Carnivore2 Changelog

26.02.2024

Updates for version 2.53

Required updates: several utilities, Nextor IDE BIOS, Boot Menu.

1. Added new Nextor 2.1.2 Release version (master only)
2. The Boot Menu version is now 2.53, the BIN file now has the fixed size - 32768 bytes
3. Changed C2MAN, C2MINI, C2MAN40 and C2MINI40 utilities:
    1. Added BIOS and Boot Menu file verification before uploading (https://github.com/RBSC/Carnivore2/issues/50)
    2. Optimizing directory now removes old “RAM:” entries (https://github.com/RBSC/Carnivore2/issues/40)
    3. The Boot Menu must be 32768 bytes long, older files will not be recognized
    4. A few minor bugfixes in the utilities were added
4. Changed C2RAMLDR utility:
    1. A new option added to optimize and clean-up older “RAM:” entries (https://github.com/RBSC/Carnivore2/issues/40)
5. Changed the value of C29 in the Partslist to match the schematics
6. Added a few RCP files

14.05.2023

Updates for version 2.52

Required updates: all utilities, Nextor IDE BIOS.

1. Added new Nextor 2.1.1 Release version (master only)
2. Added STL files for 3D printing the cartridge case (the case has holes for audio jack and CF card)
3. Added ROM file (BYPASSFW) and its RCP configuration file for starting MSX-DOS2 on some computers, where the built-in firmware intercepts the control after exiting the Boot Menu
4. All special utilities now work correctly on Daewoo CPC-400 and similar computers
5. Added 2 new utilities: C2MINI и C2MINI40 - they do the same as C2MAN and C2MAN40, but they are lacking the directory editor (so they are smaller), so they should be used for computers with the reduced amount of RAM in MSX-DOS

12.06.2022

Version 2.52

Required updates: Boot Menu.

1. PSG initialization was added into the Boot Menu before running games or exiting in order to fix the missing music and sound effects in certain arabic MSX games
2. On certain MSX computers with the real PSG chip joysticks and joypads were not working in the Boot Menu. The resident music player had to be changed in order to fix that problem (thanks to KoD/SDM for his help)

01.05.2022

Version 2.50

Required updates: FPGA firmware, IDE BIOS, Boot Menu, all utilities.

1. The CF timings were adjusted in the FPGA firmware - this seriously improved the stability and compatibility with various CF cards
2. User-configurable port (#F0, #F1 and #F2) for Carnivore2 identification and controlling was added to the

Configuration menu
3. The configuration screen allows to set the ID port's auto-selection mode (the port is selected based on the slot's number to avoid conflicts)
4. Dual-PSG support was added; when enabled in the PSG menu, Carnivore2's PSG is configured to work on ports #10-#11
5. Adjustable autostart delay with possibility to skip the startup message (when 0 is set) was added
6. Special Nextor 2.1.1 Beta 2 BIOS with disabled slave support was added as the default IDE BIOS
7. Original Nextor 2.1.0 BIOSes (Release) with different IDE driver versions were added as optional
8. Original (Japanese) FMPAC BIOS was added as optional BIOS
9. C2IDETST now supports command lines switches: drive letter and number of iterations
10. The layout of palette controls was changed in the Configuration menu
11. Carnivore2 may now work in slot 3 if this option is enabled in the Configuration menu (some restrictions may apply)
12. High resolution cartridge labels were added into the repository
13. A few new RCP files were added into the repository
14. FMPAC drums volume fix was added; thanks to Uniskie (Japan)
15. Fixed the starting segment number for page 1 in both ASCII mappers for better compatibility with ASCII ROMs
16. Fixed the bug in C2RAMLDR: the loaded RCP entries were incorrectly adjusted before writing into the directory
17. The hardware interceptor was removed from the firmware; the 3 registers at offset #25-#27
18. Alternative background music was added in the BOOTCMFC.ALT file
19. New utility C2FINDER was created to identify Carnivore1 and Carnivore2 in a system using two different methods
20. Fixed a bug in Boot Menu that prevented the second/third Carnivore2 properly reading the configuration settings
21. Fixed a bug in Boot Menu - Arabic/Korean warning was shown twice during boot
22. Fixed a bug in Boot Menu - alert messages were shown on top of title screen if Dual-Reset was not active
23. The Boot Menu restores the original screen and its colors when exiting
24. There are 2 additional files for OpenMSX to assign Carnivore2 to slot 1 or 2 (or both - you can use two Carnivore2 now)

03.07.2020

Version 2.40

Required updates: FPGA firmware, FMPAC BIOS, Boot Menu, all utilities.

