



Sheet Metal in NX

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PLM World 2006



NX Sheet Metal - Topics



- ▶ Where are we now?
 - ▶ NX 4
 - ▶ Aerospace
 - ▶ I-deas Migration
 - ▶ Demos
- ▶ Where are we going?
 - ▶ NX 5 and beyond
- ▶ Further information
 - ▶ Beta testing & other





NX Sheet Metal Features – NX 3/4



NX 3

Tab

Flange

Contour Flange

Bend

Unbend

Closed Corner

Jog

Flat Solid

NX 4

Dimple

Louver

Bead

3-Bend Corner

Break Corner

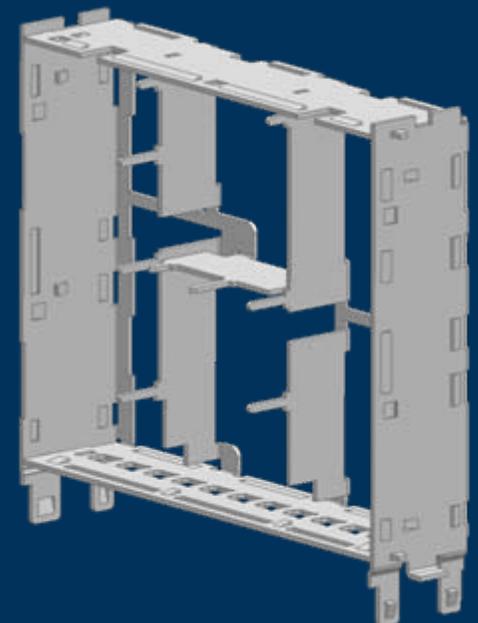
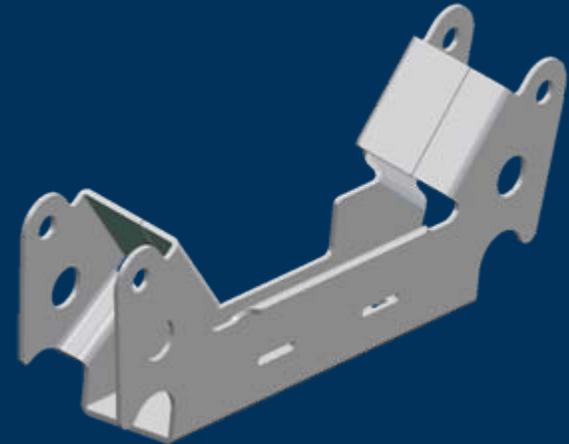
Normal Cutout

Drawn Cutout

Lofted Flange

Rip

Convert to Sheet Metal



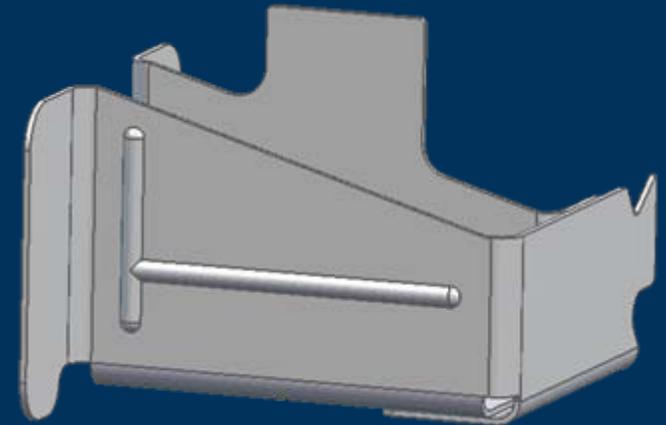
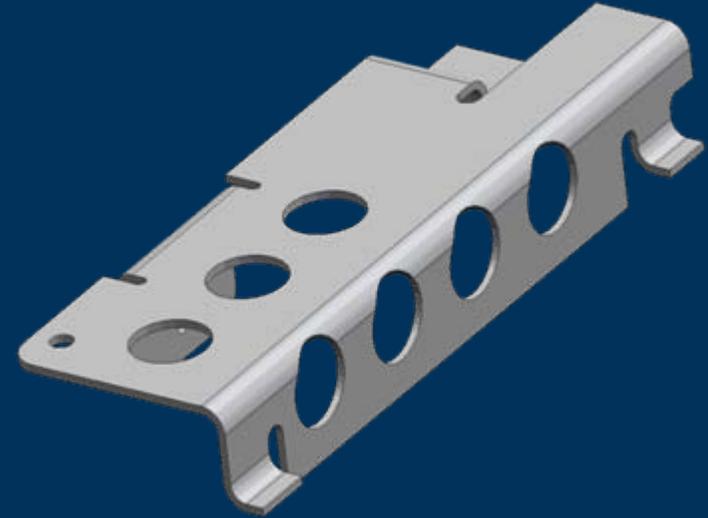


