

SpectraLive® with OPC Server

1. INTRODUCTION

OLE for Process Control (OPC™) draws a line between hardware providers and software developers.

It provides a mechanism to provide data from a data source and communicate the data to any client application in a standard way. SpectraLiveServer application has a build-in an OPC interface who allows any client to access their VM110 modules.

The architecture of OPC is intended to utilize the Microsoft distributed OLE technology (DCOM) to facilities clients interfacing to remote servers.

At a high level, an OPC Server is comprised of several objects: the server, the group, and the item. The OPC server object maintains information about the server and servers at a container for OPC group objects. The OPC group object maintains information about itself and provides the mechanism for containing and logically organizing OPC items.

The Groups provide a way for clients to organize data. For example, the group might represent items in a particular operator display or report. An OPC client can configure the rate that an OPC server should provide the data changes to the OPC client.

The OPC items represent connections to data sources within the server (VM110 channels).

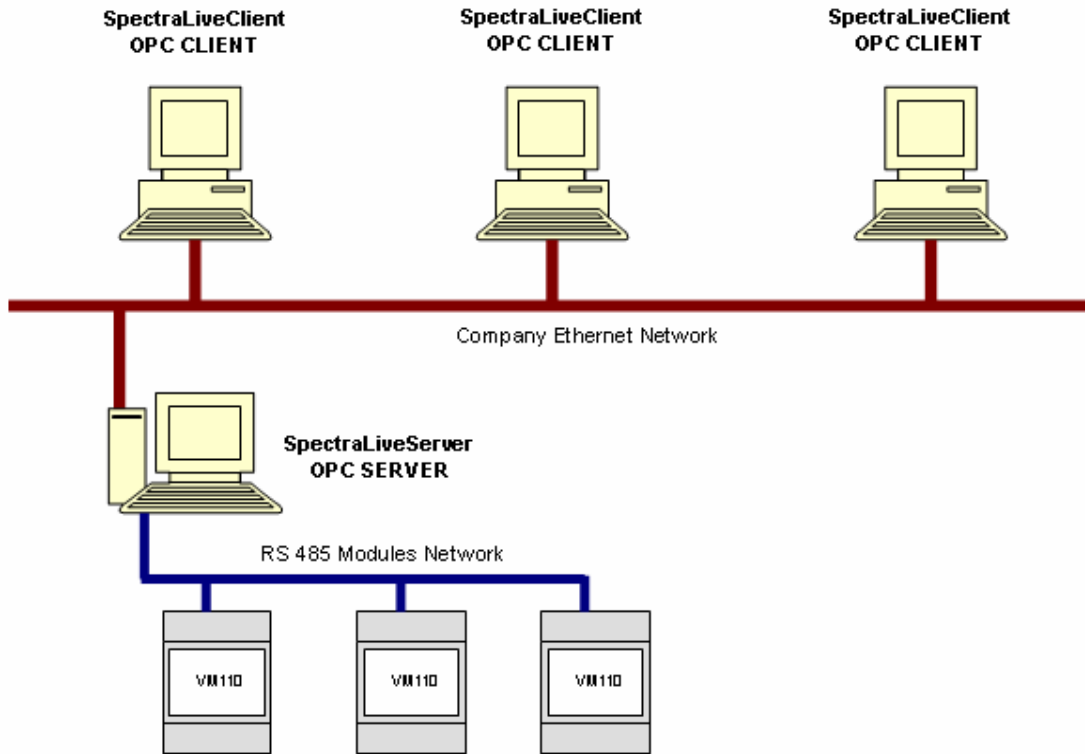
Note that the items are not the data sources – they are just connections to them. For example, the tags in a VM110 Unit exist regardless of whether an OPC client is currently accessing them. The OPC Item should be thought of as simply specifying the address of the data, not as the actual physical source of the data that the address references.

OPC is primarily designed for accessing data from a network server. An OPC client application communicates to an OPC server through the specified custom and automation interfaces. OPC servers implement the customer interfaces and the automation interface.

Many OPC clients can access in the same time an OPC server. SpectraLive Client use information's provided by SpectraLiveServer and just display them. Any change in the VM10 status are reported the OPC items collection of the SpectraLiveServer and from here is received by all OPC clients connected to the server.

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2. SYSTEM ARCHITECTURE



All the VM110 Modules are connected to a single computer (named here Server).
The Server runs SpectraLiveServer application. Locally, on Server display, all the information's regarding field measurements are available.

If the Server is connected to a Ethernet Network (here named Workstation), any computer from network can also visualize the VM110 measurements, remotely.
Each Workstation must run a SpectraLiveClient application.
Number of the Workstations is limited only by the Network limitation itself.

Another way to visualize the VM110 measurements is to create specially software pieces in any user application. Because the VM110 measurements are public trough OPC Items, any application having a built-in OPC Client driver can "see" the VM110 measurements.