1. The emulation of the slave slot is now possible as one of the master's subslots in the Dual-Slot screen. This mode is automatically enabled when there's no free slots in a system. The master slot must be expanded for this feature to work. This allows to use Dual-Slot feature on computers with only one available slot and also on computers where this feature didn't work before (Sony HB-55 and HB-75).
2. The user interface now looks 99% the same on all MSXs, so people with Arabic and Korean MSXs could use the special Boot Menu for all computers without visual differences. The cursor in the special Boot Menu is blinking like on Apple II computers — this is a fix for the previously found problem with the cursor on the Arabic and Korean MSX computers.
3. “The Hymn to Aurora” background music was added into the main menu. The M button toggles the playback. The playback state is saved into the configuration EEPROM.
4. The last used entry can be located by pressing the L button. This helps to navigate the directory when there are too many entries and a user wants to return to the last used entry after reboot. This setting is saved into the configuration EEPROM.
5. The C2BACKUP utility now preserves the Boot Menu, IDE and FPMAC BIOSes. So when restoring an old backup, the up–to–date system areas will not be overwritten with the old data.
6. The new FMPAC BIOS has been provided, now it has 100% English translation.
7. The new firmware with a few important bugfixes has been provided — it is highly recommended to update the firmware to version 2.40 — the same as the last Boot Menu.
8. The F1–F10 functional keys no longer affect the user interface's input in the Boot Menu.
9. The Autostart feature is no longer using the FlashROM to store the setting. Now the entry for Autostart is stored in the configuration EEPROM. So please make sure that your cartridge has this chip installed (it's a small 8–pin chip under the CF card slot).
10. All screen output is now done via VDP ports to improve the user interface experience — there is no more BIOS–assisted screen output.
11. A few bugfixes were done in the Dual-Slot functionality of the Boot Menu, for example the option to use one of the master slot's subslots for the slave slot emulation has been added.
12. The help scroller has been added, use the S key to enable/disable it. The scroller's status is saved into the configuration EEPROM.
13. A few adjustments were made to the RD's signal timing in the firmware in order to improve compatibility with various CF cards.

14. The SCC enabling logic has been modified for the better compatibility with the slave slot. Now all SCC games have music and sounds in all configurations.

15.03.2020

Version 2.30

Required updates: FPGA firmware, Boot Menu, all utilities, DefConfig entry; the “Power-up fix” must be removed if it was implemented on board!).

