

Junethack - NetHack Cross-Variant Summer Tournament

Patric Mueller

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Who's that guy?

My name's Patric Mueller <bhaak@gmx.net>

I'm the developer of

- ▶ UnNetHack¹ - a variant of NetHack "how NetHack would look like if it were still in development"
- ▶ NetHack-De² - an almost complete translation of NetHack into German.
- ▶ Junethack³ - The NetHack Cross-Variant Summer Tournament

This presentation is available on GitHub⁴.

¹<http://apps.sf.net/trac/unnethack/>

²<http://nethack-de.sf.net/>

³<http://junethack.rawrnix.com/>

⁴https://github.com/bhaak/presentations/2012_irdc_junethack/

Junethack is

- ▶ an online tournament
- ▶ for NetHack and several of its forks
- ▶ using existing public servers

Existing NetHack tournaments before Junethack:

- ▶ "the June tournament" conducted by Eidolos in 2006 and 2007 on NAO
- ▶ the /dev/null/nethack tournament (usually just "devnull") running since 1999

June tournament on NAO

The "June tournament" was only hold twice AFAIK:

- ▶ June 2006: 18,748 games, 188 ascensions
- ▶ June 2007: 14,524 games, 349 ascensions

BTW, NAO statistics are somewhat constant:

April 2011 ~18,000 games, 171 ascensions

devnull has been holding an annual NetHack Tournament, beginning at midnight on Halloween, since 1999.

- ▶ 2008: 22,812 games by 1305 players (only 58 players ascended!)

devnull has been a key influence on the design of Junethack.

devnull features

- ▶ public servers setup only for the tournament
- ▶ only vanilla NetHack (no GUI improvements, no bugfixes)
- ▶ lots of trophies
- ▶ clan scores
- ▶ non-NetHack challenges (triggered e.g. by wishing, digging, eating fruit, etc.)
 - ▶ in-game challenges (e.g. Grue, Pac-Man level)
 - ▶ out-of-game challenges (ZapM and KoL)
- ▶ starting at midnight Halloween Pacific Standard Time (PST)

Junethack design

With experiences from devnull and some more feature request from IRC, these were the ideas and design goals for Junethack

- ▶ using existing public servers
- ▶ no games being played on the tournament server (only hosting Junethack website)
- ▶ offering vanilla NetHack *and* forks and a bonus game (NetHack 1.3d from 1987)
- ▶ encouraging playing multiple variants
- ▶ lots of trophies
- ▶ clan scores
- ▶ more appealing to newbies or non-ascenders (hopefully)
- ▶ people should be able to register at any time and all their games from the tournament period should be counted
- ▶ starting at midnight Coordinated Universal Time (UTC) (plus no timezone based trophies)

Junethack implementation (aka buzz word bingo)

Junethack is

- ▶ implemented in Ruby
- ▶ using the Sinatra web framework
- ▶ using datamapper as ORM
- ▶ using Sqlite3 as database backend
- ▶ source code available from GitHub
<https://github.com/junethack/Junethack>

Junethack implementation (continued)

For a public server to take part in Junethack, it has to fulfill 2 conditions:

- ▶ having a downloadable xlogfile log (standard patch)
 - ▶ so there is a standard way of reading machine-translatable data about played games and achievements
 - ▶ the Junethack server is polling every 15 minute for changed xlogfiles, new games are added to the database regardless if the player is registered or not
- ▶ letting the player write a custom line of text that can be downloaded somehow (usually this is written as comment into the option file)
 - ▶ for verifying that Junethack user A is user B on a given public server
 - ▶ unfortunately, the user has to do this once for every public server

Junethack Timeline

- ▶ late 2010, early 2011: ideas for a new NetHack tournament coming up on IRC
- ▶ early 2011: planning for achievements and trophies, some web mockups
- ▶ May 2011: actual code gets written
- ▶ June 2011: lots of code gets written. At that time, I get involved.
- ▶ June 2011: discussions about the name flare up -> decision: as long as it starts at least in **July**, it's fine
- ▶ 17th July 2011: start of the tournament (not all ready, not all trophies implemented, but for preventing overlap with Crawl tournament and vicinity to devnull)
- ▶ 13th August 2011: last clan trophy implemented (1 day before tournament ends)
- ▶ 14th August 2011: tournament ends
- ▶ 1st Juny 2012: second Junethack tournament starts

Events and issues during Junethack 2011

- ▶ a week into the tournament, we got slashdotted (DDOS):
<http://games.slashdot.org/story/11/07/22/2338215/first-nethack-cross-variant-summer-tournament>
- ▶ some performance issues
 - ▶ because of slashdot
 - ▶ because of missing caching (missing because we started "early")
 - ▶ because of startscummer and thread issues
 - ▶ parsing start scummed games took longer than 15 minutes, concurrent running parsing processes
 - ▶ lots of caching depends on date of last game played by a registered user
 - ▶ opening a start scummer user page would hog the CPU (all played games are shown)
- ▶ For recalculating trophies and clan score, we had to re-import several times all games because of code-fixes, code changes, etc.

Junethack 2011 - a start scummer's Eldorado

So, how bad was start scumming in Junethack 2011?

Very, very bad.

A game is considered to be start scummed if its turn count < 10 and the death reason is 'escaped' or 'quit' (the same definition as NAO uses).

There were **125,252** of such games and only 18,079 regular games. I only tested the database with 50,000 games (more than 2 months of normal NAO activity). :-)

Two players accounted for most of those games.

One for 76,546 and the other for 22,703 games.

Performance issues were resolved by not writing start scummed games into the main games table.

Player statistics:

- ▶ 337 people registered
- ▶ 197 linked their Junethack account with public servers
- ▶ 161 actually played at least one game
- ▶ 147 of 975 vanilla players were registered
- ▶ about 50% of fork players (20 – 40) were registered

Junethack statistics (continued)

Game statistics:

- ▶ 7445 games were played on all 9 public servers by registered users
- ▶ 18079 were played on those public servers overall
- ▶ 5672 vanilla games and 1773 fork games by registered users
- ▶ 15836 vanilla games and 2243 fork games overall

49 different players ascended together 172 games.

Junethack 2011 - Lessons Learned

Some things I took with me from Junethack 2011:

- ▶ No thoughtful preparation will help you against NetHack players. As a NetHack fork developer I should have known that already.
- ▶ Think about obsessive players in your community "What is the worst/most stupid/most obsessive thing a player could do?". You will probably be wrong.
- ▶ OTOH people were really forgiving about disruptions in the website service. I guess as long as it doesn't affect their normal play.
- ▶ Encouraging people to take part is quite hard. Many on IRC said that they didn't play good enough for it.

Not much was changed for this year, small bugfixing and polishing the website:

- ▶ most of the streak trophies have been removed
- ▶ new forks: GruntHack and NetHack4
- ▶ new clan trophy: most trophy combinations
- ▶ the tournament is in June (and will be in the future)
- ▶ no bonus game (removed NetHack 1.3a)
- ▶ The tournament web site look has been slightly updated and bugs have been fixed

Future ideas?

- ▶ replacing clan "most points" with "least points"?
- ▶ adding more trophies? (not easy of xlogfile)
- ▶ allowing translated versions of NetHack? (there are Japanese, Spanish and German versions)
- ▶ ...