

# DeviceMaster SocketServer History (1800456)

11.x Revisions

Version: 11.46

What Changed: Remove delay of several bit-times de-asserting RTS after tx complete in newer 1-port models.

Affected RS-232 half-duplex mode and RS-485 mode.

Date: 04/14/20

Version: 11.44

What Changed: Add ability to disable NS-Link protocol support (port 4606 and Ethernet protocol 4606). This is

needed to resist attacks on port 4606 from hostile actors such as Nessus network scanner.

Default diagCommandDisable to 1 instead of 0 in order to increase resistance to network-based

attacks.

Date: 03/09/20

Version: 11.43

What Changed: Fix bug causing socket port to stay busy after client closes connection with inter-character

timeout != 0.

Date: 11/04/19

Version: 11.42

What Changed: Fix bug that caused data with certain strings (containing backslash) to not show on web UI port

monitor page.

IPv6 DHCP mode: display address from DHCPv6 server on home page and do not show the

gateway address (there currently is not any way to retrieve it).

Fix handling of session resume with app data for TLS1.1.

Date: 08/08/19

Version: 11.41

What Changed: Fix bug in handling of server-triggered disconnects that was introduced in v11.40 with addition of

multiple connection support.

Fix TLS 1.2 compatibility problem with openssl library versions that failed handshaking because

of length of hash algorithm list.

Date: 07/29/19

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Version: 11.40

What Changed: Add support for new versions of 2-port DIN-rail terminal block models.

Date: 06/20/19

Version: 11.38

What Changed: Add support for new versions of 2-port DIN-rail terminal block models.

Date: 06/20/19

Version: 11.37

What Changed: Add support for ICDM-RX/TCP models.

New SSL certificate with company name change.

Change Unity serial driver to include TX shift register in FIFO count to more closely match

behavior of AIOPIC driver.

Date: 05/09/19

Version: 11.35

What Changed: Add help links to individual pages.

Update help information.

Date: 03/01/19

Version: 11.34

What Changed: Fix bug in handling of "rx buffer timeout" that was causing rx gaps to occasionally be missed and

resulted in rx data getting stuck in the rx buffer until another gap caused a subsequent timeout.

Fix TCP keepalive setting on newer hardware (it was running 10X too fast).

Date: 01/17/19

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#### Version: 11.33

What Changed:

After updating firmware, change link in "update complete, waiting for reboot" popup from /login.asp to /home.asp. Being sent to the login page when there's no password is confusing.

Fix bug in ns-link protocol handling that caused crash after port 4606 connections were closed in the middle of a ns-link protocol command. Was triggered by Nessus network scanner.

Fix memory leak that happened when SSL handshake failed in a particular way. Was triggered by Nessus network scanner and would cause a crash after 10-20 scans.

Fix handling of config file with only TCP keepalive timeout: new value not saved to flash.

Add 'DiagCommandDisable' configuration value to config file. It's not visible from the web UI and must be changed via telnet/ssh 'set' command or HTTP READ/WRITE API. Defaults to 0: when set to 1 it disables processing of low-level diagnostic commands on port 4607. (Intended to prevent problems caused by network scans.)

Improve handling of key/certificate loading via web UI to prevent user from loading key/certificate configurations that won't work after reboot:

- When browsing for files, show files with either.der or .cer suffix.
- Require that RSA server certificate and keys be uploaded together.
- Validate uploaded RSA server cert/key combination.
- Validate uploaded RSA server certificate key usage flags: 'key encipherment' and 'digital signature' are required.
- Validate uploaded client authentication certificate: x509v3 basic constraint CA and key usage 'Certificate Sign' are required.
- Update note on web page about certificates to explain 'basic constraint' and 'key usage' requirements.

Date: 12/06/18

Version: 11.32

What Changed: If user-configured SSL keys/certificates are not valid, fall back to using factory ones with a

warning on the home page and disabled serial port functionality.

Date: 11/14/18

Version: 11.31

What Changed: Fix logic that disables "Delete" button for key/cert files (unable to delete files since vesion 11.13).

Date: 11/09/18

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Version: 11.30

What Changed: Fix handling of RK SPECIAL CHAR SET command from driver so that it pushes both Tx and Rx

Xon/Xoff settings to UART drivers.

Date: 11/02/18

Version: 11.29

What Changed: Disable hard-wired static 3ffe: IPv6 address for eth0 (was being used only when ipv4 DHCP

mode was selected).

Fix handling of TCP admin commands greater than 16.

Add support for telnet NOP command.

Date: 10/03/18

Version: 11.28

What Changed: When config file is loaded via web UI and network settings are written, reboot the unit (and

redirect to new IP address if it has changed).

If network settings are loaded from config file, reboot the unit. If address is changing for the

current connection type (IPv4/IPv6), then redirect browser to new address.

Date: 09/18/18

Version: 11.27

What Changed: Fix handling of GET request for /goforms/READ?data=PORT.

Date: 03/28/18

Version: 11.26

What Changed: Fix web server handling of HTTP requests multipart/form-data values that contain '&' or '%' (and

perhaps other URI reserved characters).

Date: 02/16/18

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Version: 11.25

What Changed: Allow user to configure multicast TTL.

Date: 12/08/18

Version: 11.24

What Changed: Add discovery protocol tag for bootloader version.

Add Telnet/SSH command to show bootloader version.

Disable web server when "auth" is set to "noaccess".

When restoring to factory defaults, enable SNMP.

Date: 10/02/17

Version: 11.23

What Changed: On system/confg-file page, when loading configuration file, make network settings optional.

Date: 09/10/17

Version: 11.22

What Changed: Fix duplex LED support for 16P DB9 model.

Date: 09/10/17

Version: 11.21

What Changed: Add support for new DM 16-port DB9 model.

Fix crash/reboot when ICMP packet is received with IPv4 disabled.

Eliminate repeating extraneous error messages 4-pin header when IPv4 is disabled.

Date: 09/07/17

Version: 11.20

What Changed: 1-Port: Enable use of fractional baud rate divisor. This provides support for standard baud rates

up to 921600 and much better support of non-standard baud rates.

Date: 08/10/17

Version: 11.19

What Changed: Fix bug that left port in "tx off" state when flow control configuration was changed from 'xon/xoff'

to 'none'.

Date: 08/08/17

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Version: 11.18

What Changed: Web page updates to improve consistency between SocketServer and UP apps.

Fix handling of read() on NS-Link tcp connection for case where read() returns 0. We used to print out meaningless errno value. If return==0, print "0: no error" instead of whatever leftover

value was in errno.

Added support for the collision LED on the new DM 16P PRO (2E) model with new MAC address.

Date: 07/28/17

Version: 11.17

What Changed: Fix wrapping in submenu when browser window is narrow.

Date: 05/16/17

Version: 11.16

What Changed: Add support for 16/32 port "duplex" LEDs.

Fix main menu bar wrapping when browser window is narrow.

Date: 05/15/17

Version: 11.15

What Changed: Add support for the new DM 32-port models.

Add 76800 baud to SocketServer port config choices.

Date: 05/01/17

Version: 11.14

What Changed: Fix rx multicast support (required for IPv6).

Date: 04/05/17

Version: 11.13

What Changed: Add line to network-config page showing IPv6 link-local address.

Fix logic that grays/disables delete button so it works correctly for the client auth cert which

defaults to "None" instead of "Factory".

Improve serial port submenu layout and table header formatting for 32-port devices.

Date: 03/17/17

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Version: 11.12

What Changed: In handling of config read requests or write data, add alternate PORT section name formats that

we will recognize in order to maintain backwards compatibility. When parsing IPv4 or IPv6 address in config file, reject/ignore an invalid string instead of storing a zero address value.

Date: 01/24/17

Version: 11.11

What Changed: Fix bug where port config page TCP listen enable checkbox value was not getting saved properly.

