

Using *TimeTabler* to timetable S1 & S2

As schools look for new ways and new structures to deliver the best education for their pupils, this can throw extra strain on the timetabler. This paper looks at ways to use **TimeTabler** effectively in Lower School, within a Scottish setting. Separate papers look at S3 and S456 in Upper School.

In the first year of using **TimeTabler** it may take a while to get the best arrangement. But remember that once you have set up the batches for the right method, you will not have to re-enter them next year. You can just tweak them as explained in HelpMovie 8.

The HelpMovies, HelpScreens and the printed Manual provided with **TimeTabler** all help with this. And there are over 300 articles on aspects of timetabling in the KnowledgeBase in the Support Centre. However there are some aspects of timetabling that have a traditionally Scottish flavour, and this paper focusses on these aspects for **S1** and **S2**.

See also the video, HelpMovie 24A, which illustrates some aspects.

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There are several documents on Timetabling in Scotland:

1. Timetabling S456 with *TimeTabler*

Including:

How to import Basic Data from SEEMiS,
Using Vertical classes,
Choosing the best Class Scheduling Names for SS56 and for S4, or
for a joint S456, or even a joint S3456,

Labelling teacher-teams,
Using teacher Pools,
Checking your big teams, looking for doublets/triplets

Dealing with Registration periods,
Dealing with S56 columns that have different lesson-allocations from S4.

2. Timetabling S3 with *TimeTabler*

3. Timetabling S1 / S2 with *TimeTabler* (this document)

4. Exporting your completed timetable to SEEMiS

Setting up SEEMiS,
Using the Matching Screen,
Importing the file into SEEMiS.

And several more are listed at: www.timetabler.com/scotland

In addition please see:

- the 250-page printed Manual with the many Worked Examples,
- the HelpScreens, via the Help button on each main screen,
- the HelpMovies (video tutorials),
- the articles in the KnowledgeBase in the Support Centre.

S1 and S2

A common scheduling problem in Lower School is how to arrange that some subjects (eg. En, Hi) are taught in 'Non-practical' ('full-class') groups of up to 30 or 33, while the 'Practical' subjects (eg. Sc, Te) are taught as 'practical' groups of up to 20.

For example, in this Curriculum Diagram:

Ma	1.1	En Hi Gg ...	1p1	Sc Te Mu ...
Ma			1p2	Sc Te Mu ...
Ma	1.2	En Hi Gg ...	1p3	Sc Te Mu ...
Ma				

Maths is to be taught in 4 sets, all scheduled at the same time, across the Year.

1.1 is a 'non-practical' or 'full form' group. It may be the Registration group. In this school the pupils are taught in this grouping for English, History, Geography, etc. The group size may be up to 30-33.

1.2 is the other half of the Year (in this 2-form-entry school).

At some times of the week, for some subjects, the pupils in 1.1 and 1.2 (ie. the whole Year group) come together and are re-divided into 3 smaller 'Practical' groupings, called 1p1, 1p2 and 1p3 in this school.

The pupils in 1p1 go together to Science, Technology, Music, etc.

Similarly for the pupils in 1p2, and for those in 1p3. The group size may be up to 20.

For the timetabler the problem is how to schedule the lessons for these subjects while ensuring that the 'non-practical' subjects and the 'practical' subjects do not get mixed up.

There is more than one way to achieve this in **TimeTabler**.

In **TimeTabler** we have introduced new features to make the scheduling of S1/S2 easier, and this new method is described in several examples on the next 8 pages.

Note: In previous years we have recommended 2 other methods called 'Method A' and 'Method B'. We do **not** now recommend those two methods, though the documentation is still available if you need it.

We now recommend the method on the next few pages for the following reasons:

- the new method is clear and easy to follow, especially if you have 2 or more Bands in the year
- the Curriculum Diagram is now much clearer than in earlier methods
- the Class Timetable Screen is clearer
- the final Printouts of the 'master' Class Timetable and the Individual Class Timetables are clearer.

Please note: for this method to succeed, and quickly, it is important to do the scheduling progressively, in stages, as explained on page 6 and page 19.

The next pages discuss different ways of using the method, depending how many forms/bands you have.

continued...

S1 Example 1

2 'Non-practical' groups (of 30) become 3 'Practical' groups (of 20)

The Curriculum Diagram might look like:

(In this school the 'practical' groups are called 1p1, 1p2, 1p3. But you can call them 1X, 1Y, 1Z, etc if you wish, via the Printing Name, see below.)

Ma Ma Ma Ma	1.1	En Hi Gg ...	1p1	Sc Te Mu ...
	1.2	En Hi Gg ...	1p2	Sc Te Mu ...
			1p3	Sc Te Mu ...

Step 1 The principle

We choose a Class Scheduling Name for each grouping, as shown here:

Class Scheduling Names **1A** and **1B** correspond to 1.1 and 1.2 (which can be used as the Printing Names for your colleagues to read).

1AB Ma	1A	En Hi Gg ...	1p	Sc Te Mu ...
	1B	En Hi Gg ...	1q	Sc Te Mu ...
	1x		1r	Sc Te Mu ...

1x is a dummy class, entered just because we need a third row (for 1r). 1x will be given a Printing Name of *D so that it isn't printed on your colleagues' timetables.

Class Scheduling Names **1p**, **1q**, **1r** will be given Printing Names of 1p1, 1p2, 1p3 in this example, see below (but you can choose what you want).

For Maths, across the full Year, we will also need a Class Scheduling Name of **1AB**. (Or 1ABx could be used instead, whichever you prefer.)

Step 2 Basic Data

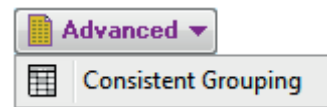
The screenshot shows these classes entered on the **Classes Screen** (see section C6 in your Manual and the HelpMovies about the Classes Screen):

They have been sorted into the best order (shown here) for later screens and for printouts, by using Custom.

Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 x	*D
1 AB (composite)	Yr S1
1 p	1p1
1 q	1p2
1 r	1p3

These Class Scheduling Names are used when you enter the S1 activities into the Batch. This is explained in more detail on the next page.

Then, still on the Classes Screen, click on Advanced Rules Panel, to go to the **Consistent Grouping (classes cannot co-exist) Screen**.



Enter the Class Names as shown here:

Make sure that you enter a joint **Group ID** (we've used 'a' in this example).

This tells **TimeTabler** that 1A, 1B, 1x cannot co-exist with 1p, 1q, 1r; and ensures it displays the classes in the correct groupings on the screens and the printouts.

This class ...	... cannot co-exist with this class	Group ID
1A (1.1)	1p (1p1)	a
1B (1.2)	1q (1p2)	a
1x (*D)	1r (1p3)	a

In this example we've used 1A, 1B, 1x, 1p, 1q, 1r, but you can use whatever letters of the alphabet you wish. Many people prefer to use 1A, 1B, 1x, **1a**, **1b**, **1c**. Just remember to use only one (unique) letter in each Scheduling Name.

