Untis
GRUBER & PETTERS

Untis

Multiweek Timetable

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1 Overview

If you make no additional settings Untis will create a timetable for one week. It is implicitly understood that this timetable is repeated on a weekly basis, with the exception of public and school holidays.

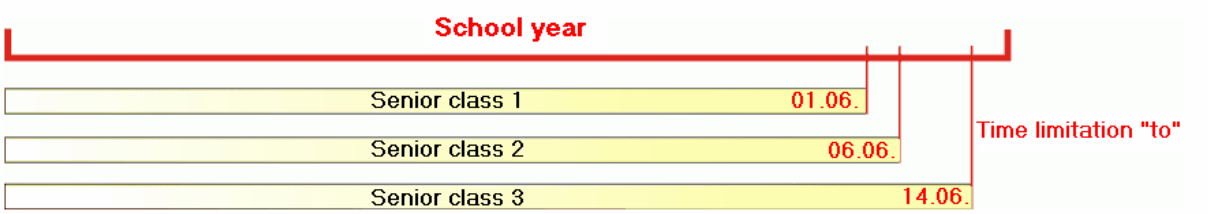
There are many reasons why this is increasingly seldom the case in daily school life. Educational and organisational factors mean that the timetable cannot be repeated exactly week for week and that it is subject to various time constraints.

Untis provides you with three basically different tools for dealing with these various cases:

A) Time limitations 'from-to'

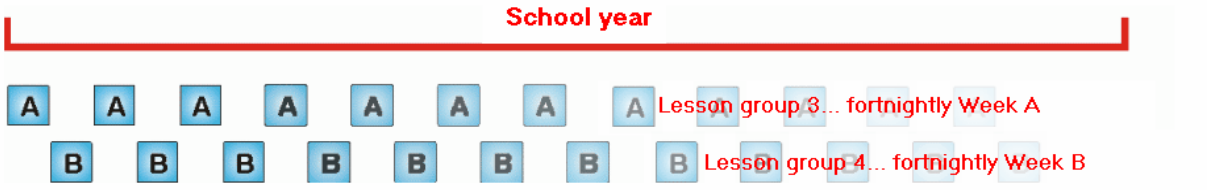
Courses or individual lessons can be time-limited by entering a date, i.e. the lesson does not begin until some time after the start of the school year and/or finishes some time before the end of the official school year. Interruptions in the lessons/courses are not possible with this method.

A typical example of this would be final year examination classes where lessons normally finish some weeks prior to the official end of the school year.

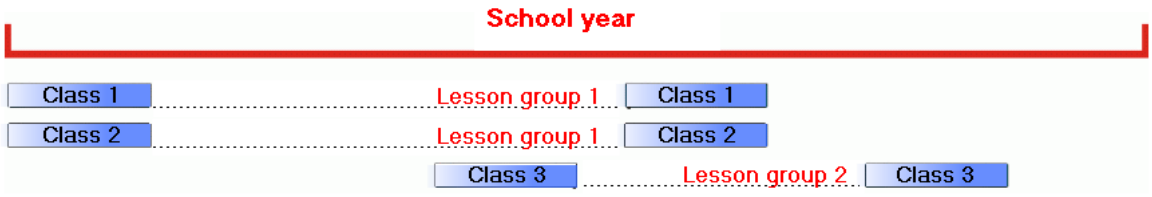


B) Lesson groups

Lesson groups can be used to establish any desired regular or irregular time characteristics for individual lessons or for all lessons of a class. A typical example of a regular time characteristics is a fortnightly lesson.



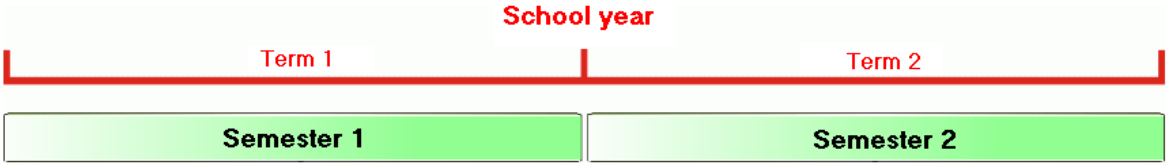
Completely irregular time characteristics would be e.g. when classes start and finish lessons at completely different times as is the case at many vocational schools. In the example classes 1 and 2 are subject to the same time plan, but class 3 is subject to a completely different one.



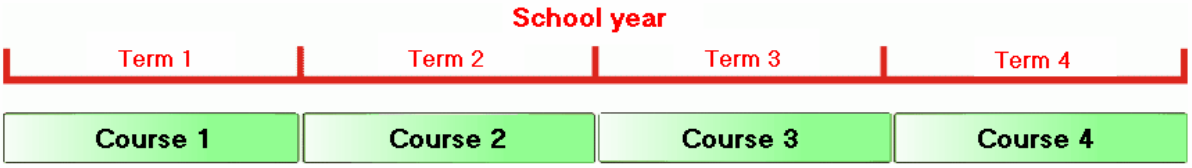
C) Terms

If the timetable for the whole school changes at specific points in time then term planning offers the exact functions required.

An example of this would when the timetable changes in the second semester. The school year then consists of two terms with completely independent timetables.



In the case of the course system at Austrian vocational schools the complete school timetable changes every 10 weeks. The school year is therefore divided up into four terms.



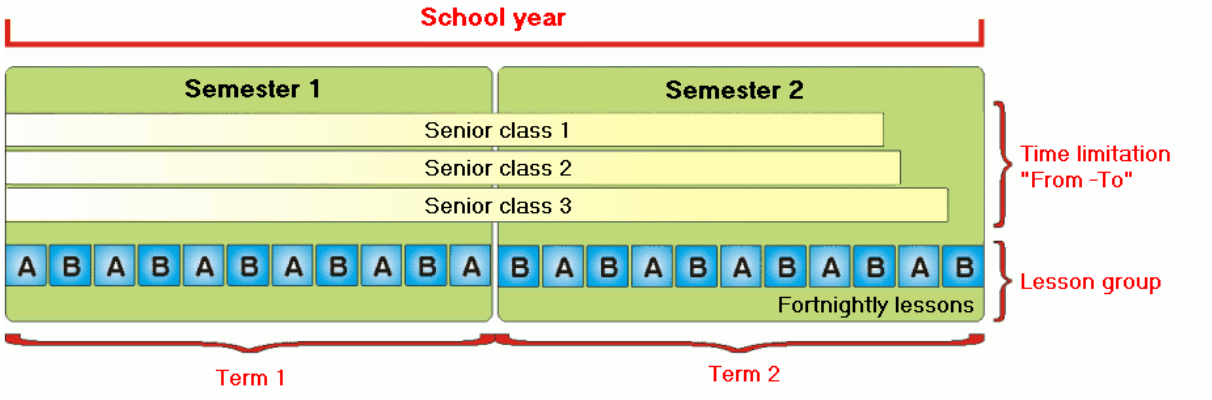
D) Calendar-dependent periods

In all the above-mentioned examples scheduled lessons follow a certain pattern, i.e. a scheduled period takes place more than once in the course of the school year. It is, however, possible to schedule a period to take place once on a particular day in the year. The scheduled period could, for example, be scheduled to be held on Friday, 27 October as the third lesson of the day and then never again. This option is provided by the 'Calendar - Year Planning' module and is described in detail in the respective chapter.

1.1 Selecting the 'correct' method

In many cases the organisational structure of a school type determines which method (time limitation, lesson group, and term) should be used. Thus Bavarian vocational schools work with lesson groups while Austrian vocational schools work with terms. Many schools with lessons over the whole school year use a combination of all three methods.

One secondary school with a sixth-form has fortnightly lessons and a change in the timetable is necessary at the end of the semester as some teachers are not available in the second half of the year.



The following pages are intended to describe in detail how these three methods work and how they should be used.

2 Time limitation 'from-to'

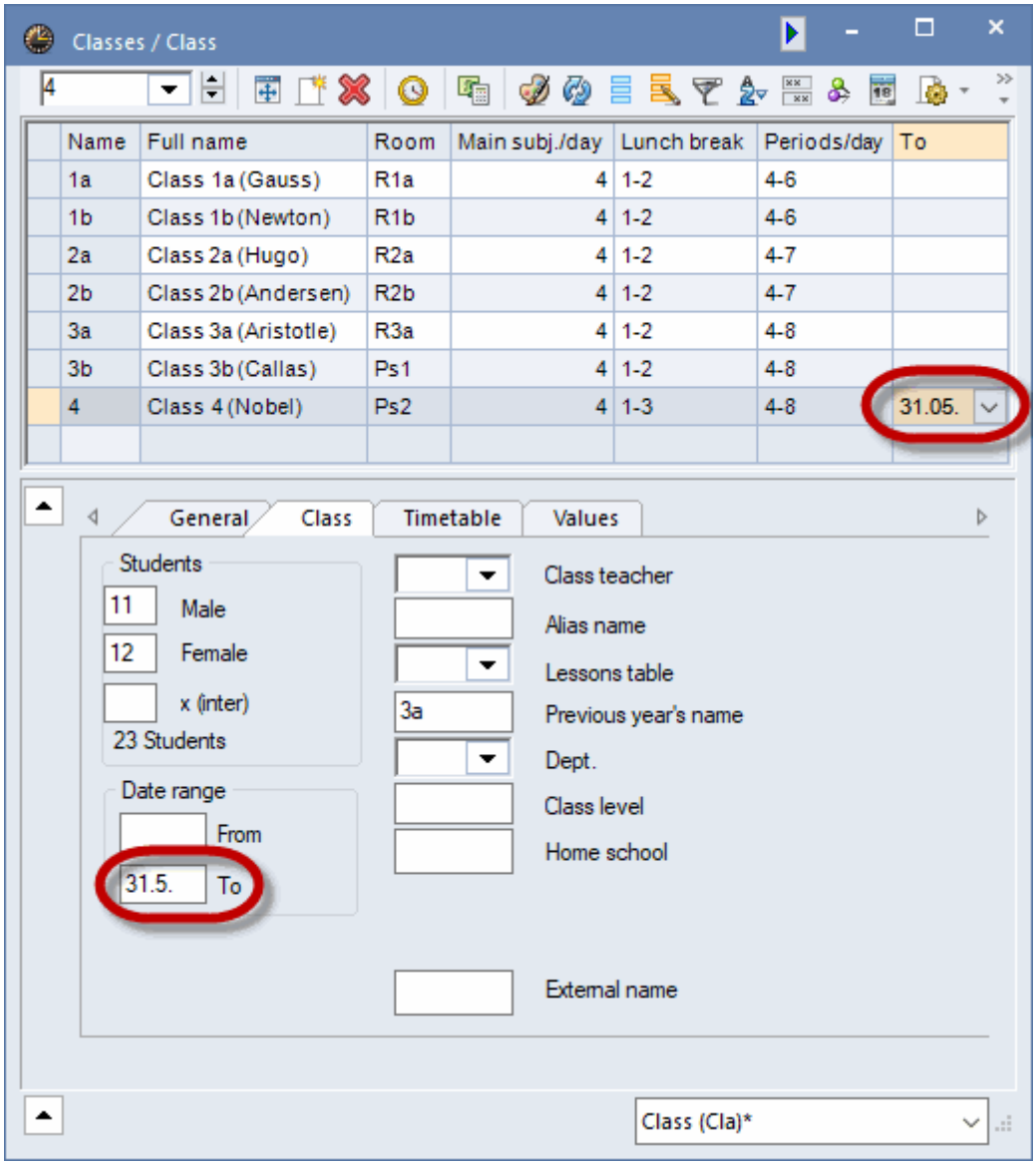
A time limitation is generally understood to be a limited period of validity (from - to).

The most common cases of time restrictions occur for lessons that are held on a semester basis or for graduating classes (final examination classes) where lessons finish before the official end of the school year.

Time limitations can be entered for classes, for lessons and for lesson groups.

Time limitation for a class

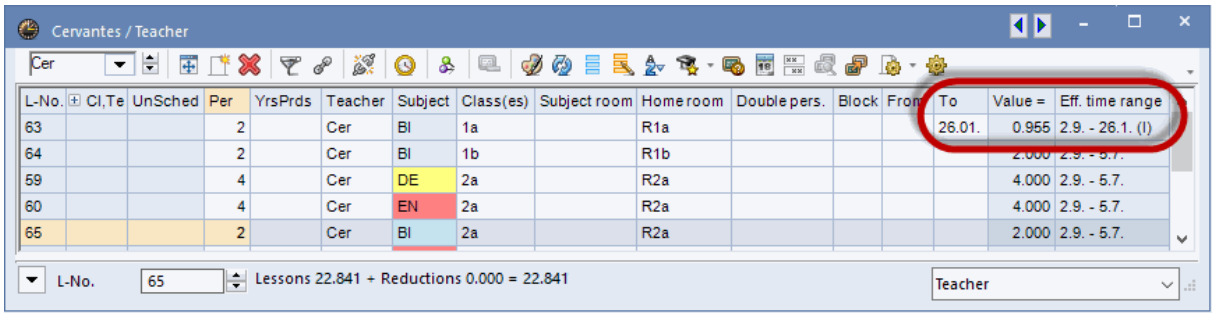
1. Please open “Classes | Master Data” in the demo.gpn file.
2. You can enter the desired time limitation on the 'Class' tab or in the 'From' and 'To' columns. If nothing is entered in a column the beginning (from) or the end (to) is assumed.



If conflicting time limitations are entered for a class and for a lesson group the period of overlap applies. If there are any other cases where time limitations conflict, the lesson time limitation applies. You will find more information in the chapter 'Combination of several time limitations'.

2.1 Time limitation and value calculation

If a lesson is time-limited - irrespective of whether this time limitation stems from a master data element (e.g. class) or whether it was entered directly for the lesson - it is automatically included in the value calculation. Thus a two-period lesson that is held just for half a year has a value of 1. No further entries are necessary (see chapter 'Value calculation with the multi-week timetable module' for more details).



3 Lesson groups

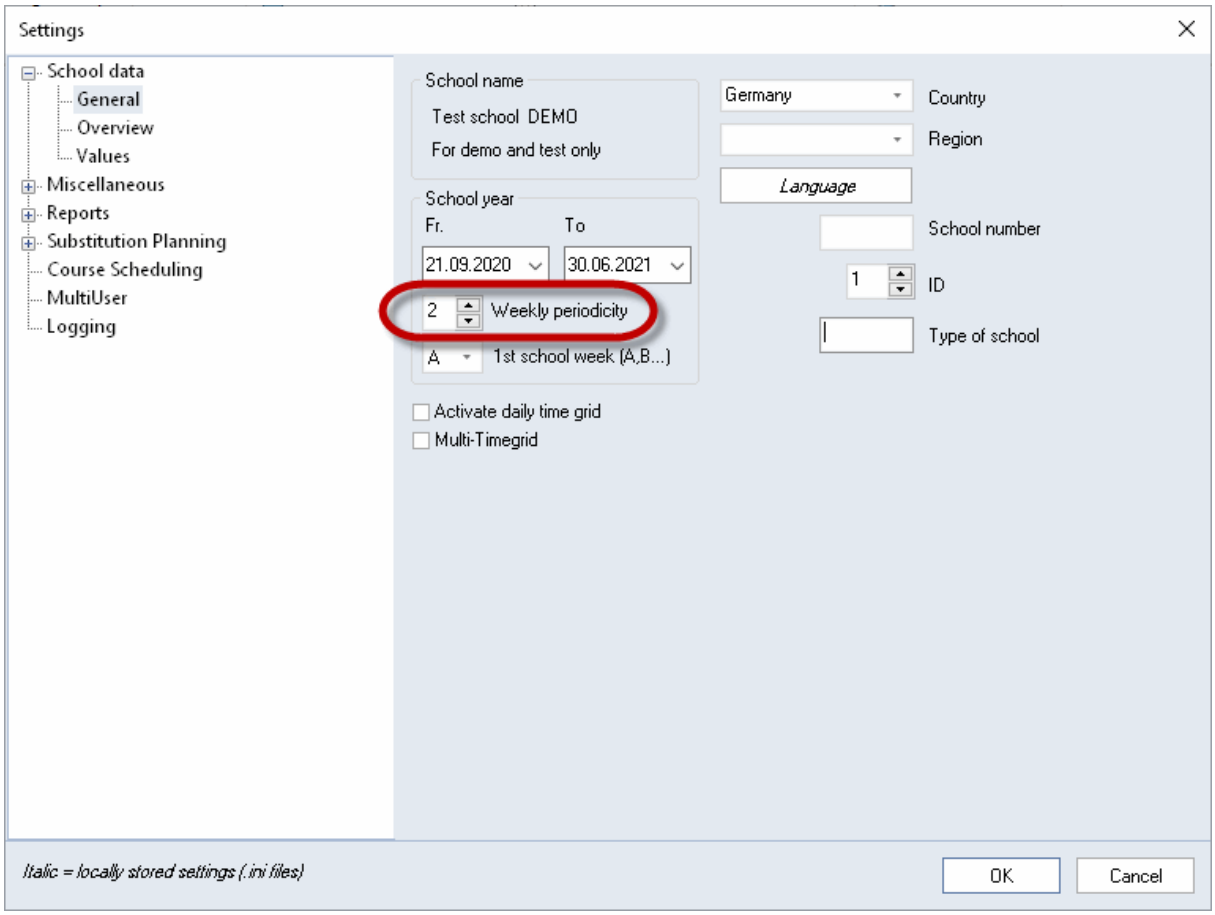
As already mentioned in the Introduction, Untis initially assumes that every lesson takes place on a weekly basis. If a lesson is not held each week, lesson groups can be defined that are subsequently assigned to the lessons in question. The time patterns can be periodic or irregular.

3.1 Periodic lesson group

The most common example of a periodic lesson is one with a fortnightly cycle. However, Untis allows you to define a periodicity of up to 16 weeks or a combination of several periodicities. The procedure is described below:

3.1.1 Specifying periodicity

You can specify the periodicity under <Settings> on the 'Start' tab. A weekly periodicity of 1 means that the timetable is not subject to any periodic changes while a 2, for example, would signify that the timetable is repeated every two weeks, i.e. some lessons would be held once a fortnight.



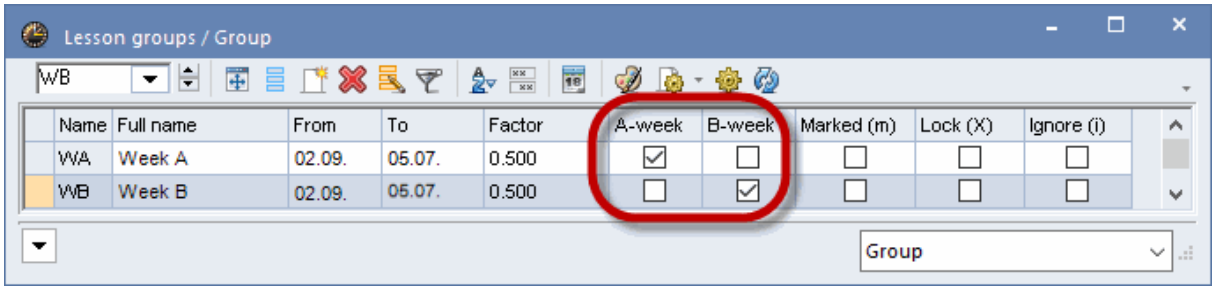
However, if lessons take place for one class in your school every two weeks and for another class every three weeks you must set a weekly periodicity of 6

3.1.2 Creating lesson groups

You create lesson groups by clicking on the <Lesson groups> button.

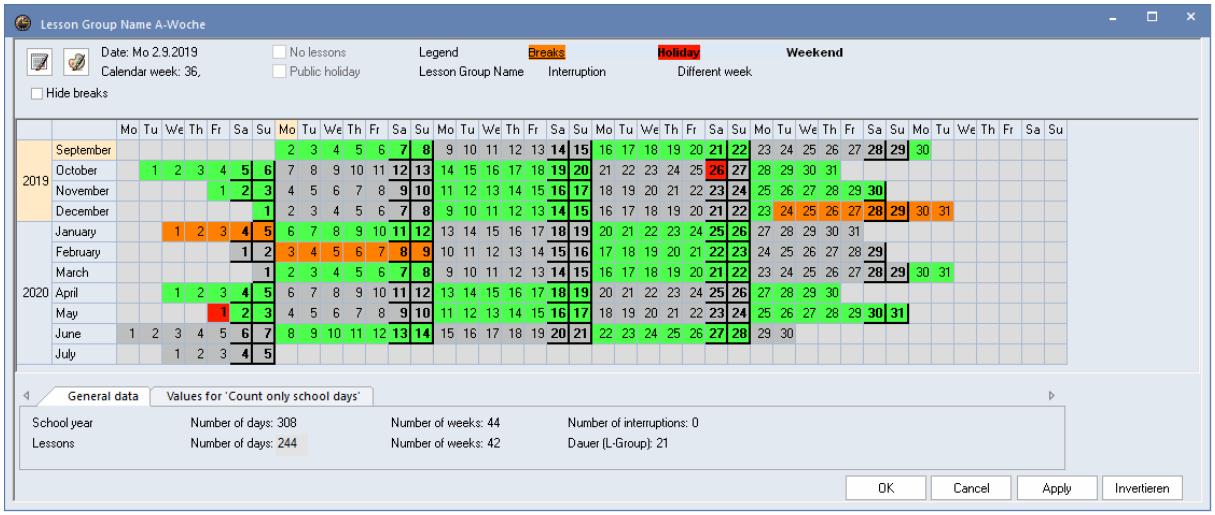
Lesson groups are created just like master data elements with short name and full name. In the example two lesson groups, 'WA' and 'WB', have been created.

In the case of lesson group WA the 'Week A' box is checked and the 'Week B' box is checked for WB.

