Prime Timetable Manual

2015

HTTP://WWW.PRIMETIMETABLE.COM
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GETTING STARTED

OVERVIEW

Prime Timetable is school scheduling/timetabling software that works on any device: Mac, PC, tablet, smartphone. Designed for effective and easy automated and manual timetabling, Prime Timetable can be used in primary/elementary, middle/secondary schools, colleges and universities.

Prime Timetable screenshot

For the latest manual updates visit online help: http://primetimetable.com/help. For the latest tips & tricks visit our blog: http://primetimetable.com/blog.

BASIC TIMETABLING TERMS
Interpret timetabling terms as best suits your organization, e.g. use 'college' instead of 'school' or 'pupil' instead of 'student'.

**SCHOOL**

*Institution designed to allow and encourage student groups to attend school activities under the supervision of teachers.*

**TEACHER / EDUCATOR / PROFESSOR / TUTOR / INSTRUCTOR**

*A person, who teaches, guides, instructs trains or helps another in the process of learning knowledge.*

**STUDENT**

*Learner or someone who attends an educational institution.*

**ROOM**

*Place where teaching, learning or any other school activity can occur, e.g. biology room, history room, but also dining room, reception hall...*

**CLASS / GRADE**

*Group of students or pupils attending a specific course or lesson.*

**DIVISION**

*Different set of groups forming a class, e.g. 5A class has 2 divisions: one consisting of a group of boys and girls, and the other consisting of a group of English and French students.*

**RESOURCE**

*Class, Teacher or Room*
SUBJECT / COURSE / ACTIVITY

Activity that includes at least one school resource, e.g. Math, English, Biology, but also school recess, lunch, some non-class activities like teacher meetings, sport events, etc.

PERIOD / TIME SLOT

Block of time used for lessons

LESSON / SECTION

Structured period of time where a school activity is intended to occur.

TIMETABLE / SCHEDULE

Table which displays lessons.

CARD

Visual representation of a lesson.

UNSCHEDULED CARD

Card waiting to be scheduled, temporarily placed outside the timetable.

PINNED CARD

Card locked on a specific period, meaning it won’t be rescheduled during automatic timetable generation, e.g. a timetabler is already satisfied with the card’s position.

TIMETABLE VIEW

Table that displays lessons as cards designed for drag & drop and other scheduling work, e.g. class view, teacher view, room view, 5A class view, etc.
TIMETABLING / SCHEDULING

Process of creating a school timetable/schedule.

TIMETABLER

Person who creates a school timetable.

THE BASIC TIMETABLING RULE

One school resource during one school period can be scheduled in only one lesson.
Otherwise, there is a conflict!

CONFLICT

Group of cards on the same position or overlapping each other.

WINDOW / GAP

Empty period between school activities.

TIME REQUEST

Specifying whether a particular school resource or activity is allowed, forbidden, unwanted or mandatory in a certain period.

CONSTRAINT

Requirement which should be satisfied in the generated timetable, e.g. setting that windows are forbidden for all classes.

AUTOMATIC TIMETABLE GENERATOR

Software which automatically creates a school timetable based on provided input.

MANUAL TIMETABLING
Process of creating a timetable manually by dragging cards.

TIMETABLE VALIDATION

Process of validating a timetable, e.g. verifying that there are no conflicts and that all specified constraints and time requests are met.

SCHOOL TIMETABLING/SCHEDULING SOFTWARE

Software designed to simplify timetabling/scheduling process.

SYSTEM REQUIREMENTS

Web App is designed to work on any device (desktop, tablet, smartphone...) on any OS (Mac, Windows, Linux, iOS, Android, Windows Phone OS...) and in any Html 5 capable browser (Chrome, Firefox, Safari, Internet Explorer 9+, Opera...).

Plugin App uses Microsoft Silverlight which works in your browser of choice on Mac and PC. Microsoft Silverlight is easy and quick to install. You can get Microsoft Silverlight from this location: http://www.microsoft.com/getsilverlight/Get-Started/Install

FREE SIGN UP
In order to evaluate the software and see if it meets your school needs, you first need to sign up:

- Click Free sign up on the home page
- Choose Free plan
- Type your email address and desired password and optionally provide additional school info
- Click Order now

Prime Timetable will start and a new timetable will be opened for you.

By signing up you get a 30-day free trial and premium support included. Our support team will contact you shortly after the sign up to provide you with the necessary guidance and answer any question you might have.

LOG IN

To start Prime Timetable you need to log in first:

- Click Log in in the header of the home page
- Type your email and password
- Click Log In button

After successful login, the last opened timetable will be displayed.

Check "Keep me logged in" and you will be automatically redirected to Prime Timetable the next time you visit the home page.

LOG OUT

In order to leave the app:
• Choose Owl > Log out

Your session will end and you will be redirected to the home page.

RETRIEVE FORGOTTEN PASSWORD

• Go to password retrieval page
• Type your email
• Click Send password

The password will be emailed to you so you can try to login again.

