

Unit Converter Advance User Manual

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Introduction

Unit Converter Advance is a handy utility for students, teachers, and practitioners in engineering, physics, sciences, and technical subjects.

It can quickly convert more than 400 different units in 35 categories. It contains the most important conversion factors for length, area, volume, mass, force, pressure, density, energy, power, temperature, time and many other units and categories. If you need more custom unit conversion allows you to convert easily almost every unit.

With Unit Converter Advance you can even convert Color Codes, Numbers and Currency too.

Unit Converter Pro offers you to add your own custom unit and categories. You can also easily create conversion table of any Category.

Unit Converter Advance Features

Easy and Modern User Interface

Unit Converter Advance has an easy and Modern User Interface that let you to quickly select categories and units and convert then and help you by informing you about any error and information you need in the same window.

It comes with five different [themes](#) to chose as you like.

Over 400 pre-defined Units and 35 Categories

Unit Converter Pro can quickly and easily convert more than 400 predefined units in 35 categories. It contains the most important conversion factors for length, mass, volume, pressure and time units. But it provides other high-specialized units and categories, too.

Currency Conversion*

Unit Converter Advance can quickly and easily convert 32 currencies including Indian Rupee, US Dollar, and Euro. [More](#)

Number Conversion

Number Conversion can also be done easily in Unit Converter Advance. You can convert from Base 2 to unto Base 36 numbers into each other including Binary, Hex, Octet, Decimal, Hexadecimal. [More](#)

Color Conversion

Color Conversion is also a part of Unit Converter Advance. In this, you can easily and quickly convert RGB, CMYK, HSL, HSV/HSB and Hex Color Codes into each other. [More](#)

Custom Unit Conversion

Unit Convert Advance allows you to convert your own custom units. With custom unit conversion feature, you can immediately convert almost every unit you need in the same window whenever. [More](#)

Conversion Table

Make Conversion Table tool in Unit Converter Advance allows you to create and save the conversion table of any category. [More](#)

Add Custom Units

Unit Converter Advance gives you the ability to add your own custom units into any pre-defined category or custom categories you want and to use them later. [More](#)

Add Custom Category

With the ability to Add Custom Categories in Unit Converter Advance you can add your own custom category and then add your custom unit into them. [More](#)

** You need to connect to the Internet to use currency conversion.*

How to Convert

How to Convert

Unit Converter Advance allows you to convert 400 pre-defined units in 35 categories and even more with custom unit conversion and you can also convert Color Codes, Numbers and Currencies too.

[Basic Conversion](#)

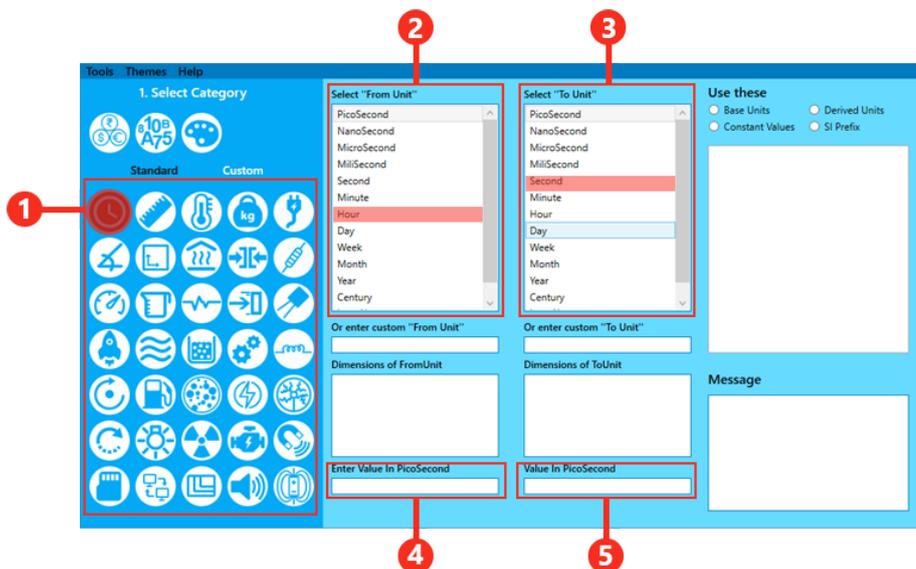
[Currency Conversion](#)

[Number Conversion](#)

[Color Conversion](#)

