

TECPLOT 360™

2006

Quick Reference Guide

Tecplot Command Line

The general form of the Tecplot command line is:

tecplot *[options] [layoutfile] [datafiles] [macrofile]*

where:

[layoutfile] - file with extension *.lay or *.lpk.

[datafiles] - one or more data files. If both a layout file (*.lay only) and data files appear on the command line, Tecplot substitutes the data files referenced in the layout file with the data files listed in the command line.

[macrofile] - macro file name.

[options] is one or more of the following:

-addonfile <i>filename</i>	Load add-ons listed in <i>filename</i> .
-b	Run Tecplot in batch mode (-p option is also required).
-c <i>cfgfile</i>	Use <i>cfgfile</i> for the configuration set up instead of the default configuration file.
-d or -display <i>computer-name</i>	Displays Tecplot on computer <i>computername</i> (UNIX only). The computer, <i>computername</i> , must have X-server capability with the GLX extension.
-datafile <i>filename</i>	load a data file
-datasetreader <i>reader-name</i>	Instruct Tecplot to use the data set reader <i>reader-name</i> for specified files.
-debug <i>dbugfile</i>	Send debug information to the file <i>dbugfile</i> . Information is displayed to aid in debugging a new Tecplot configuration file, macro file, or binary data file. You may specify the minus sign ("-") for <i>dbugfile</i> to send the debug output to the "standard output" (UNIX only).
-demo	Run Tecplot in demo mode (only reads demo files).
-develop	Launch Tecplot in a mode used to develop add-ons (UNIX only).
-f <i>fontfile</i>	Use <i>fontfile</i> for the font file instead of the default font file <i>tecplot.fnt</i> .
-h <i>homedir</i>	Use <i>homedir</i> for the Tecplot home directory

-loadaddon " <i>addon-name</i> "	Load add-on <i>addonname</i> .
-loadaxaddon " <i>axaddon-name</i> "	Load Active-X add-on <i>axaddonname</i> (Windows only).
-m <i>cmapfile</i>	Select initial color map file to load.
-n	List node license information (UNIX only).
-nobatchlog	Suppress creation of the file <i>batch.log</i> during batch mode operation.
-nostdaddons	Do not load add-ons in <i>tecplot.add</i> .
-notoolbar	run <i>tecplot</i> with the toolbar deactivated
-p <i>macfile</i>	Play the macro in the file <i>macfile</i> . Note that if your macro file has an <i>.mcr</i> extension you do not need to use <i>-p</i> .
-q	Use quick playback mode. Ignores delay and pause commands.
-qm <i>quickpanelfile</i>	Load macro functions for the Quick Macro Panel from <i>quickpanelfile</i> instead of the default file <i>tecplot.mcr</i> .
-r <i>printfile</i>	Set the default file name for routing Print Files to <i>printfile</i> . This name can be reassigned interactively while running <i>Tecplot</i> .
-s <i>stylefile</i>	Use <i>stylefile</i> as a stylesheet for the first <i>Tecplot</i> frame.
-showpanel	Show the Quick Macro Panel immediately when <i>Tecplot</i> starts up.
-v	Print version number of <i>Tecplot</i> .
-x	Run <i>Tecplot</i> full screen.
-y <i>exportfile</i>	Same as <i>-r</i> except for exported files.
-z	Immediately show the macro viewer (allows you to see the macro commands prior to their execution).

Preplot

The following options are used with standard *Tecplot* data files:

-d	Turn on debug echo. Use <i>-d2</i> , <i>-d3</i> , <i>-d4</i> for more detailed debug information.
-r	Reverse the bytes of the output binary data file (generally not required).
<i>-iset [zone], [start], [end], [skip]</i>	

	<p>Create the binary data file using only the specified zone(s), range and skipping for the I-index.</p> <p>[zone] - specifies which zone this option affects; if not specified, all zones are affected.</p> <p>[start] - is the starting I-index; the default is one.</p> <p>[end] - the ending I-index; the default is the last index value.</p> <p>[skip] - specifies the distance between indices; one means every index is used, two means every other index, and so on.</p>
-jset [zone], [start], [end], [skip]	
	Same as <code>-iset</code> above, with respect to the J-index.
-kset [zone], [start], [end], [skip]	
	Same as <code>-iset</code> above, with respect to the K-index.
-zonelist start[:end[:skip]], ...	
	Specify the zones to process. You may supply more than one specification. By default Preplot processes all zones.

