# **Timetabling Solutions**

**Version 9** 





# **Timetable Development**

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# **COMPASS: IMPORTING AND EXPORTING**

The underlying standard used to transfer information between Timetabling Solutions V9 and Compass is called LISS – the Lightweight Interoperability Standard for Schools. This is a common set of standards that have been developed to allow different educational systems to transfer information between them. Within this data framework, Compass has an additional layer of specific data requirements that must be adhered to before data can be exported.

The purpose of this lesson is to highlight the most important aspects of preparing data for use in Compass.

To assist with the Compass exporting process, a pre-export integrity check is built into the Timetabling Solutions Version 9 export wizard which will check the data against the rules that have been provided.

The process of transferring information under the LISS Standard sends a number of specific sets of information (labelled "LISS Core RPC Calls" under the standard). The most significant of these for Compass are:

liss.publishClasses() liss.publishClassMemberships() liss.publishTimetable() liss.publishDailyData() liss.publishDailyDeltas() liss.getTeachers()
liss.getStudents()
liss.getRooms()

# **CHECK LIST**

A summary list of the major data checks that should be made before data is exported to Compass is:

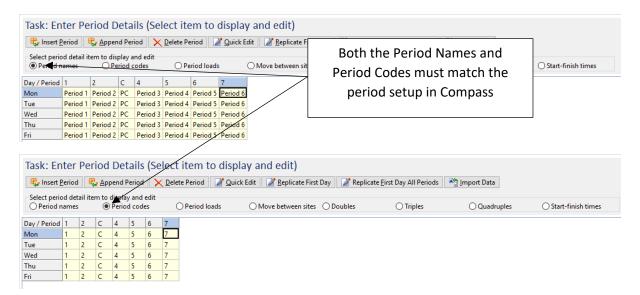
- ✓ Period Codes
- ✓ Yard Duty Session and Yard Duty Area Codes
- ✓ Class Names, Class Codes and Faculties
- ✓ Subject Names and Subject Codes
- ✓ Final Timetable Checks

#### **PERIOD CODES**

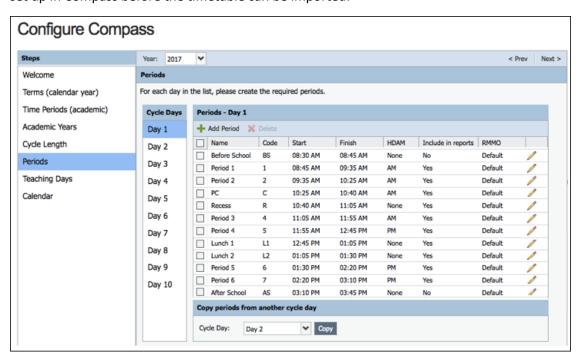
The Period Codes that are entered in Timetabling Solutions are determined by the codes that should already have been setup within Compass. The codes must match between the two systems.



On the Task Tree select: [1C] Period Details



This information is found in the Admin Tools menu within Compass, under the Configure Schedules option in the step "Periods". Note that the period details including start and finish times need to be set up in Compass before the timetable can be imported.



#### **PERIOD CODE RULES**

The required Period Codes within Timetabling Solutions are determined by the values setup within Compass.

The rules for period codes in Compass are:

- Period codes must be unique within a day. An individual period code can be used on multiple days (this is recommended). As an example, each day of the cycle has a period code of "1" for the first lesson of the day.
- Period codes can be a maximum of two alphanumeric characters. The length of code recommended by Compass is one character. Compass allows for a maximum of 3 characters in a period code, however Timetabling Solutions allows for a 1 or 2-character code.
- Period codes must be alphanumeric, using only the characters A-Z, 0-9 with no special characters (e.g. dashes, full stops etc) or spaces used.
- Period codes must be wholly uppercased.
- Period codes must not start with the letter "P" where the subsequent character is a number (e.g. P1, P2, etc should be represented as 1, 2, etc. PD, PT, P, PA are all permitted)
- The same code cannot be used for both a period and for a yard duty in either Timetabling Solutions or Compass.

For schools with multiple period structures (for example, a P-12 school which has 9 periods per day for years P-6, and 6 periods a day for years 7-12), the same rules apply for both/each of the different Timetable files created. Compass should be consulted to assist setting up in this case.

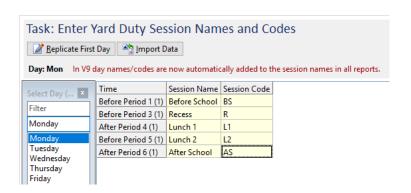
# YARD DUTY SESSION CODES

To allow management of yard duties, Timetabling Solutions Version 9 uses Yard Duty Area Names and Codes, as well as Yard Duty Session Names and Codes.

The Yard Duty Session Codes are used to tell Compass when a yard duty occurs, and the Yard Duty Area Codes define the type/area of duty displayed on the Compass timetable display.

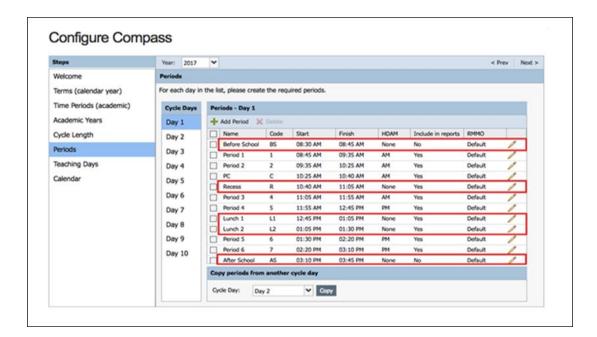


On the Task Tree select:
[10C] Yard Duty Session Names and Codes



Before the yard duties from Timetabling Solutions Version 9 can be imported into Compass, the sessions will need to be configured within the Compass period structure. To view this information, select "Configure Schedules" within the Admin Tools menu in Compass.

Under the step "Periods" within this screen create the periods with the correct start and finish times and a code which matches the code configured on the Yard Duty Session Names screen within Timetabling Solutions.



#### **RULES FOR YARD DUTY SESSION CODES**

The required Period Codes within Timetabling Solutions are determined by the values that should have been already setup within Compass.

The rules for Yard Duty Session Codes are basically the same as the rules for Period Codes and Yard Duty Session Codes:

- Must be unique per day, both within [10C] Yard Duty Session Names and Codes and on the [1C] Period details screen. The same code cannot be used for both a yard duty and for a period within in either Timetabling Solutions or Compass
- Must be consistent across the days, where the yard duty session structure is the same.
- Must be alphanumeric, uppercase and without spaces or "special" characters (e.g. dashes, full stops, etc...)
- Must not start with the letter "P" where the subsequent character is a number (e.g. P1, P2, etc should be represented as 1, 2, etc. PD, PT, P, PA are all permitted).
- Must be uppercase and are limited to a maximum of 2 characters in the code.
- Note it is very important to ensure Yard Duty Session Codes in Timetabling Solutions match the period code that has been set up in Compass.

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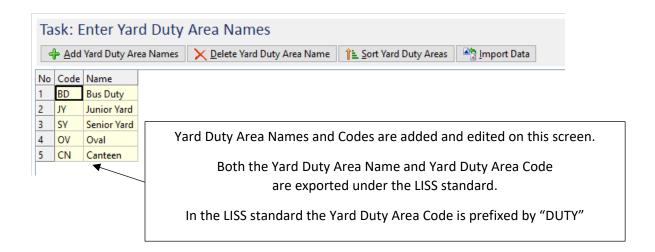
#### YARD DUTY AREA CODES

Yard Duty Areas are used in Timetabling Solutions to describe the different areas at the school where staff take yard duties.