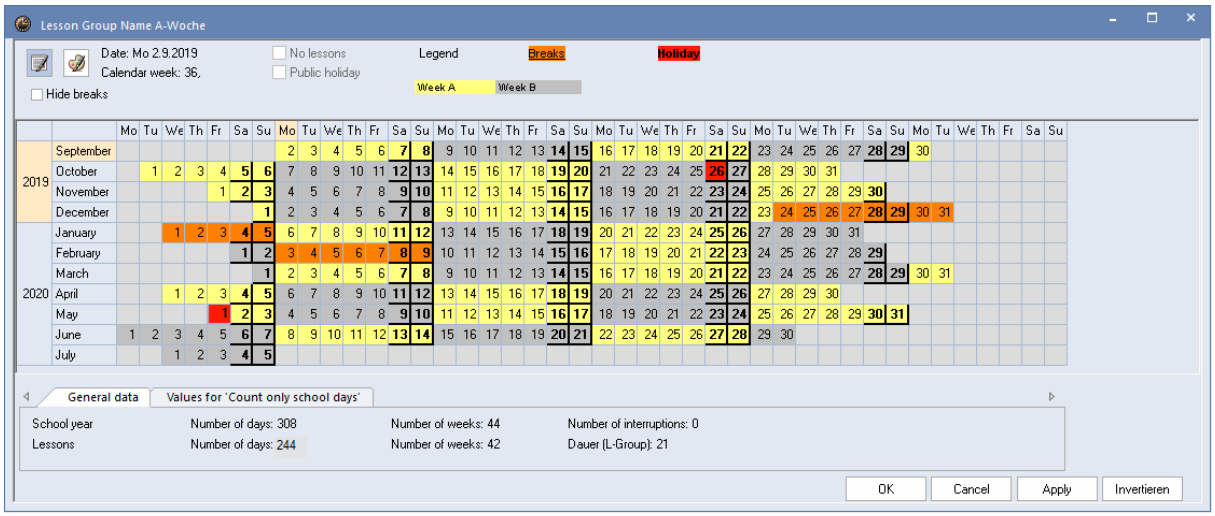


Clicking on the <Calendar> toolbar icon shows you when lessons with this lesson group will be held.

In the example of lesson group 'WA - Week A' lessons take place every fortnight beginning with the first week of school. School holidays are displayed in orange while public holidays are displayed in red.



By clicking on the <Weekly periodicity> toolbar icon  once you can switch to the weekly display and see when week A and when week B are activated over the whole school year.



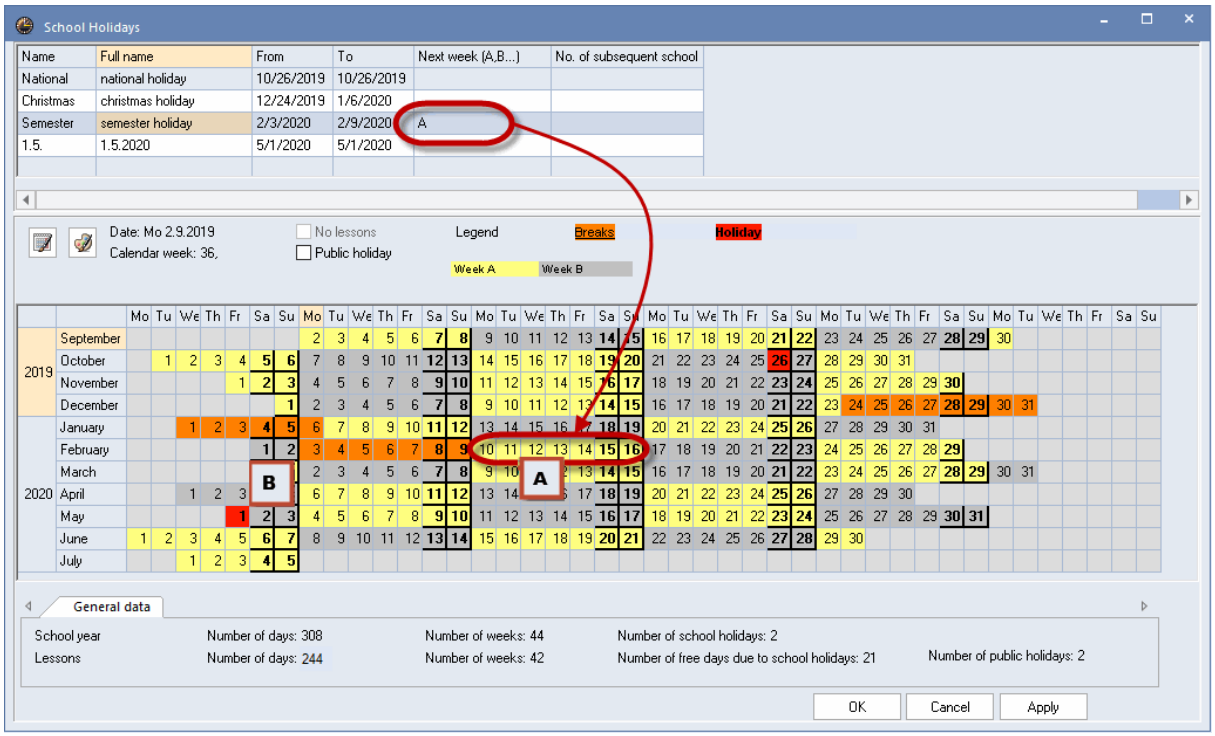
In the example week A is yellow and week B is grey. The colours can be changed by clicking on the icon of the same name.

This lesson group can now be assigned to the lessons in question (see chapter 'Assigning lesson groups to lessons').

3.1.3 Changing periodicity

If school holidays interrupt the periodicity, causing the same type of lessons to be held in consecutive weeks - as this would be the case in February - the periodicity can be modified under 'Settings | School holidays'.

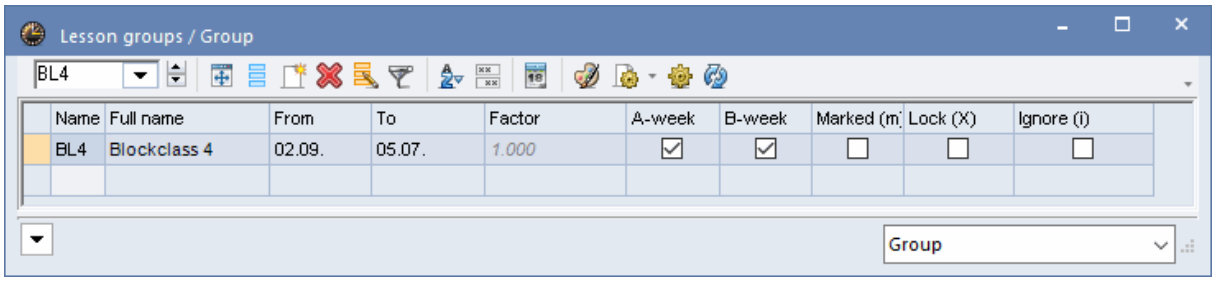
Simply enter the name of the week that should follow the school holidays in the 'Next week (A,B...)' column. In the example 13 February will start with week A although according to the periodicity it should be the turn of week B.



3.2 Irregular lesson groups

In addition to periodic lesson groups it is possible to define completely free time patterns.

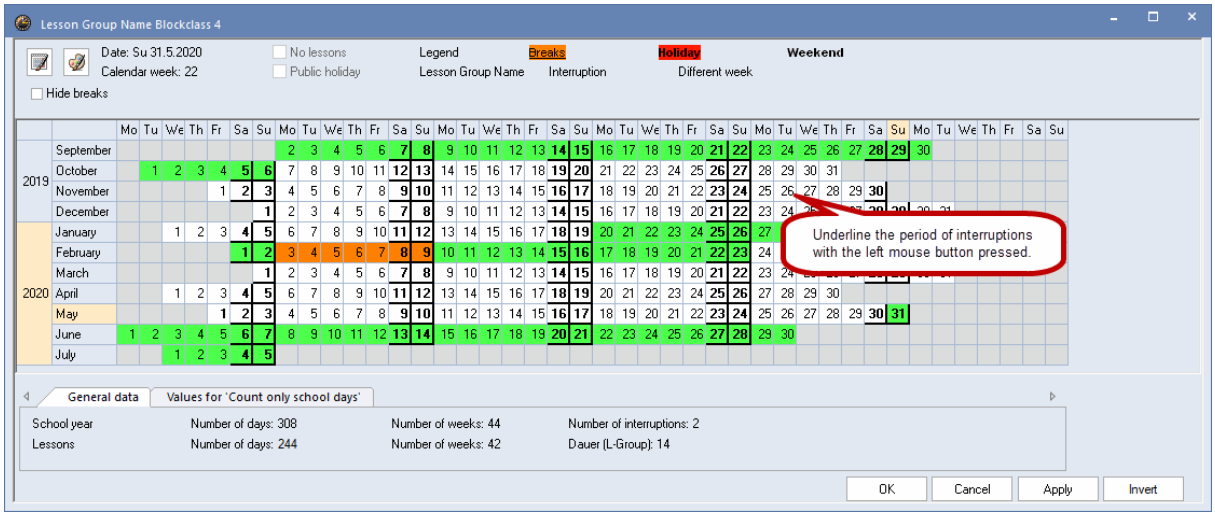
Open the demo.gpn file, click on 'Data | Lesson groups' and create a lesson group with any name you choose.



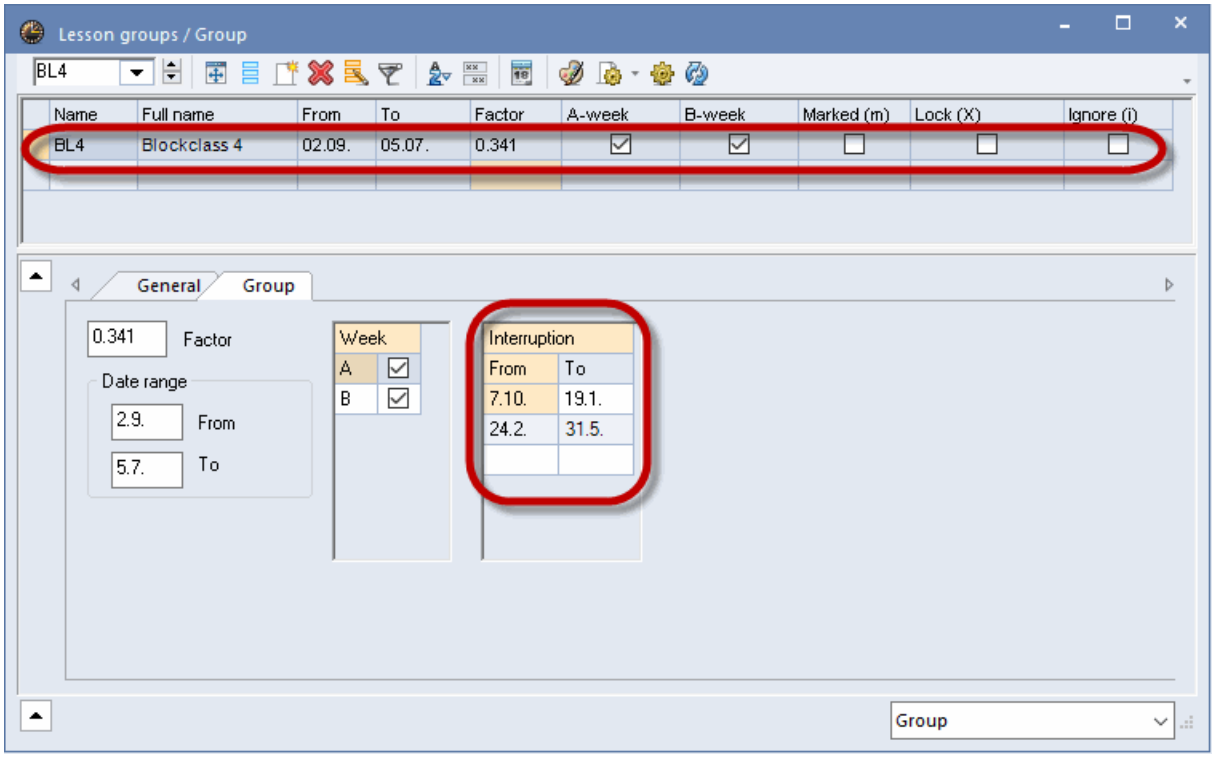
Open the school year calendar by clicking on the button of that name .

All the days of the school year are coloured green and thus active.

By moving the cursor while holding the left mouse button you can define interruptions and the colour changes from green to white.



The interruption in the lesson group is then displayed in the form view.

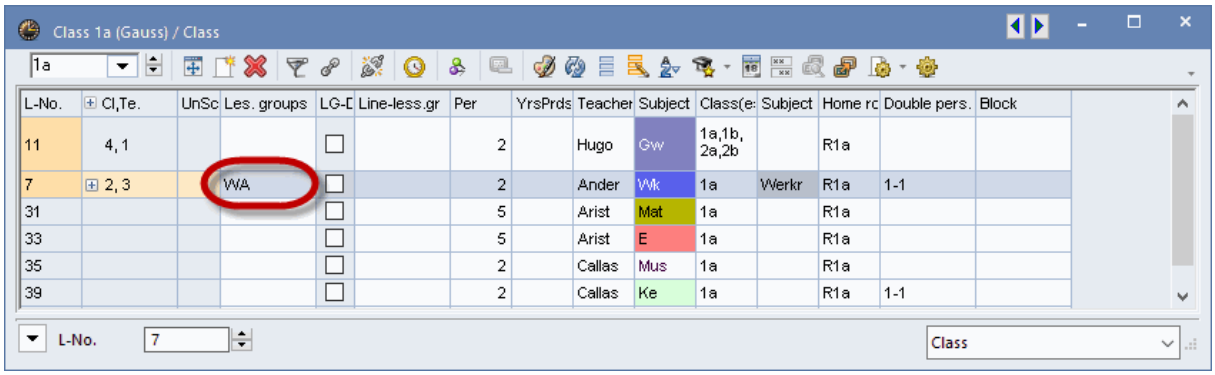


3.3 Assigning lesson groups to lessons

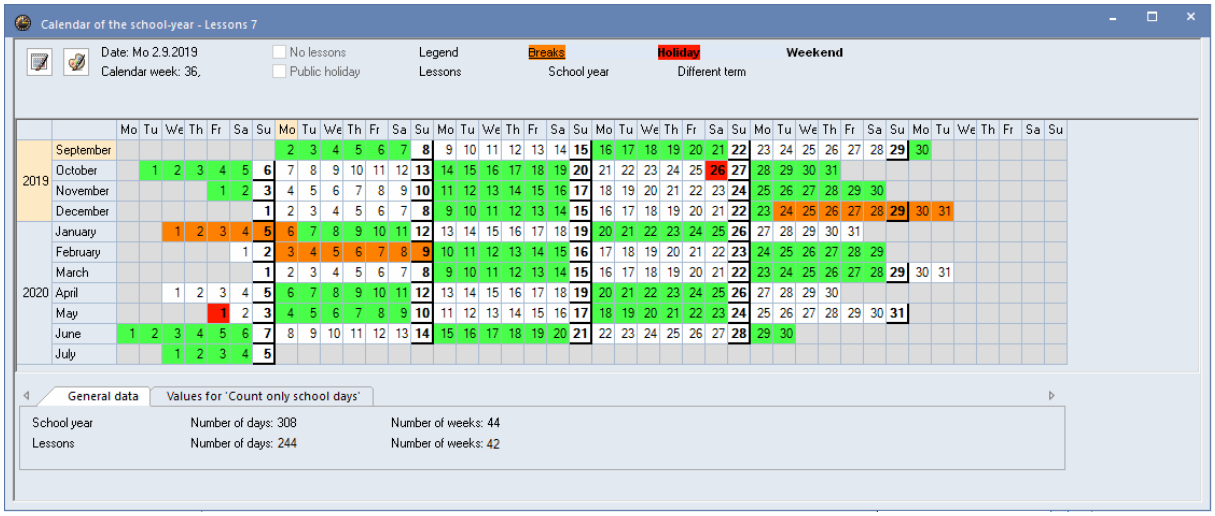
After lesson groups have been defined they must be assigned to the relevant lessons. This is performed in a lessons window (e.g. 'Classes | Lessons') in the 'Les. groups' column or in the corresponding field in the form view.

The design lesson for class 1a is to take place every two weeks.

To achieve this, enter the corresponding short name of the lesson group in the 'Les. groups' column. In this example this is wA for week A of the 14-day cycle.



Clicking once on the <Calendar> button displays the weeks in the school year when this lesson will be held.



3.4 Lesson groups and value calculation

If lessons take place irregularly, value calculation will automatically take this into account. Thus a two-hour lesson held once a fortnight will have a value of 1. If the lesson has an irregular time pattern, the value will be divided up appropriately. Please refer to the chapter on'Value calculation with the multi-week timetable module'for more details.

3.5 Optimisation and lesson groups

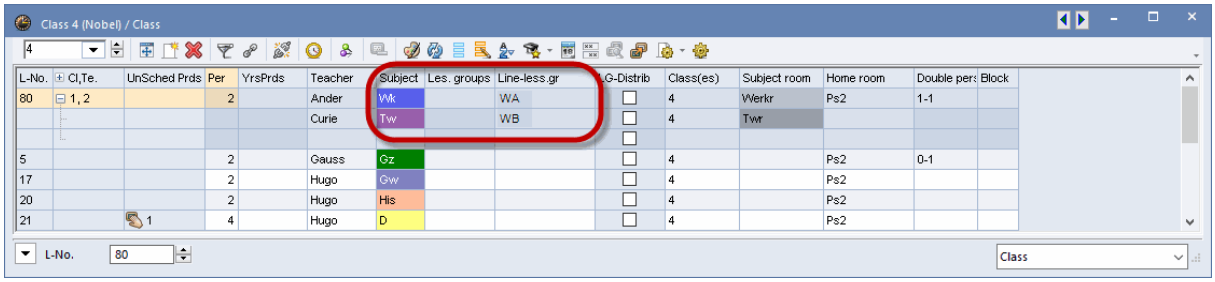
All time periods are included in optimisation. For example, if one lesson is to take place only during the first semester and another during the second semester - there is therefore no time overlap - the optimisation process can schedule the two lessons in the same slot in the timetable, (e.g. first period on Monday).

3.5.1 Weekly alternating lessons

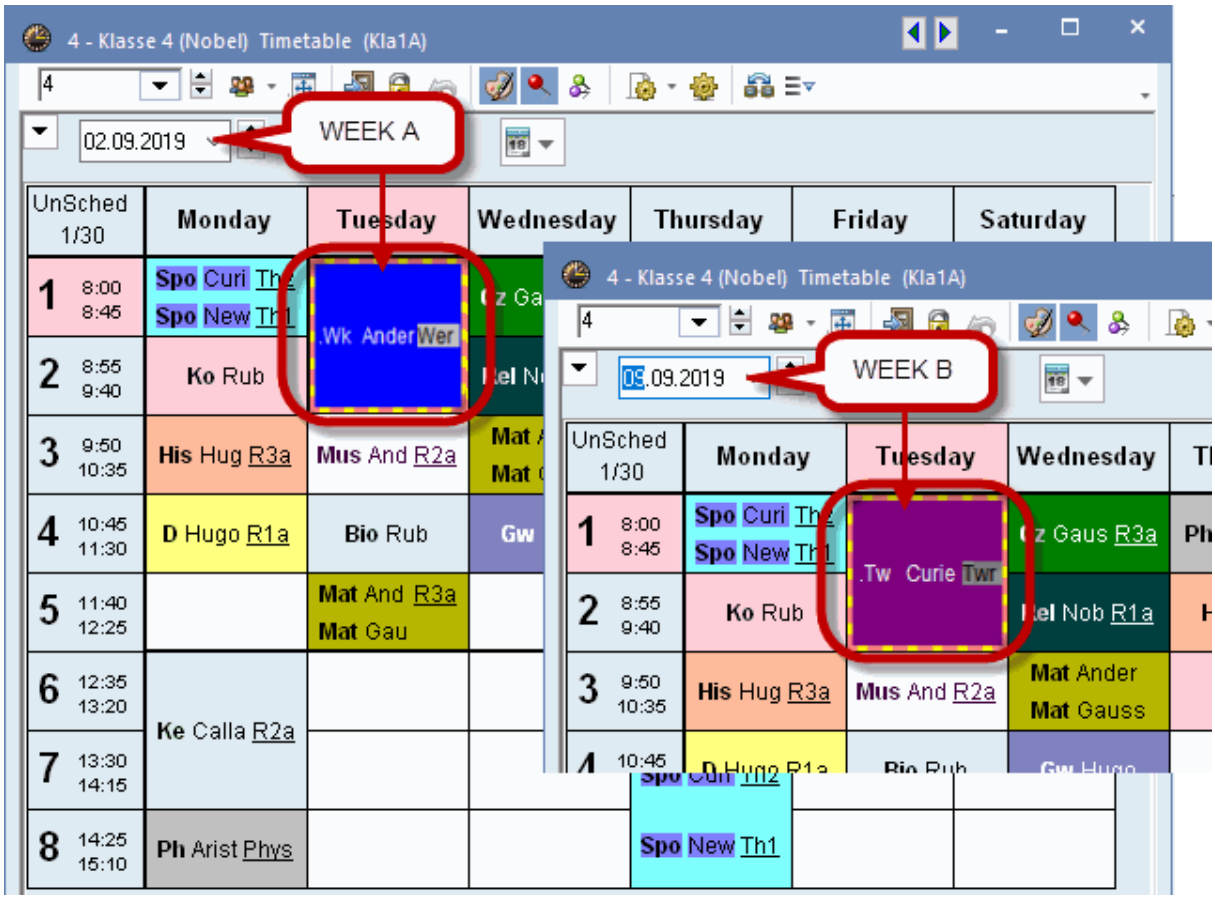
As for inverse time ranges (week A,B; semester 1,2, etc.), automatic scheduling may schedule periods at the same position in the timetable, but not necessarily if the accompanying conditions (availability of rooms or teachers, etc.) prevent it. Two lessons are sometimes combined in such a way that they alternate on the same day every week, and can be scheduled in the same period without the slot being manually fixed (locked) in advance. For example, instrumental tuition could alternate in a fortnightly cycle with choir practice.