1. The new setup screen was introduced — slot configuration. It can be called with O hotkey or with Enter ⏎. The new setup screen allows to run dual–slot configuration with flexible options selection for the master slot (you can choose what Carnivore2 built–in devices to enable). You can select 2 ROMs to run simultaneously. The only restriction for the slave slot is that it can run games with Konami4 and Konami5 mappers as well as small games up to 32 KB without mapper. The slave slot becomes available if there's one unused physical slot in MSX and it is not occupied by another device.
2. The Boot Menu main page's UI was adjusted to have all main hotkeys easily visible. Also the Boot Menu now has the visible selection for master and slave slots called “Dual-Slot”. The entry for the master slot can be selected by pressing 1, the entry for the slave slot can be selected by pressing 2. The D key clears the selection as well as Autostart entry.
3. The DefConfig's settings were changed and the Boot Menu was adjusted so that when this default configuration is started, the Boot Menu remains in the primary slot, allows the system to start and is always detectable by `C2MAN` and other utilities. The `C2MAN` and `C2MAN40` utilities now write the adjusted DefConfig entry into the directory when you optimize directory entries from the Service Menu.
4. A new setting has been added into the Configuration screen to set the desired frequency at startup. A user can choose between 50Hz, 60Hz and the default computer's frequency (no forcing, this is marked as “–”). The setting is saved into the configuration EEPROM. Now the F button in the Boot Menu only temporarily switches the frequency between 50Hz and 60Hz.
5. The Configuration screen got yet another new setting — “Dual-reset on cold boot”. It makes the computer restart twice after the cold boot. This is necessary to make sure that the cartridge is fully initialized when a computer is just powered on. So it is recommended to enable the dual–reset feature.
6. The C2CFGBCK utility no longer does the BIOS ROM shadowing and therefore starts faster.
7. The Boot Menu's data section has been heavily optimized to have space for more features. The repeated characters are now output with a macros (this saves space). The data for Boot Menu's screens is now written in the last two 8 KB blocks of the first 64 KB FlashROM block. This saves a lot of space.
8. The firmware now reports its internal version in the configuration registers (3 bytes) in ASCII format (only starting from v2.30).
9. The cartridge now outputs the actual versions of the Boot Menu and the firmware during the cold boot and then either reboots a system again (dual–reset) or continues to the Boot Menu.
10. The cartridge will not work in slot 0 and slot 3, it will output a message and halt a system if it detects that it's used in those slots.
11. The IDE BIOS has been changed to Nextor 2.1.0 Beta 2. This is a stable version with many bugfixes and new features provided by Konamiman.
12. The Configuration screen got another new setting — “Disable FMPAC stereo”. It disables the stereo output of FMPAC from Carnivore2's audio socket.
13. The Boot Menu now detects that it is running on Korean or Arabic MSXs and in case it is not compatible with those systems, it will output a message and will try to boot to DOS after 10 seconds. In such a case a compatible Boot Menu (BOOTCMFC.BIN) should be installed into the cartridge (see the “Special” subfolder in the repository for the compatible version of the Boot Menu.
14. ROMs can be selected with the Space key in the Dual-Slot screen. Pressing space will allow to cycle through compatible ROMs for each slot. After the full cycle there will be an “empty” selection to keep the slot vacant. In addition, the master slot can also use the “Konami SCC+” configuration. So you can run SCC+ games in the slave slot and enjoy SCC+ and a game on a single cartridge. When the master slot's expansion is enabled, any of its devices (RAM, FMPAC, IDE) can be enabled or disabled with the Space key.
15. The autostart countdown can be skipped with Space key. The same applies to the message about the incompatible Boot Menu.
16. All screens now support joystick. The joystick's directions are interpreted as cursor keys and the buttons are interpreted as Space or ESC. Please see the readme.txt for more info.
17. In the PSG/PPI settings the Space key now enables or disables the PSG and the Enter ⏎ key enables or disables the PPI clicker. This is done to better support joystick usage in this screen.
18. During the autostart countdown joystick buttons allow to either skip the countdown and start an entry or to cancel the

countdown and go to the main menu. Please see the readme.txt for more info.
19. The Boot Menu detects Russian network modules and halts a system to prevent conflicts.

31.03.2019

1. Added UI settings screen that can be called with S button into the Boot Menu. A user can now enable sorting of the menu entries, enable/disable fade in/out effects, set the speed of the keyboard/joystick and customize the font and the background colors of all Boot Menu's screens (on MSX2 and later computers). A user can also restore the default settings with just one button. The UI settings are stored in the configuration EEPROM.
2. The F3 key loads the UI defaults on startup, but it doesn't clear the settings in the EEPROM. This function may be used to bypass bad configuration settings.
3. The `C2MAN`, `C2MAN40`, `C2RAMLDR`, `C2SRAM` and `C2BACKUP` utilities now assume the default extension for their data files and ROM images if a user doesn't input the extension himself.
4. The `C2MAN`, `C2MAN40` and `C2RAMLDR` utilities got a bugfix to better identify the free directory entries in order to re–use them. The directory optimization now works better.
5. The `C2MAN` and `C2MAN40` utilities were optimized in size to better fit into RAM under MSX-DOS2.
6. The new utility `C2CFGBCK` allows to backup and restore the data in the configuration EEPROM.
7. The `C2BACKUP` utility asks a user whether he wants to preserve the existing Boot Menu on the cartridge and in case of a positive answer it doesn't overwrite the existing Boot Menu with the one stored in the backup file.
8. Added `C2IDETST` utility to test IDE controller's functionality. The utility performs 16384 read/write operations and shows the status for each of them. In the end the utility shows the total/success/failed counters.