Interactive Design Workflow

- ▶ Streamlined design
- ▶ WYSIWYG feature previews
- ▶ Drastic reduction of design time
- ▶ Reduced number of clicks
- ▶ On-screen part interaction

Complete Feature Set

- ▶ Conical & cylindrical bend regions
- ▶ Cutting maintains model integrity
- ▶ Punching features
- ▶ Integrated Design Logic





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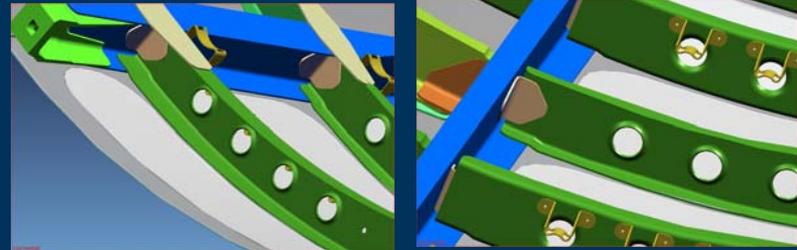
Capabilities

- ▶ Form and Uniform aerospace features
- ▶ Create non-linear flanges
- ▶ Flanges based on user parameters and/or IML/OML faces
- ▶ Create joggles and twin joggles on aerospace flanges

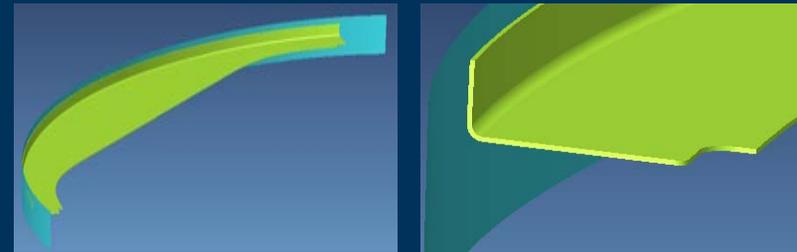
Advantages/Value

- ▶ Drastically reduces design time for formed frame parts
- ▶ Aerospace standards and design rules built-in

