



TRIANGULAR μ OS 1.25/C64

for

 **Commodore**  **64**

Changelog

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Changelog for TRIANGULAR μ OS 1.25/C64 for Commodore 64:

- Code of TRIANGULAR μ OS is reviewed, improved, cleaned and bug fixed
- Slightly updated loader module screen (LOADING/RESTARTING/SHUT DOWN)
- Multi-characters handled by special function amounted for saving 1 KB of code
- BIOS: Some minor visual changes (mostly colors)
- BIOS: Detection of C64 or C128 (in C64 mode)
- GUI: Mouse pointer uses sprite instead of PETSCII character
- GUI: Time separator : (in right bottom corner) is blinking as seconds progress
- GUI: Windows repositioned and stretched with minor visual changes
- GUI: Windows can activate elements outside their loops in more advanced manner
- GUI: First element of μ OS API named BASICCALLY added: Window creator that draws window based on given arguments
- GUI: Window refreshes faster and without blinking
- SETTINGS: System settings and color settings merged into one SETTINGS window, divided by 2 tabs into SYSTEM and GRAPHICS (color options)
- SETTINGS: GRAPHICS tab now supports 16 colors and 2x more background patterns
- DISK: Program window slightly enlarged and improved few minor mechanisms
- CMD: Small visual changes and improved few minor mechanisms
- WORDS: Commands panel slightly redesigned with new options added
- WORDS: Repositioned and expanded text area
- WORDS: > symbol (indicating line to write) is removed and text area is 1 character wider
- WORDS: Faster typing-in mechanism
- WORDS: Clear Screen [Shift + Home] erases currently written line
- WORDS: F6 Copy line and F7 Paste line added
- WORDS: Clipboard shared with MATH calculator (F7 will retrieve memorized number in MATH)
- MATH: Window repositioned and minimal color theme update
- MATH: Clipboard shared with MATH calculator (Memory contains number (converted string to float) copied inside WORDS)
- MONITOR: Show memory area is reworked
- SYNTH: Piano keyboard expanded and new voices added
- SIMCITY: Mechanism that selects land plot to activate is more random and equally covers available zoning area
- GAMES: CHUCK'S CHALLENGE & LIFE RAFT RESCUE - issues with sprites are corrected
- Changelog added as separate document

Changelog for TRIANGULAR μ OS 1.20/C64 for Commodore 64:

- Support for Commodore 64 with its 40 column VIC-II text mode and SID chip is added
- BIOS added indicator reminding to type time (<- TYPE NEW TIME) after pressing T
- WORDS – by pressing Home key you can reach first line of document
- SYNTH – reworked with simplified keyboard and limited to 1 voice channel which now can play sounds in normal, lower and higher octave ranges
- Only SIMCITY TRIANGULAR μ OS 1.15/VIC for Commodore VIC-20
- In place of old games 3 new games from Roman Werner added (TAXI TAXI, CHUCK'S CHALLENGE and LIFE RAFT RESCUE)
- All games merged into GUI program file
- Bugfixes and improvements

Changelog for TRIANGULAR μ OS 1.15/VIC for Commodore VIC-20:

- TRIANGULAR μ OS 1.15/VIC won't start on VIC-20 with less than 29 KB of RAM (24 KB RAM Expansion is needed or higher)
- GUI merged with MONITOR, WORDS and SYNTH
- MONITOR and WORDS errors messages accompanied by beep sound
- Besides LOADING screen there is added RESTARTING (with yellow TRIANGULAR logo) and SHUT DOWN (with red logo)
- Bugfixes and improvements

Changelog for TRIANGULAR μ OS 1.14/VIC for Commodore VIC-20:

- TRIANGULAR μ OS won't start on VIC-20 with less than 21 KB of RAM (16 KB RAM Expansion is needed or higher)
- GUI merged with MATH and CMD
- MATH keys assigned for basic functions (+, -, *, /, %) and ON to calculator
- CMD beep sound added while displaying error messages

Changelog for TRIANGULAR μ OS 1.13/VIC for Commodore VIC-20:

- TRIANGULAR μ OS won't start on unexpanded VIC-20 5 KB or 8 KB (with 3 KB RAM Expansion). VIC-20 with 13 KB of RAM (8 KB RAM Expansion) is needed (or higher)
- GUI merged with COLORS & DISK
- GUI streamlined
- DISK received minor improvement of disk content handling mechanism

Changelog for TRIANGULAR μ OS 1.12/VIC for Commodore VIC-20:

- GUI merged with APPS, GAMES and SETTINGS
- COLORS retrieve default settings with DEAULT button
- DISK & CMD mechanism of disk content retrieving updated by retrieve directory by once
- CMD other updates, D> (duplicate) command added and other command syntax changes
- MATH improved, various functions added and few additional keys mapped
- MONITOR command syntax overhauled into 1-line commands
- Bugfixes and other minor improvements

Changelog for TRIANGULAR μ OS 1.11/VIC for Commodore VIC-20:

- TRIANGULAR μ OS won't start on unexpanded VIC-20 5KB. VIC-20 with 8KB of RAM (3KB RAM Expansion) is needed (or higher)
- UOS and BIOS merged into single UOS program and improved error messages system
- CMD merged with its help file CMD>HLP and further improved
- CMD syntax of R> and C> operations changed to more intuitive [original file]=[new file]
- STAR WARS merged with its game engine file STAR WARS>ENG

Changelog for TRIANGULAR μ OS 1.10/VIC for Commodore VIC-20:

- Support for Commodore VIC-20 with at least 5KB and it's 22 column 8 color text mode
- New colorful loader for inter-loading operations
- BIOS Setup menu offers option to enable/disable Datasette
- BIOS Setup supports separate Work disk drive for storing system apps documents
- BIOS improvements and bugfixes
- GUI cursor is joystick operated and can move diagonally
- GUI windowed environment uses custom color background and title bar
- Up arrow button added to task bar (placed right of clock) to go back to main desktop screen
- SETTINGS is split into two apps: SETTINGS which can change time plus work disk and printer options and COLORS which can change colors of GUI elements.
- DISK is now windows & cursor operated. Changed disk content display mechanism.
- CMD Introduced improved mechanism for displaying success or error of performed operation. Minor review of command syntax (I> and V> instead of I and V). Bugfixes.
- APPS folder instead of OFFICE, contains WORDS, MATH, MONITOR, SYNTH
- MATH calculator revamped, simplified and cursor operated
- MONITOR have blue background. Command SHOW displays 2 hex digits instead of 4. HELP consolidated. Minor bugfixes.
- 4 new games: SIMCITY, STAR WARS X-Wing vs TIE-Fighter (new version), BREAKOUT (new version), NEED4VIC
- Various other bugfixes and improvements
- Empty and formatted disk image called TRIANGULAR μ OS 1.10-VIC Documents in .d64 and archived .zip file formats added for use as Work disk

Changelog for TRIANGULAR μ OS 1.05/PET for Commodore PET:

- Config file contains system key
- UOS/BIOS error messages system improved
- DISK text program added to show disk content and run programs
- SETTINGS can properly cancel changes and other bugfixes
- Improvements, bugfixes and cleaned code from redundant parts of all programs produced very stable version

Changelog for TRIANGULAR μ OS 1.04/PET for Commodore PET:

- OS name changed to TRIANGULAR μ OS
- Launching and config filenames changed
- 8 KB version removed (since it is actually slower than 4 KB version)
- GUI: windows have black close buttons
- Taskbar window name moved to left side of TRIANGULAR logo orb
- Click/select key changed to 0 (zero)
- DESKTOP renamed to GUI
- THIS PC window renamed to THIS PET
- SETTINGS now have SAVE button for saving settings
- Some icons updated
- CMD is greatly overhauled with commands syntax similar to DOS Wedge/JiffyDOS and added listing directory/disk content function
- MONITOR improved
- WORDS instead of WORD – this is completely new word processor
- SIMCITY game added in place of LUNAR LAND
- Other games have slightly different menu keys
- Games from 8 KB version removed
- Improvements and bugfixes