The LISS Specifications do not differentiate between yard duties and timetabled teaching classes, therefore these have similar code requirements.



On the Task Tree select: [10A] Yard Duty Area Names



#### **RULES FOR YARD DUTY AREA CODES**

The rules for the Yard Duty Area codes are similar to the rules referring to other codes.

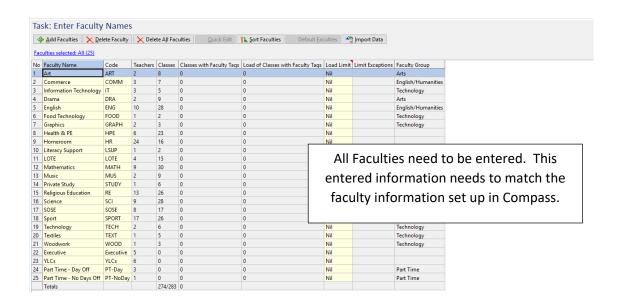
- The Yard Duty Area Codes must be alphanumeric, uppercase and without spaces or "special" characters (e.g. dashes, full stops, etc...)
- Within Timetabling Solutions Version 9, the Yard Duty Area code is limited to two characters. Note, the LISS standard will accept up to a total of 10 characters for this descriptor field. We are investigating ways to extend the limit from 2 to 10 characters for a future release.
- Under the LISS Specifications, all Yard Duty Area codes are automatically prefixed with "DUTY" when exported via LISS

# **FACULTY INFORMATION**

The use of Faculties is not mandatory, however if classes and teachers are to be assigned correctly to faculties, then this information will be exported. Note Faculty Group information is not exported in the LISS process. Compass generally recommends that all classes are assigned to faculties.

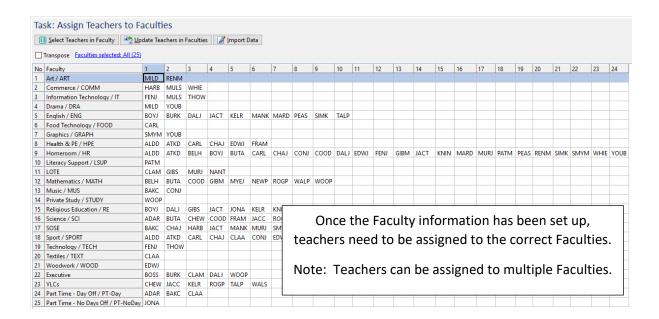


On the Task Tree select: [2A] Faculty Names



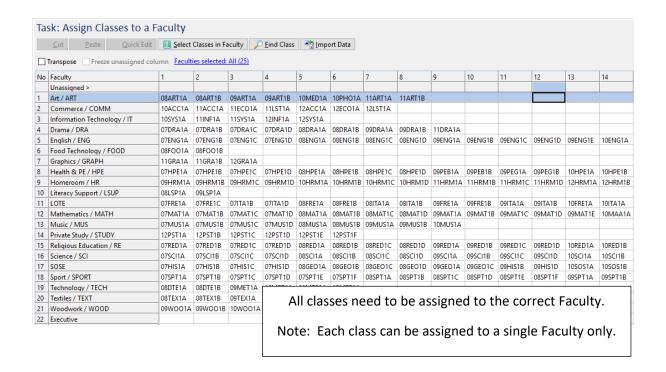


On the Task Tree select: [8A] Teachers in Faculties





# On the Task Tree select: [8B] Classes in Faculty

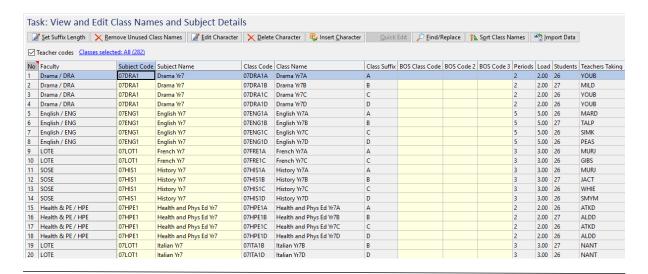


# **SUBJECTS AND CLASSES**

Subject and class information tends to be the main area where schools struggle to achieve the data requirements for Compass. The main screen that will be used to check for and resolve any issues is the Class Names screen.



On the Task Tree select: [7C] Class Names



Compass provides their interpretation of subject and class terminology:

- A "subject" represents a curriculum studied by students at the school. All "subjects" in the timetable must be entered as combinations of:
  - 1. A year/syllabus level and
  - 2. A course being studied.
- A good rule to apply when thinking about subjects and classes: If the year level/syllabus level
  and curriculum are the same, then the classes should have the same subject name and code;
  if the year level/syllabus level and curriculum are different, a different subject name and
  code should be used.
- Compass uses Subject Names extensively in the normal user screens, on student reports, attendance reports and in various other places. In each spot where a Subject Name is used, the developers of Compass want to allocate a consistent, predictable amount of space to hold the Subject Name. For this reason, they require that the length of each Subject Name is constrained.

# **SUBJECT AND CLASS CODE RULES**

Compass has a range of requirements regarding classes and subjects:

**Subject Code Requirements:** 

- Subject Codes must be unique different subjects must have different codes.
- Subject Codes must be alphanumeric (A-Z, 0-9, no special characters or spaces).
   Compass states that non-alphanumeric characters are confusing/ambiguous when included in a subject code, and that many non-alphanumeric characters (e.g. slashes, ampersands, full-stops) may have special meanings to computer systems, and so are prohibited to avoid potential issues.
- Subject Codes should be wholly uppercased. Compass states that Subject Codes are significantly easier to read when capitalised, and easier to read in a list when the entire list is capitalised, and also capitalisation removes any ambiguity between similar looking characters e.g. i, l, 1 etc
- Subject codes must be three or more characters in length.

#### **Subject Name Requirements**

- Subject Names must be at least five and less than fifty characters in length.
- Subjects Names with only one word as the name (which are typically those missing a
  year level/syllabus level) are not permitted. Compass suggests: "A good rule to apply
  when thinking about subjects and classes: If the year level/syllabus level and curriculum
  are the same, the same subject should be used; if the year level/syllabus level and
  curriculum are different, a different subject should be created."
- Subject Names need to include a number, a letter and a space. e.g. "MATHS" is unacceptable but "10 MATHS" or "YR10 MATHS" are correct.
- Systems like Compass require one subject per year level/unit of study (because the syllabus is different at each level). For example, "English" is not a valid subject, but "Year 10 English" or "Unit 1 English" are valid subjects.
- Subject Names must begin with an alphanumeric character, and end with either an
  alphanumeric character or a closing bracket. Compass states that allowing only valid
  starting/ending characters forces schools to name subjects in a consistent and logical
  way, ensures clarity when listing codes in grids/reports. Non-alphanumeric characters
  can be confusing/ambiguous when included as the first/last character of a subject code.
- Compass preferers that subject names are fully UPPERCASE.

