

# SOLARSS

## USER ISTRUCTION

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### Wath is Solarss:

It is an educational software that allows you to have the measures to scale the size of the solar system planets and the distances from the sun . You can use different units to create their own custom template .

### Hardware and Operating System requirements

PC with 500 MHz CPU, 256 MB memory, running 32 bit Windows 2000, XP, Vista or Windows 7/8  
required PC with 2 GHz CPU, 2 GB memory, running Windows Windows 7 recommended  
in some cases it is necessary the RunTime Microsoft Visual C++ 2008 Redistributable Package download to: <https://www.microsoft.com/it-it/download/details.aspx?id=29>

### Author

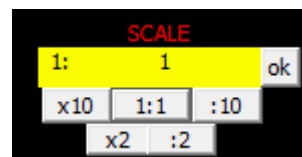
#### Gianpaolo Pizzetti

The Italian amateur astronomer (b. 1961) is active in the development of astronomical software. He is part of the observational staff at the Serafino Zani astronomical observatory, where he leads the technology and computer section.

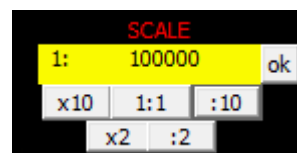
### User Istrution

When starting the program presents the measures in scale 1 : 1 with dimensions expressed in km. and distances in U.A. ( 1 U.A has a corresponding to the average Earth-Sun distance)

You can now customize this scale in various ways:  
directly changing the scale

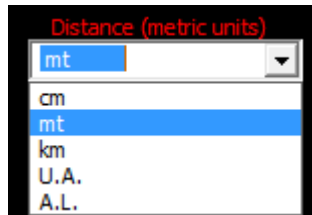
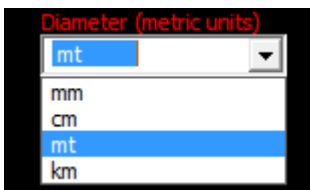


example clicking several times button :10  
until when scale = 1:100000



or you may want to have a scale model in which a planet or the sun has a defined size, for example, if the Sun is represented as a ball of 1 meter in diameter and wanted to know all other measures you could do this:

changed the unit of measurement of the dimensions and distances putting " mt "



Then put the value 1 in the size of the sun and we immediately all other values scale both for its size and for the distances

A screenshot of a scale model interface. The "SCALE" section shows "1: 1391684000" and "ok" button. Below are buttons for "x10", "1:1", ":10", "x2", and ":2". The "Diameter (metric units)" dropdown is set to "mt" and the "Distance (metric units)" dropdown is also set to "mt". The Sun's diameter is set to 1.000. The following table shows the scaled values for other planets:

Planet	Diameter (metric units)	Distance (metric units)
Sun	1.000	
Mercury	0.004	41.611
Venus	0.009	77.754
Earth	0.009	107.494
Mars	0.005	163.785
Jupiter	0.103	559.331
Saturn	0.087	1025.179
Uranus	0.037	2062.948
Neptune	0.036	3232.237

The same procedure applies to any value we want to take as a reference, so for example if we want to have Jupiter - Sun distance equal to 1 km will put the unit of measurement of distances in kilometers and then write the values of the distances of Jupiter-Sun = 1 here is the result ... .

A screenshot of a scale model interface. The "SCALE" section shows "1: 778412027" and "ok" button. Below are buttons for "x10", "1:1", ":10", "x2", and ":2". The "Diameter (metric units)" dropdown is set to "mt" and the "Distance (metric units)" dropdown is set to "km". The Sun's diameter is set to 1.788. The Jupiter-Sun distance is set to 1.000. The following table shows the scaled values for other planets:

Planet	Diameter (metric units)	Distance (metric units)
Sun	1.788	
Mercury	0.006	0.074
Venus	0.016	0.139
Earth	0.016	0.192
Mars	0.009	0.293
Jupiter	0.184	1.000
Saturn	0.155	1.833
Uranus	0.066	3.688
Neptune	0.064	5.779