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

648,78 €

PRICE INCL. VAT

798,00 €

including 23 % VAT

PDF SYLLABUS

Autodesk Inventor - Key Skills

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

This course is intended for beginners, but the content can also be adapted for more advanced users according to the specific requirements of participants. The emphasis is on familiarization with the main functionalities of Autodesk Inventor. The package consists of the Autodesk Inventor - 1 and Autodesk Inventor - 2 courses.

COURSE CONTENT

01

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 part, assembly and drawing Explanation of basic elements (model coordinate system, sketch, elements for creating surfaces and volumes), 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 from the point of view of future model edits. Example no. 1. - simple volumetric "standard" part + drawing creation Example no. 2. - Simple sheet metal part + drawing creation including flat pattern Example no. 3. - simple assembly - demonstration of the standardized parts library, creating a simple bill of materials and positioning parts in a drawing. Creating 3D drawings

02

Conclusion

Sharing documentation using STEP files, 2D PDF and 3D PDF. Added value from the point of view of speeding up work when creating standards, templates and using PDM and PLM systems for documentation management. Autodesk Inventor - 2

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03

Introduction

Explanation of the specifics of different levels of parametrization (focus on levels 1 and 2) Explanation of import, move, rotate tools in the sketch editing environment Example no. 1 - non-parametric part - import of shape from DWG and placement in sketch - parametric part - extrusion of profile area and adding the parameter "length" adding other parametric construction elements (cutouts and holes) Explanation of 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 model structure. Sections in model space and in the sketch environment. Use when drawing hollow parts. Use of the parameter manager when editing a model. Advantages of using the "hole" object compared with "extrude" and "revolve" objects. Working with STEP files (import, conversion of assembly to part, "direct edits" object) Example no. 2 - demonstration of a specific type of partially parametrized 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 parametrized model where a STEP file is partially used to create the final part shape.

04

Conclusion

Models created from a STEP file and use in assemblies.

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-key-skills