

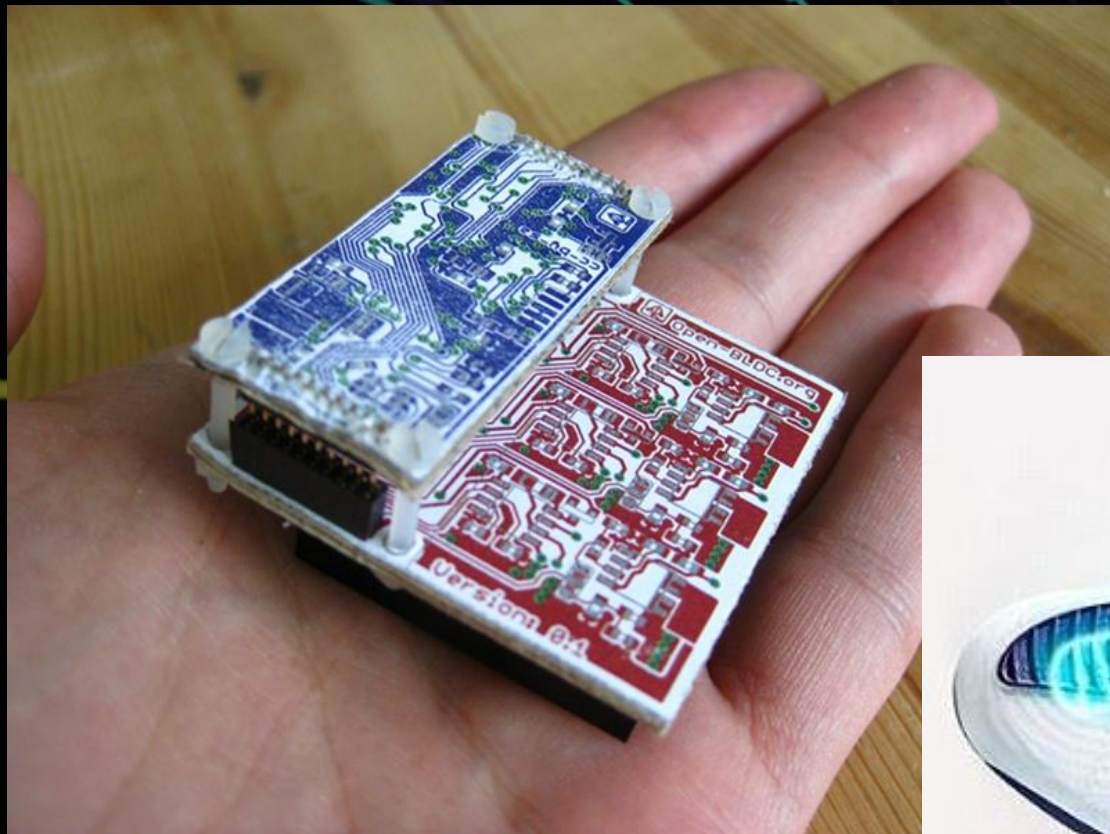
Altium®

AltiumLive 2017: Accelerating 3D PCB Editing & Operations

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*Director, Community
Tools & Content*





Agenda

- 1 Getting around the Native 3D™ workspace**
- 2 Hints for successful navigation in 3D
- 3 Working with 3D Bodies: STEP vs. Extrusions
- 4 Using 3D model data for footprint creation
- 5 Branching out – tethering to MCAD

3D Mode in Altium Designer:

1 – 2 – 3

Easy-peasy

BUT: There's MORE: Shift & Control

Let me introduce my little friend:

RMB

MMB

Wheel

LMB

Back



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Let me introduce my other little friend:

Knob

Left

These are fully
configurable!



Right

Tips for getting round the 3D workspace:

Commit these shortcuts to your muscle memory:

- CTRL + PgDn (Fit Board)
- Z >> A (Zoom All)
- V >> B (View – flip Board)
- 0, 9, 8 (Camera presets)
- CTRL + RMB Drag (or MMB Drag)
- RMB Drag (Pan)
- SHIFT + RMB

And another friend:

Altium®



The Altium Gimblemajiggy:

I see many people fumble with this thing!



