



This Section deals with the Dialog which is displayed when a Table is selected, later in the course the tabs which are displayed for other Object types are discussed.

Some of the tabs examined are done so at a high level, this is because some of their functionality is not suitable for discussion in this course.

Selecting a Table will display twelve secondary tabs.

## Object Details Dialog – Columns Tab



The Columns Tab gives the User a powerful utility to work on a Tables structure, some of these aspects will be dealt with later in the course.

The Columns Tab is the first tab to be displayed in the Object Details Dialog and displays the structure of the columns within the Table ...

Column Name	Data Type	Nullable	Data Default	COLUMN ID	Primary Key	COMMENTS
CB5_MEMBER_ID	NUMBER(5,0)	No	(null)	1	1	(null)
CB5_LOCATION_ID	NUMBER(5,0)	No	(null)	2	(null)	(null)
CB5_MEMBER_SURNAME	VARCHAR2(30 BYTE)	No	(null)	3	(null)	(null)
CB5_MEMBER_NAME	VARCHAR2(30 BYTE)	No	(null)	4	(null)	(null)
CB5_SEX	VARCHAR2(1 BYTE)	No	(null)	5	(null)	(null)

## Object Details Dialog – Columns Tab



The sequence and size of this data can be changed ...

In this example the User has positioned the cursor on the right hand edge of the column and drags it to adjust its width ...

Column Name	Data Type	Nullable	Data Default	COLUMN ID	Primary Key	COMMENTS
C65_MEMBER_ID	NUMBER(5,0)	No	(null)	1	1	(null)
C65_LOCATION_ID	NUMBER(5,0)	No	(null)	2	(null)	(null)
C65_MEMBER_SURNAME	VARCHAR2(30 BYTE)	No	(null)	3	(null)	(null)
C65_MEMBER_NAME	VARCHAR2(30 BYTE)	No	(null)	4	(null)	(null)
C65_SEX	VARCHAR2(1 BYTE)	No	(null)	5	(null)	(null)

If the User had double clicked in this position, the column will adjust itself to the maximum width of the data it contains.



## Object Details Dialog – Columns Tab







In this example the User holds down the left mouse and drags the column to a different position in the ordering of the columns ...

Data Type	Column Name	Nullable	Data Default	COLUMN ID	Primary Key	COMMENTS
NUMBER(5,0)	C65_MEMBER_ID	No	(null)	1	1	(null)
NUMBER(5,0)	C65_LOCATION_ID	No	(null)	2	(null)	(null)
VARCHAR2(30)	C65_MEMBER_SURNAME	No	(null)	3	(null)	(null)
VARCHAR2(30)	C65_MEMBER_NAME	No	(null)	4	(null)	(null)
VARCHAR2(1)	C65_SEX	No	(null)	5	(null)	(null)



## Object Details Dialog – Columns Tab

The User can also order the information displayed in the columns, this is achieved by double clicking on the column title, one double click will order the contents in ascending order ...

 Column Name	 Data Type	 Nullable	Data Default	 COLUMN ID	 Primary Key	 COMMENTS
CB5_ADDRESS_ONE	VARCHAR2(30 BYTE)	No	(null)	9	(null)	(null)
CB5_ADDRESS_POSTCODE	VARCHAR2(10 BYTE)	Yes	(null)	12	(null)	(null)
CB5_ADDRESS_THREE	VARCHAR2(30 BYTE)	Yes	(null)	11	(null)	(null)
CB5_ADDRESS_TWO	VARCHAR2(30 BYTE)	Yes	(null)	10	(null)	(null)
CB5_CREATED_BY	VARCHAR2(30 BYTE)	No	(null)	14	(null)	(null)

Note the appearance of an arrow pointing upwards to signify ascending ordering.



To change the columns to descending the User must double click again ...

Column Name	Data Type	Nullable	Data Default	COLUMN ID	Primary Key	COMMENTS
C65_UPDATED_DATE	DATE	Yes	(null)	17	(null)	(null)
C65_UPDATED_BY	VARCHAR2(30 BYTE)	Yes	(null)	16	(null)	(null)
C65_TITLE	VARCHAR2(10 BYTE)	Yes	(null)	6	(null)	(null)
C65_SEX	VARCHAR2(1 BYTE)	No	(null)	5	(null)	(null)
C65_PHONE	VARCHAR2(20 BYTE)	Yes	(null)	13	(null)	(null)

To restore the data to its 'natural' ordering, the User must double click once more.



