

Latest information

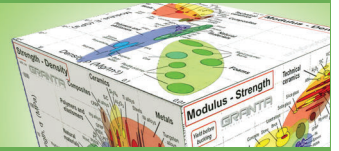
Highlights

- Annual updates incorporate feedback from the worldwide CES EduPack community
- Innovative developments, such as the Eco Audit Tool
- Support for a wide range of teaching approaches
- Integrated references to standard materials texts - *Ashby, Callister, Askeland & Phulé, Shackelford, Budinski & Budinski*
- Opportunity to use as a campus-wide resource

CES EduPack 2010

- New video tutorials
- Add your own records
- Introduction to phase diagrams
- Updates to the Eco Audit Tool and eco property data
- New Sustainability & the Built Environment Edition
- New Nuclear Power Edition
- Updated Level 3 data
- Usability and presentation enhancements
- Spanish version

GRANTA CES 2010 EDUPACK



CES EduPack developments

CES EduPack™ has developed dramatically in recent years. It remains true to its roots in Cambridge University and the innovative materials selection and teaching methods developed by Professor Mike Ashby. But Granta Design and Professor Ashby have added new resources and software features to ensure that EduPack supports a broad range of courses and teaching approaches. Close collaboration with a growing community of EduPack users has been central to refining existing resources and developing new ideas.

Regular releases

Feedback from the CES EduPack community helps to drive development of an annual EduPack release. New features in 2010 are detailed overleaf. These add to developments over the last four years that have included:

- Innovative software - e.g., the Eco Audit Tool, which supports teaching of eco design
- Enhanced Science Notes, helping students to drill down into textbook-style information on the science underlying materials properties
- Year-on-year improvements in the generation and presentation of materials property charts
- Several new CES EduPack Editions
- The addition of references to a wide range of standard materials textbooks within the EduPack information resources



Support for existing teaching

A major focus for many of these changes has been ensuring that CES EduPack can integrate more easily into existing courses, whatever approaches those courses may take. An example is the addition of support for standard texts such as *Callister, Askeland and Phulé, Budinski and Budinski*, and *Shackelford*. New, easier-to-use software features, and an expanded range of teaching resources also make it simpler for educators to pick and choose relevant EduPack components, and to begin using them.

Facilitating introductory courses

EduPack aims to support the whole curriculum, beginning with introductory courses. In 2010, for example: new video tutorials and usability improvements make it even easier for students to begin exploring the world of materials; the enhanced Eco Audit Tool helps to explain eco design concepts; and updates to the information resources help to introduce students to phase diagrams.

Advanced teaching and research

At the other end of the spectrum, EduPack is a powerful tool for advanced teaching and research. In 2010, updates to the specialist Level 3 property databases are particularly useful. Granta's industrial software (*right*) provides further options for research projects. Granta can help students to prepare for industry and universities to collaborate with industrial partners.

Granta's industry links

As well as providing EduPack to 700 universities and colleges worldwide, Granta works closely with many of the world's leading engineering enterprises. Our GRANTA MI™ materials information management system and CES Selector™ for materials selection are used by organizations such as Boeing, NASA, Los Alamos National Labs, Rolls-Royce, EADS Astrium, Emerson Electric, and Honeywell.

www.grantadesign.com/solutions/

Latest information

Themes for 2010

The latest release of the world-leading teaching resource for materials and process education provides some great new capabilities for both new and existing users. Some of the areas in which CES EduPack 2010 provides extra support include:

Getting started with CES EduPack - new video tutorials make it easier than ever before for both students and academics to get going with the EduPack software.

Project work - for example, the new add your own records feature makes it easy to view and plot your own materials alongside data from the extensive EduPack information resources.

Courses on sustainability and energy - both get more support with enhancements to the Eco Audit Tool and eco data and a new Nuclear Power Edition.

The interdisciplinary nature of CES EduPack is reinforced with a new Nuclear Power Edition and Sustainability & the Built Environment Edition, plus updates to Aerospace, Polymer and Architecture Editions.

The worldwide EduPack community - a new Spanish language version is added to existing English, French, and German versions.

EduPack community

Keep up with the latest developments, get resources, give your feedback at the new EduPack community pages.

www.grantadesign.com/education/community/

What's new in CES EduPack 2010?

New video tutorials

A set of 18 'bite-sized' video tutorials makes it even easier to learn essential functionality and find out about the things that you can do with CES EduPack.

Add your own records

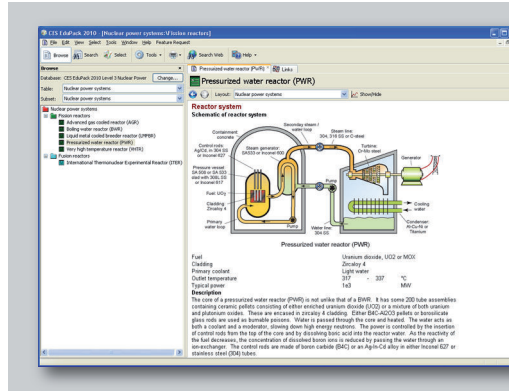
It is now easy to add materials to graphs and selection projects. A mouse-click opens a simple form in which you can enter a material name and properties. This enables instant comparison of your own materials, or materials studied in your course, to the full range of materials in EduPack. This is particularly useful for project work.

Eco Audit Tool and eco data

The Eco Audit Tool helps to teach eco design concepts, allowing students to explore the environmental impact of products and answer 'what if?' questions. Enhancements include refinements to the calculation of end-of-life scenarios and improved handling of recycled content. Eco property data has also been updated with revised data for manufacturing processes, composite processes, and eco indicator values.

Introduction to Phase diagrams

Phase diagrams have been added to applicable alloy systems in the Level 2 database and a new 'Teach Yourself Phase Diagrams' guide is available.



Viewing information on the Pressurized Water Reactor in the new Nuclear Power Edition. This edition links schematics and descriptions of reactor types, as shown, to extensive property data on the materials used in nuclear power systems.

New Nuclear Power Edition

Training a new generation of nuclear engineers is a high priority for many faculties. A new edition provides information on reactor types (pictured above) and additional property data on materials used in nuclear power systems. An extended version of the Elements Database includes elements and properties of relevance in this area.

New Sustainability & the Built Environment Edition

This combines the Standard Edition data with additional, updated, eco property data and with extra information on construction materials and structural sections. The result is a comprehensive resource for Civil Engineering and Structures, and for Architecture courses that require more depth on materials.

Other data updates

The standard Materials and Processes Database has new price data and additional property data including 38 new polymer grades at Level 3 and data on carbon equivalency for steels. There are new versions of the CAMPUS Plastics and IDES Plastics databases in the Polymer Edition, and of MMPDS in the Aerospace Edition.

Other improvements: usability, presentation, teaching resources

A series of enhancements simplify use of the software and improve user experience. These include: multiple selection of records in lists and graphs, making it much faster to edit, label, highlight etc.; improvements to the toolbar for quicker, clearer access to key tools; and enhanced graph display and interaction. New 'Teach Yourself Guides' and updated PowerPoint lectures are available with the EduPack teaching resources.