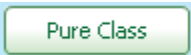
Note : Remember that you only have to enter this data once, and then you can re-use it year after year (unless your curricular structure changes radically).

continued...

Step 3 Entering the S1 activities into the Batch:

For 'Non-practical' subjects like English, History, Geography etc:

1A SSS En1 for Class 1.1, using the Pure Class wizard
1B SSS En2 for Class 1.2, using the Pure Class wizard



assuming English is taught for 3 Single lessons, where En1 is replaced by the initials of the actual English teacher. Similarly for History, Geography, etc.

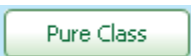
For any subject that is also taught in 'full-form' groups but by 2 teachers (eg. PE):

1A S PE1 PE2 for form 1.1, using the Simple Block wizard
1B S PE3 PE4 for form 1.2, using the Simple Block wizard



For Practical subjects like Science, Technology, etc:

1p D Sc1 for group 1p1, using the Pure Class wizard
1q SS Sc2 for group 1p2, using the Pure Class wizard
1r SS Sc3 for group 1p3, using the Pure Class wizard



where Sc1 etc is replaced by the initials of the actual Science teacher.

Similarly for other practical subjects.

For subjects that are taught only once per week (cycle) it is safe (and helpful) to use Pools (see page 7 of the S456 document).

For example, for Music, where the Music Pool might contain 2 or 3 teachers, but it doesn't matter who teaches 1p1 or 1p2 or 1p3.

1p S =Mu
1q S =Mu
1r S =Mu



For subjects across the whole year

For the 4 Maths sets (in this example school) you enter :

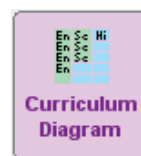
1AB SSS Ma1 Ma2 Ma3 Ma4 using the Simple Block wizard



where Ma1 is replaced by the initials of the first Maths teacher, etc.

Use the **Curriculum Diagram Screen** (see sections D5, D19; HelpMovies, HelpScreens) to check that the structure is correct, and that the totals add up correctly to equal the full cycle.

You may also find it useful to view the activities via:



Step 4 Scheduling

Schedule the activities in the *progressive* sequence explained on the next page. We **strongly** recommend this sequence. The Consistent Grouping ID will ensure that the 'practical' and 'non-practical' groups never get mixed up, even in complicated FIT 'musical-chairs' moves.

Always do a dummy-run, for S1 **by itself**, first, to see that it is working well.

See also: <http://www.timetabler.com/SupportCentre/HowCanICheckMyDataBatches.pdf>

If S1 won't schedule by itself then it certainly won't schedule when it's added to S2/3/4/5/6.

For suggestions about the screen displays and the Printouts, see pages 12-13.

For a Case Study of a real school using this structure, see Appendix 1.


See also the video, HelpMovie 24A.

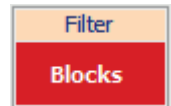
Step 4 : Scheduling the activities in the best sequence

In the first year of using this method you may wish to experiment with some 'dummy runs' to find the best sequence to use [remember you can re-use the data in the batches as often as you like].

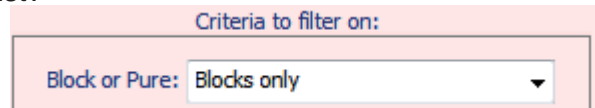
It seems clear that it would be best to schedule the Year *progressively*. But what should be placed first? Unless you find a better sequence for your data, then we **strongly** suggest the following sequence:

0. Load the S1 Batch into the schedule (which already has S2/3/4/56 scheduled).


1. On the Visual Builder Screen, use the Filter button  'Blocks only' filter, so that only the Maths **Block** is shown on the Priority List:

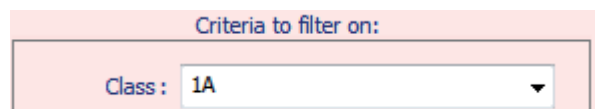


Then place the Maths Block (SSS) first, interactively, in a good pattern.



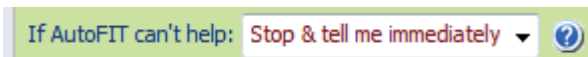
Note : If you have HE or Games lessons in Double-periods and the structure of your day doesn't have many Double-periods in it, then you may need to place the Maths carefully so as to leave a sufficient number of Doubles for HE and Games.

2. Then use the Filter button  Class filter, so that **only** the 'Non-practical' lessons for **1A*** are shown on the Priority List:



* We've said 1A here, but in fact the best one to use is whichever one of 1A or 1B looks to be the tighter to schedule. In practice this might be because of any Part-timers due to teach that class.

Set the Fully-automatic mode to:



and then run Fully-Automatic, to place all (just) the **1A** 'Non-practical' lessons. Or you can use 'Semi-Automatic' <F2>, or Interactive if you prefer to keep more control. Either way, FIT will be used to make any 'musical-chairs' moves that are necessary.


It's really helpful to work on dual-monitors, with the Class Timetable Screen showing on the 2nd one. Check that the Class Timetable looks sensible, with just the 1AB and 1A lessons placed. Make any adjustments you think are necessary, using the **Move** button.

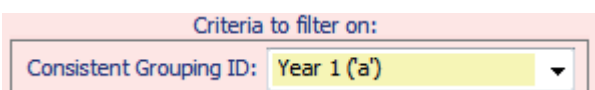
Note: there are empty periods at this stage, and that is where the 'Practical' 'a' lessons will go. **Is it a good pattern?**

3. Still working progressively, section by section, use the Filter button to select **1p**. ie. the 'Practical' class/row that **corresponds** to 1A (ie. the class used in Step 2):



Run Fully-Automatic (or Semi-auto, <F2>) again, to place all these 'Practical' lessons for 1p.





4. Then change the Filter  Consistent Grouping so that **only** the (remaining) 'Practical' 'a' lessons for **1q, 1r** are shown in the Priority List:



Then run Fully-Auto (or Semi-auto, <F2>) again, to place all these 'Practical' lessons for (1p) 1q, 1r. Check that the Class Timetable is sensible. All the 'Practical' lessons must be in the same periods.

5. Now turn OFF the Filter so that the remaining lessons (for **1B**) are shown on the Priority List. Then run Fully-Auto (or Semi-auto) again, to place these remaining lessons.



Check the Class Timetable again. To see the clearest display use the Style button so: Style  Class View  Show composite classes, and Style  Layout / Show  both Staff and Subject.

There is more about the Screen Displays, and about Printouts on pages 12–13.

If you have another (parallel) Band/Cohort in Year S1, then do the same for that Band. Use this same *progressive* method (adapted) for each of the other examples, on the next pages. See also the Case Study in Appendix 1, and the diagrams on **page 19**.

