Optimise scheduling and help your institution to achieve its strategic goals by using the Enterprise Foundation timetabling suite.

In today's demanding education climate, institutions are constantly exploring ways to effectively allocate all the resources involved in delivering the academic timetable. Improving student satisfaction, enhancing course choice, making the best use of space whilst maintaining academic staff priorities are just some of the challenges faced when delivering a timetable. Timetabling is vital in the strategic planning process and impacts on all other institutional activities.

Enterprise Foundation is a powerful, yet easy-to-use timetabling solution. It supports fully automated, entirely manual or a combined approach to timetabling so that the user always has the power of the scheduling engine whilst maintaining complete control.

Enterprise Foundation includes the following modules:

- **Enterprise Timetabler** ensures that clash-free timetables can be produced. It also supports and underpins the scheduling of all planned activities using the resources available.

- **Course Planner** intelligently analyses estimates of demand to plan the correct number of activities. A management dashboard alerts the user to discrepancies between planned supply and expected demand.

- **Reference Data Manager** allows the user to administer resources such as academic staff and teaching locations, as well as their properties such as room suitability and capacity, availability and preferred working patterns.

- **Authorisation Manager** allows you to control who has access to which functionality in Enterprise Foundation, as well as limiting the data they can see and edit.

- **Reporting Database** presents timetable and other related data in a format that makes it easy to access meaningful management information. Custom reports can be created using standard reporting tools or can be engineered by Scientia to match your requirements.

Enterprise Foundation is designed with the flexibility to allow an institution to operate with a specialist central timetabling group, with local timetablers in each department, or with a combination of the two approaches. Enterprise Foundation is proven and successful at resolving even the most complex timetabling scenario.

Enterprise Foundation delivers "real world" scheduling. Enterprise Timetabler supports "incremental scheduling" which means that scheduling can be done as data becomes available, without changing everything that has been scheduled already. In addition, Enterprise Timetabler supports "dynamic scheduling", so when adjustments are needed the system provides instant advice on alternative solutions.

Enterprise Foundation is a reliable, tried and tested solution for managing scheduling problems. Our software is used by over 450 institutions in more than 30 countries worldwide, for the scheduling of academic programmes of over 4,000,000 students.

Enterprise Foundation can help to:

- Increase efficiency.

- Maximise growth or increase course choices using your existing resources.

- Enhance student satisfaction.

- Empower your staff and students.

- Maintain academic quality.

Supporting you every step of the way

We believe that just having the best software solution for the job isn't enough.

We know that in order for your institution to get the best from our software solutions that you should also be able to call on our Support Services including access to:

- A dedicated help desk, manned by a team of experts, offering a prompt response and in-depth technical support.

- Technical consultants who can guide you through all phases of your implementation.

- Training consultants who provide training in all our products and who can also provide in-house bespoke training courses to meet your administrator's needs.

- Timetabling and scheduling process consultants who have a wealth of sector expertise and can offer a comprehensive analysis of your current processes and advice on how to restructure them where necessary.
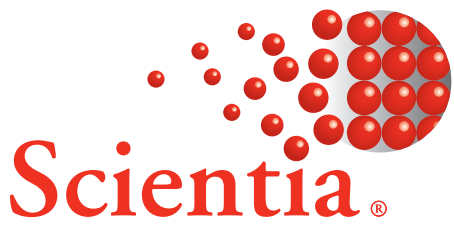
About Scientia

Over the years, Scientia has built an enviable reputation as a global market leader in the provision of resource management solutions for the Higher and Further Education sectors.

Scientia provides smart software solutions and consulting expertise to help institutions make the most efficient use of their valuable resources, including staff and space.

Part of the Scientia suite of resource management solutions, Enterprise Foundation provides users with a complementary tool that can be integrated with Scientia software and other institution systems to offer strategic and operational support.

Contact us

For more information about Enterprise Foundation and our other smart software solutions, consulting services or to find your local office to contact us, please go to our website **www.scientia.com.**

Enterprise Foundation

Optimise scheduling to achieve strategic goals

Benefits

Increase student satisfaction
Travel logistics, work and family commitments are all pressures on the modern student. The scheduling engine manages these pressures and constraints as well as considering the preferred work patterns for students and staff. This ensures that student-friendly timetables are generated.