For class 4, Designs (DS) and Textiles (TX) are to be scheduled as alternating lessons in a fortnightly cycle.

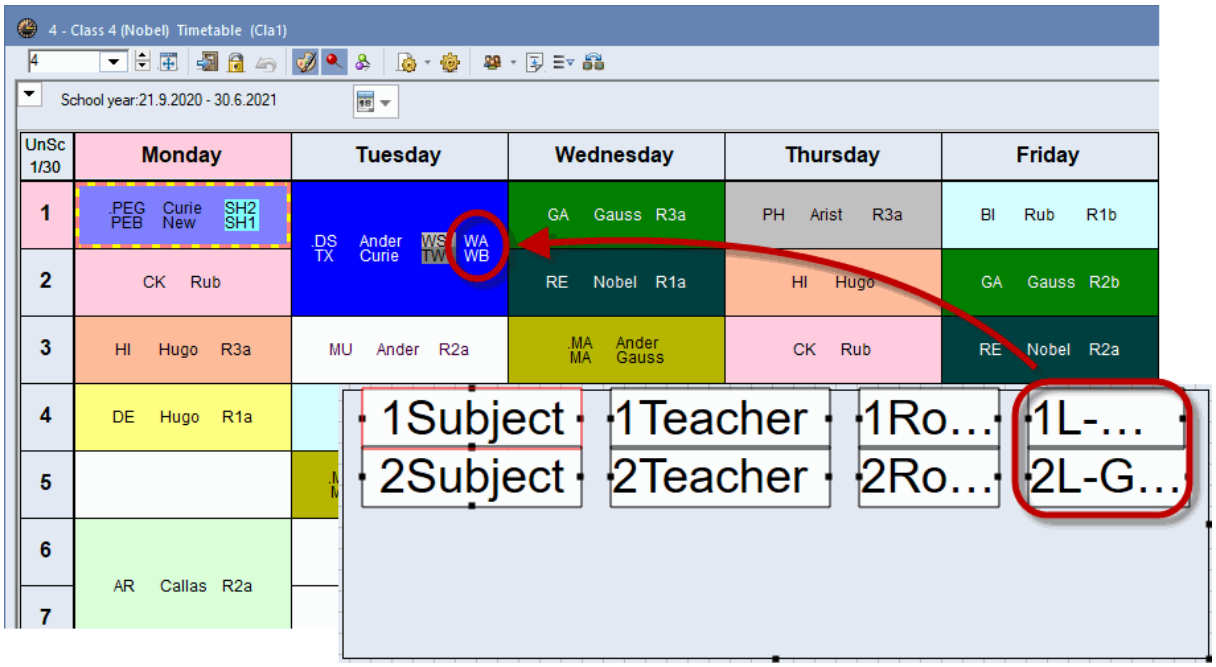
1. Create two lesson groups for week A and week B as described in the chapter 'Creating lesson groups' .
2. Now activate the 'Line-lesson group' column either by drag&drop from the 'Coupling line' tab or via <Grid adjustment>, category: timetable.
3. Now you can enter the required lesson group into each coupling line.



The respective lesson is now displayed in week A or B, respectively.

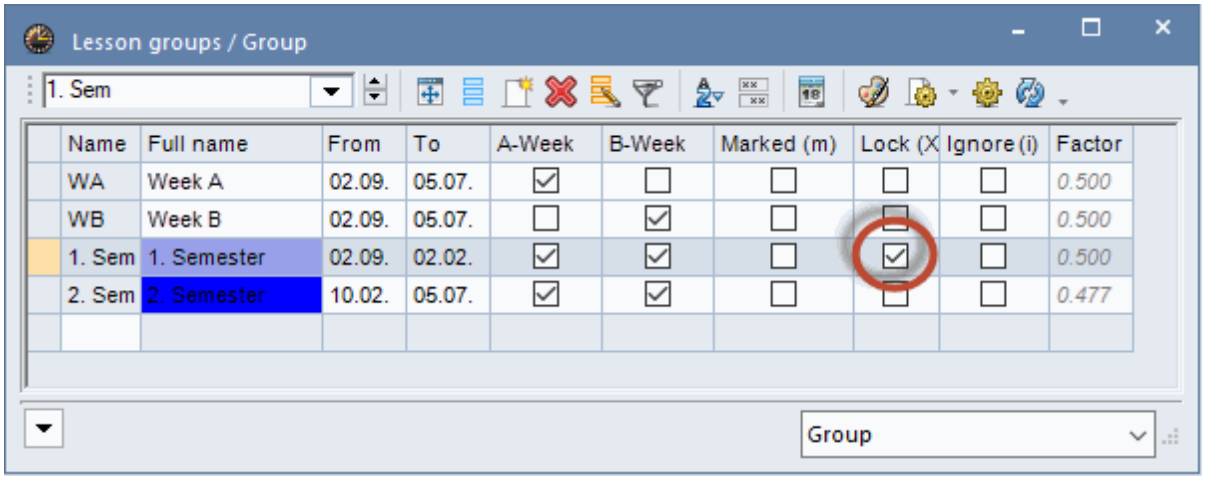


Note: All time ranges in the timetable
When exporting the timetable for the entire year , time ranges can be specified in the lesson period to make clear which lesson takes place in week A and week B. For more information on creating your timetables please read the timetable manual.



3.5.2 Lock lesson group

All the lessons in a lesson group can be locked in the timetable by locking the lesson group itself.



3.5.3 Assigning a lesson group

You can also assign several lesson groups to one lesson and let optimisation decide
a) which of the lesson groups concerned is more suitable and
b) which lessons can be scheduled simultaneously without a clash.

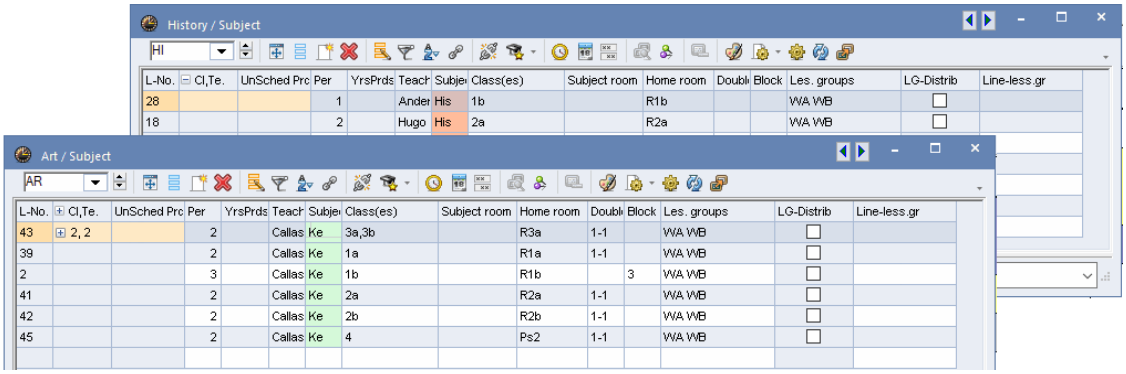
This means that you only need to tell the system which lesson should be scheduled every two weeks and it does not matter whether week A or week B comes first and which lessons alternate every fortnight. The system should make the ideal decision.

Please follow the procedure described below:

A number of lessons are held in a fortnightly cycle at the school - e.g. the subjects GS and BE. Basically it does not matter in wich week which lesson takes place.

Create two lesson groups, one for week A and the other for week B. Please refer to chapter 'Creating lesson groups' for more details on how to do this.

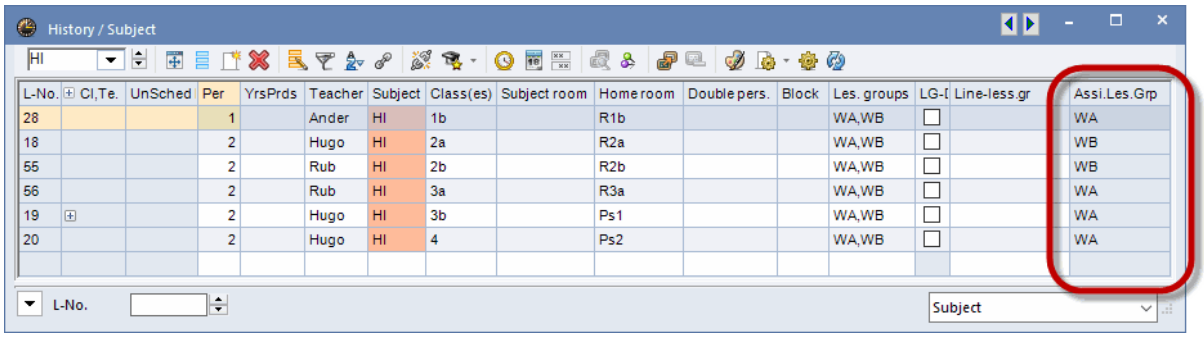
Now enter both lesson groups (short names) in the 'Les. groups' column, separated by a comma, for the lessons that are to take place every fortnight.



Timetable optimisation will now assign the lesson groups and decide which lessons can be scheduled simultaneously.

After timetable optimisation the results could be as follows:

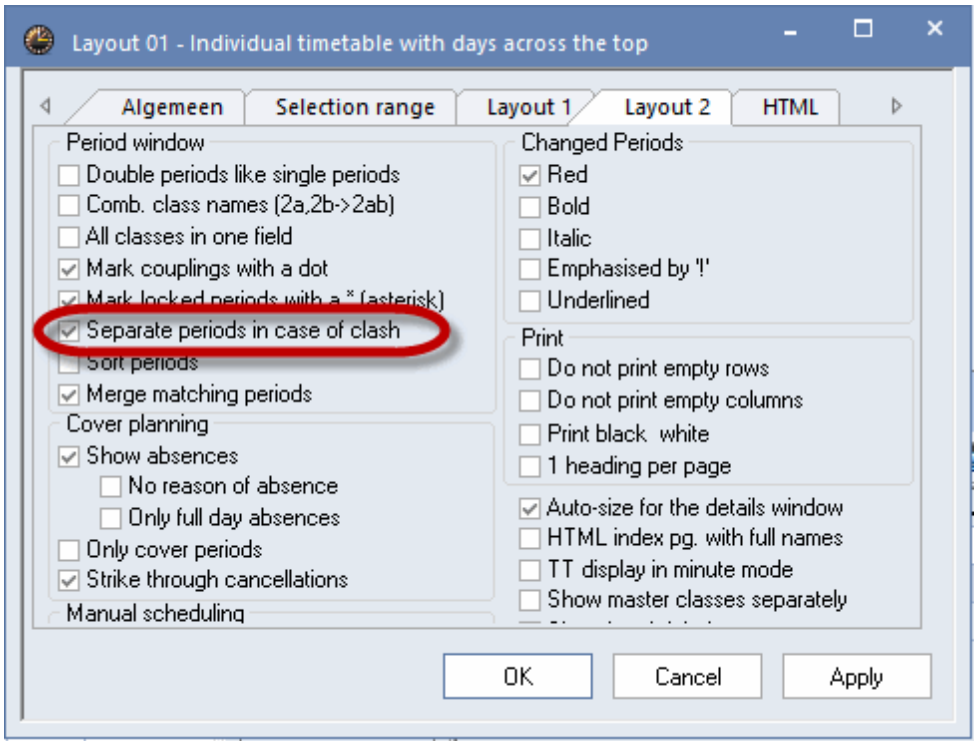
For some lessons lesson group 'WA' (week A) has been selected and for others 'WB'. The 'Assigned lesson group' column shows which of the lesson groups in question has been selected for the lesson.



You can see in the timetable that, as a rule, the lessons alternate on a fortnightly basis. If optimisation does not find a suitable lesson for the alternate week the lessons are scheduled outside the core timetable so that one group of students finishes school earlier on the relevant day (in our example on Wednesday).

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	GEc Hugo R1b	PH New PL	BI Cer R1b	GEc Hugo R1b	DE Ander R1b	MA New R1b
2	EN Arist R1b	RE Nobel R1b	DS Ander. WS	EN Arist R1b	PEG Arist. SH2 / PEB Rub SH1	BI Cer R1b
3	PEG Arist. SH2 / PEB Rub SH1	PH New PL	RE Nobel R1b	MA New R1b	MA New R1b	DE Ander R1b
4	MA New R1b	DE Ander R1b	GA Gauss. R1a / TX Curie TW	DE Ander R1b	GA Gauss. R1a / TX Curie TW	EN Arist R1b
5	HI Hugo R1b	PEG Arist. SH2 / PEB Rub SH1	TX Curie TW		AR Callas. R3a / MU Ander R1a	
6		HI Hugo R1b / AR Callas. R3a		DS Ander. WS / HE Curie Kü		
7						
8						

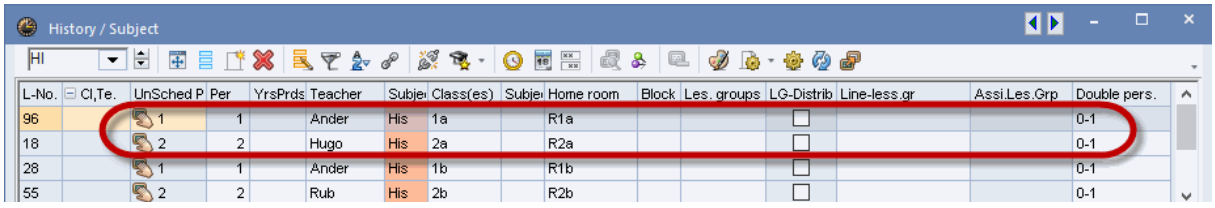
Tip: Displaying week A and week B in the same timetable
In order to display the lessons from 2 different weeks in one timetable as shown in the figure above, set the time range of the timetable to the whole school year and in the settings of the timetable activate the option 'Separate periods in case of clash' on the 'Layout 2' tab.



3.5.4 Allocating lessons to groups

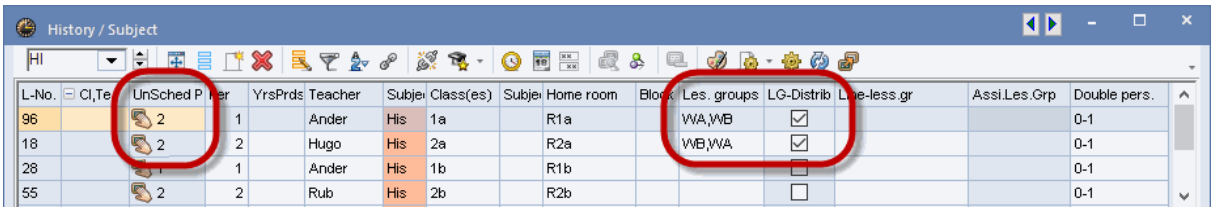
The periods of a lesson can be allocated to different lesson groups automatically. This allows, for example, lessons to be scheduled flexibly over a two-week period. It is also possible to distribute a lesson over the 1st and 2nd semesters of a school year.

Example: a single period lesson of GS for classes 1a and 1b is to take place either as single periods each week or as double periods every fortnight.



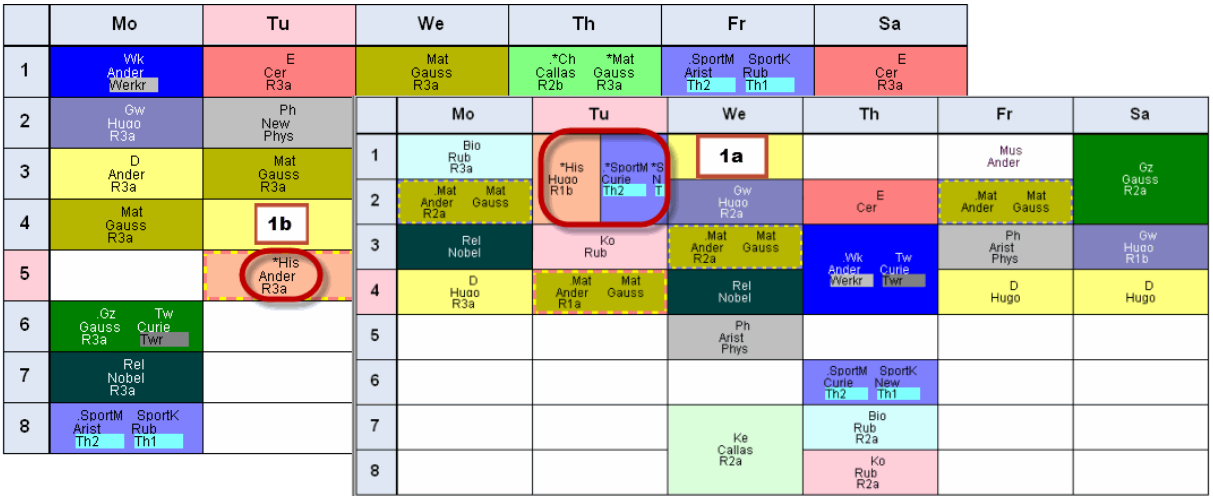
Two lesson groups must be created for weeks A and B, respectively. Please refer to the chapter 'Creating lesson groups' for more details on how to do this.

1. Entering the possible lesson groups WA and WB
2. Check 'Distribute periods to lesson groups' option (column 'Distr. LG'), too. This doubles the number of unscheduled periods from 1 to 2 since either one period is to be scheduled each week or two periods are to be scheduled each fortnight.



Automatic scheduling now defines how the lessons are to be scheduled based on the accompanying conditions (e.g. time requests, other lessons in week A or week B) and the weighting settings.

3. The result may be either one period each week or 2 periods every forthnight.



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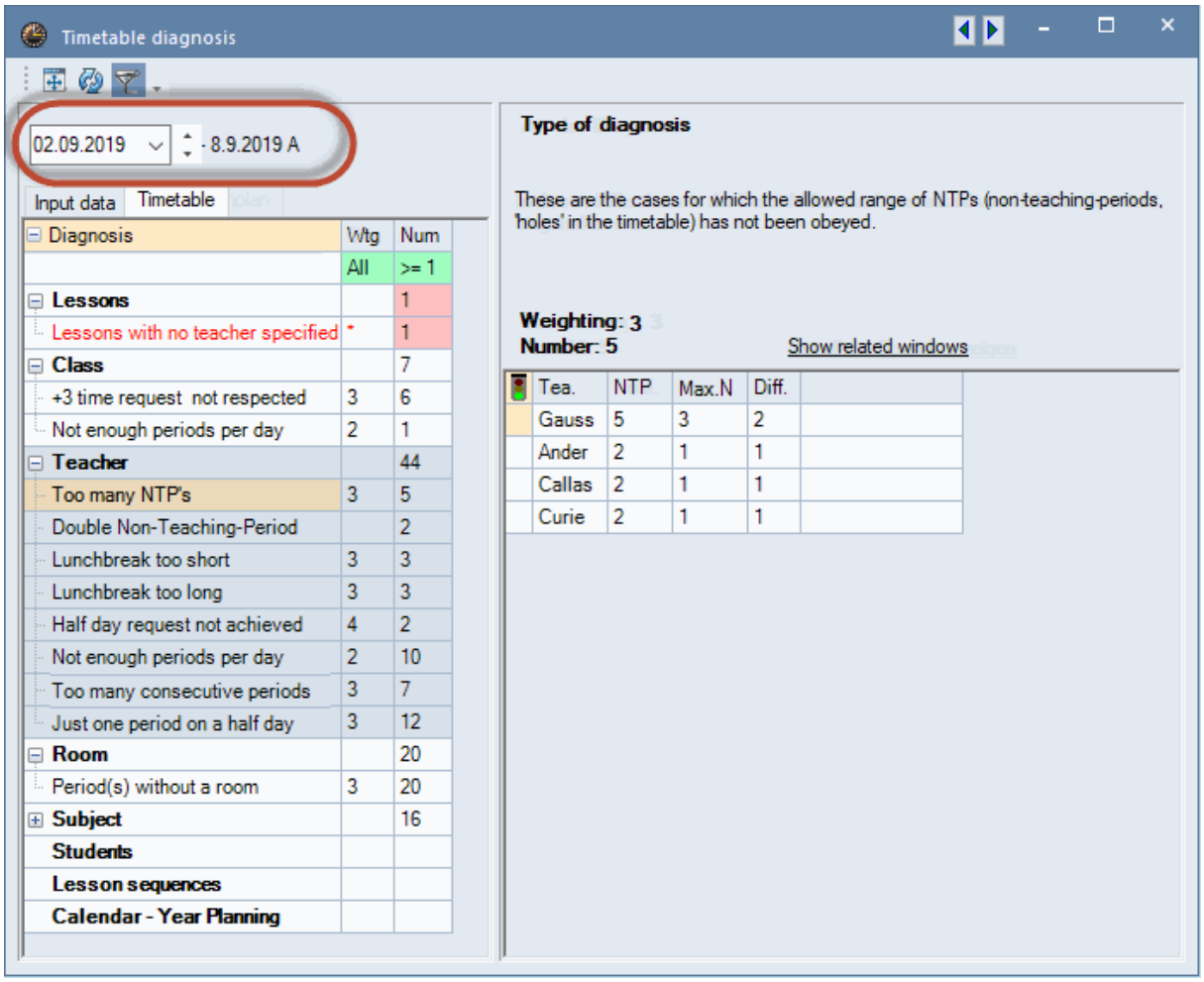
3.5.5 Timetable diagnosis

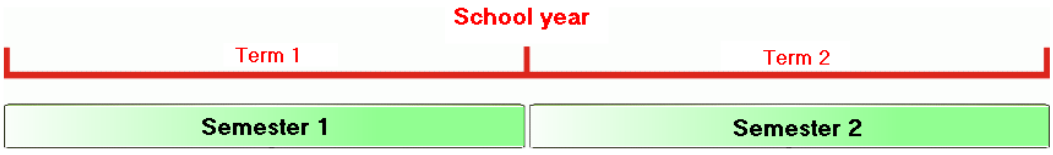
The timetable diagnosis (Scheduling | Diagnosis) is always based on one week. For this reason you should always ensure that you check all the different week types that occur during your school year.



