>> NX

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Create Associative Mass Part Attribute for Parts List

For using the weight data in a parts list, you need a part attribute holding the solids mass property. To achieve this we create a part attribute from an existing expression using a KF function within the expression editor.

In the first step we create the expression through the Body Measurement functionality.

- Analysis => Measure Bodies...
- Select the body
- Change the dynamic pull-down menu to *Mass* to see the actual value
- Select the *Keep Measure button* of the toolbar (NX3, NX4)



In NX5 you want to turn on the option Associative instead and confirm the dialog:





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Now you will find a new feature in your part navigator and the associated expressions in your Expression Editor:

 ☑ ≦ Edge Blend (8)
 1

 ☑ ■ Body Measurement (9)
 1

p34	(Body Measurement(9) surface_area)	(Measure)	95212	mm^2
🚥 p35	(Body Measurement(9) volume)	(Measure)	146396	mm^3
🚥 p36	(Body Measurement(9) mass)	(Measure)	1.1463	kg
🚥 p37	(Body Measurement(9) weight)	(Measure)	11.242	N
🚥 p38	(Body Measurement(9) radius_of_gyrat	(Measure)	72.900	mm

The last step is letting the system create a part attribute for you.

- Tools => Expression
- Create a new expression with the following formula:

```
NX3:

mass_attr =

ug_setAttrValue_(ug_askCurrentWorkPart(), "PART_ATTRIBUTE", "MASS", stringValue(p36))

NX4/NX5:

mass_attr =

ug_setPartAttrValue("MASS",format("%f",p36))
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Type Number 💌			Constant	
Name mass_attr				
Formula ug_setPart	tAttrValue("MASS",fo	rmat("%f",p3	6))	
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			OK Appl	y Cancel
course you can also use a	any other value from the b	ody measurem	ent, for example " volume	9".
Open the <i>File => Proper</i>	rties dialog and check the	e new part attrib	oute.	
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	Title	Value	Туре	
	MASS	1.146375	String	
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• Make sure that the cell format is set to *Text*, otherwise the value may be rounded.

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	Format	Text

>> NX & I-deas

Final Result:

]	BOX	1	1.146375
PC NO	PART NAME	OTY	MASS

Frank Berger

The Implications of Using or Not Using a Subassembly Configuration on the Behavior of I-deas Master Assembly

There is some confusion on the part of Master Assembly users concerning the significance of using or not using a configuration from a subassembly in the definition of the configuration of a parent assembly. There are several things to consider, but the biggest two considerations are the design intent and the behavior of a constraint network when that constraint network is solved. This article will attempt to explain the significance of using or not using a subassembly configuration in the definition of a parent assembly's configuration.

Consider the following simple clock in a box assembly:



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