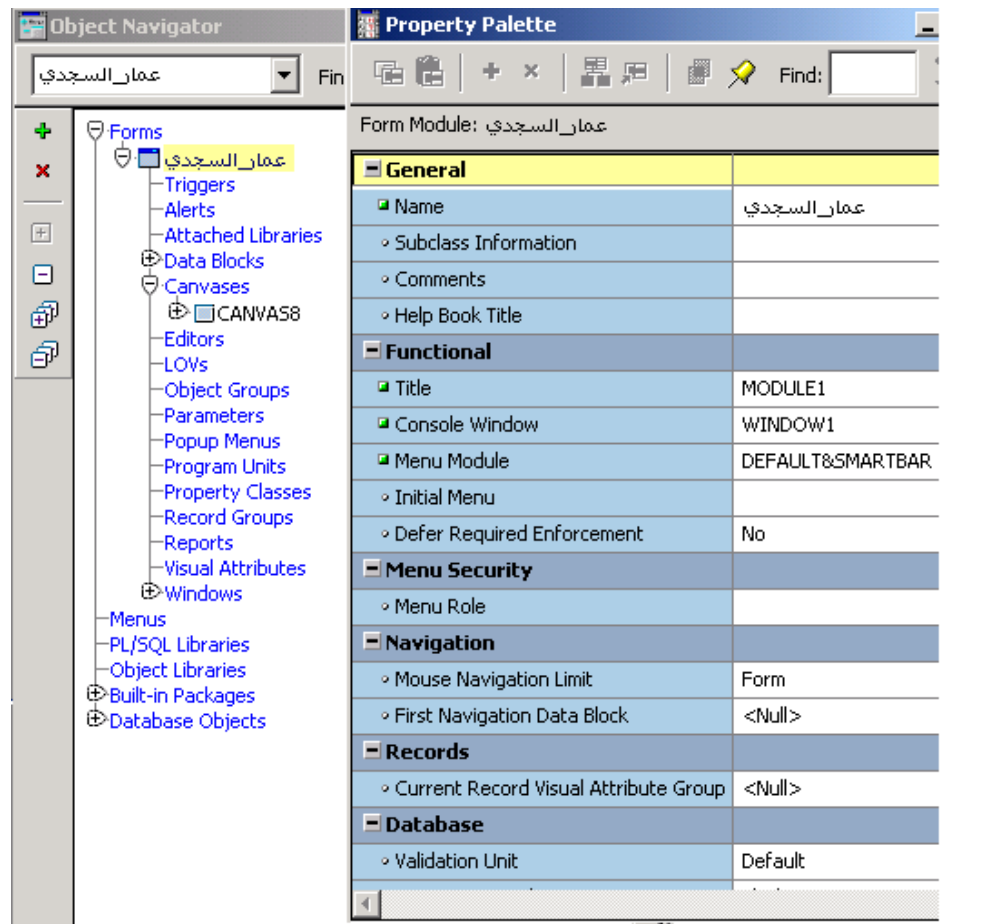


CHAPTER 4

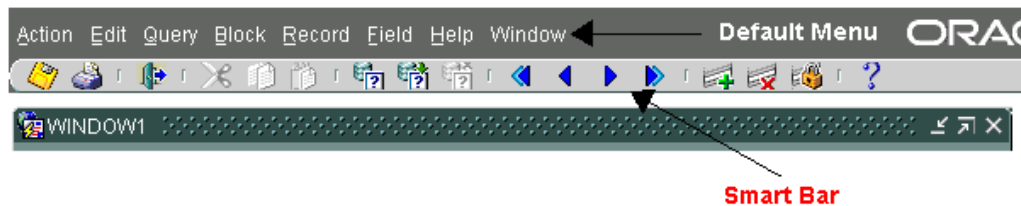
How to change the properties of Form modules, Blocks and items?

The Form Module contains some important properties:



- 1- **Console Window:** indicates the console for the application. The Father window of the application is called MDI window (Multiple Document Interface). If you make console window NULL, the message and the status Line will disappear.
- 2- **Menu Module:-** The name of the Menu module that is attached to this Form. The menu module should have the extension MMX. If this property is left blank, the form will run without a menu. The default value for this property is **DEFAULT&SMARTBAR**. Form builder

ships with a ready-made menu module (**menudef.mmb**) that has the exact same menu items as default form menu. You can customize it as you wish and attach it to your form. Please note that the DEFAULT MENU itself is an internal component of the form and cannot be changed.



If you want the default menu to appear but do not want the default Toolbar to appear, then modify this property and remove **&SMARTBAR**. When you design your own menu, you will attach your menu to the form by writing the menu name in this property. You would normally write the menu name complete with the path or better remove the path, but make sure that the FORMS90_PATH in REGISTRY keys includes the path where your menu exists.

3-Initial Menu: Specifies the name of the individual menu in the *menu module* that Form Builder should use as the main, or top-level, menu for this invocation. End users cannot navigate above the menu specified as the starting menu.

By default, the starting menu is the menu named in the menu module property, Main Menu. Note that the initial menu must be a menu item contained within the Main menu specified in the menu module.

4-Defer Required Enforcement: If a database item is specified as NOT NULL, then it is marked as a REQUIRED text item (field) on the canvas; so that at runtime, the data entry user cannot proceed before filling out this item. If this property is set to TRUE, then Oracle Form will only check for the existence of a value for this item after the whole record is filled and the user attempts to move out of it (Record Validation event)

5- Mouse Navigation Limit: This property existed in previous version, but it is not widely known. This property has the following options:

FORM: The Default; it allows end users to navigate with the mouse to any item in the current form.

Data BLOCK: Allows end users to navigate with the mouse only to items that are within the current block.

RECORD: Like before with navigation restricted to items within the current Record.

ITEM: Does not allow end users to navigate with the mouse at all. This can be a valuable option.

6-Current Record visual attributes

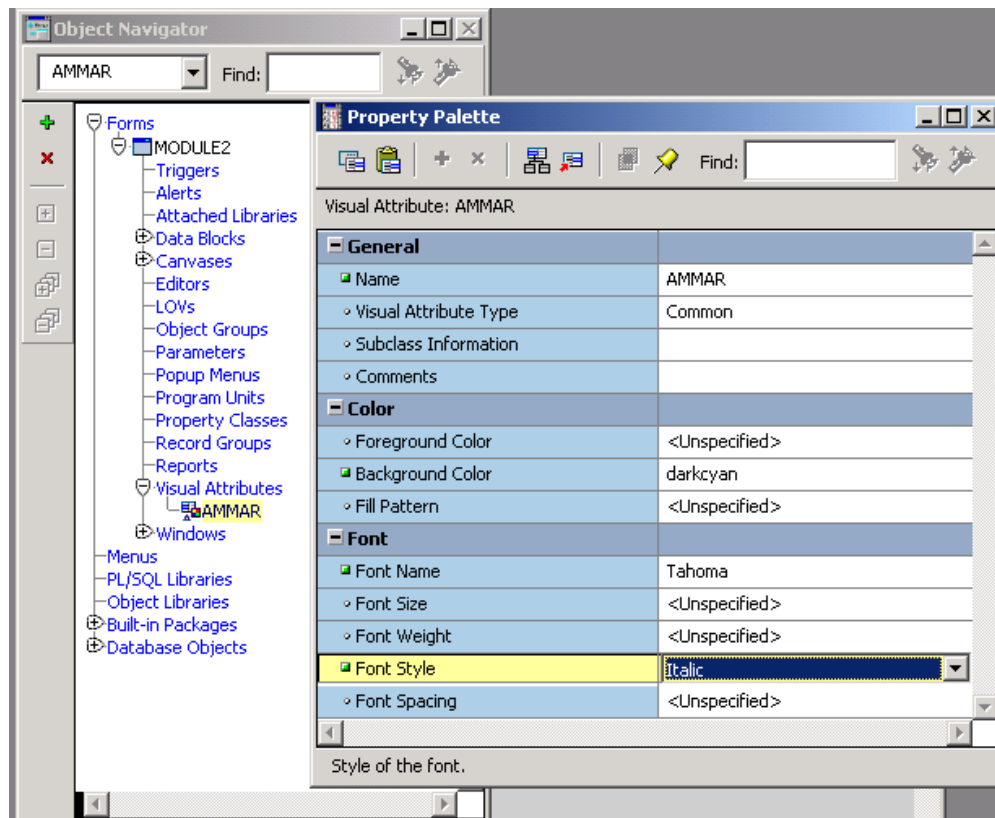
A visual attribute is a separate object in a form or menu module that defines a collection of attributes that make visual effects (ie background color, Font name, Font size etc..) Once a visual attribute is created, it is given a name and can be applied to any object in the same module. In the context of the property we are discussing, such collection of attributes will be applied only to the current record. The current record is the record where the cursor currently resides. Once the cursor moves out of this record, this record visual attribute will be restored to the defaults and the new record where the cursor is moved to will inherit the properties of the named visual attributes. The following example will illustrate

From the Object Navigator, look for the Visual Attributes object and double click to create one.

