

# R-Reserving on the Container Block Screen

For entering Container Blocks see the 'wizard' in Section D6 of your Manual, and see the HelpMovie.



For background information on Container Blocks, when (**not**) to use them, how they work, the meaning of 'Spread', etc, see sections H24-25 in your Manual, and the HelpMovies.

Container Blocks are the most complicated aspect of **TimeTabler** (and they should only be used when necessary, see sections H24 and H25 in your Manual, and the HelpMovies). Please read all the pages in this document before you start using this screen.



When you open a Schedule, if **TimeTabler** detects that you have any unassigned Container Block lessons in the loaded batches, then it **automatically R-Reserves** some time-slots for those lessons, and offers you the choice of:

[Accept the Reserved periods](#) ✓

[View the Reserved periods](#)

We recommend the second one, so that you can view what **TimeTabler** has done, and you can tweak the R-Reserved time-slots if you wish, using the information on pages 2 – 6.

The purpose of R-Reserving is to Reserve the best periods (time-slots) to be used in FIT 'musical chairs' moves by your teaching groups within the strict confines of the Container Block.

The 'musical chairs' moves can be used in these Reserved time-slots, both

- during the initial placements of the activities in the Container Block, and **also**
- later, when other activities are being scheduled for other Year-groups.

In order to fit these later activities, the items in the Container Block will be moved around by FIT.

When you select [View the Reserved periods](#) you will see the Container Block Screen as shown on page 4. Check the columns at the right-hand side. The 'Res' column should now have the same number as the 'Spr' column (and should have turned green).

If the Auto-Reserve has **not** managed to achieve that, then you have to **manually** complete the R-Reserving. In doing this you will use all that you know about your school, and the analysis that **TimeTabler** provides for you (see the following pages).

When every item in the 'Res' column is green, then you can leave the Container Block Screen.

**TimeTabler** will take you to the scheduling screen, and will:

- set up the Filter so that only the Container Block lessons are on the Priority List, and
- suggest that you click on **Go** and then choose **Fully-automatic**, which will schedule the Container Block lessons very quickly (providing the R-Reserved time-slots have been chosen well).

It is usually best to assign Container Blocks in this way before assigning other activities.

On the next pages:

page 2 : Two key points : Reserving the correct number and in a compatible pattern.

page 3 : Interpreting the 'Scores' and other data on the screen.

page 4 : Suggestions for the best way to use the screen.

To look for a **later** version of this PDF, click on [Support Centre](#)  
to go to the 24/7 Support Centre, and then type 'reserving' in the Search Box:



## Two Key Points if you are Reserving or Tweaking manually

There are 2 key points to bear in mind while you are considering the best time-slots to R-Reserve:

### 1. Number

The first key point is that you must R-Reserve the **correct number** of time-slots.

The 'Spr' (Spread) column at the right-hand side tells you the target number to Reserve:

The 'Res' (Reserved) column at the right-hand side tells you how many have been reserved so far. In this example, only 5 of the required 8 time-slots have been R-Reserved so far:

The cell changes colour (from red) to **Green** when the correct number has been R-Reserved.

Spr	Res
8	5

### 2. Pattern

The second key point is that you **must** R-Reserve the time-slots **in a valid pattern**.

For a 'consistently-setted' Container Block in the main school this may be straightforward, but for Blocks in the Sixth Form (Years 12 & 13) you may need to be careful. There are 5 examples below.

**Note 1 :** If you use **Auto-Reserve** then you must **first** enter the Period-breakdown in this valid Pattern.

**Note 2 :** If you have added extra 'Spread' then you need to enter a valid Pattern for the **total** periods.

#### Example 1

Suppose all the subjects in a Year 12 block have a **DDD** pattern.

ie. they were all entered like: 12A **DDD** KJo

In this simple case it is clear that the pattern on the timetable must be three Double time-slots. **DDD**

#### Example 2

Now consider a Year 12 block with split teaching.

Suppose some subjects have **DD + D** [ie. one teacher of this subject teaches for 2 Doubles and the other teacher of this same group of students teaches one Double].

And suppose some other subjects in this same Block have a **DS + DS** pattern [ie. one teacher teaches a Double and a Single, and the other teacher of this group also teaches for a Double and a Single].

