

Oracle® Retail MICROS Stores2

Functional Document

Sales - Promotion Management

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Stores2

Stores2 - 1.30.3 - Sales - Promotion management

Report developed by:

MICROS-Retail

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Note: The rebranding for the latest version of this documentation set is in development as part of post MICROS acquisition activities. References to former MICROS product names may exist throughout this existing documentation set.

1 Introduction

This function allows the company to offer its customers two or more products, proposing them at a special price.

Therefore it will be possible to manage groups of products, which if combined will result in a promotion.

N.B. the configuration of promotions has been intentionally left with no constraints (except for mandatory controls on the presence of code, currency, etc.).

2 Promotion management

2.1 Configuration

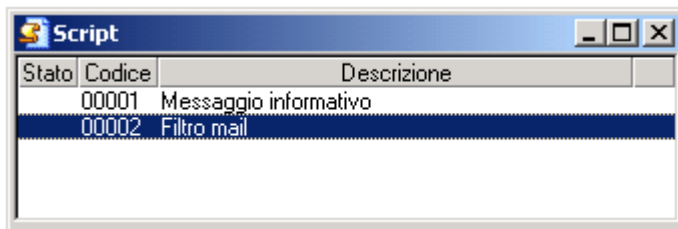
2.1.1 Operator class

The desired operator class must have all the authorizations necessary to be able to create and manage promotions. The promotion list will be entered by default in master data, price list section.

As of version 1.25.0 it will be possible to enable the Script tool in the "General parameters" section used to create scripts used in the promotion as filters ([vedere capitolo relativo agli script](#)).

2.1.2 Creation of filter scripts

When the new tool is launched a list will open where it is possible to create and maintain the filter scripts (for now to use in promotions, but in the future the same data entry could be used in other managements).



The creation of the new script can be used to select a code, a description (including managed in a foreign language), script type (for now only promotions) and text of the script.

Script

Codice: 00002

Descrizione: Filtro mail

Tipo: 0 Promozioni

```

Sub Main (vReturn)

    sSQL = "SELECT CLEmail "
    sSQL = sSQL & "FROM [" & clsGeneral.clsADO.Databasename(dbLocal) & "].MovimentiTestateWork AS MT "
    sSQL = sSQL & "INNER JOIN Clienti AS CL "
    sSQL = sSQL & "ON CL.Nodo=MT.NodoIntestatorio "
    sSQL = sSQL & "AND CL.Codice=MT.CodiceIntestatorio "
    sSQL = sSQL & "WHERE MT.Tipointestatorio='C' "
    Set rsCliente = clsGeneral.clsADO.OpenRecordset(dbMain, CSTR(sSQL),3)
    If Not rsCliente.EOF Then
        If Trim(rsCliente("EMail")) <> "" Then
            vReturn = True
        End If
    End If
    Set rsCliente = Nothing
End Sub

```

OK Annulla

The script must contain a sub called Main with an entry parameter, for example:

Sub Main (vReturn)

Script text

End Sub

In order for the promotion to be applied, you first need to exit the sub, and set the return parameter=true.

2.1.3 Promotion creation

The promotion list will let you see and edit promotions, whether enabled or not, present in the database.

Elenco promozioni

Filtri

Codice

Descrizione

Periodo di validità dal al

Attiva dal al

Tipo promozione ?

Stati
☐ Annullati
☒ Non annullati

Ann	Sosp	Sequenza	Tipo	Codice	Descrizione	Data inizio	Data fine
		0	0 - Standard	001	Sconto fisso	08/08/2011	31/08/2011
		2	0 - Standard	002	80 se superi 500	03/08/2011	31/08/2011
		1	0 - Standard	003	150 se superi 700	03/08/2011	31/08/2011

Fine lista

From this screen it will be possible to access the configuration of a new promotion or edit an old one.

2.1.3.1 General Data

Let's take a closer look at the promotion "General data" screen:

Gestione promozioni

Dati generali | Nodi | Clienti | Origine

☐ Sospeso

Codice:

Descrizione:

Data inizio validità:

Data fine validità:

Valuta:

Motivazione di sconto:

Sequenza:

Tipo promozione:

☐ Applica solo una volta per consumatore

Reparto:

Barcode associato:

Regola di applicazione:

☐ Ripetibile ☐ Non visualizzare in gestione scontrini

☐ Escludi prodotti scontati dalla promozione

☐ Stesso prodotto

☒ Valore fisso

☐ Sconto

☒ Sconto percentuale

☐ Sconto a valore

☐ Sconto in merce

Attivazione per giorno della settimana e orario

Escluso	Giorno della settimana	Dalle ore	Alle ore
☐	Lunedì		
☒	Martedì		
☐	Mercoledì		
☐	Giovedì	17.00	18.00
☐	Venerdì		
☐	Sabato		
☐	Domenica		

OK Annulla

Suspended: if selected it keeps the promotion suspended. Once the flag is removed and the promotion saved, it will no longer be possible to select it again;

Code: a 10 figure alphanumeric code. Once the promotion is saved, it will no longer be possible to change it;

Description: description of the promotion with a maximum of 50 characters;

Validity start date: validity start date for the promotion;

Validity end date: validity end date for the promotion;

Currency: is the currency for which the promotion will be valid. The promotion can only be used by nodes with the same currency;

Discount reason: is an optional field where it is possible to specify a discount reason (used only for statistical purposes) to apply to the promotion;

Sequence: is the promotion use sequence if there is more than one valid promotion. It is up to the user to correctly set this field to prevent having unwanted overlapping;

Promotion type: indicates the type of promotion to use, if standard (traditional 3 for 2, etc.) or vouchers (those composed by a voucher issue period which give you the possibility of advantages at a later time). For the simple mode, the conditions for obtaining the promotion will be defined in the Origin section. For the voucher mode, the voucher issue conditions will be specified in the Origin section, while the conditions for redeeming the voucher will be defined in the Target section;

Department: the department is a coupon type associated to the promotion (it is mainly used for promotions managed with type 1 – Vouchers);

Associated barcode: it is possible that the promotion is associated to an unequivocal barcode, indicated in this field. By setting the Promotion prefix in General parameters, Barcodes section and associating it to the print tool added to the operator classes for the promotion function, it will be possible to automatically generate the barcode and print it;

Application rules: list of previously created promotion type script (see the chapter on [script](#)) which can be used as filter rules (for example if you want to make a promotion valid only for customers who have an e-mail address in the master data);

Repeatable: indicates if it is possible for the same promotion to be used more than once on the same receipt (for example for a 3 for 2 promotion if 6 products are purchased). If value vouchers are used, the repeatable flag will be based on multiple of the set value;

Exclude discounted products from the promotion: if selected, products which are already discounted in some manner (manual discount, discount from price list, etc.) will be excluded when the promotion is calculated;

