

Firmware Revision Information

Product Code(s): *All DKM and DKM FXC switches*

Product Name(s): *DKM FX and DKM FXC Firmware and Utility Tool*

Date Modified: *January 23rd, 2023*

Update instructions can be found in firmware package “DKM Update Notes and Instructions (PLEASE READ!!!)”

Release (*January 23rd, 2023*)

New DKM Tool 5.2.0.0

Important Update Notes:

- LED Locate on I/O board ports
- Support of GPIO add-on module, using firmware MORGPIO

New Features:

- EXTHVCON version 1.13
- FCTHSCON version 1.02
- EXTRCPU version 2.29

Improvements:

- LDAP: BaseDN field increased to 256 characters
- LDAP: configuration of up to 4 redundant LDAP servers
- LDAP: support of user subgroups
- LDAP: bind user password increased to 128 characters
- LDAP: Search Base increased to 256 characters
- OSD: CPU selection list per default
- Power User: CON switching limitation based on Login Lock Restrictions (OSD only)

Bug Fixes:

- OSD: inconsistent check box descriptions adjusted
- Multiscreen Control: CON vs CPU connectivity to the same port corrected

Utility Release Notes:

- Java Utility requires Java 11, although it is recommended to use the latest version.
- Java 8 runtime is no longer supported
- Added new dialog with deselect all option after automatic firmware selection
- Support for up to 4 LDAP servers
- Supports the matrix LED locate function
- Support for parameter ENALOBW
- Support for Follow Session
- Added authentication dialog for controller board restart action
- Hide not accessible Console Devices for Power users (login lock)
- Disable update button during reload

- Set apply button as default button
- Removed parameter Name
- Supports user names up to 32 characters
- Added verification of multi screen control configuration
- Improved comparison of installed and update version
- Fixed import of universal port extender data from csv file
- Remove incorrect message before parallel firmware update starts
- Fixed copying macros in wizard
- Fixed displaying remote extender at link 2
- Fixed displaying extenders in 6 slot chassis
- Fixed layout in trap receiver form for SNMP modules
- Show MSC temporarily off
- Adder parameter USB off
- When connecting to 576 chassis sub controller board, a message appears that the functionality is limited
- Added select grid channel column for easier grid channel configuration
- Updated card renderings for new cards
- ENAREDFRM width, color, duration is automatically supported by each new redundant console extender generation
- Do not show an extender firmware conflict for non updateable components
- Fixed several I/O board labels
- Fixed displaying remote extenders in 6 slot chassis for SNMP
- Cancel button in save status dialog cancels saving status but starts update
- Fixed select CPU label in additional selection options menu
- Fixed bug in 576 firmware update process
- Fixed filter function in table for multi screen control
- SNMP fixed label of extender status trap

Release (9/8/2022)

New DKM Tool 5.1.2.0

Important Update Notes:

- Pre-installed MATLOS versions 1.4 and 1.5 require a mandatory update to at least version 1.7
- Pre-installed matrix firmware version 3.04 cannot be directly updated to version 4.01 and require a 3.08 as an intermediate update step
- Firmware comes along with a change in the SNMP community string to "kvm"

New Features:

- HDCP Management for upcoming HDMI 2.0 models (not yet setup yet)
- Access rights for Multi-Screen control switching (ACL)
- Extender restart via API Command

Improvements:

- Support for newer hardware and firmware files for upcoming models
- Single fiber strand redundancy optimized
- OSD Macro view by name (no longer ID)
- Keep gridline option removed from OSD (set to default)

Bug Fixes:

- Login Lock (user account access to CONs)
- Center position for extender connection info box

Utility Release Notes:

- Java Utility requires Java 1.8 or higher, although it is recommended to use the latest version.
- Mac OS requires MacOS 10.14 (Mojave) or later with at least 1GB of RAM available
- Windows 8, 8.1, 10, 11 with at least 1GB of RAM available
- Support for the upcoming 2-/6-Port chassis with SNMP Functionality (MATCSNMP)
- Support for new upcoming 21-Port chassis
- Support for the new upcoming 576-Port DKM
- Network/SNMP will show read-only community string for SNMP boards
- Added the Disable port field for fixed port extenders, if port number is greater than 0
- Improved reading of the HDCP values from configuration
- SNMP Improved trap message when removing cable from a matrix power supply
- Multiscreen Control Improved display of arrangement
- Fixed possible deadlock on SNMP
- Fixed fast key selection under EXT Units>>General OSD Data
- Fixed foreground color in dark mode for SNMP
- Fixed detection of modified data
- Added fallback for invalid MAC Addresses

Release (7/26/2022)

New DKM Tool 5.1.1.0

Important Update Notes:

- Pre-installed MATLOS versions 1.4 and 1.5 require a mandatory update to at least version 1.7
- Pre-installed matrix firmware version 3.04 cannot be directly updated to version 4.00 and require a 3.08 as an intermediate update step

New Features:

- Support for new endpoints
- Support of low latency option (select models)
- Colored fix frame
- Redundancy frame (some series only)
- 144 Hz / 240 Hz frame rate support (DP4K60 cards)
- Support of GPIO add-on modules
- Disable redundancy (parameter DISRED)
- Adjustable redundancy frame (width, duration, color)
- Video codec 8 for select series
- New Hot key option LCtrl + LShift + I