The two singles of the **DS + DS** subjects can join to make a Double (ie. a Double for the students, but 2 Singles for the staff). So you must R-Reserve a **DDD** pattern (only).

No other pattern is compatible with both the **DD+D** and the **DS+DS**.

#### Example 3

The following patterns (for different subjects/rows in the same block) are all compatible:

**DDDD** (ie. a single teacher, teaching all 8 periods)

**DD + DD** (2 teachers sharing the subject's teaching)

**DDD + D** (2 teachers sharing the subject's teaching in a different way)

**DSS + DSS** (the Singles of different teachers must pair up to form Doubles for the students)

**DS + DSS + S** (3 teachers sharing the teaching of this subject; the Singles must pair up correctly)

In each case you must R-Reserve **DDDD**. It is the **only** compatible pattern. No other pattern will work.

#### Example 4

In example 3, the 8-period allocation could have a 'Spread' of +1. ie. 9 periods are available on the schedule. (See Section H25 in your Manual). In this case you could R-Reserve:

- a pattern of **DDDT** [helps the first 4 patterns in example 3, where T is a Triple], **or**
- a pattern of **DDDDS** [helps the last 2 patterns in example 3],

but of course not both. See also Section 12.6 in 'The Timetabler's Cookbook'.

#### Example 5

If the Subjects in the 6 rows of an 8-period block were:

subject/row 1: **DDDD**

subject/row 2: **DDSS**

subject/row 3: **DD + DSS**

subject/row 4: **DDD + SS**

subject/row 5: **D + DSSS**

subject/row 6: **SSSSSSSS**

then these are incompatible and it is **impossible** to R-Reserve a suitable pattern of 8 periods.


You would have to resolve this problem with your colleagues before you could start R-Reserving.







## Interpreting the Container Block Screen

If you wish to tweak the R-Reserved time-slots after **TimeTabler** has done its automatic reserving then the numbers and the colours on the Container Block Screen help you to decide the best time-slots.

You will normally focus on the **Score** row.

Sometimes you will find it useful to click on  Show Details to see the greater detail in the green cells.

Looking at the diagram:


- It shows a Container Block in Year 13, with just 2 of the time-slots visible (Monday 1-2).
- This Container Block A has 4 rows. Their Class Scheduling Names are 13A, 13B, 13C, 13D, and they have row-labels of **p**, **q**, **r**, **s**.  
On the final Printouts you can show the Class Names and/or the row-labels.
- The Subject on row **p** is En (English).  
The (2) shows that this Subject is split between 2 teachers (see page 2).  
On row **q**, Hi (History) is taught by just (1) teacher.
- Looking now at the 1st time-slot, for Monday-1.  
The green cells in this column show that both English teachers (for row **p**) are free to teach in this Container Block in this period. And the History teacher (for row **q**) is also free. Similarly for **r** and **s**.  
To see *who* the 2 English teachers are, hover your mouse over that green cell.  
The total 'Score' for this time-slot is  $2 + 1 + 1 + 2 = 6$ .  
This total is shown at the top of the column, in the Score row.
- On the Score row, the left-hand cell is saying **Score /6**:  
This means that the maximum score for this Container Block A is 6.
- Because the Monday-1 time-slot has a maximum Score of 6 (for this Block), the 'Score' cell at the top is coloured pale-blue to show you at a glance that it has the maximum score.  
This is a good time-slot to R-Reserve (by double-clicking) because this period has the maximum number of possible permutations, as **all** the staff are available (as shown by the green cells).  
When you double-click to R-Reserve a time-slot, the cell turns pink and shows an R.   
Later, when an activity has been assigned to this time-slot, the cell turns red with a bolder R. 
- Look now at the 2nd time-slot, for Monday-2. It has a Score of **5!**  
A score of '5' doesn't seem much less than '6', but crucially the (single) Teacher of the Subject on row **r** (Art) is not available in this time-slot!   
The '!' indicates this.  
  
