

Bitstream Loader v1.4

Prerequisites:

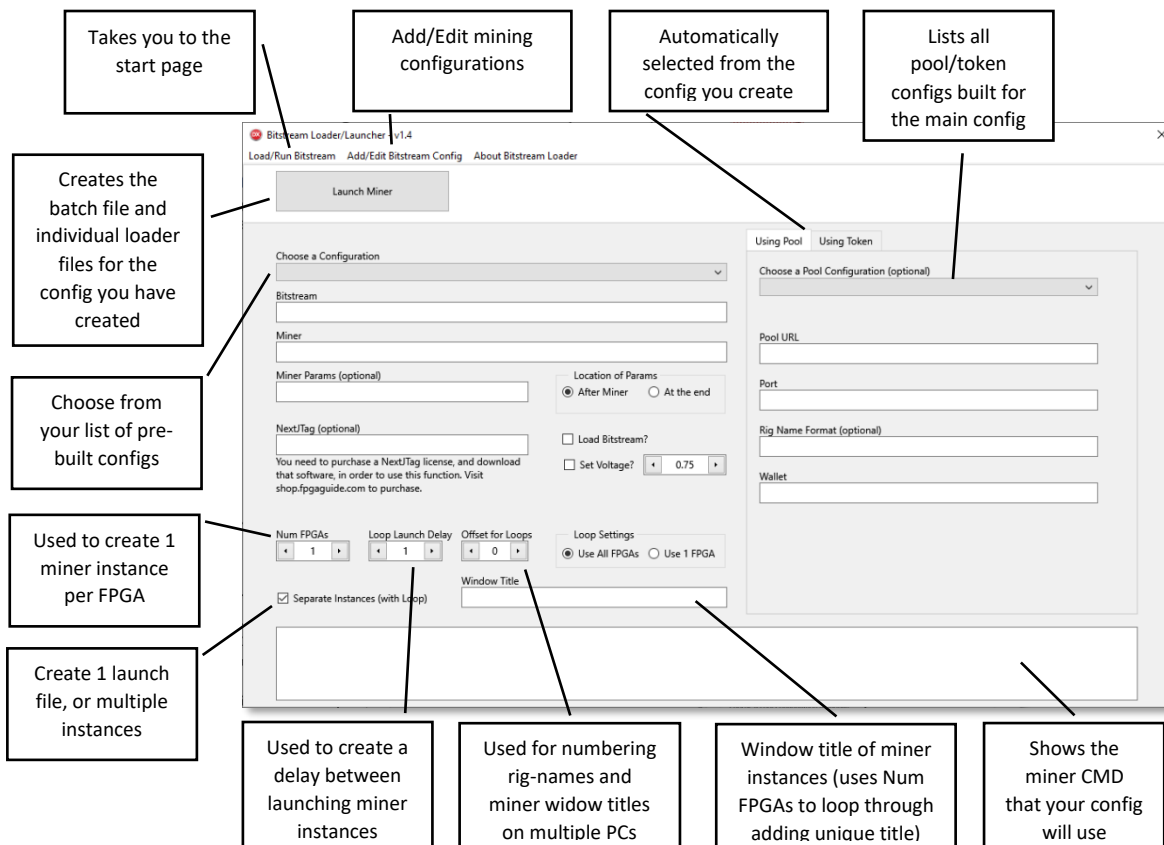
To set the voltage and load the bitstream, you must purchase NextJtag V2.

What is Bitstream Loader

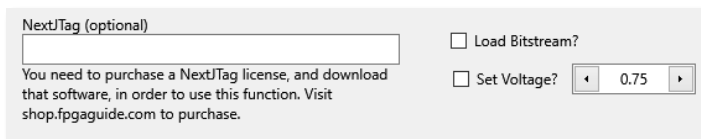
Bitstream loader allows you to create and launch, pre-defined mining configurations for coins to mine with FPGAs.

When creating a config, you can follow a few simple steps:

- 1) Click Add/Edit Bitstream Config
- 2) Chose to Add New, or select and existing config to edit
- 3) Browse to the location of the miner program and bitstream, and store the file and path in your config
- 4) Browse to the path and location of NextJTag (if used)
 - a. Click the Load Bitstream box
 - b. Set the desired voltage
 - c. Click the Set Voltage box
- 5) Set the Miner Params and specify if they are to be loaded at the end, or directly after the miner program (miner file requirement dependent)
- 6) Set the number of FPGAs to be used
- 7) Set the Launch Delay (adds a delay between running each miner instance (personal preference – I like to let the miner start mining, before launching the next instance)
- 8) Set the option to use a pool or a token file
- 9) Set the Window Title (this is used to create a unique miner instance window title)
- 10) Set the Loop Offset – used for multiple PC instances. If you run 10 FPGAs on PC1 and 10 on PC2, set this to 10 on PC2, so that the rig names and window titles all start from 11. The pool will then show Rig1 to Rig20.



