _  
                vbOKOnly + vbInformation  
        Case Else  
            MsgBox "Synkronizer found differences:" & _  
                Chr(10) & Chr(10) & varSynk, _  
                vbOKOnly + vbInformation  
    End Select  
  
    Exit Sub  
  
Err_Message:  
    MsgBox Err.Description, vbOKOnly + vbExclamation  
  
End Sub
```


5.5.3 Example 3

This procedure compares the first worksheet of both Excel files and creates a difference report called "Report.xls".

```
Public Sub Example_3()  
    Dim varSynk As Variant  
  
    On Error GoTo Err_Message  
  
    varSynk = Synkronizer(sFileOld:="C:\Documents\FileOld.xls", _  
                        sFileNew:="C:\Documents\FileNew.xls", _  
                        sSheetOld:=1, _  
                        sSheetNew:=1, _  
                        iActionFlags:=2, _  
                        sReportFile:="C:\Documents\Report.xls")  
  
    Select Case varSynk  
        Case False  
            MsgBox "Error", _  
                vbOKOnly + vbExclamation  
        Case ""  
            MsgBox "No differences noted", _  
                vbOKOnly + vbInformation  
        Case Else  
            MsgBox "Synkronizer found differences:" & _  
                Chr(10) & Chr(10) & varSynk, _  
                vbOKOnly + vbInformation  
    End Select  
  
    Exit Sub  
  
Err_Message:  
  
    MsgBox Err.Description, vbOKOnly + vbExclamation  
  
End Sub
```

5.5.4 Example 4

This example compares the formulas of the databases "Addresses". The primary key is "ID". The differences are highlighted in both files.

```
Public Sub Example_4()  
    Dim varSynk As Variant  
  
    On Error GoTo Err_Message  
  
    varSynk = Synkronizer(sFileOld:="C:\Documents\FileOld.xls", _  
                        sFileNew:="C:\Documents\FileNew.xls", _  
                        sSheetOld:"Addresses", _  
                        SSheetNew:"Addresses", _  
                        sKeyFields:"ID", _  
                        iCompareType:=3)  
  
    Select Case varSynk  
        Case False  
            MsgBox "Error", _  
                vbOKOnly + vbExclamation  
        Case ""  
            MsgBox "No differences noted", _  
                vbOKOnly + vbInformation  
        Case Else  
            MsgBox "Synkronizer found differences:" & _  
                Chr(10) & Chr(10) & varSynk, _  
                vbOKOnly + vbInformation  
    End Select  
  
    Exit Sub  
  
Err_Message:  
  
    MsgBox Err.Description, vbOKOnly + vbExclamation  
  
End Sub
```

5.5.5 Example 5

This procedure compares the comments of the databases "Addresses". The keys are "Family-name" and "Firstname". The differences are highlighted in both files.

```
Public Sub Example_5()  
    Dim varSynk As Variant  
  
    On Error GoTo Err_Message  
  
    varSynk = Synkronizer(sFileOld:="C:\Documents\FileOld.xls", _  
                        sFileNew:="C:\Documents\FileNew.xls", _  
                        sSheetOld:"Addresses", _  
                        sSheetNew:"Addresses", _  
                        sKeyFields:"Familyname;Firstname", _  
                        iCompareType:=5)  
  
    Select Case varSynk  
        Case False  
            MsgBox "Error", _  
                vbOKOnly + vbExclamation  
        Case ""  
            MsgBox "No differences noted", _  
                vbOKOnly + vbInformation  
        Case Else  
            MsgBox "Synkronizer found differences:" & _  
                Chr(10) & Chr(10) & varSynk, _  
                vbOKOnly + vbInformation  
    End Select  
  
    Exit Sub  
  
Err_Message:  
  
    MsgBox Err.Description, vbOKOnly + vbExclamation  
  
End Sub
```

Compare multiple files

5.5.6 Example 6 (Compare Multiple Files)

This procedure compares one Master-file (Master.xls) with all files within the folder "C:\Documents\New\" and produces a difference report for every comparison. The difference reports are saved in the folder "C:\Documents\Reports\".

```
Public Sub Example_6()  
    Dim varSynk As Variant  
    Dim strFileOld, strFileNew As String  
    Dim strFolderNew As String  
    Dim strFolderReport As String  
    Dim strFileReport As String  
  
    On Error GoTo Err_Message  
  
    Set a = Application  
    strFileOld = "C:\Documents\Old\Master.xls"  
    strFolderNew = "C:\Documents\New\  
    strFolderReport = "C:\Documents\Reports\  
  
    strFileNew = Dir(strFolderNew & "*.xls")  
    Do While strFileNew <> ""  
  
        strFileReport = "Difference Report " & strFileNew  
  
        varSynk = Synkronizer(sFileOld:=strFileOld, _  
                             sFileNew:=strFolderNew & strFileNew, _  
                             sSheetOld:=1, _  
                             sSheetNew:=1, _  
                             iActionFlags:=2, _  
                             sReportFile:=strFolderReport & strFileReport)  
  
        If varSynk = False Then End  
  
        Workbooks(strFileNew).Close SaveChanges:=True  
        Workbooks(strFileReport).Close  
  
        strFileNew = Dir  
    Loop  
  
    Exit Sub  
  
Err_Message:  
    MsgBox Err.Description, vbOKOnly + vbExclamation  
  
End Sub
```