The following options are used with PLOT3D data files:

-d	Turn on debug echo. Use <code>-d2</code> , <code>-d3</code> , <code>-d4</code> for more detailed debug information.
-r	Reverse the bytes of the output binary data file (generally not required).
-plot3d	Input file is in PLOT3D format. This flag is required for PLOT3D data.
-b	Input file is binary.
-f	Input file is binary-FORTRAN, that is, there are record markers.
-foreign	Reverse bytes of input file.
-function	The <code>.q</code> file is a <code>.f</code> file.
-functionandq	There are both <code>.f</code> and <code>.q</code> files present.
-gridonly	Read grid variables only.
-i	Input file includes PLOT3D IBLANK variable.
-m	Input file is multi-grid (usually more than one grid block).
-ip <i>ilist</i>	Extract planes of constant <i>i</i> for all <i>i</i> in <i>ilist</i> . (Requires 3D whole data.)
-jp <i>jlist</i>	Extract planes of constant <i>j</i> for all <i>j</i> in <i>jlist</i> . (Requires 3D whole data.)
-kp <i>klist</i>	Extract planes of constant <i>k</i> for all <i>k</i> in <i>klist</i> . (Requires 3D whole data.)
-1d, -2d, -3dp, -3dw	Input PLOT3D file is [1D, 2D, 3D planar or 3D whole].

Mouse & Keyboard Shortcuts

3D Rotate tools:

Drag	Rotate about the defined rotation origin with the active Rotate tool
Alt-Drag	Rotate about the viewer position using the active Rotate tool.
C	Move rotation origin to probed point, ignoring zones.
O	Move rotation origin to probed point of data.
R	Rollerball rotation.
S	Spherical rotation.
T	Twist rotation.
X	X-axis rotation.
Y	Y-axis rotation.
Z	Z-axis rotation.

Contour Add tool:

Alt-Click	Place a contour line by probing on a streamtrace, slice, or iso-surface.
Click	Place a contour line.
CTRL+Click	Replace the nearest contour line with a new line.
Drag	Move the new contour line.
-	Switch to the Contour Remove tool.

Contour Remove tool:

Click	Removes the contour line nearest to the probed location.
+	Switch to Contour Add tool if you are using Contour Remove.

Geometry Polyline tool:

A	Allow translation of polyline segments in all directions.
H	Restrict translation of current polyline segment to horizontal.
U	Pen up, while drawing polyline.
V	Restrict translation of current polyline segment to vertical.
Eac	Terminate the current polyline

Probe tools.

Click	If the pointer is over a valid cell, the interpolated field values from all nodes in the cell are returned.
CTRL+Click	If the pointer is over a valid cell, the field values from the nearest node in the cell are returned.
Shift-CTRL+Click	The field values from the nearest point on the screen is returned (ignoring surfaces, zone number and depth of the point).
Alt-Click	Same as Click except zones are ignored. (Probe only on streamtraces, iso-surfaces, or slices.)
Alt-CTRL+Click	Same as CTRL+Click zones are ignored. (Probe only on streamtraces, iso-surfaces, or slices.)
Alt-CTRL+Shift-Click	Same as Shift-CTRL+Click except zones are ignored. (Probe only on streamtraces, iso-surfaces, or slices.)
T, R X, Y	When probing, press R or T on your keyboard to switch dependencies in Polar Line or X or Y in XY Line.

Slice tools:

+	Turn on the start slice if no slices are active, or turn on the end slice if slices are already active.
-	Turn off the end slice if the end slice is active, or turn off the start slice if the end slice is not active.
Click	Place a start slice.
Drag	Move the start slice.
Alt-click/Alt-drag	Determine the XYZ-location by ignoring zones and looking only at derived volume objects (streamtraces, slices, iso-surfaces, slices).
Shift-click	Place the end slice.
Shift-drag	Move the end slice.
I, J, K (ordered zones only)	Switch to slicing constant I-, J-, or K-planes respectively.
X, Y, Z	Switch to slicing constant X-, Y-, or Z-planes respectively.
1-4	Numbers one through four switch between slice groups.