There are also a range of requirements that overlap the Subject Name, Class Code and Subject Code areas:

- A Subject Name must be different to the Subject Code they cannot be the same. For
  example, if the Subject Code is 07ART, the Subject Name 07ART is not allowed. An
  acceptable example is where the Subject Code is 07ART the Subject Name can be YEAR 7
  ART, YR7 ART or ART YR7.
- Two different/separate Subject Codes can't share the same name. Note if they are
  different subjects then they need to have different Subject Names, and if they're not
  different subjects they should have the same Subject Code and Subject Name). In
  practical terms, all Subject Codes for a listed subject name must be the same/or all
  Subject Codes for a specified name must be identical.
- Subject Codes must not be the same as any other class codes.
- Class Codes must be unique a single Class Code must not represent more than one actual class of students. Compass states: Subject and Class Codes should never be repeated/recycled during the same academic year, unless the students and syllabus are exactly the same (i.e. it is the same logical class, the students are "continuing" to study the same thing, and the school is simply re-implementing the group somewhere else in the timetable). This mistake is often made when the same syllabus is offered to two different sets of students one group in semester one, and one in semester two. In this case, it is imperative that the school use two different Class Codes.

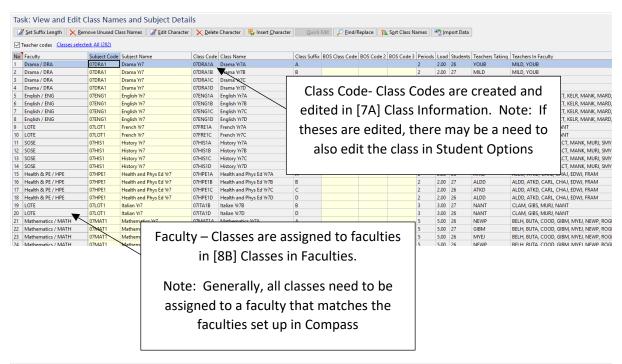
# **ADJUSTING CLASS AND SUBJECT INFORMATION**

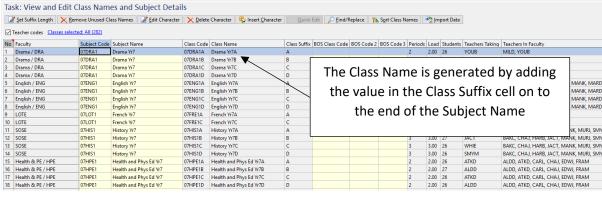
Most of the required editing will need to be made on the class names screen in timetable development.

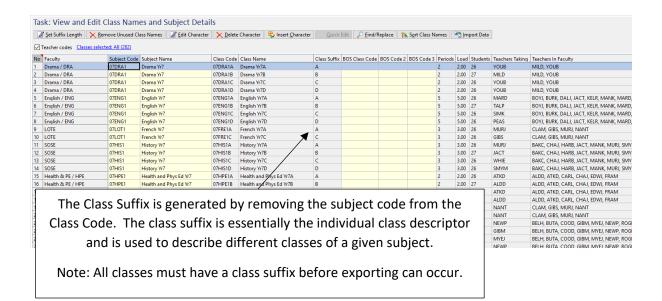


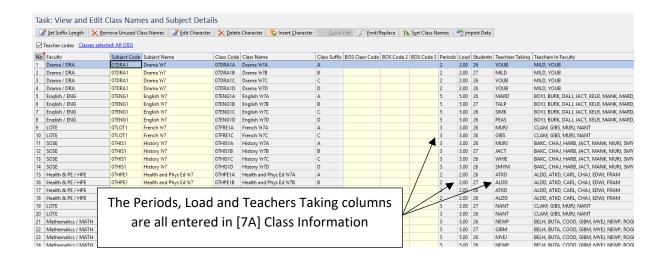
On the Task Tree select: [7C] Class Names

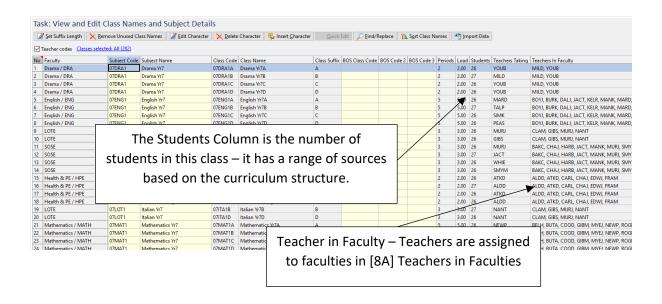
Note, the grey columns on the Class Names Screen cannot be directly edited on this screen – the information is compiled from a range of sources.



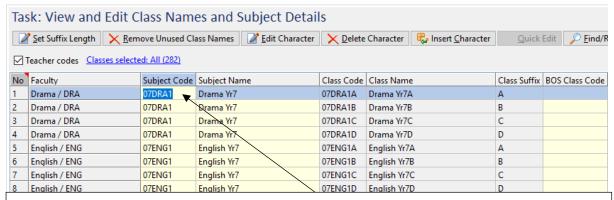








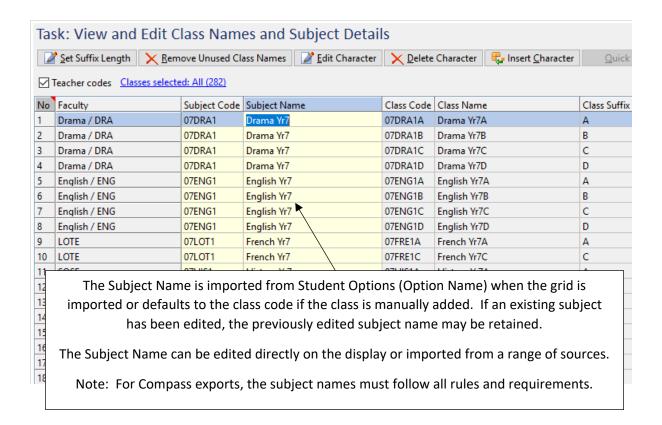
The most important columns in this display for LISS Exporting are the Subject Code and Subject Name.



The Subject Code is created by default when the class code is created in the timetable file, either when imported from Student Options (or another source) or when manually edited.

This can be edited directly on the display, when this is done the class suffix automatically updates

Note: For Compass exports, the subject code must be a subset of the class code



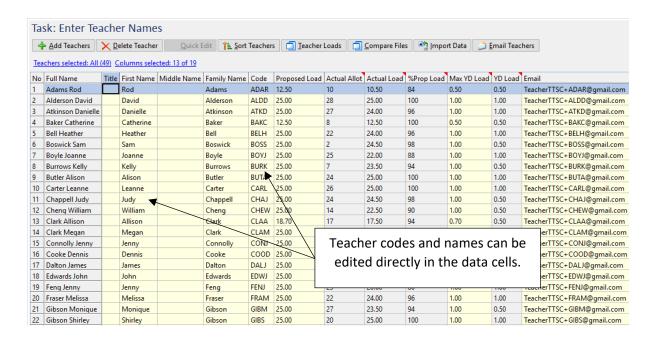
#### **TEACHERS**

Every teacher code in the timetable must match a corresponding staff code in Compass. It is strongly recommended that the same teacher code should be consistent across all systems used in the school.

The best way to ensure that these systems match is to import the teacher details into Timetabling Solutions version 9 via LISS before the timetable is created. This import process is covered later in the guide.



On the Task Tree select: [4A] Teacher Names



Additional information regarding teachers has been provided by Compass:

- Compass will ignore data from the timetable which does not match a valid Compass staff
- Note, having less than five staff in the staff list of the timetable software indicates the timetable is not yet set up correctly. The timetable file must have five or more teachers in the teacher list.