Same product: if selected this is used to restrict the customer to the purchase of “x” pieces of the same product (useful if product categories are managed as filter and you want to obtain a 3 for 2 type discount);

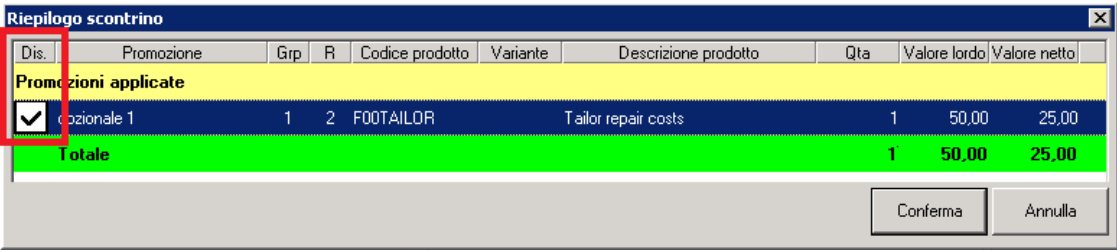
Do not display in receipt management: used to enable the promotion in “silent mode” without notifying the store personnel. Obviously of the promotion entails discounts the user will see a net total different from the lines and payments, thus this function should only be used for promotions which do not create discounts (for example for statistical purposes);

Fixed value, Discount, Discount in goods: these 3 fields indicate the discount procedure applied to the promotion. **Fixed value:** no matter what the value of the selected products, the total sale will always be what is specified in this field. If set, the total value on the group form, must give this result (the fixed value must manage only one product per group). **Discount:** divided into **Percentage discount** and **Value discount**. The first option indicates the discount

percentage value to apply to products, while the second the fixed discount value to apply. If the discount percentage is left at 0, it will be possible to manage a condition scale in the source section. Sconto in merce: indicates that the discount will be equal to one of the selected products, thus the value will be variable based on the value of the products;

Activation for day of the week and hours: used to set the days of the weeks and hours when the promotion will be valid;

Optional application: lets the user decide whether to use the promotion. If the promotion will not be used the program will recalculate the data to see if other promotions can be applied on those products.



Dis.	Promozione	Grp	R	Codice prodotto	Variante	Descrizione prodotto	Qta	Valore lordo	Valore netto
Promozioni applicate									
☒	cozionale 1	1	2	FOOTAILOR		Tailor repair costs	1	50,00	25,00
Totale							1	50,00	25,00

Buttons: Conferma, Annulla

This operation can only be performed by authorized cashiers ("Allow promotion disabling" flag on cashier master data), if the cashier who is performing the sale is not authorized he or she can still request the operation but will then be asked for the login of another authorized cashier. If no cashier is enabled the function will not be displayed.

If the "1 – Vouchers" promotion type is selected, some fields will be enabled and disabled, in particular:

The Data inizio validità, Data fine validità, Stesso prodotto, Valore fisso, Sconto percentuale and Sconto in merce fields will no longer be present and the following fields will be introduced:

Data inizio validità origine: promotion validity start date for the voucher issue phase;

Data fine validità origine: promotion validity end date for the voucher issue phase;

Descrizione buono: description to print on the voucher in the voucher issue phase. It will be possible to use variables in the voucher description (%1 voucher validity start date, %2 voucher validity end date, [%3 valore del buono](#) and the currency description, %4 threshold value for the use receipt and currency description, [%5 valore del buono](#), calculated based on the receipt value and currency description);

Data inizio validità obiettivo: promotion validity start date for the voucher redemption phase;

Data fine validità obiettivo: promotion validity end date for the voucher redemption phase;

2.1.3.2 Nodes

The "Nodes" section in the promotion creation phase is used to put filters on the nodes which can use the promotion.

Gestione promozioni

Dati generali | **Nodi** | Clienti | Origine | Obiettivo

11 Società Shop | 13 Società TMN | 15 Smistamento Clienti

01 Tipologia negozio | 03 Raggruppamento prezzo | 08 Zona Geografica

S	Param.	Inizio orig.	Fine orig.	Inizio ob.	Fine ob.
☐	0001 Proprietà				
☐	0002 Franchising				

Aggiungi Rimuovi

OK Annulla

It will be possible to select one or more geographic node parameters as filter, which will define a series of nodes, also filtered for the promotion currency, with which it will be possible to use this promotion.

Gestione promozioni

Codice

Descrizione

Parametri nodi geografici

Tipo parametro	Codice parametro	?	A
Società		?	☐
Reparti Iva Cassa		?	☐
Liste Ordinabilità		?	☐
Gestione Fidelity		?	☐

Cerca

Sel	Codice	Descrizione
☐	014	Campona
☐	020	Lurdy
☐	021	Debrecen
☐	806	ZooDom HU

Tutti Nessuno Aggiungi e continua Aggiungi e chiudi Annulla

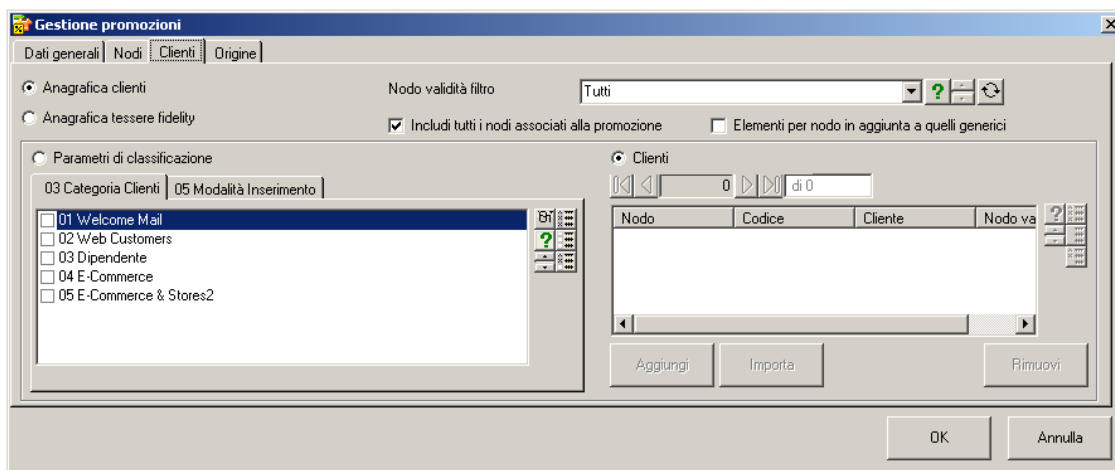
Alternatively, it will be possible to select one or more nodes, with the same currency entered in general data, using the specific selection tool.