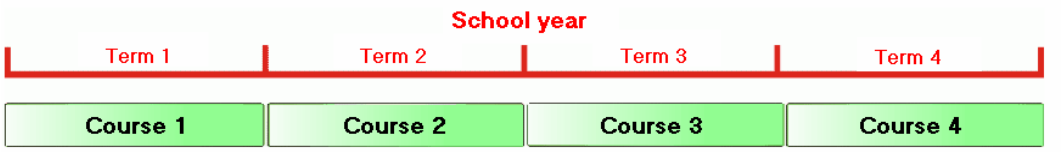
4 Terms

Term timetable functions are generally used in the following cases:

- Timetable change during the school year (e.g. at the end of the school half-year, when one or more teachers are absent for a considerable period etc.)



- A time-limited course system (e.g. all classes have ten weeks of lessons)



With a term timetable the school year is divided into several periods of time and a timetable can be created for each of these terms independently of each other. You could of course save each timetable in a separate file, but you would then have to accept a number of disadvantages. The term timetable offers the following advantages:

- You have a single data record for the whole school year.
- Statistical analyses can be performed at any time on the complete school year.
- Weekly overview reports (especially for printing or for export to intranet/internet) accurately reflect the changing timetable.
- Cover planning always automatically accesses the currently valid timetable. Mistakes are thus excluded.

4.1 Opening a new term

In principle you create your timetable at the beginning of the school year as usual. If something occurs in the course of the school year that requires a fundamental change to the timetable you can open a new term. Follow the procedure below:

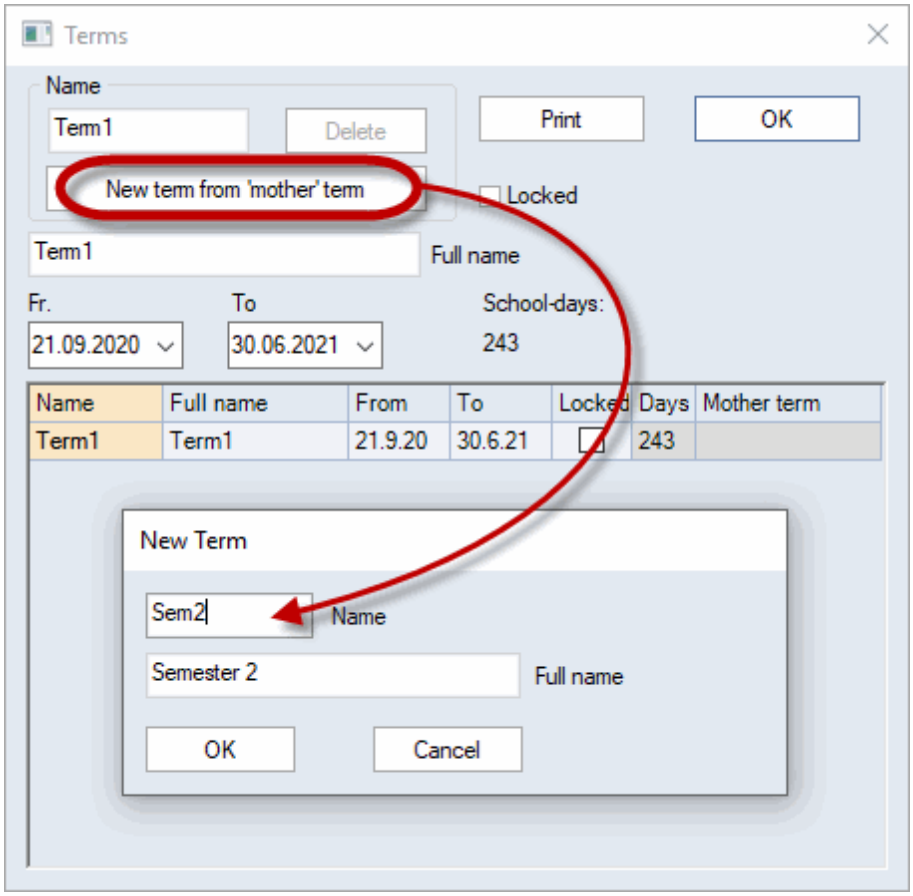
1. Click on the <Term> button on the 'Start' tab.

Currently there is only one term, which is called 'Term 1' by default.

2. Click on the button <New term from 'mother' term>.

A window opens where you can enter short name and full name of the new term (default is 'Term 2').

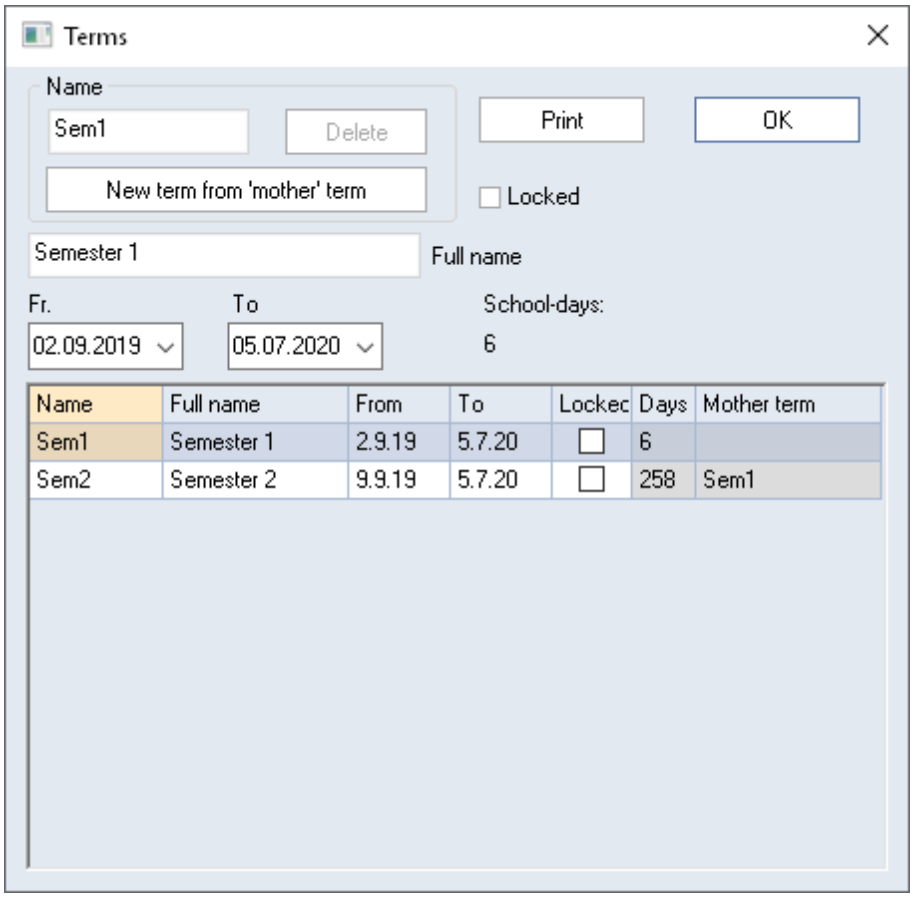
3. Enter a meaningful short name and full name for the new term, e.g. "sem2", "Semester2" and click < OK> to confirm.



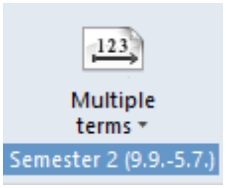
You can rename the original term 'Term 1' (e.g. "semester 1").

4. Now use the calendar to change the start ('fr.') and end ('to') dates. The length of the individual terms will then be displayed in the 'Days' column.

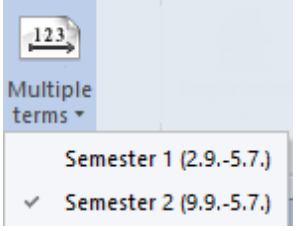
5. After you confirm by clicking < OK> the terms window closes.



A new drop-down list is displayed in the main toolbar displaying the current term and allowing you to switch terms. Master data, lessons and timetable can now be modified in accordance with the new circumstances.

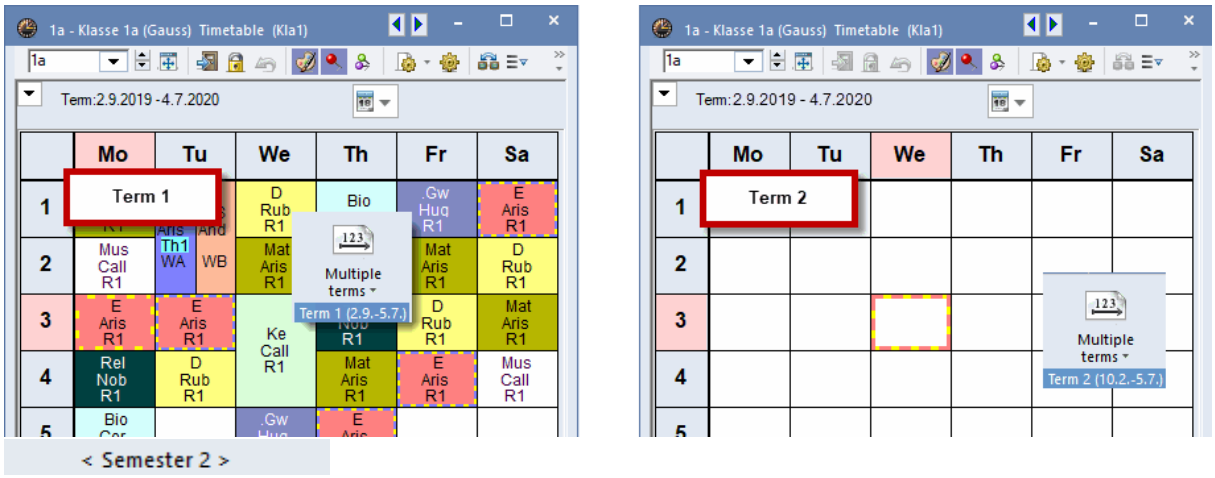


6. Now switch from term "Semester 2" to term "Semester 1". You will see that both terms' data are completely identical.



7. Make a change to one of the terms. For example, delete the timetable from the term "Semester

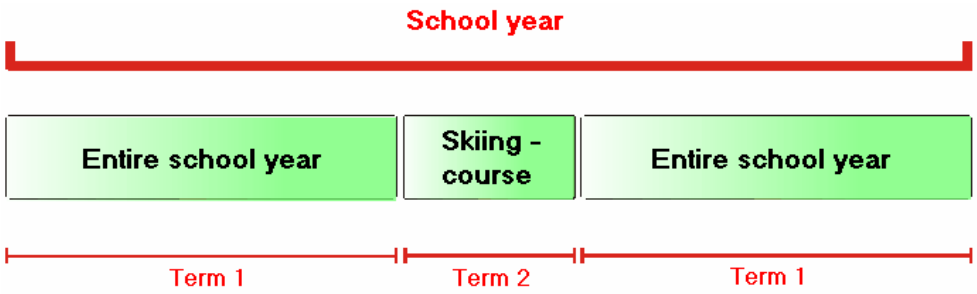
2". Now switch to "Semester 1". You will see that the timetable for the term "SEmester 1" has not been deleted.



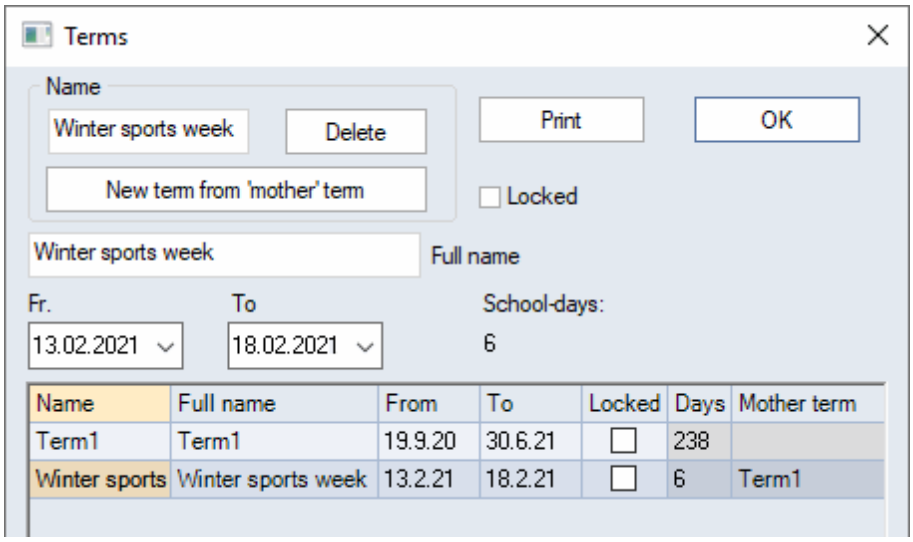
Tip: Switching terms via status bar
You can switch between terms quickly via the status bar (display status bar via 'Settings | Status bar') at the bottom right corner of the window. Simply click on one of the angled brackets enclosing the name of the current term.

4.1.1 Embedding a term

If the timetable only changes for a certain period of time (e.g. a teacher's illness/convalescence, a school event for the majority of classes etc.) a new term can be embedded in an existing term.



Such a constellation would be displayed as follows in the term window:



Term 1 runs from 19 September to June 30 and term 2 ('Winter sports week') runs for one week from 13 February until 18 February. The timetable can now be changed just for this one week without affecting the timetable for the rest of the school year.

If more than one term exists you can choose which one should be the 'mother' for the new term. If another timetable change becomes necessary during the school year, the term that is most similar to the new term is taken as the mother term. This is in general the last valid term.

4.1.2 Deleting a term

If you no longer require a term you can select it and then remove it using the <Delete> button.

Please note that the term that has no mother term (usually “Total school year”) cannot be deleted.

4.2 Changing data in a term

As soon as you start working with more than one term you have the possibility to change the term-specific data, as has already been shown. However, it can be useful in some cases to make a change to the mother term - for example in the master data - and then transfer these changes to the child terms.

In other cases - for example for the school year calendar - it would not make sense to make term-specific changes. Otherwise it could happen that the 1 May is defined as a public holiday in one term but not in the other.

If you have already created more than one term and you change data, the modifications are valid either

a) for the current term only, or
b) for the current term and all child terms, or
c) for all terms.

The following overview describes how you can manage the data:

4.2.1 Term-specific (for current term only)

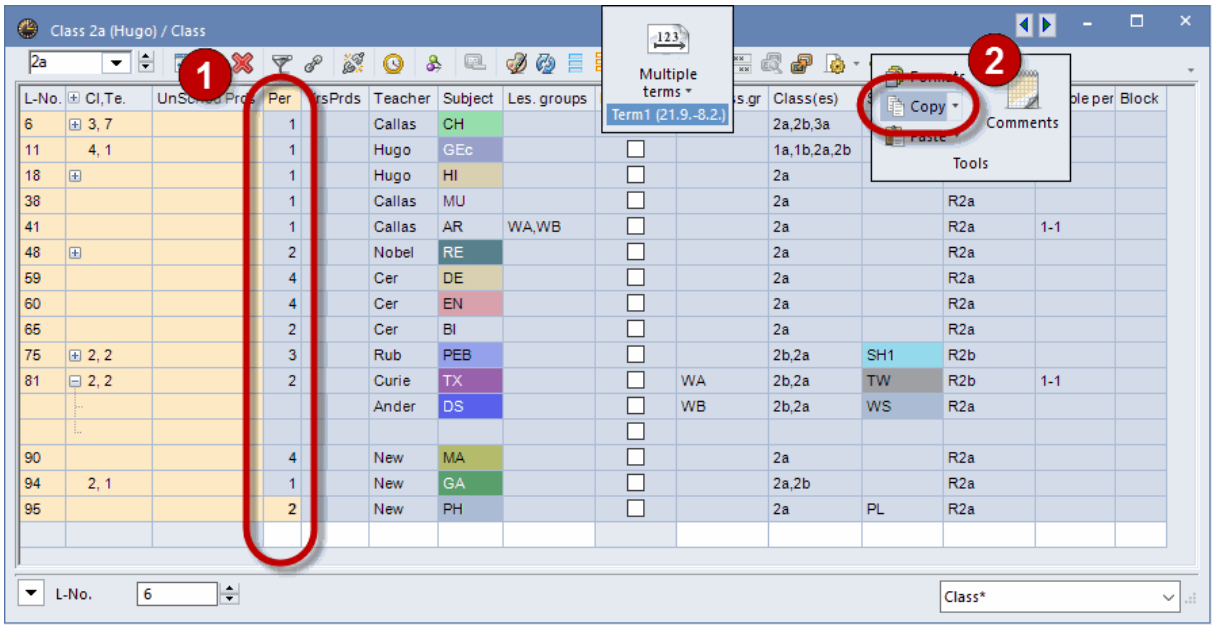
Changes to the following areas only apply to the current term and cannot be automatically transferred to existing child terms.

- Changes to the timetable
- Changes to time requests

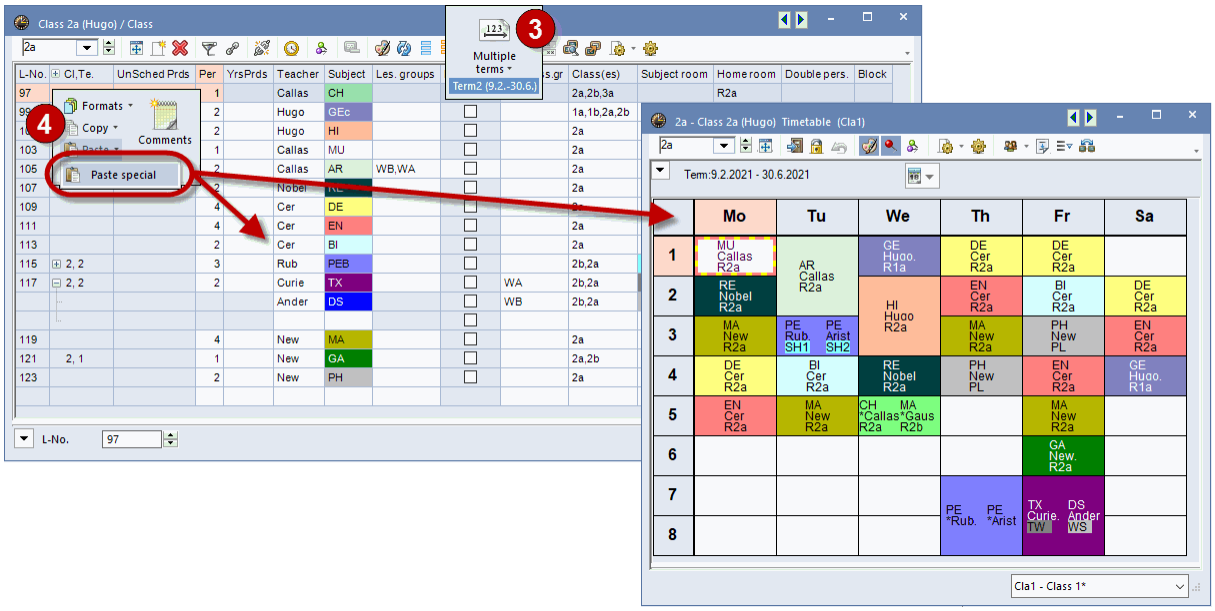
Transferring a timetable to another term

Use the 'Paste special' function if you wish to transfer the timetable of one term to another.

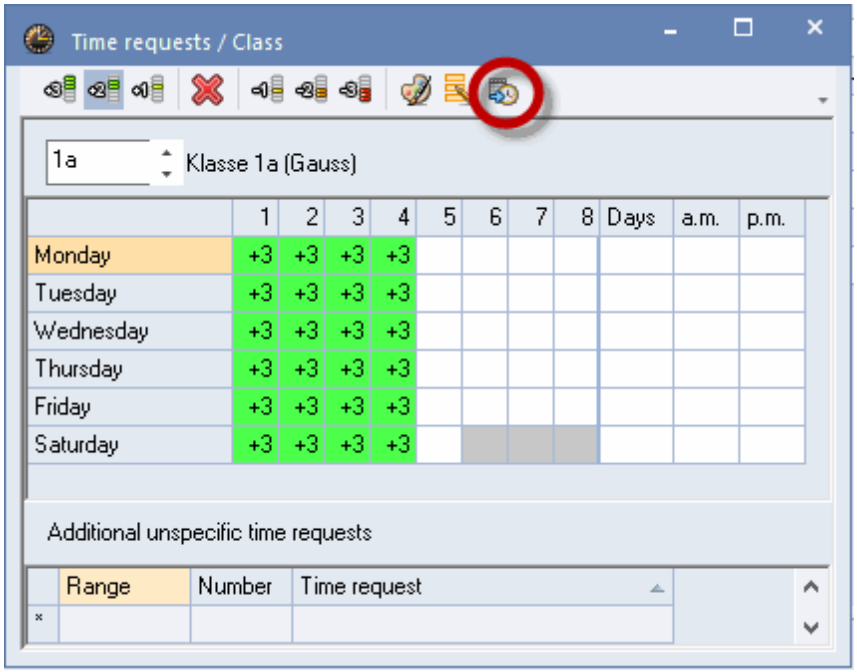
1. Select <Copy> on the 'Data' tab (or press CTRL+C).



2. Change the term and select the element whose timetable (including lessons) is to receive the transferred data.
3. Now select "Paste | Special paste" on the 'Data' tab. Lesson **and** timetable are paste into this term.



Transferring time requests to another term
Use the <Copy the time requests into the offspring terms> toolbar icon to copy time requests into all subsequent terms.