Date: 12/06/16

Version: 11.10

What Changed: Fix bugs in entry-validation logic on network config page.

Fix config file parsing problem where units with one serial port would not have some parameters

set properly.

Date: 12/05/16

Version: 11.09

What Changed: Fix bug that caused configuration file to be empty.

Change configuration file default suffix from .dc to .ds to prevent conflicts with the .dc format used

by PVDX.

Date: 11/18/16

Version: 11.08

What Changed: Changed SSL configuration to maintain interoperability with DeviceMaster driver.

Date: 11/17/16

Version: 11.07

What Changed: Enable cipher suite to maintain interoperability with Windows DeviceMaster driver.

Add a workaround for bug in Edge/Win10 that mishandles browser redirect responses that have

chunked non-empty bodies.

Date: 11/16/16

Version: 11.06

What Changed: Updated help.

Add Mark/Space parity support.

Date: 11/10/16

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Version: 11.05

What Changed: Another fix for upgrade compatibility problem that was causing all incoming TCP connections to

get denied.

Date: 11/01/16

Version: 11.04

What Changed: Fix network/config IPv6 mode radio button handling.

Fix RFC1006 code to handle case where IPv4 is disabled.

Fix bug that prevented IPv6 web server from working when IPV4 was disabled (or configured to

DHPC but there's no DHCP server).

Date: 10/27/16

Version: 11.03

What Changed: Add warning on network security page if user tries to save configuration that will prohibit

connections from the browser's IP address.

Date: 10/25/16

Version: 11.02

What Changed: Update built-in help.

Fix operation of [Clear] button on port monitor page.

Add rows to serial overview table (reset UART, rx FIFO disable, tcp source port).

Date: 10/24/16

Version: 11.01

What Changed: Fixed an issue that was affecting device configuration file.

Date: 10/21/16

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Version: 11.00

What Changed: Initial version with new WebUI and

Updated SSL/SSH libraries

Firmware update via web page.

Device Snapshot file

Save/Load config file

View/Save "port 4607" log data

Port monitor web page

Login sessions

Configurable TCP source restriction

Set password web page

Expanded "restore defaults" options.

Date: 10/15/16

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### 10.x Revisions

Version: 10.16 (Released)

What Changed: Fixed bug in handling of input timeout for Unity UART devices that were occasionally inserting a

spurious 0x00 byte in receive data stream.

Enhanced feature definitions for some old and new DM models.

Fix bug that caused "login" email and log message to be printed for every command handled by

ssh server.

Fix segfault/reboot that happened when SSL handshake failed in certain ways.

Date: 09/24/16

Version: 10.15

What Changed: Added Ethernet switch support for the new DM 2P1E DIN rail model.

Date: 08/17/16

Version: 10.14

What Changed: Update burn wrapper to support DM 1P1E DIN-rail models.

Date: 05/26/16

Version: 10.13 (Released)

What Changed: Fix HTTP API handling of section names to make them backwards compatible with clients that

used leading zeros in port numbers or left out the underscore separator.

Add support for DM 1P1E DIN-rail model.

Fix serial port lockup problem on the new DM models that happened when data was being

received on serial port 0 during startup.

Speed up flash programming during firmware update.

Date: 05/12/16

Version: 10.12

What Changed: Add support for DM 1P1E DIN rail models. Handle watchdog input and direct restore for 1P1E

models.

Date: 05/02/16

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Version: 10.11

What Changed: Fixed a macro issue that was including Ring Indicator on some RJ45 models.

Date: 04/27/16

Version: 10.10

What Changed: Update feature macros to meet some of web server requirements.

Date: 04/11/16

Version: 10.09

What Changed: Fix feature table entries for older DM 2-port models

Date: 04/08/16

Version: 10.08

What Changed: Disable pull-up resistors on most MII interface lines for newer models.

Date: 04/17/16

Version: 10.07

What Changed: Add support for new 2 and 32 port model bitstreams select pin patterns.

Fix bug that was causing memory fault when uploaded DH key file wasn't valid.

Reduce log messages printed during firmware update (produces a noticeable speed up).

Remove year from copyright message.

Date: 04/04/16

Version: 10.06

What Changed: Enhanced the "restore to factory" logic to support the new 1-port boards.

Date: 10/13/15

Version: 10.05

What Changed: Add support for the new 2-port DIN rail models.

Add support for the new 4-port DIN rail model.

Date: 10/11/15

Version: 10.04

What Changed: Add option in UDP configuration to send serial data to host from which we most recently received

UDP data.

Date: 10/08/15

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Version: 10.03

What Changed: Add restore button support for new 4/8 port models.

Date: 10/01/15

Version: 10.02

What Changed: Enhanced the HTTP WRITE handler in web server.

Change logic that decides when to send web server login and web server login error e-mail

messages.

On edit port page, show/accept eol1, eol2 byte values in decimal instead of hex.

Add model numbers for the new 2, 16, and 32 port models.

Date: 05/18/15

Version: 10.01 (Released)

What Changed: Configure the Ethernet switch for new DM models to use lower drive current for I/O pins in order

to reduce RF emissions.

Date: 01/23/15

Version: 10.00 (Released)

What Changed: Fix bug in Unity rx processor microcode that was discarding all rx data bytes when xon/xoff flow

control and ixany were both enabled. (Affected only Linux driver)

Fix packet loss on older platform when using DHCP.

Add UDP discovery protocol.

Add support for the new DM 4/8 port models.

Date: 01/19/15

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### 9.x Revisions

Version: 9.37

What Changed: Fix bug in Unity rx processor microcode that was discarding all rx data bytes when xon/xoff flow

control and ixany were both enabled.

Date: 07/18/14

Version: 9.36 (Released)

What Changed: Updated help system to 8001089 v9.30.

Date: 05/28/14

Version: 9.35

What Changed: Modify polling logic in UART driver so that if inter-char timeout is enabled or rx fifo disable config

flag is set, empty the rx fifo at least once per scan cycle, which allows Windows PnP to properly

detect modems at 1200 baud (new DM 1-Port only).

Date: 05/09/14

Version: 9.34

What Changed: Re-enable SNMP support, which got disabled when we added IPv6 in v9.00.

Date: 04/16/14

Version: 9.33

What Changed: Disable watchdog time in burn-wrapper for compatibility with RedBoot 3.39 and later.

Date: 04/15/14

Version: 9.32

What Changed: Add application feature flags field to ID response.

Date: 04/15/14

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Version: 9.31

What Changed: Fixed elapsed time calculations in DHCPv6 client on 1000Hz tick platforms.

Fixed timeout values in nslink TCP accept loop to make it behave identically on 100Hz and

1000Hz platforms.

Update banner used at top of every page.

Date: 04/03/14

Version: 9.30

What Changed: Initial version of cmtl binary.

Date: 03/03/14

Version: 9.29 (Released)

What Changed: Fix crash/reboot that occurred on new platform when DHCPv6 was enabled.

Fix network stack bug that was causing various network timeouts (e.g.IPv6 DHCP addresses) to

happen prematurely on platforms with system ticks less than 10ms.

Add 'ip6' command to telnet server that allows telnet user to display and change the IPv6

configuration.

Change the hardware button 'reset to factory defaults' feature so that in addition to resetting

network/security parameters to defaults it also resets serial port, RFC1006, and email settings to

defaults.

Date: 01/21/14

Version: 9.28

What Changed: Fix all-1s IPv6 address displayed on the web page on a brand-new unit.

Initialize KSZ8863 switch through SPI interface for DM LT16.

Date: 01/08/14

Version: 9.27

What Changed: Add support for 'direct to flash' updating of redboot.

Add serial number support.

Fix a few null-pointer bugs that caused seg-fault on new platform but went unnoticed on ARM7.