More course choice
Enterprise Timetabler gives the flexibility to create and change the timetable based on the combined requirements of staff, students and rooms. Student advisors are also able to check the impact on an individual's timetable when changing course choices.

Attract and retain students
By scheduling in a way that broadens choice, you are more likely to attract students to your institution, whilst improving student retention. A flexible timetable enhances student satisfaction, helping to make your institution a more desirable place to study.

Maximise student throughput
Using Pathways ensures that students can take the right combinations of courses or modules to complete their qualification aims in the shortest period possible.

Make the best use of existing space
Fit teaching into the right type of room with matching capacity to improve utilisation. Many institutions have been able to increase student numbers and offer more courses whilst reducing the number of teaching rooms.

Maintain academic staff priorities
Enterprise Foundation's scheduling engine supports timetabling constraints that are applied for academic reasons. Academic staff will also be reassured to know that their availability and preferences can be respected in the scheduling process.

Increase efficiency
Smart scheduling ensures that important resources such as staff, rooms and equipment are effectively utilised to the benefit of the whole organisation. This releases capacity that can be used to support growth, or for other revenue generating activities.

Improve decision making
Use management reports to monitor and react to key information such as room utilisation and staff availability. Fast and efficient "what-if" scenario building allows you to plan new buildings, model new courses, or increase student numbers with real confidence.
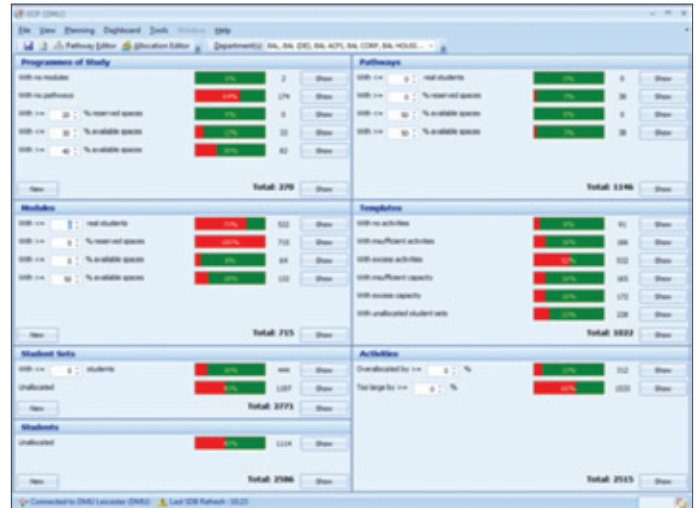
Features

Preparing resource data

- **Multiple approaches to timetabling** - Resources can be "owned" by the institution, by individual departments or a mixture of both, with departments "owning" specialist space while general teaching rooms and lecture theatres are centrally "owned".

- **Request and approval mechanism** - The user can make an immediate allocation of resources for which they have full permission or generate a request for resources that belong to another user. Each user can access a list of outstanding requests for their resources and grant or deny them.

- **Customisable rules and constraints** - The user can specify times when a resource is unavailable as well as indicating a preference for or against using a resource at a given time. More complex rules can be defined using time-based constraints.

Defining the curriculum

- **Plan for flexibility** - Enterprise Course Planner allows the user to describe pathways within programmes of study to ensure that specific combinations of modules are kept free.

- **Student choice planning** - Where students' module choices are known in advance, these can be used as the basis for planning a clash-free timetable. The software is capable of detecting the distinct module combinations and planning around them.

- **Plan for efficiency** - Enterprise Course Planner supports a definition of delivery from the student perspective and allows the user to generate the correct number of activities to satisfy the demand, depending on student numbers.

- **Handle jointly taught teaching** - Where students on different modules and programmes are actually co-taught in the same location by the same member of staff, the jointly-taught activity model in Enterprise Timetabler allows students to see the correct view of the activity without requiring double booking of staff or rooms.