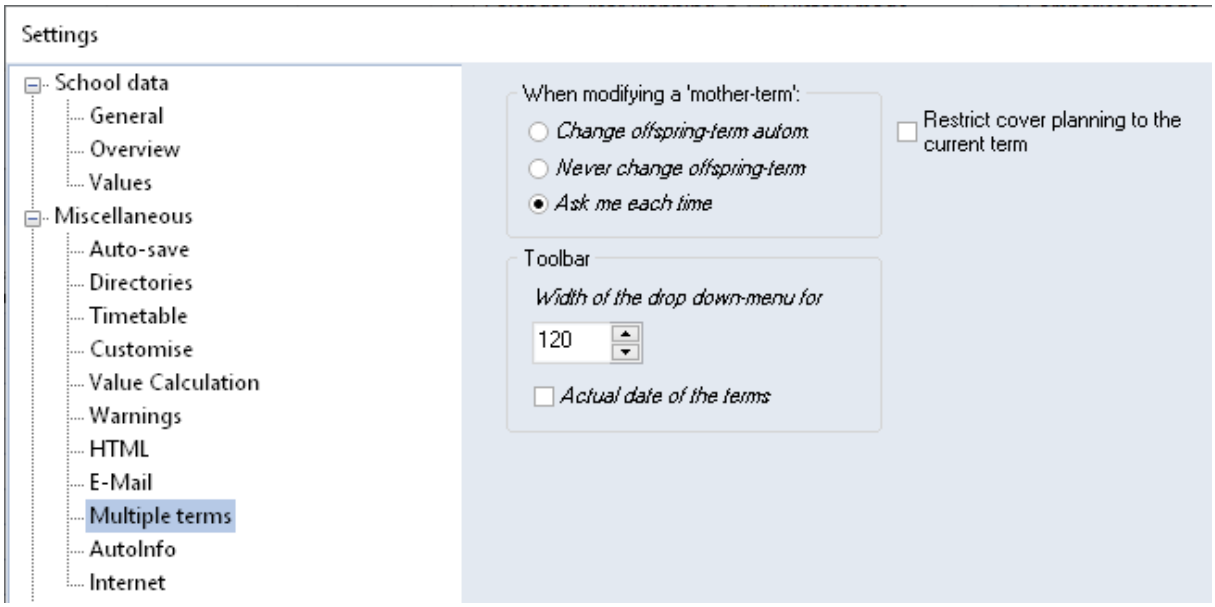


4.2.2 Term-specific (optional for subs. terms)

For the following types of data you have the option of choosing whether changes should be transferred to subsequent terms or not:

- Changes to master data (classes, teachers, rooms)
- Changes to lessons (excluding time requests)
  Alias name

Under 'Settings | Miscellaneous | Multiple Terms' you can select whether changes should be automatically transferred to subsequent terms or not or whether you should be asked each time before they are transferred.



Tip: Transferring changes to subsequent terms
If you are working with terms for the first time, select “Ask me each time” in order to retain control of how data are changed. You can choose one of the two other options at a later point in time.

4.2.3 Term-independent (global save all terms)

Term-independent (global save for all terms) The following data cannot be held for individual terms, i.e. any change automatically applies to all terms:

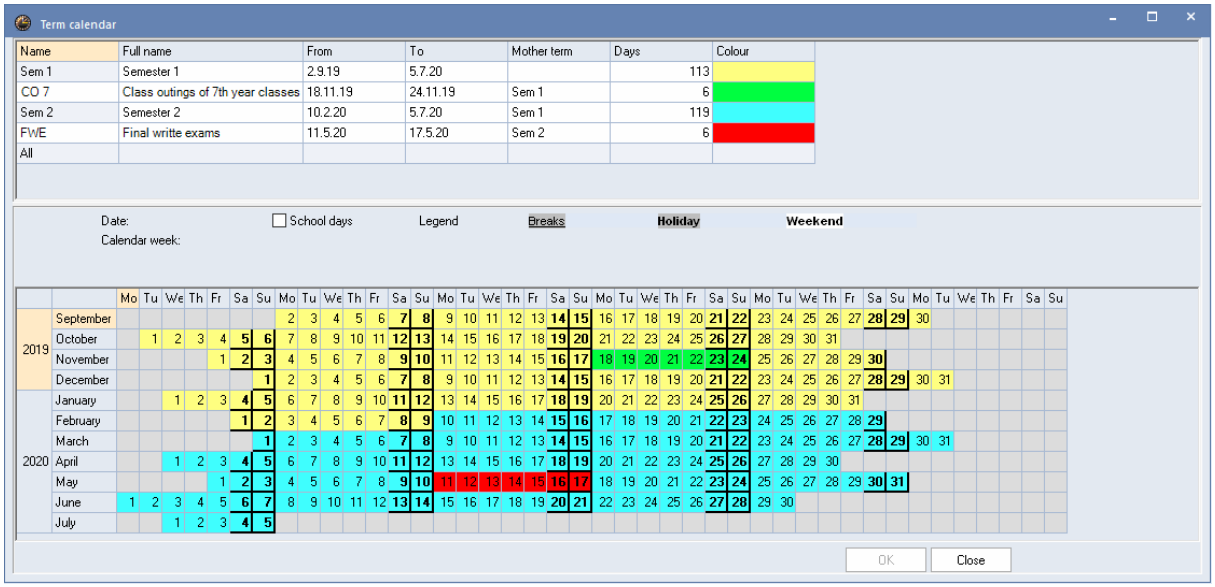
- Time grid
- substitution time grid
- subjects
- Weighting settings
- Reduction reasons and reductions
- Departments
- Corridors
- School year calendar (Settings | School holiday)
- Absence reasons
- Lesson tables (syllabus)
- View layouts (e.g. master data, lessons window, and timetable)
- Students

4.3 Term calendar

Many schools find it necessary to set up several terms in the course of a school year. If the time periods of the terms are nested (for example when one term is inserted into another) the actual start and end dates of the individual terms may not be clear at first sight. The term calendar (Module | Multiple Terms | Term calender) is a method of displaying the term in a visually attractive way allowing the actual duration

of the term to be recognised quickly and easily.

In the example below, the term 'Semester 1' is interrupted by the term 'Class outings of 7th year classes' while the term '2nd half year' is interrupted by the term 'Final written exams'.

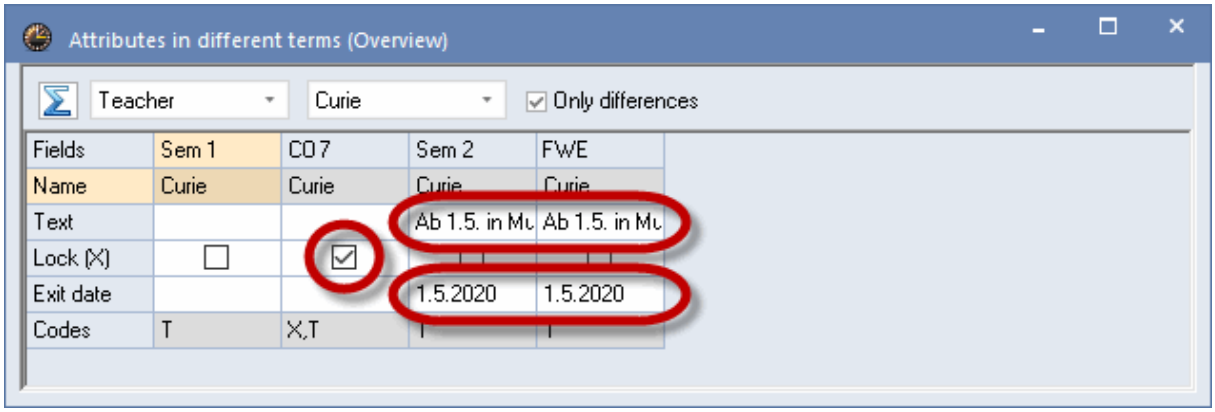


4.4 Term overview

The term overview window (Modules | Multiple terms | Term overview) displays all changes to the individual terms in a single window and allows changes to be made specifically for each term.

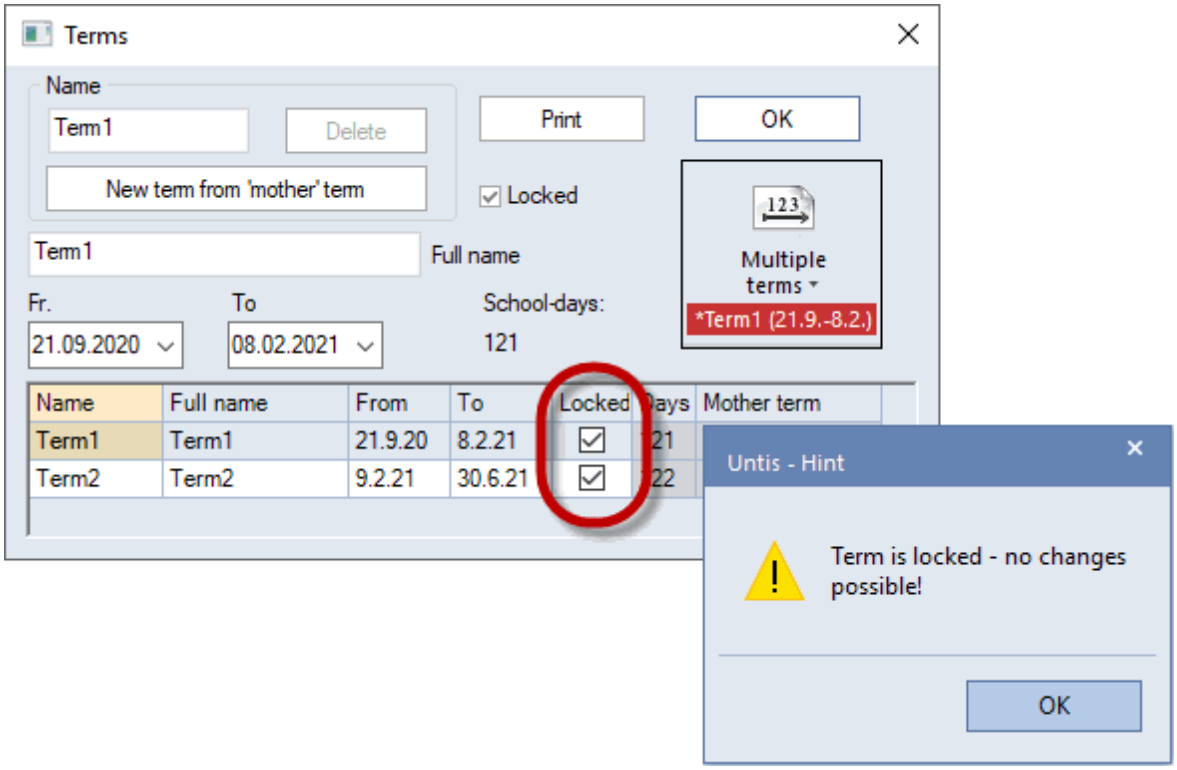
Checking the "Only differences" box results in the display of only those terms where changes have been made.

The figure shows the term overview for teacher Curie in the first and second halves of the year. There are differences in the leaving date, in the text and in the 'Lock' flag.



4.5 Locking terms

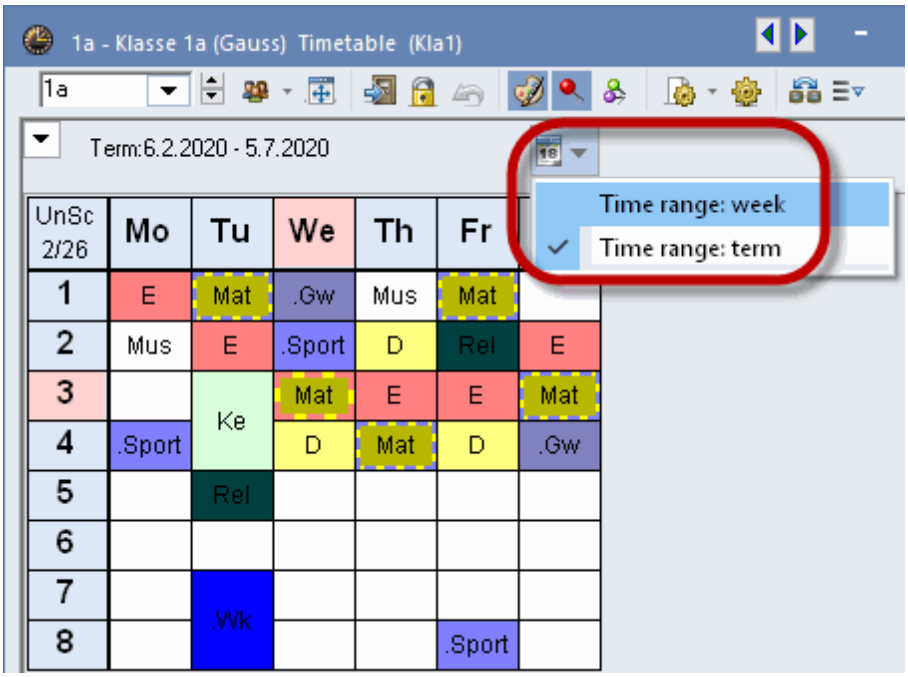
You can lock terms to protect them from unintentional modifications by clicking the <Multiple terms>button.



4.6 Terms and timetable display

If the timetable changes during the school year this should be displayed in the timetable. There are various possibilities for this.

The default display for the timetable is 'Total school year'. If you work with terms, you also have the option of changing the view to 'week' or 'term'.

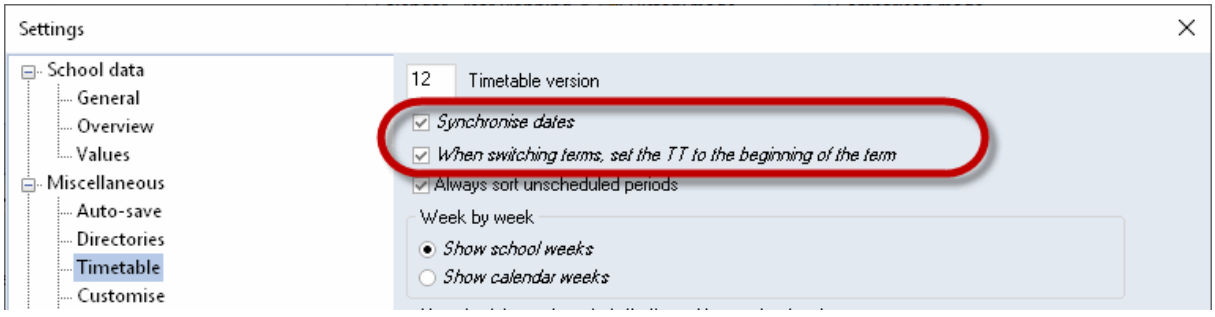


4.6.1 Time range: week

The 'Calendar week' setting displays the lessons of the selected week in the correct term, i.e. even if the term changes during the week the lessons for each weekday will be correctly displayed for the respective term. Thus in this case you will see data in the timetable from more than one term.

The timetable that is shown for the calendar week does not necessarily correspond to the period of time of the selected term. If you wish the timetable to be always set automatically to the date of the beginning of the term you should set the following parameters:

Under 'Settings | Miscellaneous | Timetable' check the box 'When switching terms set the TT to the beginning of the term'.



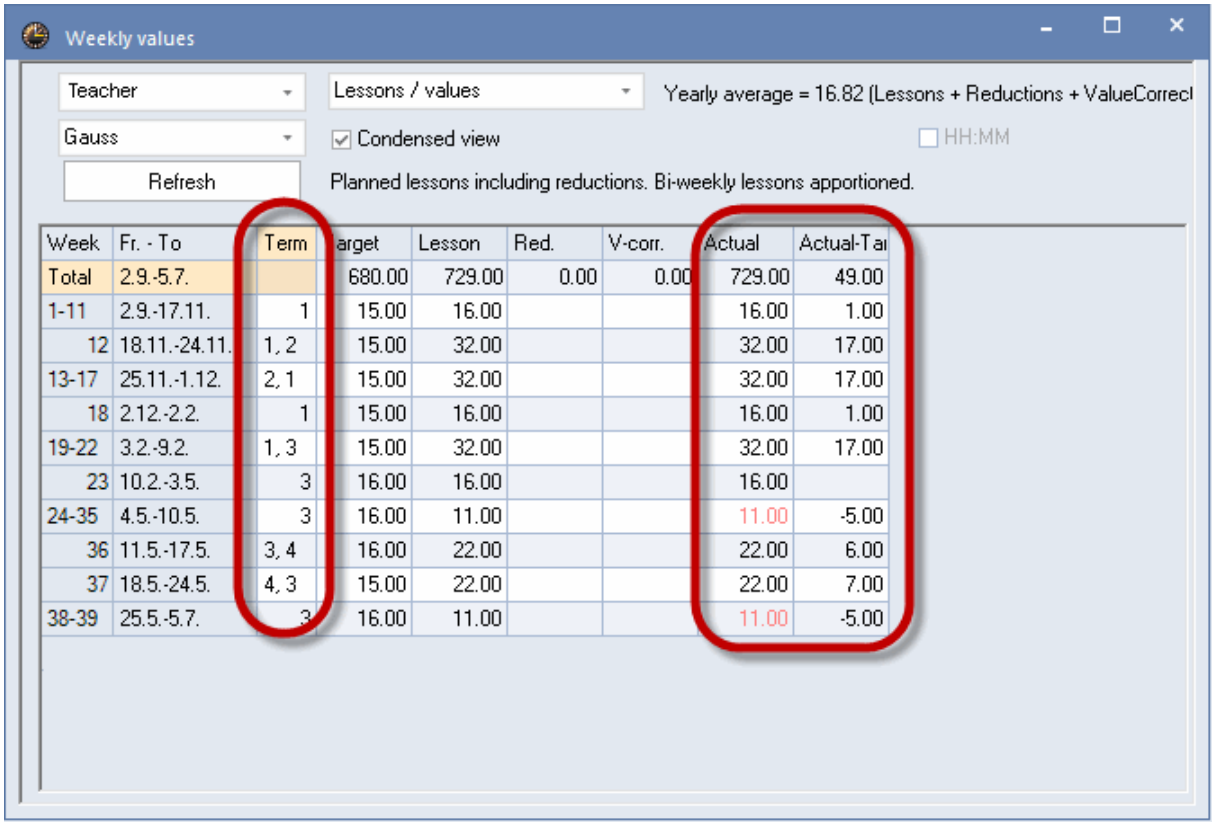
Checking the 'Synchronise dates' box results in all timetables open on the screen being set to the same date when the week changes in any timetable window.

4.6.2 Time range: term

This option results in the display of the timetable for the current term. Switching to another term automatically updates the time range of the open timetable.

4.7 Statistics about terms

Statistics can be generated either for a calendar week, for the whole school year or for a single term. For example teacher 'Gauss' has different lesson loads in different terms. The is clearly shown in the weekly values (Modules | Weekly values).



Week	Fr. - To	Term	arget	Lesson	Red.	V-corr.	Actual	Actual-Tar
Total	2.9.-5.7.		680.00	729.00	0.00	0.00	729.00	49.00
1-11	2.9.-17.11.	1	15.00	16.00			16.00	1.00
12	18.11.-24.11.	1, 2	15.00	32.00			32.00	17.00
13-17	25.11.-1.12.	2, 1	15.00	32.00			32.00	17.00
18	2.12.-2.2.	1	15.00	16.00			16.00	1.00
19-22	3.2.-9.2.	1, 3	15.00	32.00			32.00	17.00
23	10.2.-3.5.	3	16.00	16.00			16.00	
24-35	4.5.-10.5.	3	16.00	11.00			11.00	-5.00
36	11.5.-17.5.	3, 4	16.00	22.00			22.00	6.00
37	18.5.-24.5.	4, 3	15.00	22.00			22.00	7.00
38-39	25.5.-5.7.	3	16.00	11.00			11.00	-5.00

Various reports such as loading statistics and the subject-periods list can also be displayed on a term-by term basis.

4.8 Terms and cover scheduling

The cover scheduling module always accesses the currently active timetable. There is therefore no problem with shifting lessons across term boundaries.

When a change is being made to the timetable during the school year it can happen that the lesson scheduler and the substitution planner both wish to work with the database at the same time.

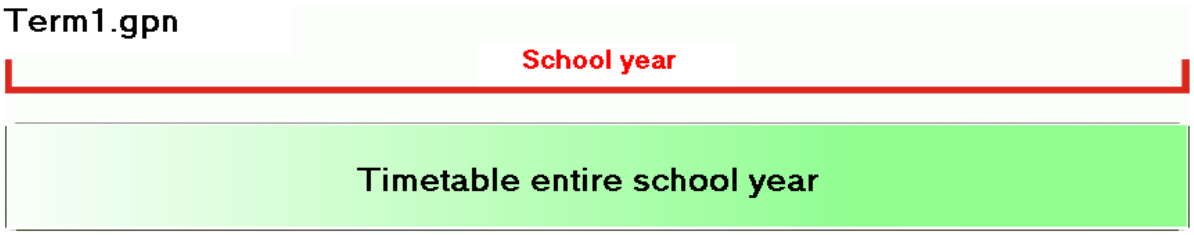
If you do not have Untis MultiUser you can use terms to allow the lesson scheduler and substitution planner to work simultaneously.

Let us assume that a timetable change must be made from 11 February onwards. The lesson scheduler creates a new term beginning on 11 February. With Untis MultiUser the substitution planner can, for example, create substitutions on 6 February, while the lesson scheduler makes changes to the timetable in the new term.

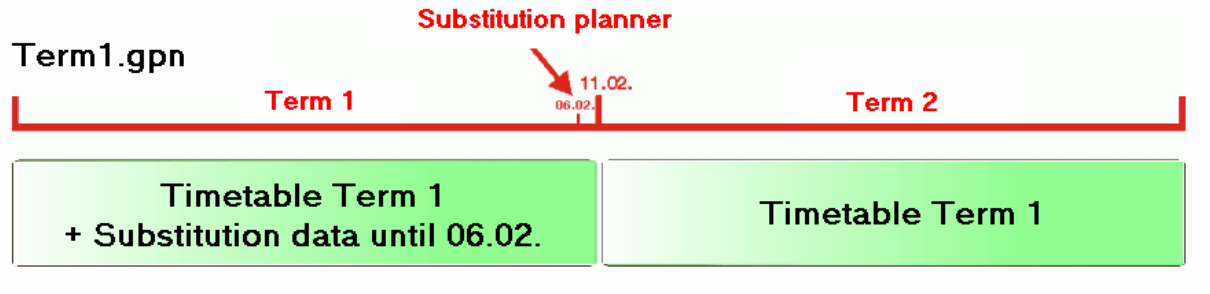
Note: restrict cover scheduling to term
If you want to work simultaneously on the timetable and on the cover schedule (in different periods), you need to check 'Restrict cover planning to the current term' under 'Settings | Miscellaneous | Multiple terms'.

