# Rune Portal Teleportation System

Joseph DeMarco, Julia Duarte, Julie Tognucci

### World Building



### The PEN (Bureau of Paranormal Investigation)

• Organization in charge of keeping the peace between the Mundane and the hidden existences of the Supernatural

### **Portals**

- Magic transport system used by the PEN
- Facilitates travel from the main HQ to various locations of the city

### World Building

#### Runes

• Symbol-based language of the Etheral used for magic

### **Itineris Threads**

- Supernatural frequencies that exist throughout the fabric of the in-world universe
- Used as the pathway connection lines for portals

#### **Doorkeeper Stones**

 Natural in-world resource used to power portals via amulets worn by PEN Agents

### **Project Background**

Design and implement the engineering plans for the Rune Portal Teleportation System of the PEN for travel of organization members throughout the city

- Physical planning and construction of the Portal Sites
  - Portal Hubs in the main HQ
  - Portal locations in various parts of the city
- "Rune Coding", arrangement and integration of Runes for:
  - Linking portals to specific locations
  - "Ward Cybersecurity", who does or does not have access to portals



#### **Objectives, Specifications, and Constraints**

**Objective:** Create access to portals in order to transport human life discretely and relatively instantaneously.

**Specifications:** Must be privatized and protected from unauthorized usage.

**Constraints:** Must be accessible to only those authorized, safety measures must be taken for both the human in transport and the natural environment of the hub, money restraints

### **Approach and Obstacles**

#### Approach:

- **Destination** would be set via **frequency waves**.
  - Each city hub operates at a particular wave frequency. The user will be able to set their destination frequency.
- Transport moves at the speed of light.
  - Because the portals are functional via magnetism, the user is moving at the speed of an electromagnetic wave.
- Privatization by verification
  - Authorized users will be given an amulet containing a natural, powerful gemstone which is able to harness energy and power the portal system.
- Safety
  - The gemstone also absorbs the immense energy created by the transportation, protecting the user and containing power for its next usage.

#### **Obstacles:**

Setting destination, time considerations, safety constraints, privatization.

### **Rune Coding**

Symbols need to be organized in a certain arrangement for the desired effect

Specific arrangements used for:

- Linking Locations / Matching symbols on portals harnesses the frequency of Itineris Threads
- Privatization / Ensure that only PEN Agents have access to the portals



https://www.vectorstock.com/royalty-free-vector/runes -alphabet-elder-futhark-design-vector-34518895

K Kaunan

ulcer,

fire

J Jēra

year,

harvest

B Berkanar

birch.

birth

D Dagaz

day,

dawn

### Amulets - Power Source and Member Privatization

- Portal Power Source = Doorkeeper Stones
  - Fitted to the amulets of PEN Agents
  - Triggers the magnetic pull between the Runes of the current location and the set destination

Member Privatization

- Amulet issued to each agent designates their department in the PEN
- Portals won't activate unless triggered by PEN member access









#### **Portal Access**







### **Portal Transportation Logistics**

- Member sets the dial on the portal to their desired location and taps their amulet to the scanner
- Power from the stones in the agent's amulet and their access symbol triggers the portal to open
- While traveling, the stone absorbs the energy given off the Itineris Threads
  - absorption ensures the safety of the traveler
  - stone "recharged" for later portal travel uses

### **Portal Transportation Logistics**

- Each Portal is designated with a certain arrangement of Runes for its location marker
- With destination set and power supplied:
  - Set frequency of the Rune Dial links two locations together by harnessing a connection of Itineris Threads
  - Power source causes a magnetic attraction between the matching Runes of the destination dial and the desired Portal
  - Magnetic attraction causes a resonance among the Itineris Threads of the set frequency
  - Energy build-up causes a pathway to open between the two locations

#### Scheduling



- 2 Weeks of pitches, sponsor gathering
  - 1/2 month initial hiring period
  - 1/2 month continued hiring and material gathering
  - 1.5 weeks training and team building
  - 3 months production (Physical structure building/Integration with magnetic system)
  - 3 weeks testing

#### Administration

### Necessary labor

- Physical laborers
  - Metal workers
  - Masons
- Engineering
  - ▷ RF Engineer
  - EM Engineer/EE
  - Energy Systems Engineer







#### Budget

- Labor Costs
  - Engineering: \$1.1 million
  - Physical: \$400,000
- Administrative
  - ▷ \$2.1 million
- Equipment and Materials\$500,000
- Facilities
  - ⊳ \$100,000

### Total Estimate: \$4.2 million



## **Questions?**