Date: 12/03/13

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Version: 9.18 (Released)

What Changed: Fix bug in ser->UDP code that caused lockup when switching from polled mode to EOL/input-

timeout mode.

Date: 08/28/2013

Version: 9.17

What Changed: Re-write the UDP code so that it's possible to both receive Eth->Serial data on port N and send

Serial->Eth data from port N.

Assign 127.0.0.1 address to "lo0" interface so that 127.0.0.1 address can be used to send data

from one serial port to another.

Date: 08/26/2013

Version: 9.16 (Released)

What Changed: Old style goforms/WRITE requests that have data in the URL instead of in the request body are

rejected instead of acknowledged as OK and ignored.

UART configurations with invalid fields no longer cause UDP serial to Ethernet code to lock up

the device.

HTTP API configuration variable typo correction: MailEnableMsgTcpTiemout -->

MailEnableMsgTcpTimeout

Date: 07/17/2013

Version: 9.15

What Changed: Fix DHCPv6 incompatibility with Windows server.

Fix SocketServer "disconnect on idle" feature so it works when inter-byte timeout is enabled

Fix problem where DHCPv6 doesn't work when IPv4 is disabled.

When waiting for incoming TCP connections, don't print out message and re-init serial port every second. This is harmless, but annoying when you're watching port 4607. It was introduced in

9.00.

Fix memory leak in web server than happened when multiple requests were handled in a

persistent connection.

Add goforms/DEFAULT URL that will set socket server settings to factory defaults if you POST

the string "default".

Fix race condition in web server that was causing unit to lock up when connections were aborted

by client.

Date: 07/03/2013

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Version: 9.14

What Changed: Fix memory leak in web server than happened when mulitple requests were handled in a

persistent connection.

Add goforms/DEFAULT URL that will set socket server settings to factory defaults if you POST

the string "default".

Date: 07/03/13

Version: 9.13

What Changed: Fix problem where DHCPv6 doesn't work when IPv4 is disabled.

Date: 06/19/13

Version: 9.12

What Changed: Fix DHCPv6 incompatibility with Windows server.

Fix socketserver "disconnect on idle" feature so it works when inter-byte timeout is enabled

Date: 05/02/2013

Version: 9.11 (Released)

What Changed: Fix typo in new HTTP config API: connect-to-port for TCP connections was mislabelled as

connect-to-IP.

Date: 02/27/2013

Version: 9.10

What Changed Fix bug in HTTP config API that didn't allow writing empty strings to configuration parameters (like

port names).

Date: 02/26/2013

Version: 9.09

Fixed problem that caused 1-port units to lock up when serial port settings were written using the

new HTTP "WRITE" command protocol.

Date: 02/26/2013

Version: 9.08

What Changed: Change things like MAC admin command handling so that changes to secureconfig setting don't

take effect until after a reboot. [For a few things, changes used to take effect immediately.]

Date: 02/25/2013

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Version: 9.07

What Changed: Change admin ID response so that the "secure config" feature bit reflects the way the unit is

currently operating rather than the way it's configured in flash. This change makes it easier for PortVision DX to handle the case where the secure config mode is being changed by the user.

Date: 02/25/2013

Version: 9.06

What Changed: Add HTML escaping for user-entered strings (host name, port name, TSAP name). Otherwise

strings containing special characters (<>"%) don't display correctly.

Change name of .css file to avoid problems with IE9 caching the old file from pre-9.0 version of

firmware.

Date: 12/05/2012

Version: 9.05

What Changed: We were returning invalid MSR value the first time a port was opened after startup. Added code

to make sure MSR value is updated before we report it the first time in the REMOTE STATUS

response when a port is being opened.

Date: 10/02/2012

Version: 9.04

What Changed: Enable TCP KEEPALIVE on ssh and telnet connections so that connection will time out if firewall

drops the link or cable gets unplugged. Issue reported when using the port monitor command and

his firewall timed out the connection.

Date: 09/21/2012

Version: 9.03

What Changed: Fix problem with SSL NSLink connections that caused SSL packets to get "stuck" in the receive

buffer. When multiple SSL packets got combined into a single TCP packet, only the first one got decoded and processed. The remaining ones sat in rx buffer until a subsequent TCP packet

arrived.

Date: 09/12/2012

Revision: 9.02

What Changed: Minor Web page tweaks.

Updated help files.

Fixes a bug in SocketServer that required a port to be disabled and then re-enabled before it

would accept incoming TCP connections

Date: 7/16/2012

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Revision: 9.01

What Changed: Updated help files.

Date: 6/5/2012

Revision: 9.00

What Changed: Design change for use in PortVision DX removes all PortVision Plus tabs except IP Configuration

options for IPv4.

All new web interface

Add IPv6 support.

Added console 'showtables' command

#### 8.x Revisions

Revision: 8.04 (Released)

What Changed: We were returning invalid MSR value the first time a port was opened after startup. This caused

an apparent drop in CD value and logged out users who were logged in via RTS port with CLOCAL flag cleared. Added code to make sure MSR value is updated before we report it the

first time in the REMOTE\_STATUS response when a port is being opened.

Correctly handle case where admin packet gets split by network stack.

Handle case where multiple SSL packets are received in a single TCP packet.

Date: 10/02/2012

Revision: 8.03

What Changed: Reduce DHCP priority to keep it from interfering with MAC mode traffic.

Reason for Change: Efficiency

Date: 5/31/2012

Revision: 8.02

What Changed: Remove limit on RC4 block cipher that forced connection to be dropped and re-established after

transferring 1GB of data.

Date: 4/21/2012

Revision: 8.01

What Changed: Move code that accepts new connections into a separate thread so that SSL handshaking and

session setup doesn't cause existing NSLink connections to pause.

Incorporate "reset UART after rx timeout" feature.

Date: 3/19/2012

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Revision: 8.00

What Changed: Common nslink/socketserver binary.

Changes names magically.

Added display of nslink driver connections (source system MAC or IP) and port status on the

main web page.

Reason for Change: Driver assembly 9.02 no longer loads nslink. This version of the binary changes the name based

on detection of driver communication.

Date: 11/30/2011

# 7.x Revisions

Revision: 7.32

What Changed: Add support for IXANY flow control option.

Reason for Change: IXANY software flow control feature is not supported

Date: 11/30/2011

Revision: 7.31

What Changed: Fix handling of READ/WRITE handling of secure monitor enable.

Reason for Change: Packets not formatted properly

Date: 8/30/2011

Revision: 7.30

What Changed: Fix code that handles receive bytes so that it when it reaches end of rx buffer it wraps to

beginning and continues. Old behavior caused received blocks of data to be "split" when using

inter-char timeout feature in UDP protocol.

Reason for Change: Input Timeout allowed splitting of data block

Date: 8/23/2011

Revision: 7.29

What Changed: Fix UDP ser->eth code that's supposed to ignore the rx polling period if IC-timeout or EOL-detect

is enabled. It was paying attention to a flag that only makes sense for TCP,not UDP, so the rx

polling delay happening when it shouldn't.

Reason for Change: EOL and Input Timeout not utilized.

Date: 8/19/2011

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Revision: 7.28

What Changed: Fixed handling of Ethernet RX overflow during startup that was causing lock-up on networks with

a lot of broadcast traffic.

Reason for Change: Fails to boot when attached to network

Date: 6/6/2011

Revision: 7.27

What Changed: Add telnet/ssh command to display connected NS-Link hosts and what ports they have open.

Add code to TcpStackInit() to add a multicast route so that we can send multicast packets even if

there's no default route (no gateway) configured.

Fix bug in telnet server that was causing a write/read to be done on a socket after it was closed by the socket handler. Caused a problem if a new TCP connection was being opened at the exact

same time a telnet session was being closed.