PROFILE

Once logged in, choose Owl > Profile to change your personal information:

• Set your email and password used for login
• Set your first and last name
• Click Ok.

UPDATE SCHOOL ACCOUNT

By signing up a new school account is created that can be shared with other colleagues and teachers. In order to update school account:

• Choose Help > Update Account (if you are evaluating the software choose Help > Purchase)
• Click Add more info in "Step 2. School account info"
• Enter your school name, address, contact name, phone and other info
• Click Order now

If there is more than one account for your school, contact us to merge them.
EXTEND SUBSCRIPTION

If subscription is about to expire or free evaluation period is over:

- Go to home page and log in
- Choose Help > Update Account (if you are evaluating the software choose Help > Purchase)
- Select Basic or Premium plan based on the number of teachers. Basic is up to 40 teachers and Premium is up to 100 teachers.
- If you want to take advantage of special discounts, choose billing term by dragging year slider.
- Click Order now
- Click Buy from 2CO (2Checkout)

You will be redirected to 2Checkout form where you can purchase the software online. 2Checkout supports Visa, MasterCard, Discover, American Express, Diners, JCB, PIN debit cards with the Visa or MasterCard logo, Debit cards with the Visa or MasterCard logo and PayPal. Contact us if your school doesn't support online purchase.
IMPORT FROM MICROSOFT WORD/EXCEL OR GOOGLE DOCS/SHEETS

- Open Microsoft Word/Excel or Google Docs/Sheets document and make a selection
- Use right mouse click and choose Copy
- Choose Import > Import Subjects/Rooms/Teachers/Classes/Lessons
- Right mouse click on the text field and choose Paste
- Click Import

Import from Microsoft Excel using Copy/Paste

IMPORT FROM LOCAL FILE

- Choose Open > Open from File
- Click Choose File to locate the file on your disc
- Click Open

IMPORT FROM XML

- Choose Import > Import from Xml
• Click *Choose File* to locate the Xml file on your disc
• Click *Open*
MANAGE TIMETABLES

CREATE NEW TIMETABLE

- Choose Open > New timetable
- Enter the name of the timetable document and description (optional)
- Click Ok

OPEN TIMETABLE

- Click
- Select a timetable from the list
- Click Open

OPEN EXAMPLE

- Choose Open > Open Examples
- Select example from the list
- Click Open

SAVE TIMETABLE

- Click to save changes

CREATE A COPY OF TIMETABLE

- Choose Save as > Copy of Timetable
- Enter the name of the timetable document and description (optional)
- Click Ok

DELETE TIMETABLE
• Click
• Select timetable from the list
• Click Delete

RESTORE TIMETABLE

If you delete timetable by accident, it is possible to restore it. Please contact us if you need to restore a deleted timetable.

MERGE TIMETABLES

In order to merge two timetables:

• Open base timetable in the plugin app
• Choose Import > Merge with another timetable
• Select the other timetable and click Merge.

If there is already a teacher, room, class or subject with the same name in the base timetable, it will be used as it is; otherwise, it will be added. Periods and days are also going to be merged based on the same name. If a period doesn’t have a specified name, it will be merged based on what's displayed on the screen; e.g. period interval or period number. Furthermore, all lessons from the second timetable will be added to the base timetable.
MANAGE DATA

SCHOOL NAME AND YEAR

Choose Manage > Days and Periods to set:

- School name
- School year - usually academic year, e.g. 2014/2015
- Number of days - for one-week timetable choose 5 and for the two-week choose 10
- Periods per day - number of maximum lessons per day
- Use pre-lesson? - Whether the day starts with pre-lesson

DAYS

Choose Manage > Days and Periods > Manage days

To add a new day enter a name and short name.

PERIODS

- Choose Manage > Days and Periods > Manage periods

For each period you can set an interval (start and end time) and edit its label (optional).

To edit a specific day or period just click them in the master timetable view.

CUSTOM PERIODS

In order to enter custom period interval(s) for specific day(s)/class(es)/subject(s)/room(s)/teacher(s):
• Click on a period you wish to modify and then click *Add*
• Change period interval (start time and end time)
• Choose class, subject, room, or teacher custom period
• Choose day(s)/class(es)/subject(s)/room(s)/teacher(s) where the new interval applies
• Click *Ok*

If a timetable has custom periods, the filters will appear above the periods grid where you can choose whether to show custom periods or not. If *Show custom periods* is checked, all custom periods will show up in the grid. Choose specific day and/or class/subject/room/teacher to filter custom periods.

When you enter new custom period(s), appropriate cards will be resized and repositioned based on specified custom interval.

Choose *Help > Options > Time format > 12-hour or 24-hour clock* to display custom interval inside the appropriate card.

