

How-To Guide  
SAP Business One  
Document Version: 1.0 – 2020-03-10

CUSTOMER

# How to Work with Gross Prices

SAP Business One 9.3



# Typographic Conventions

Type Style	Description
<b>Example</b>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
<b>EXAMPLE</b>	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
<b>Example</b>	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<b>&lt;Example&gt;</b>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
<b>EXAMPLE</b>	Keys on the keyboard, for example, <b>F2</b> or <b>ENTER</b> .

---

# Document History

Version	Date	Change
1.0	2017-08-22	First version
1.1	2020-03-10	Minor correction

---

# Contents

1	Prices in SAP Business One.....	5
2	Mixed (Net and Gross) Pricing Mode .....	7
2.1	Net Price Mechanism and Gross Price Mechanism .....	7
2.1.1	Net Price Mechanism.....	7
2.1.2	Gross Price Mechanism.....	9
2.2	Using Mixed Pricing Mode.....	11
3	Separated Pricing Mode .....	12
3.1	Enabling the Separated Pricing Mode .....	12
3.2	Impact on Relevant Windows .....	12
3.3	Using Separated Pricing Mode.....	13
3.4	Influences and Rules Regarding Pricing Mode Change after Version Upgrade.....	13
3.4.1	Rules of Data Upgrade when the Pricing Mode Changes .....	13
3.4.2	Rules of Copying Documents when the Pricing Mode Changes .....	14

# 1 Prices in SAP Business One

In practice, both gross prices and net prices are used according to the requirements of different industry sectors. For example, the wholesale industry uses net prices, since they mainly deal with agents; while the retail industry uses gross prices, as they usually face individual customers.

Therefore, in SAP Business One, we enhanced both of the existing price mechanisms to better support various business requirements.

## Net Price Mechanism and Gross Price Mechanism

Simply put, net price mechanism means the price and amount-relevant values are calculated based on the input of the "Net Price"; and gross price mechanism means the price and amount-relevant values are calculated based on the input of the "Gross Price".

## Mixed Pricing Mode and Separated Pricing Mode

In the mixed pricing mode, both the net price mechanism and the gross price mechanism can be used in the same document, if necessary; while in the separated pricing mode, only one price mechanism can be used in the same document.

You can manage your marketing documents in either a mixed pricing mode or separated pricing modes.

### Note

The separated pricing modes are not available for the Brazil, India and Israel localizations.

## Concepts and Formulas

To explain the function and the calculation logic clearly, we introduce some important concepts and key fields that are used in price calculations, as follows:

Field Name	Alternative Concept	Description
Unit Price	Net Price	Unit price before tax and discount
Gross Price	Gross Price	Unit price after tax but before discount
Discount	Discount	Discount assigned to the price
Price after Discount	Net Price after Discount	Unit price before tax but after discount
Gross Price after Discount	Gross Price after Discount	Unit price after tax and discount
Tax Amount	Tax Amount after Discount	Tax amount considering the discount
Total	Net Total after Discount	Total amount before tax but after discount
Gross Total	Gross Total after Discount	Total amount after tax and discount

The following formulas present the relations between the above key fields:

- $\text{Gross Price} = \text{Unit Price} + \text{Tax}$
- $\text{Price after Discount} = \text{Unit Price} * (1 - \text{Discount \%})$
- $\text{Gross Price after Discount} = \text{Gross Price} * (1 - \text{Discount \%})$

- 
- $\text{Tax Amount} = \text{Gross Price} * (1 - \text{Discount \%}) / (1 + \text{Tax \%}) * \text{Tax \%} * \text{Quantity}$
  - $\text{Total} = \text{Unit Price} * \text{Quantity} * (1 - \text{Discount \%})$
  - $\text{Gross Total} = \text{Gross Price} * \text{Quantity} * (1 - \text{Discount \%})$

## 2 Mixed (Net and Gross) Pricing Mode

If your business has a flexible pricing method, in which the same item is priced in both the net price mode and the gross price mode, then the mixed pricing mode is probably a better choice for you to use in SAP Business One.

