

EtherNet/IP Web Server Module, Firmware Revisions 4.012 and Earlier

Catalog Number 1756-EWEB

Topic	Page
Enhancements	2
Enhancements with Revision 4.010	2
Enhancements with Revision 4.009	2
Enhancements with Revision 4.006	3
Enhancements with Revision 4.003	3
Enhancements with Revision 3.6	3
Enhancements with Revision 3.5	3
Enhancements with Revision 3.1	3
Enhancements with Revision 2.2	4
Enhancements with Revision 2.2	2
Corrected Anomalies	5
Corrected Anomalies with Revision 4.011	5
Corrected Anomalies with Revision 4.009	6
Corrected Anomalies with Revision 4.006	7
Corrected Anomalies with Revision 4.003	7
Corrected Anomalies with Revision 3.5	7
Corrected Anomalies with Revision 2.2	8
Application Notes	8
Additional Resources	10

About This Publication

This publication describes enhancements and anomalies for the 1756-EWEB server module firmware revisions.

To learn how to use the 1756-EWEB module in a redundant system, refer to the ControlLogix Redundancy System Release Notes, publication [1756-RN628](#).

Enhancements

These firmware revisions contains these enhancements:

- [Enhancements with Revision 4.010 on page 2](#)
- [Enhancements with Revision 4.009 on page 2](#)
- [Enhancements with Revision 4.006 on page 3](#)
- [Enhancements with Revision 3.6 on page 3](#)
- [Enhancements with Revision 3.1 on page 3](#)
- [Enhancements with Revision 2.2 on page 4](#)

Table 1 Enhancements with Revision 4.010

Cat. No.	1756-EWEB
4.010	When used in a standard ControlLogix [®] redundancy system, the 1756-EWEB module provides socket services.

Table 2 Enhancements with Revision 4.009

Cat. No.	1756-EWEB
4.009	Added MIME types for XHTML, SVG, and SVGZ files. Lgx00092848
	Enhanced web server security. Lgx00092454, Lgx00092360, Lgx00092455
	Support for Firefox web browser. Lgx00072120, Lgx00055302
	Support for Internet Explorer (IE) 7 web browser. Lgx00070049, Lgx00084292

Table 3 Enhancements with Revision 4.006

Cat. No.	1756-EWEB
4.006	Additional functionality has been added to the Socket Interface feature (see revision 3.5). The added functions include broadcast sending, multicast reception, linger control, and multicast TTL. Lgx00075961

Table 4 Enhancements with Revision 4.003

Cat. No.	1756-EWEB
4.003	The enhancements in firmware revision 4.003 relate to its use in a ControlLogix redundancy system. See the ControlLogix Redundancy System Release Notes, publication 1756-RN608 . Lgx00075961

Table 5 Enhancements with Revision 3.6

Cat. No.	1756-EWEB
3.6	The time needed to wait after cycling power to set the IP address or upgrade the firmware has decreased with this revision of firmware. Lgx00075961

Table 6 Enhancements with Revision 3.5

Cat. No.	1756-EWEB
3.5	The 1756-EWEB module now supports open Socket Interface functionality. This enhancement allows additional communication through TCP (Transmission Control Protocol) and UDP (User Datagram Protocol). For more information on this feature, refer to EtherNet/IP Web Server Module User Manual, publication ENET-UM527 .

Table 7 Enhancements with Revision 3.1

Cat. No.	1756-EWEB
3.1	The 1756-EWEB module now supports Socket Interface functionality. This enhancement allows additional communication through TCP (Transmission Control Protocol).

Table 8 Enhancements with Revision 2.2

Cat. No.	1756-EWEB
2.2	<p data-bbox="236 284 812 334">The module contains its own EDS file within its firmware. This feature requires RSNetWorx™ software, version 5.0 or later.</p> <hr/> <p data-bbox="236 353 905 473">When you change the IP address or connect the module to an EtherNet/IP network, the module checks to make sure that the IP address assigned to this module is not the same as that for any other device on the network. If the module determines that there is a conflict (some other device on the network already has the IP address), the EtherNet/IP port of the module goes into conflict mode, where the module's:</p> <ul data-bbox="236 473 573 563" style="list-style-type: none"><li data-bbox="236 473 477 495">• OK status indicator blinks red.<li data-bbox="236 505 573 527">• Network (NET) status indicator is solid red.<li data-bbox="236 536 513 563">• front display indicates the conflict. <p data-bbox="236 574 874 624">For more information on this feature, refer to the EtherNet/IP Modules in Logix5000™ Control Systems User Manual, publication ENET-UM001.</p> <hr/> <p data-bbox="236 644 905 739">Automatic IP address swapping when used in a ControlLogix redundancy system - during a switchover, the module now swaps its IP address with its partner module in the other redundant chassis. This lets you use the same IP address to communicate with a primary module regardless of which chassis is primary.</p> <p data-bbox="236 748 884 798">For more information on this feature, refer to the ControlLogix Redundancy System User Manual, publication 1756-UM523.</p>

