

# Enterprise Timetabler Beginners' Training Worksheet 3

**Aim of this worksheet:** At the end of this worksheet you will be able to:

- Manipulate activities to *Create* and *Schedule* **Activity Variants** using **Variant Mode**
- Create **Activity Variants** which change the *Resources* of a *Scheduled* activity over part of a *Week Pattern*
- Create **Activity Variants** which change the *Scheduling* and *Resources* over part of a week pattern

## 1. Creating and Scheduling Activity Variants

Using **Variant Mode** enables the user to schedule, re-schedule or manipulate activities over *part* of the applied teaching week pattern, thereby enabling variants of an existing activity to be created. When creating *activity variants*, the original activity becomes the *parent* activity and is hidden from view, the new *activity variants* become child activities. It is important to understand this concept because it explains how Enterprise Timetabler tracks changes and creates and deletes variant child activities. Also of importance is the ability of ET to create further variants using the now hidden *parent* activity.

For example, a user may create an activity and then decide to schedule that activity early in the day during the Autumn Term, and later in the day during the Spring & Summer Terms. Alternatively, a user may want to move an existing scheduled activity to another day for one week only because of a bank holiday, or move a scheduled activity from one location to another for one or two weeks only, whilst retaining the existing day and time. All of these scenarios can be dealt with using **Variant Mode** to create activity variants.

Activities can be scheduled and then re-scheduled as *activity variants* on the **Timetable Grid**. Having created an activity and scheduled it into its normal week pattern, the user can then change to **Variant Mode** using the toolbar  icon, select the required week(s) that need changing using the **Week Pattern Bar**, and then re-schedule. The original activity becomes the *parent*, the newly scheduled activity becomes a *child* as does the existing scheduled activity minus the weeks that have been changed within the existing week pattern.

**The following points should be noted by the user in relation to the creation of *activity variants*:**

- If *both* child activities are subsequently unscheduled, the activities will revert to being a single unscheduled activity. Essentially, the requirement for parent and child activities is constantly under review by the software and where there is no longer a need for *activity variants*, they will be removed automatically. However, if the requirement has been changed, (as opposed to the allocation) and the two unscheduled activities have a different requirement, they will stay separate.
- Once **Variant Mode** is selected, only *one* opportunity is given to create *activity variants*. On completion of the process, the week pattern reverts back to normal mode in order to prevent the accidental splitting of activities.
- If the parent activity has been scheduled with a *Preset* day and time, no blue diamonds will appear for the re-scheduling of the *activity variants*. The user will need to remove the *Presets* in the **Resources Tab**.

- If the parent activity has *Preset* resources, when re-scheduling the *activity variants*, blue diamonds will only appear for the timeslots where the *same* resources are available. Alternatively, where *Wildcarded* resources are used, blue diamonds will appear where suitable resources are available. Essentially, re-scheduling the *activity variants* could place it in a different room, or with a different member of staff. It is therefore recommended that before creating the variants, the user decides on the scheduling requirements.
- It is also possible to create further *activity variants* from the original parent activity which you can no longer see. For example, having scheduled the lecture on a Monday, using *activity variants*, into the *Autumn Term* and the *Spring & Summer Terms*, there is a requirement to reschedule the lecture for one week only onto a Tuesday. This could be undertaken simply by following the processes outlined above.

