

# Creating New Unit of Measure in SAP BW



## Applies to:

Software Component: SAP\_BW. For more information, visit the [Business Intelligence homepage](#).

Release: 700

## Summary

This article is intended to serve as a guideline for creation of a new unit of measure in SAP BW.

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## Introduction

Unit of Measure (UoM) is used to measure the quantity of the material. It is a means by which a quantity is accounted for or expressed.

For example, length is a physical quantity. The meter is a unit of length that represents a definite predetermined length.

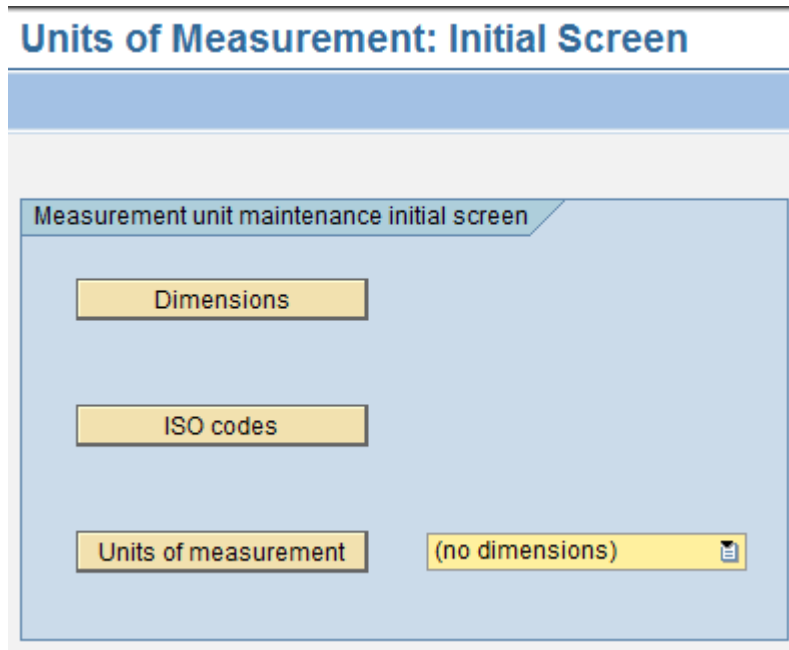
Basically there are 2 types of Unit of Measure

- **Base Unit of Measure:** A unit of measurement that can be determined by taking one measurement without having to combine any other measurement. Length, mass, and temperature are examples of base units.
- **Derived Unit of Measure:** A unit of measurement that is determined by combining one or more measurements.

In SAP retail space there are three types of Unit of Measures: Base, Ordering and Selling.