Reason for Change: When the RTS state control is set to "toggle", the socketserver application goes into a wait loop

while sending serial data A new Telnet Command is required to guery the number of active

connections to port 4606

UDP multicast fails if no gateway is configured.

Date: 5/26/2011

Revision: 7.26.1

What Changed: Moved soft-rts-toggle (with pre/post TX hold times) into nserial driver to reduce CPU usage.

Added nshosts command

Reason for Change: Customer report of data failure at low baud rates. new feature.

Date: 4/28/2011

Revision: 7.26.

What Changed: Fix bug that caused DeviceMaster RTS unit to slow down when placed on an Ethernet segment

with a lot of multicast traffic.

Reason for Change: Customer report of DeviceMaster response times increasing

Date: 3/31/2011

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Revision: 7.25

What Changed: Add work-around for MAC failure at cold temps where good rx packets get marked as having

CRC errors. If rx packet is marked as bad by MAC, then verify the CRC in SW -- if the CRC is

good, go ahead and accept the packet.

Reason for Change: Add SW CRC verification work-around for HW failure that marks good packets as having CRC

errors.

Date: 3/15/2011

Revision: 7.24

What Changed: Double stack size for web server task to provide more margin. We were hitting almost 90%

Reason for Change: RX counter in UDP mode not operational

Uploading encryption key/cert with odd number of bytes sometimes fails.

Date: 3/14/2011

Revision: 7.23

What Changed: Nothing

Reason for Change: NSLink app changed -- version bump to stay in sync.

Date: 11/08/2010

Revision: 7.22

What Changed: Nothing

Reason for Change: nslink app change required version bump.

Date: 10/20/2010

Revision: 7.21.1

What Changed: Added "monitor" command to telnet server that allows the user to see a hex dump of tx/rx data for

a specified serial port.

Date: 8/26/2010

Revision: 7.21

What Changed: Fixes socket leak that happened when an incoming TCP connection was reset by the client

immediately after opening.

Date: 7/29/2010

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Revision: 7.20

What Changed: Fixed MD5 digest calculation that was failing on long URIs (such as those used by PV+ with the

goforms/WRITE handler.

Reason for Change: Config data from PortVision Plus was not being properly loaded when using MD5 Authentication

Date: 7/22/2010

Revision: 7.19

What Changed: Updated SocketServer help file for RTS Toggle and Pre/Post RTS Hold Time options.

Added Pre/Post RTS Hold Time parameters to PortVision HTTP API.

Spelling fixes and minor improvements.

Reason for Change: Add RTS Toggle and Pre/Post RTS Hold Time options to SocketServer Help

Add RTS Toggle and Pre/Post RTS Hold Time options to PortVision HTTP API

Date: 4/20/2010

Revision: 7.18

What Changed: Increased output buffer size to 8192 to allow a full Dump Qin trace through port 4607.

Added the reporting of the firmware version to port 4607 upon connection.

Reason for Change: Add the reporting of the firmware version number to port 4607 upon connection.

Date: 3/18/2010

Revision: 7.17

What Changed: Added configurable Pre/Post RTS Hold Time to RTS toggle mode.

Reason for Change: Add configurable timers to raise and drop RTS in Socket mode.

Date: 2/26/2010

Revision: 7.16

What Changed: Change MAC-mode write operations so that they're blocking. This avoids dropped packets under

heavy network loads with lots of collisions.

Date: 2/18/2010

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Revision: 7.15

What Changed: Added rx/tx buffer flush to port open.

Reason for Change: Duplicate data received by application

Date: 12/16/2009

Revision: 7.14

What Changed: Release to keep pace with devmast 7.14 which contains an HDLC fix that doesn't affect

socketserver.

Reason for Change: High incidence of HdlcResendOutpkt idx:" messages in debug (Corrects Excess Packet

messages in Advisor.)

Date: 11/10/2009

Revision: 7.13

What Changed: Changed period calculation to use 5 periods instead of 20.

Reason for Change: Connection timeout is a multiple of the configured value

Date: 10/28/2009

Revision: 7.12

What Changed: Changed some code in rpshsi/hdlc.c, port.c, rpshsi.c

Reason for Change: When configured in TCP mode, there are constant link timeouts and re-connects when the hub is

idle.

Date: 10/13/2009

Revision: 7.11

What Changed Added SocketServer option to allow user-configuration of RTS state similar to that for DTR.

Reason for Change: Allow user to configure RTS state in SocketServer

Date: 9/23/2009

Revision: 7.10

What Changed: SocketServer/server.c was missing a case statement for 485\_2-wire.

Added the missing statement.

Reason for Change: 2-wire 485 mode does not work correctly on the 2 port DM-RTS

Date: 8/04/2009

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Revision: 7.09

What Changed: Fixed problems with SNMP lockup

Fixed the restore default problem.

Added 4-wire terminology to the web page.

Added new help file that covers the 485 terminology changes.

Added support for the Numonyx flash.

Added support for 14400/28800 baudrates on the web page.

Reason for Change: SNMP Request locks up DeviceMaster

Need to add 28800/14400 bps to the list of selectable speeds in SocketServer configuration

Add support for Numonyx M28W320FCB70N6E Flash Memory.

Update SocketServer Help page to capture DM 2 port RS485 additions

Change RS-485 Full Duplex / Half Duplex nomenclature to 2-wire/4-wire

Restore factory default switch functionality does not work on the RTS 2 port 1E DB9

Date: 7/09/2009

Revision: 7.08

What Changed: Added model numbers for the new products.

Added support for rs485FD master and slave, in rpshsi.

Fixed a 485 rts toggle problem, in rpshsi.

Fixed some DHCP problems in net/common.

Reason for Change: DHCP client issues

Add RS485 Master and Slave capability to DM RTS 2 port

Added support for new DB9 DM 2 port.

Added 485FD master and slave support for the DM 2 port.

Fixed an RS485 RTS toggle problem for the AIOPIC DMs.

Fixed a DHCP problem.

Date: 4/23/2009

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Revision: 7.07

What Changed: In nslink, the retransmit timer and ack timer were made configurable.

Reason for Change: Changes made to devmast (8000422) for DMRTSLNX-68 and DMRTSLNX-99. This is built at

the same time to stay in sync.

Date: 3/05/2009

Revision: 7.06

What Changed: Fix bug in secure web server handling of sslRead() return values that was triggered by sending a

very long URL.

Date: 10/30/2008

Revision: 7.05

What Changed: Merged in Sick LMS frame recognition feature to reduce latency variation issue mentioned in

DM500-14.

Reason for Change: DM500-14 Latency variation is unacceptable when PC CPU is loaded down

Date: 10/30/2008

Revision: 7.04

What Changed: Fixed A2/A3 parameters returned to http READ command. They were accidentally

swapped in previous version.

Date: 10/22/2008

Revision: 7.03

What Changed: Fix changes to security config so that enabling security doesn't take effect for MAC admin

handling until after reboot. Disabling security will take effect immediately for MAC admain

handling.

Date: 10/20/2008

Revision: 7.02

What Changed: Add version string to extended data returned by admin ID command in order to avoid bug in

PortVision.

Reason for Change: PortVision locks up after polling a DM that has the Devmast v7.01 running. It's because of a bug

in PortVision that was only triggered by that version 7.01 of SocketServer and NSLink firmware.

Date: 10/07/2008

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Revision: 7.01

What Changed: Changed the way that extra ID response data is returned so that it's compatible with the UP.

Reason for Change: Changes in ID Response make it incompatible with DM UP ID Response

Date: 10/1/2008

Revision: 7.00

What Changed: Security features and socketServer tx-complete features merged into trunk.

Reason for Change: People want security features.