When you drag a card, the card's shadow changes its size and position according to default or custom periods below. Thus, you will know the size and the position of the dragged card before it is dropped.
Custom period intervals in the individual view on Monday and Tuesday

SUBJECTS

In order to manage subjects/courses:

- Choose Manage > Subjects

Click Add to add a new subject, or select the existing subject to edit, delete or copy using the buttons on the right.

Each subject has the following properties:

- Name, e.g. Math
- Short name
- Color
- Difficulty: Low, Medium or High
- Allow subject to be taught more than once per day
- Insert day off if subject is taught 2 times per week
• Insert day off if subject is taught 3 times per week

The generator will try to optimize each day so that students don't get too many difficult or too many easy subjects per day. Otherwise, notifications will show adequate warnings.

If Allow subject to be taught more than once per day is checked, placing that subject more than once in a day will not be reported as an error.

If Insert day off if subjects is taught 2 times per week is checked, that subject will not be scheduled on subsequent days, e.g. having that subject on Monday and Tuesday will show an error notification.

In case that Insert day off if subjects is taught 3 times per week is checked, having subject on Monday, Tuesday and Wednesday will cause error notification for a specific class, whereas Monday, Tuesday, Thursday will be valid.

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**ROOMS**

In order to manage rooms:

• Choose Manage > Rooms

Click Add to add a new room, or select the existing room to edit, delete or copy using the buttons on the right.

Each room has the following properties:

• Name, e.g. "Computer lab", "Physics lab", "Bio lab", "Conference room", "Playground", "Meeting room", etc.
• Short name
• Color
• Tags, e.g. "1st floor, lab"
• Capacity
• Building name

In order to group rooms, specify their room tag, e.g. "1st floor". That way, it will be easier to select them when adding or editing lessons. Multiple tags should be separated with comma.

Room capacity represents maximum student seat number and can be used for optimizing room usage for students.

Building name can be used to optimize daily moves between buildings.

TEACHERS

In order to manage teachers:

• Choose Manage > Teachers

Click Add to add a new teacher, or select the existing teacher to edit, delete or copy using the buttons on the right.

Each teacher has the following properties:

• Name, e.g. John Smith
• Short name
• Color
• Maximum number of lessons in a row
• Maximum windows per week
• Maximum windows per day
• Minimum lessons to allow windows
• Allowed lesson number deviation
• Minimum lessons per day
• Maximum lessons per day
• Allowed daily number of moves between buildings

*Maximum number of lessons in a row* assures that teacher doesn't have more than specified number of lessons in a row.

*Maximum windows/gaps per week/day* can minimize teacher windows per week/day.

*Minimum lessons to allow windows* assures the teacher is teaching a specified number of lessons in a row before windows are allowed.

*Allowed daily lesson number deviation* is useful to minimize the difference between the numbers of lessons per day for a specific teacher. For instance, if allowed lesson number deviation is set to 1 and if a teacher has 4 lessons on Monday and Tuesday and 6 lessons on Wednesday, the notification will show a warning for Wednesday.

*Minimum and maximum lessons per day* will make sure the teacher doesn't have too few or too many lessons per day.

*Allowed daily number of moves between buildings* reduces unnecessary teacher moves. If required, teacher moves after the window can be ignored.

**CLASSES**

In order to manage classes/grades:

• Choose *Manage > Classes*
Click Add to add a new class, or select the existing class to edit, delete or copy using the buttons on the right.

Each class has the following properties:

- Name, e.g. 7A, Grade 8, Year 9, 5/1, V3
- Short name
- Color
- Lessons start on first period
- Whether windows are forbidden
- Whether groups have to finish lessons at the same time
- Allowed difference between maximum and minimum daily lesson number.

When forbid windows option is checked, the class will have no windows/gaps. Otherwise, error notification will be shown.

*Allowed difference between maximum and minimum daily lesson number* assures that class has nearly the same or equal number of lessons per day. For instance, if the value is set to 1 and class has 4 lessons on Monday and 6 lessons on Tuesday, error notification will be shown.

When adding a new class, the following divisions and groups will be created: one division consisting of Boys and Girls, and one consisting of Group 1 and Group 2.

## DIVISONS AND GROUPS

Each class consists of a number of divisions, and each division consists of a number of groups. In order to manage class divisions:

- Choose Manage > Classes
- Select a class on the list
• Click Divisions

A list of divisions for the selected class will be displayed. The first listed division represents the entire class.

To add a new division, click Add and a new division with its two groups will be created. To delete a division, select a division from the list and click Delete.

To add a group to a division:

• Click desired division
• Click Add group
• Enter group's name and short name
• Click Add

In Example 3, 5-A class is divided into French and German groups, and related cards are clipped so they will always be scheduled on the same position. In Egypt example, 11A class is divided into Art, Cooking and Music groups.