Example 2

4 'Non-practical' groups (of 30) become 6 'practical' groups (of 20)

This can be achieved by simply doubling the structure of Example 1.

As well as 1A, 1B (as an Example 1), you will need a parallel list of Classes for the parallel structure. For example, 1C and 1D.

There are two possibilities:

Case 1

All 'practical' classes are together, in the same time-slots of the week or fortnight:

1A (1.1)	1p (1p1)
1B (1.2)	1q (1p2)
1x (*D)	1r (1p3)
1C (1.3)	1s (1p4)
1D (1.4)	1t (1p5)
1y (*D)	1u (1p6)

But if you want all the Practical groups (1p1–1p6) to be taught at the same time like this, you will need to take steps to ensure this.

For example, by deliberately blocking-off part of the week while you schedule (say) the blue part; then unblocking it and scheduling the yellow part.

See **Example 5** for another way to do this.

Case 2 (more likely, more flexibility)

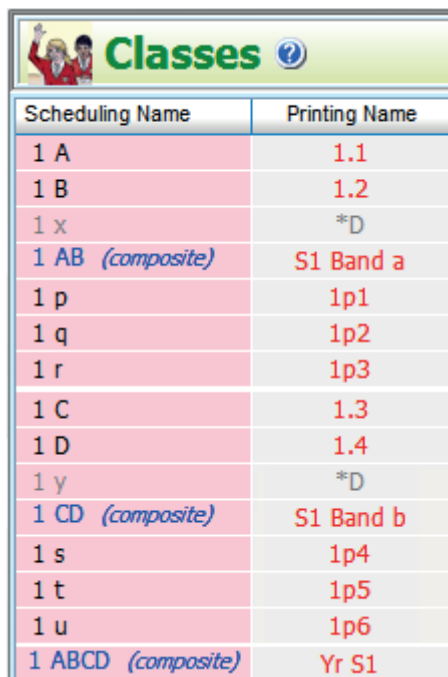
The 'practical' lessons of 1.3, 1.4 can float under the 'Non-practical' lessons of 1.1, 1.2, and vice-versa, so it can look like the diagram above, or like the diagram below, **or a mix of them**.

1A (1.1)	1p (1p1)
1B (1.2)	1q (1p2)
1x (*D)	1r (1p3)
1s (1p4)	1C (1.3)
1t (1p5)	1D (1.4)
1u (1p6)	1y (*D)

This gives you more solution-space and more timetabling flexibility.

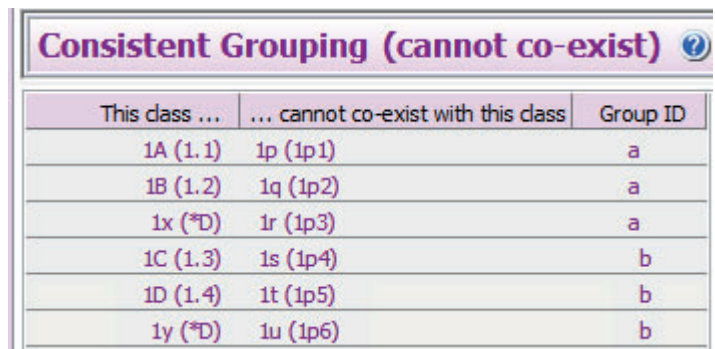
See the further details in Example 1.

The Classes Screen will show:



Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 x	*D
1 AB (composite)	S1 Band a
1 p	1p1
1 q	1p2
1 r	1p3
1 C	1.3
1 D	1.4
1 y	*D
1 CD (composite)	S1 Band b
1 s	1p4
1 t	1p5
1 u	1p6
1 ABCD (composite)	Yr S1

The Consistent Grouping Screen will look like this:



This class ...	... cannot co-exist with this class	Group ID
1A (1.1)	1p (1p1)	a
1B (1.2)	1q (1p2)	a
1x (*D)	1r (1p3)	a
1C (1.3)	1s (1p4)	b
1D (1.4)	1t (1p5)	b
1y (*D)	1u (1p6)	b

Notice that the 2 Bands have different Group IDs, so that within each band the Practical / Non-practical groups are kept apart, but the bands can overlap.

For scheduling: see **Step 4** in Example 1 (on page 6), and **always** do a 'dummy run' for S1 only, first.

Example 3

3 'Non-practical' groups (of 26-27) become 4 'practical' groups (of 20)

The Curriculum Diagram might look like:

Ma Ma Ma Ma	1.1	En Hi Gg ...	1p1	Sc Te Mu ...
	1.2	En Hi Gg ...	1p2	Sc Te Mu ...
	1.3	En Hi Gg ...	1p3	Sc Te Mu ...
	1.3	En Hi Gg ...	1p4	Sc Te Mu ...

The principle is the same as an Example 1, but now we need Class Scheduling Names like these:

(For the Maths you can use 1ABC or 1ABCx, whichever you prefer.)

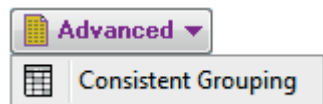
1ABC Ma	1A	En Hi Gg ...	1p	Sc Te Mu ...
	1B	En Hi Gg ...	1q	Sc Te Mu ...
	1C	En Hi Gg ...	1r	Sc Te Mu ...
	1x		1s	Sc Te Mu ...

As in Example 1, you enter them all on the **Classes Screen**:

Use **Sort** Custom to get the best order for later screens:

Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 C	1.3
1 x	*D
1 ABC (composite)	Yr S1
1 p	1p1
1 q	1p2
1 r	1p3
1 s	1p4

As in Example 1, on the Classes Screen click on **Advanced** **Rules Panel**,



to go to the **Consistent Grouping (classes cannot co-exist) Screen**:

Enter the classes as shown, all with the same Group ID ('a' in this example):

This class ...	... cannot co-exist with this class	Group ID
1A (1.1)	1p (1p1)	a
1B (1.2)	1q (1p2)	a
1C (1.3)	1r (1p3)	a
1x (*D)	1s (1p4)	a

For entering the activities in the Batch, see the details in Example 1, Step 3.

For example:

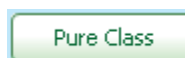
For 'Non-practical' subjects like English, History, Geography etc:

1A SSS En1 for Class 1.1, using the Pure Class wizard
See Example 1 if a group has 2 staff (eg. PE).



For Practical subjects like Science, Technology, etc:

1p D Sc1 for Group 1p1, using the Pure Class wizard



For subjects across the whole year, like Maths:

1ABC SSS Ma1 Ma2 Ma3 Ma4 Ma5 using the Simple Block wizard



For scheduling: see **Step 4** in Example 1 (on page 6), and **always** do a 'dummy run' for S1 only, first.