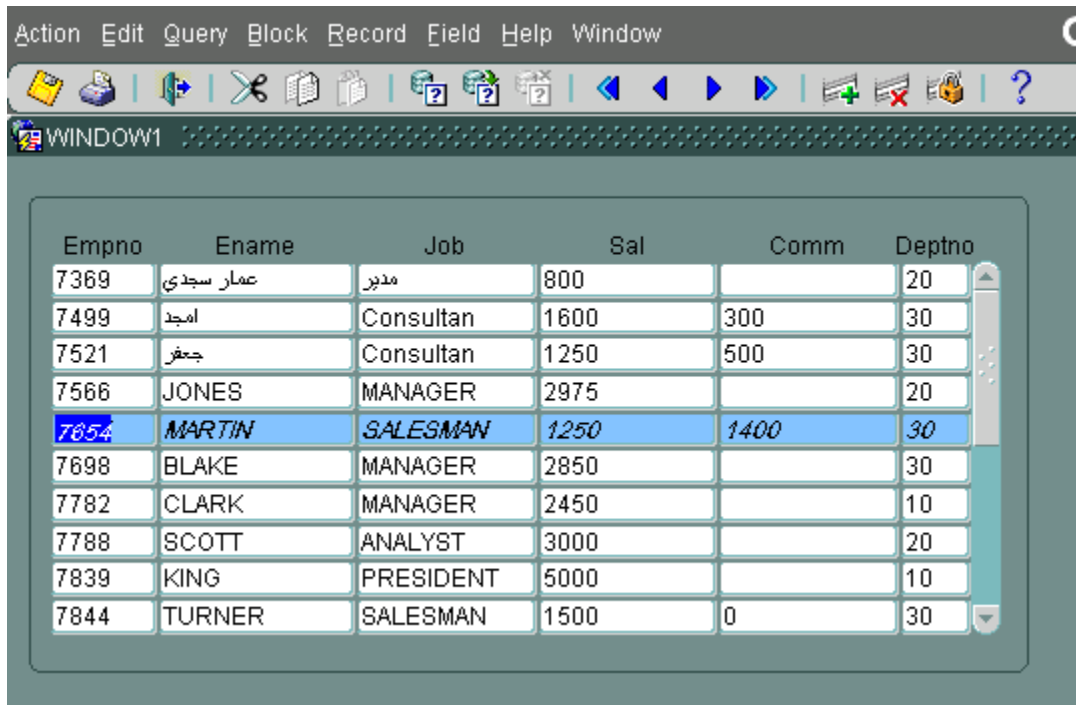
Invoke its property palette and change the following attributes

Name	Some meaningful name
Background color	Some suitable color
Etc..	

See below



Now, in the modules Current Record Visual property, select AMMAR and run the form



Empno	Ename	Job	Sal	Comm	Deptno
7369	عمار سجدى	مدير	800		20
7499	امجد	Consultan	1600	300	30
7521	جعفر	Consultan	1250	500	30
7566	JONES	MANAGER	2975		20
7654	MARTIN	SALESMAN	1250	1400	30
7698	BLAKE	MANAGER	2850		30
7782	CLARK	MANAGER	2450		10
7788	SCOTT	ANALYST	3000		20
7839	KING	PRESIDENT	5000		10
7844	TURNER	SALESMAN	1500	0	30

Since this property is set at the Module level, it would affect all blocks in the form.

7- Validation Unit: This property existed even in Forms Version 2. It can have one of the following options:-

FORM: This means that all validation will only occur at the form level.

Which means that end users will enter data for all data blocks and records before Forms Builder initiates any validation.

BLOCK: The validation will be initiated at the scope of the data block.

Which means that end users will freely enter data within the block (Records and Items). Validation will take place when end users try to move out of the block or when they do any action that causes data block validation.

RECORD: Here the validation unit is the Record, so end users can move free between items within the Record, and validation will only take place when the end user tries to move out of the record.

ITEM: This is the default, and it means the end users cannot leave the item when the data is not valid.

8- Interaction Mode This has to do with the behavior of the form during a long running query. If this property is set to **BLOCKING**, then all records for a query must be fetched from the database before end users can interact

with the form. The default is BLOCKING and the other option is NON-BLOCKING

9- Maximum Query Time This property allows you to abort a query if its elapsed time exceeds that time specified in this property.

10- Maximum Records Fetched: This property allows you to abort a query if the number of records fetched by this query exceeds the value specified in this property

11- Coordinate Information: Specifies the unit of measurements for your screen. It can be INCH, CENTIMETER, PIXEL, Or CHARACTER unit; the latter is for users who wish to run their application in character mode.

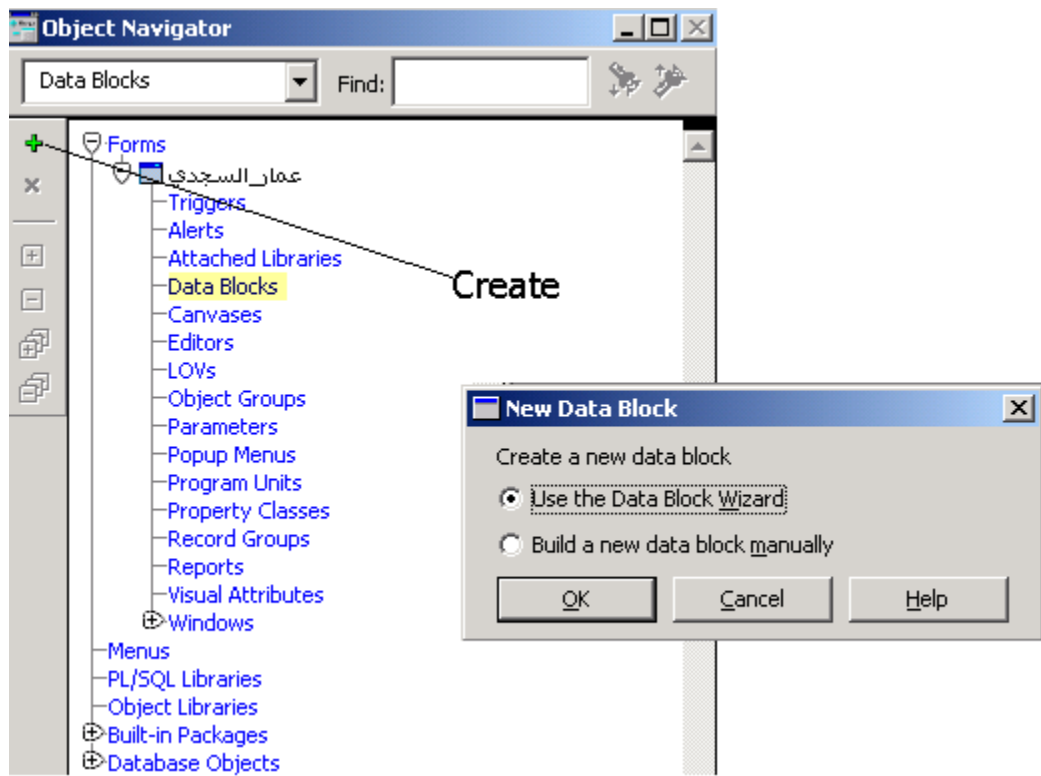
12- Direction: Will give the screen direction for the FORM LEVEL (HIGHEST LEVEL). If changed to default, the direction of the screen is taken from NLS_LANG parameter existing in the REGISTRY (invoked by regedit --> Hkey_Local_machine-->Software-->ORACLE).