If you do not use Untis MultiUser, proceed as follows:

The original data is the currently active file which we will name HalfYear1.gpn.



A new term is inserted into this file beginning on 11 February.



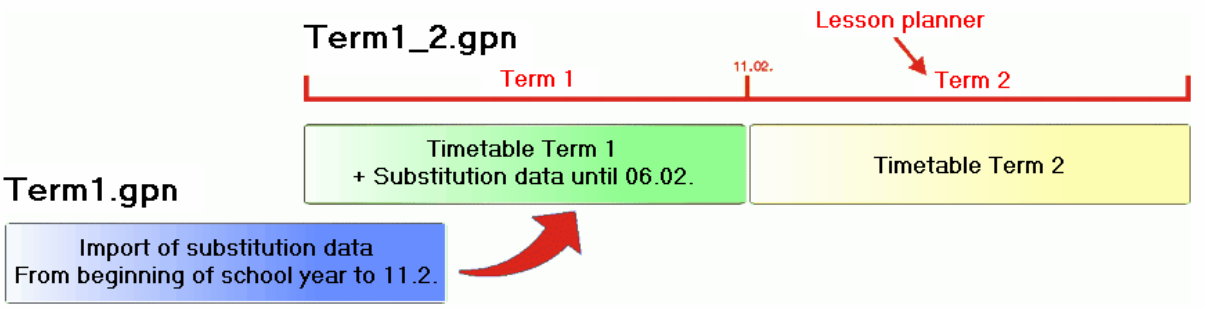
The substitution planner can continue working with this file.

The lesson scheduler saves this file under a different name, e.g. HalfYear1_2.gpn and modifies the timetable in the new term.

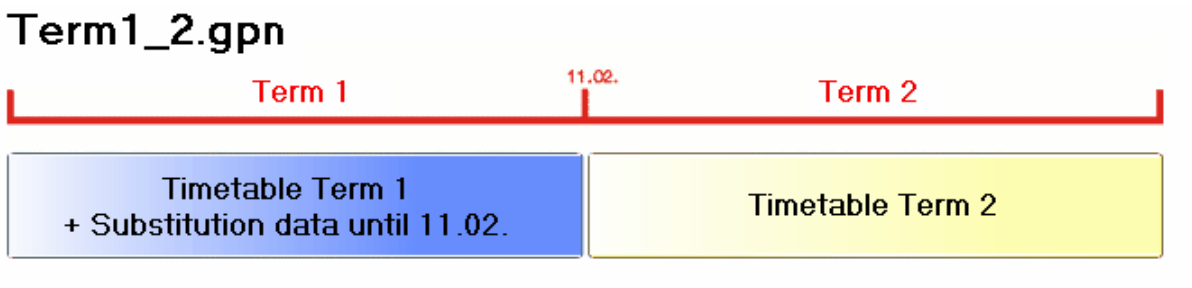
Two files exist on 11 February: HalfYear1.gpn with the complete substitution data and HalfYear1_2.gpn with the new timetable.

These two files must now be merged.

The substitution planner takes the lesson scheduler's file (HalfYear1_2.gpn) and imports all the cover scheduling data from the file HalfYear1.gpn using 'File | Import/Export | Import cover scheduling data'.

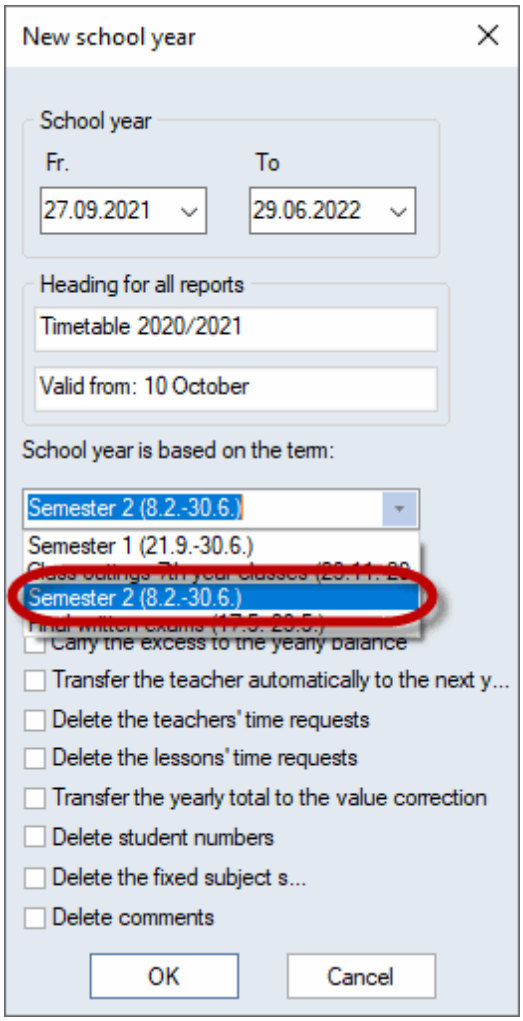


The file HalfYear1_2.gpn now exists containing both the new timetable and the cover scheduling data created so far.



4.9 New School Year

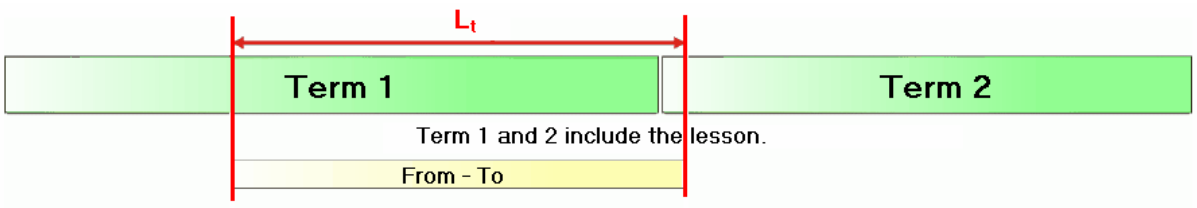
New school year If you open a new school year ('File | New school year') you can choose which term the new school year should be based on, i.e. which data should form the basis for the coming school year.



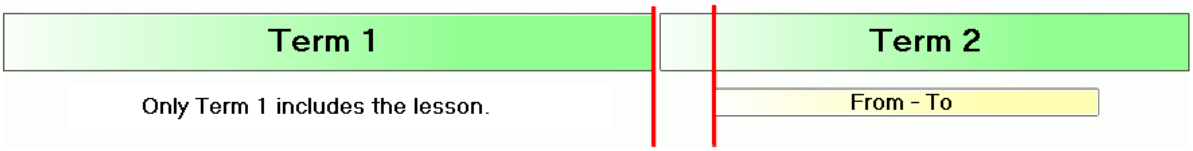
5 Combining several time limitations

The following principles apply when several time limitations are in effect for one lesson:

Overlapping term with lessons groups and 'from-to' constraints
Lesson groups and 'from-to' constraints have an effect irrespective of whether terms are defined or not.

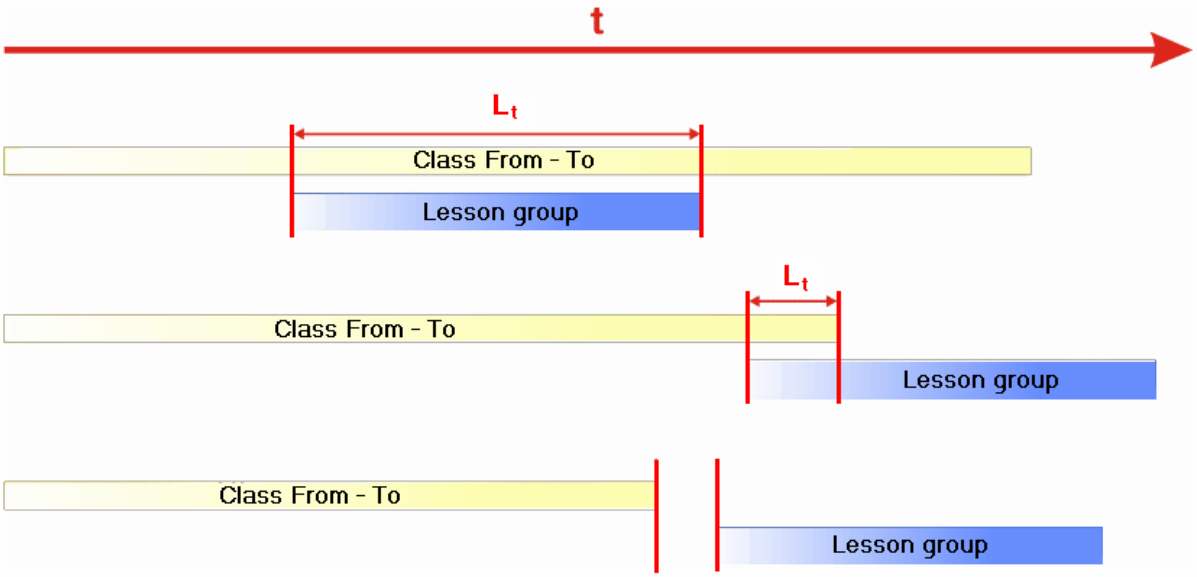


Lesson data can be saved on a term-specific basis, as described in chapter 'Changing Data in a Term' . The lesson will never take place if there is a time limitation for a lesson in a term in which this is not defined

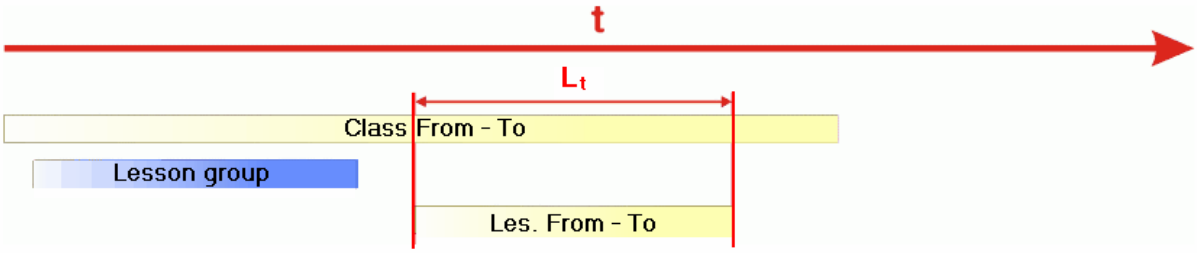


Overlapping lesson groups and 'from-to' constraints

The principle of lowest common denominator applies to overlapping lesson groups with 'from-to' constraints . If there is no overlap the lesson will never take place.



If there are conflicting lesson group entries and 'from-to' constraints , the 'from-to' constraint of the lesson will apply.



6 Year's planning in terms

Note:
Years planning in terms is a system used in Finland to distribute lessons to individual terms. The terms are generally several weeks long.

It is advisable to use the Untiscalendar modulewhen each week is scheduled differently, as is often the

case in some vocational schools for the healthcare professions.

Terms lasting several weeks

In the Finnish system, which also exists in a similar form in Austrian state schools under the name 'focussed learning', the underlying concept consists in enhancing the value of those subjects that in conventional school systems are taught for only one or two hours per week and are therefore categorised by students and/or parents as 'unimportant'. Such subjects with only a few hours of lessons per week are often pigeonholed as subsidiary subjects.

The value of these subsidiary subjects is enhanced in term planning for the year by not teaching them in each term but, when they are held, by teaching them with the same number of lessons per week as the so-called main subjects. The total number of periods held per year remains the same, but the intensity of teaching in those terms when the subsidiary subjects are taught is disproportionately higher and the students have the impression that the main and subsidiary subjects are equally important due to the approximately equal number of periods per week.

Terms lasting exactly one week

The annual number of teaching periods in vocational schools for the healthcare professions is divided up over the individual weeks (=terms) taking the general educational and organisational conditions into account (e.g. which teachers are available when). Thus there is no timetable for a continuous period of time, not even for a few weeks. The timetable changes completely from week to week. In this case use the **calendar** module.

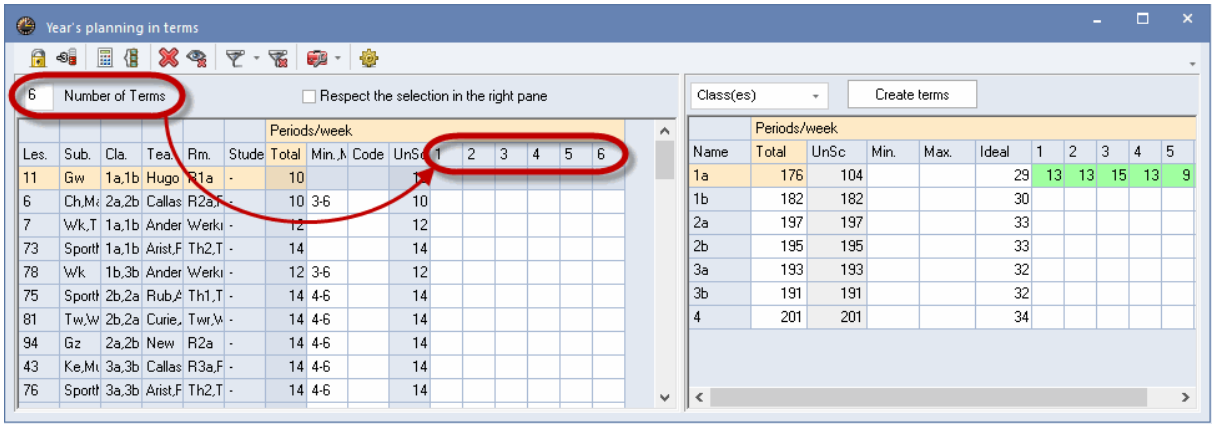
6.1 General input

The year's term planning window is accessed via 'Modules | Multiple terms | Year's planning in terms'.

The year's term planning window is split into two panes. In the left pane you can see a complete list of the lessons held at the school and in the right pane an overview of the total weekly periods per term that have already been allocated.

6.1.1 Number of terms

Enter the number of terms that the school year is to be divided into in the 'Number of terms' box and confirm the input with the <TAB> key.

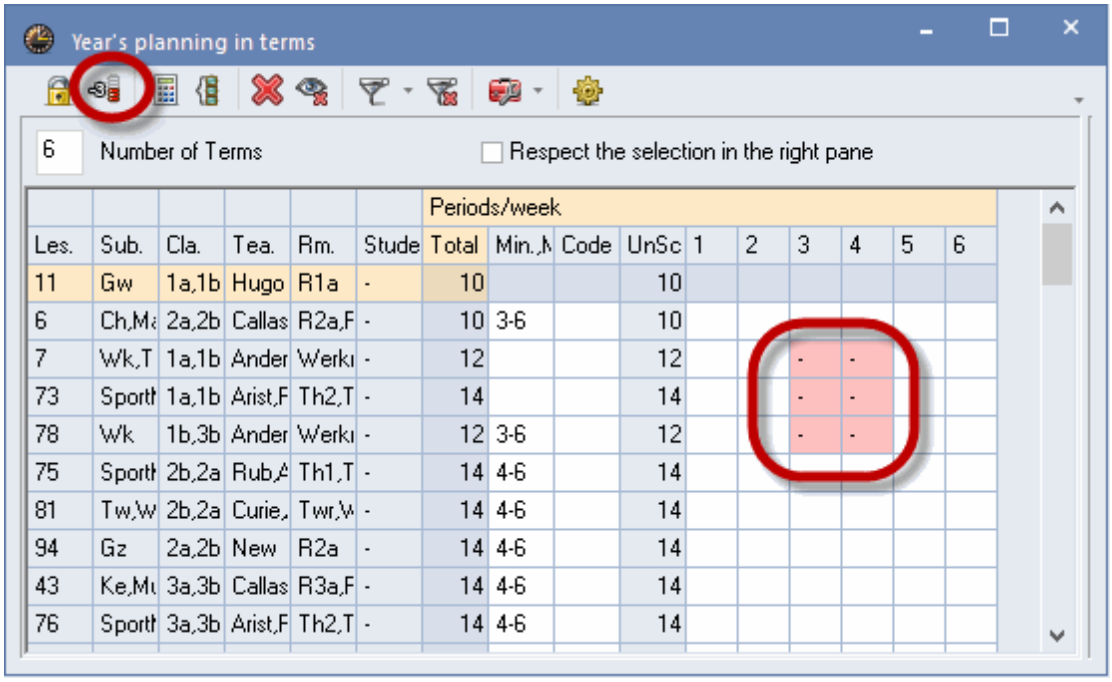


6.1.2 Blocking terms

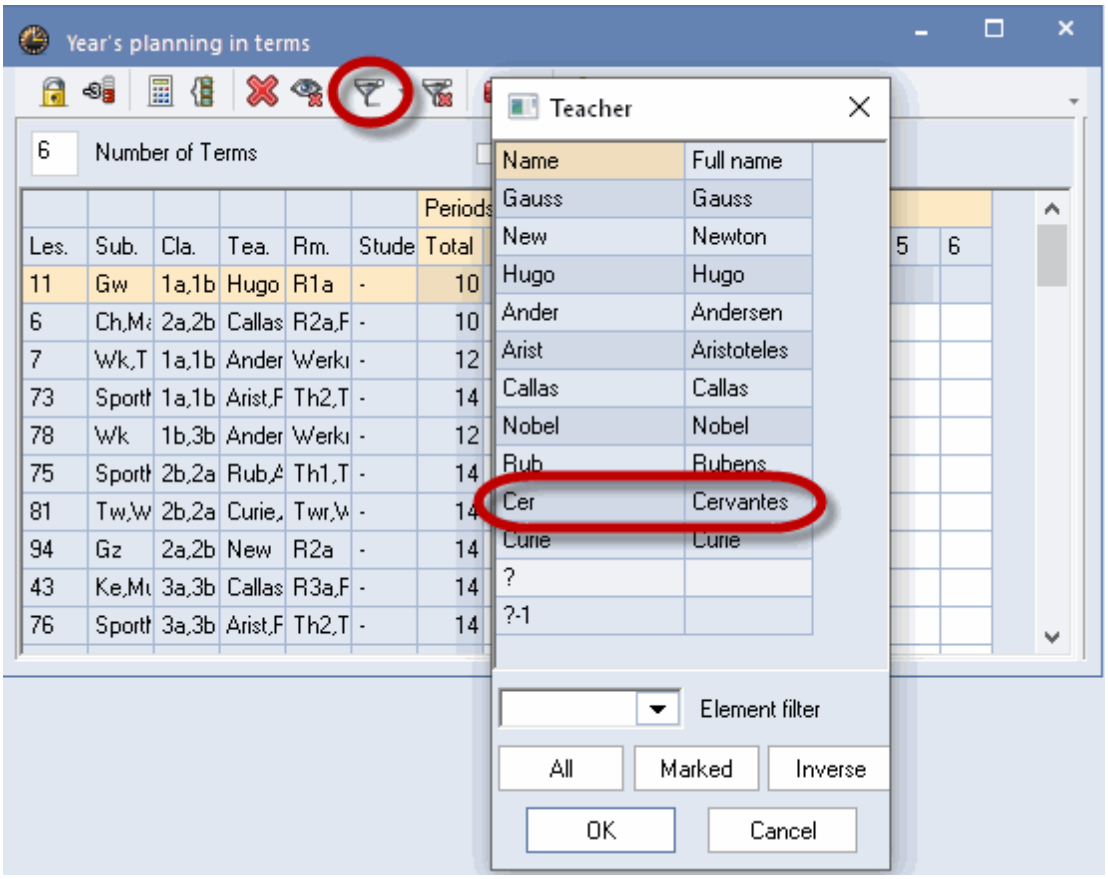
In some circumstances certain terms are not available for the whole school or for individual lessons. This occurs particularly when each term corresponds to one week and there are holidays in this week or teachers are not available during this time. These terms must be blocked in order to avoid lessons being

accidentally assigned to these periods of time.

If individual lessons in certain terms cannot be scheduled, you can also block just those lessons individually.

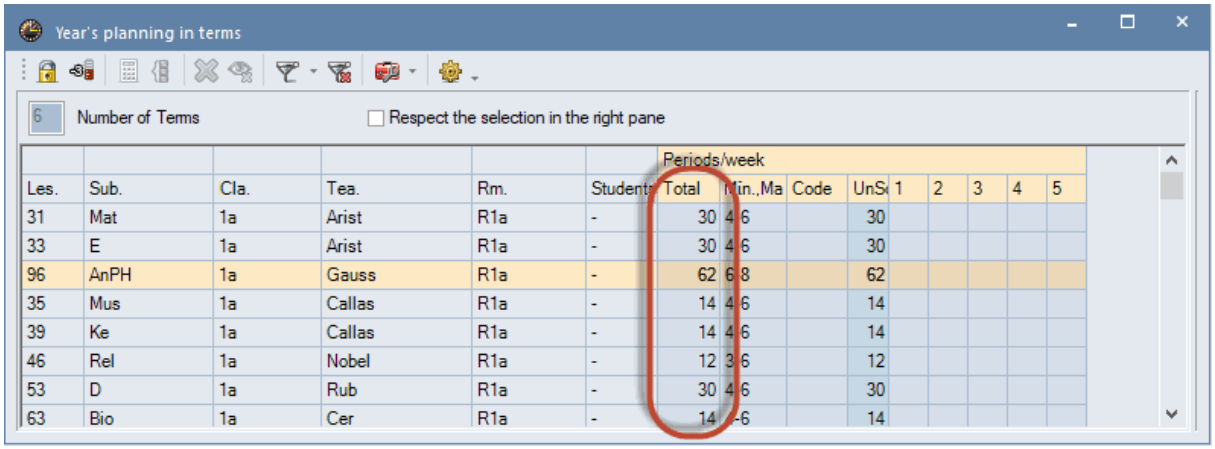


If a teacher is not available for certain terms you can easily select and block that teacher's lessons using the filter.