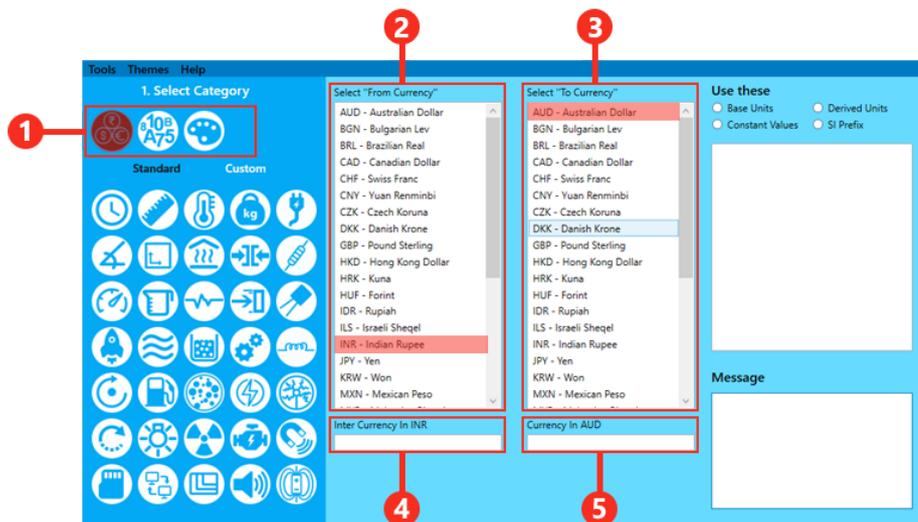
[Custom Conversion](#)

Basic Conversion



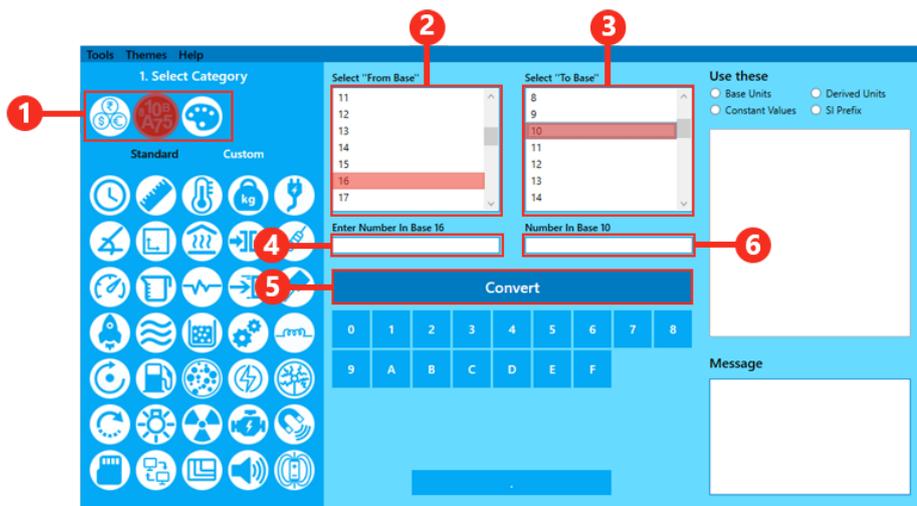
1. First, select a category of a unit that you want to convert. (E. g. if you want to convert from Hour to Minute select Time category.)
2. Then select the unit you are converting from in "**From Unit/Left**" list. (E. g. "Hour")
3. Select the unit you are converting to in "**To Unit/Right**" list. (E. g. "Minute")
4. Enter the value in the "**Value/Bottom Left**" field. (E. g. "24")
5. The answer will appear in the "**Result/Bottom Right**" field immediately.

Currency Conversion



1. Select Currency Conversion from categories. (first on top row)
2. Select the unit you are converting from in "**Form Currency**" list. (E. g. "US Dollar")
3. Select the currency you are converting to in "**To Currency**" list. (E. g. "Indian Rupee")
4. Enter the amount in the "**Value/Bottom Left**" field. (E. g. "7")
5. The converted amount will appear in the "**Result/Bottom Right**" field immediately.