DATA BLOCK

The data block is a group of items (Fields) and **usually** but not necessarily related to a Data Source like a BASE TABLE or a STORED PROCEDURE. The block is a main part of your FORM. Your form will contain one or many blocks.

NOTE: A block with no base table is called Control Block;

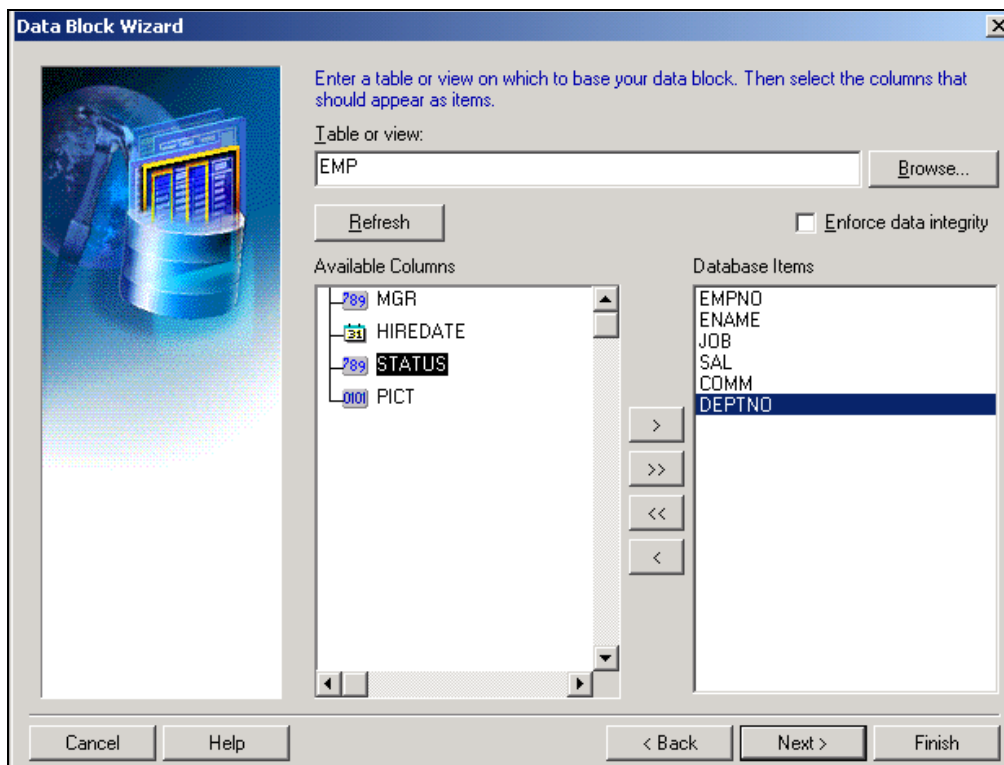
The easiest way to Create a Data Block is by Selecting the Data Block Node in the navigator and then click on the iconic Create Button on the tool bar that appears to the left of the Object Navigator as shown below: -



When the Create Button is pressed, the following window will appear:

Press **OK** and the procedure of building a data block using the wizard will be started. Chapter two explained in step-by-step manner how to use the Data Block Wizard. We will only add some details:

The following window is a view of **Table Page** part of the Data Block Wizard:



The main purpose of this page is to map table (or view) columns to data block columns. The name of the list is “Database Items” to remind you that all columns listed in this list have the Database Item property set to TRUE. If you do not already know what a Database item mean, it will be explained in the Items property section and will be stressed by the instructor during the course.

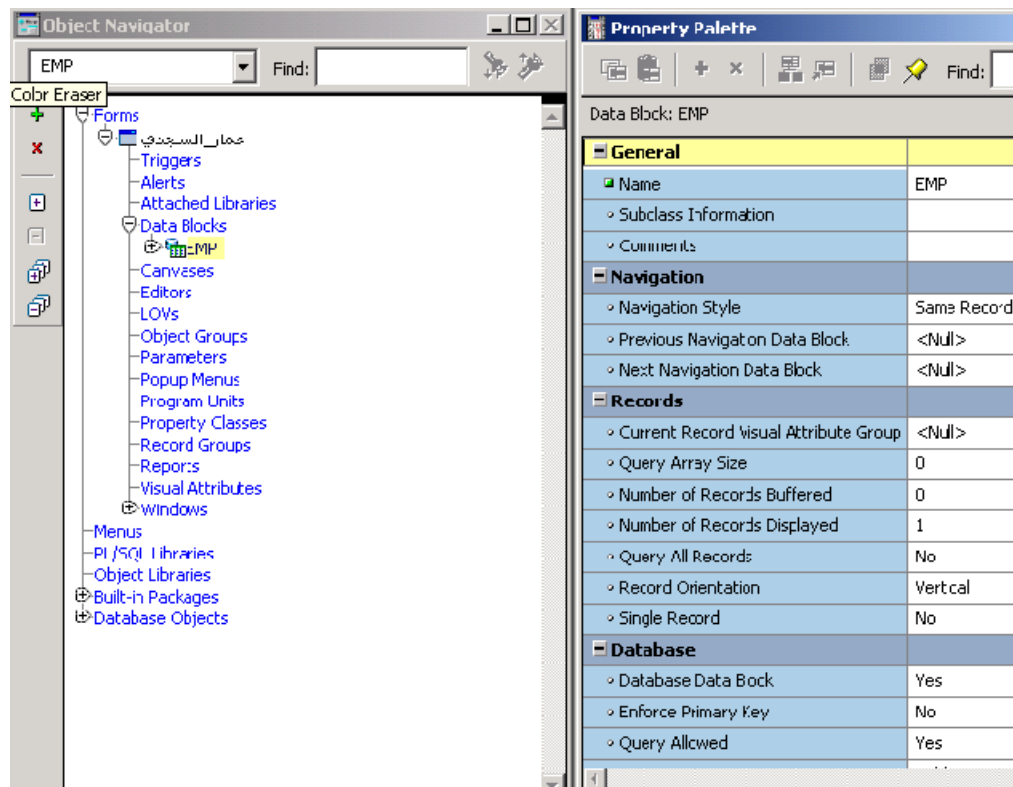
To map column from the available columns to Database items, you can use Drag and Drop Techniques, you can double click on columns inside the available column list or use can use the > and >> buttons.

Please note the Enforce data integrity Check_Box. If checked, Oracle Forms will automatically read the database constraints for the BASE TABLE of this Data Block and writes the necessary triggers to implement the database constraints (Check, Primary Keys, Foreign Keys etc ..) at the application level. Note that these constraints are enforced at the application level as well as the database level.

Important Note: Please note that after finishing the data block creation, you wanted to modify the data block, you can recall the data block wizard again using **Tools → Data Block wizard**. You can then modify it as you wish. In

previous version of Oracle Forms, it was not possible to re-activate the default block creation window after the block is created.

After creating the block, you can activate the data block property palette; possibly by selecting the block and using **Tools→Property Palette**. The following shows the property palette of a data block



In the following, we will attempt to explain the important **BLOCK PROPERTIES**

Please note that if you wish to see HELP for any of the properties, you can activate the property palette of the object, Select the property you want to get information about and press HELP (F1).

NAVIGATION STYLE: This is an important property. It has 3 possible values.

- a) If you choose SAME RECORD, it means that when you reach the last item (field) in the record and you hit ENTER, the cursor will return to the first item of the same record.
- b) If you choose CHANGE RECORD, it means that when you reach the last item in the record and you hit ENTER, the cursor will go the first item in the next record.
- c) If you choose CHANGE DATA BLOCK, the behavior is the same except the cursor will move to the first item in the next data block.

