



AHELP for CIAO 3.4

limits

Context: [chips](#)

Jump to: [Description](#) [Examples](#) [Bugs](#) [See Also](#)

Synopsis

Sets the ranges to be displayed in the axes.

Syntax

```
chips> [D #] LIMITS [<coor>] {<min> | AUTO | *} {<max> | AUTO | *}
chips> [D #] LIMITS {<xmin> | AUTO | *} {<xmax> | AUTO | *} \
{<ymin> | AUTO | *} {<ymax> | AUTO | *} \
[ {<zmin> | AUTO | *} {<zmax> | AUTO | *} ]
```

Description

Argument: <coor>
 Description: axis coordinates
 Options: X, Y
 Default: X

Argument: D #
 Description: drawing area number designation
 Options: integer numbers
 Default: current drawing area

See the D command for more information about this argument.

Argument: <min>
 Description: lower limit for axis range
 Options: real numbers
 Default: AUTO

Argument: <max>
 Description: upper limit for axis range
 Options: real numbers
 Default: AUTO

Argument: <xmin>
 Description: lower limit for X-axis range
 Options: real numbers
 Default: AUTO

Argument: <xmax>
 Description: upper limit for X-axis range
 Options: real numbers
 Default: AUTO

Argument: <ymin>
 Description: lower limit for Y-axis range

Options: real numbers Default: AUTO
Argument: <ymin> Description: lower limit for Y-axis range Options: real numbers Default: AUTO
Argument: <ymax> Description: upper limit for Y-axis range Options: real numbers Default: AUTO
Argument: <zmin> Description: lower limit for Z-axis range Options: real numbers Default: AUTO
Argument: <zmax> Description: upper limit for Z-axis range Options: real numbers Default: AUTO

The limit specifications come in pairs, with the first being the lower limit. A limit specification may be a number, an asterisk (*), or the argument AUTO. A '*' indicates no change in the current limit, while AUTO allows the underlying plotting package to select the limit value.

ChIPS converts double-precision numbers to floating-point values before plotting them, which can cause problems for values that are either too large or too small. The allowed range is approximately $1e-38$ to $3e38$ (for both positive and negative values).

The limits of the x and y axes in a contour plot cannot be modified in the current version of ChIPS.

CIAO allows some plot attributes to be changed using the ChIPS state object and resource file. See "ahelp chips" for further details.

Example 1

```
chips> CURVE data/example.dat
chips> LIMITS X 5.0 15.0
chips> LIMITS Y 2.0 4.0
chips> LIMITS X AUTO AUTO
chips> LIMITS Y AUTO AUTO
```

The first two LIMITS commands change the displayed ranges of the X and Y axes, respectively. The final two commands instruct the plotting package to determine the X and Y limits. The two pairs of commands (4 lines) may be reduced to two lines:

```
chips> LIMITS 5.0 15.0 2.0 4.0
chips> LIMITS AUTO AUTO AUTO AUTO
```

Example 2

```
chips> LIMITS * 15.0 * 4.5
```

This command preserves the minimum value of each axis, but changes the maximum of the X-axis to 15.0 and of the Y-axis to 4.5.

Bugs

See the [bugs page for ChIPS](#) on the CIAO website for an up-to-date listing of known bugs.

See Also

chips

[axes](#), [drawarea](#), [errs](#), [font](#), [grids](#), [label](#), [levels](#), [line](#), [linear](#), [location](#), [log](#), [relativesize](#), [split](#), [symbol](#),
[ticks](#), [tickvals](#), [title](#), [xlabel](#), [ylabel](#), [zlabel](#)

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URL:
<http://cxc.harvard.edu/ciao3.4/limits.html>
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