Example 4

Other combinations of 'Non-practical' groups & 'Practical' groups

You can combine the structures of Example 1, Example 2 and Example 3 to deal with different numbers of pupils.

For example:

1.
With 200 pupils in S1 you can have 7 full 'Non-practical' classes (of 26-30 pupils), becoming 10 'practical' groups (of 20), by having:

1.1	1p1	as in Example 1
1.2	1p2	
	1p3	
1.3	1p4	as in Example 1
1.4	1p5	
	1p6	
1.5	1p7	as in Example 3
1.6	1p8	
1.7	1p9	
	1p10	

2.
With 80 pupils in S1 you can have 3 full 'Non-practical' classes (of 26-27 pupils), becoming 4 'practical' groups (of 20 each), by using Example 3.

With 81 pupils in S1, you can have 3 full 'Non-practical' classes (of 27 pupils), becoming 5 'practical' groups (of 13-18 each), by having:

1.1	1p1	as in Example 1
1.2	1p2	
	1p3	
1.3	1p4	by simply dividing 1.3 into 2 groups
	1p5	

Example 5 4 'Non-practical' groups (of 30) become 6 'practical' groups (of 20) with the practical groups all at the same time

The Curriculum Diagram might look like:

In this structure all the practical groups **must** occupy the same time-slots on the timetable. The advantage of this is that any pupil in 1A, B, C, or D can also be in **any** of the 6 practical grouping s. This requirement obviously makes the timetable harder to achieve!

Ma Ma Ma Ma Ma	1.1	En Hi Gg ...	1p1	Sc Te Mu ...
	1.2	En Hi Gg ...	1p2	Sc Te Mu ...
	1.3	En Hi Gg ...	1p3	Sc Te Mu ...
	1.4	En Hi Gg ...	1p4	Sc Te Mu ...
			1p5	Sc Te Mu ...
			1p6	Sc Te Mu ...

There are 3 ways to achieve this:

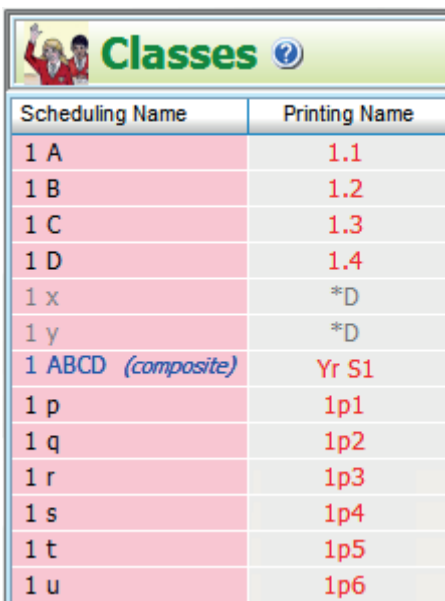
- See Example 2, Case 1. Note that this structure has much less flexibility than Example 2, Case 2.
- Using a Container Block. This is a much more complex way. We don't recommend it.
- Extending the principles of Example 1 as shown here:
This is the quickest and simplest way.

1ABCD Ma	1A	En Hi Gg ...	1p	Sc Te Mu ...
	1B	En Hi Gg ...	1q	Sc Te Mu ...
	1C	En Hi Gg ...	1r	Sc Te Mu ...
	1D	En Hi Gg ...	1s	Sc Te Mu ...
	1x		1t	Sc Te Mu ...
	1y		1u	Sc Te Mu ...

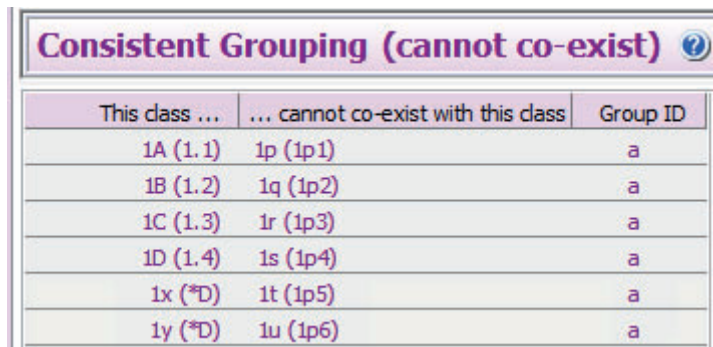
Enter these Classes in Basic Data as shown in Example 1, Step 2, in

1 - the Classes Screen:

2 - the Consistent Grouping Screen:



Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 C	1.3
1 D	1.4
1 x	*D
1 y	*D
1 ABCD (composite)	Yr S1
1 p	1p1
1 q	1p2
1 r	1p3
1 s	1p4
1 t	1p5
1 u	1p6



This class ...	... cannot co-exist with this class	Group ID
1A (1.1)	1p (1p1)	a
1B (1.2)	1q (1p2)	a
1C (1.3)	1r (1p3)	a
1D (1.4)	1s (1p4)	a
1x (*D)	1t (1p5)	a
1y (*D)	1u (1p6)	a

Having the same Group ID (a) for all the Class Scheduling Names means that all the left-hand column can never get mixed up with any of the classes in the right-column, and vice-versa.

Then enter the Activities into a Batch for S1, as in Example 1, Step 3.

See Example 1, Step 4 (page 6), for a recommended scheduling sequence.

Because the Class Scheduling Names and the Group ID force all the Practical groups to be in the same time-slots [but not necessarily the same subjects at the same time, depending on staff availability], then clearly it will be more difficult to schedule than the similar example shown in Example 2, Case 2.

Note: If you have 4 'Non-practical' groups (of 25) becoming 5 'Practical' groups (of 20) then this example can be easily adapted (by omitting 1y and 1u).

For scheduling: see **Step 4** (page 6) in Example 1, and **always** do a 'dummy run' for S1 only, first.

Example 6 : including simple blocks

As in Example 3 [with 3 'Non-practical' groups becoming 4 'practical' groups] but now with Simple Blocks included, for En and Te.

The Curriculum Diagram might look like:

Ma Ma Ma Ma	1.1	En	Hi Gg ...	1p1	Sc	Te	Mu ...
	1.2	En	Hi Gg ...	1p2	Sc	Te	Mu ...
	1.3	En	Hi Gg ...	1p4	Sc	Te	Mu ...

This will be more difficult to schedule because the Blocks reduce the solution-space.

The principle is the same as an Example 3, but now we need extra Class Scheduling Names of 1AB (for English) and 1pq (for Technology):

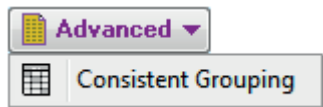
1ABC	1A	En	Hi Gg ...	1p	Sc	Te	Mu ...
	1B	En	Hi Gg ...	1q	Sc	Te	Mu ...
	1C	En	Hi Gg ...	1r	Sc	Te	Mu ...
	1x			1s	Sc	Te	Mu ...