Improvements:

- Update process
- Embedded audio (HDMI & DisplayPort interface)
- LOS timer for HDMI only board (EXTHVCON)
- Update behavior
- USB 2.0 embedded 2 handling
- Support of FURUNO MCU-004 naval joystick
- Support of HSL secure switch in relative pointer mode
- Support of Belkin modular 2-Port secure switch
- Programming of EDID
- Embedded audio (HDMI & DisplayPort interface)
- Switching between digital audio add-on module and embedded audio
- USB 2.0 embedded 2 handling

Bug Fixes:

- Support of RS422 add-on module
- Link switching for redundancy
- Analog audio
- Dual-Head mode timing
- OSD communication
- EDID transmission
- Parameter handling for Dual-Head series
- Digital audio fix for Esterline monitor (DP4K60 series)
- Low Latency Mode (Parameter: ENALOLA)
- OSD display when connected to Mac OS (New HDMI Models)
- Parameter FRAMERATE for resolutions > 120 Hz (New HDMI Models)
- LED status (select series)
- Support of 5K monitors with parallel input
- USB support corrected (EXTICON, EXTRCON)
- Multi-Screen Control 2.0: mouse click release upon crossing monitor borders
- Storage of Hot Key
- Update CONVGPU (EXTIPCU only)
- Fiber transmission
- Video timing
- Support of USB-HID add-on module
- Matrix communication
- Video mode detection
- Communication with grid I/O boards
- Switching of 8-port VGA CPU switch
- Parameter handling for Dual-Head series
- USB 2.0 connection loss
- Updates
- Green stripe issue on right monitor boarder
- EXTSCPU: Support of EDID 1.4
- OSD stability using FCTICPU
- Deinterlacing SDI CPU
- Low latency mode (parameter: ENALOLA)
- Serial transmission for add-on module

Utility Tool:

- Supports the new SNMP function of the 2/6-port chassis
- Support for the EXTHDCON and EXTHDCPU files
- Added function MSC connect
- Unified labels for CON devices, CPU devices and EXT devices.
- Removed wizard panel Save Log Files for SNMP boards
- Disable parameter Priority for default admin user
- Show secondary controller board in the 152 matrix
- Removed empty items from locked login list
- Fixed displaying of EXTDHCON, EXTDHCPU and FZVDXCON
- Fixed designer when running with Java Runtime < 10

Release (3/31/2022)

Packaging error with DKMTool.exe, this release should correct it.

Release (1/28/2022)

DKM Java Utility Version 5.1.0.0

Important Update Notes:

- Pre-installed MATLOS versions 1.4 and 1.5 require a mandatory update to at least version 1.7
- Pre-installed matrix firmware version 3.04 cannot be directly updated to version 4.00 and require a 3.08 as an intermediate update step

New Features:

- Update ability of MSD files via the Java Tool (EZx only)

Improvements:

- USB-HID Reset
- CPU Detection for MST mode

Bug Fixes:

- Communication between Extender and I/O board.
- EDID Display bug
- Intel graphic control center display

Utility Tool:

- Support of firmware version 4.01
- File/New: Select firmware version for new configuration files
- Device Finder: Show DKM EmeraldVue
- System – System Settings: Added parameter Primary Preferred
- Extender and Devices – EXT Units: Added new parameters HDCP Active
- Extender and Devices – CON Devices: Added new parameters Disconnect and Video Off
- Extender and Devices – CON Devices: Added Send OSD Messages to...
- Extender and Devices – CPU Devices: Added new parameter Access Dialog (with display time and delay)
- User Settings – User and Groups, Extender and Devices – CON Devices: Support of login lock (users can be blocked from logging in for certain consoles)
- System Check: Added language checks for installed firmware.
- Device Finder: Dialog resizable
- View – SNMP: Adjusted slot names
- View – Super Grid: Improved general functionality
- System – Network/Syslog: Improved log level selection behavior
- Extender and Devices – CPU Devices/IP Session Config: Reduced input length to 16 characters in User Name
- FIX: Button labels may differ from the set language
- FIX: Save Status: Fixed saving second Mac address in 576 port matrix
- FIX: View – Control View: Fixed loading Control View
- FIX: Status and Updates – Status Matrix Firmware: Reading of fan and power supply firmware on secondary CPU of 576 port matrix is not allowed
- FIX: Status and Updates – Ute Matrix Firmware: Fixed MATLOS update on select moels
- FIX: Extender and Devices – EXT Units/EDID: Read correct serial number

Release (1/13/2022)

DKM Java Utility Version 5.0.1.0

Important Update Notes:

- Pre-installed MATLOS versions 1.4 and 1.5 require a mandatory update to at least version 1.7
- Pre-installed matrix firmware version 3.04 cannot be directly updated to version 4.00 and require a 3.08 as an intermediate update step

- Firmware comes along with a change in SNMP community string

New Features:

- Timer based dialog for accessing a CPU U that is already in use (accept or decline)
- LDAP: Support of JumCloud openLDAP server synchronization.