Streamtrace Placement tools (3D Cartesian plots only):

D	Switch to streamrods.
R	Switch to streamribbons.
S	Switch to surface lines.
V	Switch to volume lines.
1-9	Change the number of streamtraces to be added when placing a rake of streamtraces.

Translate/Magnify tool:

Drag	Translate the data.
Shift-Drag	Translate the paper.
-	If the drag was started with Shift, this will reduce the magnification of the paper. Otherwise, this will reduce the magnification of the data.
+	If the drag was started with Shift, this will increase the magnification of the paper. Otherwise, this will increase the magnification of the data.
- drag	Decrease magnification on the paper.
+ drag	Increase magnification on the paper.

Zoom tool:

Click	Center the zoom around the location of your click.
Drag	Draw a box to set the frame view.

Picked Object Options

-	Reduce the size of the object. If multiple objects are selected, all object positions will be shifted towards the first object selected.
+	Increase the size of the object. If multiple objects are selected, all object positions will be shifted away from the first object selected.
Del	Delete picked object(s).
CTRL+C	Copy picked object(s) to the clipboard.
CTRL+V	Paste picked object(s) from the clipboard.
CTRL+X	Cut picked object(s).

Other Keyboard Operations

CTRL+A	Paste View - Paste stored frame view to current frame.
CTRL+C	Copy - place selected objects to paste buffer. Copy works only within Tecplot.
CTRL+D	Redraw all frames.
CTRL+F	Fit to full size - fit the entire plot into the frame (including data, text and geometries)
CTRL+L	Last - Restore last frame view.
CTRL+O	Open layout.
CTRL+P	Print.
CTRL+Q	Exit Tecplot.

CTRL+R	Redraw the current frame.
CTRL+S	Save current layout.
CTRL+U	Call up the Publish dialog to control Web publishing.
CTRL+W	Save current layout as a specified file.

Workspace View Options

CTRL+SHIFT+F	fit selected frames to workspace
CTRL+SHIFT+A	fit all frames to workspace
CTRL+SHIFT+P	fit paper to workspace
CTRL+SHIFT+L	last workspace view
CTRL+SHIFT+M	maximize workspace

Macro Variables

Variables	Notes
AUXDATASET	Retrieve auxiliary data from a data set. AUXDATASET:Reynolds would retrieve auxiliary data "Reynolds"
AUXFRAME	Retrieve auxiliary data from a frame. AUXFRAME:Byron would retrieve auxiliary data "Byron" from the current frame.
AUXZONE	Retrieve auxiliary data from a zone. AUXZONE[3]:BC would retrieve auxiliary data "BC" from zone 3 only.
AXISMAXA , AXISMAXR	Maximum value of current [Theta-axis or R-axis] range.
AXISMAXX , AXISMAXY , AXISMAXZ	Maximum value of current [X,Y or Z]-axis range.
AXISMINA , AXISMINR	Minimum value of current [Theta-axis or R-axis] range.
AXISMINX , AXISMINY , AXISMINZ	Minimum value of current [X,Y or Z]-axis range.
BYTEORDERING	Returns INTEL or MOTOROLA
COLORMAPDYNAMIC	Returns one if the color map is dynamic, zero if static.
DATASETFILENAME	Returns data set file name.
DATSETTITLE	The title of the data set, or "No Data Set" if a dataset does not exist.
DATE	Returns the date in the form of <i>dd Mmm yyyy</i> .
ENDSLICEPOS	Position of end slice.
EXPORTISRECORDING	Returns YES/NO to help macros complete record commands in proper order.
FRAMENAME	Returns the name of the current frame
INBATCHMODE	Returns one if Tecplot is in batch mode, zero if in interactive mode.
ISDATASETAVAILABLE	Returns 1 if a data set exists, and 0 if otherwise
ISOSURFACELEVEL	Returns the current iso-surface's iso-value.
LAYOUTFILENAME	Returns the current layout file name.
LOOP	Innermost loop counter.