! If you choose to R-Reserve this time-slot and if this row **r** subject (Art) has to be taught in every period of the Container Block, then your timetable will be impossible!  
The only occasion you can use a '!' time-slot is if it is on the row of a 'light' subject. eg. suppose in this example En and Hi are taught for (say) 5 periods in the Block but Art (on the 3rd row) is only staffed for (say) 4 periods (and the other period is unsupervised practice).
- Other symbols can appear in the cells. The symbols are explained on page 6.
- If none of the time-slots has a maximum score then there will be no pale-blue cells on the Score row. In this case the cells with the highest Score are coloured purple, to show you the 'best of the rest'.
- See also the 3 examples on page 5.

	Mon	2
Year 13	Container Block A	
Reserved:		!
Score /6:	6	5!
(13A) <b>p</b> (2) En	2	2
(13B) <b>q</b> (1) Hi	1	1
(13C) <b>r</b> (1) Ar	1	0
(13D) <b>s</b> (2) Ph	2	2

The next page suggests the best way of using the information on this screen.

If you wish to clear a row at any time, just click on the 'Res' cell for that row.

## Using the Container Block Screen (see also Section H25 in your Manual)

If the automatic Reserving or the  button do not give you a complete solution [ie. the cells in the 'Res' column have not all turned green] then we suggest you consider the following tactics.


- **Light-blue cells**

Look at the light-blue cells on each Score row (ie. for each Container Block in this Year). The number inside these cells equals the maximum score, which is good. These will be your first choices to R-Reserve. This is what Auto-Reserve does first of all. You can R-Reserve manually by double-clicking on the relevant cell in the 'Reserved:' row.

As you R-Reserve cells for a Block, the ID of that Block appears on the 'Reserved:' row of other blocks, so you can easily see which block has R-Reserved that time-slot. To change it you can double-click again on a pink R cell to un-reserve it.

If the blue cell includes an up-down arrow, like ⬆ then this indicates that another Container Block (in this Year) can also use this same time-slot. Look above or below to find it. You will need to decide which one to R-Reserve. Generally it will be the one on the row with the fewest high 'Score' numbers (ie. fewest pale-blue or purple cells).

- **Yellow cells**

If you click on  Highlight best in each period then some cells are highlighted in yellow. The yellow highlight shows you the best (or equal-best) cells in each time-slot (column).

These yellow cells are particularly useful if you are looking at the Container Blocks in a Sixth Form and if these Blocks are going to fill the whole timetable cycle. In this case you will need to R-Reserve one cell in each time-slot. Your first step in this case will be to choose time-slots with 'singletons'. The yellow cells will help you to see these periods.

- **Purple cells**

As you R-Reserve time-slots you use up the pale blue cells. When they are all used up for any Container Block, some other cells on that row will turn purple.

These purple cells have the highest remaining number. ie. they are 'best of the rest'.

A purple cell is not ideal but is now (probably) the best choice for R-Reserving.

As before purple cells may include an up-down ⬆-arrow or an ! See above and page 3.

- At each stage, scan the Score rows to see how many pale-blue or purple cells there are. In general deal first with Blocks that have **fewest** blue (or purple) cells.

In choosing which time-slots to R-Reserve, aim **not** to use those with an up-down ⬆ arrow, so that they remain available to be used in another Block.

Bear in mind that you **must** R-Reserve **in a valid pattern** of Singles or Doubles etc (see page 2).

**Never** use time-slots with an exclamation mark  unless you are sure that rows with zeros are for 'light' subjects (see page 3).

**Your target** is to R-Reserve sufficient time-slots on each 'Reserved:' row (ie. for each Block) until:

- the 'Res' column turns green (see page 2, part 1),
- with a valid pattern of time-slots (see page 2, part 2).

The HelpMovies include some examples of how to R-Reserve.



When you have R-Reserved all the necessary time-slots, then :

- Click on Close to leave this screen,
- We recommend saving a 'snapshot' of this stage of your timetable in the AutoBackup Library. Give the record a suitable name so you can easily recognise it. This means you can easily return your timetable to this exact state later, if you decide you want to do the next stage again.
- Then begin assigning (on the Priority List Screen or on the Visual Builder Screen, as you prefer).

Because the activities are Filtered to show only Container Block items, you can just click on  then **Fully-Automatic:** 

**TimeTabler** will then assign the activities into the R-Reserved time-slots, very quickly, but flexibly, so that they can be swapped at later stages when you are trying to FIT an awkward item in lower school.