Pay Attention to the Highlights

Practice using the Constrained Movement Controls

Pitch, Yaw, Roll

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Tips for Working with 3D Bodies:

- **USE SNAP POINTS**
- Remember to check object snap options in Board Options / Document Properties
- SPACE key to place Mid-Point Snap Points
- Always use **ALIGN FACE WITH BOARD**
- Set Body Height

My favorite places to get 3D Model Data:

- 3D Content Central (hosted by Dassault)
- GrabCAD
- Samtec, Hirose, Omron, FCI, Würth etc.
- STEP-AP214 (Has surface colors)
- STEP-AP203 (NO color)
- Parasolid*
- Solidworks Native*

*Altium does not vouch for the accuracy of community shared and downloaded models.

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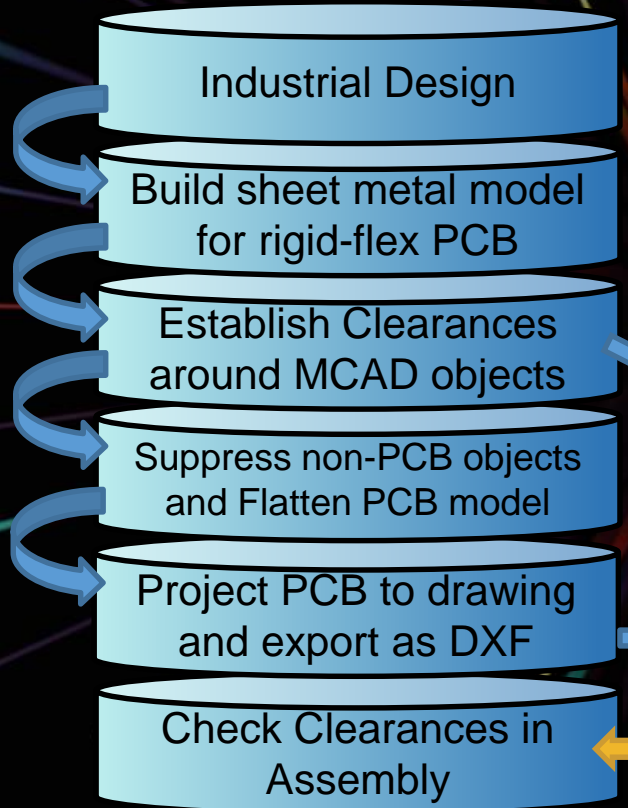
Let's just have a run-through:

- Model creation from IPC Compliant Wizard
- Batch Footprint Generator
- Using Snap-Points on 3D model to locate footprint pads and silkscreen
- Creating basic extrusions / shapes.