Variables	Notes
MACROFILEPATH	Path to the directory containing the most recently opened macro file.
MAXA	Maximum value for Angle variable for polar line plots, calculated from the lowest numbered active polar line mapping.
MAXB	Maximum value for blanking variable.
MAXC	Maximum value for contour variable..
MAXI , MAXJ , MAXK	[I, J or K]-dimension for the lowest numbered active zone for 2D or 3D Cartesian plots.
MAXR	Maximum value of the R variable for polar line plots, calculated from the lowest numbered active polar line plot.
MAXS	Maximum value for scatter sizing variable for the currently active zones.
MAXU , MAXV , MAXW	Maximum value for variable assigned to the [X,Y,Z]-vector component for the currently active zones.
MAXVnn	Maximum value of variable <i>nn</i> .
MAXVAR	Returns the maximum values of the specified variable. It is indexed by array notation, meaning that a call of MAXVAR[2] gives the maximum value of the second variable.
MAXX , MAXY , MAXZ	Maximum value for variable assigned to the [X,Y or Z]-axis.
MINA	The minimum value for the Angle variable for polar line plots, calculate from the lowest numbered active polar line mapping.
MINB	Minimum value for blanking variable.
MINC	Minimum value for contour variable.
MINS	Minimum value for scatter sizing variable for the currently active zones.
MINU , MINV , MINW	Minimum value for variable assigned to the [X,Y,Z]-vector component for the currently active zones.
MINVnn	Minimum value of variable <i>nn</i> .

Variables	Notes
MINVAR	Returns the minimum values of the specified variable. It is indexed by array notation, meaning that a call of MINVAR[4] gives the minimum value of the fourth variable.
MINX , MINY , MINZ	Minimum value for variable assigned to the [X,Y or Z]-axis.
NUMFRAMES	Number of frames.
NUMLINEMAPS	Number of line maps assigned to the current frame.
NUMPLANES	Returns number of graphics bit-planes
NUMVARS	Number of variables in current data set.
NUMZONES	Number of zones in current data set.
OPSYS	Returns 1=UNIX, 2=DOS.
PAPERHEIGHT	Returns height of paper, that is, the white area of the Tecplot work area.
PAPERSIZE	Returns size of paper.
PAPERWIDTH	Returns the width of the paper.
PLATFORM	Returns name of platform, such as SGI or Windows.
PLOTTYPE	Zero = Sketch, one = XY, two = 2D, three = 3D, four = Polar line plots.
PRINTFNAME	Returns the file name of the last file sent for printing.
SLICEPLANETYPE	Plane type to which slices are assigned.
SOLUTIONTIME	Retrieve Tecplot's current solution time.
SOLUTIONTIME[[ACTIVEOFFSET=]nnn]	Retrieve the solution time of zone nnn. If ACTIVEOFFSET= is used, the integer value indicates the first zone associated with the nnn'th active field map.
STARTSLICEPOS	Position of first slice.
STREAMSTARTPOS	Streamtrace starting position in X, Y, Z coordinates, given in the form of 0.5, 3.2 5.6.
STREAMTYPE	The streamtrace type such as "Surface Line", or "Surface Ribbon"
TECHOME	Path to the Tecplot home directory.
TECPLOTVERSION	Currently returns 110.

Variables	Notes
TIME	Returns the current time in the form of 12:15:28
VARNAME	Returns the name of a specified variable.
ZONEMESHCOLOR	Returns the color of a particular zone mesh. Uses array notation.
ZONENAME	Returns the name of a specific zone. Uses array notation.