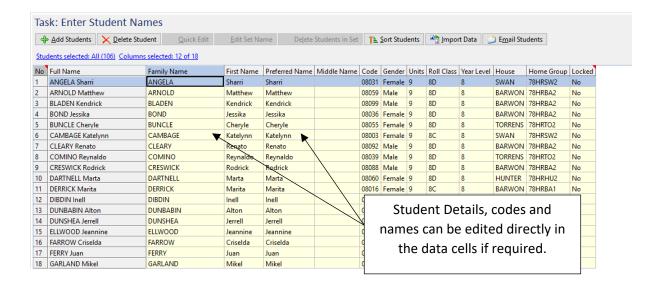
#### **STUDENTS**

In the same way that teacher codes must match the school administration systems, student codes must also match across the different "destination systems". This is typically managed by importing the students from the relevant systems at the start of the process. This import process is covered later in the guide.

Students are managed in the relevant Student Options file.



Open the relevant Student Options file and select: [2A] Student Names on the Task Tree



Additional information regarding students has been provided by Compass:

- Having less than five students in the students list of the timetable software indicates the timetable is not yet set up correctly.
- Every student code in the timetable must match a corresponding student code in Compass
   (and should also match the student code in the school's student records system, e.g
   CASES21). Compass uses the student records system as the source of truth for codes (not
   the timetable), and so one needs to ensure that the codes match exactly in all three
   software packages. Compass will ignore data from the timetable which does not match a
   valid Compass Student Code.
- Often schools have a need to enter students into the timetable prior to them being allocated a code from the student records system we strongly recommend that you change your process at the school so that students are required to be in the student records system (and thus have a unique student code) before being put into the timetable.

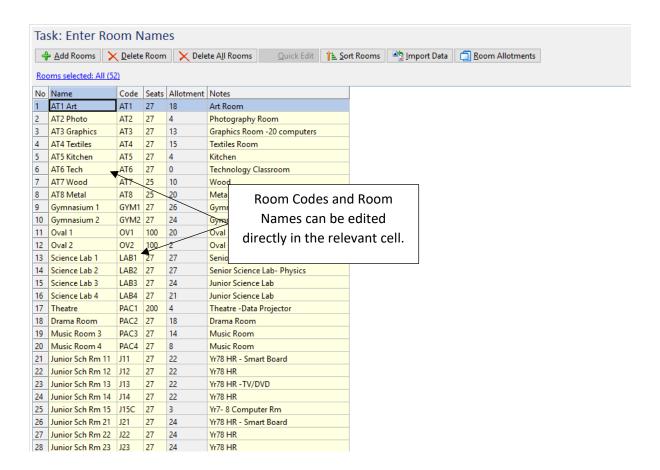
# **ROOM CODES**

As per other codes, Room Codes should be alphanumeric only and contain no special characters or spaces. Rooms can be imported from selected administration systems including Compass via LISS. This import process is covered later in the guide.



On the Task Tree select:

[4] Room Details



Note: All Room Codes must follow the Compass specifications before they can be exported. In addition to the standard LISS requirements, Compass requires all Room Codes to be UPPERCASE. The codes must be alphanumeric, uppercase and without spaces or "special" characters (e.g. dashes, full stops, etc...) Room codes must not contain a space eg. Lab 1 must read LAB1

# **FINAL DATA CHECKS**

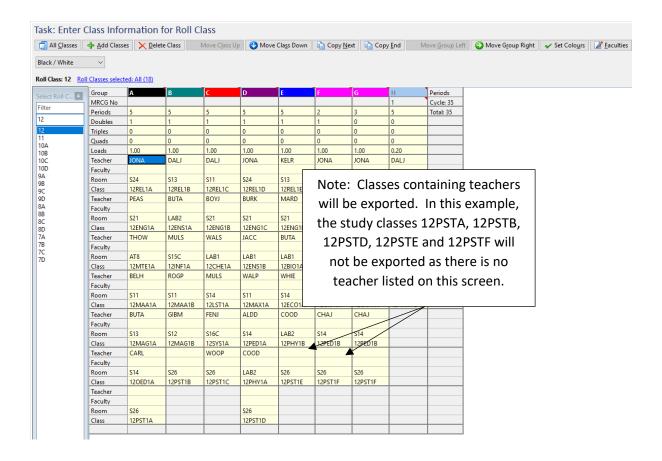
Once all the base codes and information is correct, there are a few other items to check to make sure that the timetable data is exported as expected.

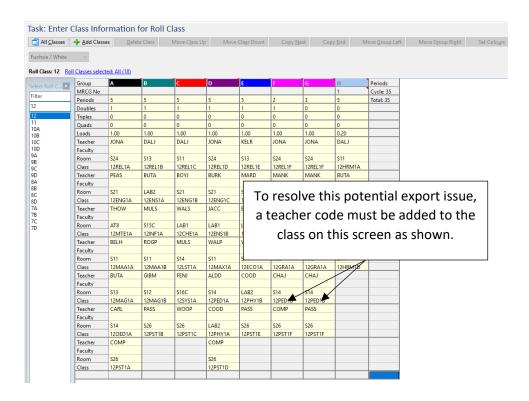
#### **CHECK [7A] CLASS INFORMATION**

All classes must have a teacher entered on [7A] Class Information. If a teacher is not listed with a class then it will not be exported to Compass, and it will not have an associated timetable in Compass, even if the class has teachers for all lessons. The teacher listed on [7A] Class Information is exported to Compass as the "default teacher" for a class.



On the Task Tree select: [7A] Class Information



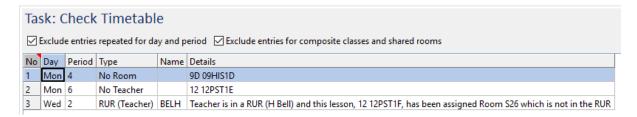


# **CHECK [16] CHECK TIMETABLE**

All classes on the final timetable must have both a teacher and room to be exported to Compass. This is best checked on [16] Check Timetable.



On the Task Tree select: [16] Check Timetable



If a lesson/class is not assigned a room, then this lesson/class is not exported to Compass. If a lesson/class Line is assigned to a room Compass is not aware of (not listed in the Compass data), it will be included in the export with the room set to "UNASSIGNED".

If a lesson/class is not assigned a teacher, or it is assigned to a teacher that is not already in the Compass data, then this lesson is not exported to Compass.

Individual classes or individual lessons that are identified as not having a room or teacher can be edited on [14] Edit Timetable as required

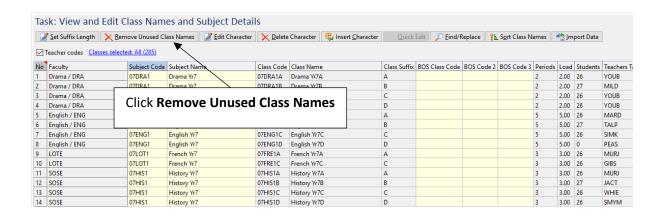
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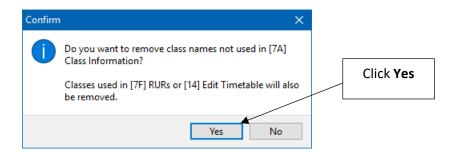
#### **REMOVE UNUSED CLASSES**

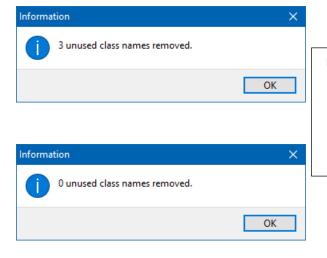
The final step before data can be exported to Compass is to remove unused class codes from the class names list. Unused classes will cause errors in Compass during processing of timetable data.