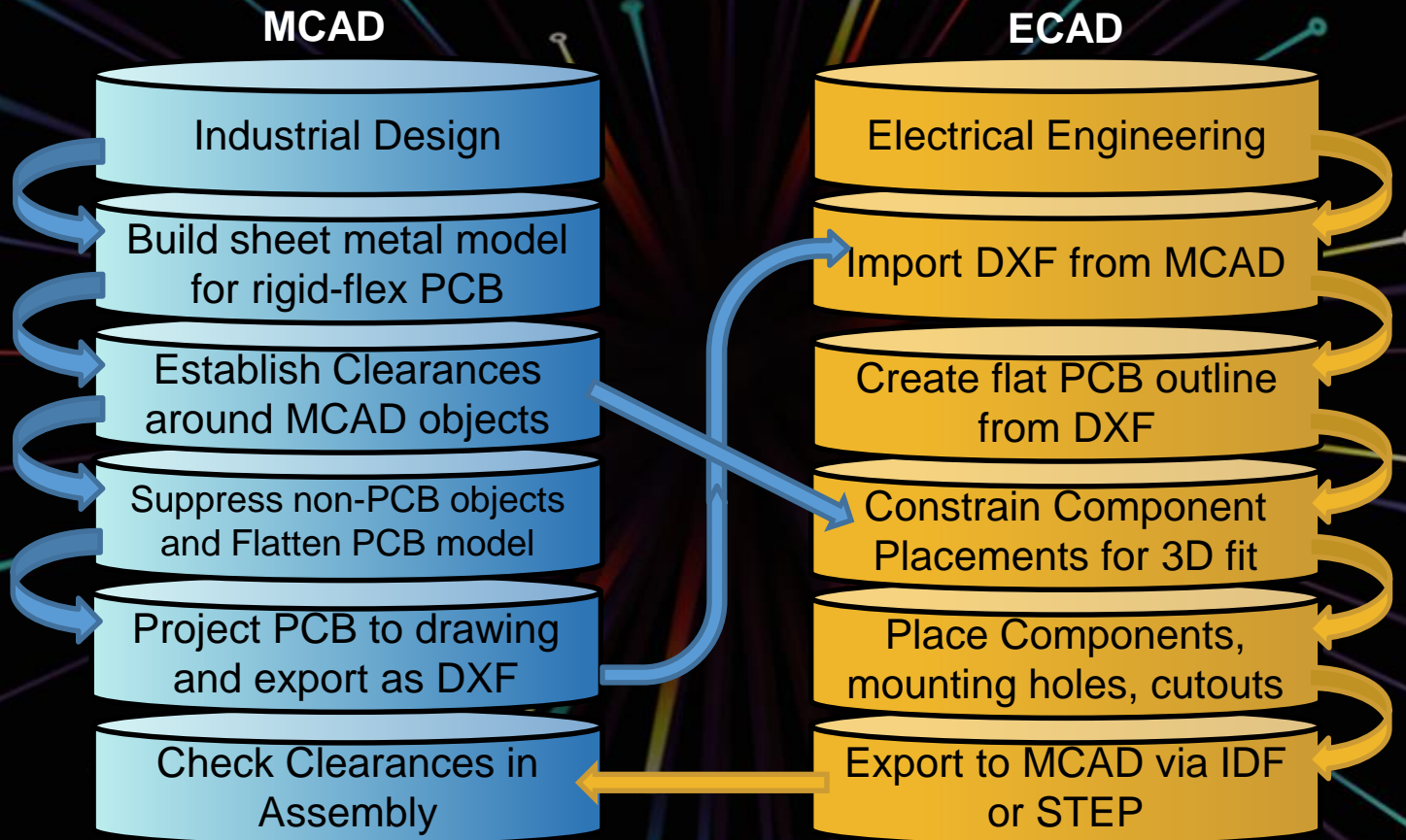
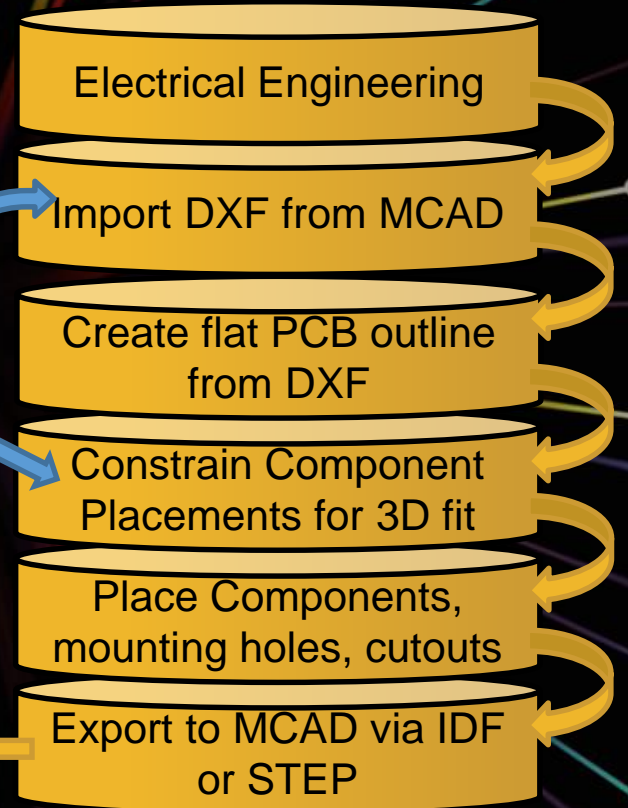
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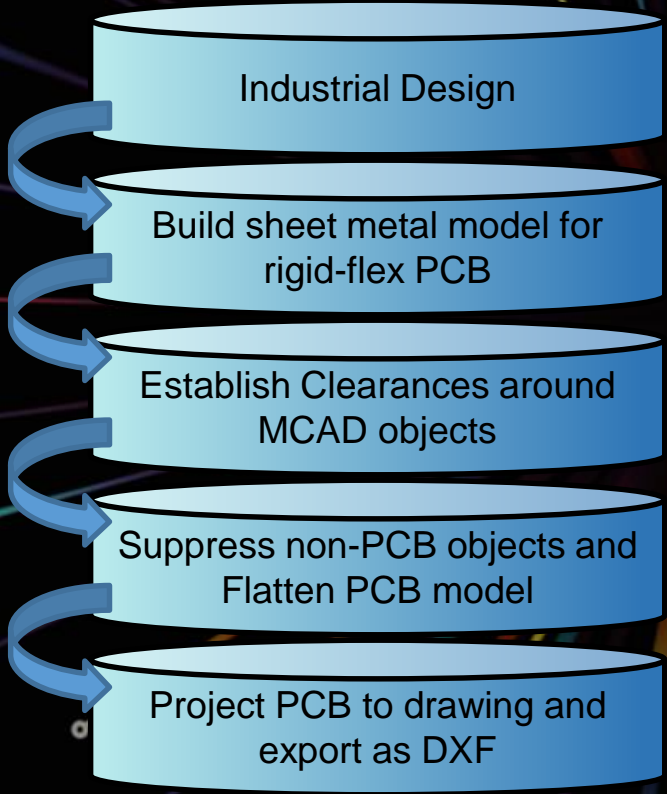
MCAD



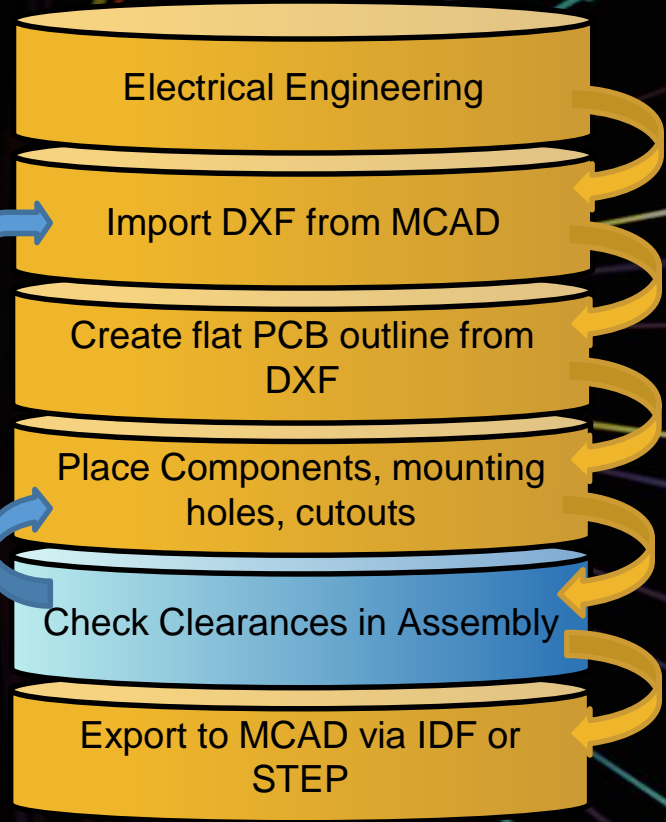
ECAD



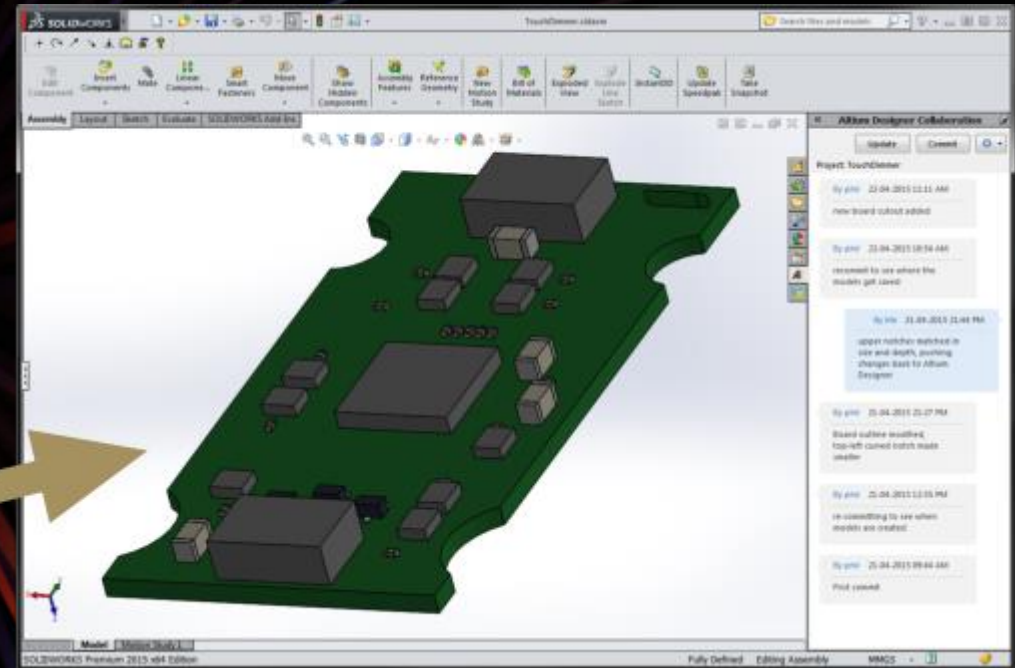
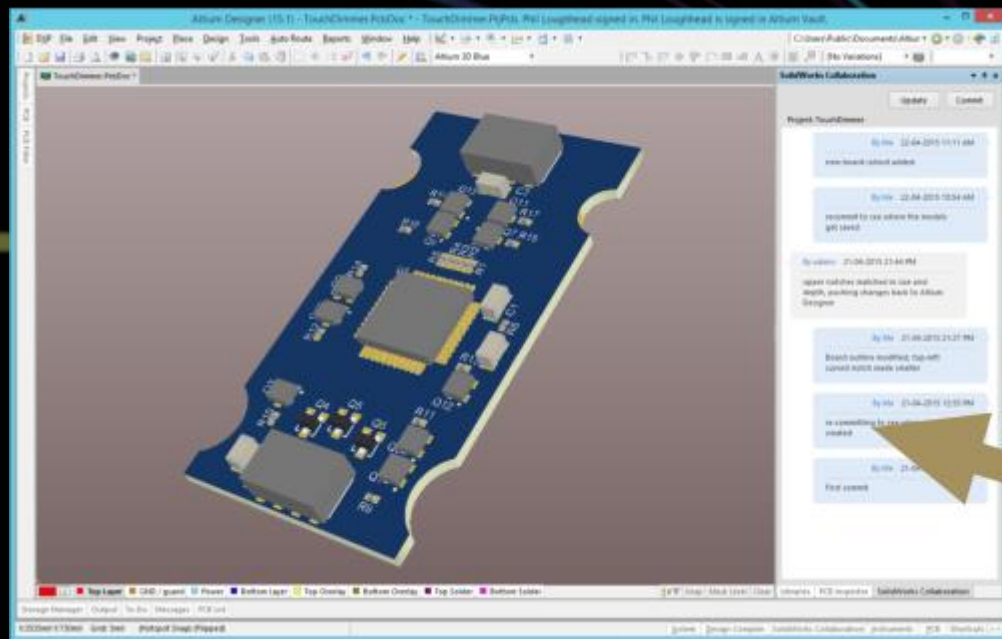
MCAD



ECAD



Altium Designer PCB to MCAD Connector



Thanks for your Attention!
Questions?