30.09.2018

1. The Casio's built–in trigger buttons can now interrupt the autostart.

22.09.2018

1. The Boot Menu now supports joypads and joysticks connected to any of the 2 joystick ports. They allow to control the cursor in the main menu, start the games and configuration entries and also to stop the autostart of the selected entry.
2. Added the second help screen with the description of joystick's actions into the Boot Menu. The autostart message now mentions joystick's action as well.

14.06.2018

Firmware update is required.

1. The PSG emulation was re–worked, not it sounds very close to the original chip's output.
2. All tools now work correctly under MSX-DOS version 1.xx; The `C2MAN_40.COM` utility has been renamed to `C2MAN40.COM` for compatibility with older DOS versions.
3. The code of `C2MAN` and `C2MAN40` utilities was merged and can be now compiled from one file, the VDP and MSX generation detection allows to set correct mode depending on the platform; the user interface has been improved, the code was optimized.
4. In the `\Util\special` subfolder there are special versions of the `C2MAN` and `C2MAN40` utilities, whose directory editor works correctly on Korean and Arabic MSX computers.
5. The `C2BACKUP` tool is now writing to FlashROM 35% faster, the counter bug is fixed.
6. The SCC and PSG filters were optimized in the firmware, the sound quality is much improved.
7. The Altera's firmware now has the hardware–based interceptor for starting ROM images, but this feature is not yet used in the Boot Menu.
8. The `/r` restart option is now supported by `C2BACKUP` and `C2SRAM` utilities.

10.05.2018

1. The tools and the Boot Menu now work on Daewoo and Arabic MSX computers.
2. The new tool is available — `C2BACKUP`: it allows to read and write the contents of the entire FlashROM chip.

06.05.2018

1. Fixed a bug with help output in all utilities.
2. Added reboot functionality into `C2MAN` and `C2MAN_40` utilities.

29.04.2018

Firmware update is highly recommended.

1. Added Z80/R800 mode toggle for Turbo-R machines with T button.
2. Added Turbo mode toggle for Panasonic MSX2+ machines with T button.
3. Added indication of Z80/Turbo/R800 mode to the status screen.
4. The CF card's clock speed is now independent from the CPU's clock speed. So the IDE will work correctly even if the CPU speed is above normal. Also a few minor errors in the firmware were fixed.
5. The selected VDP frequency and/or Turbo/R800 mode is preserved for ROMs after system restart.
6. Corrections were made into the documentation regarding the PosSiz register and the Turbo/R800 modes.
7. When an RCP file with the same name as ROM file is found, the `C2MAN`, `C2MAN40` and `C2RAMLDR` utilities are asking whether to load the RCP data. In autoloading mode the RCP data is loaded automatically.
8. The `C2RAMLDR` utility can now reset the computer on–demand or automatically after loading the ROM file if the /r command line option is used; the restart option has been added into the menu.
9. After writing IDE or FMPAC BIOS into the cartridge there's no longer a problem with directory editing. In the past the directory was shown as corrupted because of incorrect configuration after BIOS flashing.
10. A few RCP files have been added.

03.02.2018

1. Fixed an error in the directory record deletion dialog in the `C2MAN` and `C2MAN_40` utilities.
2. A few RCP files have been added.

03.01.2018

1. Fixed the incorrect value for Konami 4 mapper configuration.

30.12.2017

1. Modified `C2MAN`, `C2MAN_40`, `C2RAMLDR` and `C2SRAM` utilities for case–insensitive input.

26.12.2017

1. Slightly improved font and volume indicators in the Boot Menu.
2. Improved presets `DSK2ROM` and `LIFEMARS`.

16.12.2017

1. Fixed a bug in `C2MAN`, `C2MAN_40` and `C2RAMLDR` utilities — when the reset was selected for a ROM, the second reset flag was not set in configuration registers, that led to a conflict.
2. Improved font for Boot Menu, changed a few symbols, added horizontal lines after screen titles.