On the Task Tree select: [7C] Class Names







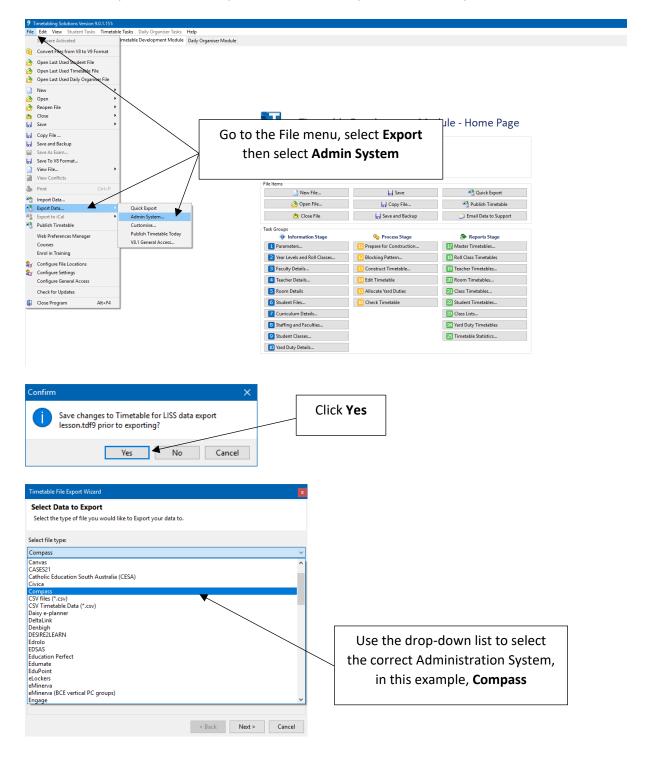
Note: The number of unused class names that are removed will be listed in the confirmation. (if there are no unused classes listed, this information will also be displayed)

Click **OK** 

# **EXPORTING TO COMPASS – TIMETABLE DEVELOPMENT**

Once the Timetable Data meets the requirements specified by Compass the data can be exported.

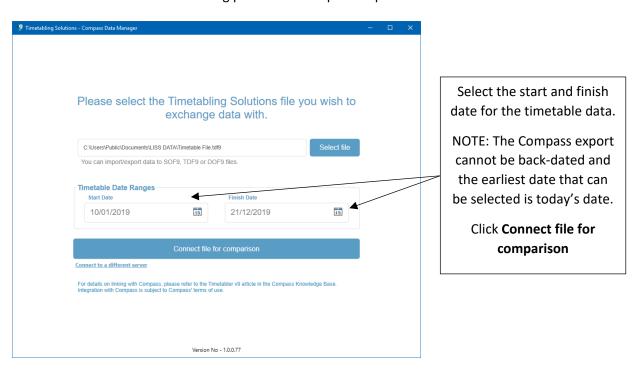
To use the LISS export for Compass for the first time, open the Timetable file then go to the File menu, select Export then Admin System and select Compass from the drop-down.



The connection details provided by Compass will need to be entered and saved. Note, this only needs to happen once - subsequent times these details are remembered, and you will go straight to the next step.



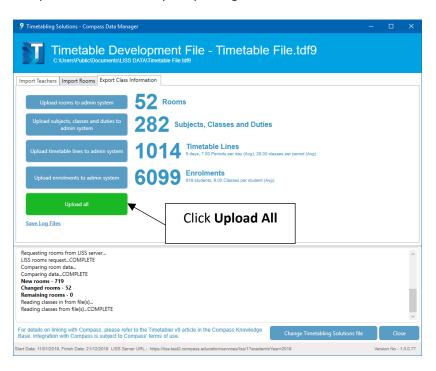
The screen below shows the starting point for subsequent exports via LISS.



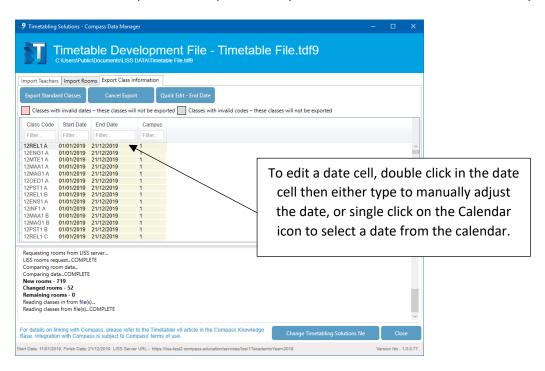
Once this is done, the LISS Data Manager will connect to the LISS Server then check that the data that the timetable data entered conforms to the requirements that Compass requires (for example, having correctly entered class names and class codes etc). Initial problems that are encountered are displayed in the lower pane.

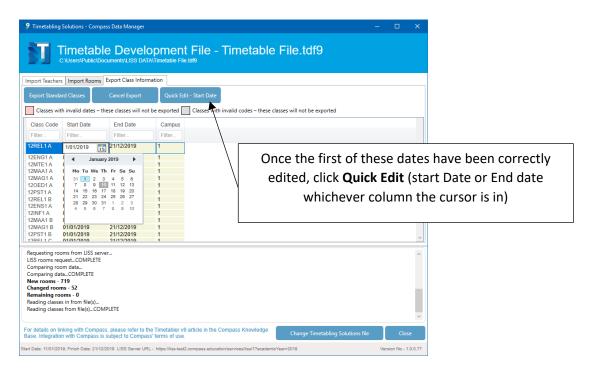
Note: this connection and checking process does not check to see if the data is correct or that the specific codes match what has been entered in Compass (eg Period codes) but checks that the data has the correct format. The data will also be checked as part of the internal processing done by Compass after the data has been exported by Timetabling Solutions.

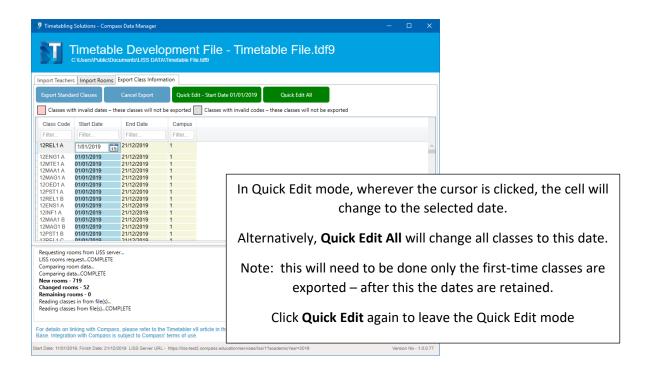
Once the data clears the pre-export check, it can be exported. A single type of information can be exported using the blue buttons or a complete set of information can be exported using the green "Upload All" button. Note, within Daily Organiser, the full current timetable, class and student data is exported, as well as any daily change information for the selected date range.

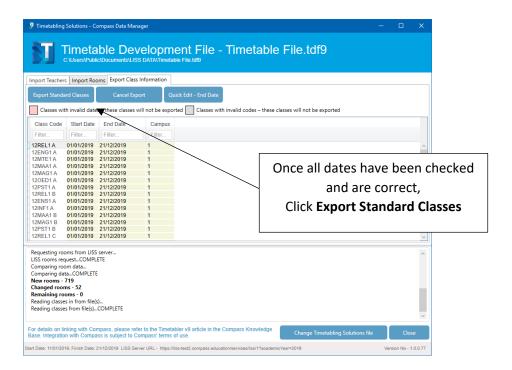


Before the "Subjects, Classes and Duties" can be exported, a start and end date will need to be entered for the classes/yard duties. It is very important that these dates are set to match the dates that have been set up within Compass – if they do not match then the data will not import correctly.