Above: The Enterprise Foundation dashboard allows the user to compare the planned timetable delivery against the latest indication of student demand. Green shading indicates that the plan provides sufficient capacity to accommodate the expected demand whereas red shading indicates a discrepancy between plan and reality. Shortcut buttons allow the user to access and adjust the plan quickly in order to more accurately match demand
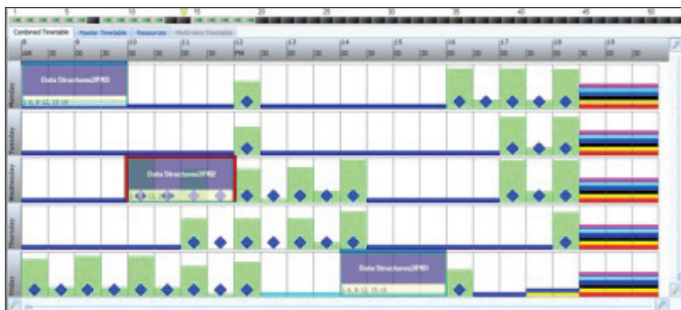
Resolving the scheduling problem

- **Fully automated scheduling** - Define the requirements for each teaching activity including any hard scheduling constraints and allow the automated scheduling engine to search for a solution, guided by soft constraints such as the desire to make efficient use of space or to achieve evenly spread timetables.

- **Fully manual scheduling** - Resource allocations can be preset and timing of activities can be set as a hard scheduling constraint. Even when timetabling manually, the full power of the scheduling engine is retained. A colour coding system warns of hard constraint violations and advises on timetable availability while you test alternative solutions. Soft constraints scores are used to guide the user towards a good solution.

Above: By adjusting scheduling preferences the user can "teach" the scheduling engine what constitutes a "good" timetable
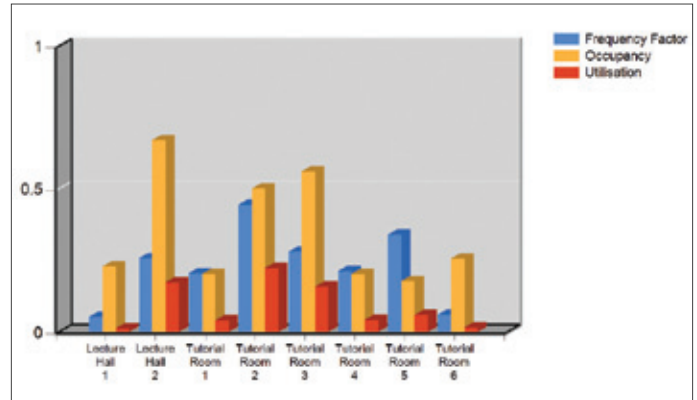
Features cont'd...

- **Hybrid scheduling** - There may be some activities that are timetabled manually while others are automatically scheduled. Some aspects of an activity may be preset (e.g. the activity must be taught by a particular member of staff) while others remain flexible (e.g. the activity requires a room of a particular type and capacity).

- **Respond rapidly to change** - The activity variant model in Enterprise Timetabler allows week by week variation to be handled easily, resulting in accurate resource utilisation figures, accurate clash checking and accurate timetables for students.

- **Constantly running scheduling engine** - Clash checking is built in to the software so that whenever you begin to modify the day, time or resources of an activity, the scheduling engine calculates the possibilities and warns of scheduling clashes. The scheduling engine is always running and available whether the task is as simple as searching for an alternative location for one activity or as complex as automated scheduling for thousands.

Above: The scheduling engine imposes hard constraints and offers scheduling advice to help the user to achieve a high quality solution

- **Bookings** - The software supports the making of ad-hoc resource bookings, for student's private study, extra-curricular activities or for users external to the institution. Authorisation Manager can be used to restrict some users so that they can only use the software to make bookings of this type.

Above: An example of an utilisation report

Viewing the solution

- **Multiple timetable views** - This allows you to see the knock-on impact of any timetabling change to all of the resources involved. The user can see the timetable from different perspectives in separate tabs, side by side or cascaded.

- **Personalised view** - The user can personalise the software to show the information required in an order that suits their task. Personalisation is remembered every time you use the software so that it "learns" how you like to work.

- **Reporting capability** - All Enterprise applications have a built in reporting capability that allows the user to send what they are seeing on screen directly to a printer or to a number of file formats. The reporting database also allows for custom reports to be built using standard reporting tools.