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Thread: [XMRIG C++ function >> Python 3.8 function \(monero pool job\)](#)

Fhack - February 8, 2022, 2:24 am

Hello i've opened a thread lately about converting a function in xmrigr to a python version of it.

I rewrote a thread with better presentation including all the needed c++ code to understand how the function works and the actual python version of it i've coded.

The code just basically get a job from a monero pool and then try to extract tx count of the block from the "blob" an hexadecimal string.

Here the c++ code :

```
Code uint32_t xmrigr::Job::getNumTransactions() const
{
    uint32_t num_transactions = 0;
```

```
    // Monero (and some other coins) has the number of transactions encoded as varint in the end of
    hashing blob
```

```
    const size_t expected_tx_offset = 75;
```

```
    if ((m_size > expected_tx_offset) && (m_size <= expected_tx_offset + 4)) {
        for (size_t i = expected_tx_offset, k = 0; i < m_size; ++i, k += 7) {
            const uint8_t b = m_blob[i];
            num_transactions |= static_cast<uint32_t>(b & 0x7F) << k;
            if ((b & 0x80) == 0) {
                break;
            }
        }
    }
}
```

```
    return num_transactions;
}
```

```
Code bool xmrigr::Job::setBlob(const char *blob)
```

```
{
    if (!blob) {
        return false;
    }
```

```
    m_size = strlen(blob);
    if (m_size % 2 != 0) {
        return false;
    }
```

```
    m_size /= 2;
```

```
    const size_t minSize = nonceOffset() + nonceSize();
    if (m_size < minSize || m_size >= sizeof(m_blob)) {
        return false;
    }
```

```

}

if (!Cvt::fromHex(m_blob, sizeof(m_blob), blob, m_size * 2)) {
    return false;
}

if (readUnaligned(nonce()) != 0 && !m_nicehash) {
    m_nicehash = true;
}

# ifdef XMRIG_PROXY_PROJECT
memset(m_rawBlob, 0, sizeof(m_rawBlob));
memcpy(m_rawBlob, blob, m_size * 2);
# endif

return true;
}
Cvt::fromHex is just sodium_hex2bin function in c++ i thought the equivalent in python is
bytesarray.fromhex(self.blob)

```

Here the python version i've coded :

```

Code def _getNumTransactions(self):
    txCount = 0

    print(self.blob)
    blob = bytearray.fromhex(self.blob)
    txOffset = 75
    k = 0

    if txOffset < len(blob) <= txOffset + 4:
        for bit in blob[txOffset:]:
            bit = bit % 2**8
            txCount |= (((bit & 0x7F) % 2**32) << k) % 2**32
            if (bit & 0x80) == 0: break
            k += 7

    return txCount

```

It sometimes return the right tx count with 1 more tx and sometimes a completely wrong number ! something should went wrong with type casting or hexadecimal to bytes conversion.

Looking for some help to get the exact tx count from the actual height job !

Regards ?

Fhack - February 12, 2022, 11:07 am

Nobody have the solution still stuck on it !?

vmpvirtualziersimp - February 12, 2022, 2:59 pm

rename your user title to "incompetent developer"

Fhack - February 13, 2022, 1:48 am

(Feb 12, 2022 03:59 PM)vmpvirtualziersimp Wrote: [\[CITE\]](#) rename your user title to "incompetent

developer"

show me the solution of your so great intelligence son of a bitch, i'm not good in math and assembly logic, that's why i'm asking for help, at least i know my weak, your a coard to say this behind a computer.

Fhack - *March 2, 2022, 2:52 am*

Nobody have the solution ?