LESSONS

Choose Manage > Lessons to manage and filter lessons. When adding or editing lessons the following information can be specified:

• Teacher(s)
• Subject
• Class(es) and/or group(s)
• Lessons per cycle
• Lesson length: single, double, triple, etc.
• Desired room(s)
• Alternative room(s)
If there is more than one teacher holding the lesson click *More...* to add more teachers, e.g. two teachers might be needed for Physical education. Subject or course is an activity including at least one school resource, e.g. Math, English, Biology, etc.

One lesson can have any number of classes/grades and/or groups. Choose *Manage > Classes > Divisions* to manage class divisions and groups. In Example 3, French and German groups are clipped so that they will always be scheduled on the same position, and 2 classes have Physical education (PE) at the same time. Right mouse click these cards and choose *Edit lesson* to better understand the example.

*Lessons per cycle* represents the total number of recurring lessons in one cycle (5 days for 1-week, or 10 days for 2-week schedule). E.g. a teacher can have 5 English lessons in a cycle.

*Lesson length* can be single, double, triple and so on depending on default period interval. E.g. if default period interval is 30 minutes and lesson lasts 1 hour, lesson length should be set to double.

If more than one room is required click *More...* to add more rooms, e.g. Physical education might require Sports Hall and Gym. In case desired rooms are unavailable, the generator will try to allocate the lesson in alternative rooms.

### LESSON STATISTICS

- Choose *Manage > Lessons*
- Total lesson and total class count is displayed above the lesson grid
- Open class combo to filter lessons by specific class

### TEACHER STATISTICS

- Choose *Manage > Lessons*
Click the class icon in the top left corner to switch to filtering lessons by teacher.

Select a teacher from the combo to filter his/her lessons and see the total lesson count and total hours.

You can filter teacher's lessons by specific subject in case he/she teaches two or more subjects. If the teacher is not already scheduled his/her total hours will be approximated based on average period length.

**SORT**

Sort days, periods, subjects, rooms, teachers, classes, lessons and other items by clicking desired column name.

For instance, in order to sort teachers by their names:

- Choose Manage > Teachers
- Click Name column
- Click it once again to sort in reverse order

Use ✎ in the grid's bottom right corner to make current order permanent, which will also change the order in the master timetable view.

Use ☑ to cancel and revert to previous order.

**REORDER**

To reorder items in the grid:

- Select item(s) in the grid
- Use up and down arrows in the bottom right corner
**UNDO AND REDO**

Any change made in the timetable view can be undone or redone.

Click ← to undo the latest change.

Click → to redo the latest undo.

**TIMETABLING HISTORY**

Click  to see the list of all previous changes, e.g. 1 card dragged, 2 marks erased, 240 cards changed by generator, 1 card cleared, 2 positions marked as mandatory. Use mouse click to undo more actions at once.

Undo 6 actions at once using timetabling history
TIMETABLE VIEWS

MASTER VIEW

In order to change the view click the view indicator (icon below the owl) and:

- Click ![image](image1.png) to switch to the class master view
- Click ![image](image2.png) to switch to the teacher master view
- Click ![image](image3.png) to switch to the room master view
- Click ![image](image4.png) to switch to the subject master view

Switching master view

The width of master, individual and extra views can be adjusted by dragging the vertical splitter which divides the placed and unscheduled cards.

INDIVIDUAL VIEW

In order to switch to the individual class, teacher, room or subject view, click the first column in the master view. To revert to the master view, click the first column again or press Esc key or select the desired view by clicking the view indicator icon.
Individual class view can be filtered by group(s)/student(s). Click the view indicator icon to see the list of groups/students from the current individual view. Click any student/group to filter lessons. Click again to remove the filter.

Filtering individual view by specific group (7X) and student (Mark)

EXTRA VIEWS

Extra views can help avoid conflicts, as they provide additional master and individual views all in one screen. Moreover, there is no need to constantly switch between the views, as you get a clear overall picture of the whole timetable. The shadow of the dragged card appears in all opened views, so you can see whether the desired position hasn't already been scheduled in another view.

To show or hide extra class, teacher, room or subject view:

- Click any card to display active card properties in the bottom left corner
- Click the class, teacher, room or subject icon in the bottom left corner
Views are fully interactive, meaning that change in one view will be synced in all other views. The height of the main and extra views can be adjusted by dragging the horizontal splitters up and down.

Main class view with teacher and room extra views shown

In the screenshot above, the shadow of the card being dragged in the class view (last period on Monday) is displayed both in the teacher and room views, which helps finding a free time slot more easily.

To open extra view in the new window click 🔄 in the top right corner. Extra view in the new window can be freely dragged and resized.

Just like in the main view, clicking the first column will open an individual extra view.
VERTICAL ZOOM

- Click + or − to vertically zoom in or out the main and extra views

Master and individual views each have their own zoom values.

HORIZONTAL ZOOM

- Hold Ctrl/Cmd key and click + or − to horizontally zoom in or out the main and extra views

Horizontal zoom is useful when there are lots of days and periods.