Dynamic Text

Variables	Notes
&(AUXDATASET: <i>name</i>)	The named auxiliary data attached to the current frame.
&(AUXFRAME: <i>name</i>)	The named auxiliary data attached to the data set of the current frame.
&(AUXVAR[<i>nnn</i>]: <i>name</i>)	The value of variable <i>nnn</i> .
&(AUXLINEMAP[<i>Q</i>]: <i>name</i>) where <i>Q</i> = either <i>nnn</i> or <i>ACTIVEOFFSET = nnn</i> and <i>nnn</i> = linemap number	The name of the linemap. If <i>ACTIVEOFFSET =</i> is used, the integer value indicates the first linemap associated with the <i>nnn</i> th active field map.
&(AUXZONE[<i>Q</i>]: <i>name</i>) where <i>Q</i> = either <i>nnn</i> or <i>ACTIVEOFFSET = nnn</i> and <i>nnn</i> = zone number	The named auxiliary data attached to the data set of the current frame. <i>nnn</i> = zone number. If <i>ACTIVEOFFSET =</i> is used, the integer value indicates the first zone associated with the <i>nnn</i> th active field map.
&(AXISMAXA), &(AXISMAXR)	Maximum value of current [Theta or R]-axis range.
&(AXISMAXX), &(AXISMAXY), &(AXISMAXZ)	Maximum value of current [X,Y,Z]-axis range.
&(AXISMINA), &(AXISMINR)	Minimum value of current [Theta or R]-axis range.
&(AXISMINX), &(AXISMINY), &(AXISMINZ)	Minimum value of current [X,Y or Z]-axis range.
&(BYTEORDERING)	Platform's byte ordering: "INTEL" or "MOTOROLA"
&(COLORMAPDYNAMIC)	Returns one if the color map is dynamic, zero if static.
&(DATE)	Replaced with the current date in the format <i>dd Mon yyyy</i> .
&(DATASETFILENAME[<i>nnn</i>])	Data set file name of the <i>n</i> th file associated with the current data set. If <i>n</i> is omitted then all data set file names are show, separated by new lines.
&(DATASETTITLE)	Replaced with the current data set title.
&(ENDSLICEPOS)	Replace with the position of the ending slice plane.
&(EXPORTISRECORDING)	Returns "YES" if currently recording, otherwise returns "NO."
&(FRAMENAME)	Replaced with the current plot.

Variables	Notes
&(INBATCHMODE)	A value of one if Tecplot is in batch mode, zero if interactive.
&(ISDATASETAVAILABLE)	A value of one if a data set exists for the current frame, zero if nonexistent.
&(ISOSURFACELEVEL[nnn])	Replace with the value of the contour variable on the <i>nnn</i> th iso-surface. NOTE: currently, this placeholder applies only to iso-surface group 1.
&(LAYOUTFNAME)	Replaced with the name of the current layout file.
&(LOOP)	Innermost loop counter.
&(MACROFILEPATH)	Path to the directory containing the most recently opened macro file.
&(MAXA)	Maximum value for the Theta variable. The value is calculated from the zone assigned to the lowest numbered active line mapping.
&(MAXB)	Maximum value for blanking variable for the first active constraint.
&(MAXC)	Maximum value for contour variable for contour group 1.
&(MAXI), &(MAXJ), &(MAXK)	[I,J or K]-dimension for the lowest numbered active zone for 2D and 3D Cartesian plot types.
&(MAXR)	Maximum value for the R variable. The value is calculated from the zone assigned to the lowest numbered active line mapping.
&(MAXS)	Maximum value for scatter sizing variable for the currently active zones.
&(MAXU), &(MAXV), &(MAXW)	Maximum value for variable assigned to the [X,Y,Z]-vector component for the currently active zones.
&(MAXVAR[nnn])	Maximum value of variable nnn.
&(MAXX), &(MAXY), &(MAXZ)	Maximum value for variable assigned to the [X, Y or Z] -axis.
&(MINA)	Minimum value for the Theta variable. The value is calculated from the zone assigned to the lowest numbered active line mapping.
&(MINB)	Minimum value for blanking variable for the first active constraint.
&(MINC)	Minimum value for contour variable for contour group 1.
&(MINR)	Minimum value for the R variable. The value is calculated from the zone assigned to the lowest numbered active line mapping.

