Release Notes:
CES Selector 2019 Update 1

Key new features in CES Selector 2019 Update 1

- **Enhanced data export for simulation**—Export functional data such as temperature-dependent properties and stress-strain curves, and take advantage of **improved parameter setting.**
- **Export data from specialist datasets** with **new FE exporters** for ASME BPVC, ESDU MMDH and JAHM Curve Data.
- **Streamline your workflow**—Identify records containing functional data in the Limit Stage, easily exclude records from a subset, and more.
- Calculate **Shape Factor** and estimate properties across a broader range of configurations with the **improved Engineering Solver**.
- **Improved usability**—More **accessibility options** and **keyboard shortcuts** benefit all users, including those with visual impairments and those that use screen readers.

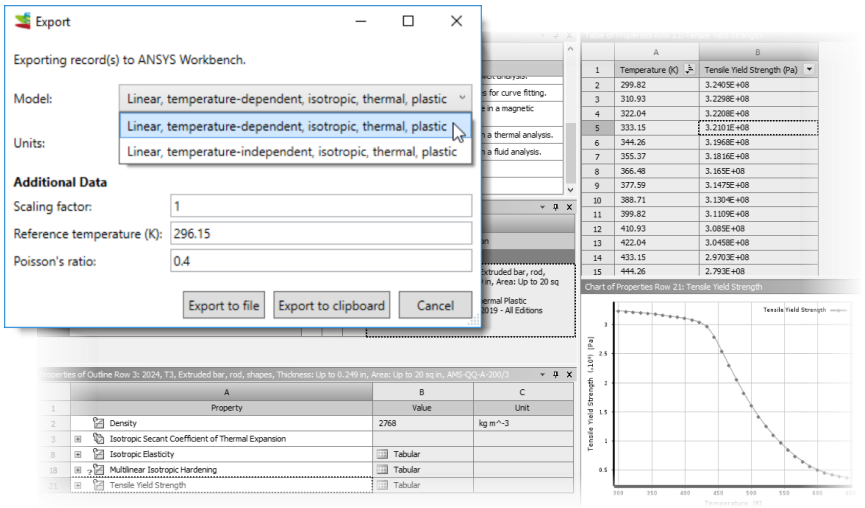
These and other enhancements are detailed below. Descriptions are organized in sections according to:

What's New?

This section details the new features and enhancements in *CES Selector 2019 Update 1*.

Enhanced FE exporters

1. **Export curve and functional data** into the format required by supported CAE packages—Existing FE exporters extended to include isotropic hardening (stress-strain curves), and new temperature-dependent models added.



Benefits:

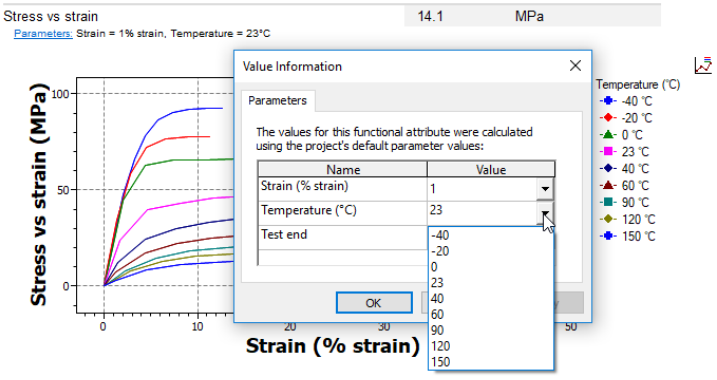
- Include temperature-dependent and isotropic hardening data when creating material cards for CAE packages.
- Export ready-for-simulation curve data to your CAE package. Save time and avoid formatting and unit conversion errors.

2. **Export data from specialist datasets**—New set of FE exporters for datasets that contain large amounts of curve data: ASME BPVC, ESDU MMDH and JAHM Curve Data. Temperature-dependent and isotropic hardening models added to Prospector Plastics, CAMPUS & M-Base and MMPDS exporters.

Benefits:

- Save time and avoid errors by exporting curve data in your chosen CAE package format.
- Simulate the performance of materials or components at high temperatures and pressures.

3. **Simplified parameter setting**—Only relevant parameters and values for the selected functional attribute are displayed in the Value Information dialog.

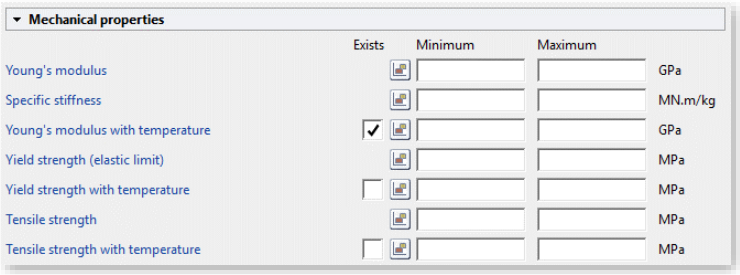


Benefits:

- Quickly evaluate available data and choose relevant series for export.