BROWSER ZOOM

Zooming in and out can also be done using the browser's zoom:

- Hold Ctrl/Cmd key and press "+" to zoom in
- Hold Ctrl/Cmd key and press "−" to zoom out
- Hold Ctrl/Cmd key and press "0" to reset zoom to default value
MANAGE CARDS

DRAG & DROP

In order to drag and drop card to new position:

- Select card by clicking it with the left mouse button.
- While keeping the left mouse button pressed, drag card to a new position.
- Drop card by releasing the left mouse button.

On touch devices use finger to drag cards.

If there is already a card on the drop position, those conflicted cards will be slightly rotated. Clicking the bottom card in conflicted group will bring it to the front.

SELECT MULTIPLE CARDS

Select multiple cards in order to perform bulk actions on more than one card, like multiple drag and drop, or clip, copy, pin/unpin, merge/split etc. using context menu. There are many ways to select multiple cards:

- Use mouse to click and drag to surround desired cards with the mouse cursor
- Hold Ctrl/Cmd key while clicking cards to add or remove cards from the selection
- Hold Ctrl/Cmd key while clicking day, period or resource name to (de)select the whole day, period or resource cards
- Hold Shift key while clicking two cards to make rectangular selection between two clicked cards
- On touch device, hold card with one finger while tapping other cards, day, period or resource name with other fingers
Selecting multiple cards by surrounding desired cards with the mouse

Click empty cell to reset selection or click any non-selected card without Ctrl/Cmd or Shift key pressed to start a new selection.

**COPY CARDS**

In order to copy cards and paste them in desired day or period:

- Select multiple cards
- Right mouse click any of selected cards
- Choose *Copy*

In order to paste cards:

- Right mouse click desired day or period in the timetable
- Choose *Paste*

Copied cards will be paste into desired day or period.
REMOVE CARDS

Click the  and then click card(s)/day(s)/period(s)/resource(s) you want to remove from the timetable, or use right mouse click on any card/day/period/resource to choose Remove from the context menu. Removed card(s) will be placed outside the timetable, along with other unscheduled cards. Clicking the top right corner with sponge selected to remove the all cards from the timetable.

DELETE CARDS

- Right mouse click unscheduled card(s)
- Choose Delete from the context menu

Another way to delete cards/lessons is via Manage > Lessons > Delete.

MERGE CARDS

Merge allows combining two or more cards into the one card. In order to merge two or more cards:

- Select a card to merge with below cards or select multiple cards to create vertical selection of similar cards that needs merging
- Use right mouse click on any of selected card(s) to open context menu
- Choose Merge

Two or more cards can be merged into one card if they are on the same position, have equal subject, length and other lesson properties, but have different teacher(s) and/or class(es)/group(s). Merged card will have merged teacher(s) and class(es)/group(s) while other properties will stay the same.
Resolve conflict by merging two conflicted cards into the one

**SPLIT CARDS**

Split is the opposite of merge as it creates more cards out of the one when there is more than one group or teacher. For instance, if card has 2 teachers and 3 groups, 6 new cards will be created after split all with only one teacher and one group. In order to split card:

- Select card(s) which have more than one teacher or group
- Use right mouse click on selected card(s) to open context menu
- Choose *Split*

**CUSTOMIZE CARD APPEARANCE**
Choose *Print > Customize Card Appearance* or use right mouse click on the card to change background color, text and border for any master or individual timetable view.

Background card color can be from the current class, teacher, room or subject or no background color at all.

Card text can be a class, teacher, room or subject name or short name. Selecting the card text from a list will add it to the card, while clicking the text in the enlarged card removes it.

Card border can be set to: round, square, round (no border) and square (no border).

Choosing text, background color and border for cards in the individual class view
All style changes are preserved and saved into the current timetable document as a timetable template. Once the card appearance is customized and timetable changes are saved, the published web page will pick up the new styles as well.

When you create a new timetable document all style settings will be copied from previously opened so you don't have to tweak styles again.
**CONSTRAINTS**

**SPECIFY TIME REQUEST USING MARKERS**

Marker draws or erases forbidden, unwanted or mandatory card positions for classes, teachers, rooms and subjects. When a marker is selected, all cards fade away and all already drawn marks are filled with color making them prominent. To draw or erase marks click on any position in the timetable view or any day/period/resource with a selected marker. To drop the marker press Esc key or click outside of the timetable. Markers can be used in any master, individual or extra view and notifications will be updated upon any change.