NEXT NAVIGATION DATA BLOCK: If you want the cursor to move to a particular data block after the current data block you can give the name of that data block in this property (Similar to saying GO_BLOCK ('name'))

CURRENT RECORD ATTRIBUTE: Is the name of the visual attribute (Created on the navigator) whose action will only affect the current record on which the cursor is located. By the way, Visual Attributes is an object in the navigator where the programmer can group a set of attributes like fonts, color, size of font, style, etc ..

QUERY ARRAY SIZE: Specifies the maximum number of records that the Form Builder should fetch from the Database at one time. If this property is not assigned any value, it will by default assume the value of the property “Number of Record Displayed”, which is the next property we will study.

NUMBER OF RECORDS DISPLAYED: Is the number of records that will appear per screen concurrently. This is one of the properties that the Layout Wizard asks you about. See chapter 2.

QUERY ALL RECORDS: When set to YES, Oracle Forms Builder will fetch all the records matching the query criteria into the Data Block when a query is executed. This is an important property for the New *Summarized items*.

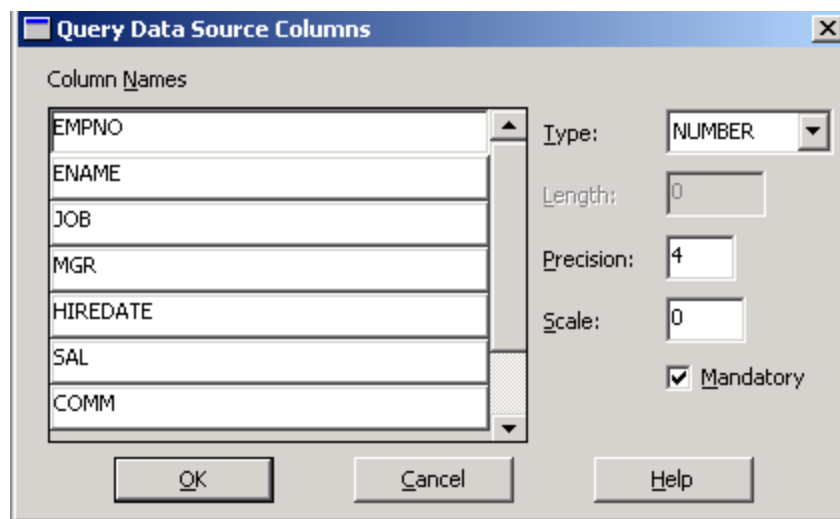
DATABASE DATA BLOCK: If set to NO, it means that this data block is a control block and is associated with any data source

QUERY ALLOWED: If set to NO, end user cannot execute a Query in the Block.

QUERY DATA SOURCE TYPE: In previous versions of forms, the only allowed data source was the BASE TABLE. In FORM 5.0, the Data source can be a TABLE, STORED PROCEDURE, SUBQUERY, Or TRANSACTIONAL TRIGGERS. Basing the Data Block on Stored Procedure is an advanced topic that will be discussed later.

QUERY DATA SOURCE NAME: This property used to be called BASE TABLE name. Now the Data Source name can be the name of the underlying table, stored procedure or Subquery.

QUERY DATA SOURCE COLUMN: The names of the columns belonging to Data Source object. The following window is displayed when you press the **MORE..** button



QUERY DATA SOURCE ARGUMENT: This property is valid only if the Data Source is a stored procedure. This property will show the argument passed to the Data Source stored procedure.

WHERE CLAUSE: Is a valid Where Condition that you can add in this property. This 'Where' clause will be appended to the SELECT STATEMENT that ORACLE FORMS creates when the EXECUTE QUERY function is executed. All record retrieved for this block will be filtered by this where condition.

ORDER BY: This specifies the name of the field on which the query will be ordered by.

INSERT ALLOWED: If set to NO, end users cannot INSERT new records in the data source.

UPDATE ALLOWD: If set to NO, end users cannot update the data block.

DELETE ALLOWED: If you set this property to NO, then end users will not be allowed to execute a delete operation on the Data Source.

COLUMN SECURITY: Will read your update privilege at the database level for the BASE TABLE and automatically make update not allowed on the items where you have no update privilege.

MAXIMUM QUERY TIME: this property allows you to abort a query if its elapsed time exceeds the time specified in this property.

MAXIMUM RECORDS FETCHED: this property allows you to abort a query if the number of records fetched by this query exceeds the value specified in this property.

The **Advanced Data Base** Section is necessary when the Data source is a procedure and will be discussed in a later chapter.

SCROLL BAR: If set to TRUE, a scroll bar will appear on the (CANVAS). After you set it to true extra properties will appear that will control its location and appearance on the canvas.

DIRECTION: If the value of DIRECTION is DEFAULT, it will take its value from the DIRECTION property of the FORM module, because the form is one level higher than the Block. The other values, Left-To-Right and Right-To-Left will change the direction regardless of the setting at the form level.

ITEM Properties

Each item must be a member of a block. The property palette of an item can be invoked by clicking on the item name on the navigator or by double clicking the item on the canvas.

ITEM NAME: The name associated with this item. Note that in previous version of Oracle Forms, the Item name should correspond to column name in the table. In this version, you can give the item any name, but must specify the correct column name to which this item corresponds in the COLUMN NAME property, which is discussed later in this section.

ITEM TYPE: CHECK BOX
 DISPLAY ITEM
 IMAGE
 SOUND (*NEW in FORMS 5.0*)
 BUTTON
 RADIO GROUP
 LIST ITEM
 TEXT ITEM ...

ENABLED: If set to NO, the cursor cannot enter this item (Grayed) or display only

JUSTIFICATION: (Was formerly known as alignment). Specifies the text alignment within the item. The allowable values for this property are as follows:

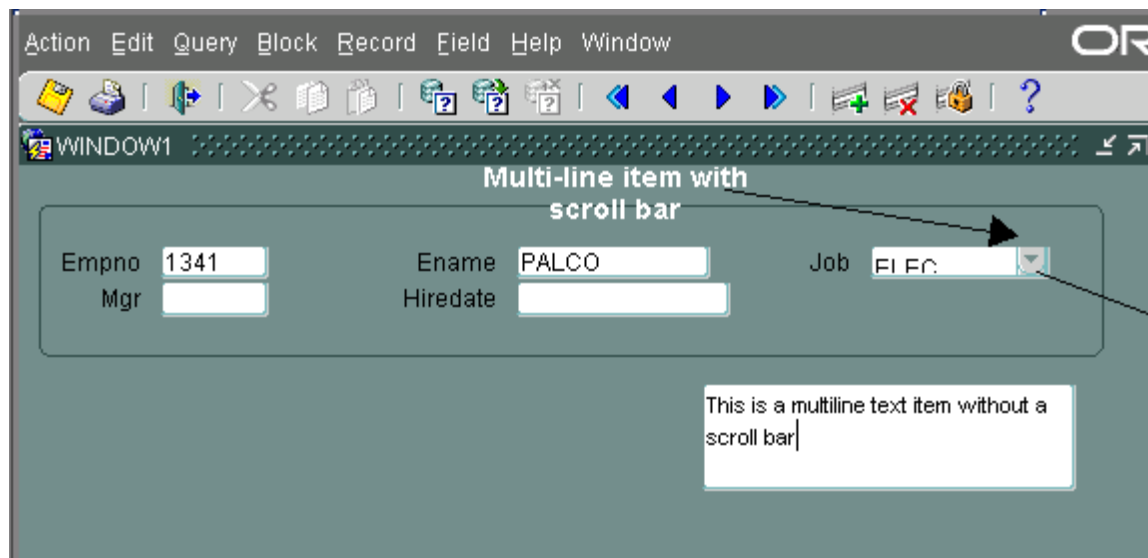
<u>Left</u>	Left-justified, regardless of Reading Order property.
<u>Center</u>	Centered, regardless of Reading Order property.
<u>Right</u>	Right-justified, regardless of Reading Order property.
<u>Start</u>	Item text is aligned with the starting edge of the item-bounding box. The starting edge depends on the value of the item's Reading Order property. Start is evaluated as Right alignment when the reading order is Right To Left, and as Left alignment when the reading order is Left to Right.