Variables	Notes
&(MINS)	Minimum value for scatter sizing variable for the currently active zones.
&(MINU), &(MINV), &(MINW)	Minimum value for variable assigned to the [X,Y,Z]-vector component for the currently active zones.
&(MINVAR[<i>nnn</i>])	Minimum value of variable <i>nnn</i> .
&(MINX), &(MINY), &(MINZ)	Minimum value for variable assigned to the [X, Y or Z]-axis.
&(NUMFRAMES)	Number of frames.
&(NUMPLANES)	Returns number of graphics bit-planes
&(NUMVARS)	Number of variables in current data set.
&(NUMXYMAPS)	Number of XY-maps assigned to the current frame.
&(NUMZONES)	Number of zones in current data set.
&(OPSYS)	Returns 1=UNIX, 2=DOS.
&(PAPERHEIGHT)	Paper height in inches.
&(PAPERWIDTH)	Paper width in inches.
&(PLATFORM)	Platform name (such as "SGI" or "WINDOWS").
&(PLOTTYPE)	Plot type for the current frame: Zero for Sketch, one for XY Line, two for Cartesian 2D, three for Cartesian 3D, and four for PolarLine.
&(PRIMARYSLICE)	Return the primary slice position (Currently is limited to Slice Group 1).
&(PRINTFNAME)	Replaced with the name of the current print file.
&(SLICEPLANETYPE)	Replace with the type of slice plane (X-, Y-, Z-, I-, J- or K-planes).
&(SOLUTIONTIME)	Tecplot's current solution time.
&(SOLUTIONTIME[Q]) where Q = either <i>nnn</i> or <i>ACTIVEOFFSET = nnn</i> and <i>nnn</i> = zone number	Solution time of zone <i>nnn</i> . If <i>ACTIVEOFFSET</i> = is used, the integer value indicates the first zone associated with the <i>nnn</i> 'th active field map. &(SOLUTIONTIME[5]) would retrieve the solution time of the 5th zone. &(SOLUTIONTIME[ACTIVEOFFSET=3]) would retrieve the solution time of the first zone in the 3rd active field map.
&(STARTSLICEPOS)	Replace with the position of the starting slice plane.
&(STREAMSTARTPOS[<i>nnn</i>])	Starting position (X, Y, Z) of the <i>nnn</i> th streamtrace.
&(STREAMTYPE[<i>nnn</i>])	Type (Surface Line, Volume Line, Volume Ribbon, Volume Rod) of the <i>nnn</i> th streamtrace.

Variables	Notes
&(\$string)	Replaced with the value of the system environment variable <i>string</i> .
&(TECHOME)	Path to the Tecplot home directory.
&(TECLOTVERSION)	Returns Tecplot Version. (Currently returns "110.")
&(TIME)	Replaced with the current time in the format <i>hh:mm:ss</i> .
&(VARNAME[<i>nnn</i>])	Replaced with the variable name for variable <i>nnn</i> .
&(ZONEMESHCOLOR[Q]) where Q = either <i>nnn</i> or <i>ACTIVEOFFSET = nnn</i> and <i>nnn</i> = zone number	Color of the mesh for the <i>nnn</i> th zone. If <i>ACTIVEOFFSET=</i> is used, the integer value indicates the <i>nnn</i> th active zone for field plots and the zone associated with the <i>nnn</i> th active line mapping for line plots.
&(ZONENAME[Q]) where Q = either <i>nnn</i> or <i>ACTIVEOFFSET = nnn</i> and <i>nnn</i> = zone number	Replaced with the zone name for zone <i>nnn</i> . If <i>ACTIVEOFFSET=</i> is used, the integer value indicates the <i>nnn</i> th active zone for field plots and the zone associated with the <i>nnn</i> th active line mapping for line plots.

ASCII Data File Format

TITLE="datasettitle"
VARIABLES="vname1","vname2", ...

**FILE
HEADER**

ZONE **T**="zonetitle", **I**=*imax*, **J**=*jmax*, **K**=*kmax*, **C**=color,
ZONETYPE=ORDERED, **DT**=(datatypelist), **DATAPACK-**
ING=datapacking, **SOLUTIONTIME**=time, **STRAN-**
DID=strandid,**PARENTZONE**=parentzone

 VARLOCATION=(**[varset]**=varlocation, **[varset]**=varlo-
 cation), **AUXDATA** auxvar="value",

 VARSHARELIST=(**[varset]**=zzz,**[varset]**=zzz)

 FACENEIGHBORMODE=faceneighbormode

 FACENEIGHBORCONNECTLIST=faceneighborconnections

**ORDERED
ZONE
RECORD**

--- DATA FOR ORDERED ZONE ---

ZONE **T**="zonetitle", **N**=numnodes, **E**=numelements,
C=color, **ZONETYPE**=feformat, **DT**=(datatypelist),
DATAPACKING=datapacking, **NV**=nodevariable, **CON-**
NECTIVITYSHAREZONE=zzz, **STRANDID**=strandid, **SOLU-**
TIONTIME=time, **AUXDATA** auxvar="value",
PARENTZONE=parentzone

 VARLOCATION=(**[varset]**=varlocation, **[varset]**=varlo-
 cation), **VARSHARELIST**=(**[varset]**=zzz,**[varset]**=zzz)