05.12.2017

Firmware update is required.

1. Fixed the attribute correction bug in `C2MAN`, `C2MAN_40` and `C2RAMLDR` utilities. Now files with all attributes are read correctly.
2. The firmware now supports enabling or disabling the internal PSG and PPI Clicker devices and setting the volumes for both of them.
3. The Boot Menu was updated to support PSG and PPI enabling/disabling as well as setting the volumes for both devices.
4. The Boot Menu is now also available in red color scheme.

16.11.2017

1. When autostart is set on any entry, after reboot there will be a note shown and there will be a 3 second delay before this entry is activated. During these 3 seconds a user can abort autostart.
2. Now the entry can be started with default settings by using Enter ⏎ key in addition to Space.
3. You no longer need to press Shift in Boot Menu to do some action. Both upper and lower case characters are accepted and action is taken regardles of the case.
4. The help screen was updated with the changes (keys assignments) and it now shows the Boot Menu's version number. Thanks to 8bits4ever for the idea!
5. Fixed a bug: now the configuration entries can't be started with G/g key.
6. Fixed a bug: the `C2RAMLDR` utility was showing incorrect error message when copying a file to cartridge's RAM was failing.
7. The `C2RAMLDR` utility no longer puts R into the mapper field for the “RAM: name” entries, now the detected or manually selected mapper type is put there.
8. The `C2RAMLDR` utility can be instructed to skip the creation of a directory entry with `/D` option or during the user interaction.
9. The `C2SRAM` utility has been created for saving and loading the contents of the emulated SRAM area for the FMPAC device.

04.11.2017

1. The cursor is completely removed (thanks to Grauw and Nyyrikki), mapper symbols have been changed and improved, help and volume control screens were slightly changed (a line was added to the bottom).
2. The `C2MAN_40` utility now sets the 40 symbol screen width when started. The `C2MAN` utility has been updated to detect the VDP and show a note if it's started in screen mode with less than 80 symbols width. This note is skipped when the command line is not empty to allow automatic flashing mode to work without user interaction.

03.11.2017

1. The font has been updated so that the status line is not touching the border. A few new symbols were added: copyright sign, 'V' and 'H' key symbols. The selection marker has been changed to a better one.
2. The colors and palette for the main, help and volume screens have been moved to variables. Now you can easily compile yourself a custom color scheme Boot Menu without much hassle.
3. An attempt was made to remove the cursor. Also the key click sound was disabled.
4. The main, help and volume screens on MSX1 now look similar to those on MSX2, the colors have been changed to match those on MSX2.

22.10.2017

1. The schematics has been changed. The part numbers of T3–T6 transistors were incorrect there. This doesn't affect the device, it's just a cosmetic bug.

02.10.2017

1. Now the VDP frequency can be changed between 50 and 60 Herz with the F key in the main menu. The setting is saved into an additional configuration EEPROM.
2. The status line has been added to the bottom of the main screen. It shows the current VDP frequency, FMPAC and SCC volume as well as the current directory page vs. total number of pages.

13.09.2017

Firmware update is required.

1. The volume of FMPAC and SCC can be now saved into the additional configuration EEPROM on board. The change requires updating the firmware and Boot Menu.

02.09.2017

Firmware update is required.

1. The DAC output has been drastically improved. The sound of FMPAC is way better now. The change requires updating the firmware and Boot Menu.
2. The volume of SCC and FMPAC can now be controlled from the Boot Menu.
3. SCC+ support has been added.
4. Fixed a bug with video effects on MSX1. The palette effects on VDPs earlier than v9938 have been disabled.

10.02.2017

Firmware update is required.

1. The function of the register configuration for slot expansion has been improved. Also a check was added to prevent illegal values to be saved into this register.
2. All configuration registers are now visible at addresses 4F80h–4FA1h. This is done for easier debugging. These registers can be changed on–the–fly and the changes will be immediately taken into action.

03.02.2017

Firmware update is required.

1. The expanded slot functionality has been added. Please refer to the cartridge's documentation for more info.

http://sysadminmosaic.ru/en/msx/carnivore2/changelog

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