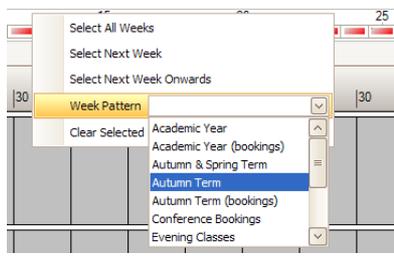
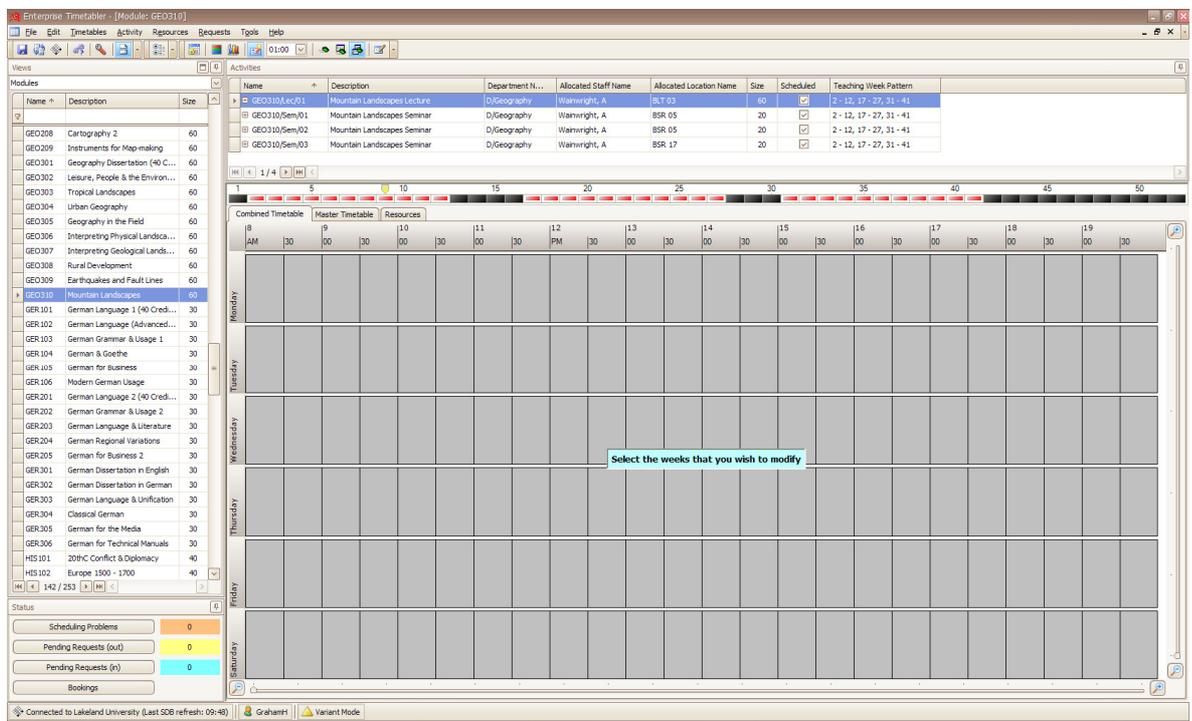
In the examples illustrated below, the Module GEO310 has been selected in the Views Pane.

### 1.1. Exercise 1 - Creating and Scheduling Activity Variants over a Week Pattern

The Lecture is to be scheduled early in the day on Monday during the Autumn Term, and later in the day during the Spring & Summer Terms.

In the first example illustrated below, there is a need to schedule the activity early on Monday during the Autumn Term and later in the day during the Spring and Summer Terms. In this case, the user selects the *unscheduled* activity in the **Activities Spreadsheet**, and schedules it over the *entire* week pattern into an appropriate timeslot for the *Spring & Summer Terms*. (Right-click on a blue diamond and select *Schedule here*).

Having scheduled the activity, and with the activity still selected, change to **Variant Mode** using the  icon in the toolbar. The screen should change, and the **Timetable Grid** will be "greyed out", as no weeks have yet been selected for the variant. A message will appear in the middle of the screen stating **Select the weeks that you wish to modify**. Furthermore, the  **Variant Mode** warning icon will appear in the footer bar.