Remember : this is the power of Container Blocks, and the reason why you use them if you have lots of permutations in a block. It's so that **TimeTabler** can use these permutations in FIT, when you need this inherent flexibility to solve a problem at a later stage.

Container Blocks are complicated, but very powerful in a multi-permutation case.

## Appendix 1

Three examples of Scores:

Example 1

Year 13	Container
Reserved:	R
Score /5:	5
(13A) p (2) Hi	2
(13B) q (2) En	2
(13C) r (1) Mu	1

**Score /5:** indicates that the maximum score is 5. This is because (2) teachers are sharing the teaching of Hi (History), (2) are sharing the teaching of En, and there is (1) teacher of Music.

The Green column shows that ALL 5 staff are available in this period. So the Score at the top of this column is  $2+2+1=5$  (the max) and so the cell is coloured pale blue.

Example 2

Year 13	Container
Reserved:	
Score /5:	4
(13A) p (2) Hi	1
(13B) q (2) En	2
(13C) r (1) Mu	1

In this example only 1 of the (2) History teachers is available in this period, so the Score is only 4. This means that this time-slot is not as good to R-Reserve as the one in Example 1.

If this period has the highest remaining Score for this Container Block, the cell will be coloured purple as 'best available now'.

Example 3

Year 13	Container
Reserved:	!
Score /5:	4!
(13A) p (2) Hi	2
(13B) q (2) En	2
(13C) r (1) Mu	0

In this example, the bottom row shows that **no** teacher is available for Music in this time-slot.






















The ! marks warns you of this.

**You must not use these periods** (except in the rare case where the Music is a 'light' subject needing fewer periods than the others in this block).

## Appendix 2

### Understanding the symbols

(not simple, but they may allow you to utilise the full power of this screen)

‘Reserved’ row	
	This pink cell indicates that you (or Auto-Reserve) have (provisionally) <b>R-Reserved</b> this period for this Container Block by double-clicking on this R cell. eg. Monday period 2 on the screen opposite. Then the Priority Screen will only allow activities with the correct Container ID into these periods. You can R-Reserve only if none of the other (non-Block) activities have been assigned in this time-slot. You can also un-Reserve this period by double-clicking again, providing that none of the Block activities have been assigned in this period. ie. it is not showing red: 
	This red cell indicates that you have Reserved this period for this Container Block (only), and one or more activities in the Block <b>have been assigned</b> to this period (on the Priority Screen).
	An exclamation mark indicates that one (or more) of the rows (subjects) does not have anyone free to teach in this period. You should <b>not</b> use this time-slot (see Example 3 on the previous page).
	This indicates that another Container Block for the same students, Block A in this example, has already R-Reserved this period.
	These yellow cells appear if you tick: <input checked="" type="checkbox"/> Highlight best in each period They show the best (or equal-best) cells in each vertical column.
‘Score’ row	
	The total Score for this period is 5 (see Example 1 opposite). If it is the maximum possible Score for this Block then it is coloured blue  If it is the currently-highest (but not maximum) Score then it is coloured purple 
	An up-down arrow indicates that another Container Block (for the same students) can also use this same time-slot. Look above or below to find it.
	An exclamation mark indicates that one (or more) of the rows (subjects) does not have anyone free to teach in this period. You should <b>not</b> normally use this time-slot (see Example 3 on the previous page).
Details rows	
	These pale green cells give you information about the availability of the teachers needed for the Activities forming this Container Block. See the 3 examples on the previous page. Rest your mouse on any cell to get more details of these Activities.  A grey cell  shows that none of the Activities for this Block/Class can be placed in this period at present (though you may be able to use FIT to make one of them free, or else use Flowchart K9).
	This blue cell, containing the Container ID for this Block ‘C’, shows where you have already assigned an activity that forms part of this Container Block C. These blue cells are always in the same column as an  cell.
	These white cells show you where the named Class already has a non-Block activity assigned. This means that you cannot place a Container Block activity in this period (and this is shown by a dash  on the ‘Reserved’ row).
	This shows where an interlocking class is occupied by an  eg. If 9AB is occupied  in Monday period 1, then 9A and 9B are also unavailable 
*9A	An asterisk by the class name shows a class which is not explicitly in the Block, but it interlocks with classes that are.