Corrected Anomalies

This release of firmware corrects these anomalies:

- [Corrected Anomalies with Revision 4.012 on page 5](#)
- [Corrected Anomalies with Revision 4.011 on page 5](#)
- [Corrected Anomalies with Revision 4.009 on page 6](#)
- [Corrected Anomalies with Revision 4.006 on page 7](#)
- [Corrected Anomalies with Revision 4.003 on page 7](#)
- [Corrected Anomalies with Revision 3.5 on page 7](#)
- [Corrected Anomalies with Revision 2.2 on page 8](#)

Table 9 Corrected Anomalies with Revision 4.012

Cat. No.	1756-EWEB
4.012	CORRECTED: Corrected an anomaly in which jabber on the transmit block of the MR3 ASIC locks out the backplane until the receiving MR3-based module pulls itself off the backplane. Lgx00094809
	CORRECTED: Corrected an anomaly in which FTP buffers could be made to overflow, causing the module to shut down. Lgx00119127, Lgx00119129

Table 10 Corrected Anomalies with Revision 4.011

Cat. No.	1756-EWEB
4.011	CORRECTED: Corrected an anomaly in which using the CIPMessage form handler with certain parameters causes undesirable behavior. Lgx00108448
	CORRECTED: Modified the duplicate IP detection algorithm so that once an IP address is used, receiving an ARP probe does not result in a duplicate IP conflict state or subsequent address defense. Lgx00048561
	CORRECTED: Corrected an anomaly in which a DNS response that does not contain the standard type A IP address, but does contain type CNAME (Canonical name for an alias) causes undesirable behavior if this alias does not exist on the network. Lgx00110507

Table 11 Corrected Anomalies with Revision 4.009

Cat. No.	1756-EWEB
4.009	<p>CORRECTED: Corrected an anomaly in which the error message 'Fatal Event 0707' was displayed when a user repeatedly opened and closed multiple messaging connections. Lgx00094534</p>
	<p>CORRECTED: Unable to set module static IP address when gateway address is 0.0.0.0. Lgx00090840</p>
	<p>CORRECTED: Added code to clear the username and password fields if the Authentication box is unchecked in the SMTP configuration web page. Lgx00044276, Lgx00047017</p>
	<p>CORRECTED: Two Administrator accounts required to disable reads and writes. Lgx00049690</p>
	<p>CORRECTED: Data views having Read-only tags did not display an Update button. Lgx00050952</p>
	<p>CORRECTED: Better aligned 1756-EWEB module time with wall clock time on controllers running RSLogix 5000™ software, version 16. Lgx00072103, Lgx00072106, Lgx00075763</p>
	<p>CORRECTED: Corrected an anomaly in which the 1756-EWEB module would accept an invalid gateway address. Lgx00087096</p>
	<p>CORRECTED: Module asserts when several users access the module's website at a given time. This firmware revision corrects this anomaly by making more memory available for the website to function properly when accessed by several users. Lgx00080499</p>
	<p>CORRECTED: When connecting to a device with a more rapid response time (for example, a computer or a 1756-EN2T module), the 1756-EWEB module's attempt to open the TCP connection may time out. The timeout occurs because the faster device has sent a reply to the 1756-EWEB module before the 1756-EWEB module socket is fully open and the module is unprepared to receive the reply. The 1756-EWEB module misses the reply and the TCP connection times out. This firmware revision corrects this anomaly by preparing the 1756-EWEB module to receive the reply earlier. Lgx00079880</p>
	<p>CORRECTED: When the 1756-EWEB module's subnet mask is set to 000.000.000, the module is not recognized on the network. This firmware revision corrects this issue by using a default subnet mask if 000.000.000 is entered. Lgx00078991</p>

Table 12 Corrected Anomalies with Revision 4.006

Cat. No.	1756-EWEB
4.006	<p>CORRECTED: With revision 4.006, the 1756-EWEB module uses (United States) Daylight Saving Time (DST) as specified in the Energy Policy Act of 2005. Beginning in 2007, daylight time starts on the second Sunday in March at 2:00 a.m. and ends on the first Sunday in November at 2:00 a.m.</p> <p>For more information about Daylight Saving Time as specified in the Energy Policy Act of 2005, see the following resources:</p> <ul style="list-style-type: none"> • Public Law 109-58 of the Energy Policy Act of 2005, available at http://www.epa.gov/swrust1/fedlaws/publ_109-058.pdf • US Naval Observatory webpage at http://aa.usno.navy.mil/faq/docs/daylight_time.html <p style="text-align: right;">Lgx00072694</p>

Table 13 Corrected Anomalies with Revision 4.003

Cat. No.	1756-EWEB
4.003	<p>CORRECTED: Corrected an anomaly in which the 1756-EWEB module would stop updating a controller's wall clock after power is cycled to the module.</p>

Table 14 Corrected Anomalies with Revision 3.5

Cat. No.	1756-EWEB
3.5	<p>CORRECTED: The module would appear to lock up during the power-up process from short duration power cycles. The Module status indicator is solid green and all other status indicators are off. No communication is possible from the Ethernet port or from the backplane. The display would hang with PASS.</p> <p>CORRECTED: If you write custom EtherNet/IP communication drivers, the following anomalies have been corrected:</p> <ul style="list-style-type: none"> • When a poorly formed Class 3 message is received on the backplane or over the Ethernet network, the module could appear to lock up. • When processing an open message that is not correctly sized, the module could lock up. The firmware now verifies the size of a forward open message and processes it without the system locking up.

