

ADVANCED SCRIPTED RULER v1.0 - by NuTech
FULL MANUAL

Table of Contents

1.0 GENERAL INFO 2

2.0 MEASURING NOTES AND TIPS 3

3.0 CHAT INFORMATION..... 3

3.1 CHAT COMMANDS: 4

3.2 GENERAL COMMANDS 4

3.3 RULER SIZING..... 4

3.4 BASIC ALIGNMENT COMMANDS 4

3.5 POSITIONING COMMANDS..... 5

3.6 ROTATION COMMANDS..... 6

3.7 OWNER ONLY COMMANDS 6

4.0 CHAT COMMAND SUMMARY 7

1.0 GENERAL INFO

There are two ways to use the ruler:

1) You can use the ruler just like you would a real one by positioning it where you want it and then reading off the distance you want to measure by using the ruler markings. As can be seen on the ruler, there are blue lines every 1 meter along the length of the ruler. There is a black rectangle at the center of each blue line. There is also a red line marking each 0.5 m position. At each 0.1 meter point, there are numbers to help you count the tenths. In between the 0.1 m lines there are ten additional marks for each 0.01 m.

2) More powerfully, you can use the ruler in "touch mode". Here you position the ruler so that ANY part of the ruler touches the two points whose distance you want to measure. Then just touch the ruler near those two locations (zoom in for better accuracy). You will hear a beep sound to confirm you touched the ruler. When you use the ruler this way, you don't need to line up any ruler markings on your object. Any part of the ruler will work: front, back, or edges! When first touched, the ruler will say the world x, y, z coordinates where you touched it. For each successive touch, the ruler will tell you the Total Distance between the last two touches. In "Advanced mode" it will also tell you the X, Y, & Z deltas (differences) between the last two touches and the distances between the touches in the X-Y, X-Z, and Y-Z planes. When used in "touch" mode you can get accuracies of 0.001 m or better. A sample output of what you get when you touch the ruler is shown below.

SAMPLE OUTPUT (The first line shows the SL coordinates where you just touched the ruler)

<114.36800, 131.57990, 3702.45200>

Between last two touches on this ruler:

Total Distance = 1.2181 m

Delta-X = -0.0137 m

Delta-Y = 0.0602 m

Delta-Z = -1.2166 m

Distance in X-Y plane = 0.0617 m

Distance in X-Z plane = 1.2166 m

Distance in Y-Z plane = 1.2180 m

All this information gives you a great many options and possibilities for how to measure things. The simplest way to is to just use the Total Distance. You can safely ignore all the other distance information if you don't want to use it, or you can turn it off completely using the "Advanced mode" chat command (i.e. **A**).

If you are measuring something that has flat sides (walls, plates, planes, etc.) aligned up in the north, south, east, or west directions, the advanced mode gives you a lot more flexibility in positioning the ruler when you just want to measure the x, y, or z distances between those flat sides. In this case, you only have to make sure the ruler touches both sides (anywhere on the

ruler) and then touch the ruler anywhere it intersects those sides. Then read off the distance of interest (Delta-X, Delta-Y, or Delta-Z).

More advanced users may occasionally have use for measuring distances in the X-Y, X-Z, or Y-Z planes. The distance in the X-Y plane is calculated by taking the square of Delta-X, adding it to the square of Delta-Y, and then taking the square root of that sum. The distances in the X-Z & Y-Z planes are calculated in a similar manner.

2.0 MEASURING NOTES AND TIPS

1) You can move the ruler between two touches!

For example, if you want to measure the distance between point A and point B you could do the following: Place the ruler so that any part of the ruler touches point A and then touch the ruler near point A. Then move the ruler so that any part of the ruler touches point B and touch the ruler near point B. Then just read off the Total Distance in the chat message! Just be careful to NOT touch the ruler with your left mouse button when moving the ruler. Using this method you can measure the distance between any two points in the entire region.

2) You can attach the ruler to your spine & measure things in regions where you can't rez objects! It is a bit awkward but it does work. You probably won't be able to get pin point accuracy this way but for most things it will be good enough. Use the provided 'Standing at attention' animation when you use the ruler this way. The animation keeps the ruler much steadier.