If your business usually relies on the net pricing mode, and you do not have a strong requirement for using the gross pricing mode, then the mixed pricing mode (net and gross mode) is also a suitable approach that you can use in SAP Business One.

### 2.1 Net Price Mechanism and Gross Price Mechanism

#### 2.1.1 Net Price Mechanism

The net price mechanism means that all calculated values and amounts are derived from the net price (or the net amount), which is the [Unit Price / Price after Discount](#) field (or the [Total](#) field) in the marketing document.

This section shows you the values that are automatically calculated and displayed by SAP Business One in several different scenarios.

##### Note

The calculation order differs according to the order of the values you enter in the marketing document line.

Some values will not be displayed since they are used as intermediate values just to assist the calculations. Invisible fields are displayed in the last column in the tables below.

Prerequisites:

[Quantity](#) and [Tax Code](#) are defined in the document line.

Scenario 1: Enter Values in Empty Fields

Case 1: Manually enter [Discount](#) and [Unit Price](#)

Alternative Case: enter [Discount](#), and [Unit Price](#) is taken from the linked price list

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1.	<a href="#">Total</a>	Net Total before Discount
2.	<a href="#">Price after Discount</a>	
3.	<a href="#">Tax Amount</a>	
4.	<a href="#">Gross Total</a>	Gross Total Before Discount

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
5.	Gross Price, Gross Price after Discount	

Case 2: Manually enter [Unit Price](#) and [Price after Discount](#)

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1	Discount	Net Total Before Discount
2	Total	
3	Tax Amount	
4	Gross Total	Gross Total Before Discount
5	Gross Price, Gross Price after Discount	

Case 3: Manually enter [Price after Discount](#) and [Discount](#)

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1	Total	Net Total Before Discount
2	Unit Price	
3	Tax Amount	
4	Gross Total	Gross Total Before Discount
5	Gross Price, Gross Price after Discount	

Case 4: Manually enter [Discount](#) and [Total](#)

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1		Net Total Before Discount
2	Unit Price, Price after Discount	
3	Tax Amount	
4	Gross Total	Gross Total Before Discount
5	Gross Price, Gross Price after Discount	

Scenario 2: Update Existing Values in a Filled Field

Case 1: Manually enter [Discount](#) and [Total](#), then update [Tax Amount](#)

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1		Net Total Before Discount

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
2	Unit Price, Price after Discount	
3	Tax Amount	
Action: update the calculated and displayed Tax Amount value		
4	update Gross Total	update Gross Total Before Discount
5	update Gross Price, Gross Price after Discount	

## 2.1.2 Gross Price Mechanism

The gross price mechanism means that all calculated values and amounts are derived from the gross price (or the gross amount), which is the [Gross Price / Gross Price after Discount](#) field (or the [Gross Total](#) field) in the marketing document.

This section shows you the values that are automatically calculated and displayed by SAP Business One in several different scenarios. The calculation order differs according to the order of the values you enter in the marketing document line.

### Note

Some values are displayed since they are used as intermediate values just to assist the calculations.

Prerequisites:

[Quantity](#) and [Tax Code](#) are defined in the document line.

Scenario 1: Enter Values in Empty Fields

Case 1: Manually enter [Discount](#) and [Gross Price](#)

Alternative Case: enter [Discount](#), and [Gross Price](#) is taken from the linked price list

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1	Gross Total	Gross Total Before Discount
2	Gross Price after Discount	
3	Tax Amount	
4	Total	Net Total Before Discount
5	Unit Price, Price after Discount	

Case 2: Manually enter [Gross Price](#) and [Gross Price after Discount](#)

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1	Discount	Gross Total Before Discount

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
2	Gross Total	
3	Tax Amount	
4	Total	Net Total Before Discount
5	Unit Price, Price after Discount	

Case 3: Manually enter **Gross Price after Discount** and **Discount**

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1	Gross Total	Gross Total Before Discount
2	Gross Price	
3	Tax Amount	
4	Total	Net Total Before Discount
5	Unit Price, Price after Discount	

Case 4: Manually enter **Discount** and **Gross Total**

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1		Gross Total Before Discount
2	Gross Price, Gross Price after Discount	
3	Tax Amount	
4	Total	Net Total Before Discount
5	Unit Price, Price after Discount	