Table 15 Corrected Anomalies with Revision 2.2

Cat. No.	1756-EWEB
2.2	CORRECTED: When you use Domain Name Server (DNS) services with firmware revision 1.2, the module could lock up.
	CORRECTED: When you assign the module's network parameters through the Network Configuration web page, you are no longer required to obtain the initial IP address via the DHCP. You can obtain the address by using any of the ways described in the installation instructions or user manual. You can set up the network parameters through the Network Configuration web page for any additional operations.
	CORRECTED: Multidimensional data tags do not work as expected. When you use a data view or a ReadLogixTag command to access a two- or three-dimensional array in a Logix controller's data table, only the first index is used to calculate a base offset. The second and third indexes (if present) are ignored and the device will return the tag at the 0 (zero) position for these indexes. If you issue a read or write of a tag [1,2,3], you will actually read or write tag [1,0,0]. However, the elements from single dimensional arrays are not affected and can be either read or written.

Application Notes

This section lists usage considerations for this module.

Using the 1756-EWEB Module to Set Controller Time

You may use the 1756-EWEB module to set the time of the controller; however, the following programming considerations apply.

- If you are using the 1756-EWEB module to set the time of a controller with RSLogix 5000 version 16:
 - You must specify the time zone on both the controller (using the controller's Properties dialog box) and the 1756-EWEB module (using the Local Time Offset field provided in the Time Settings tab).
 - If using the 1756-EWEB module to manage DST, you must also manage DST on the controller by using either the checkbox in the controller's Properties dialog box, or in the controller's program by using SSV instructions.

- If these considerations are not made, the controller's local time may appear to be correct. However, any controller operation using the UTC time value will be incorrectly calculated by the controller (for example, time stamps for Alarm Instructions may be incorrect).

Using a RSLogix 5000 Controller Clock to Set the 1756-EWEB Module Time

In the Time Settings tab on the 1756-EWEB module web page, one of the methods to set the time is to Query Controller Clock. Due to enhancements made to Logix controllers to achieve compatibility with IEEE 1588, use of the Query Controller Clock option to get time from the controller results in the 1756-EWEB module clock being set two years ahead.

If you are using a controller with version 16, use only the SNTP Time Server or Manual Time Entry option provided in the Time Settings tab to avoid this issue.

IGMP Support

The 1756-EWEB module supports the following versions of Internet Group Management Protocol (IGMP):

- Version 1.0 (firmware revision 1.2 and earlier)
- Version 2.0 (firmware revision 2.2 and later)

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation™.

Resource	Description
1756-EWEB Module Installation Instructions, publication 1756-INS88	Provides information about installing and configuring the 1756-EWEB module.
EtherNet/IP Modules in Logix5000 Control Systems User Manual, publication ENET-UM001	Provides information about using all types of EtherNet/IP modules in a ControlLogix system.
ControlLogix Redundancy System User Manual, publication 1756-UM523	Provides information about redundancy in the ControlLogix system, including a section about using EtherNet/IP modules.
ControlLogix Redundancy System Release Notes, publication 1756-RN608	Provides information regarding the enhancements and anomalies specific to the use of the 1756-ENBT module in a redundant system.
EtherNet/IP Web Server Module User Manual, publication ENET-UM527	Provides information about using the 1756-EWEB and 1768-EWEB modules.
Public Law 109-58 of the Energy Policy Act of 2005, available at http://www.epa.gov/swerust1/fedlaws/publ_109-058.pdf	This is publication contains the law specific to the revised Daylight Saving Time implemented in 2007.
US Naval Observatory webpage at http://aa.usno.navy.mil/faq/docs/daylight_time.html	This website contains an explanation of Daylight Saving Time and dates for future years' time changes.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley™ distributor or Rockwell Automation sales representative.

Notes:

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At <http://www.rockwellautomation.com/support/>, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/support/>.

Installation Assistance

If you experience a problem within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/support/americas/phone_en.html , or contact your local Rockwell Automation representative.

New Product Satisfaction Return

Rockwell Automation tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication [RA-DU002](#), available at <http://www.rockwellautomation.com/literature/>.

Allen-Bradley, ControlLogix, Logix5000, Rockwell Software, Rockwell Automation, RSLogix, RSNetWorx, and TechConnect are trademarks of Rockwell Automation, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleerlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Publication 1756-RN604J-EN-P - October 2011

PN-128676

Supersedes Publication 1756-RN604I-EN-P - May 2010

Copyright © 2011 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.