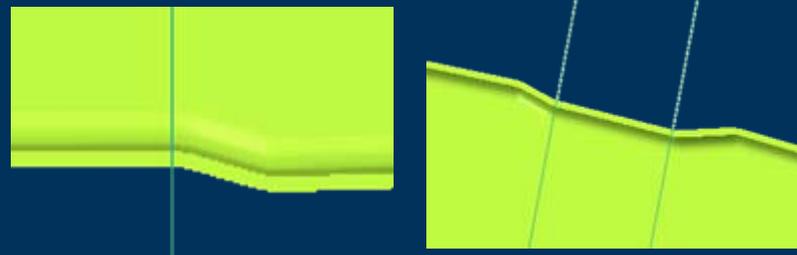
Typical formed frame parts



Aerospace flange built to OML



Aerospace joggle and twin joggle





NX Sheet Metal - Topics

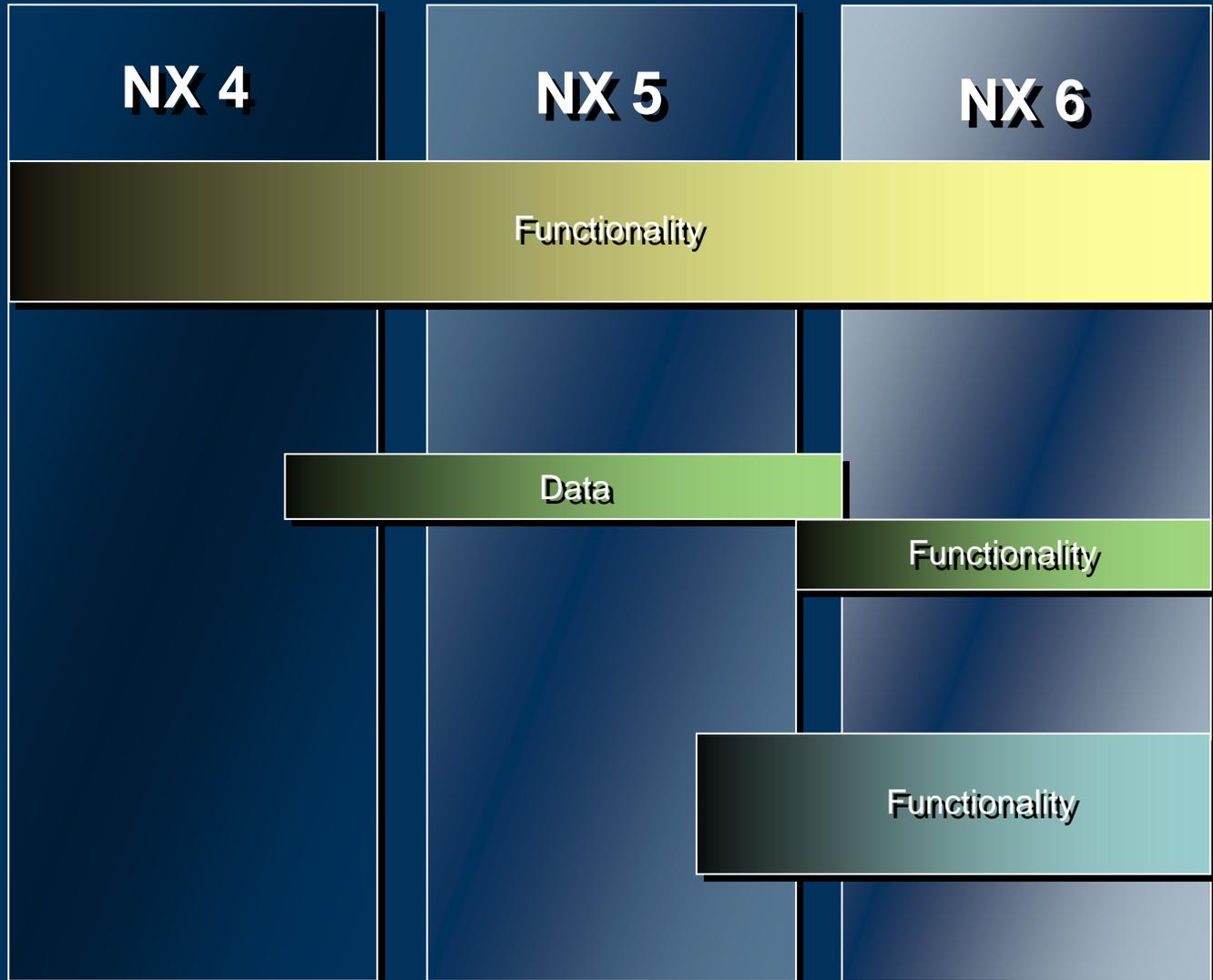


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NX Sheet Metal Migration Timeline



