MARKETVIEW TECHNICAL SPECIFICATIONS

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1 OVERVIEW

MarketView Desktop and ExcelTools allows easy access to robust real-time, historical, and customer-proprietary datasets, providing an exceptional data management solution to anyone with internet connectivity. This document provides information related to installation, bandwidth use, minimum computer requirements, and firewall configurations required to get MarketView running on your machine.

2 CUSTOMER SUPPORT

For questions regarding MarketView products, please contact support at:

Americas: +1 800 394 1220

Europe/Africa: +44 207 002 7550

Asia-Pacific/Middle East: +65 3165-7589

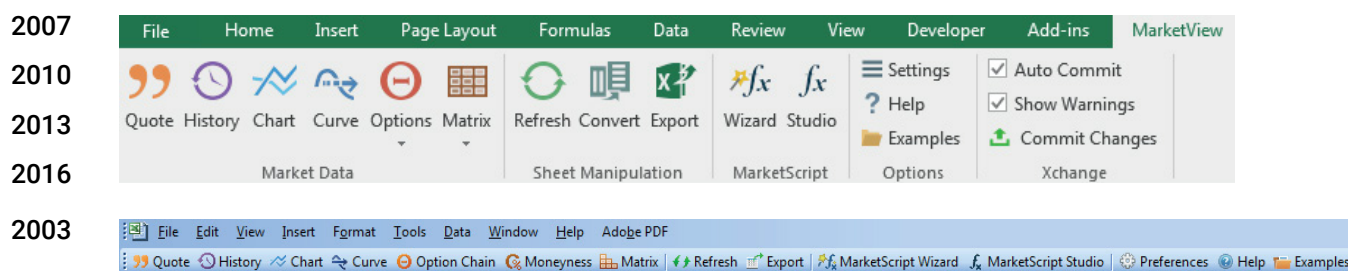**General Support Email:** tradingandrisksupport@enverus.com

3 LAUNCHING APPLICATIONS

To get started, go to our website www.marketview.com. From here you can launch both of our FrontOffice applications.

If you want to launch:

MarketView Desktop – Simply click found in the top right corner of the website to download the ClickOnce application through HTTPS. Choose "Alternate Launch" option to download the ClickOnce application through HTTP. The ClickOnce application is digitally signed, you can read more about Microsoft's ClickOnce technology here: https://msdn.microsoft.com/en-us/library/t71a733d.aspx. If ClickOnce applications are blocked in your environment, we will send you an administrative install so users can launch from All Programs. ExcelTools – Hover over Support Center and select Other Downloads, then select the "MarketView ExcelTools" section. Here you can select our latest version to install on your machine. Once installed, the add-in will show up within a MarketView tab of Excel 2007 or newer, and on the homepage of version 2003.

ExcelTools – Hover over Support Center and select Other Downloads, then select the "MarketView ExcelTools" section. Here you can select our latest version to install on your machine. Once installed, the add-in will show up within a MarketView tab of Excel 2007 or newer, and on the homepage of version 2003.

2007
2010
2013
2016
2003

4   CONNECTION PROTOCOL

Connect to MarketView servers in one of three ways:

1. Through port 6487. This is binary, bi-directional traffic where the application sends subscription requests (such as 'subscribe me to /GCL quote') and our servers respond by sending an initial snapshot, followed by updates whenever the quote changes.

2. Through 443, with proxy traversal. This is the same type of traffic as on port 6487 above, only wrapped in SSL.

3. Through a persistent HTTP connection for data update download, paired with numerous HTTP connections for sending requests. This is our lowest priority connection method as it is inefficient.

Aside from one of these connections that is made for streaming market data, our applications also make numerous HTTPS requests for static data to our data centers, as well as HTTP or HTTPS requests for news stories and third-party content such as Platts, etc.

5   COMPUTER SPECIFICATIONS

Bandwidth

MarketView products will use approximately 15 Kbytes/sec for sustained use and up to an additional 200 Kbytes/sec when first launched. Bandwidth can vary greatly depending on the complexity of workspaces and the number of quotes being utilized.

MINIMUM REQUIREMENTS

Operating System	Windows 7, Windows 8/8.1, Windows 10
Processor	Dual-Core
Memory	4GB RAM
Video Card	Mid-range with hardware acceleration

6   PORT ASSIGNMENT

For optimal performance, we recommend opening the following ports and IP address ranges. Port 6487 allows use to have true persistent connection without interruption from other Internet traffic. If the ports listed are not open, then the proxy settings within Internet Explorer will be used.

IP ADDRESS RANGE	PORTS
206.155.48.0/24	21, 22, 80, 443, 6487
161.38.176.0/21	21, 22, 80, 443, 6487

Required ports by protocol:

PORT	PROTOCOL
21	FTP
22	SFTP
80	HTTP
443	HTTPS
6487	Proprietary MarketView streaming binary