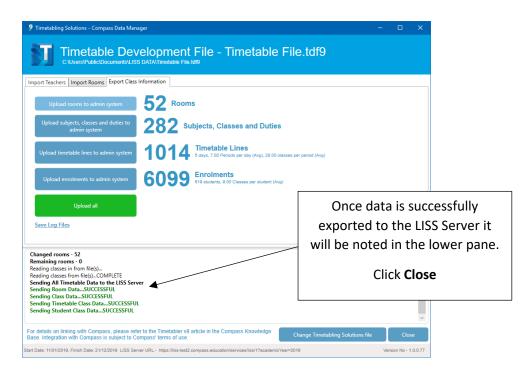




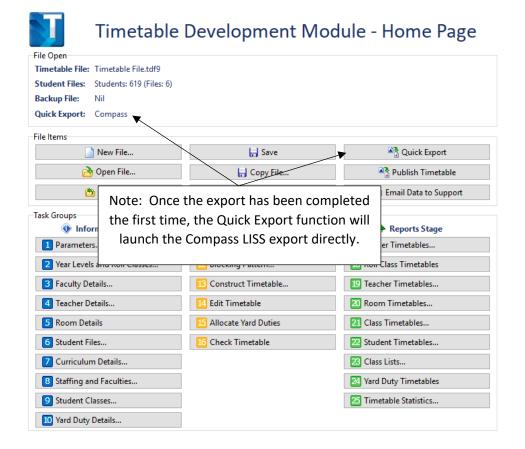




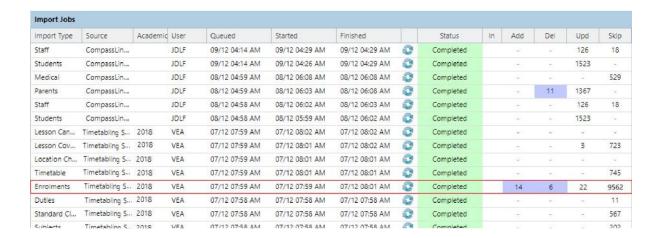
You will then (hopefully) receive the confirmation that the process has been successful



Compass will then process the export and will report on the success using the standard Compass import job screen (refer to Compass for more details)



Confirmation of a successful data sync can be obtained within Compass on the Import Management tools, which can be accessed by going to the Administration Tools under the cog icon and clicking the link titled "Import Jobs"



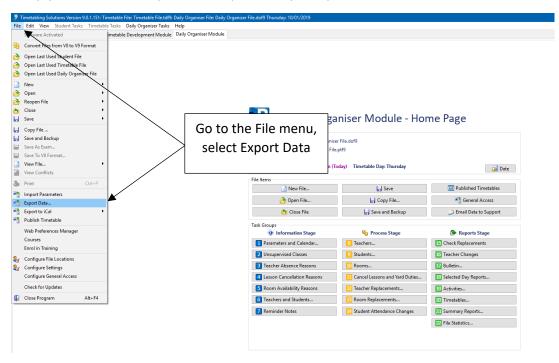
The most recent import is shown at the top, so see the order of imports going from bottom to top.

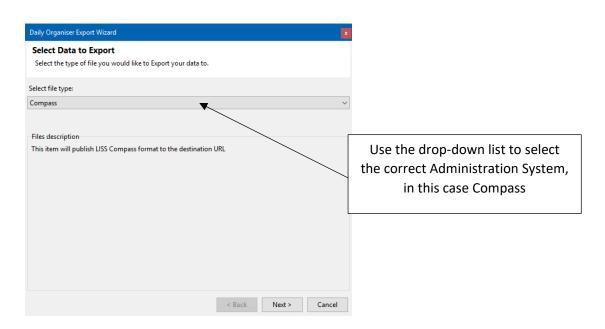
Each import job is shown in a separate row in the grid (Locations, Enrolments, Classes etc). In the columns at the right, Compass displays how much has changed since the last import, and in what way.

# **EXPORTING TO COMPASS – DAILY ORGANISER**

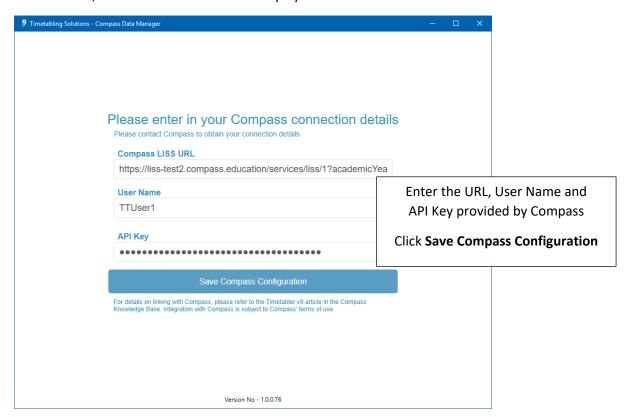
To use the LISS export for Compass, open the Daily Organiser file then go to the File menu, select Export data then select Compass from the drop-down list.

Note: To successfully export Daily Organiser data to Compass, all published timetables need to comply with the data requirements specified by Compass.

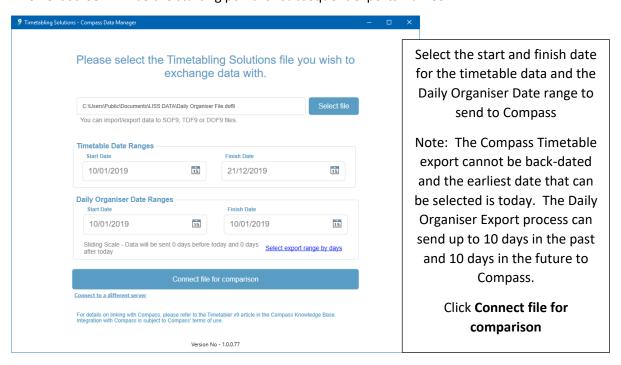




The connection details provided from Compass will then need to be entered and the configuration needs to be saved. Note, this only needs to happen once - subsequent times these details are remembered, and this screen will not be displayed.



This next screen will be the starting point for subsequent exports via LISS.

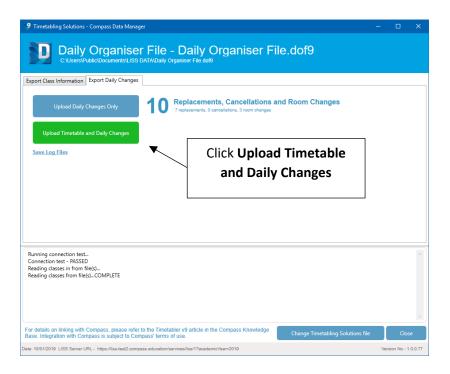


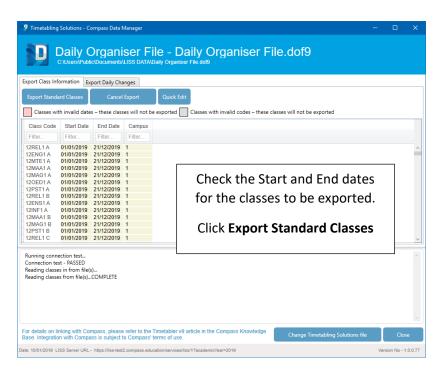
Once this is done, the LISS Data Manager will connect to the LISS Server then check that the timetable data entered conforms to the requirements that Compass requires. (for example, having correctly entered class names and class codes etc). Initial problems that are encountered are displayed in the lower pane.