As in Example 3, you enter them all on the **Classes Screen**:

Use **Sort** Custom to get the best order for later screens:

Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 AB (composite)	
1 C	1.3
1 x	*D
1 ABCx (composite)	Yr S1
1 p	1p1
1 q	1p2
1 pq (composite)	1p 1/2
1 r	1p3
1 s	1p4

As in Examples 1 & 3, on the Classes Screen click on Advanced Rules Panel,



to go to the **Consistent Grouping (classes cannot co-exist) Screen**:

Enter the classes as shown, all with the same Group ID ('a' in this example):

It's similar to Example 3 but now we are also saying that the 1pq Block cannot mix with 1AB.

This class ...	... cannot co-exist with this class	Group ID
1A (1.1)	1p (1p1)	a
1B (1.2)	1q (1p2)	a
1AB	1pq	a
1C (1.3)	1r (1p3)	a
1x (*D)	1s (1p4)	a

For entering the activities in the Batch, see the details in Example 1, Step 3.

For example:

For 'Non-practical' subjects like History, Geography etc:

1A S Hi1 for Class 1.1, using the Pure Class wizard
See Example 1 if a group has 2 staff (eg. PE).



For 'Non-practical' subjects in a Block, like English:

1AB SSS En1 En2 for Class 1.1, using the Simple Block wizard



For Practical subjects like Science, Music, etc:

1p DS Sc1 for Group 1p1, using the Pure Class wizard



For Practical subjects in a Block, like Technology:

1pq D Te1 Te2 for Group 1p1, using the Simple Block wizard



For subjects across the whole year, like Maths:

1ABCx SSS Ma1 Ma2 Ma3 Ma4 Ma5 using the Simple Block wizard



For scheduling: see **Step 4** (page 6) in Example 1, and **always** do a 'dummy run' for S1 only, first.

Screen Displays

For each of the examples above we have recommended the best order to use on the Classes Screen, by using the Sort button,



to get an order of classes like that shown here for Example 1:

Scheduling Name	Printing Name
1 A	1.1
1 B	1.2
1 x	*D
1 AB (composite)	Yr S1
1 p	1p1
1 q	1p2
1 r	1p3

When you enter the activities into the Batch for S1 then you get a **Curriculum Diagram** like this:

When you are scheduling you get a display on the **Class Timetable Screen**, with the classes shown in the same order:

If need be, ensure that at Style ▼ Class view Show 'composite' classes is UN-ticked.

In the screenshot shown here the Teacher + Subject + Room are seen, but there are many other possibilities, as shown at the Style button,



Printouts

This same Sort order can help to get clear Printouts for your colleagues. On the Advanced Printing Screen (section J8 in your Manual) for the 'master' Class Timetable Printout you have a choice:

Class pattern

Exclusive

Inclusive

All-inclusive

If you have a problem to solve, the 1st may be clearer (but takes up more space). If you have more than one band (Example 2, Case 2) then the 2nd may be clearer. The 3rd may be best if you only have a single band in the Year (Example 1) and want compact printouts.

It can be useful to have a Cell Design of:

Advanced Printing Options

	Position1	Position2	Position3
Line1	T (teacher in full) ▼		
Line2	S (subject in full) ▼	e (set no. only) ▼	c (class) ▼
Line3	R (room in full) ▼		

Because this Cell Design includes the Class 'c' then the Printouts show explicitly which are the full Form groups (1.1, 1.2, etc) and which are the smaller 'practical' groups (1p1, 1p2, etc), like this:

Master Class Timetable
Page 1 of 1
Progress

Print Setup:

Cell design

Line 1: T

Line 2: Sec

Line 3: R

Font

Font name: Arial

Font size: 8

Sizing

Class width: 13

Column width: 25

Periods per page: 6

Rows per page: auto

Colours

Colour printing

Class Timetable
All-inclusive

Monday

	period 1 9.00–9.40	period 2 9.40–10.20	period 3 10.40–11.20	period 4 11.20–12.00	period 5 1.00–1.40	period 6 1.40–2.20
Year1	Mrs A. Taylor Art 1p1 Room L11	Mrs A. Taylor Art 1p1 Room L11	Mrs J. Rose Drama 1p1 Room L8	Miss J. Harrison Maths 1 Yr S1 Room L19	Mrs J. Rose English 1.1 Room L8	Ms R. McDougall History 1.1 Room L30
	Mrs J. Rose Drama 1p2 Room L8	Ms B. ALLEN Music 1p2 Room L29	Mr J. HILTON Technology 1p2 Room L20	Mr J. Mason Maths 2 Yr S1 Room L18	Mr J. McGregor History 1.2 Room L22	Ms J. Wainwright English 1.2 Room L5
	Mr H. Bradley Technology 1p3 Room L20	Mrs J. Simister Science 1p3 Room Lab4	Mrs E. BINNS Art 1p3 Room L10	Mr F. Hickson Maths 3 Yr S1 Room L1		
				Ms J. Veitch Maths 4 Yr S1 Room L17		

Compare this with the Class Timetable Screen on the previous page.

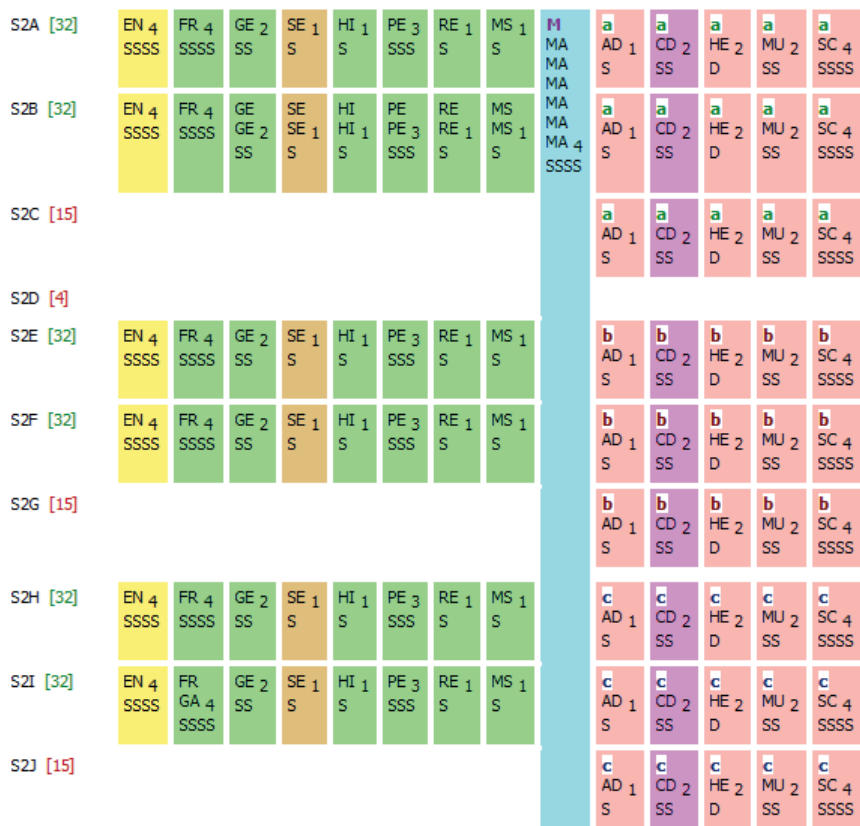
You can go back at any stage and change the Subject colour (on the Subjects Screen). To edit the rooming, use the Room Timetable Screen.