(The reading order is the direction of the language you are using, it is Right to Left for the Arabic language and Left to Right for Latin languages)

End Item text is aligned with the ending edge of the item bounding box. The ending edge depends on the value of the item's **Reading Order** property. End is evaluated as Left alignment when the **reading order** is Right To Left, and as Right alignment when the reading order is Left to Right.

MULTI-LINE

Specifies whether your item can be multi-line.



WRAP STYLE: It can be CHARACTER, WORD or NONE. It indicates the behavior of Forms in multi-line text items when you reach end of text-item. If the Wrap Style is WORD, the word at the end of the text-item cannot be split between two lines, the entire word will be wrapped to the next line. If the style is None, the text exceeding the right border is not shown.

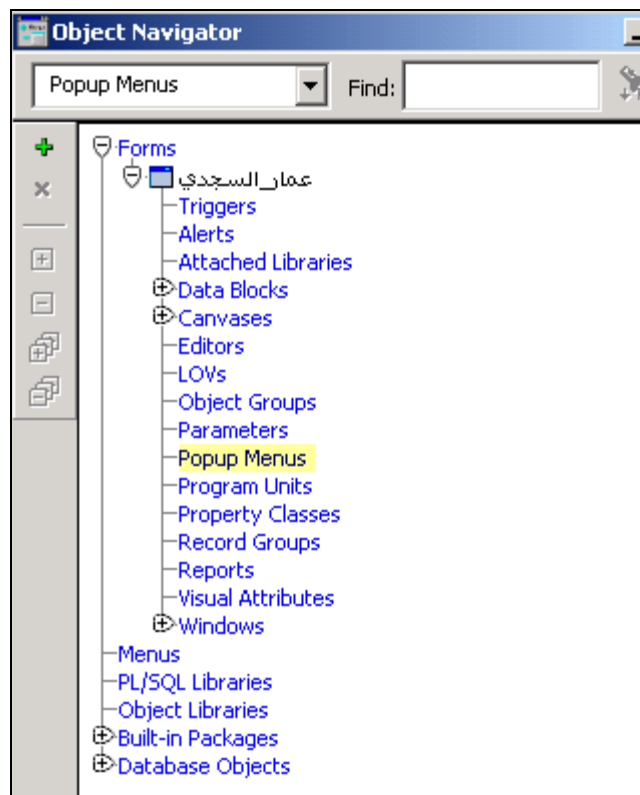
CASE RESTRICTION: 3 Possible values are available, if set to MIXED, the data will be stored in the database as entered by the user, if set to LOWER, all data will be converted to LOWER case and will therefore be stored in the database in Lower case, and if set to UPPER, all data will be converted to UPPER.

CONCEAL DATA: characters entered by end user will be replaced with '*' to hide the actual entered characters, much like the password fields

KEEP CURSOR POSITION: If this property is set to YES, then when the cursor leaves the item, the cursor position is kept. When you return to this text item, the cursor will go back to the kept position.

AUTOMATIC SKIP: If this property is set to YES, the cursor will automatically jump to the next item when the current item is completely filled. I.e. there is no need to press the **ENTER button**.

POPUP MENU: You can create a menu and attach it to this item, so that when the right mouse is pressed on this item, the popup menu will be invoked. The Popup Menu, should be defined within the Form Module and created using the Popup menu object in the Object Navigator. The popup menu node is shown below:



KEYBOARD NAVIGABLE: If set to NO, the cursor is allowed to enter this item with the mouse only, but not by a keyboard action. For navigable to work, ENABLED must be YES. If ENABLED is NO, NAVIGABLE is automatically NO

PREVIOUS NAVIGATION ITEM: If you want the cursor to automatically move to a particular item after the PREVIOUS-ITEM function is executed (By the way, the PREVIOUS-ITEM is executed when SHIFT-ENTER key is pressed). You give the name of that item at this property (Similar to saying GO_FIELD ('name')).

NEXT NAVIGATION ITEM: If you want the cursor to automatically move to a particular item after the NEXT-ITEM function is executed (By the way, the NEXT-ITEM is executed when ENTER or TAB key is pressed). You give the name of that item at this property (Similar to saying GO_FIELD ('name')).

DATA TYPE: Recommended values are CHAR, DATE, NUMBER, LONG

MAXIMUM VALUES: The maximum length of data value that this item can accept. If this item corresponds to a database column, make sure that the maximum value you specify here does not exceed that of the table column

FIXED LENGTH: This means that you must fill the maximum length of the item before you are allowed to leave this item.

INITIAL VALUE: (*Formerly Known as DEFAULT VALUE*) The value that will automatically appear for this item when a new record is created.

Examples

\$\$DATE\$\$	-- current date
:Global.Dummy	-- Global Variable
:SEQUENCE.My_SEQ.Nextval	-- next sequence value from the
sequence my_seq	
10	-- numeric value
etc..	

REQUIRED: This property indicates that the item does not accept NULL values. Forms Builder will not let you leave the item until you fill in a non-NULL value. You can however; use the Form Property “Deferred Required

Enforcement” to YES, and the Form Builder will postpone the REQUIRED property enforcement until record validation is taking place

FORMAT MASK: Is the picture or format that want this field to appear as. For example, for Date items, you can specify dd/mm/yy, for numeric values you can specify \$99999 so that a Dollar Sign will appear before the number (but the Dollar sign will not be stored in the database, it is only a display format). To see various other examples, please activate the property palette of an item, Select the Forma Mask property and press HELP (F1)

LOWEST ALLOWED VALUE and HIGHEST ALLOWED VALUE: (*Formerly Known as LOW RANGE and HIGH RANGE*) the minimum and maximum allowed values for this item.

COPY VALUE FROM ITEM: Indicates the source item from which the current item will derive its value. The format is *BLOCK_NAME.ITEM_NAME*.

SYNCHRONIZE WITH ITEM: (*Formerly known as MIRROR ITEM*).

THE FOLLOWING 5 PROPERTIES were introduced in FORMS 5.0. They belong to *Calculation* Section.

CALCULATION MODE: Valid values are None, Formula and Summary

NONE: No calculation is done.

FORMULA: The item value will be calculated based on a formula that the application developer will write in the Form Builder. Valid Formula can be a single PL/SQL expression. For example you can populate a user created item with the value of the *:emp.sal + nvl(:emp.comm,0)*. The formula will be calculated during *INSERT*, *UPDATE* and *QUERY*. This property is a very effective one. In previous version, the computation of such formula needed the utilization of WHEN-VALIDATE-TRIGGER and POST-QUERY Trigger. The expression can also call user-defined Functions.

SUMMARY: This option lets you compute summary values based on single column values. It very helpful when you want to implement summation, count, averages Functionality.

FORMULA: If you specify FORMULA as a calculation mode, here is where the formula expression is written. When you write single a PL/SQL expression, you should not terminate the expression with a semi-colon.

SUMMARY FUNCTIONS: If the specify SUMMARY as a calculation mode, here is where you specify the operation that you want to perform on the summarized item. The following shows the available operations:

Property Palette	
Item: EMPNO	
<input checked="" type="checkbox"/> Required	Yes
◦ Format Mask	
◦ Lowest Allowed Value	
◦ Highest Allowed Value	
◦ Copy Value from Item	
◦ Synchronize with Item	<Null>
Calculation	
<input checked="" type="checkbox"/> Calculation Mode	Summary
◦ Formula	
◦ Summary Function	None
◦ Summarized Block	None
◦ Summarized Item	Avg
Records	
◦ Current Record Visual Attribute Group	Count
<input checked="" type="checkbox"/> Distance Between Records	Max
<input checked="" type="checkbox"/> Number of Items Displayed	Min
	Stddev
	Sum
	Variance
	0
Database	

SUMMARIZED BLOCK: The name of the Data Block that contains the records to be summarized

SUMMARIZED ITEM: The name of the item within the Data Block specified above that contains the value to be summarized (summed, averaged etc..) Note that the summary item should be in the same block as the summarized item, or the summary item should reside in a CONTROL BLOCK (a Block that has no Data Source) with the Blocks SINGLE RECORD property set to YES. When the summarized item and the summary

item reside in the same data block, the Block Property “*QUERY ALL RECORDS*” should be set to YES.