Note: this connection and checking process does not check to see if the data is correct or that the specific codes match what has been entered in Compass (eg Period codes) but checks that the data has the correct format. The correctness of the data will be checked as part of the internal processing done by Compass.

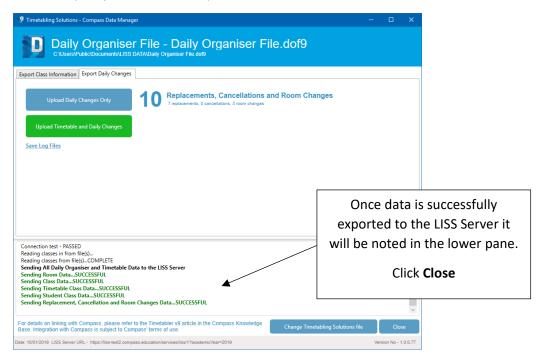
Once the data clears the pre-check, then you can upload only the daily changes (teacher replacements, room changes) using the blue "Upload Daily Changes" button or upload the daily changes and the timetable information (timetable, class and student information) using the green "Upload All" button.

It is recommended that both the timetable information and the Daily changes are exported together – this will remove the potential for the base timetable that exists in Compass to be different to the base timetable that Daily organiser is reading.



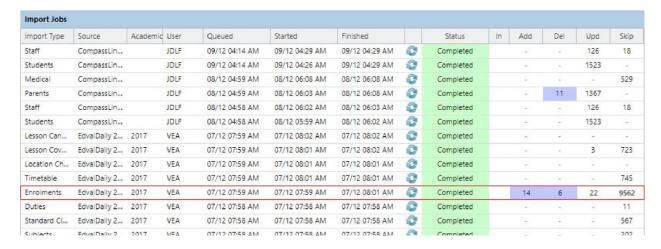


The full export process will then proceed.



Compass will then process the export and will report on the success using the standard Compass import job screen (refer to Compass for more details)

Confirmation of a successful data sync can be obtained within Compass on the Import Management tools, which can be accessed by going to the Administration Tools under the cog icon and clicking the link titled "Import Jobs"



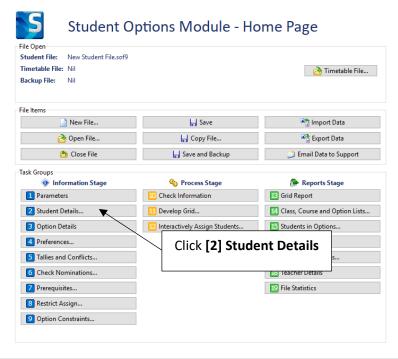
The most recent import is shown at the top, so see the order of imports going from bottom to top.

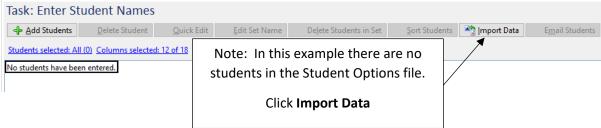
Each import job is shown in a separate row in the grid (Locations, Enrolments, Classes etc). In the columns at the right, Compass displays how much has changed since the last import, and in what way.

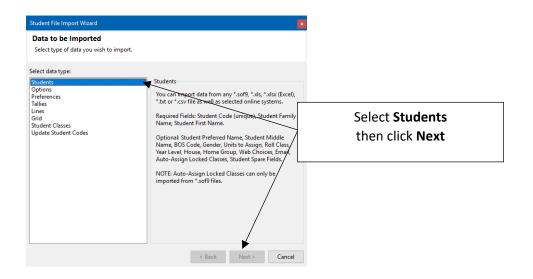
Compass will then process the export and will report on the success using the standard Compass import job screen (refer to Compass regarding this)

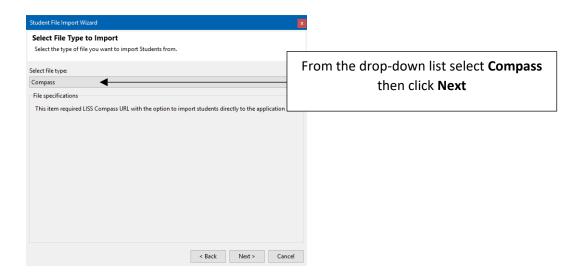
# **IMPORTING FROM COMPASS – STUDENT OPTIONS**

Student information can be imported into Timetabling Solutions Version 9 via the LISS Import method from Compass. To do this, open either a new or existing Student Options file.

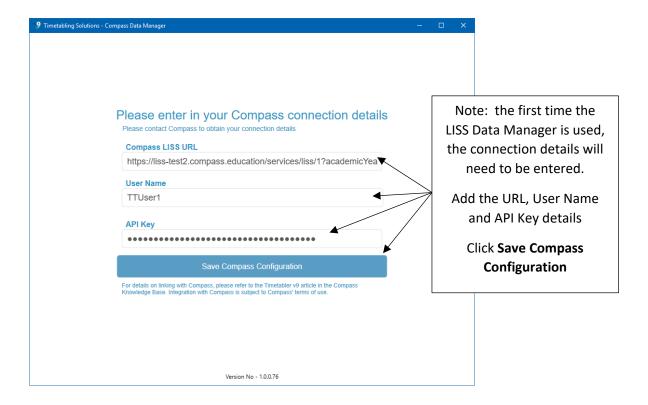


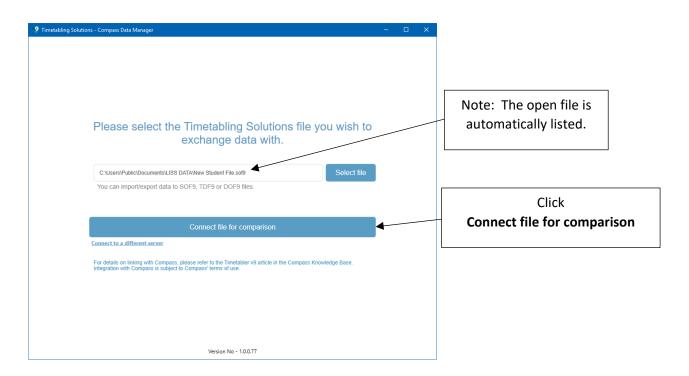


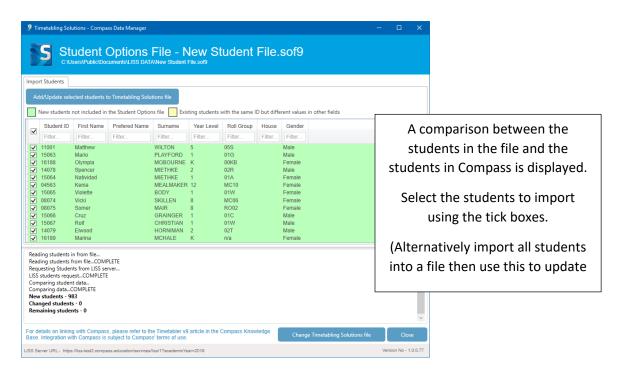


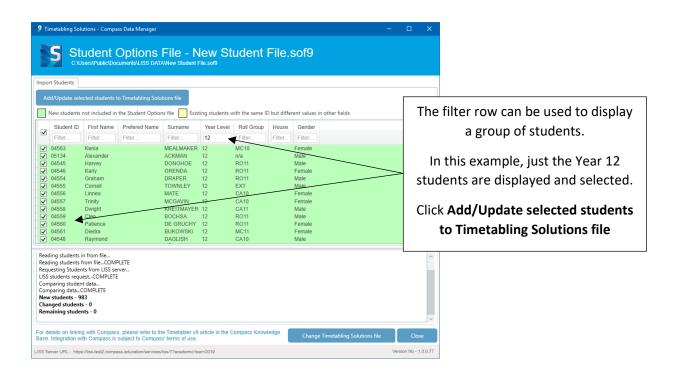


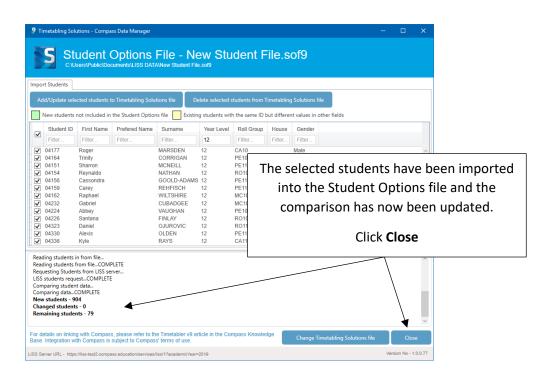
The next step is to enter the connection details provided by Compass and save the configuration. (Note this only needs to happen once - subsequent times these details are remembered, and you will go straight to the next screen)

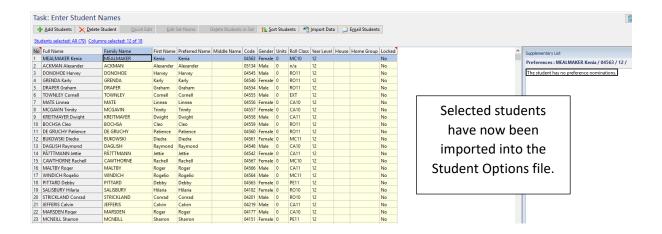






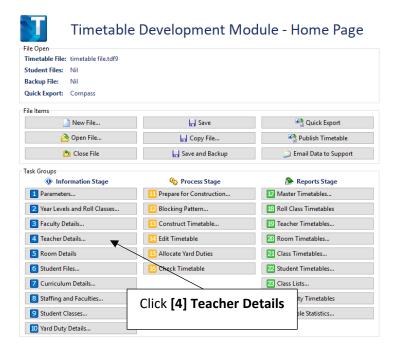




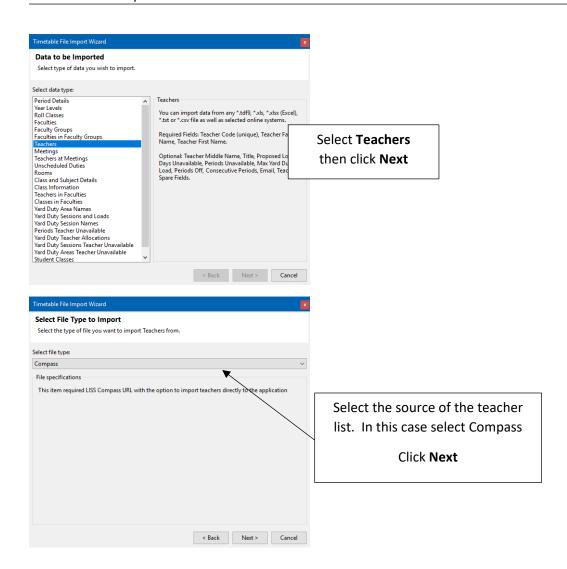


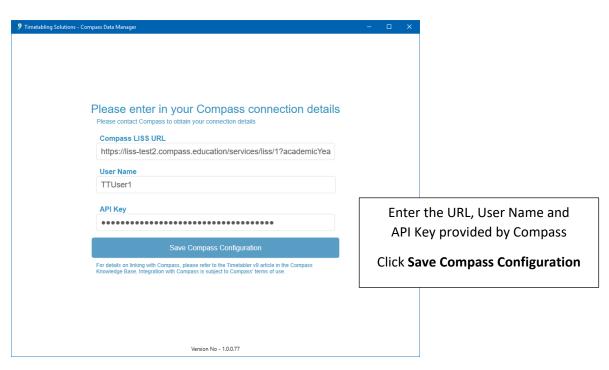
# **IMPORTING FROM COMPASS – TIMETABLE DEVELOPMENT**

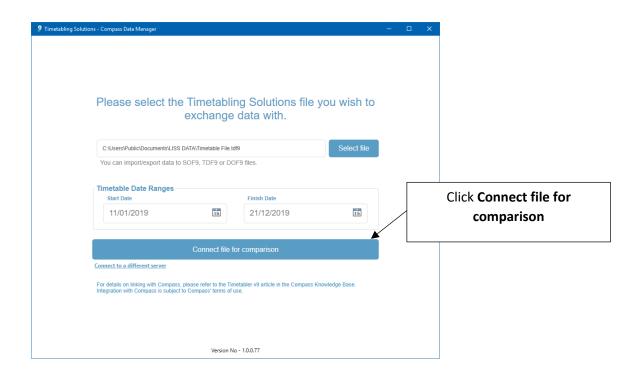
Teacher and room details can be imported into the Timetabling Solutions Version 9 via the LISS Import method from Compass. To do this, open either a new or existing Timetable Development file.

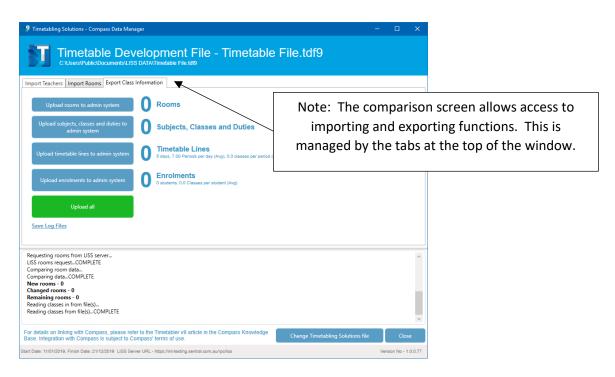




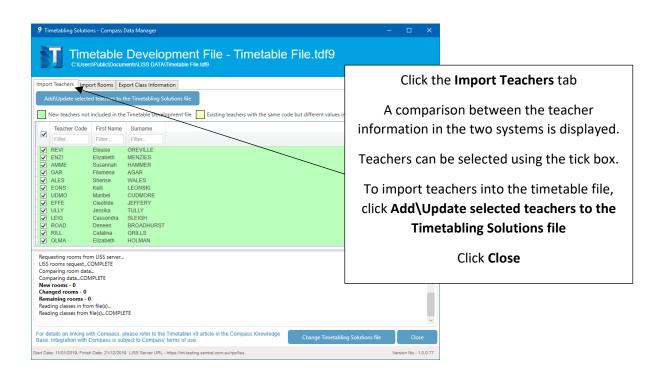


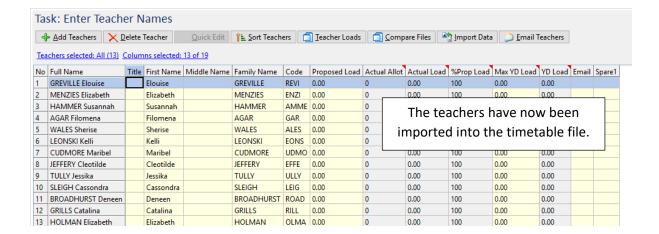






# IMPORT TEACHERS INTO TIMETABLE DEVELOPMENT





# IMPORT ROOMS INTO TIMETABLE DEVELOPMENT