Above the Column's data are several icons ...



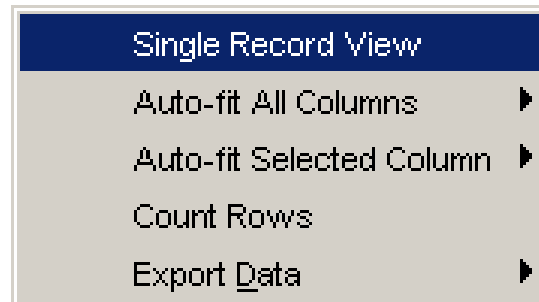
The first icon allows the User to 'freeze' the pane, allowing another dialog to be displayed for another table, if this isn't selected the dialog is overwritten by every subsequently selected Table.

The second icon is the Edit Table option and will be examined in more detail later in the course.

The refresh icon is the third option, followed by the Actions option which will again be examined later in the course.



Right clicking within the body of the Columns Tab will display the following popup menu ...



The benefits of this menu isn't appreciated until the Data Tab is selected and will therefore be examined in greater detail during that part of this section.



The Data Tab has the same flexibility as the Columns Tab when it comes to changing order, sequencing the data and altering the width of the columns.

The main purpose of the Data Tab is to display the contents of the table, this effectively turns the contents into a spreadsheet view and as with a spreadsheet the individual cells can be edited.

The editing of cells will be covered later in the course.

## Object Details Dialog – Data Tab (Single Record View)



Right clicking in the Data Tab area will display an option for Single Record View, this will display a single row of data in a vertical format ...

The screenshot shows a dialog box titled "Single Record View" with a close button (X) in the top right corner. Below the title bar are four navigation arrows: two blue arrows pointing left and two blue arrows pointing right. The main area contains a list of fields with their corresponding values:

SI_STOCK_NUMBER	20
SI_SECTION_NUMBER	5
SI_STOCK_DESCRIPTION	ROSE TREE ...
SI_UNIT_PRICE	8.2
SI_NO_IN_STOCK	70
SI_CREATED_BY	D10A_ADMIN ...
SI_CREATED_DATE	23-MAR-01 ...
SI_UPDATED_BY	...
SI_UPDATED_DATE	...
SI_STOCK_PIC_BLOB	(BLOB) ...
SI_STOCK_DOC_BLOB	(BLOB) ...
SI_STOCK_TEXT_CLOB	(CLOB) Test Docum...

At the bottom of the dialog box are three buttons: "Help", "Apply", and "Cancel".



The buttons in the top left hand corner allow the User to traverse the records available, this view can also be used to edit values.

Any changes will need to be 'applied' when the User wishes to return to the 'multi-record view'.

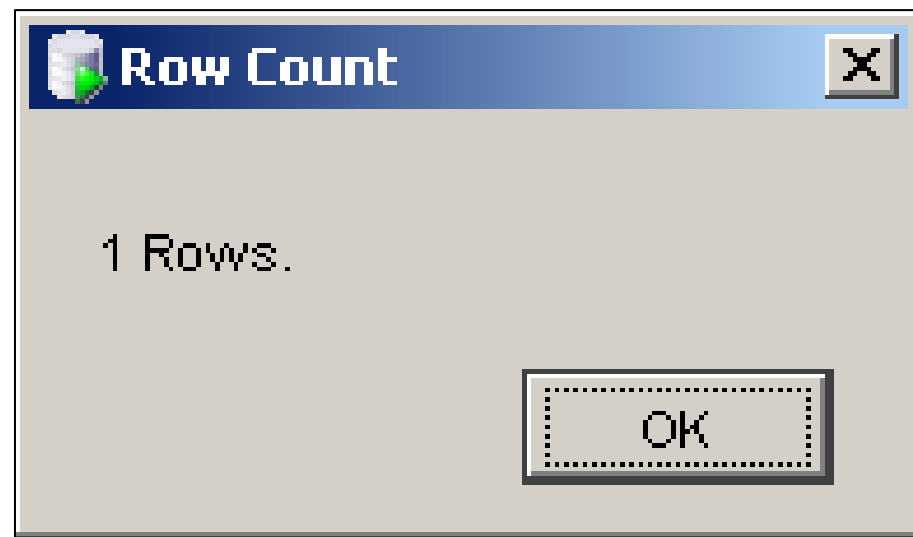
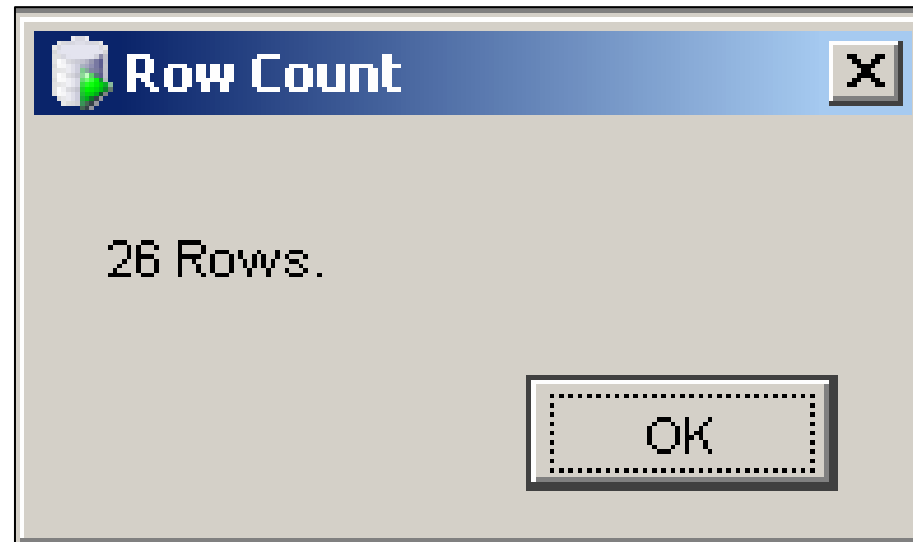