 FACENEIGHBORMODE=faceneighbormode

 FACENEIGHBORCONNECTLIST=faceneighborconnections

**FINITE-
ELEMENT
ZONE
RECORD**

--- DATA FOR FINITE-ELEMENT ZONE ---

TEXT **X**=*xorigin*,**Y**=*yorigin*, **Z**=*zorigin*, **THETA**=thetaori-
 gin,**R**=*rorigin*, **F**=font, **CS**=coordinatesys, **HU**=heightu-
 nits, **AN**=textanchor, **C**=color, **A**=angle, **H**=height,
 S=scope, **LS**=linespacing, **T**="text", **BX**=boxtype,
 BXM=boxmargin, **BXF**=boxfillcolor, **BXO**=boxcolor,
 LT=linethickness, **ZN**=zone, **CLIPPING**=clipping,
 MFC=macrofunction

**TEXT
RECORD**

GEOMETRY *X=xorigin, Y=yorigin, Z=zorigin, THETA=thetaorigin, R=rorigin, T=geomtype, CS=coordinatesys, c=color, L=linetype, DT=datatype, PL=patternlength, LT=linethickness, EP=numellipsepts, AST=arrowheadstyle, AAT=arrowheadattach, ASZ=arrowheadsize, AAN=arrowheadangle, S=scope, F=geomformat, FC=geomfillcolor, ZN=zone, MFC=macrofunction, CLIPPING=clipping, DRAWORDER=draworder*

**GEOMETRY
RECORD**

---DATA FOR GEOMETRY RECORD---

DATASETAUXDATA *auxvar1="value1", auxvar2="value2", ...*

**DATA
AUXILIARY
RECORD**

CUSTOMLABELS *"label1", "label2", ...*

**CUSTOM
LABEL
RECORD**

VARAUXDATA *N auxvar="value", M auxvar="value", ...*

**VARIABLE
AUXILIARY
RECORD**

ASCII Data File Parameters

<i>angle</i>	angle in degrees counter-clockwise from horizontal
<i>arrowheadstyle</i>	PLAIN, HOLLOW, FILLED
<i>arrowheadattach</i>	NONE, BEGINNING, END, BOTH
<i>arrowheadsize</i>	size of arrowhead in frame units
<i>arrowheadangle</i>	angle of arrowhead in degrees
<i>auxvar</i>	name of auxiliary data variable
<i>boxcolor</i>	fill color for text box use color options
<i>boxfillcolor</i>	fill color for text in box as fraction of text height
<i>boxmargin</i>	margin around text in box as fraction of text height
<i>boxtype</i>	NOBOX, HOLLOW, FILLED
<i>clipping</i>	CLIPTOVIEWPORT, CLIPTOFRAME
<i>color</i>	BLACK, RED, GREEN, BLUE, CYAN, YELLOW, PURPLE, WHITE, CUST1, ..., CUST8
<i>coordinatesys</i>	FRAME, GRID, GRID3D
<i>datapacking</i>	BLOCK, POINT
<i>datasettitle</i>	title of dataset
<i>datatype</i>	SINGLE, DOUBLE
<i>datatypeelist</i>	SINGLE, DOUBLE, LONGINT, SHORTINT, BYTE, BIT
<i>draworder</i>	AFTERDATA, BEFOREDATA
<i>faceneighborconnections</i>	<i>Faceneighborconnectlist</i> starts with the cell and cell-face affected by the connection. It then contains neighboring cells and zones depending on the FACENEIGHBORMODE .
<i>faceneighbor-mode</i>	LOCALONETOONE, LOCALONETOMANY, GLOBALONETOONE, GLOBALONETOMANY
<i>feformat</i>	FELINESEG, FETRIANGLE, FEQUADRILATERAL, FETETRAEDRON, FEBRICK
<i>font</i>	HELV, HELV-BOLD, TIMES, TIMES-ITALIC, TIMES-BOLD, TIMES-ITALIC-BOLD, COURIER, COURIER-BOLD, GREEK, MATH, USER-DEF
<i>geomfillcolor</i>	fill color for geomtry use color options
<i>geomformat</i>	POINT, BLOCK
<i>geomtype</i>	LINE, SQUARE, RECTANGLE, CIRCLE, ELLIPSE
<i>height</i>	text height in frame units