Forbidden (red minus), unwanted (yellow exclamation mark) and mandatory (blue plus) marks in the master teacher view

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emma Willard</td>
<td>73</td>
</tr>
<tr>
<td>Jaime Escalante</td>
<td>83</td>
</tr>
<tr>
<td>Maya Angelou</td>
<td>33</td>
</tr>
<tr>
<td>Clara Barton</td>
<td>22</td>
</tr>
<tr>
<td>Alexander Graham</td>
<td>64</td>
</tr>
<tr>
<td>Roberta Flack</td>
<td>52</td>
</tr>
<tr>
<td>William McGuffy</td>
<td></td>
</tr>
</tbody>
</table>

**DRAW FORBIDDEN POSITIONS**
- Pick the red marker \( \text{\color{red}{-}} \) to draw/erase forbidden marks (displayed as red minus signs)

**DRAW UNWANTED POSITIONS**

- Pick the yellow marker \( \text{\color{yellow}{!}} \) to draw/erase unwanted marks (displayed as yellow exclamation marks)
- Mouse over the first column (resource name) to open unwanted settings
- Set allowed number of unwanted lessons per week and per day

**DRAW MANDATORY POSITIONS**

- Pick the blue marker \( \text{\color{blue}{+}} \) to draw/erase mandatory marks (displayed as blue plus signs)
- Mouse over the first column (resource name) to open mandatory settings
- Set allowed number of missed mandatory lessons per week and per day

If *allowed number of unwanted* or *allowed number of missed mandatory lessons* are set to *Arbitrary* which is a default value, unwanted and mandatory marks will be completely ignored by the timetable generator.
Marker settings when mandatory marker is selected

<table>
<thead>
<tr>
<th>COPY MARKS AND THEIR SETTING TO OTHER RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mouse over the first column while using the marker</td>
</tr>
<tr>
<td>• Click <em>Copy to</em></td>
</tr>
<tr>
<td>• Select resources and click <em>Ok</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ERASE FORBIDDEN, UNWANTED AND MANDATORY MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pick the white marker (eraser) to erase already drawn marks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PIN CARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pin 🎨 is useful when you are satisfied with the position of card(s) and want to make sure that those cards won't be moved while improving the timetable. Click the pin and then click card(s)/day(s)/period(s)/resource(s) you want to pin/unpin, or use right mouse click on any card/day/period/resource to choose pin/unpin from the context menu. To drop the pin press <em>Esc</em> key or click an empty cell.</td>
</tr>
</tbody>
</table>
Additionally, by pinning cards some notifications can be ignored.

Pinned cards have pin in the top right corner

### CLIP CARDS

Clipped cards have a little clip icon in the top left corner and will be scheduled/selected/dragged/removed all together. Only the cards that are not conflicted can be clipped. Otherwise, conflicted cards should be merged first and then clipped. Clipping can be useful in block scheduling and, e.g. when one class group has French and the other German language (see Example 3).

In order to clip two or more cards:

- Select multiple cards
- Right mouse click any of the selected cards
- Choose Clip

In order to unclip cards:

- Right mouse click any of already clipped cards
• Choose *Unclip*

Unclipping already clipped French and German groups

In order to add cards to existing clip relation:

• Click any of already clipped cards which will select all other clipped cards
• Hold *Ctrl/Cmd* key to add additional cards to selection
• Right mouse click any of selected cards
• Choose *Clip*

In order to remove cards from existing clip relation, unclip and then clip again or:

• Click any of already clipped cards which will select all other clipped cards
• Hold *Ctrl/Cmd* key to remove card from existing clip relation
AUTOmatic generation

IMPROVE TIMETABLE

Click to start improving the current timetable. Automatic generator will find the best solution by rearranging cards in order to solve all constraints and avoid any conflicts. During the generation process, pinned cards won't be moved and if needed some cards can be ignored. Total generation progress is displayed in the window title as well as progress for specific categories: card conflicts, forbidden periods, class windows, same day subjects, unwanted or mandatory periods, class and teacher warnings.

Automatic timetable generation
• The recommended approach is first to generate a timetable without any constraints and then gradually add them.
• The generator will always try to find a better solution no matter how hard the constraints are. If there is no progress for a couple of minutes or so, stop the generator and revise constraints or data.
• Always follow basic timetabling rule: *One school resource during one period can be scheduled in only one lesson, otherwise, there is a conflict.* In some cases you need to add more than one group/class/teacher/room in the lesson, in order to resolve this.
• Generator can ignore specific cards, e.g. lunch or teacher meetings.
• The pin can also help you ignore some errors and warnings. Just pin the problematic cards and notifications will disappear.
• Open notifications first using 🔔 and keep it open while improving timetable.
• All changes can be reverted by using undo and redo and there is also a history icon which lets you see all previous changes and undo one or more actions.

**GENERATOR PRIORITY LEVELS**

Automatic generator is supposed to solve about thirty highly complex requirements. Since these are commonly conflicted and it is usually impossible to solve them all, priority levels have been introduced, which the generator manages in the following way: lower priority requirements will not be solved as long as there are unsolved higher priority requirements.