Example 1

To illustrate the effectiveness of the formula property, it is required that you create a form based on the EMP table. It is also required to add a non-database item that will contain the annual income of each employee. This functionality is to be sustained during Insert, Update and Query operations

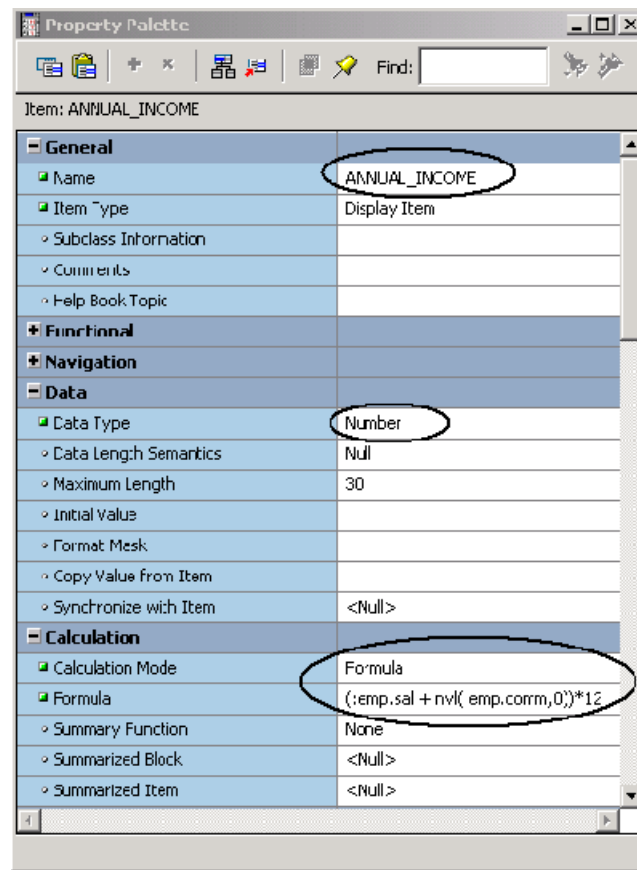
Solution

1. Build a form using the wizard or otherwise.
2. Add and additional Display item on the canvas and make sure to set the following properties

- Name: Annual_income (or any name of your choice)
- Data Type: Number
- Database Item: No
- Calculation mode: Formula
- Formula $(:emp.sal + nvl(:emp.comm,0))*12$
- Summary Function None
- Summarized Block Null
- Summarized Item Null

This example assumes that the block name is EMP

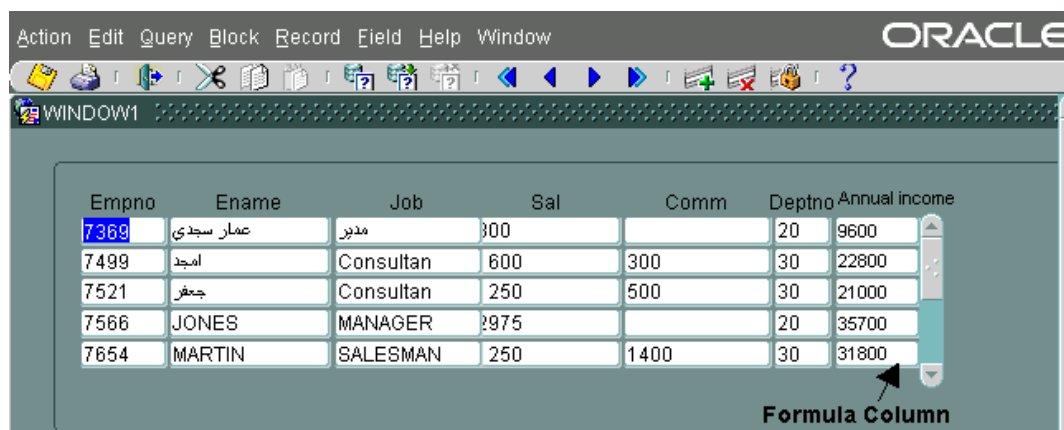
Note that since the calculation mode is Formula, I only filled the Formula property and the all other properties pertinent to Summary are left intact



Property Palette window showing the configuration for the item **ANNUAL_INCOME**. The configuration is organized into several sections:

- General**
 - Name: ANNUAL_INCOME
 - Item Type: Display Item
 - Subclass Information: (empty)
 - Comments: (empty)
 - Help Book Topic: (empty)
- Functional** (collapsed)
- Navigation** (collapsed)
- Data**
 - Data Type: Number
 - Data Length Semantics: Null
 - Maximum Length: 30
 - Initial Value: (empty)
 - Format Mask: (empty)
 - Copy Value from Item: (empty)
 - Synchronize with Item: <Null>
- Calculation**
 - Calculation Mode: Formula
 - Formula: (:emp.sal + nvl(emp.comm,0))*12
 - Summary Function: None
 - Summarized Block: <Null>
 - Summarized Item: <Null>

The following screen shows the form after a query is executed



Oracle Forms screen showing a table of employee data. The table has columns: Empno, Ename, Job, Sal, Comm, Deptno, and Annual income. The data is as follows:

Empno	Ename	Job	Sal	Comm	Deptno	Annual income
7369	عمار سجدى	مدير	300		20	9600
7499	امجد	Consultan	600	300	30	22800
7521	جعفر	Consultan	250	500	30	21000
7566	JONES	MANAGER	2975		20	35700
7654	MARTIN	SALESMAN	250	1400	30	31800

An arrow points to the **Annual income** column, which is labeled **Formula Column**.

Example 2

In this example, it is required that we display the sum of the annual income for all the employees of the company. The Sum should appear at a separate text item right beneath the annual income item

Solution

Create another Display item with the following properties

Name	Total_income
Data type	Number
Calculation mode	Summary
Summary function	SUM
Summarized block	EMP
Summarized Item	Annual Income
No of items displayed	1
Database Item	No

Also you need to change the following EMP block properties

Query all Records	Yes
-------------------	-----

The following is the resulting Form at runtime

The screenshot shows an Oracle Forms application window titled 'WINDOW1'. The form displays a table with the following columns: Empno, Ename, Job, Sal, Comm, Deptno, and Annual income. The data rows are as follows:

Empno	Ename	Job	Sal	Comm	Deptno	Annual income
7369	عمار سجدى	مدير	300		20	9600
7499	امجد	Consultan	600	300	30	22800
7521	جعفر	Consultan	250	500	30	21000
7566	JONES	MANAGER	2975		20	35700
7654	MARTIN	SALESMAN	250	1400	30	31800
						410700

The 'Annual income' column shows the sum of the 'Sal' and 'Comm' columns for each employee. The total sum for all employees is displayed as 410700 at the bottom right of the table.

CURRENT RECORD VISUAL ATTRIBUTE GROUP: Is the name of the visual attribute object from which this item can take its fonts, font size, style, color, etc .. The affected item is the item on which the cursor resides on the current record

DISTANCE BETWEEN RECORDS:*(Formerly known as SPACE BETWEEN RECORDS)*. The property specifies the distance between the item and same item in the next record in a multi-record block.

NUMBER OF ITEMS DISPLAYED:*(Formerly knows as ITEMS DISPLAYED)* Is the number of times that this item will appear per screen concurrently (if 0 is specified, the Items Displayed property is taken from the 'Record Displayed' property for that block).

DATABASE ITEM: *(Formerly know as BASE TABLE)* If this item is set to YES, ORACLE will assume that this item is related to a field in the BASE TABLE of the block.

