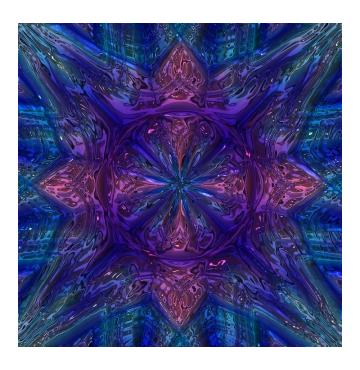# Fractal Factory

IT Requirements

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CMPT_475N_200
18 September 2019

IT Requirements

- Server Platform (for each "server" required)
- Physical system requirements // Virtualized via ESXI on main capping cluster

Storage capacity:

- 50 GB

Speed requirements / response time parameters:

- < 3 sec for navigation, < 30 sec for neural analysis

Scalability plans:

- ESXI allows for extra VMs and additional CPU/Mem adds

Virtual system requirements :

- 4 CPU, 16 GB Mem

OS to be supported:

- Ubuntu 18 (Server + Desktop)

Number of images expected:

- 4 (Production, Development, Database, Round Robin)

Connectivity

Network considerations :

- SSH via PuTTY, direct access via ESXI

Interconnection to what other systems :

- MET database, Fractal dimension neural network

Reliability

Service Level Agreements

Uptime requirement :

- Continuous outside of 30 mins for package updates weekly and major software/hardware updates

Response time requirements :

- < 3 sec for site navigation, < 30 sec for neural analysis

Recoverability

Where are things backed up? How often?

- Round Robin every day

Access to backups?

- Only admins

What data is transient and doesn't need to be stored longer term?

- Usage statistics back up only for a certain number of months

Security and Privacy

Database :

- SQL database Oracle

Access controls by userID / roles userIDs and user/admin accounts :

- Users have access to personal account (can view past images, change personal data, upload and save new images, pay for full size images), admins have full access across site.

Update vs. Access

Account information :

- account info stored and accessed through database

User data:

- email, name, age, school or affiliation, education, languages, bio

Personal / registration :

- 2fa + email confirmation on sign up

Saved courses information

FERPA/Privacy considerations :

- private profile

Admin access controls :

- delete users + add paintings

Adding new users, deleting old :

- adding and deleting from database

Maintenance:

Planned down time requirements

Database maintenance:

- Daily backups to Round Robin, weekly security/package updates
- Updates to course information

Times of year when IT does maintenance:

- With each new major update to software and new hardware

Times of year when the systems are not available:

- Marist maintenance periods, major hardware/software upgrades