3.0 CHAT INFORMATION

Chat commands are normally only accepted from the OWNER unless the ruler is in GUEST mode.

If the chat channel is anything other than 0, you must precede each chat command below by a slash and the channel number. For example if the channel is set to 7, you would put a /7 in front of every command. Also keep in mind that you have to be within 20 m of the center of the ruler for the chat commands to work. If you Shout your commands, you can extend that distance to 100 meters.

Changing the Chat Channel Number

The owner can change the chat channel from 0 to 99 by editing the ruler's Description field to be the desired channel number and then touch the ruler to activate the new channel.

3.1 CHAT COMMANDS:

All chat commands can be either upper or lower case. Spaces are not required between the letter commands and any numerical parameters.

3.2 GENERAL COMMANDS

A - Toggles Advanced mode on/off. When off, the ruler only shows the Total Distance. When ON, the ruler provides additional distance information.

Sound - Toggles the 'beep' sound on and off. This is the beep that plays when you touch the ruler.

Help or **H** - Shows help information in chat box

NC - Dispenses two note cards

3.3 RULER SIZING

Long n - Resizes ruler to be n meters Long, where n can be any whole number from 1 to 64

Wide n - Resizes ruler to be n meters Wide, where n can be 0.01 to 0.50

Deep n - Resizes ruler to be n meters Deep, where n can be 0.01 to 0.50

Default - Resizes ruler to its default size of 4 m long, 0.2 wide, and 0.025 deep

Example:

Long5, **LONG 5**, and **LoNg 5** would all set the ruler to be 5 m long

3.4 BASIC ALIGNMENT COMMANDS

U - Sets ruler straight Up

D - Sets ruler straight Down

N - Sets ruler to point North

S - Sets ruler to point South

W - Sets ruler to point West

E - Sets ruler to point East

3.5 POSITIONING COMMANDS

P - Shows the ruler's SL world position in the chat box

P <x,y,z> - Moves the ruler to an absolute SL position of <x, y, z> (Caution: Can send it anywhere in the region!)

Example:

P <130,100,25> would move ruler to <130,100,25> (the <, commas, and > are all required)

X n - Moves ruler in world X by n meters (n can be -10.000 to +10.000)

Y n - Moves ruler in world Y by n meters (n can be -10.000 to +10.000)

Z n - Moves ruler in world Z by n meters (n can be -10.000 to +10.000)

Example:

y2.04 would move ruler 2.04 meters in SL's y direction

XL n - Moves ruler in local X by n meters (n can be -10.000 to +10.000)

YL n - Moves ruler in local Y by n meters (n can be -10.000 to +10.000)

ZL n - Moves ruler in local Z by n meters (n can be -10.000 to +10.000)

Example:

ZL-0.05 would move ruler -0.05 along its local z axis

INCREMENTAL MOVES

i n - Sets increment to 'n' for the X, Y, Z, XL, YL, and ZL commands (n can be -10.000 to +10.000)

R - Reverses the sign of the increment

X - Moves ruler in world X by the increment

Y - Moves ruler in world Y by the increment

Z - Moves ruler in world Z by the increment

XL - Moves ruler in local X (as marked on ruler) by the increment

YL - Moves ruler in local Y (as marked on ruler) by the increment

ZL - Moves ruler in local Z (as marked on ruler) by the increment

Examples:

i 0.05 would set the increment to 0.05 meter

x would then move the ruler 0.05 in world X

z would move the ruler 0.05 in world Z

R changes the increment to -0.05

X would now move the ruler -0.05 in world X

XL would move the ruler -0.05 in local X

NOTE: The red and blue 'X/Z' graphic on the ruler shows you the direction of the ruler's LOCAL coordinates and rotations. It is NOT useful to determine the direction for SL World coordinates.

3.6 ROTATION COMMANDS

Rx - Rotates ruler 180 degrees about its X axis

Ry - Rotates ruler 90 degrees about its Y axis

Rz - Rotates ruler 90 degrees about its Z axis

The above 3 commands can be useful for making the ruler easier to read, changing which edge has numbers increasing or decreasing, putting numbers right side up, etc. Two successive Ry or Rz commands may be necessary to get the results you want.

