



NX Knowledge Fusion Tips and Tricks

You might want to know this!

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- ▶ The **good** news:
 - ▶ No PowerPoint slides – well, some slides but mostly demonstrations.
 - ▶ It will illustrate how easy Knowledge Fusion can be!

- ▶ The **bad** news:
 - ▶ Demonstrating in front of a technical crowd can always be kinda tricky!
 - ▶ I always like to change my demo 5 minutes before the show.



The Power of Knowledge Fusion





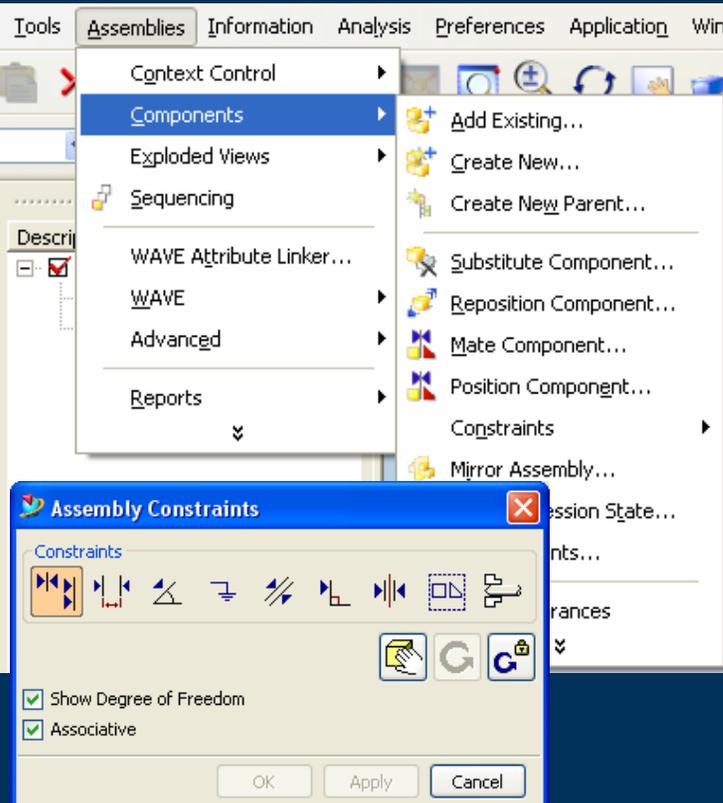
- ▶ Use of `ug_feature_set` for KF application development
 - ▶ Easy to use KF system class which allows you to bundle certain features as one node in the PNT;
 - ▶ Inheritance of `ug_feature_set` will make your complete KF application behave like a feature!
- ▶ Use of `%nx_application` for KF application development
 - ▶ Easy way to get full feature functionality of your KF application;
 - ▶ Introduction of the concept of “slave” features which allow KF users to dictate the order of update.



Knowledge Fusion demo 2



- ▶ Use of **nx_constraint** if you are interested in applying **mating conditions** as part of your KF application.



```
#+
-----
DefClass: nx_constraint( nx_constraint_modifier nx_constraint_host %nx_constraint );
-----
#-
DefClass: %nx_constraint (nx_nxobject);

#+
-----
Constraint references in KF
Represented as a List of List elements.
Each element consists of a List containing a sequence of name-value pairs, as follows:
{
  # The movable object
  movable_object, <host pointer or instance>,

  # The geometry
  geometry, <host pointer or instance>,

  # Use axis of geometry
  uses_axis, Boolean,

  # Use geometry indirectly
  is_indirect, Boolean,

  # The help point
  help_point, Point,
};

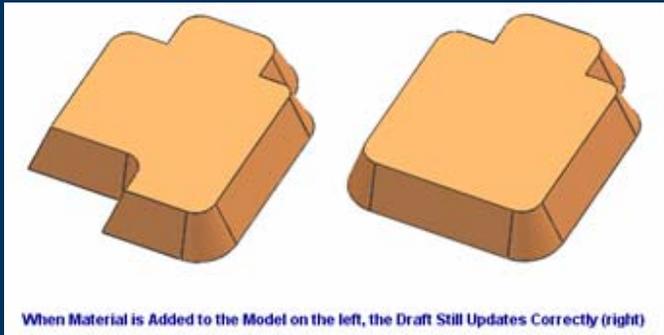
-----
#-
(Canonical List Parameter Modifiable )   references: {};
```



Knowledge Fusion demo 3



- ▶ Use of **ug_collector** and **ug_section** to enable Selection Intent for Knowledge Fusion;



Selection Intent lets you select and group multiple curves, edges and faces into **collections with rules** that define how a feature can use them. You choose which rules to use based on what you intend the feature to do.