Number Conversion

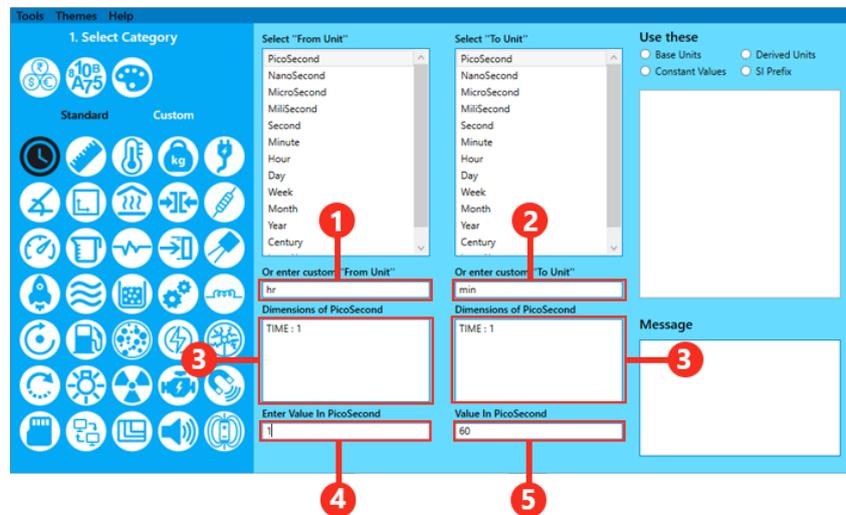


1. Select Number Conversion from categories. (second on top row)
2. Select the number base you are converting from in "**Form Base**\Left" list. (E. g. "10" for decimal)
3. Select the number base you are converting to in "**To Base**\Right" list. (E. g. "2" for binary)
4. Enter the Number in the "**Left**" field. (E. g. "8")
5. Click on "**Converter**" button.
6. The converted number will appear in the "**Right**" field.

Color Conversion

1. Select Color Conversion from categories. (third on top row)
2. Select the color code you are converting from in "**From Color Code**\Left" list. (e. g. "RGB Code")
3. Select the color code you are converting to in "**To Color Code**\Right" list. (e. g. "Hex Code")
4. Enter the Values of code in the "**Left**" fields. (e. g. "155,177,57")
5. Click on "**Converter**" button.
6. The converted amount will appear in the "**Right**" field/s immediately.

Custom Conversion



1. Custom Conversion can be done same as basic conversion except selecting unit from category and list you need to enter unit yourself. You can view Conversion Factor / Unit Formulas in right in "**Use these**" panel by clicking on one of the four categories. You can use one or any combination of base and derived. To use custom conversion you must know how to use\enter units.
2. Enter unit you are converting from in "**Enter Custom From Unit**" field. (e. g. "hr" for Hour)
3. Enter unit you are converting to in "**Enter Custom To Unit**" field. (e. g. "min" for Minute)
4. Enter the value in the "**Value/Bottom Left**" field. (E. g. "24")
5. The answer will appear in the "**Result/Bottom Right**" field immediately.

Tools

Tools

Unit converter advance gives you some tool to help you by adding custom units and categories and making conversion table. You use tools by clicking on **Tools** in the toolbar.

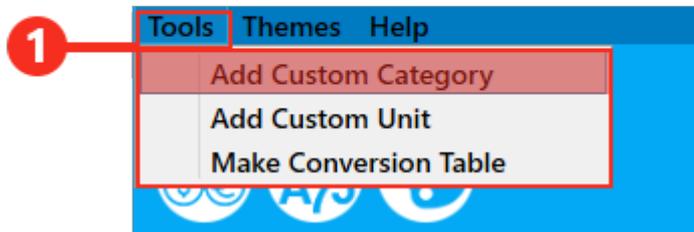
[Add Custom Category](#)

[Add Custom Unit](#)

[Make Conversion Table](#)

Add Custom Category

In Unit Converter Advance you can add your custom unit in any pre-defined or custom category. To use custom conversion you must know how to use\enter units. To switch between standard categories and custom categories click on **Standard** and **Custom** in the left side on the screen.



1. Click on the **Tools** in the toolbar and select **ADD Custom Category**. It will open ADD Custom Category dialog.

Adding Category with existing dimension-

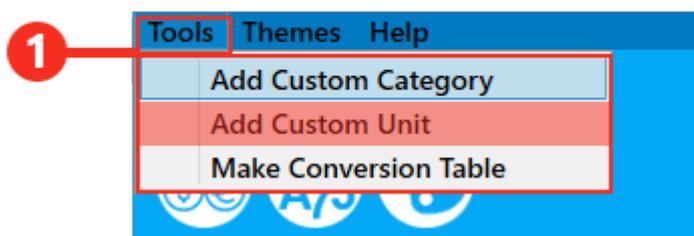
2. Enter the category name in "**Category Name**" field. (e.g. Specific Heat)
3. Leave "**Add New Base** (dimension)" unchecked.
4. Enter the base unit name for the base unit of the category in "**Base Unit Name**" field. (e. g. Liter per Kilogram)
5. Enter the unit /conversion factor in "**Unit**" field. (e. g. liter/Kg)
6. Click on "**Add Category**" Button.