Once the promotion is saved, it will be possible to edit or add nodes or geographic node parameters, but it will no longer be possible to change the selection mode (if you decide to manage nodes, it will no longer be possible to manage geographic node parameters).

It will be possible to specify customized start and end dates for the selected parameters and nodes, which will have priority over those specified in general data.

2.1.3.3 Customers

In the third “Customer” section you can put a filter on the promotion at customer level, in order to make some promotions available only to certain customers.



The selection screen gives you two possibilities, if you select “Customer master data” it will be possible to define a series of categories, or a customer list.

Using the “Filter validity node” function it is possible to define, for a selection of customers or fidelity cards, on which node the selected customer will be enabled for using the promotion. This way it will be possible to select groups of customers who will only be enabled on a single node. If no filter is set, the entered customer will be valid for all nodes.

To sum up, in order to associate a customer to the promotion but make the customer valid just for node 001, the following needs to be done in this order:

- Select node “001” as “Filter valid node”;
- Add the desired customers;

A new column will be displayed in the list showing whether the customers are associated to a specific node or no node.



The "Include all nodes associated to the promotion" flag (which by default will be disabled in review, but in entry enabled) is used to complete the combobox with the list of nodes compatible with the node selection parameters indicated in the previous tab).

The "Elements for node in addition to generic ones" flag indicates if the elements specified for the node are considered in addition to the generic ones or, if it is disabled, as replacement. This way it will be possible to enable some names for all the nodes without necessarily having to specify all the nodes, and other names only for specific nodes. Or it will be possible to enable a list of names for all nodes, but a different list (which does not include the first one) for some specific nodes. If no customer is enabled for a certain node (or no parameter or no fidelity) the system will use the filter provided at neutral level; if there are none at this level either, no filter will be applied.

Using the "Import" tool you can import them from an excel file (the excel file must have a sheet with the name "CodiciClienti" and the heading of the two key columns "Node" and "Code").

	A	B	C
1	Codice	Nodo	NodoValidita
2	000001	001	
3	000005	001	001
4	000006	001	482

It will also be possible to specify a third column "NodoValidita" where it will be possible to indicate the validity nodes to associate to the customer. If the third column is assigned with the value of an existing node code, the customer will be associated to the node. If there are customers with and without node in the same file, the former will be associated to the node, the latter to the blank node (and thus will be valid for all). Instead, if the third column is not defined, the validity node will be taken from the combo box.

Instead, if you select "Fidelity card master data" it will be possible to select which fidelity to use for the promotion (fidelity creation codes) or select directly from a list of cards (fidelity cards).

By selecting the list of cards it will be possible to add them by reading them with the specific tool, or import them from an excel file (the excel file must have the name "BarcodesFidelity" and "Barcode" column heading).

Again in this case it will be possible to specify a validity node using the procedure described above (during the importing data from excel phase by entering the second column "NodoValidita" or selecting the validity node from the combobox).

Gestione promozioni

Dati generali | **Nodi** | Clienti | Origine

☐ Anagrafica clienti

☒ Anagrafica tessere fidelity

Nodo validità filtro: Tutti

☐ Includi tutti i nodi associati alla promozione ☒ Elementi per nodo in aggiunta a quelli generici

Codici di fidelizzazione

- ☐ 0003 Collezionamento
- ☐ 0004 Collez Temp
- ☐ F102 Fox Black
- ☐ F103 Fox Gold
- ☐ F104 Fox Silver

Tessere fidelity

☐ 202001000001	
☐ 202002000002	001
☐ 202483000001	483

Aggiungi Importa Rimuovi

OK Annulla

2.1.3.4 Source and Target

The fourth and fifth section, "Source" and "Target", are those used to set the product groups the promotion is composed of and the discount breakdown procedures for each group. It is up to the user to enter values in the groups consistent with the one previously set in General data.

The source section may change significantly if used with simple management rather than vouchers, in voucher management the source sections is used only as a filter.

The groups may vary from a minimum of 1 to a maximum of 40 they can be cancelled but not deleted and they can be added using the "New group" button.

These two sections have the following fields in common:

Description: description of the group with a maximum of 50 characters;

Annullato: if selected, the group will not be used in the promotion use phase;

Soglia gruppo: represents the number of pieces the customer must buy to satisfy the condition. If the "Same product" checkbox is enabled, the value of "X" will be calculated for the same product code. If a percentage discount at 0 is selected in general data, it will be possible to define thresholds to reach with the associated discount using a specific data entry enabled by clicking on the button with three dots.

An	Qta >=	Sconto %
1	2	10,00
1	3	20,00
1	6	30,00

In this manner it is possible to associate different discount percentages based on the threshold reached. For details on the use of this promotion see the chapter on Promotion with pyramid discount;

Sconto percentuale: represents the percentage of the group discount on the total discount of the promotion if specified, otherwise it represents the percentage discount of the single group. The single value must be between 0.01 and 100; the total sum of the percentage discounts for the single groups, if a value is specified in General data, must be the same as 100. If the "Value discount" option has been specified in General data and no value has been indicated, on the source the "Discount percentage" will become "Value percentage" and indicate the discount value to apply to the group. If instead, the value is specified in general data, in the groups it will only be possible to specify the breakdown percentage of that value;

Consider products with a net price between X and Y: Stores2 will consider all of the products included in the group configuration and specifically it will exclude all products with a price outside of the set range. Only a minimum value or a maximum value can be indicated. If only a minimum value is indicated, this means that all products will be considered with a price starting from X; and if only the maximum value is specified, this means that all the products will be included with a price not greater than Y.

"Price" means the "net sale" after line discounts indicated in the price list or assigned manually in receipt management and before heading discounts. Basically it represents the net sale at the time of starting the promotion calculation function.

When checking if it is possible to apply the promotion, the program performs a check for each group configured in order to make sure that the specified parameters and set thresholds are complied with.

The discounts will only be applied to products which are part of the group, i.e. those which comply with all the required configurations including the filter on the "price". If the range is set on two groups, it will be necessary to enter products or product parameters to be able to save the promotion since two groups of the same promotion cannot contain the same products;

The source section also includes the following fields:

Sconto in merce: represents the number of pieces the customer will receive as a gift if the "group threshold" condition is met. If the "Same product" checkbox has not been enabled, since it is possible that the products have different costs, the program will give the product with the lowest price as a gift; this field will only be displayed for a "Discount in goods" type promotion;

Valore: represents the value which must be associated to the single product group if the promotion is "Fixed value" type; if it is a "Discount in goods" type promotion it represents the value of the product given as a gift (which thus will not be a real gift) in order to avoid problems connected with giving goods as a gift (for example in this way it is possible to assign a symbolic value of 10 euro cents to the product given as a gift);

Valore soglia gruppo: represents the value which the group must reach for the promotion to be valid. For voucher management it is advisable to set this field with a value greater than or equal to the value of the voucher;

Tipo Prezzo: replaces the sales price type with an alternative price type;

Price list season: unlike the filter on the product parameter which is run on the product table product parameter, the “Price list season” filter works on the season parameter of the movement line. This filter is available for the source section and target section;

While the Target section has the following:

Prezzo speciale: indicates a value, expressed in the currency indicated in general data, to assign to the product which will be part of the promotion. For voucher management the “Prezzo speciale” field will be replaced with the “Valore buono” field which will be the value assigned to the voucher.