6.1.3 Entering total weekly periods

Enter the total number of periods per week that are to be scheduled over the terms in the 'Total' column. In the example, 62 weekly periods of the subject AnPh (anatomy / physiology) are to be spread over the school year for class 1a.



Tip: Carrying over periods from the lessons window
If you have already entered periods in a lessons window and now wish to transfer these to the year's

planning in terms, use the mouse to mark the 'Total' column, enter a '?' and confirm with <Enter>.

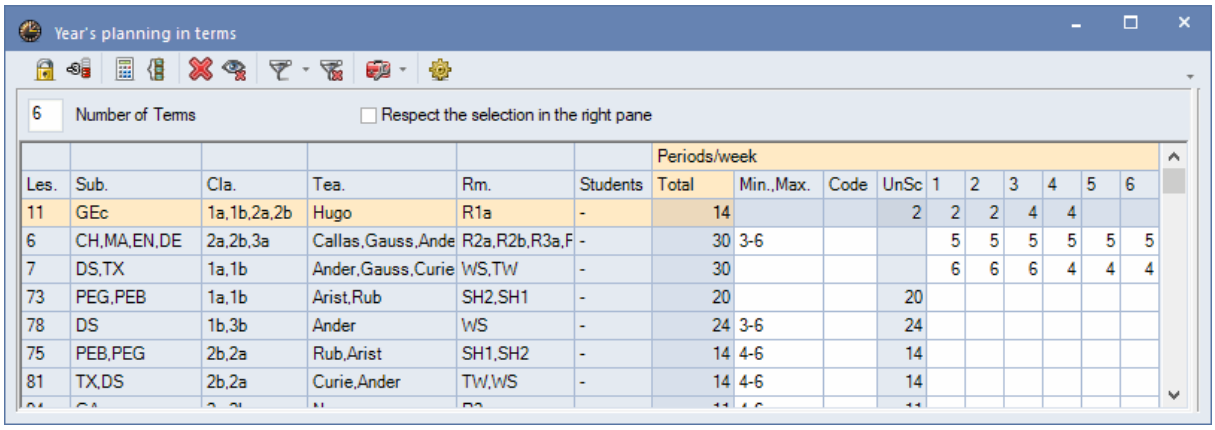
6.2 Manual allocation

You can now enter which lessons are to be held with whatever number of periods for the terms that have not been blocked with -3.

6.2.1 Entering weekly periods per term

Entering weekly periods per term You must enter the number of weekly periods for each term in the appropriate column of the left window pane.

Two periods of 'GEc' take place in terms 1 and 2 and four periods in terms 3 and 4. Five periods of 'Ch' take place all year while 'DS' is held for six and four periods.



						Periods/week								
Les.	Sub.	Cla.	Tea.	Rm.	Students	Total	Min.,Max.	Code	UnSc	1	2	3	4	5	6
11	GEc	1a,1b,2a,2b	Hugo	R1a	-	14			2	2	2	4	4		
6	CH,MA,EN,DE	2a,2b,3a	Callas,Gauss,Ande	R2a,R2b,R3a,F	-	30	3-6			5	5	5	5	5	5
7	DS,TX	1a,1b	Ander,Gauss,Curie	WS,TW	-	30				6	6	6	4	4	4
73	PEG,PEB	1a,1b	Arist,Rub	SH2,SH1	-	20			20						
78	DS	1b,3b	Ander	WS	-	24	3-6		24						
75	PEB,PEG	2b,2a	Rub,Arist	SH1,SH2	-	14	4-6		14						
81	TX,DS	2b,2a	Curie,Ander	TW,WS	-	14	4-6		14						

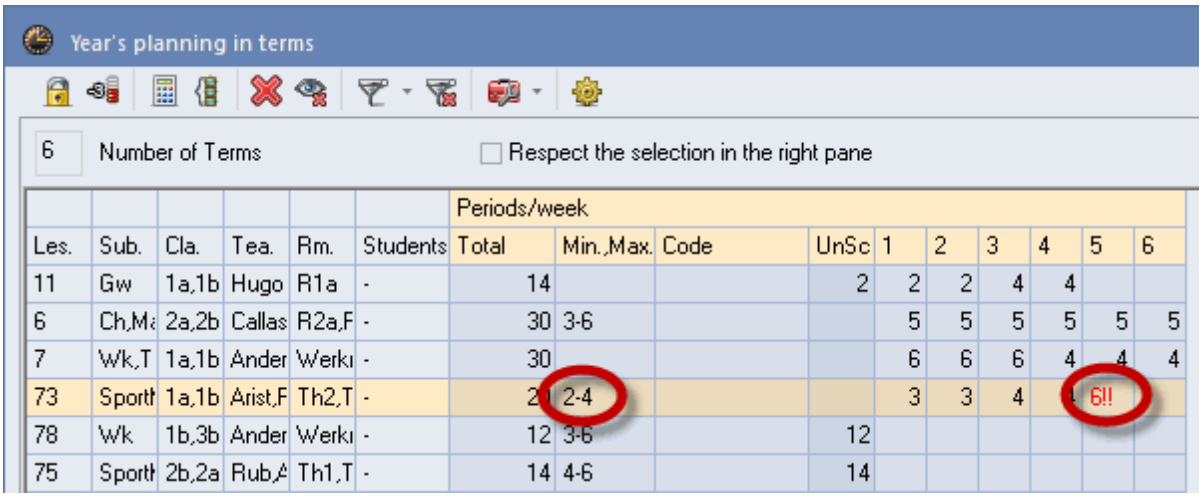
The 'UnSc' column displays the current number of unscheduled periods for this lesson.

6.2.2 Min. / max. number of periods per term

Min. / max. number of periods per term The desired minimum and maximum number of periods per week can be specified in the 'Min.,max.' column. This is particularly important for automatic scheduling but can also serve as a means of checking manual scheduling.

If a sport lesson is to be taught for at least 2 but for no more than 4 periods per week you can enter the value '2,4' 'Min.,max' field.

If this specification is not complied with, the number entered will be displayed red with “!!” warning that there is a discrepancy between the two input values.



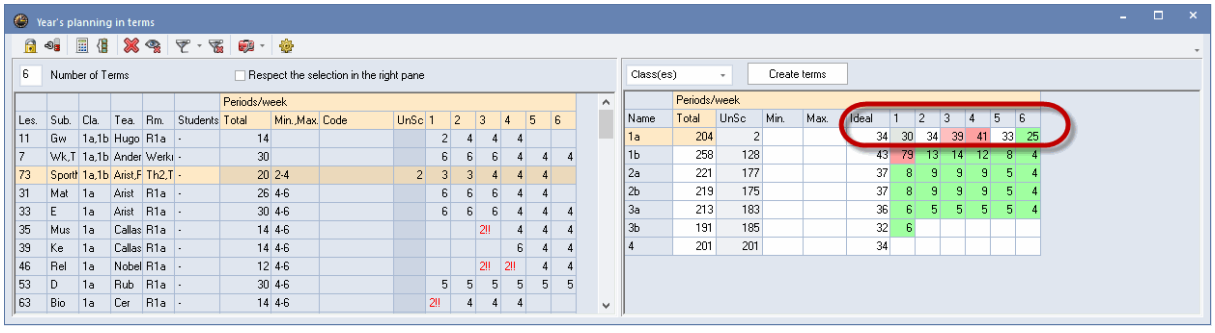
Please note that with term planning for the year the number of weekly periods entered under 'Classes | Lessons' (or in any other lessons view) has no relevance in this planning phase.

6.2.3 Week overview per term

The right window pane of 'Year's planning in terms' provides an overview of how periods are allocated over the individual weeks.

Here you can see the period totals for the individual elements. The optimum value for the allocation of all periods is displayed in the 'Ideal' column.

Any deviation in the individual term (=weekly) values from this average will be displayed in colour: red cells indicate that the number of periods for the week is too high, green indicates that the number is too low. The intensity of the colour is an indicator of the degree of capacity over- or underrun.



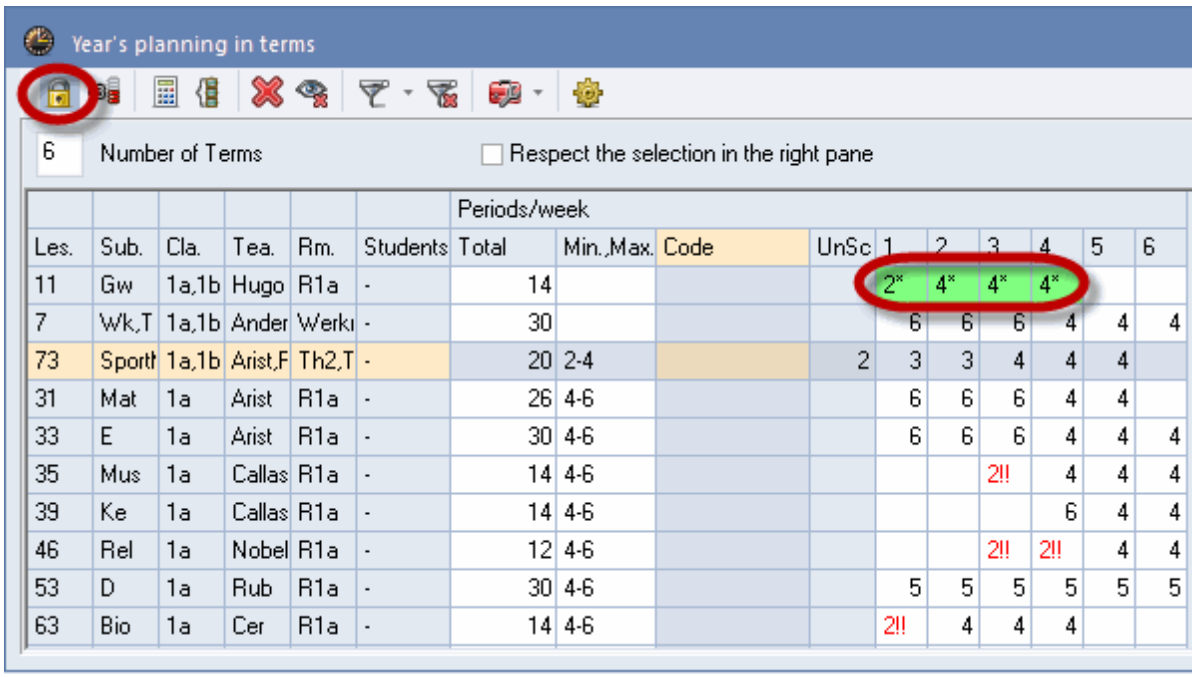
If the calculated ideal value deviates from the actual value (perhaps because the lessons are not taught over the whole year) it can be entered manually.

6.2.4 Locking terms

You can lock the allocation of the total number of weekly periods of a lesson to individual terms - for example in order to perform part of the distribution manually and to have the remainder optimised automatically.

To do this, simply select the desired area in the left part of the window and click on the <Lock> icon.

Locked areas are displayed with a '*' on a green background.

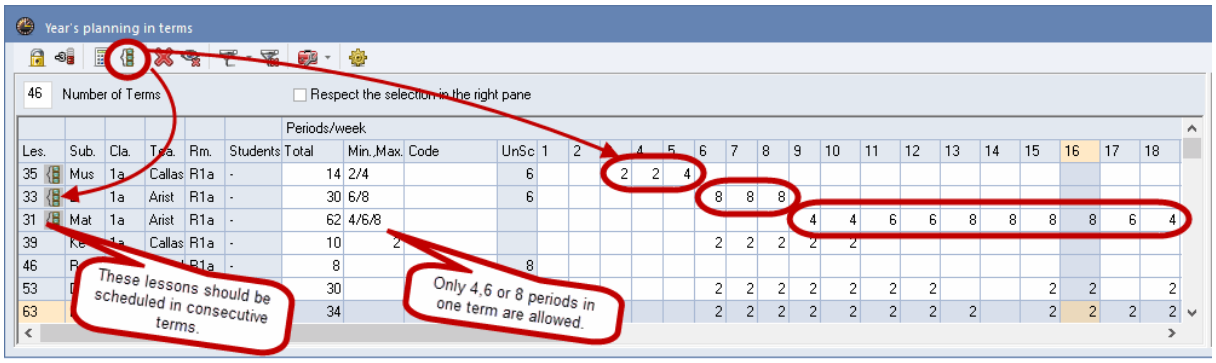


						Periods/week									
Les.	Sub.	Cla.	Tea.	Rm.	Students	Total	Min.,Max.	Code	UnSc	1	2	3	4	5	6
11	Gw	1a,1b	Hugo	R1a	-	14				2*	4*	4*	4*		
7	Wk,T	1a,1b	Ander	Werkı	-	30				6	6	6	4	4	4
73	Sportl	1a,1b	Arist,F	Th2,T	-	20	2-4		2	3	3	4	4	4	
31	Mat	1a	Arist	R1a	-	26	4-6			6	6	6	4	4	
33	E	1a	Arist	R1a	-	30	4-6			6	6	6	4	4	4
35	Mus	1a	Callas	R1a	-	14	4-6					2!!	4	4	4
39	Ke	1a	Callas	R1a	-	14	4-6						6	4	4
46	Rel	1a	Nobel	R1a	-	12	4-6					2!!	2!!	4	4
53	D	1a	Rub	R1a	-	30	4-6			5	5	5	5	5	5
63	Bio	1a	Cer	R1a	-	14	4-6			2!!	4	4	4		

6.3 Automatic allocation

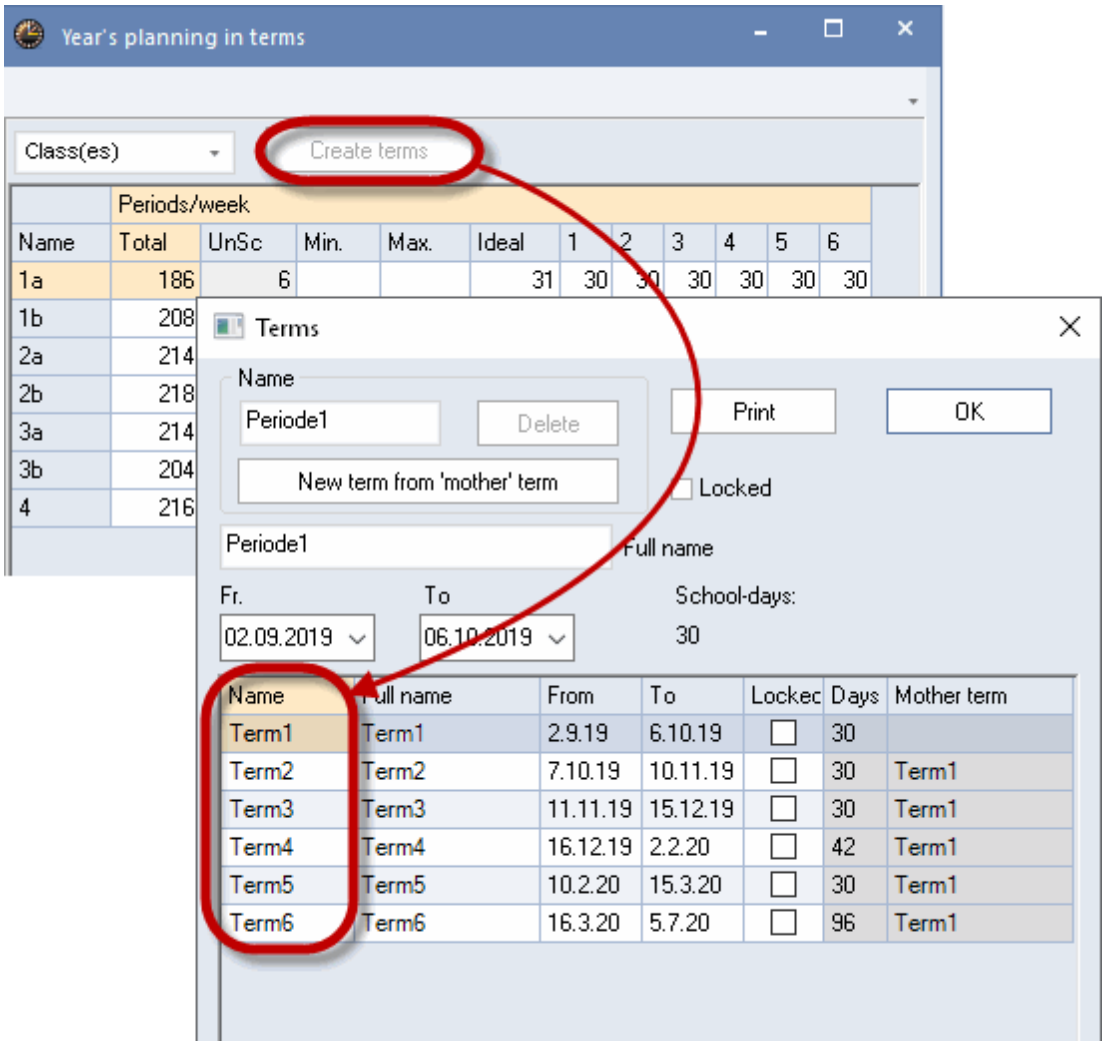
Allocating periods to the individual terms can be performed with a special optimisation procedure. The periods are allocated as evenly as possible over all the available terms in accordance with the entries in the 'min.,max.' column.

If lesson periods are to be scheduled in successive terms, they can also be blocked.



6.4 Creating terms

Once all the total periods have been allocated to the individual terms, clicking on the <Create terms> button results in the terms being created in the system, and the 'Year's planning in terms' window closes automatically. The display of lessons in the lessons window now corresponds to the allocation of the individual terms.



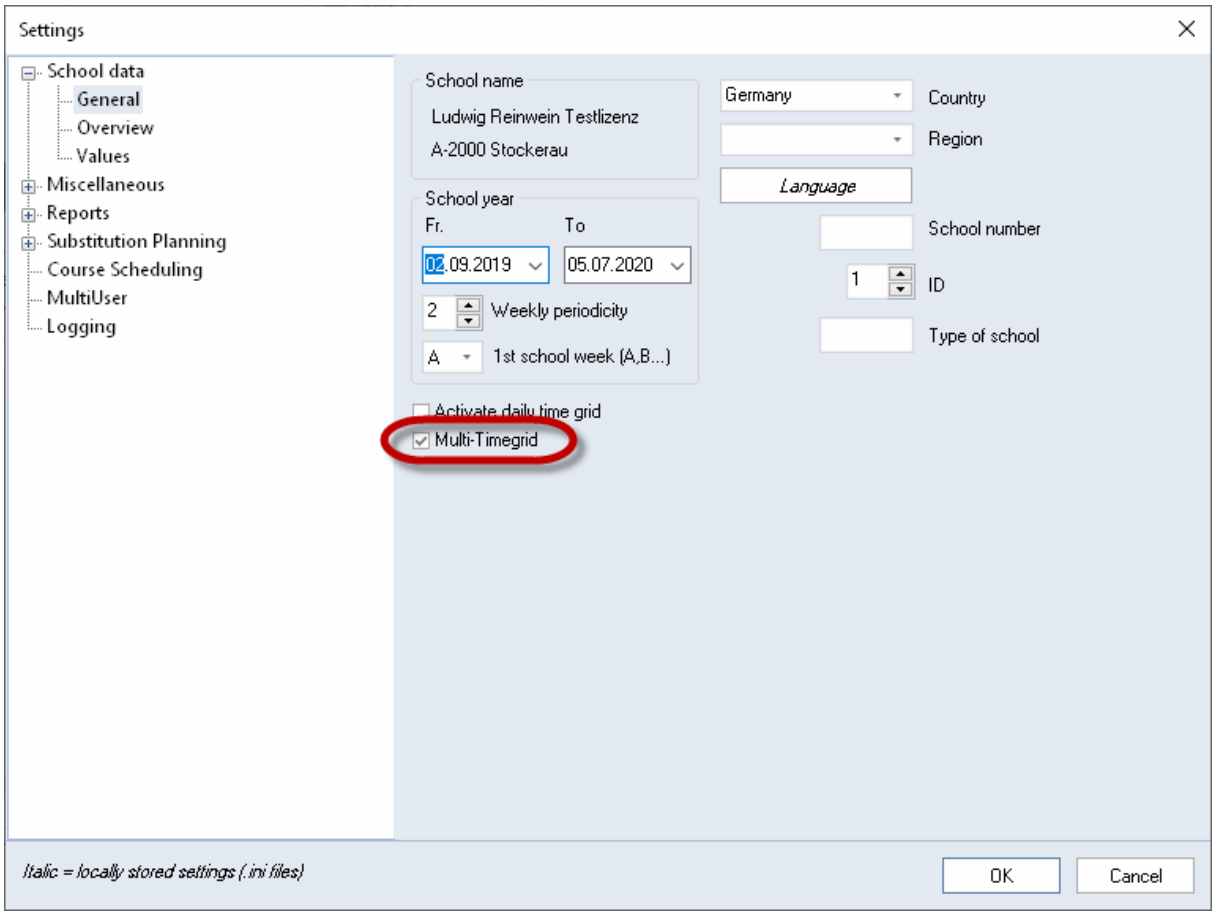
By default, terms of equal length are created. If terms are to have different lengths the dates can be changed in the terms window. You can also change the names of the terms (short name and full name) in this window.

