Instrument Communication Module (ICM)

The Instrument Communication Module is an open source LabVIEW tool for reading and writing data from a wide range of devices and instruments. It is configuration based: once it has been integrated into a LabVIEW program or system, one can easily change or add the devices or instruments being communicated with just by editing the .icm configuration files. ICM includes options for dealing with a wide range of buses, a large variety of parsing options, and numerous scaling options.

The ICM Configuration Editor allows one to create and edit .icm configuration files, which define how ICM will communicate with an instrument. This editor has sections for General configuration parameters, Query definition, Bus configuration, Parsing definition, Scaling options, and Output configuration.

The General Parameters of the .icm file are the same for every ICM configuration. They include the following parameters:

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| --- | --- |
| Data Stream Name | A descriptive name given to the overall configuration. This will often refer to the instrument that data is read or written to. |
| Version | This version number can be assigned as needed to track changes to the configuration file. |
| Author | This is a documentation field in which one can place the author or company which created the configuration. |
| Description | This is a documentation field that is used to give a description of what the configuration file is intended to do. |
| Comments | This documentation field is available for supplying additional information about how to use the configuration file, how to configure the instrument to work with the configuration file, or other information. |
| Location | This is a documentation field that can be used to note the location or project for which the configuration was created. |
| Date | This field is filled in by the ICM system. It identifies the date on which the configuration file was last edited. When a streaming .icm file is created, this field identifies the date on which the streaming file began recording. |
| Time | This field is filled in by the ICM system. It identifies the time at which the configuration file was last edited. When a streaming .icm file is created, this field identifies the time at which the streaming file began recording. |
| # or Records | This field is only used for streaming files, and contains the number of records of data that the streaming file contains. |