Tipo prezzo speciale: replaces the sales price type with an alternative price type (this is the equivalent of the standard mode price Type);

The lower part of the window of both sections contains the elements for indicating the product groups or single products included in the group.

"**The following products must be excluded**" flag is used to exclude a list of products from the promotion. This management can be enabled both by Source and Target, but not at group level (if it enabled by source, it will be enabled for all the source groups).

Direct selection of a product list is via a specific window.

Tipo parametro	Codice parametro	?	A
Area	3 Vivo	?	
Category	008 Rettili	?	
Sector		?	
Department		?	
Brand		?	
Manufacturer		?	
Punteggio Fidelity		?	
Confezionamento		?	

Sel	Nodo	Codice	Descrizione
☐	000	00009192	Tz Tücsök Kicsi
☐	000	00009193	Tz Tücsök Közepes
☐	000	00009194	Tz Tücsök Nagy
☐	000	00009195	Tz Gyászbogár Lárva
☐	000	00022021	Voksmellárve 50 pcs

Given that it is mandatory for the user to select the selection type, for "Parameters" it is not mandatory to select the classification elements (in this case the promotion is valid for all products), while for "Product list" the presence of at least one product is mandatory.

It will also be possible to import products from excel files.

The file must have specific characteristics:

- the extension can be:
 - "xls" or "xlsx", so files can be managed which are compatible with Excel 97-2003 or Excel 2007. The version will be determined by the file extension ("xls"=Excel97-2003; "xlsx"=Excel 2003)
 - "csv", thus text files can be acquired with separators between the fields. The "CSV" file type is based on a text file which can also be displayed as an excel sheet. The file has a fixed structure, it must show the names of the fields on the

first line and then the value of the corresponding fields from the second line on.
Both the name and values must be separated by the ";" character.

- The columns must have this nomenclature:
 - "NodoProdotto" → Mandatory, used to indicate the product node
 - "CodiceProdotto" → Mandatory, used to indicate the product
 - "CodiceVariante" → Not mandatory, used to indicate the variant.

If the variant column is present it must have a value assigned if the product manages variants.
If it is not present products in all variants will be considered, as occurs in the current management with the "Select by variant" flag disabled.

For this function it's mandatory to have AccessDatabaseEngine installed. In case of problems, download it (<http://www.microsoft.com/en-us/download/details.aspx?id=13255>) and install it.

The same product cannot belong to different groups. Consequently, during the promotion confirmation phase the program will check that this condition does not occur. Consequently, the program will extract all the products included in each group from the product master data and make sure they are not present in other groups. However, it is up to the user not to enter different parameters on different groups which could still be associated to the same product.

You need to keep in mind that:

- the Groups work in AND;
- the Product parameters work in AND;
- the Product parameter codes work in OR;

It is possible to select both product parameters and single products together, in this way the promotion will consider all of the products belonging to the selected product parameters plus the products indicated individually treating them as a single condition.

If "The following products must be excluded" flag is selected, the program will take into account the products belonging to the selected parameters (all of the products if no parameter is selected) and exclude the selected products.

2.2 Operation

When passing from receipt management to payments, the entered products will be processed to find any promotions which can be used. The operations performed by the program will be analyzed in the following chapters.

2.2.1 Promotion calculation

The promotions valid for the node in question will be identified, filtered for currency, valid node and validity period. The promotions found will be ordered in sequence.

- For each product group:
 - The presence of a filter per customer is checked;
 - The lines compatible with the group object will be filtered;
 - If the promotion excludes discounted products, the lines for which there is a discounted price will be excluded;
 - If the promotion entails a "Same product" constraint, the data will be grouped based on product code;
 - The quantity is totaled (returns are considered subtracted from the sold quantities);
 - The number of times the promotion can be applied in the sale is calculated. It is possible that for a receipt more than one promotion is applied, but never on the same products;
- The minimum applicability value found in the various groups is checked; the promotion will only be applied the minimum times of "Recurrences" found (for example if during the analysis phase for the first group the program retrieves the value "Recurrences=2" while in the analysis phase for the second group the program retrieves the value "Recurrences=1", the promotion will only be applied once);
- The lines where the promotion will be applied are isolated (possibly split) and identified associating them to the promotion;
- At this point the promotion is applied based on type:
 - In the event of "Fixed value":

- Each isolated line assumes the value indicated in the "Value" field of its group; the difference compared to the price list price will be summed to the line discount already present and the discount reason, if indicated on the promotion, will be shown on the line; if there is a previous discount reason already present this will be replaced by that of the promotion and, if the promotion does not have its own reason, it will be cleared (all of this on the line which will obtain the promotion discount);
- Remarks: most likely a message will be activated for the consumer such as "If you buy one product '1', one product '2' and one product '3' you pay €50 for all three; however, on the receipt three separate lines must appear and each must have a value; for each of the two groups a specific value has been defined (the sum of which is 50); we think that printing the two lines with the detail of the gross value and discount might be confusing: the message needs to remain simple. Consequently, the description lines will be printed on the receipt, for example:

```

...
Rabbit Wellness 50€          -> Promotion name
Rabbit          40,00€ -> Group 1 product in promotion
Cage            8,00€  -> Group 2 product in promotion
Food            2,00€  -> Group 3 product in promotion
...

```

- As you can see, the message remains simple but at the same time the receipt is still managed correctly for the various product types. As you can also see the prices of the single products are shown already discounted.
- In the example below we are supposedly buying 1 rabbit, 1 cage and 3 packs of food and you can see fairly clearly which products are part of the promotions and which are excluded:

```

...
2 x
Food          3,00€
              6,00€
Rabbit Wellness 50€
Rabbit          40,00€
Cage            8,00€
Food            2,00€
...

```

- In the example below we are supposedly buying 2 rabbits, 2 cages and 6 packs of food and you can see fairly clearly which products are part of the promotions and which are excluded:

```

...
4 x
Food          3,00€
              12,00€
Rabbit Wellness 50€
Rabbit         40,00€
Cage           8,00€
Food           2,00€
Rabbit Wellness 50€
Rabbit         40,00€
Cage           8,00€
Food           2,00€
...