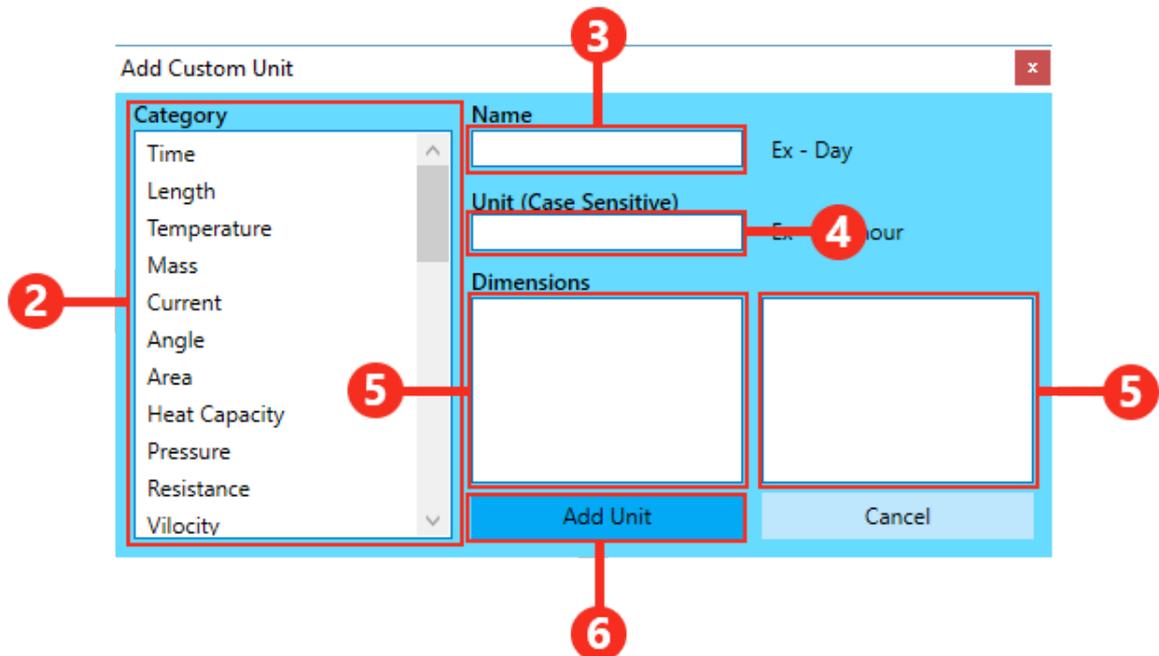
Adding a category with a new dimension-

2. Enter the category name in "**Category Name**" field. (e.g. Solid Angle)
3. Check "**Add New Base** (dimension)".
4. Enter the new dimension name in "**Dimension Name**" field. The name should be unique (e. g. Steradian)
5. Enter the dimension in "**Dimension**" field. The name should be unique (e. g. sr)
6. Click on "**Add Category**" Button.

Add Custom Unit

In Unit Converter Advance you can add your custom unit in any pre-defined or custom category. To use custom conversion you must know how to use\enter units.