DMRTSFLASHMICROCODE-144 "Add wait on physical transmit to socket mode"

Date: 10/1/2009

## 6.x Revisions

Revision: 6.14

What Changed: Corrected 10MB hub issue found in the ICS1893 phy. Added code to reset phy/switch functions

to properly set the samsung mac duplex mode for the 2p-1e unit based upon auto negotiation

returned values.

The acs101 chip doesn't care for us changing the value so I decided to leave it alone for later

investigation. The kendin has to run in half duplex so it hard coded to use halfduplex.

The 2p-2e requires full duplex so it is hard coded to use full.

Corrected a data corruption problem

Reason for Change: DMRTSDRVMICROCODE-93: RTS 2P-1E doesn't negotiate the ethernet link

Properties correctly

DMRTSBOOTLDR-49: NIC negotiation

DMRTSDRVMICROCODE-94 Loopback testing produces data corruption errors in MAC mode

**Updated**: 6/29/2020 26 of 48

Revision: 6.13

What Changed: Added files ics1893.c/h to handle mgmt of the new phy.

Added polling loop to ksz code to monitor start switch value. If value goes to zero

While running the poll, it will toggle it to 1 and restart negotiation.

New functionality caused by ESD testing results.

Added checks for redboot around chunks to exclude it from the redboot build.

Various corrections and rework to support changes, etc. in other files.

Reason for Change: DMRTSDRVMICROCODE-92: Heavy packet retransmission observered on RTS 2p and 1p units

in hdlc mode

Revision: 6.12.4

What Changed: Security beta update from 6.12.1.

Reason for Change: Fixes Peersec SSLv3 compat bugs.

Fixes typo on file upload page

Fixes ACL101 PHY FD/HD mismatch problem.

Revision: 6.12.3

What Changed: Update to socketserver 6.12.3

Adds socketserver feature that finishes sending buffered tx data after TCP connection from host

has been closed.

Reason for Change: JIRA DMRSTFLASHMICROCODE 114

Avery/Weigh-Tronix was having problems losing the end of jobs being sent to serial label printers

via DMRTS 1-port.

Revision: 6.12.1

What Changed: Use version 6.12.1 of 8000426 (security features)

Reason for Change: N/A

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Revision: 6.12

What Changed: Moved the restore function interrupt handler from ecosapps/main.c to

ecos2src/hal/arm/dmrts/.../hal\_misc.c.

Added support for DM RTS 2P 2E model.

Added support of KSZ8893MQL Switch/PHY for DM RTS 2P 2E model.

Modified the port configuration web page to selectively display RS modes, DTR/DSR/CD options.

Removed the serial number filed from the homepage for RTS models.

Disabled DTR, DSR, CD and RI operations on DM RTS 2P 1E model.

Added RS485 full duplex mode (0x86) to RSMODE\_SET command (require driver changes).

Modified newTree-2.0 to disable software CRC check in Ethernet driver.

Reason for Change: Need to support DM RTS 2P 2E model.

Revision: 6.11

What Changed: Fixed a possible timing violation due to removing debugging codes in iicRead().

Fixed an issue that units with 28F320C3 flash chip lock up after clearing port configurations.

Reason for Change: DMRTSFLASHMICROCODE-111 One RTS 8P unit returns wrong model ID, IP address etc.

upon reset.

DMRTSFLASHMICROCODE-110 Units with 28F320C3 flash chip lock up when resetting from

web page with "set configuration for all ports to factory default settings" option selected.

Revision: 6.10

What Changed: Added support for DM RTS 2P unit (Configuration 1).

Added restore function for DM RTS 2P unit.

Reason for Change: To support new DM RTS 2P unit.

Revision: 6.09

What Changed: Updated SocketServer help file for the new Bootloader Timeout option in Edit Network

Configuration web page.

Reason for Change: DMRTSFLASHMICROCODE-108 Help file needs to be updated to include the new "Bootloader

timeout" option on the Edit Network Configuration page

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Revision: 6.08

What Changed: Added runtime DM500 support to mainline code base.

Added Security Configuration APIs for portvision.

Added code to handle case where telnet command gets split across TCP packets.

Fixed DTR does not go low issue.

Fixed descriptions of DM500 1 port Embedded/DM9 in comments.

Added support to view/change bootloader timeout value through the web page and PortVision.

Added support to reset port configurations to the factory defaults through PortVision.

Reason for Change: DMRTSFLASHMICROCODE-103 Add runtime DM500 support to mainline code base.

DMRTSDRVMICROCODE-88 Add runtime DM500 support to mainline code base.

DMRTSFLASHMICROCODE-104 problems with commercial port redirector (Tactical)

DMRTSFLASHMICROCODE-91 When "DTR" is configured for "Socket On" in webmanager.

DTR goes "high" when socket connection is made. Does not go low when socket connection is

closed.

DMRTSFLASHMICROCODE-106 Add ability to modify the RedBoot 'Timeout' Value through

web page and PortVision

DMRTSFLASHMICROCODE-107 Add ability to reset port configurations to Factory defaults

through PortVision

Revision: 6.07

What Changed: Changed "Telnet Protocol" to "Telnet Com Port Control Option (RFC 2217)" on the web pages

Updated the help file.

Reason for Change: DMRTSFLASHMICROCODE-101 Change "Telnet Protocol" to "Telnet Com Port Control

Option (RFC 2217)" in the TCP Connection Configuration portion of the Edit Port Configuration

page.

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Revision: 6.06

What Changed: Added support for turning off SNMP through Telnet command line.

Added a security configuration web page, allowing users to enable/disable Telnet and SNMP

through the web page.

Reason for Change: DMRTSFLASHMICROCODE-100 Want to be able to turn off SNMP or edit Response strings.

Revision: 6.05

What Changed: Update version number to 6.05.

Reason for Change: Replace an incorrectly built binary version 6.04 for DM2 platform.

DM2SOCKETSERVER-13 ssvr\_help.htm (8001089) out-of-date

Revision: 6.04

What Changed: See jira issues listed below for details.

Reason for Change: DMRTSLNX-80: RTS unit 485 mode does not work with ttypput

DM2SOCKETSERVER-16: setbaud command returns "Invalid number of arguments".

Revision: 6.03

What Changed: Copy updated socketserver help file (8001089) into the apps/webpages/root directory, so that it is

included in build.

Revision: 6.02

What Changed: Removed the 3 line change put in to close all interfaces when doing an admin reset from

portvision. The change was in apps-rpshsi/hdlc.c.

Reason for Change: See jira DMRTSFLASHMICROCODE-95. problem loading firmware on rts with portvision. the rts

hangs.

Revision: 6.01

What Changed: Changes for DeviceMaster2

Made change to unity driver to add restore capability

Fix problem with the id string that was being displayed,

Revision: 6.00

What Changed: Added support for the DM2.

Reason for Change: Added support for the DM2 1 port. This is the point where the branch is merged back into the

main trunk.

5.x Revisions

Revision: 5.23

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What Changed: 1) Added shutdown call before socket close in proto tcp.c intended to fix a DM2 issue (it happens

to take care of the Samsung issue, too)

2) Along the same lines, added a disableAllSocketInterfaces call every place the user could effect

a system reset (via telnet, web interface, portvision)

Reason for Change: DMRTSFLASHMICROCODE-92

We need to do a polite shutdown of each of our open sockets, so the client is not left hanging

when the system is reset

Revision: 5.22.01

What Changed: Modified the SocketServer to convert IP address between network order and host order.

Fixed endianness issues (DM2SOCKETSERVER-1, DM2SOCKETSERVER-2,

DM2SOCKETSERVER-3, DM2SOCKETSERVER-6).

Reason for Change: Store IP address / netmask / gateway in host order instead of network order in the EEPROM.