## Creation of Unit of Measure

Unit of measure can be created using transaction CUNI which looks as below

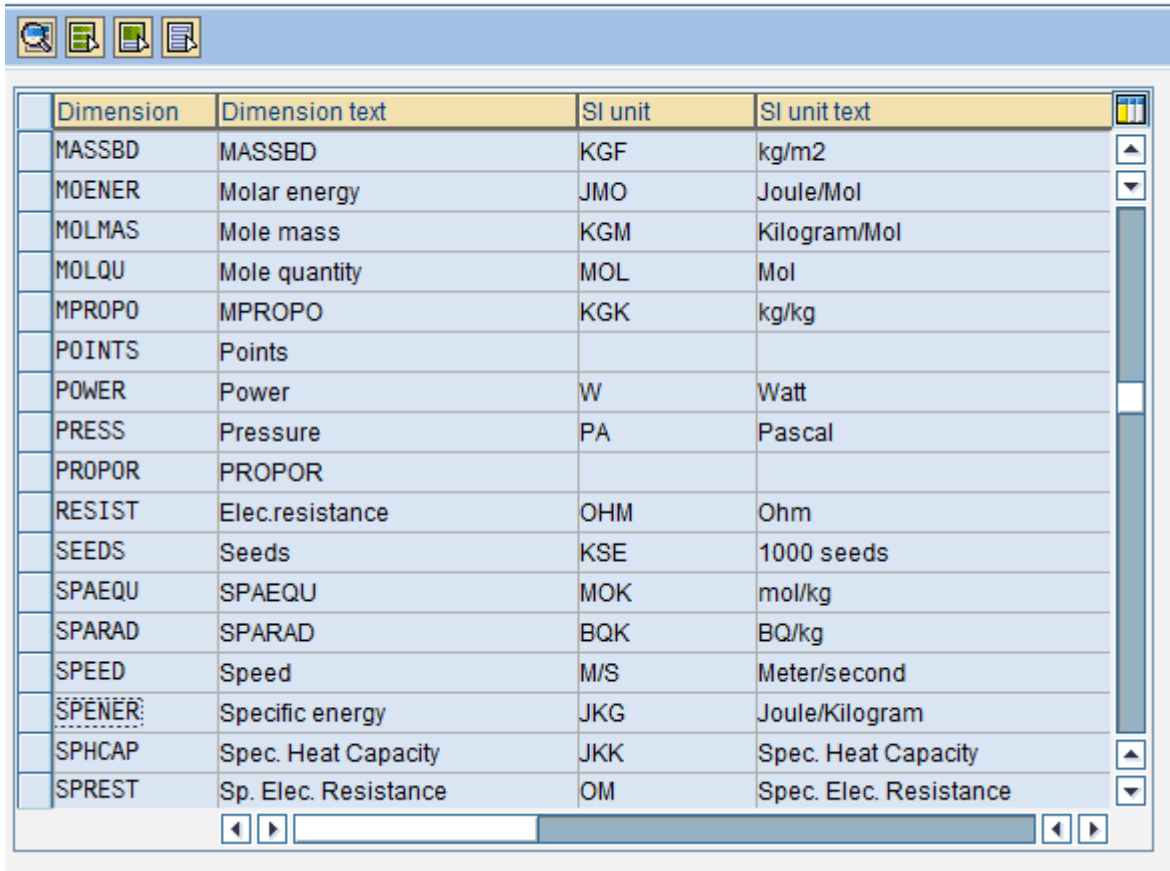


**Dimensions** → Dimensions are classes of inter-convertible units. Examples kg, ton are instances of mass; m, inch are all instances of length

Question could arise why not work with Dimension instead.

To answer, for supporting multiple systems of measurement we'd need to keep track of units. To keep things simple, we stick to units and assume that distinct units are incompatible (so no conversions)

## Display View "Dimensions for units of measure": Overview



Dimension	Dimension text	SI unit	SI unit text
MASSBD	MASSBD	KGF	kg/m2
MOENER	Molar energy	JMO	Joule/Mol
MOLMAS	Mole mass	KGM	Kilogram/Mol
MOLQU	Mole quantity	MOL	Mol
MPROPO	MPROPO	KGK	kg/kg
POINTS	Points		
POWER	Power	W	Watt
PRESS	Pressure	PA	Pascal
PROPOR	PROPOR		
RESIST	Elec.resistance	OHM	Ohm
SEEDS	Seeds	KSE	1000 seeds
SPAEQU	SPAEQU	MOK	mol/kg
SPARAD	SPARAD	BQK	BQ/kg
SPEED	Speed	M/S	Meter/second
SPENER	Specific energy	JKG	Joule/Kilogram
SPHCAP	Spec. Heat Capacity	JKK	Spec. Heat Capacity
SPREST	Sp. Elec. Resistance	OM	Spec. Elec. Resistance

**ISO Codes** → The ISO code is important for Electronic Data Interchange (EDI). It is used for converting the SAP-internal units of measurement into standard units of measurement. Converting the internal units of measurement into the ISO code is required for exchanging data using EDI. So it is always advised to assign ISO code to UOM. However maintenance of the ISO code is optional, although it would give a warning message if not maintained. A list of the current international ISO codes for units of measurement is available on the Internet.

## Display View "ISO units": Overview

ISO code	ISO code text
KJ0	Kilojoule
KMH	Kilometer/hour
KMK	Square kilometer
KMQ	Kilogram per cubic meter
KMT	Kilometer
KPA	Kilopascal
KS	1000 Seeds
KVA	Kilovoltampere
KVT	Kilovolt
KWH	Kilowatt-hour
KWT	Kilowatt
L2	Liter/Minute
LB	Pound
LBR	US pound
LTR	Liter
M1	Milligram/Liter