Solid Edge Sheet Metal



I-deas Sheet Metal



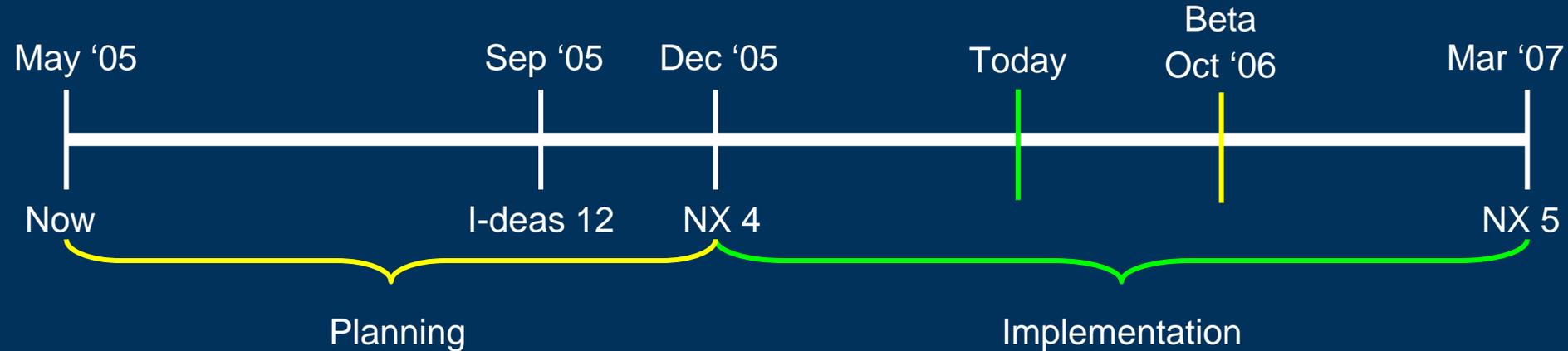
UG Sheet Metal Design



NX Sheet Metal – I-deas Migration



- ▶ Specification reviews – Complete
- ▶ Implementation underway for NX 5
- ▶ Beta testing in October





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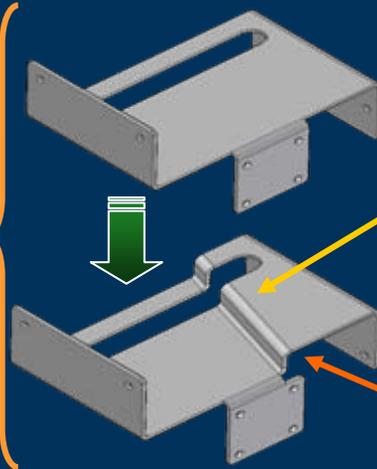


NX Sheet Metal - Vision



Today, the NX Sheet Metal package contains capabilities well-suited for rapid design of sheet metal parts

Focused workflows for design of specialized parts (Sheet Metal, Aerospace)



Complete, intelligent sheet metal feature set (flange, louver, punch, jog)

Automatic ripping and bend relief

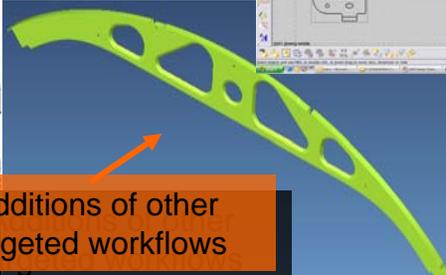
- ▶ Greatly improves design process through simplified work environment
- ▶ Very easy to learn and use
- ▶ Enhanced control over important sheet metal part parameters
- ▶ Feature set journaling and automation enabled

Tomorrow, NX will continue refinement of the sheet metal packages to include more complex design capabilities

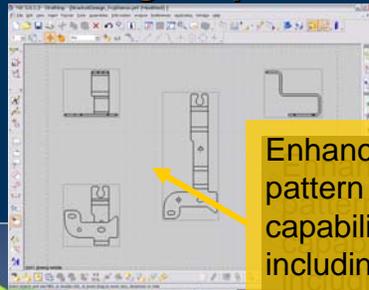
Ability to set parameters by assigning a material type



Additions of other targeted workflows



Enhanced flat pattern capabilities including annotations and better linkages with drafting



- ▶ Better “design in context” for use with assemblies
- ▶ Material-driven part parameters
- ▶ Focused workflows for specific part types (Sheet Metal, Aerospace)
- ▶ Consolidated flattening and forming tools with easy to learn & use user interfaces



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Beta Testing



October 2006

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|--------------------------------------|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | I-deas Sheet Metal Migration Testing | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | NX Sheet Metal Testing | | | | | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | 1 | 2 | 3 | 4 |



Further Information



- ▶ Beta Testing
 - ▶ I-deas Migration – October 2-6 in St. Louis
 - ▶ NX Sheet Metal – October 9-13 in St. Louis
 - ▶ European Testing - ??? In Frankfurt, Germany
- ▶ Courseware – New course for NX 4
- ▶ Ashley[dot]eckhoff@ugs.com



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