COLUMN NAME: The Name of the column in the table associated with this Data Block. Note that in previous version of Oracle Forms, the Item name should correspond to column name in the table. In this version, you can give the item any name, but must specify the correct column name to which this item corresponds in the COLUMN NAME PROPERTY

QUERY ONLY: Specifies that the item can be queried only and should not participate in an INSERT or UPDATE operation.

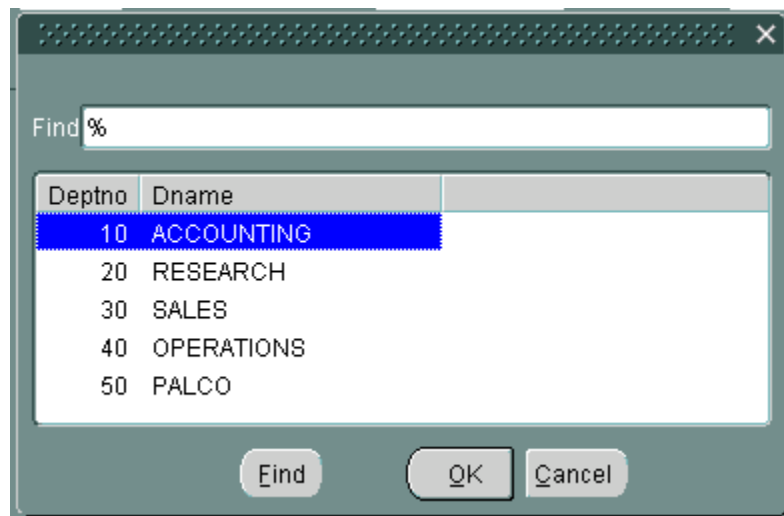
CASE INSENSITIVE QUERY: When set to YES, Oracle will execute the query without considering the lower/upper case of the field. For example if you have a character field with value 'AMMAR' then you can retrieve this record when the ENTER-QUERY condition is 'ammar'. If it is set to NO, then the ENTER-QUERY Case must match the case stored in the database field.

INSERT ALLOWED: If set to NO, end users will be able to examine the item, but will not be able to modify it. It will be displayed normally (NOT GRAYED like DISABLED items).

LIST OF VALUES (LOV): Is the name of the LIST of VALUES that is attached to this text item. The next chapter will thoroughly explain how to create LOV's

LOV X POSITION, LOV Y POSITION: Is the position on the screen where the LOV will appear on the CANVAS.

The following is an example of LOV Window

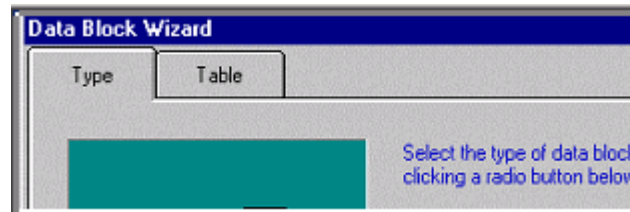


VALIDATION FROM LIST: (*Formerly known as LOV FOR VALIDATION*) this is an important property. If this property is set to YES, then if the user enters a value that does not correspond to a valid value in the LOV, the LOV will automatically be displayed to enable the user to pick a valid value. If the user enters a valid value, the LOV will not appear. If the user enters a number or a character that is not contained in the LOV, the LOV will appear on the screen with all values starting with that character or number.

VISIBLE: (*Formerly Known as DISPLAYED*) If set to NO, The field will not be displayed at run time, but it will be displayed on the canvas at design time.

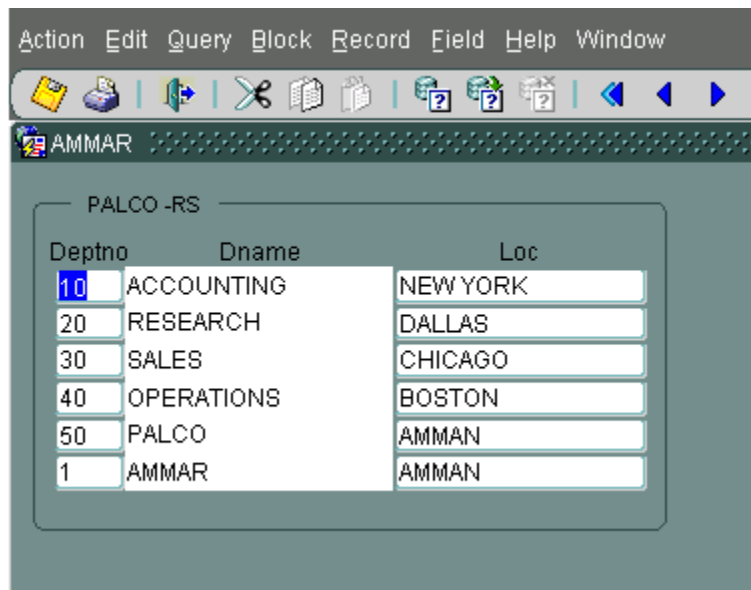
CANVAS: The name of the CANVAS on which this item will appear. If you specify NULL value for this property, the item will not appear on any canvas whether at run-time or design time (like Page 0 in FORMS V3.0).

TAB PAGE: A canvas can consist of TAB pages. Tab Pages are Windows 95 standard to switch between pages. This property lets you control on which tab your item will appear. The following picture shows Tab pages (Folder like Edges)



PROPERTIES ABOUT ITEM FONTS, COLORS, SIZES, and LOCATION will not be discussed here, because they are identical to usual meaning in traditional GUI Microsoft Environment. We will only discuss BEVEL property

BEVEL: Is a 3-dimension representation of the item. The following picture illustrates the Dname Column with BEVEL set to None, while the Deptno column has its BEVEL property set to LOWERED. Note how the Dname appears at the same level of the canvas, while the Deptno appears lower than the canvas



The next few properties deal with PROMPTS. This property indicates the text label of the item. In previous versions of Forms, the item label was never part of item properties; rather, it used to be a separate object that can only be specified in the layout editor

PROMPT:. The text to be attached to this item as a label

PROMPT DISPLAY TYPE: Three valid values are available.

Hidden: The label will not be displayed

First Record: The label will appear beside the first record only.

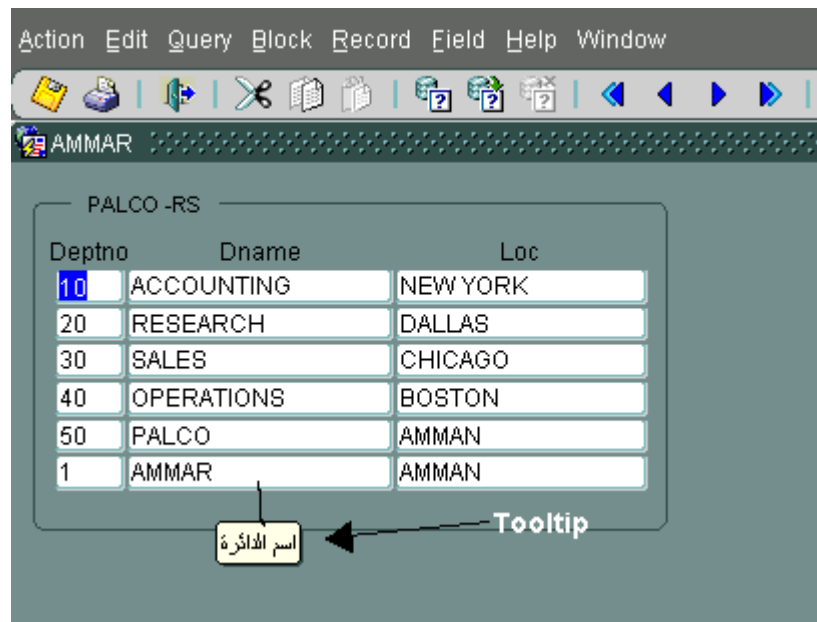
All Records: The label will appear beside all records.

PROMPT JUSTIFICATION: Please refer to JUSTIFICATION property discussed above.

HINT: A HELP message that can be associated with the item. The help message appear on the message line when the user activates the help key. Normally, it is F1.

DISPLAY HINT AUTOMATICALLY: The help message will appear automatically when the cursor resides in the item (No need to press F1).