The Count Rows option is found by right clicking in the Data Tab, this will display to the User the number of records displayed in the Data Tab.

The User should be aware that any filters applied to the Table will be reflected in the Count Rows, in the following example the Table has 26 rows in the Database, however after applying filters the count will be reduced to the number of records displayable.

Filtering records using the Data Tab is examined in a later section.

## Object Details Dialog – Data Tab (Count Rows)





This part of the section deals with the syntax of inserting records using SQL Worksheet, the standard insert statement as used in the Object Details Dialog is slower using SQL Worksheet because it is manually typed in, however it does give more control over the values and also provides the facility to insert values from other tables.

Both SQL Worksheet and Object Details Dialog Insertion must adhere to the rules when populating Tables and the User should check this list if an Insert fails ...



All columns which are mandatory (not null) must have values inserted.

All values must be appropriate for the Datatype for the column.

All values must be the correct size for the column.

All values must obey the check constraint rules for the column.

The insert statement for the table must include the same number of values for the number of columns for the table.

If there are not sufficient values for all columns the insert statement must list the columns to be populated.

Insert statement only inserts one row at a time.



Two Methods ...

- Direct Insert statement (one record at a time)
- Selection statement from another table (as many records as available in the other table)

### Direct Insert

```
insert into <table_name>  
(<column_name>  
,.....)  
values  
('1'  
,.....);
```

## Data Manipulation – SQL Syntax for Populating Tables

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```
insert into products_group(
  PGR_GROUP_NUMBER
,PGR_GROUP_NAME
,PGR_GROUP_DESCRIPTION
,PGR_CREATED_BY
,PGR_CREATED_DATE
,PGR_UPDATED_BY
,PGR_UPDATED_DATE)
values
(product_seq.nextval
,'IPOD'
,'MP3 Player'
,user
,sysdate
,null
,null);
```



If all columns in the table are given values, there is no need to name the receiving columns, as this example demonstrates ...

```
insert into products_group values  
(product_seq.nextval  
, 'IPOD'  
, 'MP3 Player'  
, user  
, sysdate  
, null  
, null);
```



All mandatory columns must be given values, however the order in which they are given values can be dictated using the column list ...

```
insert into products_group(
  PGR_GROUP_DESCRIPTION
,PGR_GROUP_NUMBER
,PGR_CREATED_BY
,PGR_CREATED_DATE
,PGR_GROUP_NAME
) values
('MP3 Player'
,12
,user
,sysdate
,'IPOD');
```



### Inserting from Another Table

```
insert into <table_name>  
(<column_name>  
,.....)  
select <column_name>  
    , 'Hello' ...  
from <table_name>  
where ...;
```



Several special items can be used when populating tables ...

User - This is the name of the current user

Sysdate - This is the current Date and Time

The above can be substituted into the insert statement ...

```
insert into <table_name> values  
(user  
,sysdate);
```