Changelog for TRIANGULAR OS 1.03 for PET:

- System now have 4KB and 8KB modes – launcher choose which one to boot
- 8KB mode has consolidated code into 1 program of GUI, STAR WARS, BIOS and TRIANGULAR OS launcher, CMD and its HELP, Monitor and its HELP
- Fixed bug in disk detection system
- Few minor bugfixes
- 2 new games (RATRUN & MAD BOMBER) in 8KB mode (instead of SNAKES and LUNAR LAND)

Changelog for TRIANGULAR OS 1.02 for PET:

- Minor visual changes across the board (mostly highlighted key letters)
- Launch program renamed to TRIANGULAR OS
- TRIANGULARS OS/BIOS – has improved disk drive detection system. Drive database expanded (include SD2PET (*experimental*)). Loads OS>CFG file with wallpaper settings. In BIOS Setup Menu option is added to exit to BASIC
- GUI OS – SETTINGS saves wallpaper settings in file OS>CFG
- CMD – fixed drive # change mechanism. Minor bugfixes.
- OFFICE apps visual revision and many bugfixes
- GAMES minor visual changes and bugfixes

Changelog for TRIANGULAR OS 1.01 for PET:

- First version to have manual
- Various minor improvements done in launching TRIANGULAR program
- BIOS – fixed launching logo position
- GUI – memorize cursor position in-between loading modules plus minor bugfixes
- CMD – many bugfixes
- MONITOR – fixed serious bug preventing user from running machine language programs
- OFFICE – apps can now properly load and save data on disk
- STAR WARS – added music in intro and outro. Game engine now don't reset system clock
- SNAKES – AI opponent fixed and minor esthetic changes
- LUNAR LAND – received minor esthetic changes

Changelog for TRIANGULAR OS 1.00 for PET:

- Starting procedure changed: TRIANGULAR disk detecting program -> BIOS (Launching screen combined with Setup Menu) -> DESKTOP (GUI)
- BIOS detects if there are disk drives #8 - #11, detecting mechanism improved and function drive type function added
- BIOS Setup Menu displays drives and can change BOOT drive and restart system
- DESKTOP is streamlined and icons redesigned
- START Menu is placed on center of task bar and is displayed just as TRIANGULAR logo and have SETTINGS, RESTART and SHUT DOWN options
- SETTINGS (renamed CONTROL PANEL) can change desktop wallpaper from 5 patterns
- MY COMPUTER is renamed THIS PC and disk icon now open CMD program
- CMD (renamed DOS) can change operating disk (#8 - #11) plus some improvements
- OFFICE – minor improvements
- MONITOR – heavily reworked and improved, operates on HEX values.
- GAMES icon in place of STAR WARS icon opens folder with 4 games: STAR WARS, SNAKES, LUNAR LAND and BREAKOUT

Changelog for TRIANGULAR OS 1.00 BETA for PET:

- System supports 1 cassette recorded as device #1 and only 1 disk drive as device #8
- BIOS have implemented simple PET type detection and it detects if there is disk drive #8
- BIOS Setup Menu is accessed with DEL key where you can change or reset system time
- Starting procedure: BIOS -> TRIANGULAR DOS -> Launch screen -> DESKTOP (GUI)
- DESKTOP (GUI) contains wallpaper, task bar on which is clock (right bottom), START Menu with TRIANGULAR logo (left bottom) and 4 icons: MY COMPUTER, OFFICE, STAR WARS and MONITOR
- START Menu has CONTROL PANEL, RESTART, EXIT TO DOS AND QUIT TO BASIC options
- CONTROL PANEL can change and reset system clock
- MY COMPUTER contains cassette and disk icon which can load first encountered program (LOAD for cassette icon and LOAD "*" ,8 for disk icon)
- OFFICE contains 4 office suite programs: WORD a word processor, CALC spreadsheet, CONTACTS contact manager and MATH calculator
- STAR WARS brings fabulous STAR WARS X-Wing vs TIE-Fighter game
- MONITOR is a very simple memory monitor program, operates on decimal numbers