



# #5451

## OPC in CommControl May 20, 2004

CommControl utilizes a standard for sharing operations operation information called OPC (OLE for Process Control). This OPC server may be accessed by multiple OPC clients that request and receive information about radio status.

### Changing OPC Server Configuration

To change OPC server settings the options dialog box must be engaged by selecting the 'Options' item from the OPC drop down menu as seen below.

### OPC Configuration Tab

The OPC server name can be changed by changing the default name from CommControl to something that better suits the circumstances. Keep in mind that the OPC server will register on the network using FWOPC.xxx.1 where xxx is the name provided in the user settable text box.

If the user does not wish to allow for the OPC server to run or wishes to disable the server this may be done so by de-selecting the check box that states "Start Automatically when Program Starts."

If a user wishes to have several versions of the OPC server running it may be necessary to generate a new CLSID number. This is done by clicking the 'Generate New CLSID' button on the dialog.

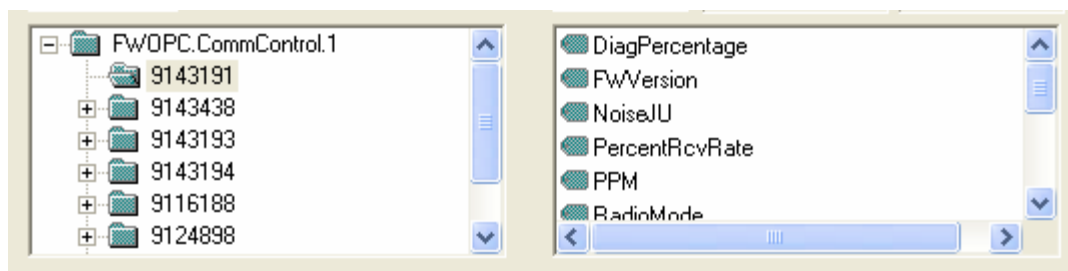
Applying the settings will save all changed items to the database, however the changes will not take effect until the network is closed and re-opened again.

### OPC Data Availability Format

Each radio in the network is presented by the OPC server and contains 12 diagnostic tags. Below is an example of how a default OPC server might register on an OPC client.



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The data access layout is arranged as follows:

- FWOPC.CommControl.1                      OPC Server Name
  - 9143191                                      Radio Serial Number
    - DiagPercentage                      Characteristics of radio (Tag's)
    - NoiseJU
    - TemperatureF
    - Voltage
    - FWVersion
    - PPM
    - SignalInJU
    - SignalOutJU
    - RadioName
    - PercentRcvRate
    - SignalMarginJU
    - RadioMode
  - Next Radio serial number

These 12 Tag's can be polled by OPC clients and used to update third party software that is capable of producing alarms and other user defined functions. The server will report a Data Type, Value, and Quality as demonstrated in the figure below. If a value is known the server will report a 'Good' quality however if the value is unknown to the server a value of '0' will be reported along with a quality of 'Uncertain'. Keep in mind that not all values are supported by a master radio. A slave, or repeater radio on the other hand will report values for all 12 Tag's.

Item ID	Data Type	Value	Timestamp	Quality
9143191.SignalOutJU	Short	0	15:03:07:000	Uncertain
9143191.SignalInJU	Short	0	15:03:07:000	Uncertain
9143191.PPM	Float	0	15:03:07:000	Uncertain
9143191.PercentRcvRate	Short	0	15:03:07:000	Uncertain
9143191.DiagPercentage	Short	0	15:03:07:000	Uncertain
9143191.Voltage	Float	15.6152	15:04:11:000	Good
9143191.TemperatureF	Float	79.1892	15:04:11:000	Good
9143191.RadioName	String		15:03:07:000	Good
9143191.RadioMode	String	Master	15:03:07:000	Good
9143191.NoiseJU	Short	47	15:03:42:000	Good
9143191.FWVersion	Float	2.33	15:03:07:000	Good
9143193.SignalMarginJU	Short	36	15:03:59:000	Good