```

- In the event of "Percentage discount":

- Each isolated line is discounted by the value indicated in the "ScontoPercentuale" field of its group; this discount will be summed to any line discount already present (in this case the discount percentage will not be memorized) and the discount reason, if indicated on the promotion, will be shown on the line; if there is a previous discount reason already present this will be replaced by that of the promotion and, if the promotion does not have its own reason, it will be cleared;
- Remarks: most likely a message will be activated for the consumer such as "If you buy one product '1', one product '2' and one product '3' you will get a 20% discount; however, on the receipt two separate lines must appear and each of the two must have a value; for each of the two groups a specific percentage has been defined. Using the same example as above, this is what we are planning:

```

...
Rabbit Wellness 20% discount
Gross value    60,00€
20% discount 20% 12,00€
Net value      48,00€
Rabbit         38,00€
Cage           8,00€
Food           2,00€
...

```

- As you can see, the message remains simple (in this case however, compared to the previous one, it is necessary to increase the additional information to "show" the consumer that the discount has been applied)

but at the same time the receipt is still managed correctly for the various product types. As you can also see, the prices of the single products are shown already discounted (showing the gross price and the discount of each product could increase confusion).

- In the example below we are supposedly buying 1 rabbit, 1 cage and 3 packs of food and you can see fairly clearly which products are part of the promotions and which are excluded:

```

...
2 x
Food          3,00€
              6,00€
Rabbit Wellness 20% discount
Gross value    60,00€
20% discount 20%    12,00€
Net value      48,00€
Rabbit          38,00€
Cage            8,00€
Food            2,00€
...

```

- In the example below we are supposedly buying 2 rabbits, 2 cages and 6 packs of food and you can see fairly clearly which products are part of the promotions and which are excluded:

```

...
4 x
Food          3,00€
              12,00€
Rabbit Wellness 20% discount
Gross value    60,00€
20% discount 20%    12,00€
Net value      48,00€
Rabbit          38,00€
Cage            8,00€
Food            2,00€
Rabbit Wellness 20% discount
Gross value    60,00€
20% discount 20%    12,00€
Net value      48,00€
Rabbit          38,00€
Cage            8,00€
Food            2,00€
...

```

- In the event of "Discount in goods":
 - The lines which generated the promotion and the resulting ones will be shown next to each other; again in this case additional descriptions will be used to show the consumer the promotion details:

```

...
  Persian food 3x2
3 x
Beef tidbits 0,90€
Discount 2,70€
0,90€
...

```

- The example below shows a product not given as a gift but at the symbolic cost of 1 euro cent:

```

...
  Persian food 3x2+0,01€
2 x
Beef tidbits 0,90€
Beef tidbits 0,01€ 1,80€
...

```

- If the consumer takes advantage of the offer to buy 6 pieces, the discount would be similar to the following:

```

...
  Persian food 3x2+0,01€
2 x
Beef tidbits 0,90€
Beef tidbits 0,01€ 1,80€
  Persian food 3x2+0,01€
2 x
Beef tidbits 0,90€
Beef tidbits 0,01€ 1,80€
...

```

- If the consumer buys 7 pieces the discount would be similar to the following, where you can clearly see the products which are part of the promotions and those which are not:

```

...
Beef tidbits 0,90€
  Persian food 3x2+0,01€
4 x
Beef tidbits 0,90€
Beef tidbits 0,01€ 1,80€
...

```

As we stated above, due to application of the promotions, the lines with multiple quantities may need to be split. Vice versa, lines which are split ahead of time will be left split and not combined. For all of the last example the operator will have to have simply read the barcodes without using the multiplier:

```

...
Beef tidbits 0,90€
  Persian food 3x2+0,01€
Beef tidbits 0,90€
Beef tidbits 0,90€
Beef tidbits 0,01€
...

```

Let's add an example related to a (3+3)x(2+2) promotion (i.e. if you buy 3 products of group 1 and 3 products of group 2 you'll get a free product of group 1 and a product of group 2). Let's imagine the groups "Dog food" and "Cat food" and that the customer bought 4 pieces of cat food and 4 pieces of dog food. If the operator used the multiplier the receipt would appear similar to the one shown below:

```

...
Beef tidbits 0,90€
Eukanuba mature 2 Kg.      4,90€
  Cat&Dog (3+3)x(2+2)
3 x
Beef tidbits 0,90€                2,70€
Discount                        0,90€
3 x
Eukanuba mature 2 Kg.      4,90€
                        14,70€
Discount                    4,90€
...

```

To better understand how this works see the chapter [esempi](#).

The flexibility introduced in the definition phase for the various product groups implicitly contains some critical elements due to the fact that the same product could belong to more than one group. This condition is unusual, and it may not have been possible to filter it in the promotion definition phase due to the subsequent introduction of products which generated the collision condition. In the execution phase the necessary steps will be taken to avoid collision problems: in particular once a line is considered to be part of a group, it will be excluded from other groups.

2.2.2 Promotions and fidelity

It will be possible to associate a customer to a sale, including fidelity, bearing in mind that the discounts will only be applied on products which are not part of a promotion, or only if the fidelity discount is more advantageous compared to the promotion.

If there is competition between a promotional price list and a fidelity card with line discounts, the program applies the most favorable conditions for the customer. The control will be performed between the fidelity discount reason and the discount applied to the promotion. If

the fidelity does not include a discount reason on the line, the promotion will apply the discount on the line already discounted by the fidelity.

Consequently, before deciding whether to apply a packet promotion, the program will evaluate its value according to the packet logic. Thus it will evaluate the value of the same products as if the packet promotion did not exist. Then, it will apply the most favorable conditions for the customer. However, keep in mind that, if the program determines that the packet is more convenient for the customer, the products contained within the packet will have the conditions of the packet even if they are worse compared to those of the card. The customer will still have a discount, but it must be made clear that this is the planned operation. Let's try a few examples. Let's use a card which has a 5% discount on Food a 20% discount on Non Food and a 10% discount on Live. Let's suppose that the promotion involves a rabbit, a brush and a shampoo for the respective gross prices of €50, 10 and 8. The packet price is €55- If we apply the packet promotion we'll have:

- Rabbit 50 → 39 (equal to a 22% discount)
- Brush 10 → 9 (equal to a 10% discount)
- Shampoo 8 → 7 (equal to a 12.5% discount)

If we apply the fidelity card promotion we'll have:

- Rabbit 50 -10% discount → 45
- Brush 10 -20% discount → 8
- Shampoo 8 -20% discount → 6.6

For a total of €59.40. This means that the program will decide to apply the packet and have the customer pay the €55. Thus, as you can see, even if by buying the brush and shampoo separately the customer would have better conditions, the program uses the packet rule.

Naturally if the customer buys 2 bottles of shampoo, the one included in the packet would cost €7 (as per the packet), while the one not included in the packet would cost €6.60.

