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Riecoin breaks world record for largest prime sextuplet

November 21, 2014 - Riecoin, a decentralized virtual currency, broke the record for the largest prime number sextuplet on November 17, 2014 at 19:50:18 GMT. The calculation took only 70 minutes using the massive distributed computing power of its network and achieved six prime numbers of 633 digits each (33 digits more than the previous record) within a distance of 16.

Since the rise of Bitcoin as the largest computing system in the world some have expressed concerns about the expanding energy consumption being used to keep the currency running. Bitcoin calculations consist of computing "hash" functions required to keep the transactions secure. With this in mind innovators in the field of cryptography and virtual currencies have delved into the concept of systems that could secure their transactions by using some more interesting computations than just hash functions. Riecoin is one such endeavour, and it produces one prime sextuplet every two and a half minutes.

A prime sextuplet consists of six prime numbers packed together as tightly as possible. For sextuplets, "as tightly as possible" means that the largest is 16 plus the smallest of the numbers. The distribution of prime numbers is not completely understood and -while it's widely believed to be so- it's not known if there are infinitely many of these prime sextuplet structures; thus these results are interesting to researchers of number theory and other applied fields.

Recently, Riecoin performed an update of their software that allowed the participants of its network to focus work on a single sextuplet during 70 minutes. This allowed it to work on larger numbers and reach the record breaking 633 digits. This will be repeated once per week, potentially generating new records each time.

The records are independently verified and kept here:
<http://anthony.d.forbes.googlepages.com/ktuplets.htm>

You can follow Riecoin's news on twitter @riecoin and see its project website: riecoin.org

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The record sextuplet is $\langle N, N+4, N+6, N+10, N+12, N+16 \rangle$ where

$N =$

145706880639753656737279521958539605150826371575437551598376257412198564200098236683024478621533212186622837
764946553552836830460783254125965129888309891835134016028148376391477335294028615544696350993458772877657622
091279628567559666549129423984030662114589209305798504835129107410525330006954152630492665813319203174926300
635633188526825646444266627820374457016303562341149903579239837584386378392653903870221101124209687177595498
779757674767712364306682147365388176296110468770745154438587553257494473455834414798313541113447770440833422
289365278564577509822628100266779065522554965904971178293533040332095883095722435581310387267