Scenario 2: Update Existing Values in the Field

Case 1: Manually enter **Discount** and **Gross Total**, then update **Tax Amount**

Values will be automatically calculated in the following order:

Calculation Order	Calculated Field (Visible)	Calculated Field (Invisible)
1		Gross Total Before Discount
2	Gross Price, Gross Price after Discount	
3	Tax Amount	
Action: update the calculated and displayed <b>Tax Amount</b> value		
4	update <b>Total</b>	update Net Total Before Discount
5	update <b>Unit Price, Price after Discount</b>	

---

## 2.2 Using Mixed Pricing Mode

Using mixed pricing mode means that in the same marketing document, you can use both the net price mechanism and the gross price mechanism.

For example, in the same sales order, you can enter the **Gross Price** and **Quantity** in the first document line, and you enter the **Unit Price** and **Quantity** in the second document line.

In the lines where **Gross Price** and **Quantity** are entered, the gross price mechanism is used for calculations; in the lines where **Unit Price** and **Quantity** are entered, the net price mechanism is used for calculations.

Because of the different calculation orders, as well as the fact that the rounding could occur in different possible stages, even if you have entered A in the **Gross Price** field and B is calculated and displayed as the **Unit Price** in the same document line, it is not necessarily the case that after you have entered B in the **Unit Price** field in another document line, A will be calculated and displayed in the **Gross Price** field.

### Recommendation

In order to avoid data inconsistency arising from rounding and different calculation orders, we recommend that you use the same price mechanism in the same marketing document.

## 3 Separated Pricing Mode

If your business mainly relies on the gross pricing mode; or your business has a strict pricing method, in which the same item is priced in either the net price mode or the gross price mode, then the separated pricing mode could be a better choice for you to use in SAP Business One.

### 3.1 Enabling the Separated Pricing Mode

By default, the separated pricing mode is disabled. To enable it, perform the following procedure:

1. In the SAP Business One [Main Menu](#), choose [Administration -> System Initialization -> General Settings](#).
2. On the [Pricing](#) tab, select the checkbox [Enable Separate Net and Gross Price Mode](#).
3. A dropdown list appears next to the checkbox. In the dropdown list, choose a default pricing mode for your company.
4. In the displayed message window, choose [OK](#).
5. In the [General Settings](#) window, choose [Update](#).



#### Caution

Once any sales or purchasing document is added to the application, you cannot reverse the selection status of checkbox [Enable Separate Net and Gross Price Mode](#).

### 3.2 Impact on Relevant Windows

You need to define a default pricing mode for some relevant master data or parameters that take effect in transactions or reports. The impacted windows are listed as follows:

- [Business Partner Master Data](#) window → [Payment Terms](#) tab:  
Determine a default pricing mode for the business partner, which will be taken to the marketing document that is created for this business partner, as well as to the [Special Prices for Business Partners](#) window.
- [Sales and Purchasing Documents](#) → [Contents](#) tab:  
The pricing mode of the document. By default, it is taken from the mode defined in the [Business Partner Master Data](#) window → [Payment Terms](#) tab.  
You can change the mode when necessary, but the default price list of the selected business partner will not apply to the document. You need to manually enter the prices, or to select another price list that has the same price mode as the document from the [Form Settings](#) window.
- [Blanket Agreement](#) window → [General](#) tab:  
Determine the pricing mode for prices used in the blanket agreement.  
To link a blanket agreement to a marketing document, make sure the blanket agreement and the marketing document share the same pricing mode.

- [\[Price List Name\]](#) window:  
Determine the price mode for the prices defined in the price list.
- [Special Prices for Business Partners](#) window:  
Display the price mode of the selected business partner. It is defined in the [Price Mode](#) field on the [Payment Terms](#) tab of the [Business Partner Master Data](#) window.
- [MRP Wizard, Step 6: MRP Results](#):  
Display the price mode of the preferred vendor. If there is no defined preferred vendor, SAP Business One automatically displays [Net](#) in this field.
- [Order Recommendation](#) window:  
Define the price mode for the order. By default, it is the price mode of the selected vendor.