To **Export** the completed timetable to **SEEMiS**, see the separate document on this topic, either by visiting the KnowledgeBase in the Support Centre, or by clicking the Export button: See also page 18 and HelpMovie 65.

Export

Appendix 1 : Case Study : Inverness Royal Academy

At this large school in Inverness the Curriculum Diagram for S2 looks like this: (S1 is very similar.)



This is the Curriculum Diagram Screen in **TimeTabler** for the S2 Batch.

Note : A dummy class 2D has been inserted simply to space out the top band of the curriculum from the middle band, but this is not necessary, it's your choice.

Maths is taught as a simple block across the whole S2 Year. It was entered into the Simple Block wizard, using a Class Scheduling Name of 2ABCDEFHIJ.

In the upper third of the Curriculum Diagram 2 classes (2A, 2B) are taught in 'Non-practical' groups for EN, FR, GE, SE, etc. for 17 periods of the timetable cycle (of 32 periods).

For 11 periods of the cycle the classes 2A, 2B come together and are re-divided into 3 'Practical' classes for AD, CD, HE, etc. These 'Practical' groups are shown in rows 2A, 2B, 2C and are labelled 'a'.

There is a similar pattern for the middle band (2E, 2F, 2G and 'b'); and for the 3rd band (2H, 2I, 2J and 'c').

The Classes Screen looked like this:

Scheduling Name	Printing Name
S2 A	
S2 B	
⋮	
S2 J	
S2 a (consistent-group 'a')	a
S2 b (consistent-group 'a')	b
⋮	
S2 j (consistent-group 'c')	j
S2 ABCDEFGHIJ (composite)	

...and the Consistent Grouping Screen looked like this:

This class ...	... cannot co-exist with this class	Group ID
S2A	S2a (a)	a
S2B	S2b (b)	a
S2C	S2c (c)	a
S2E	S2e (e)	b
S2F	S2f (f)	b
S2G	S2g (g)	b
S2H	S2h (h)	c
S2I	S2i (i)	c
S2J	S2j (j)	c

To produce the Curriculum Diagram, the activities were then entered into the S2 Batch using:

- the 'Simple Block wizard' for Maths, and
- the 'Pure Class wizard' for each of the other subject groups.

It didn't take long to enter this data ...and of course it can mostly be re-used next year.

continued...

Scheduling this S2

It seemed clear that the large Maths block should be placed first.

It also seemed clear that it would be best to schedule S2 progressively, in 3 phases (for the 3 bands). But what should be placed first in each band?


Some experiments were done initially, to decide whether to give priority to the Non-Practical groups (EN, FR, etc) or to the Practical groups (AD, CD, etc).

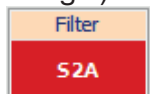
It was found that (for this S2) if the Practical groups were scheduled first there was a tendency for those 11 periods (for each row) to take up 12 periods of the cycle* ...which meant of course that the Non-Practical groups did not have enough space to fit in.

So the best method for this school was found to be [but see also pages 6 and 19]:

0. Load the S2 Batch into the schedule (which already has S3456 scheduled).
1. On the Visual Builder Screen place the Maths lessons (SSSS) interactively, in a good pattern.
Note : If you have HE lessons in Double-periods then you need to place the Maths carefully so as to leave a sufficient number of Doubles for HE in each band. (You could place the HE at this stage.)

Phase a, focussing on the top third of the Curriculum Diagram, for the top Band.

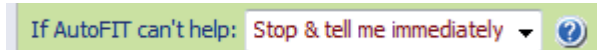
2. Use the Filter button  Class filter, so that **only** the Non-Practical lessons for **2A** are shown on the Priority List:



Criteria to filter on:

Class : S2A

Set the Fully-automatic mode to:



and then run Fully-Automatic, to place all the **2A** Non-Practical lessons (17 periods).

It's really helpful to work in dual-monitor mode, with the Class Timetable Screen showing on the 2nd monitor. We've said 2A here, but in fact the best one to use is whichever one of 2A or 2B looks to be the tighter to schedule.

3. Still working progressively, section by section, use the Filter button to select **2a**. ie. the 'Practical' class that **corresponds** to 2A (ie. the class used in Step 2):

Criteria to filter on:

Class : S2a


Run Fully-Automatic (or Semi-auto, <F2>) again, to place all these 'Practical-based' lessons for 2a.

4. Then change the Filter  Consistent Grouping so that **only** the (remaining) Practical 'a' lessons for 2ABC are shown in the Priority List:

Criteria to filter on:

Consistent Grouping ID: Year S2 ('a')

Then run Fully-Automatic again, to place all (just) the Practical lessons for (2A), 2B, 2C (11 periods).

5. Now change the Filter button  Class filter, so that **only** the Non-Practical lessons for **2B** are shown on the Priority List:

Criteria to filter on:

Class : S2B

Then run Fully-Automatic again, to place all the Non-practical lessons for **2B** (17 periods).

The top Band (2A, 2B, 2C) has now been scheduled.

Phase b : Steps 2, 3, 4, 5 are then repeated so 2E, 2e, 'b', 2F are scheduled, to complete the middle band.

Phase c : Steps 2, 3, 4, 5 are then repeated so 2H, 2h, 'c', 2I are scheduled, to complete the 3rd band.

Time:

The whole of this S2 was scheduled in about 20 minutes !

S1 (with the same structure) took longer because of Part-timers and because everything was tighter. It took about 2 hours.

The school is expecting to perhaps have a larger entry in S1, so they **also** scheduled **another** timetable which assumed an extra Band of 2 Non-Practical classes leading to 3 Non-Practical classes and with Maths in 2 half-year-groups, so they are prepared for what may happen before the school year begins.

Such a strategy could not have been contemplated if they had been scheduling manually!

Appendix 2 : Importing Basic Data from SEEMiS into *TimeTabler*

In the very first year of using *TimeTabler* you may want to import the Basic Data (of Subjects, Rooms, Teachers) from **SEEMiS** to *TimeTabler*.

(The alternative, which doesn't take long, is to type this information into *TimeTabler*.)