The Dimension needs to be selected under which the Unit would be created

Measurement unit maintenance initial screen

Dimensions

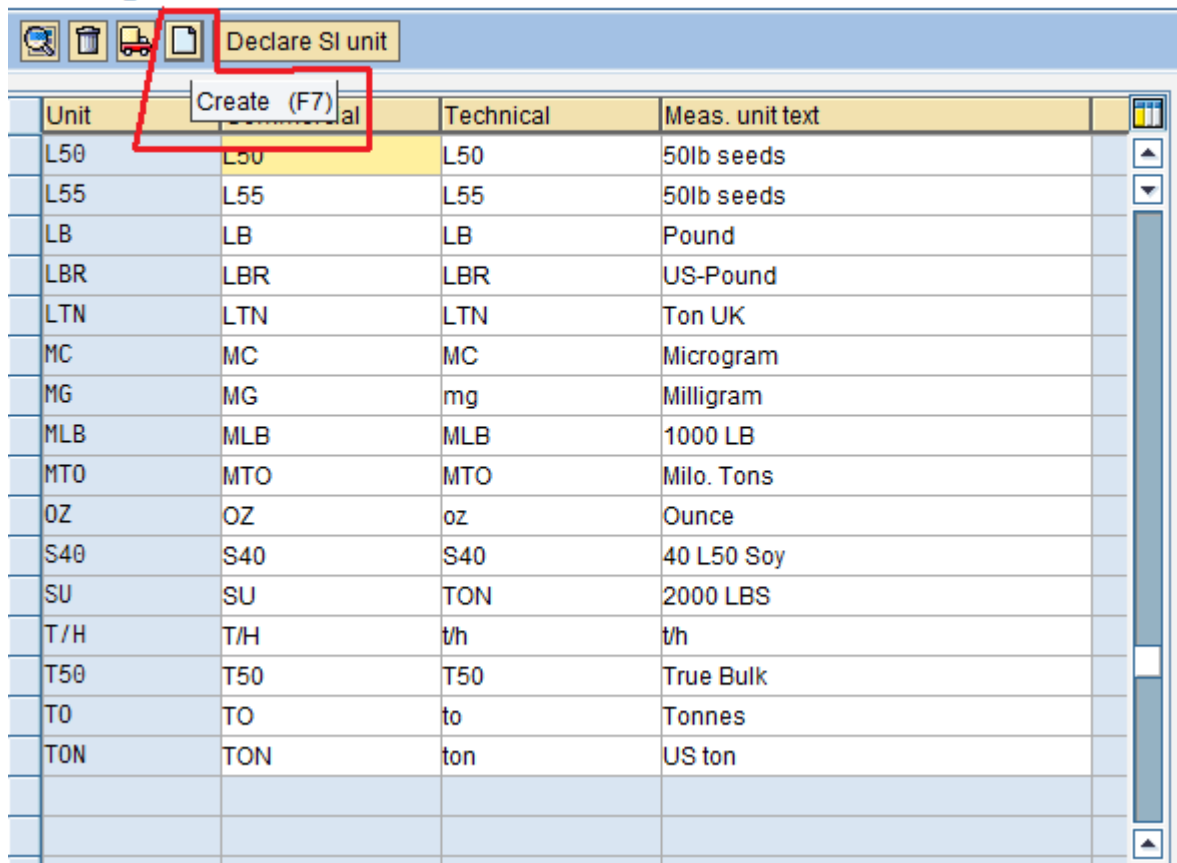
ISO codes

Units of measurement

- (no dimensions)
- Length
- Luminous intensity
- MAGNFD
- MASSBD
- MPROPO
- Mass**
- Mass flow
- Molar energy
- Mole mass
- Mole quantity

The Create Button needs to be clicked

## Change Units of Measurement of Dimension Mass: Overview



Unit	Commercial	Technical	Meas. unit text
L50	L50	L50	50lb seeds
L55	L55	L55	50lb seeds
LB	LB	LB	Pound
LBR	LBR	LBR	US-Pound
LTN	LTN	LTN	Ton UK
MC	MC	MC	Microgram
MG	MG	mg	Milligram
MLB	MLB	MLB	1000 LB
MTO	MTO	MTO	Milo. Tons
OZ	OZ	oz	Ounce
S40	S40	S40	40 L50 Soy
SU	SU	TON	2000 LBS
T/H	T/H	t/h	t/h
T50	T50	T50	True Bulk
TO	TO	to	Tonnes
TON	TON	ton	US ton

The details below need to be filled, in line with the details as in R/3 system.

- Measurement text
- commercial name
- technical name
- decimal places (up to which decimal value should display)
- conversion factor
- decimal place rounding (up to which the value should be rounded off)
- Commercial unit check box should be checked if that unit is used commercially.
- Value based check box should be checked if that unit will be derived based on value.
- ISO code for the unit should be maintained
- Primary code should be checked if that is primary unit for the ISO code.

## Change Units of Measurement of Dimension Mass: Details

Int. meas. unit	TON
<b>Display</b>	
Commercial	TON
Technical	ton
Decimal places	
float. point exp.	
<b>Conversion</b>	
Numerator	4.536
Denominator	5
Exponent	
Additive constant	
Decimal pl. rounding	3
Unit of meas.family	
<b>Measurement unit text</b>	
US ton (2000 lbs)	
US ton	
<b>ALE/EDI</b>	
ISO code	STN
<input checked="" type="checkbox"/> Primary code	
<b>Application Parameters</b>	
<input checked="" type="checkbox"/> Commercial meas.unit	
<input type="checkbox"/> Value-based commt	

Save it after maintaining as required.

### Alternative Unit of Measure

It's a unit of measure defined in the SAP system in addition to the base unit of measure.

In other words all units of measure other than the base unit of measure are referred to as alternative units of measure.



## Related Content

[Units of measurement on Wiki](#)

[Unit of Measure in BW on SAP Forum](#)

[Problem with transaction CUNI on SAP Forum](#)

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