...		
Shampoo	8,00€	
20% discount		1,60€
Rabbit Wellness	55€	
Rabbit	39,00€	
Brush	8,00€	
Shampoo	7,00€	
...		

In another situation with a discount of 30% on Live and 5% on Non Food, the things change because the discounts only calculated on the fidelity card would generate an advantage for the customer:

- Rabbit 50 -30% discount → 35
- Brush 10 -5% discount → 9
- Shampoo 8 -5% discount → 7.6

For a total of €52.10. In this case the program will decide not to apply the packet. The purchase of several products is not significant in this case because none of them are included in the packet. Thus the receipt in the case of buying two bottles of shampoo will be similar to the one shown below:

...		
Rabbit	50,00€	
30% discount		15,00€
Brush	8,00€	
5% discount		0,40€
2 x		
Shampoo	8,00€	
		24,00€
5% discount		1,20€
...		

These remarks are not valid for "Voucher" type promotions, for these the use of fidelity must be disabled (the program will not perform controls).

2.2.2.1 Disabling the control on the most advantageous discount

To execute the promotion, again in addition to the fidelity discount, it will be possible to create a rule to associate to the promotion used to disable the control.

```
Sub Main(vEsito)
    CalcolaPromozioni.ScontrinoFidelity= False
    vEsito=True
End sub
```

With this rule the program will always execute both the fidelity discount and the promotion discount if both are present.

2.2.3 Promotions and discount price lists

Let's imagine a situation where the products included in a promotion have a discounted price list.

All the promotions (of any type, thus fixed price, packet promotions and with free pieces), are in addition to the discount applied by the discounted price lists, thus they will always be applied on the net price. Basically, the advantage provided by the promotion will be applied on the promotional list price.

2.3 Certified promotions and examples of promotions with standard type

The new promotion calculation system can be used to define multiple packet types which will act differently in the sales phase.

During the test phase 12 situations were considered, which will be the certified ones. However, this does not mean that other configurations will not work correctly, actually the system was developed very flexibly on purpose so that there are non constraints in the configuration phase.

Let's look at the 12 tested and certified configurations with standard mode below:

2.3.1 One item for each group at a fixed price

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized).

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Fixed value	50,00	1	1	0	30,00	0,00
		2	1	0	15,00	0,00
		3	1	0	5,00	0,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1

Dog bed: cost 18, group 2

Brush: cost 7, group 3

The total sale would be 65.00, but thanks to our promotion we have a total discount of 15, the resulting receipt would show that the single products would have cost 30, 15 and 5, respectively.

The total value of the groups (30+15+5) must be equal to the value set in general data (50).

2.3.2 One item for each group with a percentage discount on the total value

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized).

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Percentage discount	20,00	1	1	0	0,00	60,00
		2	1	0	0,00	30,00
		3	1	0	0,00	10,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1

Dog bed: cost 18, group 2

Brush: cost 07, group 3

The total sale would be 65.00, but thanks to our promotion we would have a discount of 20% and thus would pay 52. The 13 in discount will be broken down on the various lines in order to respect the values entered on the group, thus:

Dog: cost 40, discount of 7.80 (60% of 13) = 32.20

Dog bed: cost 18, discount of 3.90 (30% of 13) = 14.10

Brush: cost 7, discount of 1.30 (10% of 13) = 5.70

The total of the discount percentage of the group data must be 100.

2.3.3 One item for each group and a percentage discount for some groups

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized).

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Percentage discount	0,00	1	1	0	0,00	0,00
		2	1	0	0,00	50,00
		3	1	0	0,00	65,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1

Dog bed: cost 18, group 2

Brush: cost 07, group 3

The total sale would be 65.00, but thanks to our promotion we would only pay 51.45. The discount has been calculated line by line based on how the groups were set, thus:

Dog: cost 40, no discount = 40,00

Dog bed: cost 18, discount of 9.00 (50% of 18) = 9.00

Brush: cost 7, discount of 4.55 (65% of 7) = 2.45

The total discount percentage of the general data should not be 100 since no value has been entered in general data.

2.3.4 One item for each group and a fixed value for one group

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized). The advantage involves the value of one of the 3 products, sold at a symbolic price.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Fixed value	0,00	1	1	0	0,00	0,00
		2	1	0	0,00	0,00
		3	1	0	0,10	0,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1
Dog bed: cost 18, group 2
Brush: cost 7, group 3

The total sale would be 65.00, but thanks to our promotion we would only pay 58.10. The discount has been calculated only on the line where a value has been set in the group data:

Dog: cost 40, no discount = 40,00
Dog bed: cost 18, no discount = 18.00
Brush: cost 7, discount of 6,90 (fixed value set) = 0,10

In this case the promotion includes 3 products, but only one will be discounted.

2.3.5 One item for each group and a fixed value for each group

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized). This product is the same as the one described in chapter [2.3.1](#), the only difference is that there is no control on the general data.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Fixed value	0,00	1	1	0	30,00	0,00
		2	1	0	15,00	0,00
		3	1	0	5,00	0,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1
Dog bed: cost 18, group 2
Brush: cost 7, group 3

The total sale would be 65.00, but thanks to our promotion we have a total discount of 15, the resulting receipt would show that the single products would have cost 30, 15 and 5, respectively.

2.3.6 Traditional 3x2

This promotion involves giving the customer an advantage by buying 3 products which are the same from the same group (the number of products can be customized). The advantage involves giving away one of the 3 products.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	3	1	0,00	0,00

The promotion must have the "Same product" flag enabled in general data.

Let's use the sale of 3 products which are the same and cost 5.00 as an example:

The total sale would be 15.00, but thanks to our promotion we would pay only 10.00.

2.3.7 3x2 but with the third product at a fixed price

This promotion involves giving the customer an advantage by buying 3 products which are the same from the same group (the number of products can be customized). The advantage involves selling one of the 3 products at a symbolic price.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	3	1	0,10	0,00

The promotion must have the "Same product" flag enabled in general data.

Let's use the sale of 3 products which are the same and cost 5.00 as an example:

The total sale would be 15.00, but thanks to our promotion we would pay only 10.10.

2.3.8 3x2 but with products which can be different

This promotion involves giving the customer an advantage by buying 3 products, including different, as long as they belong to the same group (the number of products can be customized). The advantage involves giving away one of the 3 products (the one with the lowest price).

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	3	1	0,00	0,00

The promotion must not have the "Same product" flag enabled in general data.

Let's use the sale of 3 products belonging to the same group as an example:

Product 1: 9,00

Product 2: 6.00

Product 3: 5,00

The total sale would be 20.00 but thanks to our promotion we would pay only 15.00, since the last product (the one with the lowest price) is free.