See Section C and HelpMovies 11–14.

Either way you only need to do this once. Thereafter in subsequent years you will usually just tweak this data for any changes (eg. as staff are appointed or retire).

Step 1 : In SEEMiS : save a file

In SEEMiS 'Click and Go' go to :

Next Session ➡ SETTS ➡ Setup ➡ Timetabler Extract

Since you are only exporting Basic Data do **not** tick 'Include teaching groups' (you'll need that later, when you export your completed timetable into SEEMiS).

Choose the directory where you want to save the file, and click Export.

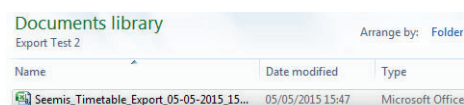
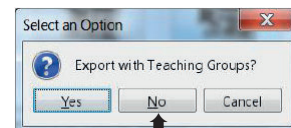
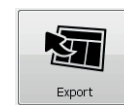
This produces and saves a file with a name like:

[Seemis_Timetable_Export_dd-mm-yyyy_hh-mm-ss.csv](#)

(the final part is the day's date and time).

Make a note of where you saved the file.

If you are unsure about any part of this step, please contact SEEMiS.



Step 2 : in *TimeTabler* : load that file

In *TimeTabler* go to the Basic Data Screen, and click on: to see:

Import from 3rd-Party File (in 5 steps)

If you have a CSV (or xls or tab-delimited) file of the correct format, then you can use this screen to import your Basic Data (Teachers / Subjects / Rooms) from another system (eg: from your MIS / Admin System):

Note, however, that this import is usually only useful in the first year that you use TimeTabler - thereafter, it is usually quicker to edit your existing Basic Data in TimeTabler.

1 Choose the file to import from:
Import Filename (click on yellow folder to browse):
F:\Seemis_Timetable_Export_05-05-2015_15
Click here to see the required file formats: ?

The import file contains this data:

TE	VAd	V.ADAM
TE	FAi	F.AITKEN
TE	HAi	H.AITKEN
TE	JAr	J.ARMSTRONG
TE	SAr	S.ARNOLD
TE	JBe	J.BEST
TE	SBI	S.BLACK
TE	KBr	K.BRACK

2 Choose the data to import from this file:
If you only want to import a specific type of data, leaving the others unchanged, please tick the type(s) you want to import below:
Teachers Subjects Rooms

3 Choose the import method:
Import data like this: replace / overwrite

4 Select the file format:
Abbreviation is field: 2 Delimiter is: Comma
Full Name is field: 3 Header is: none

5 Click to import this basic data:

In part 1, browse to find the file that you saved from SEEMiS. (If you are on a different machine on a different network then you'll need to save the SEEMiS file on a memorystick.)

In part 4 you need to ensure that the screen shows:

Abbreviation is field: **2** (because the first field is the teacher label TE, see the screen above)

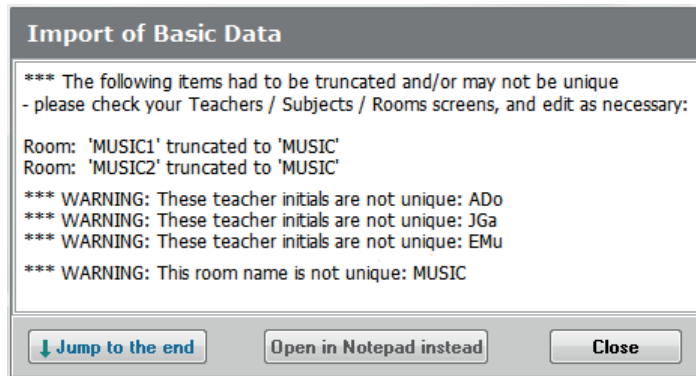
Full Name is field: **3**

then click on: to see the messages discussed on the next page.

continued...

After clicking on the  button, you are asked to confirm the import and then you are shown any warning messages, like these:

You'll need to keep a note of these items ...the easiest way is to click on the button to 'Open in Notepad' and then print out the list.



This example shows that some **Room** names in SEEMiS were too long. (To keep screen displays compact, the maximum room length in **TimeTabler** is 5 characters.) So you would need to go to the Rooms Screen and (in this example) change one of the rooms now called MUSIC to Music or MusRm, etc.

This example shows that some **Teacher Initials** are not unique. This is likely to be the commonest warning, as uniqueness is not necessary in SEEMiS but absolutely necessary in **TimeTabler**. The parallel document about S456 explains (on page 2) the rules that SEEMiS has used in constructing the 3-character initials.

Taking the first example above, about teacher ADo, if you go to the Teachers Screen it shows:

Two teachers called ADo will prevent **TimeTabler** from behaving correctly. You must change one of them.



There are plenty of possibilities: For example, change the first one to ADn, or ADn, or AMa, AMd, etc.



...Or change the second one ...but just ensure that it is different from any other teacher's **initials**. The teacher's Full Name can be anything you like.

On this same screen you also need to enter each teacher's Main Subject, see Section C9 in the Manual. We also recommend that you enter their Room Preferences, see HelpMovie 14.

Then check that you have done everything else described in Sections C3 – C9 in your Manual. Then see the section on 'Class Scheduling Names' in Section A of this document.

Appendix 3 : Exporting to an MIS

SEEMIS

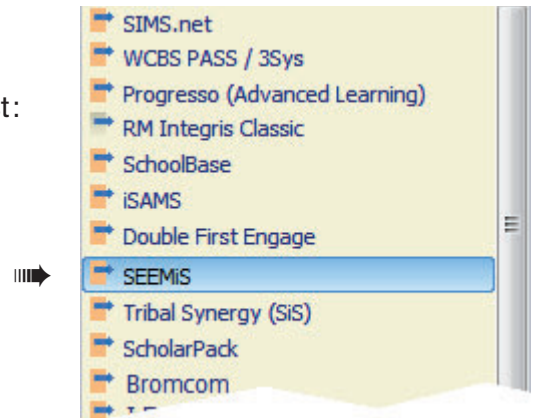
There is a direct electronic import from **TimeTabler** to **SEEMiS**. HelpMovie 65 gives you an overview.

We **strongly recommend** that well **before** you get to the stage of doing the export, you should give this Printout to the SEEMiS Manager, and *discuss* it with them, so that they can prepare SEEMiS for the import. The route is:



Exporting

Click on **Export** and select your MIS from the drop-down list:



Then click **Read the latest instructions** to see the documentation.

For **SEEMiS** you probably just need the single document : [Exporting-from-TimeTabler-to-SEEMiS.pdf](#)



See also HelpMovie 65.