Setting Voltages and Loading Bitstreams



Set the location of NextJTag and (V2 only) set the volatge of your FPGA. Both these settings are ignored if "Load Bitstream" is not checked.

Num FPGAs: This value is used in a few ways...

- 1) Controls the number of instances to launch, when *Use All FPGAs* is set.
- 2) Used as part of the window title of each miner instance launched.
- 3) Used as a unique identifier for the Rig Name Format, in the pools section.
- 4) When Use 1 FPGA is set, It's used as the single instance window title and rig name format, if used.

Loop Launch Delay: Adds a delay between launching all

Create a single Master launch file or a Master with separate launch files for each FPGA

When checked, “Separate Instances (with loop)” allows you to create a launch-file for each FPGA, and one Master file to launch them all. The Master file uses the Miner Launch Delay value, and randomizes it, so that all the loops are not running at identical times.

If we use the above configuration: The Master file would be named “Nexus Variable - Nexus RU.cmd” and each separate miner file would be named “Nexus RU-1.cmd”, “Nexus RU-2.cmd” etc. The Master file would look like this:

```

@echo off
setlocal enabledelayedexpansion

echo NOT Loading Bitstreams

START "Nexus RU-1.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-1.cmd"
TIMEOUT /T 22
START "Nexus RU-2.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-2.cmd"
TIMEOUT /T 22
START "Nexus RU-3.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-3.cmd"
TIMEOUT /T 22
START "Nexus RU-4.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-4.cmd"
TIMEOUT /T 22
START "Nexus RU-5.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-5.cmd"
TIMEOUT /T 22
START "Nexus RU-6.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-6.cmd"
TIMEOUT /T 22
START "Nexus RU-7.cmd" /MIN CMD /C "C:\Users\micro\Documents\Embarcadero\Studio\Projects\LoadBitstream\Win32\Debug\Nexus RU-7.cmd"
TIMEOUT /T 22
  
```

And the separate files would look like this:

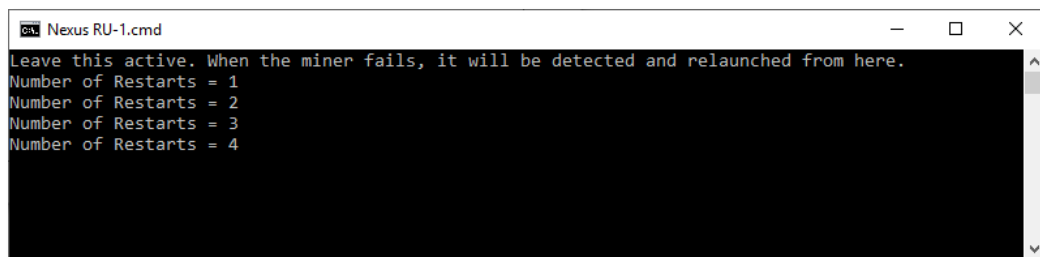
```

@echo off
echo Leave this window active. When the miner fails, it will be detected and relaunched from here.
set z=0

:Loop
START "BCU No.1" /WAIT CMD /C "C:\FPGA\1525_Nexus_Variable_A\fx-nexusminer-v2.exe eu.nexuspool.ru 8333 2QovouYepEFZ2HsMXkVEFm6eUU5r6z8tPQRZQYFjwXqYQKbMVR.RigNo-1 480"

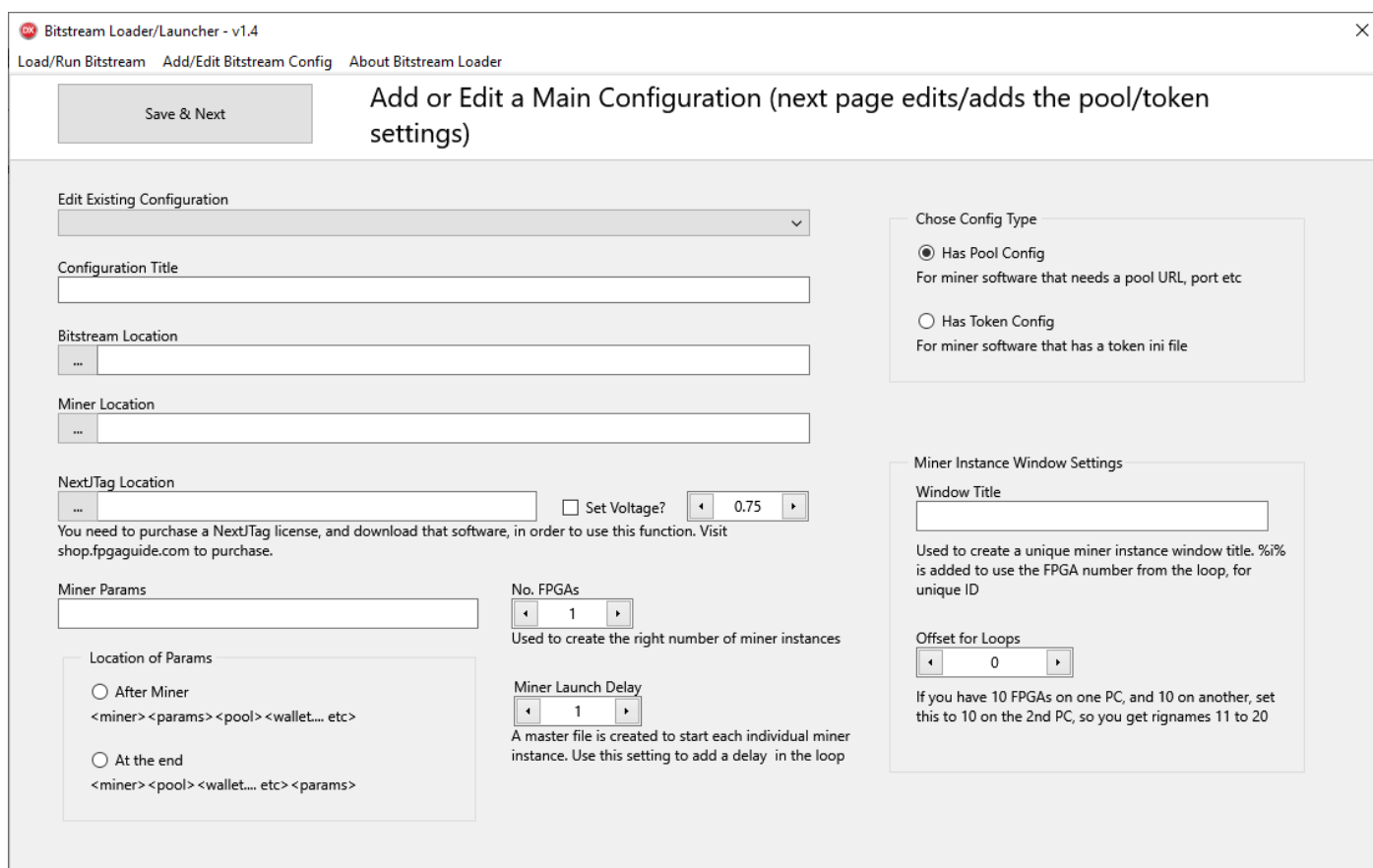
set /a z+=1
echo Number of Restarts = %z%
goto loop
  
```

The above file launches the miner and waits until it shuts down, at which point it will re-launch it, unless you click the red cross to emergency close, which then will terminate the miner and upon returning to the launch file, you will be asked if you want to terminate the batch job. If the miner restarts, the number of restarts is recorded in the launch file. The launch file starts minimised to prevent cluttering up the screen.



```
ca\ Nexus RU-1.cmd
Leave this active. When the miner fails, it will be detected and relaunched from here.
Number of Restarts = 1
Number of Restarts = 2
Number of Restarts = 3
Number of Restarts = 4
```

Adding Configurations



Bitstream Loader/Launcher - v1.4

Load/Run Bitstream Add/Edit Bitstream Config About Bitstream Loader

Save & Next

Add or Edit a Main Configuration (next page edits/adds the pool/token settings)

Edit Existing Configuration

Configuration Title

Bitstream Location

Miner Location

Next/Tag Location

☐ Set Voltage? 0.75

You need to purchase a Next/Tag license, and download that software, in order to use this function. Visit shop.fpgaguide.com to purchase.

