## What's New in Analytix 21 v2.0

- 1. We have implemented a list feature. Lists are delimited by square brackets. You can do arithmetic on lists, and the arithmetic operator will be applied on an element by element basis
- 2. We provide vector versions of various functions which report aspects of the model:
  - vcoord
  - vvel
  - vacc
  - vreact
  - vdef
  - vcentroid
- 3. You can now create multi-line annotation

Annotation	×
Angle = @a@* Line Length = @distance(point5,point2)@ in Torque Reaction in Angle = @react@ in-lbf	
🗖 Tag Line 🔽 Border	
Font Ok Cancel	

4. We have added Filter option in Equation Calculator to filter by defined variable, undefined variable, or by variable name. You can also organize variables into groups and apply filters using the group names.

Equation Ca	lculator			×
Input				
Result				
Message				
VARIABLE V/	ALUE	EXPRES	SION	
a 25 2 I 2.164 react 226	5 196 distanc 5.769 react	æ(point2,p (DIMENSI(	oint5) DN9)	
Sort 🗆 Filt	er			▼ Clear
		[	Result	Delete

You can also organize variables into groups and apply filters using the group names.

Sort 🔽 Filter	·	Clear
	[Defined variables]	L
	[Undefined variables]	te
	[Manage groups]	

To group variables, select [Manage groups...]. This brings up the "Variable Groups" dialog

Variable Groups		×
	Add	group e group
Variable X F r1 v a r2	Grouped	
,		0k

- To add a group, input group name and then click [Add group].
- To delete a group, highlight the group name and then click [Delete group]
- To add a variable to a group, highlight the group name and the variable, then click on the "Grouped" column. The '\*' will be displayed for that variable

Variable Groups	×
group1	Add group
<mark>group1</mark> group2	Delete group
Variable	Grouped
X F r1	*
∨ a r2	*
	Ok

Click [OK] after you're done and the group names will be shown in the Filter drop-down list and you can apply filters using the group names.

	Sort 🔽 Filter	<b>•</b>	Clear
		[Defined variables] [Undefined variables] [Manage groups]	te
l		group2 group1	

5. We now have icons for Blank/Unblank Geometry, Dimensions, Force Elements, and Annotations



After clicking on a button to blank the selected entities, the button is highlighted in black. You can click on it again to unblank the blanked entities.



6. We now have icons for Add Load, Add Actuator, Resultant, and Force on Pin



7. We added Actuator and Force to Object Finder dialog as you requested

Object Finder	×
Object ID	
C Point	
C Line	
Oimension	
C Actuator	
C Force	
Find	

- 8. We have implemented pi(), floor() and ceil() functions
- 9. Now you can graph and create table between variables, defined in Equation Calculator dialog, in addition to numeric values. AX is now allowing Initial t to be greater than Final t.

Graph		Table	
□ Use Current Simulation □ Use Current Simu □ Parametric □ Parametric		imulation	
Parameter t X axis variable Y axis variable Initial t Final t t increment	DIMENSION13 distance(POINT4,POIN <sup>-</sup> min max 2.345e-0	Parameter t X axis variable Y axis variable Initial t Final t t increment	DIMENSION13 distance(POINT4,POIN min max 2.345e-0
Ok	Cancel	Ok	Cancel

- 10. Improvements in **Increment** dialog box.
  - Now you can add additional variables to increment instead of having several increment boxes open.

Increment	×
Multivariate 🔹	
lterator Value Initial	Large Final Step Step
X DIMENSION13 V 69.92 min 4	→ max 2.3 <sup>2</sup> 9.38
Add Iterator	
Ok Cancel	

• To add an iterator, click [Add Iterator] button.

- To delete an iterator, click the [x] button in front of it.
- You can select an iteration in the Multivariate drop-down to run after each increment.

Increment	×			
Multivariate Iter: tor MV-Dynamic_Boom_Stability X DIM EN MV-Elevated MV-Horizontal MV-Static_Load MV-Static_Stability MV-Stowed	Large Final Step Step Max 2.3 <sup>4</sup> 9.3t			
Continuous Increment				

The Multivariate drop-down list the problems stored in Iteration Manager dialog.

Iteration Manager	×
Active Name   DriveCWT Mv-Dynamic_Boom_Stability   MV-Elevated MV-Horizontal   MV-Static_Load *   * MV-Static_Stability   MV-Static_Vector MV-Static_Stability	Cancel Store Current Edit Toggle Active Delete