Streamlined record selection

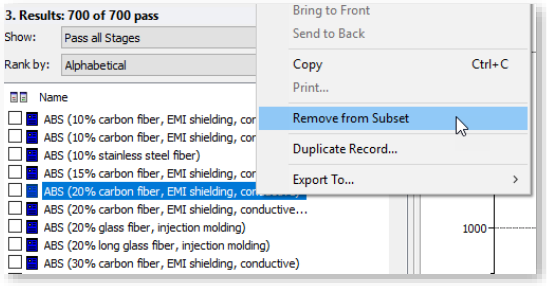
4. **Identify records containing functional data**—New option in the Limit Stage checks whether data exists for a given functional attribute (for example, Young's modulus with temperature), even if the current parameter settings are out of range.



Benefits:

- Rapidly find all datasheets that include curve data for properties of interest.

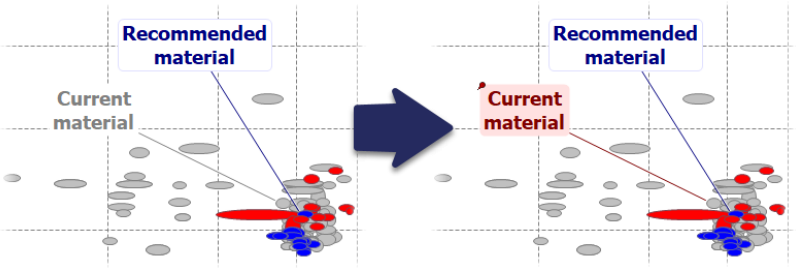
5. **Easily remove records from the current selection**—The ability to right-click on a record name to remove it from the current subset is now enabled by default. When applied, a new custom subset is created based on the previous subset, with the selected record(s) omitted.



Benefits:

- Efficiently and flexibly exclude specific records from your selection.

6. **Reference record appearance on charts**—The label is no longer displayed in gray when the record fails a stage, enabling you to customize the label formatting and highlight the current or reference material in presentations and reports.

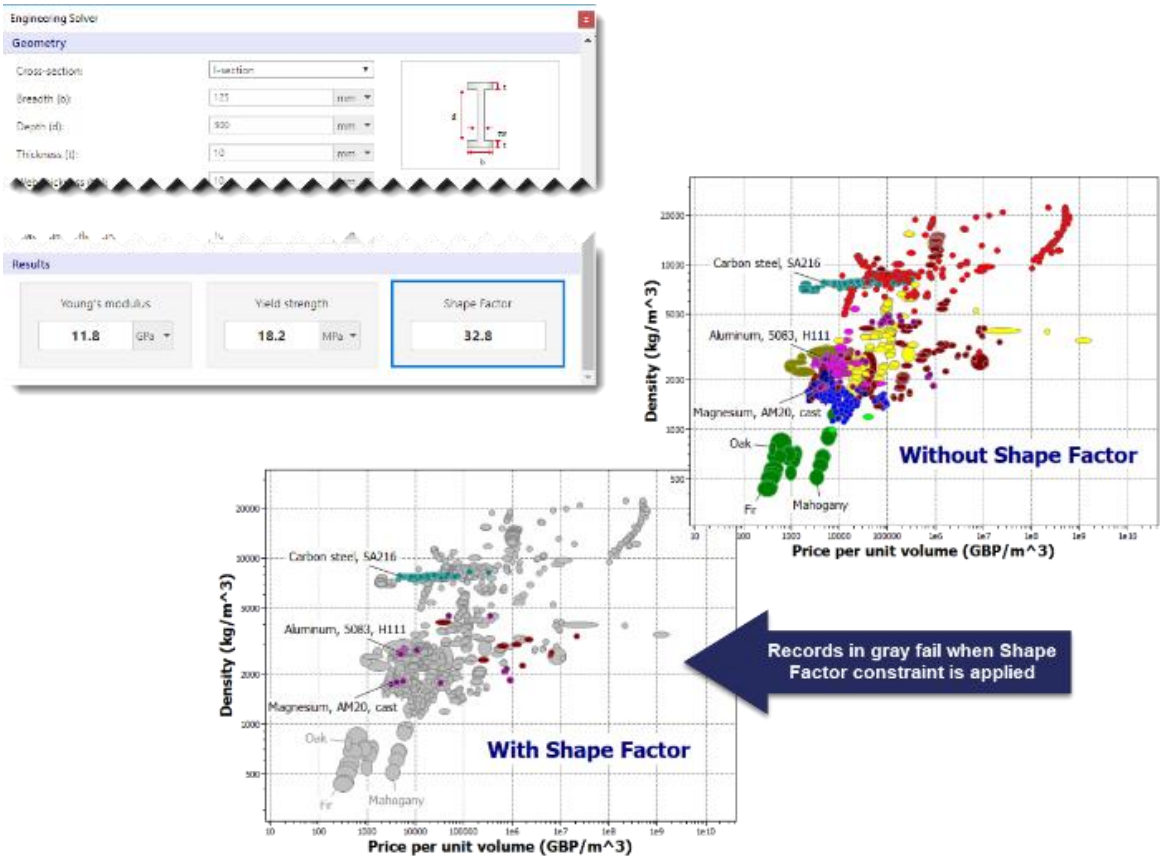


Benefits:

- Clearly communicate your results by creating easy-to-interpret charts.

Engineering Solver enhancements

7. **Calculate Shape Factor for beams and columns**—Engineering Solver now estimates the Shape Factor for different beam and column cross-sections, enabling materials to be screened based on their suitability for the specified geometry. Materials with low values of Shape Factor are more prone to localized buckling and are less suitable for sections with higher structural efficiency, such as I-beams.



Benefits:

- Account for cross-section shape in material selection studies and eliminate materials that are not suitable for the specified geometry.
- Perform more accurate material selections for beams and columns.

8. **Geometric constraints removed**—Freely estimate the material properties required for beams and panels in bending, without being constrained by the tight bounds introduced by the validation carried out on the underlying model.

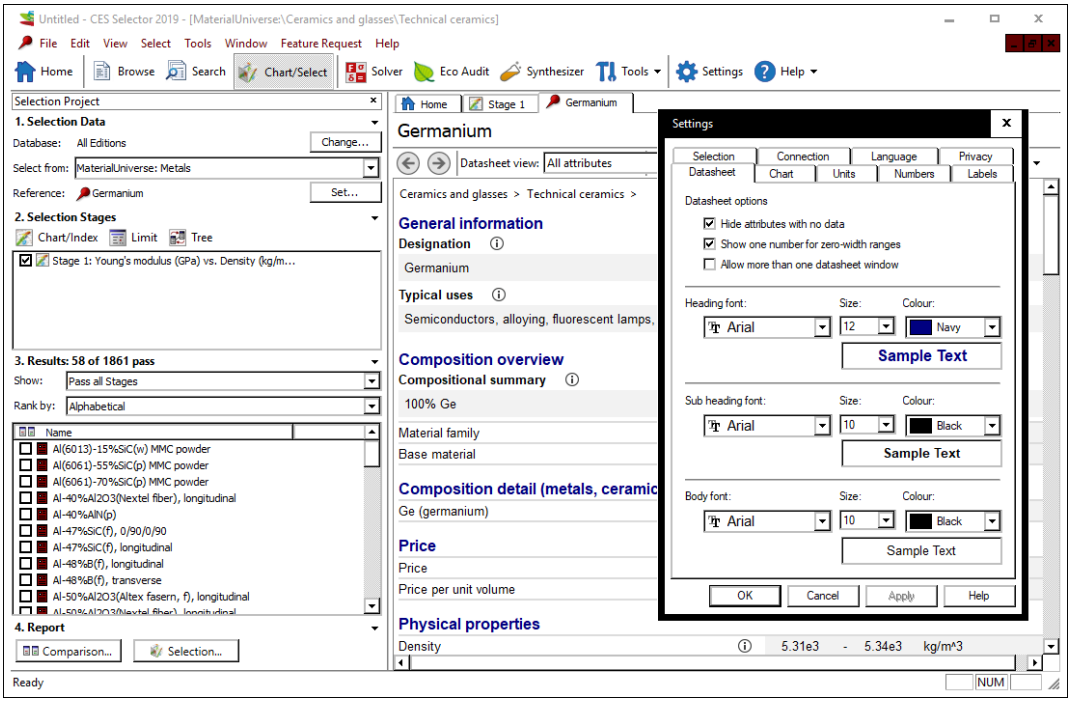
Benefits:

- Straightforward approximation of material properties required by your design.
- Consider a wider range of geometric configurations.

Improved accessibility options

9. **Adapt CES Selector to your needs with improved accessibility options**—More keyboard shortcuts, improved keyboard focus ordering, informative tooltips and better font size settings help all users, including those with visual or physical impairments, and those that use screen readers.

    - Compatible with Windows high-contrast themes.
    - Configurable font color and sizes for charts and datasheets.
    - Keyboard shortcuts for tools, tasks and database navigation.



Benefits:

- Easier, faster navigation for all users boosts productivity.

Feedback

We welcome your feedback on any improvements you would like to see in the CES Selector system, its data, or its documentation. Please send your ideas using the **Feature Request** button on the main toolbar, or alternatively, email your suggestions to support@grantadesign.com.