<i>heightunits</i>	In FRAME coordinatesys either FRAME or POINT ; in GRID coordinatesys either GRID or FRAME
<i>imax, jmax, kmax</i>	number of points in the I- J- or K-direction
<i>labelN</i>	string for value of N when using custom labels
<i>linespacing</i>	line spacing for multiple-line text
<i>linethickness</i>	Thickness of text box or geometry outline
<i>linetype</i>	SOLID, DASHED, DASHDOT, DOTTED, LONGDASH, DASHDOTDOT
<i>macrofunction</i>	macro function command
<i>N, M</i>	number of the Nth or Mth variable
<i>nodevariable</i>	number of the variable representing the "Node" value
<i>numelements</i>	number of elements in finite-element zone
<i>numellipsepts</i>	number of points used to approximate circles or ellipses
<i>numnodes</i>	number of nodes in finite-element zone
<i>orderedformat</i>	BLOCK, POINT
<i>parentzone</i>	Ones-based parent zone number within the dataset. A zone may not specify itself as its parent.
<i>patternlength</i>	pattern length for linetype
<i>rorigin</i>	r origin of the object in coordinatesys units, Polar plots only
<i>scope</i>	GLOBAL, LOCAL
<i>strandid</i>	integer value associating the zone with a given strand
<i>text</i>	alphanumeric text string
<i>textanchor</i>	LEFT, CENTER, RIGHT, MIDDLEFT, MIDCENTER, MIDRIGHT, HEADLEFT, HEADCENTER, HEADRIGHT
<i>thetaorigin</i>	theta origin of the object in coordinatesys units, Polar plots only
<i>time</i>	floating point time value for the zone
<i>varlocation</i>	NODAL, CELLCENTERED
<i>varset</i>	list of variables to use
<i>xorigin, yorigin</i>	x or y origin of the object in coordinatesys units
<i>zorigin</i>	z origin of object (always in GRID units)
<i>zone</i>	zone number to which this item is assigned (0=all)
<i>zonetitle</i>	title of zone
<i>zzz</i>	The source zone for shared variables. If omitted, the variables are shared from the previous zone

Custom Characters

	Character Index English Text Greek Math User Defined		Character Index English Text Greek Math User Defined		Character Index Extended Character		Character Index Extended Character
32	(space)		80	P	Π	∠	∅
33	!	!	81	Q	Θ	∇	∅
34	"	√	82	R	P	⊗	∅
35	#	#	83	S	Σ	⊙	∅
36	\$	∃	84	T	T	™	∅
37	%	%	85	U	Υ	Π	∅
38	&	&	86	V	ς	√	∅
39	'	ε	87	W	Ω	·	●
40	((88	X	Ξ	┘	●
41))	89	Y	Ψ	∧	●
42	*	*	90	Z	Z	∨	●
43	+	+	91	[[↔	
44	,	,	92	\	\	⇐	
45	-	-	93]]]]	⇑	
46	.	.	94	^	⊥	⇒	
47	/	/	95	—	—	⇓	
48	0	0	96	·	—	◇	
49	1	1	97	a	α	<	◆
50	2	2	98	b	β	⊕	◆
51	3	3	99	c	χ	⊗	◆
52	4	4	100	d	δ	™	◆
53	5	5	101	e	ε	Σ	◆
54	6	6	102	f	φ	⊞	⊞
55	7	7	103	g	γ	⌋	
56	8	8	104	h	η	}	
57	9	9	105	i	ι		
58	:	:	106	j	φ		
59	;	;	107	k	κ		
60	<	<	108	l	λ		
61	=	=	109	m	μ		
62	>	>	110	n	ν		
63	?	?	111	o	ο		
64	@	≡	112	p	π		
65	A	A	113	q	θ	}	
66	B	B	114	r	ρ	}	
67	C	X	115	s	σ		
68	D	Δ	116	t	τ		
69	E	E	117	u	υ		
70	F	Φ	118	v	ϖ		
71	G	Γ	119	w	ω		
72	H	H	120	x	ξ		
73	I	I	121	y	ψ		
74	J	θ	122	z	ζ		
75	K	K	123	{	{		
76	L	Λ	124				
77	M	M	125	}	}		
78	N	N	126	~	~		
79	O	O	127				
160	i		163	£			
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162	⊞		165	¥			
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