2.3.9 3x2 but with products which may be different and the third product at fixed price (the one with the lowest value)

This promotion involves giving the customer an advantage by buying 3 products, including different, as long as they belong to the same group (the number of products can be customized). The advantage involves selling one of the 3 products (the one with the lowest price) at a symbolic price.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	3	1	0,10	0,00

The promotion must not have the "Same product" flag enabled in general data.

Let's use the sale of 3 products belonging to the same group as an example:

Product 1: 9,00

Product2: 6.00

Product3: 5,00

The total sale would be 20.00 but thanks to our promotion we would pay only 15.10, since the last product (the one with the lowest price) is sold at a special price.

2.3.10 One item for each group and a free item (1)

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized). The advantage involves receiving one of the 3 products as a gift.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	1	0	0,00	0,00
		2	1	0	0,00	0,00
		3	1	1	0,00	0,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1

Dog bed: cost 18, group 2

Brush: cost 7, group 3

The total sale would be 65.00 but thanks to our promotion we would pay only 58.00. The free product is the one belonging to the group with the discount in goods with value assigned at 1.

2.3.11 One item for each group and a free item (2)

This promotion involves giving the customer an advantage by buying 3 products of 3 different groups (the number of products and groups can be customized). The advantage involves receiving one of the 3 products as a gift (which will have a discount of 100%).

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Percentage discount	0,00	1	1	0	0,00	0,00
		2	1	0	0,00	0,00
		3	1	0	0,00	100,00

Let's use the sale of 3 products as an example (each belonging to a group):

Dog: cost 40, group 1

Dog bed: cost 18, group 2

Brush: cost 7, group 3

The total sale would be 65.00 but thanks to our promotion we would pay only 58.00. The free product is the one belonging to the group with the percentage discount set at 100.

2.3.12 Two products of the same group, the second with 50% discount

This promotion involves giving the customer an advantage by buying 2 products belonging to the same group (the number of products can be customized). The advantage involves receiving a 50% discount on the product with the lower price.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Discount in goods	0,00	1	2	1	0,00	50,00

Let's use the sale of 2 products belonging to the same group as an example:

Product 1: 50.00

Product2: 40,00

The total sale would be 90.00, but thanks to our promotion we would pay only 70.00. The product with the lower value will be discounted by 50%, thus:

Product 1: **50,00 0% discount = 50.00**

Product2: 40.00 50% discount = 20.00

2.3.13 Three items of a single group at a fixed price

This promotion involves giving the customer the advantage of purchasing 3 products of the same group.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Fixed value	10	1	3	0	10	0,00

We'll use two examples for this type of promotion to understand the discount breakdown. The set data is critical because 10 cannot be divided into 3 equal parts.

Example 1, sale of 3 equal products:

Stockings: cost 7, sold qty = 3

The total sale would be 21.00, but thanks to our promotion we have a total discount of 11, the resulting receipt would show that the single products would have cost **3.33**, **3.33** and **3.34**, respectively.

The program will add the cent for rounding to the last line.

Example 2, sale of 3 products with different prices:

Shoe: cost 13

Stockings: cost 7

Shoelace: cost 2

The total sale would be 22.00, but thanks to our promotion we have a total discount of 12, the resulting receipt would show that the single products would have cost **5.91**, **3.18** and **0.91**, respectively.

This is the result of a proportional breakdown of the discount on the price.

2.3.14 Value discount once the established threshold is exceeded

This promotion involves giving the customer a fixed value discount once a threshold is reached.

General Data		Group Data					
Discount type	Value	Group code	Group threshold	Group threshold value	Discount in goods	Value	Percentage discount
Value discount	30	1	0	100	0	0	100

We'll use two examples for this type of promotion to understand the discount breakdown.

Example 1, sale of 1 product which exceeds the threshold:

Shoe: cost 120, sold qty = 1

The total sale would be 120.00, but thanks to our promotion we would have a total discount of 30 applied entirely on that product.

Example 2, sale of 3 products with prices which, once summed, exceed the threshold:

Shoe: cost 80

Stockings: cost 15

Shoelace: cost 10

The total sale would be 105.00, but thanks to our promotion we would have a total discount of 30 broken down on three products, the resulting receipt would show that the single products would have cost **57.14**, **10.71** and **7.15**, respectively.

This is the result of a proportional breakdown of the discount on the price.

2.3.15 Value discount once the established threshold is exceeded on several groups

This promotion involves giving the customer a fixed value discount divided by the groups once the threshold is reached on all groups.

General Data		Group Data					
Discount type	Value	Group code	Group threshold	Group threshold value	Discount in goods	Value	Value discount
Value discount	0	1	0	100	0	0	30
		2	0	50	0	0	5

Example 1, sale of 1 product per group which exceeds the threshold:

Show group 1: cost 120, sold qty = 1

Stockings group 2: cost 60, sold qty = 1

The total sale would be 180.00, but thanks our promotion we would have a total discount of 35.30 applied to the product of group 1 and 5 applied to the product of group 2. Thus the resulting receipt would show that the single products would have been paid **90.00** and **55.00**, respectively.

If there is more than one product for the groups, 30 would be divided proportionately between the products of group 1 and 5 between the products of group 2.

2.3.16 Pyramid percentage discount

This promotion involves giving the customer various advantages based on the number of purchased products.

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Percentage discount	0,00	1	***	0	0,00	0,00

*** instead of entering a single threshold, by clicking on the button with three dots located next to the "Soglia gruppo" field, it will be possible to enter a condition scale.

Soglia gruppo

Valore soglia gruppo

Scala condizioni

An	Qta >=	Sconto %
☐	2	10,00
☐	3	20,00
☐	6	30,00

OK

Annulla

The example in the figure indicates that:

- by purchasing 1 product you will not have discounts;
- by purchasing 2 products you will have a 10% discount on both products;
- by purchasing 3 to 5 products you will have a 20% discount on all the products;
- by purchasing 6 or more products you will have a 30% discount on all the products;

2.4 Certified promotions and examples of promotions with voucher type

The new promotion calculation system can be used to define multiple packet types which will act differently in the sales phase.

To date it is possible to generate more than one voucher with the same sale, but in the redemption phase it will only be possible to use one per receipt.

Before the 1.31.0 version the composition of the voucher barcode was managed as follows: prefix + node code + sequential number + checksum, thus it was not possible to manage voucher creation for nodes with alphanumeric code.

As of the 1.31.0 version the program was changed to use the node ID (which is always a numeric code) in place of the node code.

The ID is created automatically by the program during the new geographic node creation phase (it is displayed by the geographic node form).

In this case the voucher barcode will be composed as follows: prefix + node ID + sequential number + checksum, always obtaining numeric barcodes in EAN13 format.

The node ID will be a four digit number, and thus a maximum number of 99,999 vouchers can be issued.