The problem is that the generator is not always capable of detecting that some requirements cannot be satisfied and will keep trying to solve them at all costs, perpetually working without progress, leaving the rest of the timetable in poor state. That's why it is necessary to prepare quality data in order to help the generator do its best. Notifications are an irreplaceable tool for this task. However, some of the oversights made while entering data cannot be seen even in the notifications. The problem can be solved only if you abide by the following rules:
- Do not expect an instantly perfect timetable, because it is impossible to know beforehand whether such timetable is even possible
- At first, set moderate requirements and let the generator automatically create the timetable
- Only when you manage to get a valid timetable should you gradually increase the requirements and start the automatic improvement again

The generator recognizes three levels of priority, each consisting of a number of individual requirements:

**1 - FATAL ERROR LEVEL**

This group includes:

- cards scheduled on forbidden positions
- card conflicts
- class windows

As long as any of these errors exist, the generator will not be working on improving the rest of the timetable. Here are some typical beginner mistakes that should be avoided at all costs:

- A teacher/class has so many forbidden periods that some of his cards must be placed on a forbidden position
- There are more lessons you want to put in a room than the total number of periods in the timetable
- Too many forbidden positions for a specific lesson and related resources

**2 - DIFFICULT WARNING LEVEL**
Difficult warning level includes only one item: a subject appears in some class timetables more than once a day. You should make sure to enter as many subjects as really taught in the school and choose the right subject for each lesson.

3 - WARNING LEVEL

There are over twenty different warnings that will often appear in notifications. The generator will solve them only when all other errors and warnings have been solved.

NOTIFICATIONS

Bell icon shows or hides the notification panel which lists all fatal errors and warnings. Notification number (in the bell's corner) shows the total number of errors or warnings and is updated along with all notifications upon any timetable change. For instance, you can drag and drop cards, improve the timetable, draw marks, undo/redo or make any other change and get instantly notified when errors and warnings are fixed or created.
Notification panel shows current errors and warnings

The timetable is valid if there are no notifications, which means that all entered requirements and constraints have been resolved. The red notification indicates that the timetable has a fatal error which needs to be fixed, whereas the blue one represents only a warning.

When red or blue notifications are clicked, related flashing cells will appear in the master timetable view, making it easy to identify where the problem is.

**IGNORING NOTIFICATIONS**

Although notification number can be hidden by unchecking Help > Options > Show Notification number, it is recommended to keep it visible in order to resolve each error and warning. However, there might be situations when specific card conflicts and other errors and warnings should be ignored. One way to ignore such notifications is to
pin related cards with 🕒. In case of class/teacher window warning, you can mark window position as forbidden using 🍒. The system is smart enough to understand your intention and notifications will be instantly removed.

The notification "subject appears more than once in a day" can be resolved by checking Manage > Subjects > Select specific subject > Edit > Allow subject to be taught more than once per day.

There is also an option to ignore specific subject, room, teacher or class, so they are completely excluded from notifications and timetable improvement process:

- Set "-" (minus without quotes) as a short name for the item you want to ignore. For instance, set short name to "-" for Lunch subject or Gym room.

- Check Help > Options > Ignore items with short name set to "-".

That way, all card conflicts and other errors and warnings related to lunch or Gym room will be completely ignored and won't be automatically improved.
PRINT

PRINT CURRENT VIEW

In order to print the current master or individual timetable view:

- Choose Print > Print Timetable

Timetable will be stretched to fit paper width. If the master timetable doesn't fit paper height it will be automatically split into several pages. The recommended approach is to choose landscape paper orientation while printing master timetable. Use zoom in/out to adjust row height.

PRINT INDIVIDUAL TIMETABLES

In order to print all individual timetables:

- Switch to desired class, teacher, room or subject master view
- Choose Print > Print Individuals

Software will go through all individual timetables in the current master view and print them on separate pages. The recommended approach is to choose portrait paper orientation while printing. Use zoom in/out to adjust row height.
SHARE

SHARE WITH OTHERS

Choose *Share > Share with others* to manage people who have access to school timetables. The following roles are available:

- Owner
- Creator
- Viewer

The *owner* is a person who created the school account and has the highest privileges. The owner can add or delete other owners, creators or viewers.

The *creator* can create and change timetables but can't manage, add or delete other people who have access.

The *viewer* can only view timetables and is not allowed to move cards or save changes.

TIMETABLE COLLABORATION

Timetablers can collaborate on the same timetable and at the same time. All saved changes will be synchronized and merged across any device you or your colleagues might be using.

In the edge case when merging is not possible, e.g. timetablers have made different changes to the same resource at the same time and saved changes, the software uses "last save wins" concurrency model.

PUBLISH TO THE WEB
A teacher, class/group or student can have direct access to their timetable simply by bookmarking the web page which shows it. The published web page is accessible from any device, including phones and tablets, and is automatically updated when the timetable is saved. Furthermore, the page will automatically refresh within minutes to make sure the latest timetable changes have been delivered to all.

In order to publish a timetable and share it with others:

- Choose Share > Publish to the Web
- Click Publish to the Web

To stop publishing:

- Choose Share > Publish to the Web
- Click Unpublish

CUSTOMIZE PUBLISHED TIMETABLE

Choose Share > Publish to the Web to customize the published timetable:

- Choose initially displayed master view
- Choose a desired timetable skin
- Choose time format: period numbers, 12-hour or 24-hour clock
- Check whether switching view is allowed

When done, copy and share the provided link or visit the published web page.