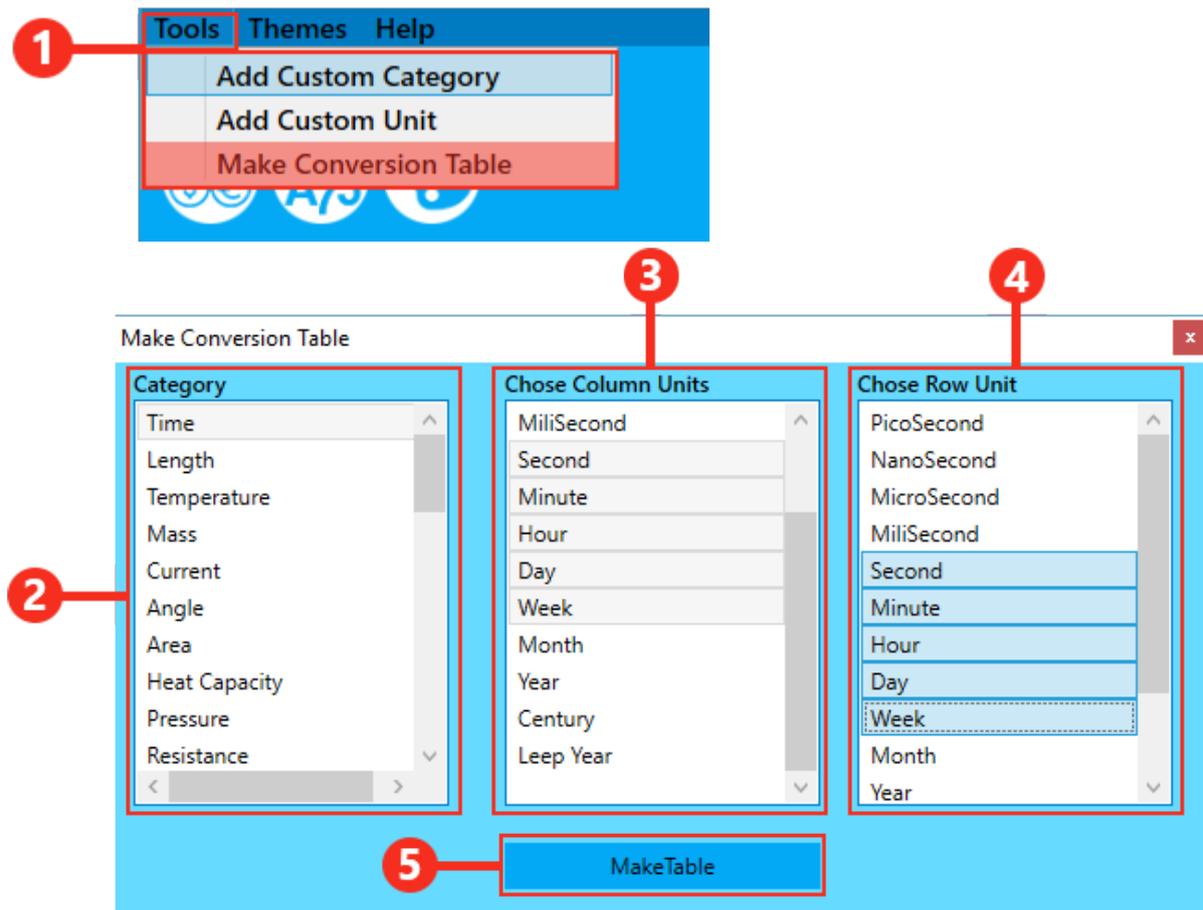




1. Click on the **Tools** in the toolbar and select **ADD Custom Unit**. It will open ADD Custom Unit dialog.
2. Select a category form the "**Category**" (left) list to add unit in that category. (e. g. Time)
3. Enter the name for the unit in "**Name**" field. (e. g. Leap Year)
4. Enter the unit /conversion factor in "**Unit**" field. (e. g. 365.day)
5. Ensure both Dimension boxes are showing the same dimension. The left box is showing the dimension of category and right box is showing the dimension of unit you entered.
6. Click on "**Add Unit**" Button.

Make Conversion Table

In Unit Converter Advance you can make the conversion table of any pre-defined or custom category.



1. Click on the **Tools** in the toolbar and select **Make Conversion Table**. It will open the Make Conversion Table dialog.
2. Select a category form the "**Category**" (left) list to make conversion table of.
3. Select row units from "**Choose Row Unit**" (middle) list. (one unit = one row)
4. Select Column units from "**Choose Column Unit**" (right) list. (one unit = one column)
5. Click on "**Make table**" button and save your table.

Unit, Dimension and Conversion Factor

Unit, Dimension and Conversion Factor

When you want to convert custom unit or add custom unit and custom category you need to enter unit or conversion factor. For example, if you want to convert from minute to second you need to enter m for the minute and s for the second. You can view keyword for units in Use these panel in the left side.

All units and dimensions are case sensitive.

A unit is parsed by separating / + - and * , then recursively resolving derived unit conversions, bracketed () terms first.

Values (especially those with a decimal point '.' or minus '-') should be contained in ().

