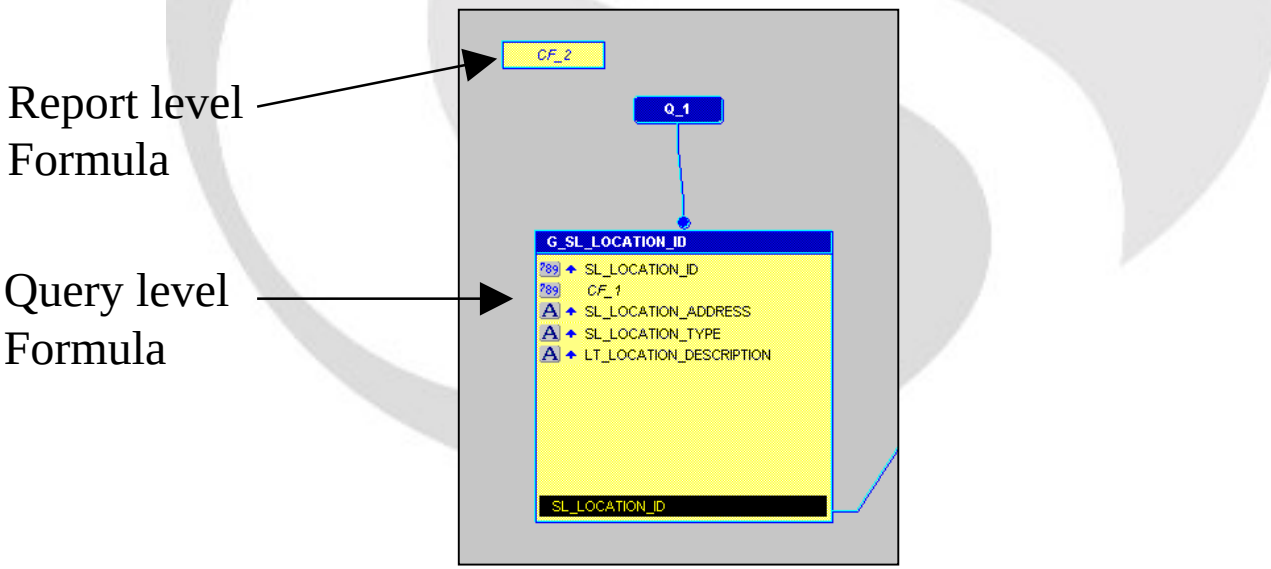
Data Model Interface - Formula Columns

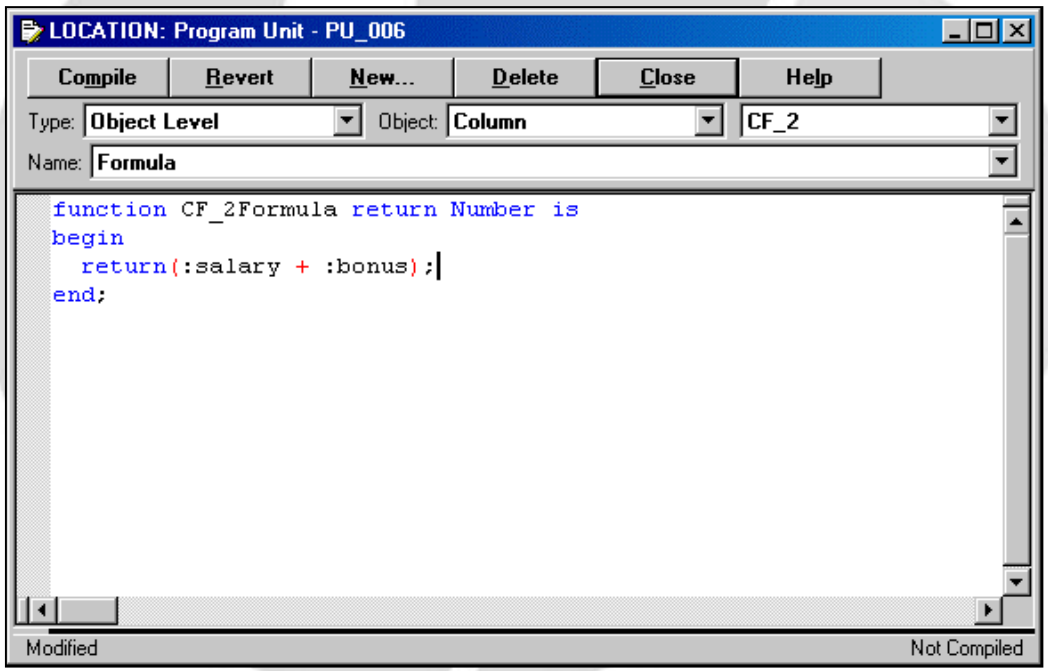
Formula Columns can be placed both within a column listing or independently within the GUI window.