Miner Params

Location of Params

☐ After Miner
<miner> <params> <pool> <wallet... etc>

☐ At the end
<miner> <pool> <wallet... etc> <params>

No. FPGAs

Used to create the right number of miner instances

Miner Launch Delay

A master file is created to start each individual miner instance. Use this setting to add a delay in the loop

Chose Config Type

☒ Has Pool Config
For miner software that needs a pool URL, port etc

☐ Has Token Config
For miner software that has a token ini file

Miner Instance Window Settings

Window Title

Used to create a unique miner instance window title. %% is added to use the FPGA number from the loop, for unique ID

Offset for Loops

If you have 10 FPGAs on one PC, and 10 on another, set this to 10 on the 2nd PC, so you get rignames 11 to 20

Adding configs is simple! Provide a Config Title and use the Load buttons to locate the various elements.

Location or Params allows you to control where params are added. Some go between the Miner and pool, while others after the pool. If you need both, try adding the params after the *Pool Port* in the pool config, like this :8433 -u

No. FPGAs is used in loops.

Window Title is for the CMD window title of the miner. A loop runs to create the files, using from 1 to No. FPGAs, which provides the unique Window Title for each miner instance.

Miner Launch Delay sets the time between launching each instance of the miner.

Write all new settings for a new config.

Keep the same title to edit the current config.

Add text to the title, to clone the current config, into a new config.

Adding and Editing Pool Configurations

The screenshot shows the 'Add or Edit Pool Settings' window in the Bitstream Loader/Launcher v1.4 application. The window has a title bar with the application name and a close button. Below the title bar is a menu bar with 'Load/Run Bitstream', 'Add/Edit Bitstream Config', and 'About Bitstream Loader'. A 'Save Data' button is located in the top left corner. The main area contains a dropdown menu labeled 'Select Existing Pool Config - 1 configs found'. Below this are four text input fields: 'Pool Config Title', 'Pool URL', 'Port', and 'Rig Name Format'. The 'Rig Name Format' field has a tooltip that reads: 'Used for unique rig naming, where a pool allows it. %% is added to the name and this takes the BCU number (from the launch loop) and adds it to the name. So if you add .Rig that will show as Rig1...Rig2...Rig3 etc'. There is also a 'Wallet' text input field. At the bottom left, there is a note: 'Add a space in front of the port for <pool url> <space> <port> For <pool url>.<port> enter .<port>'.

Chose to add a new Pool Configuration, or edit an existing one. Add text to the title of an existing config to clone it. You must have a Bitstream Configuration selected, to add/edit a Pool Config.

The *Port* is appended directly onto the pool URL, like this `mypool.comPool`.

So if the miner needs this format: `eu.mypool.com:1234` then add `:1234` in the Port box

And if the miner needs this format: `eu.mypool.com 1234` then add `1234` in the Port box (space before port)

Wallet well here's a suggestion: Let me know what coin you're mining, and I'll let you have my wallet address 😊. If not, then just add your own 😞

Adding and Editing Token File Configurations

The screenshot shows the 'Add or Edit Token File Settings' window in the Bitstream Loader/Launcher v1.4 application. The window has a title bar with the application name and a close button. Below the title bar is a menu bar with 'Load/Run Bitstream', 'Add/Edit Bitstream Config', and 'About Bitstream Loader'. A 'Save Data' button is located in the top left corner. The main area contains a dropdown menu labeled 'Select Existing Token Config - 3 configs found'. Below this are several input fields and search strings: 'Token Config Title', 'Token File Location' (with a file explorer icon), 'Host/Pool URL', 'RPCPort', 'Wallet Address', 'Token Contract ID', 'Solo Private Key', 'Challenge Folder Location', 'Gas Price' (with a numeric input field), 'Max Gas Price' (with a numeric input field), 'Bid Top' (with a numeric input field), and 'Gas Price Bidding' (with a checkbox). Each of these fields has a corresponding 'Search String' input field next to it. The search strings are: 'Acctpk=' for Solo Private Key, 'ChallengeFolder=' for Challenge Folder Location, 'Host=' for Host/Pool URL, 'RPCPort=' for RPCPort, 'MinerAcct=' for Wallet Address, 'TokenContract=' for Token Contract ID, 'GasPrice=' for Gas Price, 'MaxGasPrice=' for Max Gas Price, 'BidTop=' for Bid Top, and 'GasPriceBidding=' for Gas Price Bidding.