Revision: 5.21

What Changed: commands.c: commented out \*IPtoStr(unsigned n) definition. Defined but unused which causes

compile errors since we now use -Werror switch in makefile.

server.c: serverSaveConfig() added status check variable for flash operations. ensured

enable/disable flash write calls were placed correctly.

flash.c/h: made code consistently use \*ROM removed all calls to enable/disable flash writes.

these calls are done in server.c added new flash\_reset function call

Reason for Change: DMRTSFLASHMICROCODE-89: RTS 1 Port Rohs fails to reboot after changing Socket

configuration.

Revision: 5.20

What Changed: Commented out all debugICTimeout related code in server.c and state.h. Bumped configuration

to 09 and updated sw build version to 5.20.

Commented out all debugICTimeout related code in aiopic.c, ident.h and uart4530.c

Reason for Change: DMRTSDRVMICROCODE-79: New debugICTimeout debugging code doesn't initialize properly

under NSLink control.

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Revision: 5.19

What Changed: The structure of the internally saved port configuration data changed due to addition of the UDP

Source Port value in the previous version.

Incremented configuersion in state.h

Reason for Change: DMRTSFLASHMICROCODE-88 Port config data invalidated by new parameter

Revision: 5.18

What Changed: Porting of code for DM2 (NIOS2) platform.

Add Intercharacter Interval timer debug code to serial port drivers

Makefile:

updated version to 5.18

Add 'webcomp' to list of files deleted by "make clean"

add linkTimeStamp.c to list of files removed when "make clean".

state.h, websupp.c, server.c, proto tcp.c, editPort.asp:

added debugICTimeout and source port variables to server config.

added support for new source port variables.

fixed instance where zero values

saved

in udp area would return with odd non-zero values.

- mailmsg.c: fixed instance where mail would attempt to send to 0.0.0.0 address and fill
  up diagnostic output.
- main.c, dm.h:

Get rid of #warning so build can complete

Add DM\_RESET\_BOARD macro

Mixed network/host order for IP addresses. - fixed so that they're always Network order.

Get rid of a debug printf that's no longer needed.

Fix status LED support for DM2.

- Use new readback feature of LED control register instead of keeping track of state with avariable.
- websupp.c. tcp.c:

Fix host vs. network order problems.

webs.c:

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Use IPtoStr provided by app.

• tadmin.c, madmin.c:

Fixed network vs. host ordering problems with IP addresses, etc.

hdlc.c:

Fix network vs. host endian problems.

Use DM\_RESET\_BOARD macro.

webcomp.c & its makefile:

Fix compiler warnings

Add -Werror to compile flags for webcomp so build stops on compiler

warnings.

server.c:

#if out the utoa routine -- use the one in the web server.

Reason for Change: Port to DM2 (NIOS2) platform.

DMRTSFLASHMICROCODE-82: Request to change SocketServer UDP port Assignment

scheme

DMRTSFLASHMICROCODE-84 Add intercharacter timestamp debugging code to Main tree

DMRTSFLASHMICROCODE-85: Port (Socket Number) is not consistent and not the same as the

assigned port number in TCP Socket

Revision: 5.17.1

What Changed: Added timestamp to receive data functions in aiopic.c and uart4530.c to show the amount of

intercharacter gap between characters. Results are printed to #2 debug diagnostic port on the

RTS.

Reason for Change: DMRTSFLASHMICROCODE-77: UDP packets not reacting properly to Input timeout for packet

splitting

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Revision: 5.17

What Changed: Added 76800 baud rate to SocketServer.

Reason for Change: DMRTSFLASHMICROCODE-79 Need to add 76800 to the list of selectable speeds in

SocketServer configuration.

Revision: 5.16

What Changed: Added CYGPKG NET FREEBSD SYSCTL to ecos-apps/newTree-2.0 script for access to

freebsd tcp stack data variables.

Added new freebsd tcp stack compatible socketserver keepalive function to ecos-

apps/socketserver/server.c.

Reason for Change: DMRTSFLASHMICROCODE-66 SocketServer cannot reconnect after Ethernet Connection loss.

Revision: 5.15

What Changed: Removed cyg\_scheduler\_lock/unlock() from <ecos20src>/hal/arm/dmrts/current/src/iic.c

Reason for Change: DMRTSDRVMICROCODE-74 data errors in 1-port devices

Revision: 5.14

What Changed: Added/corrected EOL input termination handling in SocketServer UDP handling.

Reason for Change: DMRTSFLASHMICROCODE-70 Data transfer failure in UDP mode

DMRTSFLASHMICROCODE-73 EOL terminated buffering on serial input is not working.

Revision: 5.13

What Changed: Fixes in webpages. Add missing files. Resolve invalid links.

Reason for Change: Correct minor deficiencies.

Revision: 5.12

What Changed: Added 5 files required for SocketServer Help. These files comprise 8001096 v1.00.

Reason for Change: Required but left out of the previous release.

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Revision: 5.11

What Changed: Changed display graphics in SocketServer web page.

Added SocketServer setup help to web page.

Changed handling of password entry over a telnet connection to suppress echo back to

terminal.

Reason for Change: Use new corporate graphics.

Move SocketServer setup help into the web page and out of a bunch of user guides.

DMRTSFLASHMICROCODE-68 password entry echos back in clear

Revision: 5.10

What Changed: First build after merging the eCos for Nios 5.0 files into the source tree.

Fixed a TCP bug, 'Delayed communication reconnection when driver in IP mode after PC reboot.'

Reason for Change: Include the NIOS 5.0 eCos files in the source tree

DMRTSDRVMICROCODE-71, 'Delayed communication reconnection when driver in IP mode

after PC reboot.'

Revision: 5.07

What Changed: Fixed MAC mode implementation of the DeviceMaster UP flag.

Reason for Change: The DeviceMaster UP flag as implemented in v5.06 did not function properly in MAC mode

transactions.

No JIRA opened. Continuation of the fix for DMRTSFLASHMICROCODE-64.

Revision: 5.06

What Changed: Bugfix: "IP info query occasionally returns bad values".

Added a flag to the ID Reply structure to distinguish DeviceMaster UP from other models.

The flag is primarily used by PortVision but is included in all ID Reply frames.

Reason for Change: DMRTSFLASHMICROCODE-63,"IP info query occasionally returns bad values"

DMRTSFLASHMICROCODE-64 "Portvision cannot distinguish DeviceMaster UP from other

DeviceMasters"

This feature was a requirement of the DeviceMaster UP platform project. It was documented in

the DRD and DSD. It was not implemented in the initial release to expedite completion.

Revision: 5.05

What Changed: 1) Increased priority of admin command handlers so that they will run even under heavy CPU

load. This prevents Ethernet frame buffers from accumulating in the MAC rx queue (was causing

the system to run out of Ethernet frame buffers and stopping data flow)

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2) Made SocketServer rx polling period adjustable in "network settings" on web page. Default setting is 50 (milliseconds). This is a good default for 8-16 port hubs, but is too fast for running 20+ ports. With a setting of 100ms, Socketserver can run all 32 ports simultaneously without problems.

Reason for Change:

DMRTSFLASHMICROCODE-60 "Ports quit receiving data"

Revision:

5.04

What Changed:

Added missing source files to complete implementation of eCos 2.0. This brings us to eCos 2.0 v1.87 plus Comtrol proprietary modifications.

Fixed a data corruption problem in the DM RTS 1 port UART driver.

Reason for Change:

Complete implementation of eCos 2.0.

DMRTSFLASHMICROCODE-56 Passing raw binary data through RTS 1-port in Socket mode

yields corrupted data

DMRTSFLASHMICROCODE-53 Large file transfer fails

Revision:

5.03

What Changed:

Added bugfix for 1-port data loss: removed unecessary disabling of interrupts during I2C read, which was causing FIFO overruns

Reason for Change:

1-Port was dropping bytes every time there was a "Flash IP" request (broadcast from

PortVision/webPortVision)

DMRTSFLASHMICROCODE-48 large file transfer between serial port and a socket fails

DMRTSWINTWOKXP-213 Large file transfers fail with DM Air

DMRTSWINNTTTS-32 DM Air has problems receiving large files

DMRTSDRVMICROCODE-66 DM-Air fails large file transfer in 422 mode

DMRTSWINTWOKXP-275 Xmodem in SocketServer does not Tx/Rx properly

DMRTSWINTWOKXP-264 Data sent bi-directionally between RS422 ports fails.

