

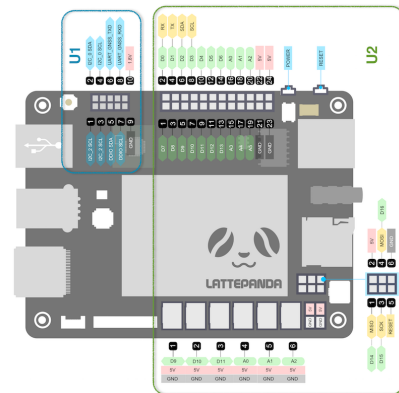
This guide describes how to run both a HEAT and a FIMK node on the LattePanda single board computer on Windows 10. For more info about the LattePanda, see <http://www.lattepanda.com/products>. By participating in the HEAT and FIMK node lotteries, the LattePanda may pay for itself within a year. Both HEAT and FIMK use proof-of-stake (POS) and do not require energy-demanding hardware like proof-of-work (POW).

Assumptions:

- You already have a HEAT account id. If not, generate one at heatwallet.com
- You already have a FIMK account id. If not, generate one at lompsa.com

Step 1: Connect and Start up the LattePanda

- The LattePanda version used in this tutorial has 4GB RAM and requires a 2A power supply.
- Connect power, keyboard, mouse, screen and Ethernet, see figure below (left).
- Hold the power button for 1 sec to start, see figure below (right).



Step 2: Install JAVA JDK

- Download Java JDK: <http://www.oracle.com/technetwork/java/javase/downloads>
- Select the Windows 10 x64 version, the Panda has an Intel Atom 64-bit CPU.
- Install the JDK and reboot when done.

Step 3: Create HEAT Hallmark (optional)

- Go to: <https://heatwallet.com/api/#!/Tools/encode>
- In the host field, type in your public IP address.
- In the secretPhrase field, type in the secret phrase for your HEAT account.
- Leave the weight and date fields as they are. Click on the 'Try It Out' button.
- Copy the hallmark from the 'Response Body' without the quotes "

Step 4: Download, Configure and Start HEAT node

- Download the heatledger software: <https://github.com/Heat-Ledger-Ltd/heatledger/releases>
- Unzip the heatledger software and create a file called `conf\heat.properties`
- Open `heat.properties` in a text editor, for example Notepad and enter the following information:
- `heat.apiKey=something` (Change this!)
- `heat.myAddress=Your public IP address` (optional, for HEAT lottery)

- heat.myPlatform=Your HEAT account ID from Assumptions (optional, for HEAT lottery)
- heat.maxNumberOfConnectedPublicPeers=500
- heat.myHallmark=Your Hallmark from step 3
- Start the HEAT node by double-clicking on bin\heatledger.bat

Step 5: Start HEAT forging

- First install curl as described here: <http://tinyurl.com/windcurl>
- When your node is in sync, start cmd.exe and type the following:
- curl -k -s "http://localhost:7733/api/v1/mining/start/AAA?api_key=A"
- A is replaced with API key, while AAA is your secret phrase (replace whitespaces with %20).

Step 6: Download, Configure and Start FIMK node

- Download the FIMK software: <https://github.com/fimkrypto/fimk/releases>
- Unzip and create a file called conf\nxt.properties
- Open nxt.properties in a text editor, for example Notepad and enter the following information:
- nxt.myAddress=Your Public IP address, same as Step 4 (optional, for FIMK lottery)
- nxt.myPlatform=Your FIMK account ID from Assumptions (optional, for FIMK lottery)
- nxt.maxNumberOfConnectedPublicPeers=500
- Start the FIMK node by double-clicking on run.bat

Step 7: Generate FIMK Hallmark (optional)

- When your FIMK node is running, you are able to generate the hallmark.
- Start cmd.exe and type the following (in one line):
- curl -X POST "http://localhost:7886/nxt?requestType=markHost&secretPhrase=xxx&host=IP&weight=100&date=2017-05-28"
- where xxx is replaced by your secret phrase (all whitespaces replaced by %20) and IP is your public IP address, same as in step 4.
- Stop your FIMK node (CTRL+C), enter nxt.myHallmark=yyy into conf\nxt.properties where yyy is replaced by your generated hallmark. Start the node again (run.bat)
- Register lottery node: curl -X POST "http://localhost:7886/nxt?requestType=addPeer&peer=31.214.157.83"

Step 8: Start FIMK forging

- When your node is in sync, start cmd.exe and type the following (in one line):
- curl -X POST "http://localhost:7886/nxt?requestType=startForging&secretPhrase=AAA" where AAA is replaced by your secret phrase (replace whitespaces with %20).

The picture below shows both the HEAT node (left) and the FIMK node (right) running side-by-side on the LattePanda. The total memory usage is 2.6GB and there is still 1.2GB of memory available.