EMBEDDING TIMETABLE IN THE SCHOOL WEB SITE

The published timetable can be embedded into your school web site using html code. Contact us if you are interested in this option.
**EXPORT**

**EXPORT TO MICROSOFT OFFICE OR GOOGLE DOCS/SHEETS**

- In the plugin app open desired data grid
- Make a selection
- Press Ctrl/Cmd + C (copy keyboard shortcut)
- Click on Microsoft Word/Excel or Google Docs/Sheets document and press Ctrl/Cmd + V (paste keyboard shortcut)

**EXPORT TO LOCAL FILE**

- Choose Save as > Local File

Timetable will be downloaded to your disc as an JSON file which you can open later.

**EXPORT TO CSV FILE**

- In the plugin app choose Save as > Smartschool
- Choose folder where you want to save CSV file
- Click Save

The columns in the exported CSV file are: lesson number, class short name, teacher short name, subject short name, room(s) short name, day of the week and hour of the day.

**EXPORT TO IMAGE**

To export current timetable view as an image:

- In the plugin app choose Save as > Jpeg Document
• Browse to local folder where image will be saved
• Enter the name of image file
• Click Save

EXPORT TO HTML

• In the plugin app choose Save as > Html Document
• Browse to your local folder where file will be saved
• Enter the name of Html file
• Click Save

EXPORT TO INDIVIDUAL VIEWS HTML DOCUMENT

To export all individual views of the currently displayed master view:

• In the plugin app choose Save as > Individual Views Html Document
• Browse to your local folder where file will be saved
• Enter the name of Html file
• Click Save

EXPORT TIMETABLE TO XML

• In the plugin app choose Save as > Xml Document
• Browse to your local folder where file will be saved
• Enter the name of Xml file
• Click Save

EXPORT TO PDF
Any master or individual view can be exported to PDF. Export to PDF is built-in on Mac while printing. On Windows you need to install a PDF printer to be able to export to PDF.

There is also an option to export the published web page to PDF using various free online tools. For instance, if your url to published timetable is this one: http://www.primetimetable.com/publish/?id=69e5bf8d-74a5-4984-b9a0-03d59c806a7d you can copy published url and paste it on this web site http://pdfcrowd.com and it will convert the web page to PDF for free.
APPLICATION OPTIONS

Choose Help > Options to customize the following application options:

Skin

Choose application skin.

Save reminder

Set save reminder interval. Default value is 20 minutes.

Default view

Selected master view will be displayed when application starts.

Time format

Choose period numbers, 12-hour or 24-hour clock for displaying period intervals.

Preferred app

Choose between web and plugin app. The web app is recommended choice since it works everywhere and will be automatically opened if you are using tablet or smartphone. The plugin app can be used for printing or exporting and as desktop application on Mac and PC.

Rotate conflicted cards

Set whether or not conflicted cards should be rotated. This option is checked by default.

Show notification number
Set whether notification number in the top right corner should be shown or hidden.

*Ignore items with short name set to "-"

Any subject, room, teacher or class with short name set to "-" will be completely excluded from notifications and timetable improvement process if this option is checked. For instance, set short name to "-" (minus without quotes) to Lunch subject or Gym room and all related notifications will be instantly removed.

*Install Prime Timetable (plugin app only)*

Click *Install Prime Timetable* to install software on your computer. You will get the newly installed program in Program Files and a new desktop icon. Starting Prime Timetable from your desktop allows you to access your timetables whenever you want with or without Internet connection.
APPENDIX

KEYBOARD SHORTCUTS

GENERAL

- Save timetable changes - [Ctrl + S]
- Full screen mode - F11
- Open timetables - [Ctrl + 0] or [Ctrl + Alt + 0]
- Undo - [Ctrl + Z]
- Redo - [Ctrl + Y]
- Close window - Esc

VIEWS

- Switch to class view - [Ctrl + 1]
- Switch to teacher view - [Ctrl + 2]
- Switch to room view - [Ctrl + 3]
- Switch to subject view - [Ctrl + 4]
- Revert from individual to master timetable view - Esc

DATA GRID

- Add new item - Insert or (+)
- Edit selected item - Enter
- Delete selected item(s) – Delete
- Multi-selection - [Ctrl + click]
- Range-selection - [Shift + click]
- Select all items - [Ctrl + A]
• Switch to previous/next tab – Left/Right arrow

USEFUL LINKS

Video tutorials - https://www.youtube.com/user/schedulty/videos

The latest online help – http://primetimetable.com/help

Timetabling tips & tricks blog – http://primetimetable.com/blog

Request a new feature - http://primetimetable.uservoice.com

Facebook page – http://facebook.com/PrimeTimetable

Twitter - http://twitter.com/primetimetable