ANSYS Mechanical APDL. Utility Menu-> File

File



<u>Comments</u>

Databases in the ANSYS Mechanical APDL have an extension "db". The results files have extensions "rst" or "rth", an error log – "err", and a history file – "txt".

<u>Command UNDO is not available</u>, so create many databases instead and give them proper names, for example for a FE analysis of an aircraft:

Geometry was prepared > Unitility Menu> File> Save As> aircraft_geometry.db Model was discretized > ... > aircraft _mesh.db FE analysis was done > ... > aircraft _results.db (the datebase will contain some results beside saved automatically in a "rst" file)

Text files (.lgw or *.txt) are written in the Ansys Parametric Design Language (APDL) and often used by advanced users.*

1

Exercise 1.	2	
Add a title Add a title File Select List Plot PlotCtrls Clear & Start New Fig. 1 Change Jobname Change Jobname	x	
Change Title UIT	2	
Utility Menu > File > Change Title > Two rectangles \rightarrow OK (Fig. 1 and 2) Utility Menu > File > Plot > Replot (Fig. 3) Fig. 3		
Copy Two rectangles Check Geom	-	
Pick a menu item or enter a command (PREP7) mat=1 type=1 real=1 csys=0	secn=1	
Create two rectangles (Fig. 6) Modeling > Create > Areas > Rectangle > By Dimensions > $X1, X2 \rightarrow 0, 10$ $Y1, Y2 \rightarrow 0, 40 \rightarrow Apply (Fig. 4)$ $X1, X2 \rightarrow 30, 50$ $Y1, Y2 \rightarrow 0, 40 \rightarrow OK$ (Fig. 5) What is the differences between Apply and OK Save the database Utility Menu > File > Save As > Rectangles_geom.db $\rightarrow OK$ (Fig. 7) Main Menu = Create Rectangle by Dimensions = Modeline Proposesor $Matrial Properson Matrial PropersonMatrial Properson Matrial Properson Matrial Properson Matrial Properson Matrial PropersonMatrial Properson Matrial PropersonMatrial Properson Matrial PropersonMatrial Properson Matrial PropersonMatrial PropersonMatrial Properson Matrial PropersonMatrial Properson$		
Save Database Save Database to Prectangles_geon.db Fig. 7 Help Save a text file Utility Menu > File > Write DB log file > Rectangles_geom.lgw → OK (Fig. 8) Write Database Log Write Database Log Fig. 8 Help Help To rectangles To rectangles To rectangles To rectangles To rectangles		

Exercise 1.

Finish

Utility Menu > File > Clear & Start New > Do not Read File > OK > CLEAR ... EXECUTED? > Yes

Resume an existing database

Utility Menu > File > Resume From... > Rectangles_geom.db > OK

When the database is resumed you may continue working on it.

Finish

Utility Menu > File > Clear & Start New > Do not Read File > OK > CLEAR ... EXECUTED? > Yes

Edit a text file

Use a text editor (*Notepad* or *Wordpad*) and modify the text of "Rectangles_geom.lgw" to a form:

/TITLE,Two rectangles
! /REPLOT
/PREP7
RECTNG,0,10,0,40,
RECTNG,30,50,0,40,
! SAVE, Rectangles_geom,db,
! LGWRITE,'Rectangles_geom','lgw','',COMMENT
APLOT

Lines with exclamation "!" are treated as comments (and may be removed).

Command APLOT was added to plot the rectangles in the graphics window.

Save the file as: Rectangles_geom_1.lgw

Reading a text file

Utility Menu > File > Read Input from... > Rectangles_geom_1.lgw > OK

Comments

Reading a text file (*.lgw) may be used instead of resuming a database (*.db). The text file requires smaller work space and allows to change the geometry using a text editor.

Easy way to learn the ADPL language is to use the command "Write DB log file..." and working on saved text files.