Category 1

1.18 PLC In/Output Register

There is also an area for tracking and coordinating PLC Input and Outputs and including analogue inputs. This allows for the control and instrumentation requirements to be fully integrated with the cable schedules.

Ref No:
The reference number is a unique number and is used in the Export and Import procedures. The way this works is a unique number is created by finding the last number on the file that has been used, and by adding one the number a new unique number is created.

This number is used in the export procedure to possible a subcontract PLC programmer.

The programmer may need to change the information, so if the reference number is maintained the information can be used to update the PLC file in the data base.

If the PLC programmer adds new lines of I/O to the Excel sheet then any blank spaces in reference number column that are encountered this system assumes that there are needed and new reference number is created and added.

Status:
There are three (3) status levels; C = Current, H = Hold and D = Delete

The records that have the Delete status can be maintained in the system, because in design projects they can sometimes make their way back into the system as a current record.

I/O Code:-
There are eight (8) different I/O Code levels:-
> Digital Output
> Digital Input
> Analogue Input
> Analogue Output
> Flag Output
> Flag Input
> Word Output
> Word Input

Rack No:-
This contains the rack (Horizontal Row) number of the PLC or remote Input or Output (I/O).

Channel:-
This is for entering the number Inputs for example Module 16 = Digital Inputs or Module 8 = digital Inputs & 8 Digital Outputs or 8 Analogue Inputs ect.

Wire No. add:-
Wire number address, for example Rack or Module number then channel (Terminal number) number. Rack=1 Slot=2 Channel=16. Then number = 1-2-16

Tag number:
This field holds the tag number for related I/O register. A right mouse click will open tag number list based on the first character of the description of the equipment.

PLC or IO Location:
This is the storage location of the PLC or remote I/O. If assigned to an object do right mouse click whilst in Enter mode to install selection list. This allows the system to track the amount PLC modules that are required at each location,


The system has a DDE (Dynamic Data Exchange) function. This means information contained in an Excel Spread sheet can be automatically imported into the PLC data file in Kontrol-Pro.
To do this the Excel Spread must be set up with columns in the correct order. To get an example, put a few lines into the data base and do an export, if the column arrangement is the same then vast amounts of information can easily be imported quickly and efficiently.

The rules are Microsoft Excel must open with the current work sheet open as well. The system will prompt you for the work sheet name, so the Omnis Studio knows where to extract the information from. The next rule is that information must be continuous in the Status column as the system will start reading information from the third row down and the import procedure will stop when a blank space is encountered. So there must be no blank lines in the data.

The import procedure will also interpret and establish what information has been updated for example if the Tag Number has changed the description field will show column F1 changed. The procedure when reading it in is flagged because the present field does not match the new field being read in. The date field is called "Date Modified" is also updated when this procedure is used.
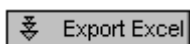
This exports the whole file to Microsoft Excel, using Microsoft automation feature that allows Omnis studio to talk to an instance of Excel. The procedure prompts you to save into the folder called "Transportx" in "OSRT42" in Program Files for later retrieval.

A Right mouse click will produce an excel report on the selected lines. Lines can be selected by using the Ctrl key so records do not have to be in consecutive order.

A normal mouse click of this button will build a list of current Inputs and Outputs. Right click to build all inputs and outputs.

This button gives totals. To use select the lines required then press this button.

This button clears the selected lines in a list, however it does not delete the data all it does is allows the user to focus on for example 10 lines of data.

Note:- If you want the text in the main headed list to be lager by using the "Ctrl +] " this lifts the font size up by one size. By using the "Ctrl + [" this steps down one size.

Additional Functions
Additional functions displayed on the menu below are reached by using a right on the mouse over the main headed list.
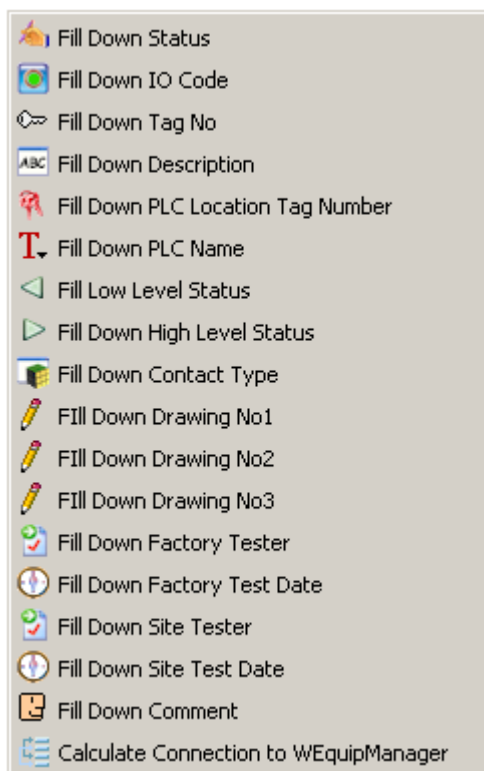
The fill down functions work by changing the record by the normal edit function, that record should be at the highest point of a group of records that requires simultaneous change. Then by highlighting top newly changed record, and all the records below that new adjustment.
Note the records do not necessarily have to be adjacent to each other, they can have gaps in the highlighting.