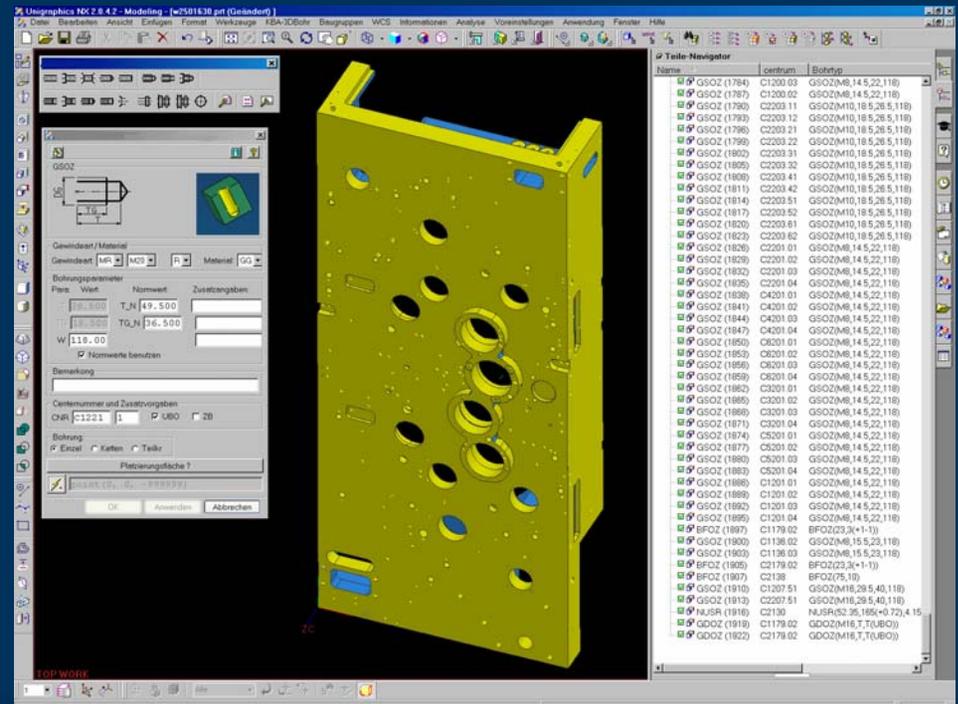
- ▶ This also works in combination with UDFs – the use of selection intent will make the use of UDFs in your KF application quite different!



Knowledge Fusion demo 4

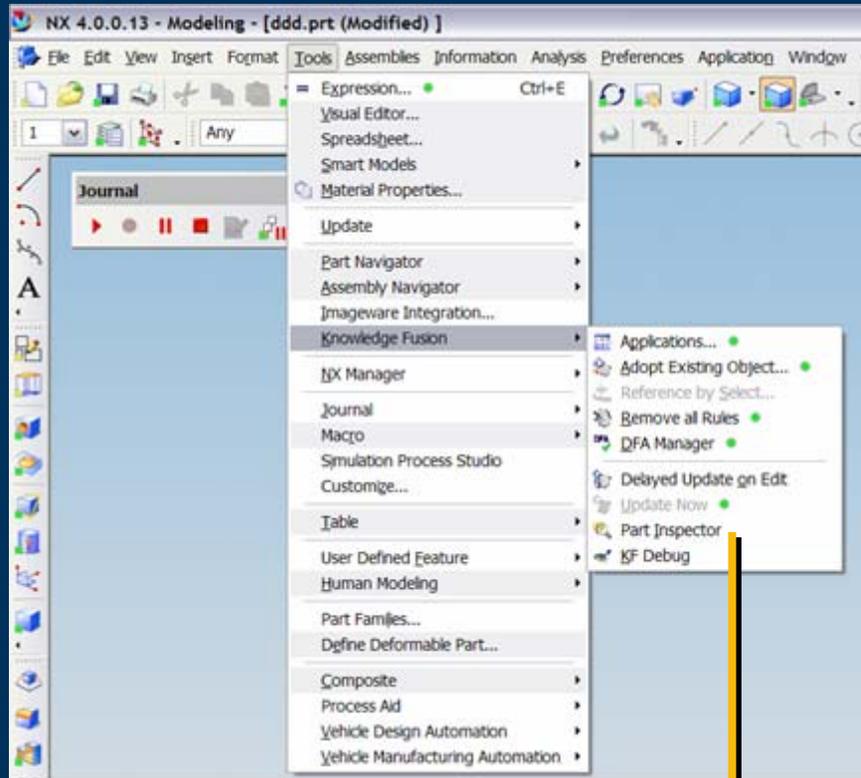


- ▶ Modeling of holes in NX is not the most easiest task unfortunately (especially if you want them threaded);
- ▶ Use of **ug_simple_hole**, **ug_countersunk_hole**, and **ug_counterbore_hole** to speed up day-to-day modeling!

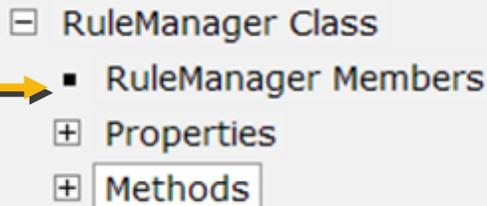




Knowledge Fusion demo 5



- ▶ The new **RuleManager NX/Open class** will give the user all functionality from the NX User Interface.
- ▶ This new functionality will also cover most of the functions available today from **NX/Open API [UF_KF]** and the functions available from the **Knowledge Pipeline**.





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