A unit may be prefixed by a [prefix](#) or number value (e.g. m is milli 0.001, K is kilo 1000 etc).

Any unit may be postfixed by a power (e. g. m² for meter square).

A typical unit may be "mile/hr", "m/s²" or "MJ/day" etc and can be any combination of base and derived units.

Any pair of units that are dimensionally the same can be converted.

To avoid obscure prefix unit conflicts use a full prefix name (e.g. min could be 60 seconds or 0.001 inches, the latter should be milliin).

Unit – That unanimously accepted standard which is used to compare any physical quantity, is called the unit of that physical quantity. For example unit of length is Meter and unit of volume is liter.

Base Unit – Quantities that cannot be express in terms of any other quantity, is called the base or fundamental quantities and unit of these quantities are called Base or Fundamental Units. For example, we cannot express length in any other quantity. It doesn't depend on any other quantity.

[List of Base Units](#)

Derived Unit – Quantities that can be derived from base quantities or quantities that can be express in terms of any other quantities, is called the derived quantities and unit of these quantities are called Derived Units. For example, we don't need a new quantity or unit for speed we can measure speed in term of length and time (meter/second).

[List of Derived Units](#)

Dimension – Dimension shows that how a unit is derived from base quantity. Base unit has only one dimension like when you measure distance or length in any unit like kilometre, mile or in foot you only measure length so length or distance has only dimension Length. When you measure speed in any unit you only measure length and time so speed has two dimension Length and Time.

Only units with the same dimension can be converted into each other.

Below are some examples of the dimension of the units. Dimensions are in **Bold**.

Meter = **Length: 1**

Kilometre = **Length: 1**

Feet = **Length: 1**

Second = **Time: 1**

Day = **Time: 1**

Area = Meter x Meter = Length x Length = **Length: 2**

Speed = Meter/Second = Length/Time = **Length: 1 Time: -1**

Conversion Factor – Conversion factors are formulas for conversion.

For example, conversion factor for kilometre meter is 1 Kilometre = 1000 meter and Joule = Newton.metre.

[List of Base Units](#)

[List of Derived Units](#)

Base Unit

Base Units to use in custom Unit box in custom unit conversion. You can use one or any combination of base and derived units.

Examples - g for Gram, m/s for Meter per Second

Units/Quantity Name	Symbol
TIME	s
LENGTH	m
MASS	g
TEMPERATURE	K
CHARGE	Q
SUBSTANCE	mol
LUMINANCE	candella
DataSize	bit
Angle	Rd
Decibel	dB

Derived Unit

Derived Units to use in custom Unit box in custom unit conversion. You can use one or any combination of base and derived units.

Examples - lb for Pound, bbl/day for Barrel per Day

Unit/Quantity Name	Symbol	Conversion Factor/Formula
Minute	min	(60)s
Hour	hr	(60)min
Day	day	(24)hr
Week	week	(7)day
Year	year	(365.25)day
Foot	ft	(0.3048)m
Yard	yd	(3)ft
Inch	in	(2.54)cm
Mile	mile	(1760)yd
Parsec	pc	(3.0856776e16)m
AstronomicalUnit	au	(1.4960e11)m
LightYear	ly	(9.4607e15)m

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Pound	lb	(453.59237)g
Ounce	oz	(1/16)lb
Stone	st	(14)lb
ImperialTon	ton	(160)st
MetricTonne	tonne	(1000)Kg
Rankine	R	(5/9)K
SpeedofLight	C	(299792458).m/s
Farenheight	F	R+459.67
Newton	N	Kg.m/s ²
PoundForce	lbf	(4.4482216152605)N
Joule	J	N.m
BritishThermalUnit	BTU	(1055.06)J
Erg	erg	(1.0e-7)J
KiloCalorie	kcal	(4.184e3)J
Calorie	cal	(4.184)J
Watt	W	J/s
Horsepower	hp	(745.7)W
Acre	acre	(4840).yd ²
Hectare	hectare	(10000).m ²
Darcy	D	(9.869233e-13).m ²
Barn	b	(1e-28).m ²
CubicCentimeter	cc	(1.0e-6).m ³
Barrel	bbl	(5.615).ft ³
Litre	litre	(1.0e-3).m ³
Litre	l	litre
UKPint	pintUK	(568)l
USPint	pintUS	(473)l
UKGallon	galUK	(4.54609)l
USGallon	galUS	(0.8327)galUK
Pascal	Pa	N/m ²
Bar	Bar	(1.0e5)Pa
Atmosphere	Atm	(1.013)Bar
PoundPerSquareInch	psi	(6894.75729)Pa
GaugePoundPerSquareInch	psig	psi+14.69
Ampere	Amp	Q/s
Voltage	Volt	J/Q
Voltage	V	Volt
ElectricalResistance	Ohm	V/Amp
ElectricalCapacitance	Farad	Q/V
ElectricalInductance	Henry	J/Amp ²
MagneticFieldStrength	Tesla	V.s/m ²
ViscosityPoise	P	(0.1).Pa.s
Molarity	M	mol/l
Molality	molal	mol/Kg
PartsPerMillion	ppm	(1.0e-6).g/g
Frequency	Hz	1/s
Luminance	cd	candella