ToolTip: The text you supply for this property will appear when the mouse is used to navigate to the item. The tip will be displayed in a box below the item. It is also known as *BUBBLE HELP*. This is a very helpful new property. In previous versions of Forms (Forms 4.5), the programmer needed to use the HINT.PLL library in addition to a host of other triggers to provide the same functionality



The Color, font, style and other visual attributes of the ToolTip can be set using the property “**TOOLTIP VISUAL ATTRIBUTE GROUP**”.

INITIAL KEYBOARD STATE: It indicates the initial keyboard state as far as language is concerned so that the data entry user needs not to switch the keyboard manually. If set to DEFAULT, it reads its value from READING ORDER, if set to LEFT-TO-RIGHT, the keyboard will start printing in LATIN, and when set to RIGHT-TO-LEFT, the keyboard will start printing in ARABIC. This property will help the user to avoid using switching keys to switch character set between Arabic and English.

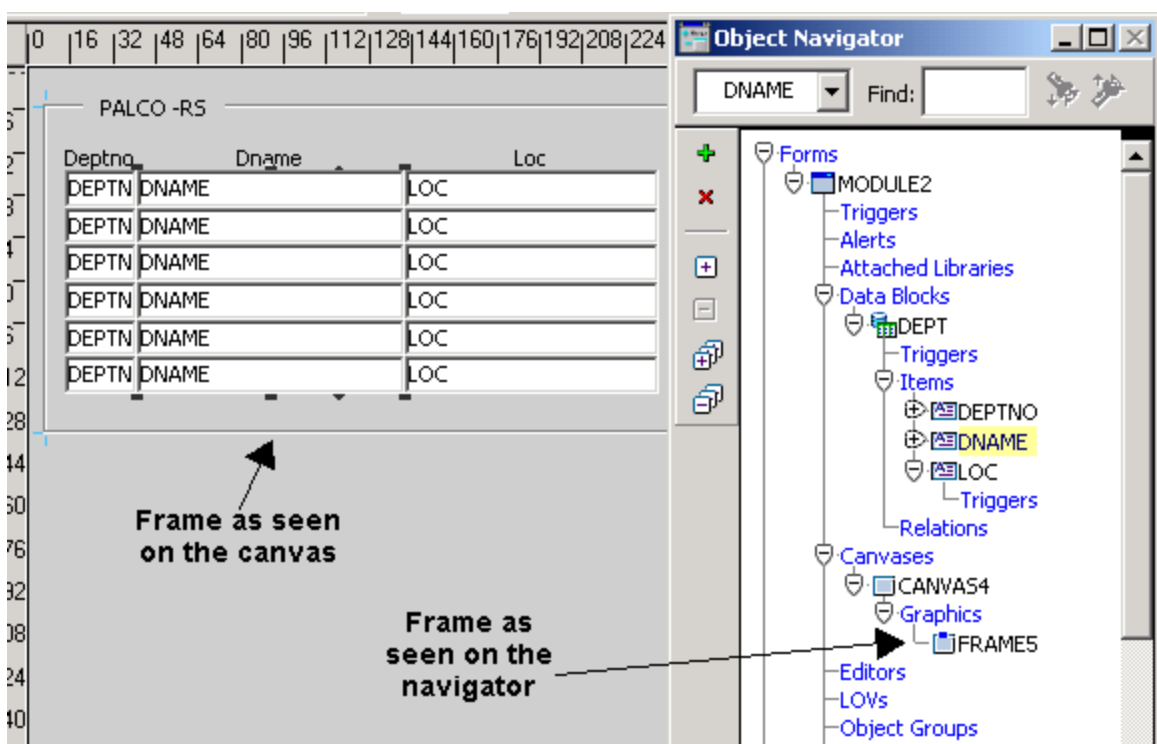
It will be mentioned again that if any of the above properties is not clear, you can use the on-line help provided by the Form Builder. Just select the property you want to investigate and press F1.

FRAME PROPERTIES:

A frame is a graphic object that appears on a canvas. You use frames to arrange the items within a block.

When you arrange items within a frame, you can, for example, create a form-style arrangement, define the distance between items and prompts, specify margins and offsets, and so on.

In this section, we will shed some light on frame properties. The frame can be selected either in the Layout Editor or the Object Navigator. Frames did not exist in previous versions of Oracle. The following Window will show the object hierarchy in the part of the navigator that contains Frames, and the way it appears on the layout editor:



The most important properties of Frames are:

You can give a background color to the area within the frame by selecting the frame and choose your favorite color from the **Fill Color** iconic tool.

UPDATE LAYOUT: This property has three valid choices

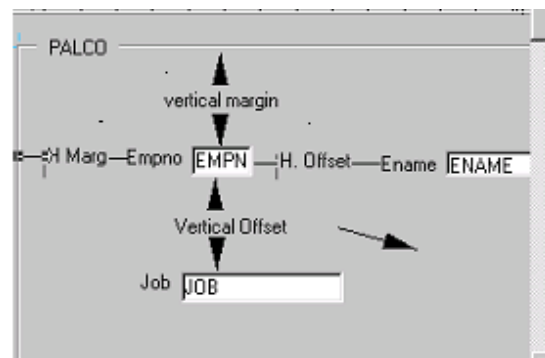
Automatic: The option means that the layout is automatically updated whenever the frame is moved or resized.

Manual: This options means that the layout is updated only when the Layout Editor is used or when the **update layout** function is activated (**Arrange→update layout**, or update layout iconic tool to the right of the paste iconic tool on the top of the window).

Locked: The layout cannot be changed.

FRAME ALIGNMENT: Only valid when the layout style is set to *FORM*. This property indicates how the items will be layout (distributed) within the frame. The valid values are: Start, End, Center, Fill or Column. Try to create a block with 5 items. Make sure that the layout style is set to FORM and try the various option of the frame alignment property.

HORIZONTAL MARGIN, VERTICAL MARGIN, HORIZONTAL OBJECT OFFSET, VERTICAL OBJECT OFFSET are illustrated on the layout shown below



ALLOW EXPANSION: When set to YES, The frame will expand automatically when the contents of the frame exceed the borders of the frame.

MAX. OBJECT PER LINE: If set to zero (the default), there is no maximum limit for the number of objects that can be positioned per line within the frame.

START PROMPT ALIGNMENT: This property deals with the alignment of the item's prompt (Label). Specifically, how the label is aligned with

respect to the items horizontal edge. For example, if you select ‘*END*’ the prompt will be aligned with the bottom edge of the item.

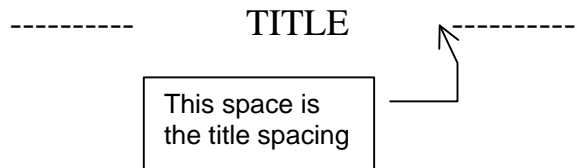
START PROMPT OFFSET: The Horizontal Distance between the prompt (item’s label) and the start of the item. This property and the previous one are valid only when the *FORM STYLE* property is set to *FORM*.

TOP PROMPT ALIGNMENT and TOP PROMPT OFFSET are similar to the definition of the *Start Prompt alignment* and *Start Prompt Offset*, except that they are only valid for *TABULAR FORM STYLE*, when the Prompt (Label) is positioned on top of the item.

ALLOW TOP ATTACHED PROMPT: When the *FORM STYLE* is *FROM*, The item’s Prompt (Label) is normally placed beside the item itself (at the starting edge). If you set this property to *YES*, you can place the prompt on top (over) the Item (if there is sufficient space).

ALLOW START ATTACHED PROMPT: When the *FORM STYLE* property is set to *TABULAR*, the item’s prompt (Label) is normally placed over the item itself. If this property is set to *YES*, you can place the prompt beside the item itself (at the starting edge).

FRAME TITLE SPACING: The space between the title text and the ends of the frame lines



NUMBER OF RECORDS DISPLAYED: The same as the number of records displayed property in Data Block properties.

SCROLL BAR: The same as scroll bar property in *BLOCK* properties.

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