Rx n - Rotates ruler about its X axis by n degrees (-360.0 to +360.0)

Ry n - Rotates ruler about its Y axis by n degrees (-360.0 to +360.0)

Rz n - Rotates ruler about its Z axis by n degrees (-360.0 to +360.0)

Example:

Rz-45.7 would rotate ruler around its Z axis by -45.7 degrees

To help you know how each rotation command will rotate the ruler and in what direction, a small graphic has been placed on the ruler. It shows the local x axis in red and the local z axis in blue. If you imagine wrapping your fingers around an axis with your thumb in the direction of the axis, then the direction your fingers wrap around the axis indicates a positive rotation. For the y axis (which is perpendicular to the surface of the ruler), you can see a circle with a dot in it on one side of the ruler and a circle with a cross in it on the other side. The dot indicates the y axis is coming out of the surface of the ruler. The cross indicates the y axis is headed into the surface. Use the same rule to determine which direction is a positive rotation for the y axis. Imagine your hand is wrapped around the y axis with your thumb pointing in the direction of the y axis. Your fingers will then curl and point to a positive rotation around the y axis.

3.7 OWNER ONLY COMMANDS

Owner - Sets ruler to OWNER only mode (only the owner can use the ruler)

Guest - Sets ruler to GUEST mode (anyone can use the ruler). See Notes!

NOTE 1: If you want your guest to be able to move the ruler, make sure you Edit the ruler and check the "Anyone Move" box under the General tab.

NOTE 2: The guest must touch the ruler before it will start listening to their chat commands

NOTE 3: The ruler will respond to the last guest that touched it and also to the owner.

NOTE 4: When you rez your ruler it will initially be in OWNER only mode

4.0 CHAT COMMAND SUMMARY

A - Toggles Advanced mode on/off

Sound - Toggles the 'beep' sound on/off

H or **Help** - Shows help information in chat

NC - Dispenses two note cards

Long n - Resizes ruler to be n meters Long (1 to 64)

Wide n - Resizes ruler to be n meters Wide (0.01 to 0.50)

Deep n - Resizes ruler to be n meters Deep (0.01 to 0.50)

Default - Resizes ruler to its default size (4 x 0.2 x 0.025)

U - Sets ruler straight Up

D - Sets ruler straight Down

N - Sets ruler to point North

S - Sets ruler to point South

W - Sets ruler to point West

E - Sets ruler to point East

P - Shows the ruler's SL world position in the chat box

P <x,y,z> - Moves the ruler to an absolute SL position of <x, y, z> (Caution!)

Example: P <130,100,25>

X n - Moves ruler in world X by n (n is -10.000 to +10.000)

Y n - Moves ruler in world Y by n (n is -10.000 to +10.000)

Z n - Moves ruler in world Z by n (n is -10.000 to +10.000)

XL n - Moves ruler in local X by n (n is -10.000 to +10.000)

YL n - Moves ruler in local Y by n (n is -10.000 to +10.000)

ZL n - Moves ruler in local Z by n (n is -10.000 to +10.000)

i n - Sets increment for the commands below (n is -10.000 to +10.000)

R - Reverses the sign of the increment

X - Moves ruler in world X by the increment

Y - Moves ruler in world Y by the increment

Z - Moves ruler in world Z by the increment

XL - Moves ruler in local X by the increment

YL - Moves ruler in local Y by the increment

ZL - Moves ruler in local Z by the increment

NOTE: The red and blue 'X/Z' graphic on the ruler shows you the direction of the ruler's LOCAL coordinates and rotations.

Rx - Rotates ruler 180° about its X axis

Ry - Rotates ruler 90° about its Y axis

Rz - Rotates ruler 90° about its Z axis

Rx n - Rotates ruler about its X axis by n (-360.0° to +360.0°)

Ry n - Rotates ruler about its Y axis by n (-360.0° to +360.0°)

Rz n - Rotates ruler about its Z axis by n (-360.0° to +360.0°)

OWNER ONLY COMMANDS

Owner - Sets ruler to OWNER only mode

Guest - Sets ruler to GUEST mode