### 3.3 Using Separated Pricing Mode

After you have enabled the separated pricing mode, you must choose a pricing mode in each marketing document you create. Therefore, only one price mechanism can exist in the same marketing document.

If you want to manually enter the prices in documents, note that only gross price and gross amount-related fields are editable when the document price mode is [Gross](#); similarly, only net price and net amount-related fields are editable when the document price mode is [Net](#).

If you want the prices to be taken to the marketing document from the price list, make sure that the marketing document and the default price list in it (or the price list selected from the [Form Settings](#) window in it) share the same price mode.

The gross price mechanism applies to marketing documents that are in the [Gross](#) price mode; while the net price mechanism applies to marketing documents that are in the [Net](#) price mode.

For more information about different price mechanisms, see [Net Price Mechanism and Gross Price Mechanism](#).

### 3.4 Influences and Rules Regarding Pricing Mode Change after Version Upgrade

If you upgrade SAP Business One from a previous version to version 9.3, and you decide to enable the separated pricing mode in version 9.3, some rules are applied to the documents regarding the pricing mode change.

#### 3.4.1 Rules of Data Upgrade when the Pricing Mode Changes

The following documents and master data are affected by a change in pricing mode.

##### Sales and Purchasing Documents

SAP Business One scans all existing marketing document lines that are stored in the company database, to check the existence status of price mechanisms.

Documents are upgraded according to the following rules:

- If none of the existing document lines uses the gross price mechanism, all marketing documents are upgraded to version 9.3 in Net price mode.
- If none of the existing document lines uses the net price mechanism, all marketing documents are upgraded to version 9.3 in Gross price mode.
- If both price mechanisms are used in the database, the following rules are applied:
  - For standalone documents, which have neither a base nor a target document:
    - If none of the lines in the document uses the gross price mechanism, this document is upgraded to version 9.3 in Net price mode.
    - If none of the lines in the document uses the net price mechanism, this document is upgraded to version 9.3 in Gross price mode.
    - If both price mechanisms are used in the document, this document is upgraded to version 9.3 in Net and Gross price mode.
  - For non-standalone documents, which have either a base or a target document, or both:  
The document is upgraded to version 9.3 in Net and Gross price mode.

#### Business Partner Master Data

After the upgrade to version 9.3, the default price mode of the business partner is determined by the price mode of the price list that is assigned to this business partner.

#### Order Recommendations

The price mode of an order recommendation is determined as follows:

- If a blanket agreement is linked to a document line:  
The order recommendation is upgraded to version 9.3 in Net price mode.
- If you have manually entered or modified the price in the order recommendation:  
The order recommendation is upgraded to version 9.3 in Net price mode.
- Otherwise:  
The order recommendation is upgraded to version 9.3 and shares the same price mode as the business partner defined in this document.

## 3.4.2 Rules of Copying Documents when the Pricing Mode Changes

The following rules take effect when you copy documents after the pricing mode is changed.

#### Rules for the Copy-To Process

When you copy the base document to a target document, the target document will take the pricing mode from the base document.

#### Rules for the Copy-From Process

When you copy the target document from a base document, the pricing mode of the base document will be taken to the target document.

---

When you copy the target document from more than one base document, make sure all selected base documents share the same pricing mode. As a result, that pricing mode will be taken to the target document regardless of the original pricing mode in the target document.

#### Rules for Draw Document Wizard

When you create a document by using the Draw Document wizard, make sure all selected base documents share the same pricing mode. And if the base document is in the [Gross](#) mode, the following columns will be displayed in the wizard:

- Gross Price - displays the unit price after tax but before discount
- Gross Price after Discount - displays the unit price after tax and discount
- Gross Total - displays the total amount after tax and discount

#### Rules for Generating Pick Lists

When generating a pick list, if the selected base documents are not in the same pricing mode, the result will be automatically split by pricing mode.

[www.sap.com/contactsap](http://www.sap.com/contactsap)

© 2020 SAP SE or an SAP affiliate company. All rights reserved.  
No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.  
SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Please see <http://www.sap.com/corporate-en/legal/copyright/index.epx#trademark> for additional trademark information and notices.

Material Number:

