



National Aeronautics and Space
Administration
Jet Propulsion Laboratory
California Institute of Technology

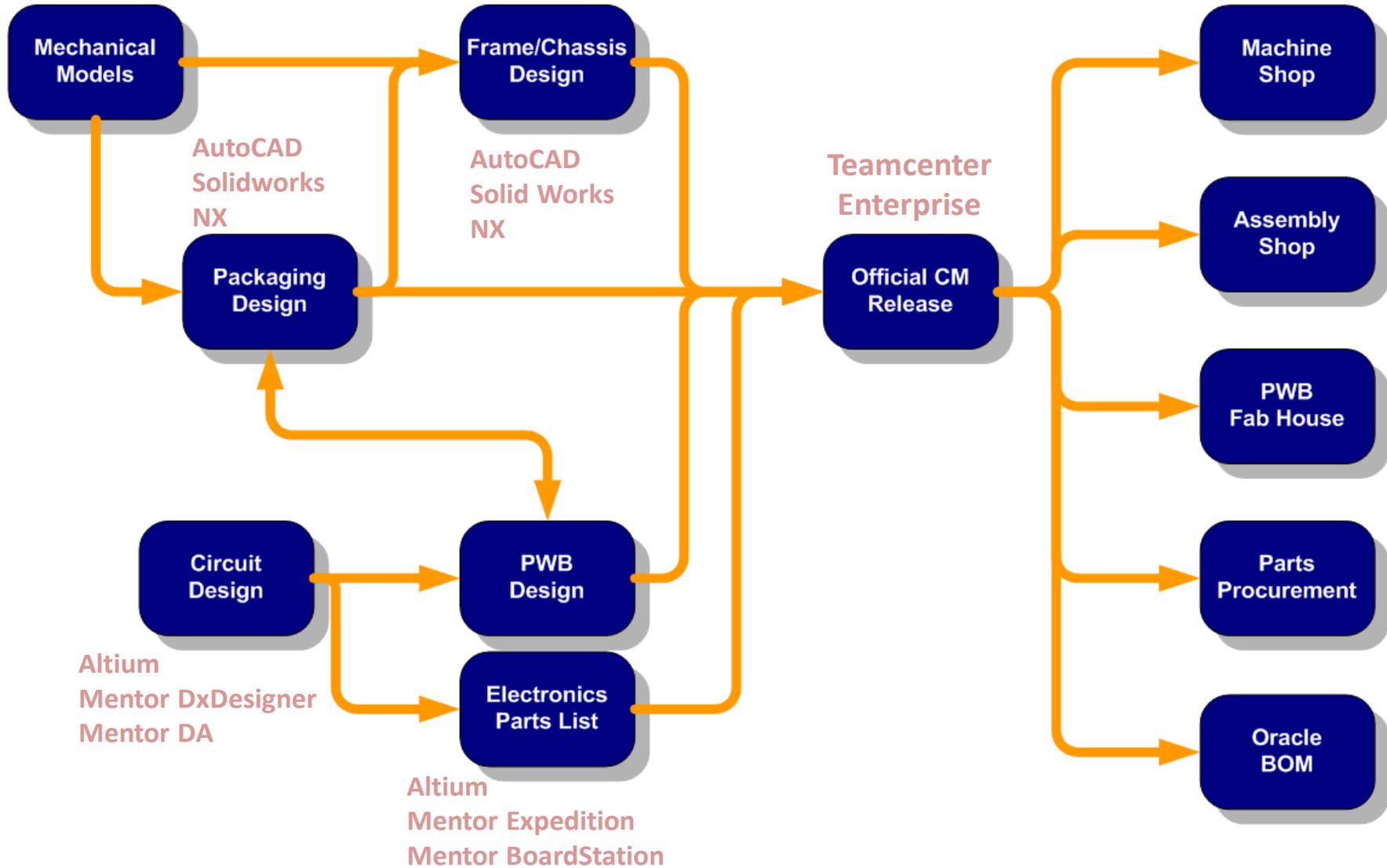
ECAD Workshop F2F Meeting

Eric Cassell and Alan Lee

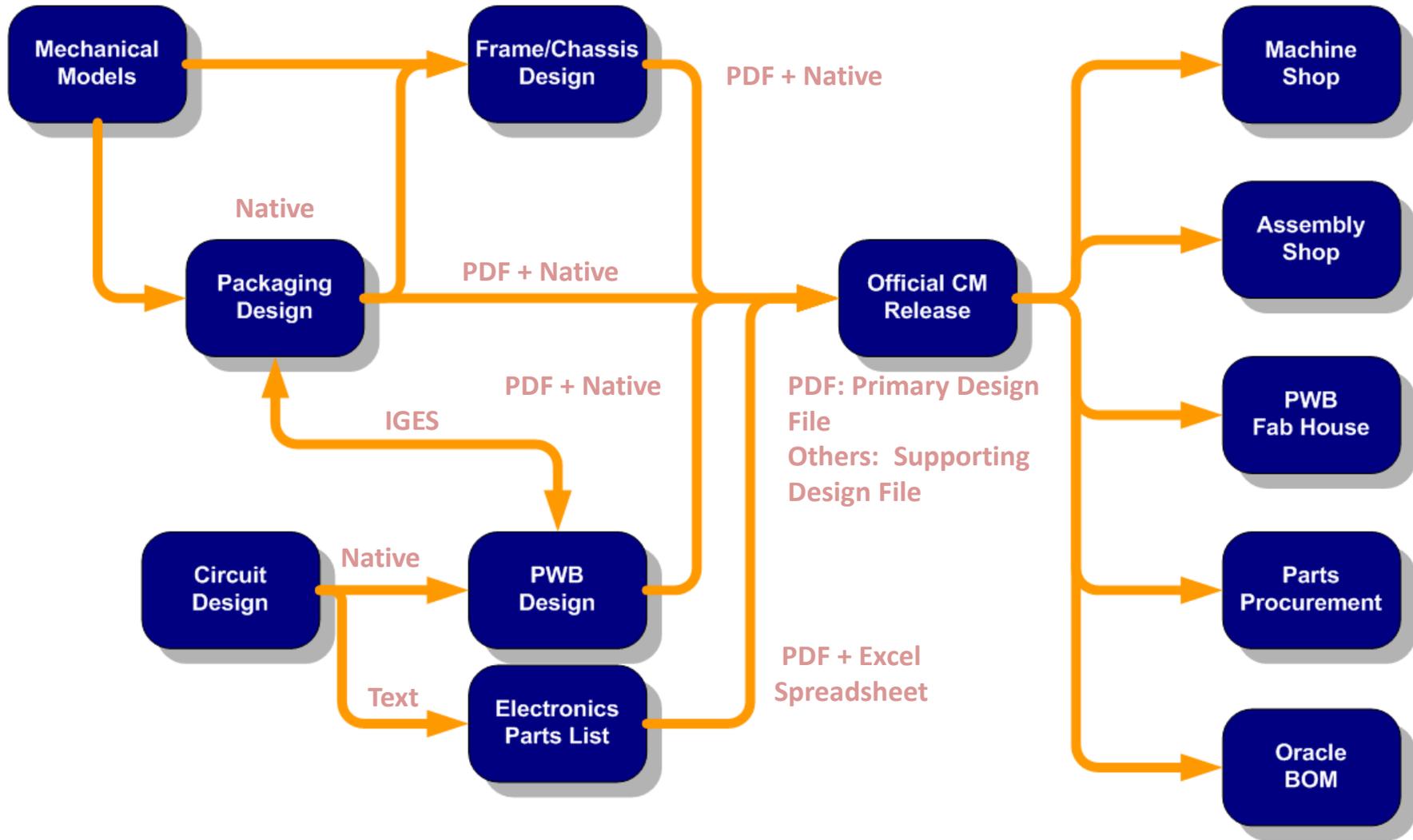
10-18-2011

Jet Propulsion Laboratory, California Institute of Technology

CAD Flow



Data Format



- Schematic Capture
 - Mentor Graphics
 - Design Architect (Legacy)
 - DxDesigner
 - Altium
 - Designer
 - Cadence
 - OrCAD
- Printed Circuit Board (PCB)
 - Mentor Graphics
 - Board Station (Legacy)
 - Expedition
 - Altium
 - Designer
 - Cadence
 - OrCAD

- FPGA
 - Mentor Graphics
 - Modelsim
 - Cadence
 - NC Verilog
 - Synopsys
 - Synplify
 - Actel
 - Designer
 - Xilinx
 - ISE
- ASIC
 - Mentor Graphics
 - IC Station
 - Leonardo
 - Synopsys
 - Design Compiler

CM Process

Design Entity	Intermediate Design Release	Final Design Release
FPGA/ASIC	Local CVS or SVN	Teamcenter Enterprise
Schematic/PWB	Vendor Tool Revision Control	Teamcenter Enterprise
Packaging Design	Vendor Tool Revision Control	Teamcenter Enterprise

Drawing Approval Release

- Drawing Review, Approval and Release Process is documented in JPL Doc ID 78149
 - 3.4.1 The initial release of a drawing used to fabricate or procure flight hardware or JCI shall require a Fundamental review and approval to release for Final.
 - 3.4.2 The initial release of a drawing used to fabricate or procure flight hardware or JCI shall require Structural, Thermal, Packaging, Materials, and Manufacturing reviews and approvals to release for Final.
 - 3.4.3 If the CogE deems the structural, thermal, packaging and/or materials analyses to not be required for the initial release of a drawing used to fabricate flight hardware or JCI, the CogE shall explicitly indicate this in the release package by clicking the radio button next to each discipline (not in the CogE comments field) in order to omit these analyses.