When placed within the query the Formula will automatically be initialised when the record changes, when outside a query the Formula will continue to accrue values for the entire report.



Data Model Interface - Formula Columns

The Formula is in effect a PL/SQL function which can be reached via the Formula's property, this in effect can perform a calculation and 'return' that value to the Formula variable …



The PL/SQL editor is examined in full detail later in this section.

Data Model Interface - Formula Columns

- For efficiency, the use of a formula column should be limited to instances where it is not possible to use a SELECT statement to perform the calculation.

- Formula columns should not be used to set a parameter's value. A discussion of parameters is given later in the course.

Data Model Interface - Summary Columns

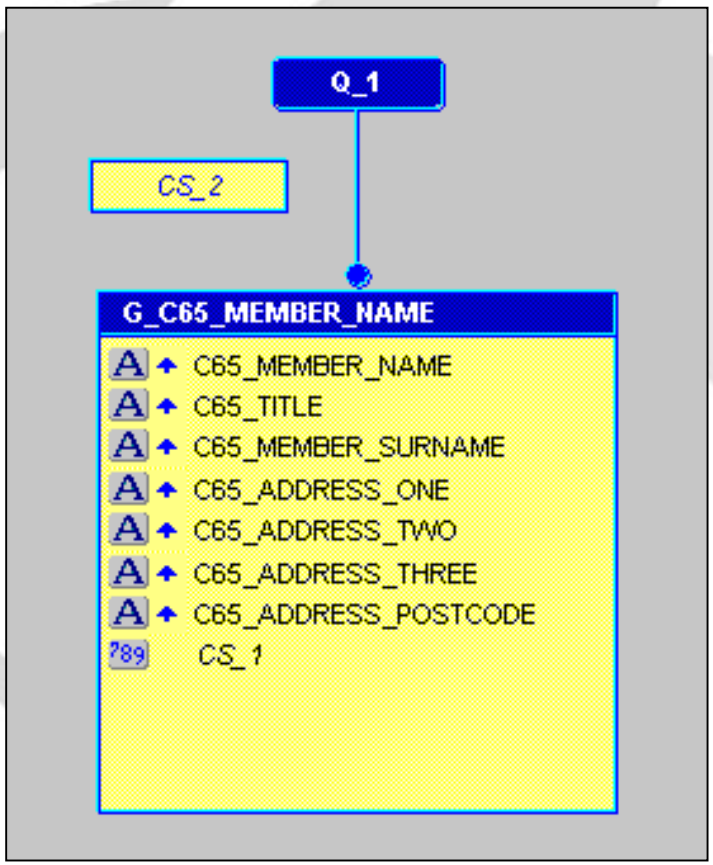
- By its very nature a Summary Column should not be placed at the same level as the column(s) it is actually ‘summing’ instead it should be positioned in the group above or at Report level.

- The reset level property will initialise the value whenever a record changes in that group.

- As in the case of Formulas, Summaries should not be created if either the SQL query or the built-in Report totalling can be used.

Data Model Interface - Summary Columns

- Summary Columns can be placed both within a column listing or independently within the GUI window.



Data Model Interface - Summary Columns

- Summary Columns can be created for all datatypes, however Summaries have greater scope when applied to numeric columns.

- The Summary types are ….
  - Sum
  - Average
  - Minimum
  - Maximum
  - Count
  - First
  - Last
  - % of Total
  - Std Deviation
  - Variance

Data Model Interface - Placeholder Columns

Placeholder columns are storage areas in the Data Model, they can be populated by a Before Report trigger but are generally populated by a Formula.

Although Placeholders allow PL/SQL to be written within them, they cannot be ‘self-populated’, their value must be set by an external Program Unit, any attempts at ‘self-population’ will result in a runtime compilation error. However the Formula assigned to the Placeholder must return a value.

To complicate matters, if a Placeholder is defined at Report level then it can only be populated by a Formula at Report Level or the above trigger. In many ways using Parameters to perform a Placeholders functionality is a better option.

Data Model Interface - Placeholder Columns