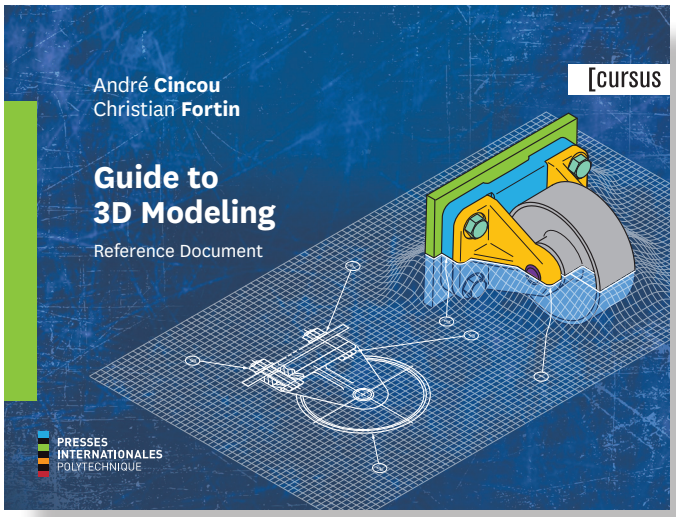
[cursus



Guide to 3D modeling

AUTHORS	ANDRÉ CINCOU & CHRISTIAN FORTIN
COLLECTION	CURSUS
PUBLICATION DATE	AUGUST 2020
PAGES	41
FORMAT	21 x 15,5 CM
OTHERS	29 THEMES, 71 FIGURES, 2 APPENDICES
BINDING	RINGS
ISBN	978-2-553-01725-4

SUBJECT MATTER

The Guide to 3D Modeling provides a systematic and structured approach to 3D modeling that focuses on the visual representation of the solid. The strategy adopted for presenting these concepts is simple and effective: one page, one topic.

This way, the reader has access at a glance to an overview of all the information on a given topic. The Guide contains the basic principles of part modeling, the steps for achieving fully constrained sketches, the 3D signature of the various base solids from which to start a model, the transformation and dress-up of an existing solid, and an introduction to parts assembly. The final chapter discusses the production of design and working drawings by projection of a 3D model.

Lastly, in appendix, the reader will find the list of steps to follow when modeling a part and an overview of the degrees of freedom associated with a coincidence constraint.

Instead of referring to a specific software program, the Guide presents the reasoning and principles common to multiple modeling programs, such as SolidWorks and CATIA V5 (Dassault Systèmes), Inventor (Autodesk), Solid Edge and NX (Siemens), and open-source software such as FreeCAD.

AUTHORS

André Cincou is a Professional Engineer and Teaching Professor in the Department of Mechanical Engineering at Polytechnique Montreal, where he coordinates computer-assisted drawing courses in engineering and in mechanical systems modeling. His Guide to the Standards and Conventions of Graphic Representation, also published by Presses internationales Polytechnique, won the « Prix de la ministre de l'Éducation, du Loisir et du Sport du Québec » (an award from Québec's minister of education, recreation and sport) in 2011.

Christian Fortin is a Professional Engineer with Bombardier and a lecturer in the Department of Mechanical Engineering at Polytechnique Montreal, where he teaches the mechanical systems modeling course. He has made significant contributions to the writing of several reference documents used in the course.

TARGET AUDIENCE

The Guide to 3D Modeling is primarily intended for undergraduate engineering students and for students in related fields at the college level and in professional training. It is also an excellent reference for practitioners working in the industry after graduation.

PRESSES
INTERNATIONALES
POLYTECHNIQUE

[cursus

Guide to 3D modeling

Table of contents

TO ORDER :

Presses internationales Polytechnique
C.P. 6079, Succ. Centre-ville
Montréal (Québec) Canada
H3C 3A7
514 340 3286
Email pip@polymtl.ca
www.pressespoly.ca

DISTRIBUTOR – EUROPE AND AFRICA :

Librairie Lavoisier
14, de Provigny Street
94236 Cachan Cedex
France
Tel. 33 (0) 1 47 40 67 00
Email info@lavoisier.fr
www.lavoisier.fr

PRESSES INTERNATIONALES POLYTECHNIQUE