Let's look at the tested and certified configurations with voucher mode below:

2.4.1 Coupon management with discount percentage

This management involves dividing the promotion into 2 periods. The first indicates when and how the customer can "earn" a voucher, to use at a later time based on certain conditions.

General Data					
Source validity start date		Source validity end date	Target validity start date		Target validity end date
01/01/2010		30/01/2010	01/02/2010		28/02/2010
Source Data					
Group	Group threshold	Discount in goods	Group threshold value	Percentage discount	Price type
1	2	0	0	0,00	None
Target Data					
Group	Group threshold	Group threshold value	Percentage discount	Voucher value	Price type

1	1	0	50,00	0	None
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With this type of situation, by buying two products which are part of the source group 1 from 01/01/2010 to 30/01/2010, you have the right to a voucher.

If you present this previously earned voucher from 01/02/2010 to 28/02/2010 and buy a product from source group 1, you'll obtain a 50% discount on the product.

N.B. products which generate the voucher do not show the promotion code in the lines. This means if you have two promotions at the same time (for example a 3 for 2 and a voucher generation), the same lines are involved with both if priority is assigned to vouchers and then the 3 for 2, if the priority is assigned to 3 for 2 management the voucher will not be generated (each promotion excludes the lines where a previous promotion was assigned).

2.4.2 Coupon management with value discount

This management involves dividing the promotion into 2 periods. The first indicates when and how the customer can "earn" a voucher, to use at a later time based on certain conditions.

Using the "Repeatable" flag it is possible to set generation of more than one voucher, using multiples in the Source data "Valore soglia gruppo" field. The same thing is true for the redemption phase, but with multiples in the Target data "Valore soglia gruppo" field.

General Data					
Source validity start date		Source validity end date		Target validity start date	
01/01/2010		30/01/2010		01/02/2010	
				28/02/2010	
Source Data					
Group	Group threshold	Discount in goods	Group threshold value	Percentage discount	Price type
1	0	0	99	0	None
Target Data					
Group	Group threshold	Group threshold value	Percentage discount	Voucher value	Price type
1	0	20	0	10	None

With a situation like this, by spending at least 99.00 from 01/01/2010 to 30/01/2010, you'll have the right to a voucher.

By presenting the previously earned voucher from 01/02/2010 to 28/02/2010 and buying products for a value of at least 20.00, you'll get a 10.00 discount.

N.B. products which generate the voucher do not show the promotion code in the lines. This means if you have two promotions at the same time (for example a 3 for 2 and a voucher generation), the same lines are involved with both if priority is assigned to vouchers and then the 3 for 2, if the priority is assigned to 3 for 2 management the voucher will not be generated (each promotion excludes the lines where a previous promotion was assigned).

2.4.3 Coupon management with variable value discount

This management involves dividing the promotion into 2 periods. The first indicates when and how the customer can "earn" a voucher, to use at a later time based on certain conditions.

The voucher value will be determined based on a percentage of the purchase value during the voucher issue phase.

General Data					
Source validity start date		Source validity end date		Target validity start date	
Target validity end date					
01/01/2011		30/01/2011		01/02/2011	
28/02/2011					
Source Data					
Group	Group threshold	Discount in goods	Group threshold value	Percentage discount	Price type
1	0	0	0	15	None
Target Data					
Group	Group threshold	Group threshold value	Percentage discount	Voucher value	Price type
1	1	20	0	0	None

With this type of situation, from 01/01/2011 to 30/01/2011, a voucher of the value of 15% of the total net purchase will be issued.

Any filters entered on the source will not affect the calculation of the voucher value, but will only be used to establish whether the promotion is applicable.

From 01/02/2011 to 28/02/2011 it will be possible to use the previously earned voucher.

N.B. products which generate the voucher do not show the promotion code in the lines. This means if you have two promotions at the same time (for example a 3 for 2 and a voucher generation), the same lines are involved with both if priority is assigned to vouchers and then the 3 for 2, if the priority is assigned to 3 for 2 management the voucher will not be generated (each promotion excludes the lines where a previous promotion was assigned).

2.5 Special conditions and critical conditions

2.5.1 Grouping products within the promotion

It is necessary to always remember that the program will determine the promotion conditions in order to favor the buyer and not the seller.

Let's look at an example using the card described in chapter [2.3.12](#).

If instead of selling only 2 products of the same group we sell 3, the situation would be like this:

Product 1: 50.00

Product2: 40.00

Product3: 70,00

The total sale would be 160.00, but thanks to our promotion we would pay only 135.00. The product with the lower value (among those considered in the promotion) will be discounted by 50%, thus:

Product 1: 50,00 50% discount = 25,00

Product2: 40.00 0% discount = 40.00 -> not considered in the promotion

Product3: **70.00 0% discount = 70.00**

As you can see in the example, the products present in the sale are all compatible with the promotion, but only the two more expensive ones can be considered for the promotion calculation.

2.5.2 Product prices in the various groups

During the product definition phase it is possible to specify, to define the products, a product parameter or directly specify one or more products. This means that the product prices of the group may vary.

The discount conditions need to be compatible with the entered price range.

To make it easier to understand let's use an example with the promotion described in chapter [2.3.2](#):

General Data		Group Data				
Discount type	Value	Group code	Group threshold	Discount in goods	Value	Percentage discount
Percentage	20,00	1	1	0	0,00	60,00

discount		2	1	0	0,00	30,00
		3	1	0	0,00	10,00

Let's use the sale of 3 products as an example (each belonging to a group), however we'll change the prices used in the previous example:

Dog: cost 5, group 1
Dog bed: cost 70, group 2
Brush: cost 25, group 3

The total sale would be 100.00, but thanks to our promotion we would have a discount of 20% and thus would pay 80. The problem occurs when breaking down the 20% discount on the various lines in order to respect the values entered on the group, thus:

Dog: cost 5, discount of 12 (60% of 20) = -7.00 (invalid value)

Dog bed: cost 70, discount of 6 (30% of 20) = 64.00

Brush: cost 25, discount of 2 (10% of 20) = 23.00

This type of situation could cause the cash register to block in the receipt issue phase and other problems when saving the receipt.

It is up to the user who creates the promotion to act so that these type of situations do not occur.

3 Database structure - Tables

PromozioniTestate

This is the general promotion table, where all the generic information is saved related to the general data.

PromozioniNodi

This is the table containing the data related to general node authorizations, both by node and parameter.

PromozioniSrc

This table contains products and products parameters chosen, divided by groups belonging to the promotion.

PromozioniSrcGruppi

This table contains the infoes about promotion activation and about discounts, for all groups belonging to the promotion.

PromozioniClienti

This is the table the customer entered in the promotion filters.

PromozioniSrcSoglie

This is the table containing the thresholds defined for the promotion types with pyramid discount.