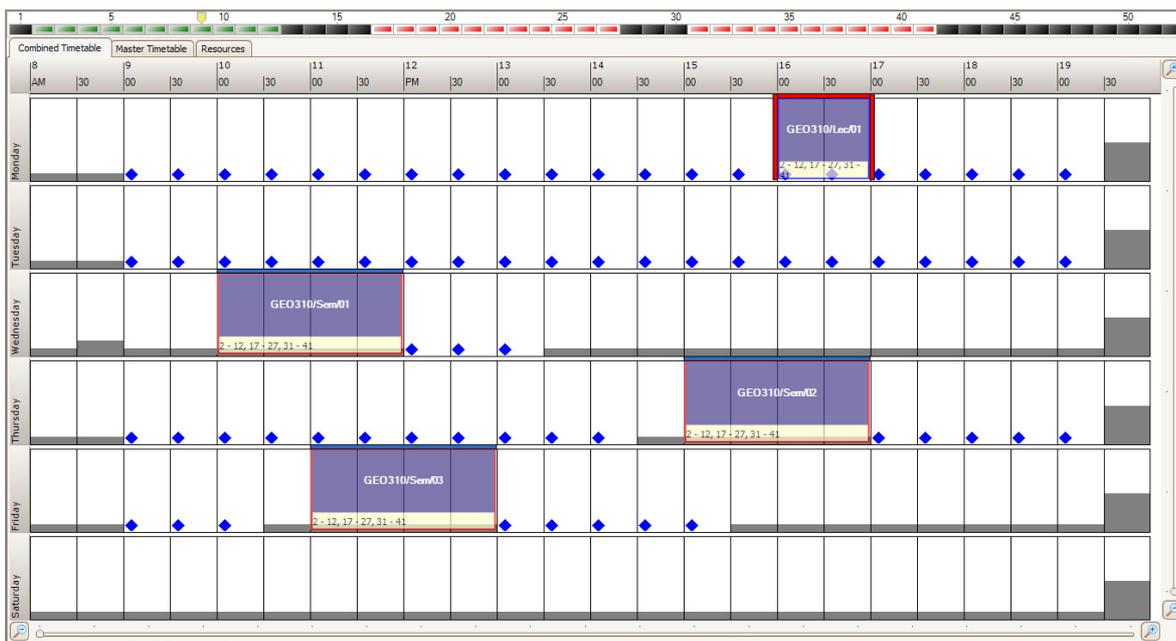
Now set the weeks that will apply to the variant activity. This can be done using different methods; either left click with the mouse on the start week of the *Autumn Term*, hold down the mouse key and pull across all the required weeks to select them. More complex week selections can be made by holding the Ctrl key and right mouse clicking on required weeks.

Alternatively, right-click with the mouse slightly above the week pattern and select *Autumn Term* from the Week pattern menu that will appear.

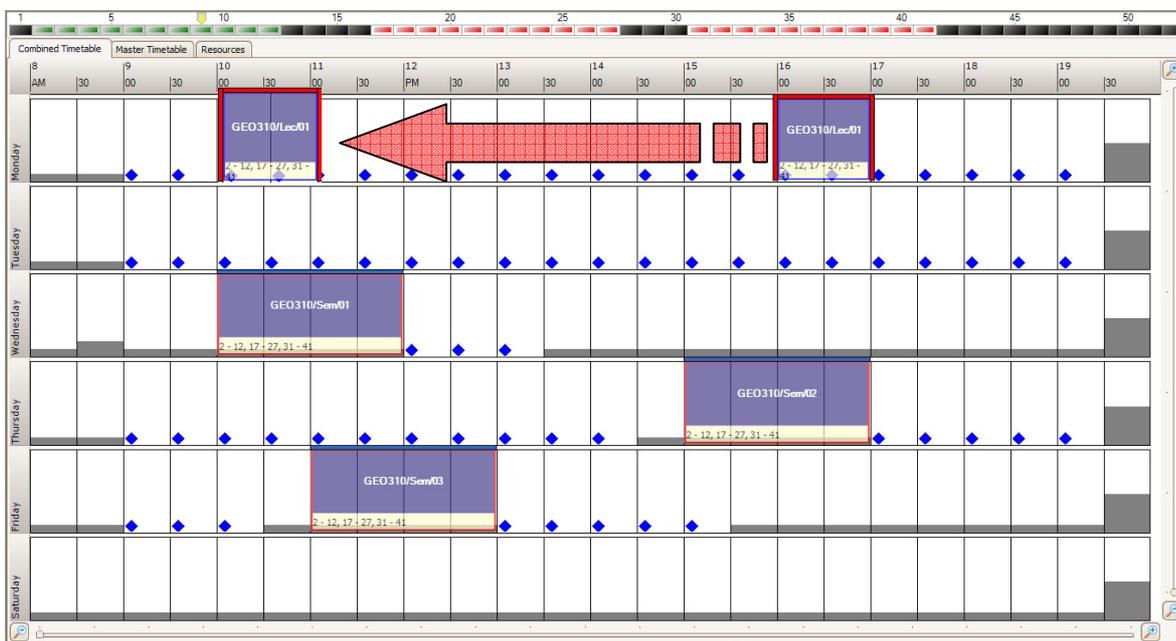
The outcome will be a week pattern bar with the *Autumn Term* selected:



The **Timetable Grid** will change to show the appropriate blue diamonds and the scheduled activity will also appear.



Drag and drop the activity to the blue diamond at the preferred time and day to schedule the activity during the Autumn Term.



In this instance, the new activity (green weeks), will schedule into the “Autumn Term” week pattern at the new time. In the **Activities Spreadsheet**, the parent activity will split into two component *activity variants* (children) each with a different week pattern listed against the name. The *activity variant* with the *deselected* (red weeks) pattern will remain scheduled at the original time in the “Spring & Summer Terms”.

The screenshot displays the Enterprise Timetabler interface. At the top, the 'Activities Spreadsheet' lists several activities with columns for Name, Description, Department No., Allocated Staff Name, Allocated Location Name, Size, Scheduled, and Teaching Week Pattern. The activities include 'Mountain Landscapes Lecture' (GEO310/Lec/01) and 'Mountain Landscapes Seminar' (GEO310/Sem/01-03).

Below the spreadsheet is the 'Timetable Grid', which shows a weekly schedule from Monday to Saturday. The grid is divided into time slots (AM and PM) and days. Activity icons are placed in the grid cells, with labels such as 'GEO310/Lec/01 <2-12>' and 'GEO310/Sem/01'. The icons are color-coded and include a small icon representing the activity.

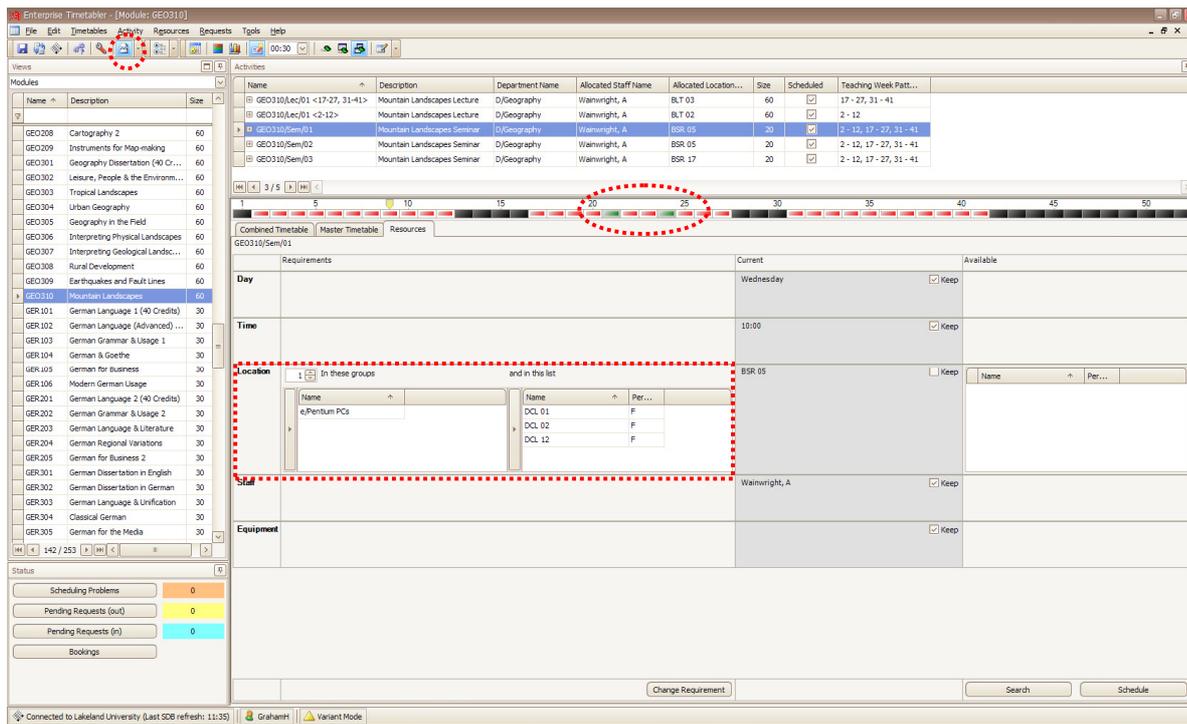
At the bottom left, the 'Status' section shows 'Scheduling Problems: 0', 'Pending Requests (out): 0', 'Pending Requests (in): 0', and 'Bookings: 0'. The bottom status bar indicates 'Connected to Lakeland University (Last SDB refresh: 09:40)' and the user 'GrahamH'.

With both child activities selected in the **Activities Spreadsheet**, the scheduling across the whole of the week pattern can be seen. Note the different week patterns listed in the **Activities Spreadsheet** and the different week patterns shown on the activity icon on the **Timetable Grid**.

## 1.2. Exercise 2 - Creating Activity Variants to Change Rooms over a Week Pattern

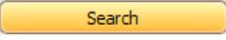
Seminar/01 is to remain scheduled at its current time and in its current location except for weeks 21 & 24 when it needs to move into a Computer Lab.

If the requirement is to create *activity variants* for a scheduled activity where only the resources are changed over part of the week pattern, **Variant Mode** can be selected, the relevant weeks selected in the **Week Pattern Bar**, and the resource changed in the **Resources Tab**. The example shown deals with an activity which needs a room with Pentium PCs for two weeks only in place of the scheduled seminar room.



In the illustration above, *Variant Mode* has been selected using the  icon in the toolbar, and weeks 21 and 24 have been selected in the **Week Pattern Bar**. In the **Resources Tab** the *Suitability* "Pentium PCs" has been chosen, giving two locations that fulfill the requirements of the *Suitability*.

If the scheduled day and time remains the same, with the location resource being the only change, the user can either *Preset* or *Wildcard* the new room.

To *Preset*, first use the  button first to check the availability of suitable locations, and then select an available room from the suitable locations list. Using the  button will create the *activity variants* and schedule the new activity at the same day and time into the *Preset* room.



Alternatively, the user can *Wildcard* the new location simply by clicking the  button. The *activity variants* will be created and the new activity will schedule into an available room that fulfills the requirement of the *Suitability*.

With both child activities selected in the **Activities Spreadsheet**, they will now appear on the **Timetable Grid** “stacked” on top of each other at the scheduled time and on the scheduled day. Note the different week patterns against each activity in the **Activities Spreadsheet** and in the activity icon on the **Timetable Grid**.

Name	Description	Department Name	Allocated Staff Name	Allocated Location...	Size	Scheduled	Teaching Week Patt...
GEO310/Lec/01 <17-27, 31-41>	Mountain Landscapes Lecture	D/Geography	Wainwright, A	BLT 03	60	<input checked="" type="checkbox"/>	17 - 27, 31 - 41
GEO310/Lec/01 <2-12>	Mountain Landscapes Lecture	D/Geography	Wainwright, A	BLT 02	60	<input checked="" type="checkbox"/>	2 - 12
GEO310/Sem/01 <21, 24>	Mountain Landscapes Seminar	D/Geography	Wainwright, A	DCL 12	20	<input checked="" type="checkbox"/>	21, 24
GEO310/Sem/01 <2-12, 17-20, ...>	Mountain Landscapes Seminar	D/Geography	Wainwright, A	BSR 05	20	<input checked="" type="checkbox"/>	2 - 12, 17 - 20, 22 - 23...
GEO310/Sem/02	Mountain Landscapes Seminar	D/Geography	Wainwright, A	BSR 05	20	<input checked="" type="checkbox"/>	2 - 12, 17 - 27, 31 - 41
GEO310/Sem/03	Mountain Landscapes Seminar	D/Geography	Wainwright, A	BSR 17	20	<input checked="" type="checkbox"/>	2 - 12, 17 - 27, 31 - 41

Day	9 AM	10 AM	11 AM	12 PM	13 PM	14 PM	15 PM	16 PM	17 PM	18 PM	19 PM
Monday		GEO310/Lec/01 <2-12>						GEO310/Lec/01 <17-27, 31-41>			
Tuesday											
Wednesday			GEO310/Sem/01 <21, 24>	GEO310/Sem/01 <2-12, 17-20, 22-23, 25-27, 31-41>							
Thursday							GEO310/Sem/02				
Friday			GEO310/Sem/03								

If the requirement is to change the day and time as well as the resource, follow the above steps and then simply drag and drop the *activity variant* into its new timeslot.

### Optional Exercises.

#### 1.3. Exercise 3 - Creating Activity Variants to Change Staff over a Week Pattern

Seminar/02 is now to be taught by a different member of staff for each term. Create **Activity Variants** for each term with a different, available member of staff.

#### 1.4. Exercise 4 - Creating Activity Variants to Change Resources and Scheduling over a Week Pattern

The Lecture that is scheduled on Monday during week 34 needs to be changed. The Monday is a Bank Holiday, so the Lecture needs to be moved to Tuesday, preferably at the same time. Moreover, the member of staff who teaches on Monday is not available so a different member of staff needs to be selected. Create the required **Activity Variants**.