Improvements:

- Former SNMP trap community string "kvm" is now replaced by the currently active read-only community string.
- Redundancy switching in a fully redundant setup
- I/O board debug information via dip switch 2 (syslog)
- Initialization of I/O boards in synchronized mode Configuration exchange between redundant controller boards
- Configuration exchange between redundant controller boards
- Acceleration of grid master change
- Hot key and Fast key settings for initially connected extenders (global setting active)
- Display options of red MSC frame extended: negative values for time after which the red frame will be permanently shown on CON unit with active K/M control (i.e. -10 sec)
- Release status of connected CPUU units to be taken over by another CON unit

Bug Fixes:

- Selection of CPUs in OSD upon double click
- Macro switching when being switched to a local input of a CON unit
- Read out of serial number for the redundant controller card in hot standby mode
- Auto logout of users in a redundant setup

Utility Tool:

- Added extender replacement wizard
- Added Restart Extender action to menu
- Support of Chinese extender firmware
- Show firmware of redundant CPU board
- Firmware updates from version 3.04 to 4.0 may only be performed via an intermediate update to 3.08
- Improved mouse wheel scrolling behavior
- Support new range from -999 to 999 for Frame[sec]
- Added length limitation for Base DB
- Added parameter Bind DN
- Show passive redundant CPU board in matrix
- Fixed selection and color highlighting
- Fixed dual interface in matrix grid environment
- Fixed firmware update in 576 matrix with 2 CPU boards
- Fixed firmware upload in 576 matrix with 2 CPU boards

Release (2/9/2021)

DKM Java Utility Version 4.0.2.0

Not all features may be included in today's Hardware. The firmware is future thinking which begins to include support for newer devices which may not be available yet. Not every function / feature was listed but other fixes / improvements have been made. We lightly reference them in the release notes.

New Features:

- Support for new Matrix switches which will start to be available this year (pending hardware)
- Support for the Dual-Head DisplayPort 1.1 extenders

- Chinese OSD Support (further languages in progress)
- Single fiber strand redundancy for redundant matrix setups
- Transmission of keystrokes via GPIO module (pending hardware)
- Execution of favorites / macros via GPIO module (pending hardware)
- Dual LAN option for a separate configuration of both LAN ports (ACX288-ADCTL) for various services
- New API commands (extended extender information)
- LDAP support for matrix login via Java Utility
- Support of fast update for select extenders
- Support of IP CPU Version 2 (pending hardware)
- Simplified session management for IP CPUs (pending hardware)
- Support for 8-port CPU VGA switch
- Support for 100Mbitss (new G2-EU USB daughter card)
- Support for low latency options (pending hardware)
- Colored fix frame
- Redundancy Frame (select extenders)
- 144 Hz / 240 Hz frame rate support (newer hardware / codec)

Improvements:

- Support for 32 matrices in Matrix Grid
- Execution of CON/User macros when connected to local input
- Port configuration for LDAP servers
- User Principal Name for LDAP login
- Handling of community string in LDAP
- Initialization process of redundant extenders at the matrix
- Redundancy behavior upon network switch failure
- Navigation OSD search results with cursor keys
- Expanding and collapsing of all groups simultaneously (hotkey, +/-)
- Previous switching <p> when being connected to local input
- Activation of I/O board trace (SYSLOG) via Java Utility
- Accelerated Updates (select items)
- DP / HDMI Embedded Audio
- LOS Timer for HDMI
- Update behavior
- USB 2.0 embedded handling

Bug Fixes:

- Power user and private connections
- Local OSD access to controller ACX288-ADCTL
- Switching to local input
- Switching of redundant CONs to non-redundant CPUs
- Exclusive Mode Capabilities
- XV Grid line communication
- Video only switching in DKM Compact matrix switches
- Port communication
- Minor bug fixes
- Support of RS422 add-on module
- Link switching for redundancy
- Analog Audio
- Dual Head mode timing
- OSD communication
- EDID transmission
- Parameter handling for dual head series (select units)

- Low Latency Parameter Mode (ENALOLA)

Utility Tool:

- SNMP Board: Support upload and download of default configuration
- View Grid: Added graphics for new switches (hardware pending)
- Status and Updates: Support fan and power supply firmware information
- View: Added default connection timeout
- Fixed freezing UI during parallel extender update
- Fixed offline merge of multiple grids
- Fixed illegal arrangement values to horizontal arrangement
- Fixed refresh of license management panel
- Fixed import of German CSV files
- Support for updated extenders (hardware pending)
- Added French language pack
- Options for activating SYSLOG messages on a single or multiple I/O cards
- Several small improvements when using SNMP board
- Improved matrix event handling
- Extended Switch send user ID to the matrix, when sending a switch command
- CSV Export of localized separator
- Assignment Multiscreen added extender port to screen table
- Fixed CPUU port order for 152, 169, 288, and 576 switches.
- Extender and Devices fixed displaying data for firmware version <3.8
- Extender and Devices fixed MSD support date of ENAREDFRAME parameter
- Support for firmware 4.x
- Dark Mode
- Super Grid functionality

