



CTR 2.1 RC6 – STABILITY IMPROVEMENT

Make sure you meet all the basic CTR requirements:

- Stable DRAM.
- Disabled Curve Optimizer (in BIOS). PBO – no matter.
- Manual CPU LLC (Load Line Calibration). ASUS - 3, MSI - 4, ASRock - 2, GIGABYTE - High. You also have every right to use whichever mode you like.
- CPU Voltage - Auto (in BIOS). Offset is forbidden.
- Windows 10 build 2004 or newer.
- Power plan – Balanced (tip).
- Some monitoring programs can cause problems. Also programs to control RGB, such as iCUE, can also cause problems. Tip - keep your applications up to date.
- Use the most actual version of the chipset drivers.
- Do not try to run 2 programs at the same time that have the ability to overclock the processor.



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If you have done diagnostics and a standard OB test, but you are having **problems with system stability in games**. Try the following. **GAME MODE – Normal** or **Safe**. Tip. Keep **GAME TRIGGER** on a really low level to avoid unnecessary switching between profiles.

The screenshot displays the CTR 2.1 RC6 software interface, which is used for optimizing Zen+ CPUs. The interface is divided into several sections:

- Header:** CTR 2.1 RC6 Optimization for ZEN2+ CPUs
- Left Sidebar:** Contains navigation icons and labels: TUNER, PROFILES, RESULTS, ABOUT & HELP, SCREENSHOT, DONATE & UPGRADE, MINIMIZE, TO TRAY, and EXIT.
- PX PROFILE:** Includes input fields for HIGH (MHz), MID (MHz), LOW (MHz), HIGH (mV), MID (mV), LOW (mV), OB HIGH (mV), OB MID (mV), and OB LOW (mV). Buttons for CALCULATE PX PROFILE, SAVE PX PROFILE, and ACTIVATE PX PROFILE are present.
- P2 PROFILE:** Includes input fields for VID (mV), CCX1 OB (mV), CCX2 OB (mV), and CPU usage min (%). Buttons for CALCULATE P2 PROFILE, SAVE P2 PROFILE, and ACTIVATE P2 PROFILE are present.
- P1 PROFILE:** Includes input fields for VID (mV), CCX1 OB (mV), CCX2 OB (mV), and CPU usage min (%). Buttons for CALCULATE P1 PROFILE, SAVE P1 PROFILE, and ACTIVATE P1 PROFILE are present.
- PROFILES SETTINGS:** Contains a dropdown menu for GAME MODE (highlighted with a red box), a GAME TRIGGER (%) input field, and buttons for CALCULATE PX HIGH OB, CALCULATE PX MID/LOW OB, and CALCULATE OB (default).
- PROFILES STATISTIC:** Displays statistics for PX HIGH, PX MID, PX LOW, NON CPPC, P2, P1, and IDLE.



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If you have done diagnostics and a standard OB test, but you are having **problems with system stability while launching games (first minute) or applications**. Try the following. Reduce the OB for each profile. The step size is shown in the picture. This will eventually reduce the maximum frequency by 25MHz. Do this first of all for the PX profile. If that didn't help, lower the OB for P2 and P1 too. The number of steps is unlimited OB can also be a negative number. From my observations, the problem is often with the PX HIGH and PX MID.

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Optimization for ZEN2+ CPUs

PX PROFILE

HIGH (MHz)	4950	MID (MHz)	4825	LOW (MHz)	4750
HIGH (mV)	1375	MID (mV)	1375	LOW (mV)	1350
OB HIGH (mV)	50	OB MID (mV)	72	OB LOW (mV)	72

Step sizes: -25, -25, -20

P2 PROFILE

VID (mV)	1150	CCX1 OB (mV)	72	CCX2 OB (mV)	36	CPU usage min (%)	28
CCX1 (MHz)	4275		-15		-15		
CCX2 (MHz)	4175						

P1 PROFILE

VID (mV)	1050	CCX1 OB (mV)	72	CCX2 OB (mV)	36	CPU usage min (%)	81
CCX1 (MHz)	4125		-10		-10		
CCX2 (MHz)	4025						

PROFILES SETTINGS

Autoload profile(s)	<input type="checkbox"/>	PX OB LIMIT	+300	CALCULATE PX HIGH OB
CTR HYBRID OC	<input type="checkbox"/>	GAME MODE	Normal	CALCULATE PX MID/LOW OB
		GAME TRIGGER (%)	5	CALCULATE OB (default)

PROFILES STATISTIC

PX HIGH: 0	P2: 0
PX MID: 0	P1: 0
PX LOW: 0	
NON CPPC: 0	IDLE: 0



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If you were not able to achieve stability you can try another option. OB 1 for all profiles. In this case, CTR will use the base Curve Optimizer for profiles in dynamic mode. I want to remind you that all processors have their own base Curve Optimizer, even if you have disabled Curve Optimizer.

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PX PROFILE

HIGH (MHz)	4950	MID (MHz)	4825	LOW (MHz)	4750	CALCULATE PX PROFILE SAVE PX PROFILE ACTIVATE PX PROFILE
HIGH (mV)	1375	MID (mV)	1375	LOW (mV)	1350	
OB HIGH (mV)	1	OB MID (mV)	1	OB LOW (mV)	1	

P2 PROFILE

VID (mV)	1150	CCX1 OB (mV)	1	CCX2 OB (mV)	1	CPU usage min (%)	28	CALCULATE P2 PROFILE SAVE P2 PROFILE ACTIVATE P2 PROFILE
CCX1 (MHz)	4275							
CCX2 (MHz)	4175							

P1 PROFILE

VID (mV)	1050	CCX1 OB (mV)	1	CCX2 OB (mV)	1	CPU usage min (%)	81	CALCULATE P1 PROFILE SAVE P1 PROFILE ACTIVATE P1 PROFILE
CCX1 (MHz)	4125							
CCX2 (MHz)	4025							

PROFILES SETTINGS

Autoload profile(s)	<input type="checkbox"/>	PX OB LIMIT	+300	CALCULATE PX HIGH OB CALCULATE PX MID/LOW OB CALCULATE OB (default)
CTR HYBRID OC	<input type="checkbox"/>	GAME MODE	Normal	
		GAME TRIGGER (%)	5	

PROFILES STATISTIC

PX HIGH: 0	P2: 0
PX MID: 0	P1: 0
PX LOW: 0	IDLE: 0
NON CPPC: 0	

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