Macrosoft

Vzdelávanie s trvalým efektom

DOCUMENT

Course syllabus

CATEGORY

3D graphics, CAD courses

TRAINING FORMAT

In Bratislava or online with a lecturer

PRICE EXCL. VAT

1 015,85 €

PRICE INCL. VAT

1 249,50 €

including 23 % VAT

Macrosoft školiace centrum

Aktuálne informácie na Macrosoft.sk

PDF SYLLABUS

Autodesk Inventor - Comprehensive Skills

Clear overview of course topics, training scope and key information.

This course package is focused on mastering Autodesk Inventor functionalities from the basics. It is therefore also suitable for beginners, but more advanced procedures, model parameterization and principles of standardizing the structure of models are also gradually covered. The package consists of the courses Autodesk Inventor - 1, Autodesk Inventor - 2 and Autodesk Inventor 3.

COURSE CONTENT

01

Inventor 1. - Introduction

Explanation of the concept of parametric modeling Explanation of the concept of digital prototyping Introduction to Inventor and explanation of the file types used for a part, assembly and drawing Explanation of basic elements (model coordinate system, sketch, elements for creating surfaces and solids), creating a part and checking unit settings. Creating a sketch, basic sketch elements (lines, arcs, axes and construction elements) Degrees of freedom, automatically created constraints during drawing and sketch diagnostics Explanation of what a reference is (link to another element), problems associated with using the function of projecting model elements into a sketch, mainly in terms of future model modifications. Example No. 1. - simple solid "standard" part + creating a drawing Example No. 2. - Simple sheet metal part + creating a drawing including the flat pattern Example No. 3. - simple assembly - demonstration of a library of standardized parts, creation of a simple bill of materials and positioning parts in the drawing. Creating 3D drawings

02

Conclusion

Sharing documentation using STEP files, 2D PDF and 3D PDF. Added value in terms of speeding up work when creating standards, templates and using PDM and PLM systems for documentation management.

03

Inventor - 2 Introduction

Explanation of the specifics of different levels of parameterization (focus on levels 1 and 2) Explanation of the import, move, rotate tools in the sketch editing environment Example No. 1 - non-parametric part - importing a shape from DWG and placing it in a sketch - parametric part - extruding the profile area and adding the "length" parameter adding other parametric construction elements (cutouts and holes) Explanation of the differences between creating mirrors and "pattern" type elements in the sketch environment and in the model environment (model tree). Editing a pattern element in a sketch. Working with the model tree - moving tree elements, suppressing elements, visibility, moving the end of the model structure. Operations used to change the structure of the model. Sections in model space and in the sketch environment. Use when drawing hollow parts. Using the parameter manager when editing a model. Advantages of using the "hole" object over "extrude" and "revolve" objects. Working with STEP files (import, converting an assembly to a part, "direct edits" object) Example No. 2 - demonstration of a specific type of partially parameterized model when a DWG file is connected to the model. (example No. 1 is without linking these files) Example No. 3 - demonstration of a specific type of partially parameterized model where a STEP file is partially used to create the final shape of the part.

04

Conclusion

Models created from a STEP file and use in assemblies.

05

Inventor 3 - Introduction

Benefits of standardizing the structure of models and different approaches to standardization Explanation of the essence of chain references (elements are in series one after another and the possibilities of modifications are therefore limited). Benefit of creating elements using parallel structures. Use of work planes, work axes, additional coordinate systems Shared sketches in parts and assemblies Creating 3D sketches iFeatures - libraries of frequently used parts of the model Introduction to models and assemblies with a "skeleton" - model skeleton Example No. 1. - creating an assembly using user parameters and forms Example No. 2 - creating a simple assembly with a model skeleton Example No. 3. - creating a more complex assembly with a model skeleton Direct edits function for models imported from a STEP file Advantages of the "combine" function in the tree structure of the model Introduction to table-driven models - configured parts and assemblies iPart and iAssembly Using configured parts in an assembly

06

Conclusion

Minor modifications to the content center

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This document serves as an informational overview of the course syllabus. Current dates, venue and availability are listed at Macrosoft.sk.

https://www.macrosoft.sk/en/courses/autodesk-inventor-comprehensive-skills