Release (3/11/2020)

DKM Java Utility Version 3.8.2.2

Bug Fixes:

- Fixed several packaging bugs with previous release, some firmware files were not compiled correctly

Utility Tool:

- Fixed matrix grid wizard

Release (2/3/2020)

DKM Java Utility Version 3.8.2.0

New Features:

- Support of Multi-Screen control 2.0
- Support for newer firmware of endpoints
- New API list commands for active CON extender link

Improvements:

- Supports up to 1024 CPU devices
- Internal file system for config storage
- Periodic matrix grid data control for 576 chassis
- Prioritization of matrix grid card connections
- Grid line connections initialization and synchronization of Grid Boards
- Extending and folding of CPU groups in CPU selection list

- Switching of CPU groups via macro
- Info box in Multi-Screen control
- Handling redundancy of extenders
- Extended config of CON devices for GPIO modules
- Disconnect of connection via OSD
- LAN task management
- API echo behavior

Bug Fixes:

- 2 Step access
- LED control of GPIO modules
- Service mode during extender update
- Multi-Screen control layout configuration
- Multi-Screen control with multiple control consoles
- Scrollbar handling in OSD for new CPU board
- Extender index in SNMP monitoring
- Display of fan status
- Display of network gateway when using DHCP
- Allocation of AD user rights via DKM Tool
- Avoid reading extender firmware after matrix update
- Assignment – MultiScreen control: Fixed arrangement update
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Utility Tool:

- Support of Chinese language
- SNMP-Board: Support of trap Link Status
- Extender and Devices – EXT Units/Parameters: Support of parameter Framerate
- Improvement: Increased number and size of tool logfiles
- Improvement: Status and Updates – Extender firmware updated: Reduced memory used
- Fix: Save Status, block creating of multiple instances on double click
- Fix: Reading configuration, catch and reset invalid values in configuration
- Fix: Extender and Devices, CPU devices, Fixed title
- Fix: Extender and Devices, User, Fixed title
- Fix: Status and Updates, Extender Firmware Update, Fixed system update, mainly crashes on 576 chassis
- Fix: Status and Updates, Extender Firmware Update, Fixed firmware conversation from FZSDECON/CPU to FZVDXCON/CPU in parallel extender update
- Fix: Help / Web Manual, fixed missing links

Release (12/11/2019)

DKM Java Utility Version 3.8.1.0

New Features:

- Support of Multi-Screen control 2.0
- Support for newer firmware of endpoints
- Basic support for the IP enabled CON

Improvements:

- Supports up to 1024 CPU devices
- Internal file system for config storage
- Periodic matrix grid data control for 576 chassis
- Prioritization of matrix grid card connections

- Grid line connections initialization and synchronization of Grid Boards
- Extending and folding of CPU groups in CPU selection list
- Switching of CPU groups via macro
- Info box in Multi-Screen control
- Handling redundancy of extenders
- Extended config of CON devices for GPIO modules
- Disconnect of connection via OSD
- LAN task management
- API echo behavior

Bug Fixes:

- 2 Step access
- LED control of GPIO modules
- Service mode during extender update
- Multi-Screen control layout configuration
- Multi-Screen control with multiple control consoles
- Scrollbar handling in OSD for new CPU board
- Extender index in SNMP monitoring
- Display of fan status
- Display of network gateway when using DHCP
- Allocation of AD user rights via DKM Tool
- Avoid reading extender firmware after matrix update
- Assignment – MultiScreen control: Fixed arrangement update

Release (6/25/2019)

DKM Java Utility Version 3.6.5.0

New Features:

- Support of secure socket layer SSL encryption on the ACX288-ADCTL
- Support of ECTDLCPU and ECTDLCON firmware
- Support for the IP CPU extenders
- Support for the HDMI 2.0 extenders
- Support for the OPS + 4K60 extenders
- Support for GPIO extender add-on modules
- Synchronization locking option for AD users in Groups
- Support of 3G XV CATx I/O boards
- Support of Bridge I/O boards
- Exclusive mode for shared access based on Con / User priorities
- API status for available and occupied grid lines
- Fix colors for CPU and CON devices
- Change of fix colors via the API
- No more grid lines notification
- Switching of CPU groups via Macro
- Support of VNC and web protocol for the IP CPU
- Support of bridge function for 1G / 3G conversion (bridge I/O board only)
- Support of 100 Mbits/s for the newer USB 2.0 cards (module dependent)
- Support of low latency option (module dependent)
- Colored fix frame (module dependent)
- Redundancy frame (module dependent)
- 144 Hz / 240 Hz frame rate support (module dependent)
- Support of GPIO add-on modules (module dependent)
- Reading out hardware ID
- Updatibility of MSD files via the DKM Tool (EZx only)

- Support of Kensington Expert Mouse Wireless Trackball
- Support of TIPRO keyboard
- Support of VuWall controller
- Support of Raritan KX4-101
- Optional acoustic error notification for SYSLOG and SNMP(Tool)

Improvements:

- Handling of VGA CPU Switch
- Communication between I/O boards
- Communication between extenders and the matrix
- Handling of LDAP login in Matrix Grid
- Network communication of DKM 576 switches
- Switching to next available non-connected CPU device in CPU group
- Update of I/O board Rev1
- Deactivation of I/O ports during OSD firmware update
- Improved extender initialization
- Priority of internal matrix tasks
- Adjustment of syslog messages
- Handling of Grid Lines in Matrix Grid
- Review of SNMP configuration
- OSD communication
- OSD login dialog
- Redundancy of the ACX288-ADCTL
- Permanent activation of internal matrix trace
- Deactivation of internal FTP server
- Username with 32 characters (previously 16)
- Support for umlauts in LDAP
- Accelerated update
- Update process
- Embedded audio (HDMI & DisplayPort Interface)
- LOS Timer for H DMI only board
- Update behavior
- Programming of EDID
- Switching between digital audio add-on module and embedded audio
- USB-HID Reset
- Acceleration of keyboard/mouse sharing in a matrix environment
- New customized video modes (CONVGPU)
- Support of XV extenders
- Configuration Report: Added extender modules (Tool)
- Save Status: Added app.log, CPU trace and I/O update.log(Tool)
- IPCPU: Added WEB-Mode(Tool)
- 576 Matrix: Matrix and extender firmware can be updated over one connection(Tool)
- Update extender firmware / parallel update: Improved stability of upload process(Tool)
- System Settings – Network/SNMP trap receiver: Added select all checkbox(Tool)
- Extender & Devices – CPU Devices / IP session config: Depending on the selected type, hide or show parameters(Tool)

Bug Fixes:

- Extender update
- Master / Sub matrix synchronization in Matrix Grid
- Real time clock
- CON / user login in Matrix Grid
- OSD Control in cascaded mode

- Keyboard / Mouse sharing between CON Devices
- Handling of TCP/IP Lan Processes
- Multi-Screen control via matrix
- Local KVM switching
- Enabling / Disabling of API interface
- OSD list arrangement
- Initialization and handling of Grid lines
- Switching behavior of 576 port matrix when using ACX288-ADCTL
- Disconnect upon manual logout
- Closing of command mode corrected
- Grid line communication
- Support of RS422 add-on module
- Link switching for redundancy
- Analog audio
- Dual-Head mode timing
- OSD communication
- EDID transmission
- Update CONVGPU (module dependent)
- Fiber transmission
- Video timing
- Support of USB-HID add-on module
- Matrix communication
- Video mode detection
- Communication with grid I/O boards
- Switching of 8-port VGA CPU switch
- USB-HID behavior on extenders connected to fixed ports
- Support of Focus rackmount tray
- Keyboard LED status in USB-HID ghosting mode
- Multiscreen control: Fixed free layout
- Extender & Devices – CON Devices / Favorites, Users & Groups – Users / Favorites: Fixed duplicated entries when a CPU is a group member
- Update – Matrix Firmware / Update – Extender Firmware: Fixed cancel button.

Release March 1st, 2018

DKM Java Utility Version 3.5.5.3

New Features:

- Support of new I/O board (Rev. 1)
- 8-Port Multi-Screen Control (using new I/O board and Java Tool)
- Multiple multi-screen control instances within MSC group
- Support of new extender series (TBD)
- 2 step access control for full access connections
- Support of 8-Port CPU VGA switch
- New parameters as seen in the release notes

CON Units:

- Support of USB 2.0 embedded module (USB Daughter Flex Version)
- Blue frame on redundant link (ENARED)
- Audio digital/analog conversion
- Dedicated DVI or HDMI output (ENADVI, ENAHDMI)

CPU Units:

- Support of USB 2.0 embedded modular (USB Daughter Flex Version) with 50Mbps/s
- Writing/reading config.txt via matrix

HID Firmware:

- Support of X-Keys XK-3 switch
- Hot key for deactivating USB 2.0 embedded (<L-Shift>, <L-Shift>, <U>, <D>, <Enter>)
- Hot key for activating USB 2.0 embedded (<L-Shift>, <L-Shift>, <U>, <E>, <Enter>)
- Port mode switching to 999 ports
- Optional MultiScreen control with <L-Shift> key held down (<L-Shift>, <L-Shift>, <X>, <M>, <Enter>), deactivation (<L-Shift>, <L-Shift>, <X>, <A>, <Enter>)

CONVGPU:

- New customized video modes
- Support of XV extenders

Improvements:

- Port mode for 999 ports
- Master save for all matrices in Matrix Grid
- I/O board memory info for extender updates
- Update of I/O boards
- Handling of I/O boards in Matrix Grid
- Acceleration of communication between controller board and I/O boards (flexible baud rate)
- Periodic alignment of Grid Data
- User Macros
- User access in Full Access and Private Mode on different Con unit
- Parallel operation of Auto Logout and CPU timeout
- Expansion of Active Directory features
- Matrix Grid communication in large configurations
- Highlighting of faulty ports by red port LED
- Monitoring of incorrect transfers (SYSLOG)
- Initialization method of faulty extenders
- Enhanced user login information in SYSLOG
- Accelerated update
- USB HID reset

CON Units:

- Video timing
- RAM timing
- Transmission of USB 2.0 embedded V1
- USB-HID Filter for OSD control
- Support of 1440x2560 on certain cards
- Freeze of last frame (ENAHOLDPIC)

CPU Units:

- Video Timing
- Transmission of USB 2.0 embedded V1
- Support of 1440x2560 (certain extenders)

HID Firmware:

- Writing of text in OSD including key repeat
- Handling of USB combined devices
- Mouse handling in MultiScreen control
- Support of Apple Magic Keyboard with numeric keypad

Bug Fixes:

- Locking of Video Only mode
- Access rights in Extended Switch
- Echo function in Matrix Grid
- OSD settings for new CPU board
- Private Mode with redundant CON units
- Update of user login/logout data
- User login
- CPU timeout for Full Access and Private Access connections
- Memory control for extender updates
- Handling of connections after I/O board replacement

- Control CON in MultiScreen control
- Internal synchronization of ACX576
- Character set of Fujitsu keyboard KB521DE in OSD
- XV Grid line communication
- Video only switching in DKM compact matrices
- Port Communication
- Converter settings are preserved after updated (EXTIMSD)

CON Units:

- String name (EXR>>EXT)
- H-Sync/V-Sync (EXTICON)
- Resolution 1720x1440

CPU Units:

- String name (EXR>>EXT)
- Handling of SFP modules
- Resolution 1720x1440
- Resolution 1024x768 (EXTICPU)
- Update (EXTICPU)

HID Firmware:

- Data transfer within framework
- Mouse mode in OSD
- Minor corrections in MultiScreen control
- Button control of ACX1004/ACX1008 series

CONVGPU:

- Updating

Release (11/13/2017)**DKM Java Utility Version 3.5.4.0****New Features:**

- Support of MATLPXP update (Controller Board)
- Support for ACX1M-xx
- Support for ACX1MT/R-ARE
- Device Finder: Show Grid Master
- System Check: Quick link to extenders, devices and users in definition panels

Improvements:

- Allow optional sequential I/O board update on compact switch
- Definition – EXT Units/Version: Increased table height to show all possible rows
- Monitoring: Show confirmation dialog before closing the tool
- Flash Update: Optimized layout of update panel

Bug Fixes:

- Definition – EXT Units: Check validity of extender before version request
- Status – SNMP: Fixed numbering order
- Jerking in text area
- Showing change market although there have been no changes
- System Check: Failed in systems with more than 127 modules
- New Configuration: Set default facility for SYSLOG server 1 and SYSLOG server 2

Release (9/11/2017)**DKM Java Utility Version 3.5.3.0****New Features:**

- New Flat UI
- Status – Control View: Custom monitor layout and user-friendly monitoring of all connections and managing of interconnection between CPUs and Consoles
- Definition – EXT Units: Support reading and writing of parameters on CPU extenders
- Status – Matrix View: Showing system status (temp, fan, power supply) when clicking on the chassis

Improvements:

- Administration – Matrix Firmware Update: Improved update selection and execution process

Bug Fixes:

- Control – Extended Switch: Show virtual consoles
- Flash Update: Fixed bug with Windows 10

Release (8/31/2017)**DKM Java Utility Version 3.5.2.2****Bug Fixes:**

- Assignment – Multi-Screen: Fixed request of OSD firmware version

Release (8/28/2017)**DKM Java Utility Version 3.5.2.1****Bug Fixes:**

- Assignment – Multi-Screen: Fixed detection of 8 screen support
- Administration – Matrix Firmware Update: Fixed MATLOSD and MATLVOSD update

Release (8/4/2017)**DKM Java Utility Version 3.5.2.0****New Features:**

- Assignment – Multi-Screen: Supports up to 8 screens with horizontal, block and free layout
- Support of new I/O Board

Improvements:

- Administration – Matrix Firmware Update: Show restart confirm dialog after firmware update of a single I/O board

Bug Fixes:

- Administration – Extender Update: Fixed bug in firmware version comparison
- KM-Switch MSC Configurator: Fixed 8 screen block layout

Release (04/12/2017)**Switch:****New Features:**

- Support of 640 CON Devices
- CON/CPU devices can inherit Device and Extender properties from a reference CON/CPU device at first connection
- Full access in Scan mode by mouse or keyboard event

Improvements:

- Reduction of matrix and extender update times
- Optimized search handling: Scroll & select search results while in search field
- Upon opening the OSD, the currently connected CPU is centered in the CPU selection list
- Alternative search mode in CPU selection list from the beginning of a Device name (F9 key)

- Previous Switching <P> for local CPU
- Internal processing of API commands
- Syslog message for new LAN connections
- General handling of LAN interface
- Visualization of CPU assignment in OSD
- Internal storage of configurations

Bug Fixes:

- Handling of Grid master and sub matrices in Matrix
- Initialization of matrices in Matrix Grid
- List handling in LDAP function
- Access rights (Login vs. Logout)
- Trap handling in Matrix Grid (SNMP)
- Handling of video only connections
- Login, Logout and disconnect of redundant extenders
- Macros for CON Devices with Force Login enabled
- Disconnect upon user logout
- Various minor bug fixes
- Fixed Matrix Firmware Update when using 1G and 3G I/O boards in the same matrix