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Revision: 5.02

What Changed: Added first draft of PortVision Hypertext API

Also fixed socket code in e-mail client

Reason for Change: API support for PortVision 3.0

eCos 1.3 -> 2.0 conversion broke network calls

DMRTSFLASHMICROCODE-47 email notices don't work

Revision: 5.01

What Changed: RX FIFO disable functionality was added to the firmware and device webpage

Reason for Change: DMRTSDRVMICROCODE-65 Mazatrol Device set to 7,e,2 not sending data back to app

DeviceMaster 1-port loses data when connected to a Mazak controller. The data loss is caused

by a bug in the 4530 UART logic. The bypass is to disable the FIFO.

Revision: 5.00

What Changed: Built with eCos 2.0

Added RFC 2217 Telnet Com Port Control Option

Added support for DeviceMaster 1 port VDC models:

5002360 DM 1 Port 5-30 VDC

5002361 DM 1 Port 5-30 VDC Embedded

Reason for Change: Converted to eCos 2.0 to use the most recent and currently supported version of eCos

Added Telnet Com Port Control Option to satisfy a Product Management requirement

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## 3.x Revisions

Revision: 3.19

What Changed: The aiopic.c file was changed in eCos nserial driver. It conditions the configuration of the

interrupts. For the 5002240 model (DvcMstr 16 RM) the interrupts are configured for rising edge

trigger and the other models are level triggered.

We branched the source code to make this fix. The RFC2217 telnet code had already

Been added as V4.00 when it became necessary to make this change. The branch is

\$/DeviceMaster/ARM/eCos/eCos-Apps-3.19.

Reason for Change: DMRTSDRVMICROCODE-62 DevMast Firmware Loading locks up RTS 16 RM

Application would intermittently hang on the 16 prot RM (5002240) because of the floating

interrupt pins from the unpopulated aiopic locations.

Revision: 3.18

What Changed: Aiopic.c and aiopic.h, in eCos, were changed to fix the interrupt handler problem.

Reason for Change: VI 2476/DMRTSDRVMICROCODE-61 WDT IntegrityTest XON/XOFF reboots

DM 4 & 8

Set txxoff was broken by a change to the eCos interrupt handler in the aiopic.c file 12/06/04.

Revision: 3.17

What Changed: Fixed VI 2467/DMRTSDRVMICROCODE-59 - RTS 1 Port Does Not Send/Receive in RS485

Mode

Revision: 3.16

What Changed: Fixed VI 2374 - RTS 1 Port HW Flow Control garbles characters when CTS is toggled

Fixed VI 2418 - RTS 32 Port hangs when cloning with 'Connect To' set

Fixed VI 2303, 2365 - IP address not returned when using DHCP

Also fixed the fix for VI 2455 - RTS 1 Port output buffer reports empty (while XOFF'd) when it is

not. Fix in v3.15 had a bug.

DMRTSFLASHMICROCODE-45 SocketServer Clone option can cause web page to not refresh

on 32 port unit

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Revision: 3.15

What Changed: Fixed VI 2455 - RTS 1 Port output buffer reports empty (while XOFF'd) when it is not.

Fixed VI 2410 - RTS 1 Port RTS and DTR lines not being controlled correctly.

Fixed VI 2303 - RTS 1 Port unable to change char value used for XON and XOFF away from

default.

Revision: 3.14

What Changed: Added Air log to web page.

Fixed RTS 1 port: drain function not implemented, caused truncated data.

Fixed VI 2218 - Spurious RI indications on devices without RI.

Fixed VI 2185 - RTS 1 port: TX flush did not work in XON/XOFF mode.

Fixed VI 2208 - RTS 1 port: Control characters not being consumed in XON/XOFF mode.

Revision: 3.13

What Changed: Added IAD UP model numbers.

Fixed VI 2207 - device hangs after 5 minutes.

Fixed VI1882,1990, 2027, 2180 - IIC routines cause system hang.

Revision: 3.12

What Changed: Added inter-character timeout feature on the RTS One Port.

Fixed bug where GET IP CURRENT command returned zeros when using DHCP, should return

the IP address that was obtained from the DHCP server.

Add DeviceMaster AIR ID

Reason for Change: VI 2146 - RTS 1 Port timeout feature broke

VI 2164 - GET\_IP\_CURRENT returns zeros when using DHCP

Add support for DeviceMaster AIR

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Revision: 3.11

What Changed: Increased the number of file handles, CYGPKG\_IO\_NFILE, from 48 to 512 (newTree file) to fix

errors that occurred when configuring a large number of ip addresses for the UDP feature. Also separated some of the features, mailmsg etc. from the socketserver at build time by adding

defines in the Makefile.

Reason for Change: Fix a problem that occurred when configuring a large number of ip addresses for UDP feature.

Revision: 3.10

What Changed: Added UDP Feature

Fixed One Port RTS/DTR problem, they were not being asserted when the port was open and de-

asserted when closed.

XON & XOFF characters were being stripped from data stream when SW flow control was not

active

Reason for Change: VI 1963 - RTS 1 Port Possible Data Corruption

Fixed problem introduced during previous XON/XOFF One Port work, which caused

XON and XOFF characters to be consumed when SW flow control was not active.

Fixed VI 1997. RTS 1 port - RTS and DTR state never changes

Revision: 3.09

What Changed: changes to the dmrts.c/h, aiopic.c and uart4530.c files in ecos nserial code to fix a problem with

lost data when running the sstput test.

Reason for Change: Failures when running sstput test.

Revision: 3.08

What Changed: Added new model id's for the Serial Hub and DvcMstr Pro 8/16 port products.

Reason for Change: New products.

Revision: 3.07

What Changed: Fixed SocketServer RS485 problem in the 1 port - it did not work. Problem was the TxFlush

routine was clearing the UART HW Flow Control flag, which needs to be set for RS485.

Reason for Change: VI 1836: DM RTS 1port RS485 Rx or Tx will work, not both

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Revision: 3.06

What Changed: Fixed TCP origination (client mode) code that was broken during addition of RFC1006 support.

Reason for Change: VI#1761: Serial tunnelling was broken.

Revision: 3.05

What Changed: Fixed word wrap for warning paragraph on "reset" web page.

Reason for Change: Text wasn't wrapping.

Revision: 3.04

What Changed: Fixed bug that caused extra data to be sent in first packet of new connection if EOL was enabled

in previous connection and socket

was shut down with partial line pending.

Reason for Change: Fix bug.

Revision: 3.03

What Changed: Fixed some minor layout problems on web pages.

Reason for Change: Inconsistency between pages. Column headers wrapping when they shouldn't.

Revision: 3.02

What Changed: Fixed default values of RFC1006 stuff when upgrading from 1.x or 2.x.

Disabled incoming RFC1006 connections for ports whose local TSAP is blank

Reason for Change: xCustomer request from Siemens for RFC1006.

VI#762 for UI changes.

Revision: 3.01

What Changed: Added web page to configure RFC1006 TSAPs and TCP port number.

Added support for originating RFC1006 connections if remot TSAP is non-empty.

Reason for Change: Customer request from Siemens for RFC1006.

VI#762 for UI changes.

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Revision: 3.00

What Changed: Added support for RFC1006 (ISO over TCP).

Added EOL/timeout support.

Added port cloning.

Added port config default checkbox on reboot page.