Other MIS, including WCBS/PASS/HUBmis and iSAMS

The full range of MIS that currently accept an electronic import from **TimeTabler** is shown at : www.timetabler.com/adminMISsystems

For these MIS the supporting documentation falls into three parts:

1. Export-Doc-1. Preparing your data

This document explains the key importance of ensuring that the Teacher-code / Subject / Room are the same in **TimeTabler** as in your MIS. For SEEMiS this step is less important.

2. Export-Doc-2. Exporting from **TimeTabler**, step-by-step.

This document takes you through the export step-by-step.

A key procedure is at Step 5 : Setting up Teaching Group Names (so they are recognised by your MIS). Some further comments and screenshots relating to step 5 are shown in Appendix 4.

3. Export-Doc-3. Importing into the MIS

This varies from MIS to MIS. We have included documentation on our web-site, but it would be wise to ask your MIS provider if they have a more recent version of their documentation.

Appendix 4 : More about the best Scheduling sequence

Page 6 gives details of the best *progressive* method, a scheduling sequence for you to use. This page shows the same sequence, diagrammatically, for some of the earlier examples:

Example 1 (pages 4-6)

The steps on page 6 give details of how to schedule the lessons, in the sequence shown by the red numbers ①–⑤.

This sequence is the best for scheduling all the lessons, without clashes, quickly.

1AB Ma	1A	En Hi Gg ...	1p	Sc Te Mu ...
	1B	En Hi Gg ...	1q	Sc Te Mu ...
	1x	⑤	1r	Sc Te Mu ...

Example 3 (page 8)

The same principle applies in this case, of 3 'non-practical' rows A, B, C becoming 4 'practical' classes p, q, r, s.

Step 2, followed by Step 3, ensures that times are reserved for the 'non-practical' lessons (1A) first, and then separately for the 'practical' lessons (1p).

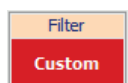
1ABC Ma	1A	En Hi Gg ...	1p	Sc Te Mu ...
	1B	En Hi Gg ...	1q	Sc Te Mu ...
	1C	En Hi Gg ...	1r	Sc Te Mu ...
	1x	⑤	1s	Sc Te Mu ...

Example 5 (page 10)

This example, with 4 'non-practical' rows becoming 6 'practical' classes, uses the same principle.

- ① First, assign any blocks across the year, like the Maths.
- ② Second, reserve time-slots for the 'non-practical' lessons, by assigning them (and only them).
Here we've suggested 1A, but in practice it should be the (single) 'non-practical' class that looks the most difficult to schedule (eg. because of Part-timers).
- ③ Third, assign the **corresponding** row of 'practical' subjects. 1p in this example.
- ④ Fourth, assign the rest of the 'practical' lessons. 1q, r, s, t, u in this example.
- ⑤ Fifth, assign the remainder of the lessons. 1B, 1C, 1D in this example.

In each case the Filter is used to select only the activities that should be scheduled in that step.



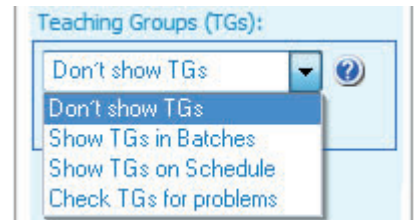
In case of difficulty, consult the Support Centre by submitting a Ticket as in HelpMovie 4.

Or Search in the KnowledgeBase for solutions, for example:

Appendix 5 : Teaching Group Names ('TGNames' or 'Set Codes') needed for some MIS (not SEEMiS)

On the Curriculum Diagram Screen, on the [Customize](#) sub-screen, you can select from 4 choices:

as well as the choice of: [Customize the {auto} TG Names](#)



Show TGs in Batches [Show TGs in Batches](#)

The Curriculum Diagram will now visually show {auto} like this:

The {auto} means that **TimeTabler** will automatically calculate the TGName using the style that you set up via:

MA1 MBu {auto}
MA2 JGe {auto} 4
SSSS

- either [Customize the {auto} TG Names](#) on the Curriculum Diagram Screen,
- or at Step 5 of the Export to your MIS (see Export-Doc-2).

Either of these takes you to a screen that allows you to select or design the format you want:

Teaching Group format:

Use this format for "1A, Ma, Set 1, Block C": [customize further ...](#) Use this many characters for the subject: Use this many characters for the set:

The basic choices are shown in a drop-down list:

1A/Ma1C means: Class : 1A Subject : Maths Set : 1 Block Label : C

If none of the standard designs suits you, you can select 'customise further'. This is explained in more detail in Export-Doc-2.

- 1AMa1C
- 1A/Ma1C
- 1A-Ma1C
- 1A\Ma1C
- 1A.Ma1C
- Custom**

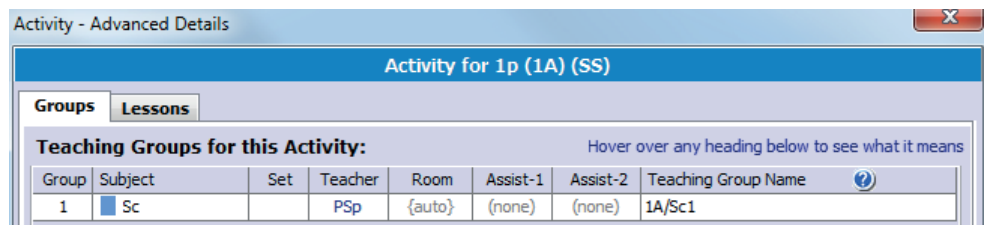
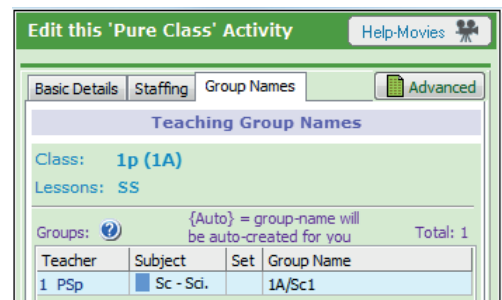
A similar display is shown if you choose: [Show TGs on Schedule](#)

Occasionally, you may find that this global {auto} system is not appropriate for a particular TG. In this case you can enter the particular TGName manually.

For example, if you wanted to have a different format from the {auto} design for your 'practical' groups in S1 then:

- Double-click on the Activity on the Curriculum Diagram Screen, to go into the relevant wizard:
 - The wizard now has an extra Tab labelled 'Group Names' which shows the current TGName.

- Click on [Advanced](#) to go to the Advanced Screen:



Under Teaching Group Name click on {auto} and enter the name you want in the box.

Do not do this manual tweaking names unless absolutely necessary. It is time-consuming. In most cases {auto} will do all that you want, and give a TGName that is accepted by your MIS during the import.

With many thanks for the help provided by Pauline Walker, Dom Sutherland, Derek Simpson, Peter Knights-Branch, Gus Macdonald, Gordon Piper, Neil Farquharson and particularly Terry Howe.