AvagadroConstant	Avagadro	6.0221408578e23)/mol
PlankConstant	h	(6.626070041e-34).J.s
ElectronCharge	eQ	(1.6021766209e-19)Q
ElectronMass	Me	(9.10938356e-31).Kg
ProtonMass	Mp	(1.672621898e-27).Kg
NeutronMass	Mn	(1.674927471e-27).Kg
AtomicMassUnit	amu	(1.6605402e-27).Kg
BoltzmanConstant	k	(1.38064853e-23).J/K
GasConstant	RC	k.Avagadro
GravitationConstant	G	(6.674e-11).N.m2/Kg2
VacuumPermitivity	e0	(8.854187817e-12).Farad/m
VacuumPermeability	mu0	(4e-7*pi).N/Amp2
Celsius	Cel	K
Becquerel	Bq	1/s
PixelPerInch	ppi	1/in

SI Prefix and Constants

SI Prefix

You can use these to add prefix to your unit.
Examples - Kg or Kilog for 1000.gram

Name	Symbol	Value
Yotta	Y	1E+24
Zetta	Z	1E+21
Exa	E	1E+18
Peta	P	1E+15
Tera	T	1000000000000
Giga	G	1000000000
Mega	M	1000000
Kilo	K	1000
Hecto	H	100
Deca	D	10
deci	d	0.1
centi	c	0.01
milli	m	0.001
micro	μ	1E-06
nano	n	1E-09
pico	p	1E-12
femto	f	1E-15
atto	a	1E-18
zepto	z	1E-21
yocto	y	1E-24

Constant Units

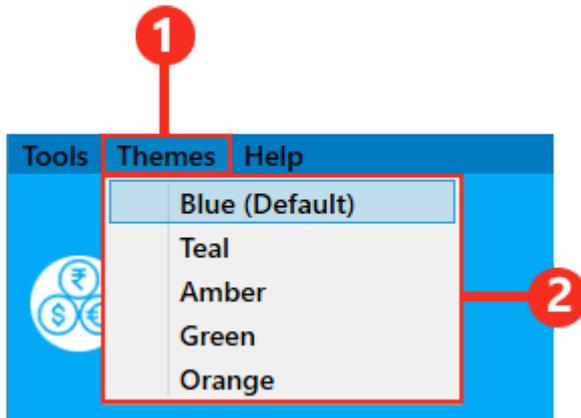
You can use these in the place of constant values.

Examples - 2.pi.m for 2.(3.14159265358979).m

Constant Name	Symbol	Value
Ratio of Circumference to Diameter	pi	3.14159265358979
Natural Logarithm Base	e	2.71828182845905

Theme

In Unit Converter Advance you can change the look of it by changing the theme. There are five themes to chose from. To set a theme just click on **Themes** in toolbar and select one which you want.



How to Register

Unit Converter Advance is a freeware. To use all feature of Unit Converter Advance you need to register it. Registration is FREE OF COST. You can get your key at www.puzzleweb.in

Registration window will appear every time when you open Unit Converter Advance or you can open it from the menu bar. (If not registered)



1. Click on **Copy** Button to copy your Product ID.
2. Click on **Get Key** Button to get your registration key. It will take you to the website. Follow all the steps and fill all require details and then submit your request. You will get your registration key as soon as possible by e-mail. It may take up to 48 hours.
3. Enter the registration key you got. Make sure to place all dashes "-" at correct position.
4. Click on **Register Now** Button.
5. Close and reopen Unit Converter Advance so registration can take effect.

License

Puzzle Unit Converter Advance LICENSE AGREEMENT

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Website - www.puzzleweb.in

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