Changed layout of flash config struct to allow features to be added in future without breaking

config compatibility.

Reason for Change: Customer request from Siemens for RFC1006.

VI#762 for UI changes.

## 2.x Revisions

Revision: 2.03

What Changed: uart4530.c file in eCos.

Numerous eCos changes for bug fixes

Reason for Change: VI 1233 DeviceMaster resets itself continually when IP addressing disabled

VI 1343 DM RTS - IOCTL SERIAL SET XOFF does not work

VI 1421 DM RTS - Disabling IP causes reset.

VI 1444 DM RTS 1 port Xon/Xoff fails

VI 1445 DM RTS not handling 'discard null' correctly

Revision: 2.02

What Changed: Changed watchdog strobe interval

Reason for Change: fixes RTS RM 32 rebooting issue

Revision: 2.01

What Changed: add 1 port

Reason for Change: performance improvement, bug fixes

Revision: 2.00

What Changed: changed the ack and resend timers

Reason for Change: performance improvement

## 1.x Revisions

Revision: 1.40

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**Note**: Not all versions listed have been released or are planned for release. What Changed: Fixed bug where Xon/Xoff failed on the DM RTS 1 port running in 7 bit mode Added 3600 and 7200 baud to DM RTS 1 port Fixed TCP mode bug where the upper numbered ports where failing on 16/32 RTS units. Reason for Change: VI: 1294 1296 1299 1302 Revision: 1.39 What Changed: Fixed 1 port Xon/Xoff mode Fixed1 pport RTS control Increased Eth buffers to 2.4 m (was 2.0) Perfomance improvment for 32 port Reason for Change: VI: 1287 1278 1277 1279 Revision: 1.38 What Changed: 1-port reboot when baud rates mismatched fixed 300 baud on 1-port fixed driver HW flow control fixed for 1-port fixes the version number shown Reason for Change: VI: 1269 1266

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1264

Revision: 1.37

What Changed: changed help text (added space between socket and server in text string)

Reason for Change: lack of space between socket and server was causing production test to fail.

Revision: 1.36

What Changed: Changed TCP/IP mbuf size to 2M total (was 1M). Required for the 32 port model. This area is a

static array, so cannot be a function of number of ports.

Added setbaud command to telnet.

Revision: 1.35

What Changed: added RTS 1 port support changed model id for RTS RM 16/32

Reason for Change: new device

Revision: 1.34

What Changed: Added support for RTS RM 16/32 models.

Reason for Change: Added support for RTS RM 16/32 models.

model id changed (RTS RM 16/32)

Revision: 1.33

What Changed: Removed diag messages for parity/overrung/framing.

Added port status (open/closed) to idle message

Reason for Change: Don't want to slow things down when baud mismatch.

Revision: 1.32

What Changed: Fixed bug that caused reset when packets were lost under heavy load.

Revision: 1.31

What Changed: Fixed port mode select logic for ports 8+

Reason for Change: VI 963

Revision: 1.30

What Changed: Fixed bug in mail task that was using up all of the sockets.

Reason for Change: Eventually the stack runs out of sockets and new TCP connections can't be made.

Revision: 1.29

What Changed: Fixed watchdog initialization.

Revision: 1.28

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What Changed: Added support for Intel 28F320C3 flash ROM

Reason for Change: New boards are switching from B3 part to C3 part.

Added support for inter-char timeout.

Reason for Change: Boards were timing out and resetting if TE bit in REGB ever got cleared.

Revision: 1.27

What Changed: Reduced latency special

Reason for Change: Test version for Tim Jone's Customer in Germany

Revision: 1.26

What Changed: Changed serial port scan from 10ms to 5ms

Added toggle of port pin 14 in ISR

Reason for Change: Special test version for customer in Germany (Michael Jones)

Revision: 1.25

What Changed: Disable Nagle algorithm on data sockets.

Reason for Change: reduce latency

Revision: 1.24

What Changed: Fixed three bugs:

1) Ports were always in RS-232 mode and didn't switch to RS-422 or RS-485

2) Edit port web page always displayed RS-232 instead of the currently configured web page.

3) SocketServer didn't detect incompatible flash config data and display garbage config.

Reason for Change: eCos sources for production and for API work got mixed together and cause some of the

problems

Revision: 1.23

What Changed: Removed code.

Reason for Change: This version removes the configuration language

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Revision: 1.22

What Changed: webserv/telnetserv.c

Reason for Change: This fixes a problem with string length causing strings sent as commands to be truncated.code

that was added in release 1.18.

Revision: 1.21

What Changed: websupp.c file.

Reason for Change: This fixes a problem when configuring DTR signal.

Revision: 1.20

What Changed: More DHCP fixes.

Reason for Change: Previous DHCP fixes didn't work well w/ Linux server.

Revision: 1.19

What Changed: Added gateway request to DHCP packets.

Reason for Change: Win2K DHCP server won't send gateway IP unless you ask for it. VI#824

Revision: 1.18

What Changed: most changes in telnetserv.c

Reason for Change: added phase I of programmability project

Revision: 1.17

What Changed: Added configurable TCP keepalive timeout.

Added web page to configure IP addr info.

Added reboot button.

Reason for Change: TCP keepalive fixes VI #771

Revision: 1.16

What Changed: Added support for the email client.

Reason for Change: New functionality.

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Revision: 1.15

What Changed: Added "RTS" to web pages and to telnet greeting.

Added code to flicker status LED once every 10 seconds.

Reason for Change: D. Minker wanted it to say "RTS".

I like to be able to tell if the SW is alive by watching the status LED.

This change doesn't actually affect SocketServer.

Reason for Change: VI#1100

Revision: 1.14

What Changed: Fixed DHCP code to work with server that doesn't supply T1/T2 values (e.g. Novell Netware).

Reason for Change: Similar problem seen with IA at UPS Louisville

Revision: 1.13

What Changed: Fixed support for 7 data bit configuration.

Revision: 1.12

What Changed: Fix typo in telnet server error message

Revision: 1.11

What Changed: Fixed typo in web pages.

Reason for Change: DM logo wouldn't load

Revision: 1.10

What Changed: Fixed values for IP address used to specify DHCP and IP disable.

Fixed Tx data bug in serial code.

Web page updates from LN..

Revision: 1.07

What Changed: Fixed TcpTx task so that data is transferred as it arrives

at the serial port rather than waiting for 1K chunks.

Added Half-Duplex option for flow control.

Changed so that serial port configuration changed take effect immediately (no need to take

connection down/up) to get new settings in place.

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Revision: 1.06

What Changed: Fixed receive flow control (both RTS/CTS and Xon/Xoff).

Changed web pages so that port numbers are displayed as 1--8 instead of 0-7.

Added "terse" and "reset" commands to telnet server.

Changed IP logic so that 0.0.0.0 means use DHCP and 255.255.255.255 means disable IP.

Revision: 1.05

What Changed: Fixed bug in SocketServer that used up all sockets and caused new TCP connections to fail after

30-40 seconds.

Added versioning to flash config data for socket server so that we won't try to use old config struct

if it has changed.

Reason for Change: TCP bug occurred when socket server was configured to initiate connections to an IP address

that refused connections.

Revision: 1.04

What Changed: Fixed Rx overflow errors at 230K baud.

Fixed "owned" flag in MAC ID response.

Revision: 1.03

What Changed: Fixed TxTcp code so that socket is closed when there is a TCP transmit error.

Reason for Change: Host end could crash and DM would never close connection.

Revision: 1.02

What Changed: Fixed TCP initiation code. Fixed so MAC mode works when DHCP is in process or failed. Added

"connect always" option. Added the configuration for port mode.

Revision: 1.01

What Changed: Watchdog timer code fixed.

Reason for Change: WD timer wasn't enabled

Revision: 1.00

What Changed: Initial Release

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