Release (11/16/2016)

Switch:

New Features:

- Support of display port CPU extender with FZVDECPU firmware
- Support of redundant CPU boards
- Full support of DKM 576/576S port matrix
- Support of redundant controller board for DKM 48, 80, and 288 Port chassis
- Support of new extender series
- Expansion of Matrix Grid to 24 matrices
- Support of 32 user and CON macros
- Macro OSD list for executing macros
- User and CON ACL: AND/OR assignment
- Deactivation option of OSD at CON Units
- CRC32 checksum for API interface
- Multicast network communication
- Restart option for controller board
- **Flash Update:** New extender firmware update wizard
- **Definition – CON Devices:** Added **OSD Disabled** parameter
- **System - Access:** New parameter **OR User/CON ACL**
- **System - Access:** New parameter **AND User/CON ACL**
- **System – Switch:** New parameter **Macro Single Step**
- Support of Multicast communication

Improvements:

- Improvements of Matrix Firmware Update performance for matrix firmware >= 3.03
- Virtual CPU: Simultaneous assignment of one real CPU to various virtual CPUs
- Accelerated update for controller boards and I/O boards
- Update process of mismatched I/O boards.
- SNMP: Expansion of MIB with extender data for 2nd Link
- SNMP: Traps for macros added
- Initialization process for matrix grid
- Synchronization between grid master and sub matrices
- Handling of matrix grid connections
- Handling of I/O boards

- Performance of TCP/IP interface
- USB HID communication to matrix
- Online config mode activation via configuration
- Sequential switching option for macro commands
- User login macro in Matrix Grid
- **Save Status:** Check device name for invalid characters
- Show configuration file version in status bar
- Matrix Grid: When merging a configuration the new fixed port position in the grid will be calculated. Reduced network traffic. Improved message in message panel
- Save Status: More detailed information while saving extender status
- Multi-Screen Control: More detailed information in Matrix View and Grid Port View by highlighting invalid and not available CON devices
- Matrix View: Display fiber XV I/O boards as XV instead of SFP
- Optimized memory management
- Accelerated update

Bug Fixes:

- Fixed possible blocking of **Matrix View** during I/O type detection
- Cat X phyter: Initialization of extenders on I/O board
- Temperature status for DKM 288 and 576
- Fix Frame option in Multi-Screen Control
- Fix port handling for USB 2.0 extenders
- Local computer switching of HDMI series
- Connection handling of previous switching
- OSD communication to extender
- User login in Matrix Grid
- XV grid line communication
- Video only switching in DKM compact matrices
- Fixed Matrix Firmware Update when using 1G and 3G I/O boards in the same matrix
- **Save Status:** Fixed reading detailed extender information in grid
- **Matrix Grid – Merge:** Fixed initialization of user
- **Connect-Dialog:** fixed URL encoding
- Fixed I/O port background color for unused ports
- Fixed Drag & Drop of files for JRE 1.8.0_91 on Linux and OS X
- Display ports with invalid status as invalid ports
- **Definition Panels:** fixed reload function
- **Extender CSV Import:** fixed import

CON Units:

New Features:

- Switching on Dual-Head CPUs (EXTVCON)
- <Hotkey><r><h><Enter> for HID hardware reset
- <Hotkey><r><s><Enter> for HID software reset
- New DISPLAY2 parameter selects second video channel of the dual-head units
- Deletion of Config.txt recovers factory settings
- Versioning of Config.txt file
- Various new audio codes for DP30Hz cards
- LOS timer in Config.txt (ENALOSTMR)
- Microphone preamplification in Config.txt (GAIN=X) for extenders with balanced audio transmitter module

Improvements:

- VGA signal per default (EXTICON)
- USB 2.0 embedded connection in Video Only mode

- Manual extender update from Windows 8 computers
- Differentiation of EDID files (dual-head units)
- Detection Dual-Head/Dual-Link (EXTDLCON)
- Support of 3440 x 1440 resolution
- Dithering filter ENADITHER (EXTCPU, EXTRCPU, EXTVCPU)
- Audio support in Video Only mode
- Bidirectional support of balanced audio upgrade module
- Automatic cutting of EDID extension block (EXTCPU, EXTRCPU, EXTVCPU)
- Update improved

Fixed Bugs:

- Service Mode via backplane
- EDID transmission of redundant extenders
- USB 1.1 support of USB 2.0 embedded upgrade modules
- Digital audio parameters for redundant CPUs
- USB 1.1 support of USB 2.0 embedded upgrade modules

CPU Units:

New Features:

- <Hotkey><R><H><Enter> for hardware reset and <Hotkey><R><S><Enter> for software reset
- Microphone pre-amplification in Config.txt (GAIN=X) for extenders with balanced audio transmitter module
- New DISPLAY2 parameter selects second video channel of the dual-head units
- Deletion of Config.txt recovers factory settings
- Versioning of Config.txt file

Improvements:

- Audio signal on both links available (redundant links)
- USB 2.0 embedded connection in Video-Only mode
- Compression control (EXTVCPU)
- Timing for memory control (EXTDLCPU)
- Detection Dual-Head/Dual-Link (EXTDLCPU)
- Support of 3440 x 1440 resolution
- Bidirectional support of balanced audio upgrade module
- Update improved
- Manual extender update from Windows 8 computers
- Differentiation of EDID files (dual-head units)

Fixed Bugs:

- Parameter RELEASETIME=X
- Link communication
- RAM timing (EXTICPU)
- Switching of redundant extenders
- EDID transmission of redundant extenders
- Audio transmission on HDMI (EXTHRCPU)
- Color defect in right half of the screen
- Digital audio parameters for redundant CPUs
- USB 1.1 support of USB 2.0 embedded upgrade modules

USB HID Firmware:

New Features:

- <Hotkey><R><H><Enter> for hardware reset and <Hotkey><R><S><Enter> for software reset
- Port deactivation in Multi-Screen Control (Trader Switch)
- Support of Logitech K400 keyboard
- Support of Logitech MK220 keyboard/mouse
- Support of various touch screens for KVM sharing
- Expanding of favorites in port mode to 254
- Support of Raspberry Pi
- Support of 32 macros in a matrix
- Freely configurable Multi-Screen Control (Trader Switch)
- Support of new X-key generation

Improvements:

- Multi-Screen Control with identical mice
- Support of Logitech Unifying Receiver
- Key buffer timeout
- Wake up of computers from sleep mode
- Boot process of Trader Switch
- Handling of multi interface devices
- Acceleration in Multi-Screen-Control
- Change of polling interval
- Handling of multi-interface keyboards
- Control of keyboard LEDs
- Fixed assignment of K/M to dedicated hub ports
- Support of horizontal scrolling of Apple mice in USB HID Ghosting
- Secure transmission of data packages
- Pointer handling in Red Hat and CentOS
- Handling of hubs for 3rd party USB switch
- Support of keyboards with mouse interface
- Support of EloTouch screens for shared control

Fixed Bugs:

- Switching of Trader Switch
- Operation of Multi-Screen Control
- Port arrangement in Multi-Screen Control (Trader Switch)
- Deactivation of ports (Trader Switch)
- Start of recovery console of mac computers
- Handling of absolute mouse reports
- Converter OSD shut down
- OSD control in cascaded environment
- Mouse handling as a combined device
- Trade Switch arrangement 2x4 in Multi-Screen control corrected

CONVGPU Firmware:

New Features:

- New resolutions for SDI (1080p@24/25/30Hz)
- EDID change via keyboard command (VGA vs DVI) <Hotkey><V><G> (VGA) or <Hotkey><V><D> (DVI)

Improvements:

- EDID transmission
- Scaling

Fixed Bugs:

- RAM timing
- Saving of image settings
- Minor bug fixes

Java Tool:

New Features:

- **System - Matrix Grid:** New **Offline Grid Wizard** in status and configuration files
- **Assignment – Virtual CPU Assignment:** Allow assignment of a real CPU to multiple virtual CPUs
- **Macro – Assign CPU, Assign CON:** Added **Remove Assignment** parameter
- Support of display port cpu extender with FZVDECPU firmware
- Support of redundant CPU boards
- **Flash Update:** New extender firmware update wizard
- **Definition – CON Devices:** Added **OSD Disabled** parameter
- **System - Access:** New parameter **OR User/CON ACL**
- **System - Access:** New parameter **AND User/CON ACL**
- **System – Switch:** New parameter **Macro Single Step**
- Support of Multicast communication

Improvements:

- File Upload/Download communication improved
- **System – Matrix Grid:** Improved communication between DKM Tool and matrix in **Online Grid Wizard**
- Reduced communication between Java Tool and matrix
- Significant improvement of **Matrix Firmware Update** performance for matrix firmware >= V03.03
- **Save Status:** Check device name for invalid characters
- Show configuration file version in status bar
- **Matrix Grid:** When merging a configuration the new fixed port position in the grid will be calculated. Reduced network traffic. Improved messages in message panel.
- **Save Status:** More detailed information while saving extender status
- **Multi-Screen Control:** More detailed information in **Matrix View** and grid port view by highlighting invalid and not available CON Devices
- **Matrix View:** Display fiber XV I/O boards as XV instead of SFP
- Fixed Drag & Drop of files for JRE 1.8.0_91 on Linux and OS X
- Display ports with invalid status as invalid ports
- Optimized memory management

Fixed Bugs:

- **Matrix View:** Fixed missing SFP label for fiber cards
- **Macros:** Fixed incomplete macro clean up when deleting consoles or user
- **System – Matrix Grid:** Fixed bug in merge of macros
- Fixed possible blocking of **Matrix View** during I/O type detection
- Fixed **Matrix Firmware Update** when using 1G and 3G I/O boards in the same matrix
- **Save Status:** Fixed reading detailed extender information in grid
- **Matrix Grid – Merge:** Fixed initialization of user
- **Connect-Dialog:** fixed URL encoding
- Fixed I/O port background color for unused ports
- **Definition Panels:** fixed reload function
- **Extender CSV Import:** fixed import