7 Multiple time grids

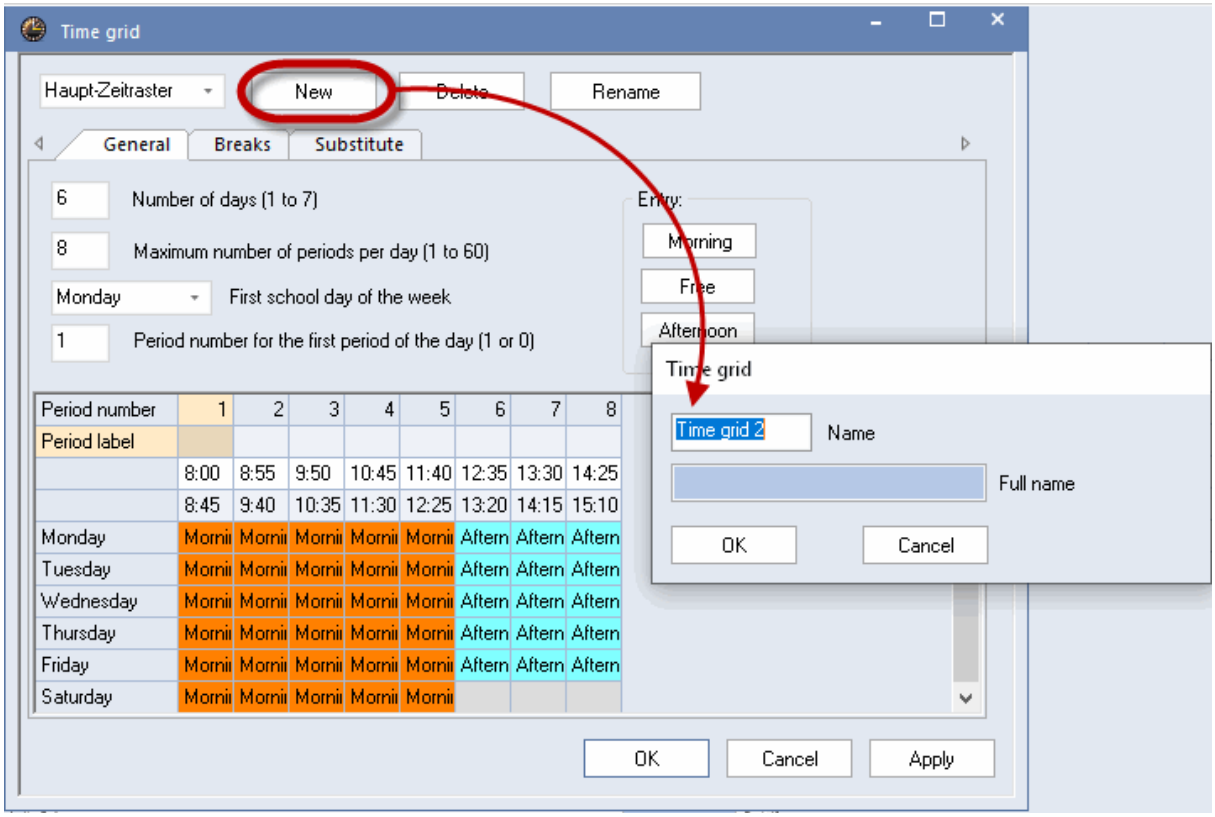
In an increasing number of schools lessons are no longer held in accordance with a single time scheme. The reason for this can be, for example, the merging of several formerly independent schools to form a single institution (community, regional or district school). Lessons for each school type (grammar school stream, secondary modern school stream etc.) may be given in their own time grid. This quite naturally makes it more difficult to set up a timetable. Untis provides support in this case with its multiple time grid.

7.1 Defining several time grids

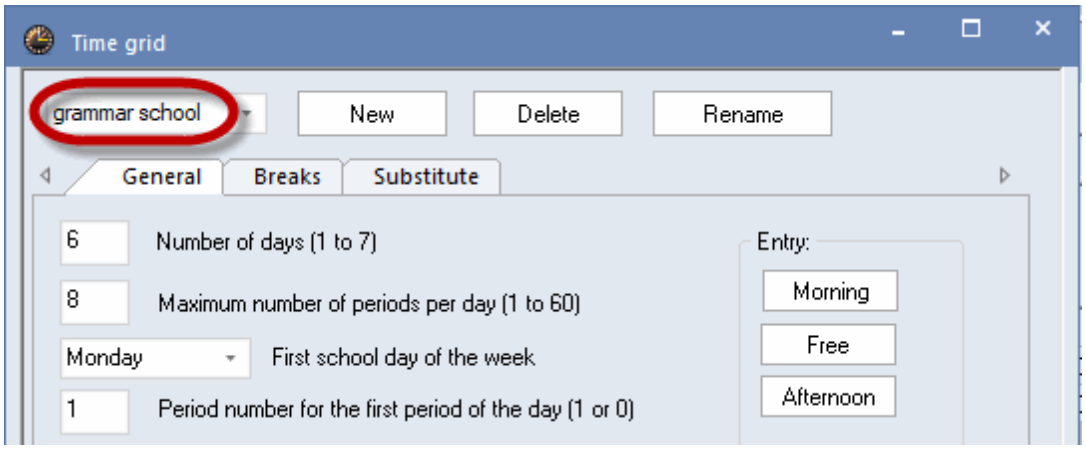
If your school uses several time grids, first make sure that the option 'Multi-time grid' is checked under <Settings> | School data'.



All time grids can now be defined under "Settings | Time grids". The main time grid is created automatically by default. Click on the <New> button to create a new time grid and enter a unique name for it.



After clicking on <OK> to confirm, the newly created time grid will be displayed in the selection list in the upper section of the window.

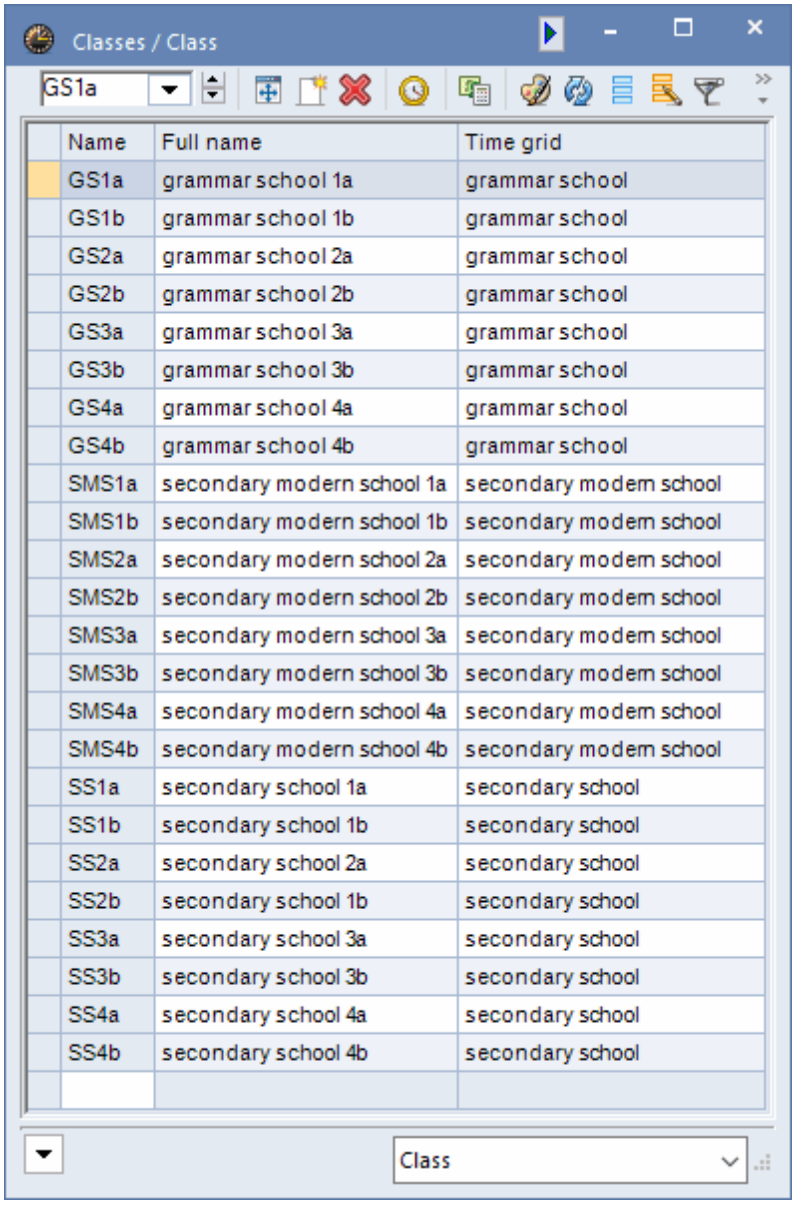


The special characteristics of the new time grid can now be defined. This generally involves specifying the start and end times for the individual periods and the boundary between morning and afternoon.

Please note that the number of days taught, the maximum number of periods per day and the definition of 'First school day of the week' cannot differ from the main time grid.

If fewer periods are taught in a sub-time grid than in the main grid, the periods not required can be

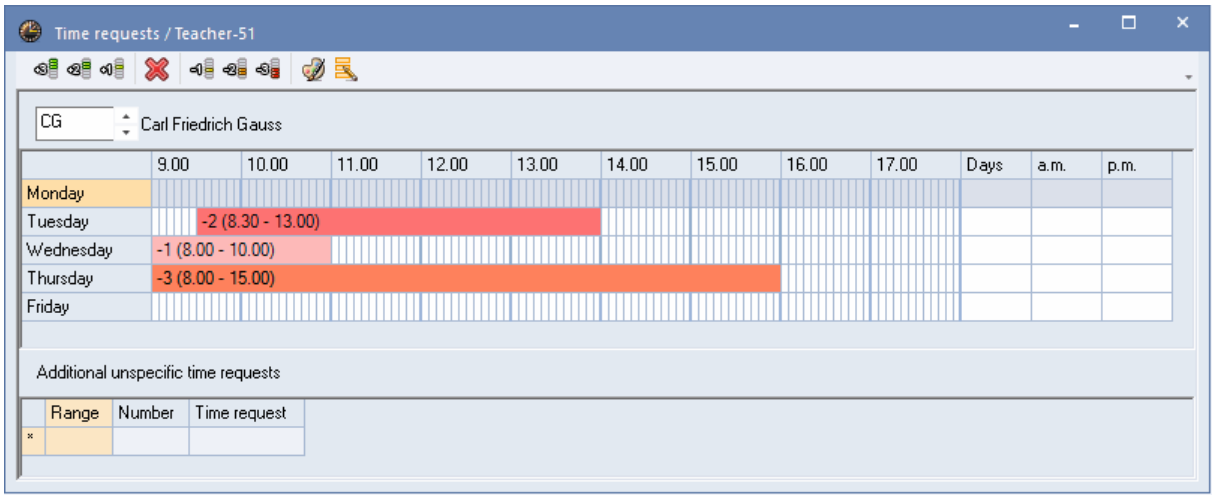
entered as time requests (blocked periods) for the classes concerned. Once all time grids have been defined, each class is assigned a time grid in the master data window.



7.2 Teacher time requests in time grids

Once time grids have been assigned to classes, it is no longer clear for teachers when for example the first period starts and finishes. In order to allow the algorithm to function freely, it is therefore necessary to be able to specify teachers' time requests using hours and minutes.

Untis takes this into account by allowing teachers' time requests to be entered in multiples of 5 minutes.



7.3 Display several time grids in timetable

If a teacher gives lessons in more than one time grid, the meaning of the period number becomes meaningless since e.g. the second period in the first time grid could correspond to the third period in the second time grid.

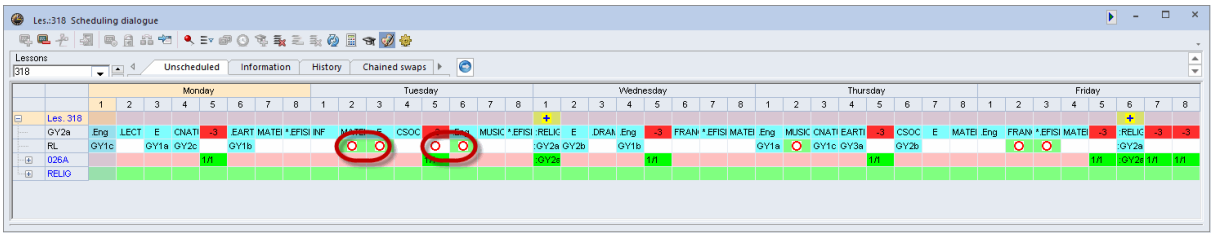
Untis therefore allows you to set the option 'TTable display in minute mode' on the 'Layout 2' tab under 'Timetable settings' in order to display the timetable in terms of minutes.

Please note that the timetable in the diagram displays the two periods on Tuesday that overlap by 15 minutes as a collision. This circumstance is also displayed in the diagnosis as a clash.

The minute mode allows changes to the timetable to be made using drag&drop. Please note that lessons in the teacher timetable can only be shifted or swapped within a class, similar to manual planning in the normal display mode.

7.4 Display time grids in sched. dialogue

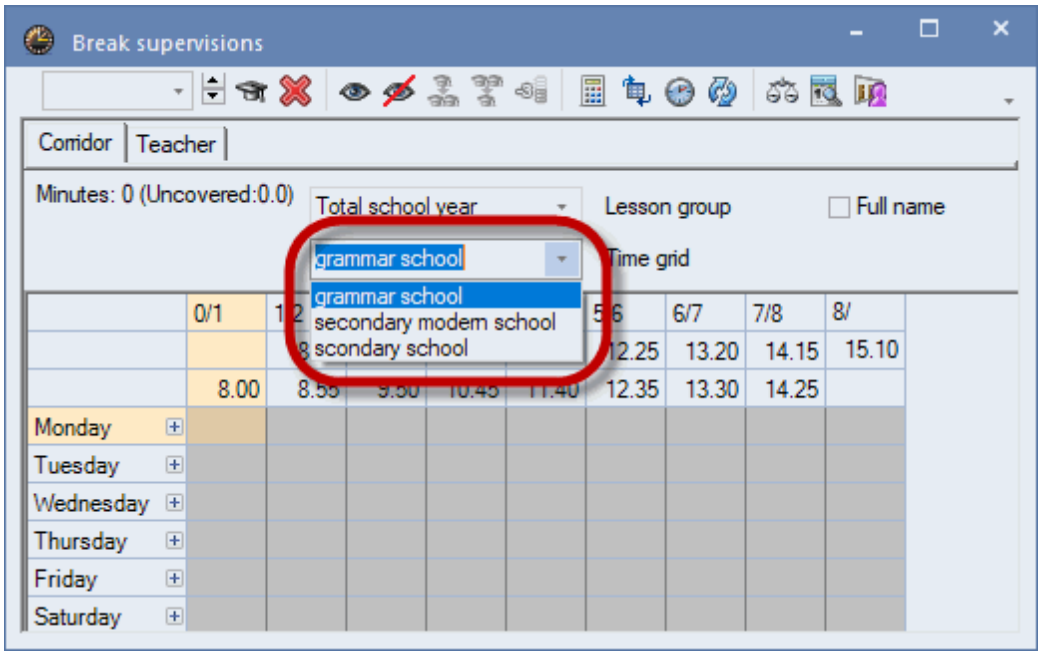
Display time grids in sched. dialogue The time grid of the scheduling dialogue depends on the time grid of the class in the active lesson. When several classes are coupled with different time grids, the first class listed 'trumps' the others. A teacher not being available due to a lesson in another time grid is indicated with a red circle. In the figure these are periods 2-3 and 5-6 on Tuesday.



Warning: Swap suggestions with several time grids
"Swap suggestions" and "Consecutive swaps" are only processed for the active time grid. Swaps between different time grids must be performed manually.

7.5 Multi-time grids and break supervision

The automatic scheduling of break supervisions also takes different class time grids into account. For this to function, the time grid must be selected in the break supervision scheduling dialogue for which supervision is to apply.



7.6 Multiple time grids and cover planning

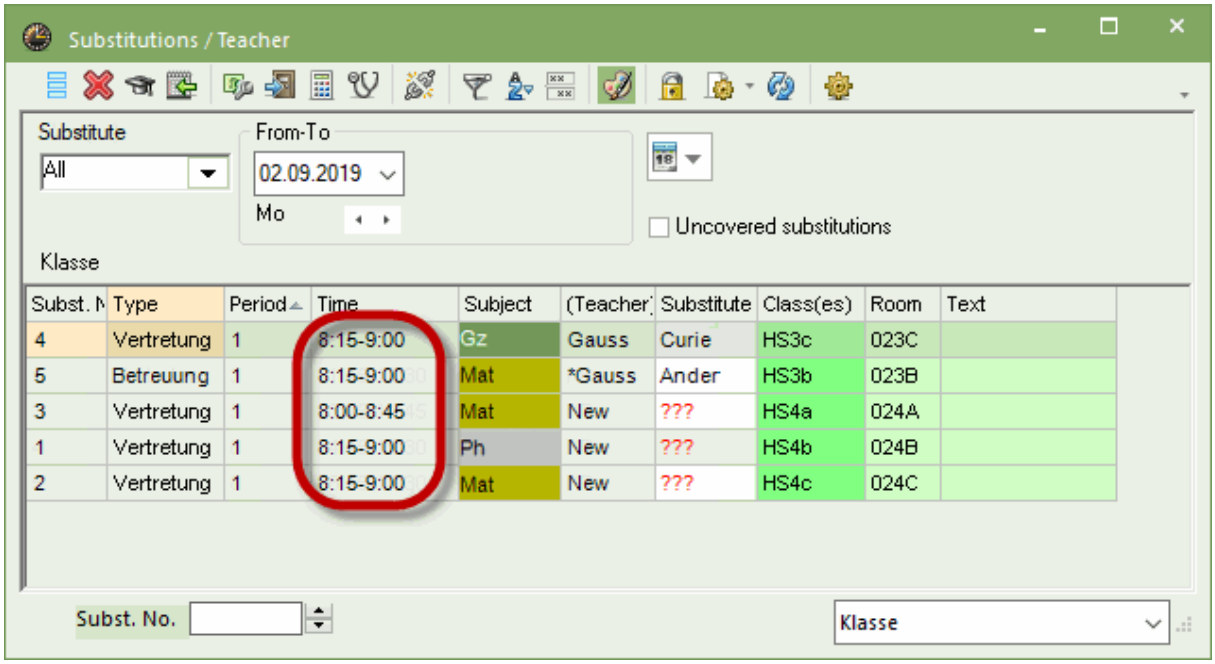
Defining different time grids at your school for different school types, departments or individual classes will of course have an effect on cover planning. The handling of the cover planning does not change to any great extent as only teachers are suggested for substitutions and shifts who can be assigned without a conflict.

Stand-bys can be scheduled in any time grid in a similar manner to break supervisions. This ensures that there are sufficient standbys at any time

Warning: break supervision and substitutions

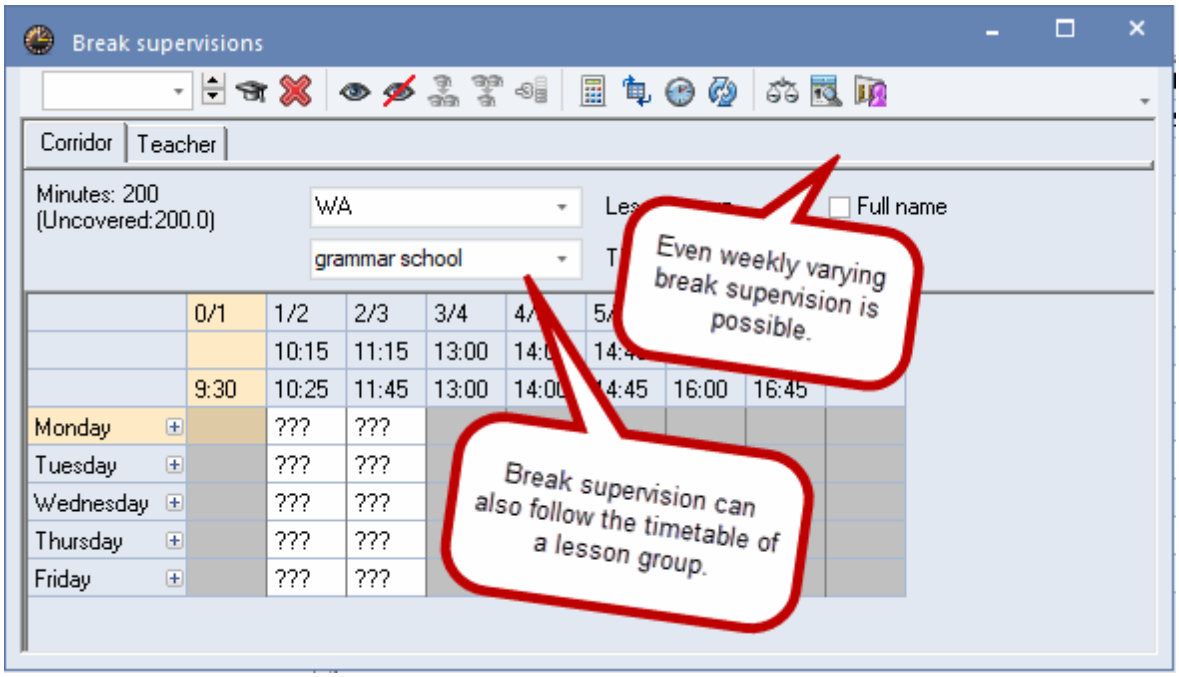
Please note that when different time grids are used, potential substitution teachers may not be available for a certain period even though they have no lesson because they have been scheduled to provide break supervision in another time grid.

The display of the substitutions shows the actual time of the substitutions as the number of the period could provide ambiguous information. For example, the second period could start either at 8.50 am or at 8.55 am depending on the time grid in which the period was scheduled.



8 Multi-week tt and break supervision

The mulit-week timetable module makes it possible to schedule break supervisions for any time ranges. Break supervisions may follow a time scheme of a lesson group, just like lessons, or may be scheduled individually for each week. For more information please go to the chapter 'Break supervisions'.


Break supervisions
Corridor
Teacher
Minutes: 200
(Uncovered:200.0)
WA
grammar school
Full name
0/1
1/2
2/3
3/4
9:30
10:25
11:45
13:00
16:00
16:45
Monday
Tuesday
Wednesday
Thursday
Friday
???
Even weekly varying break supervision is possible.
Break supervision can also follow the timetable of a lesson group.

Endnotes 2... (after index)

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