

Scribe Authoring Tool

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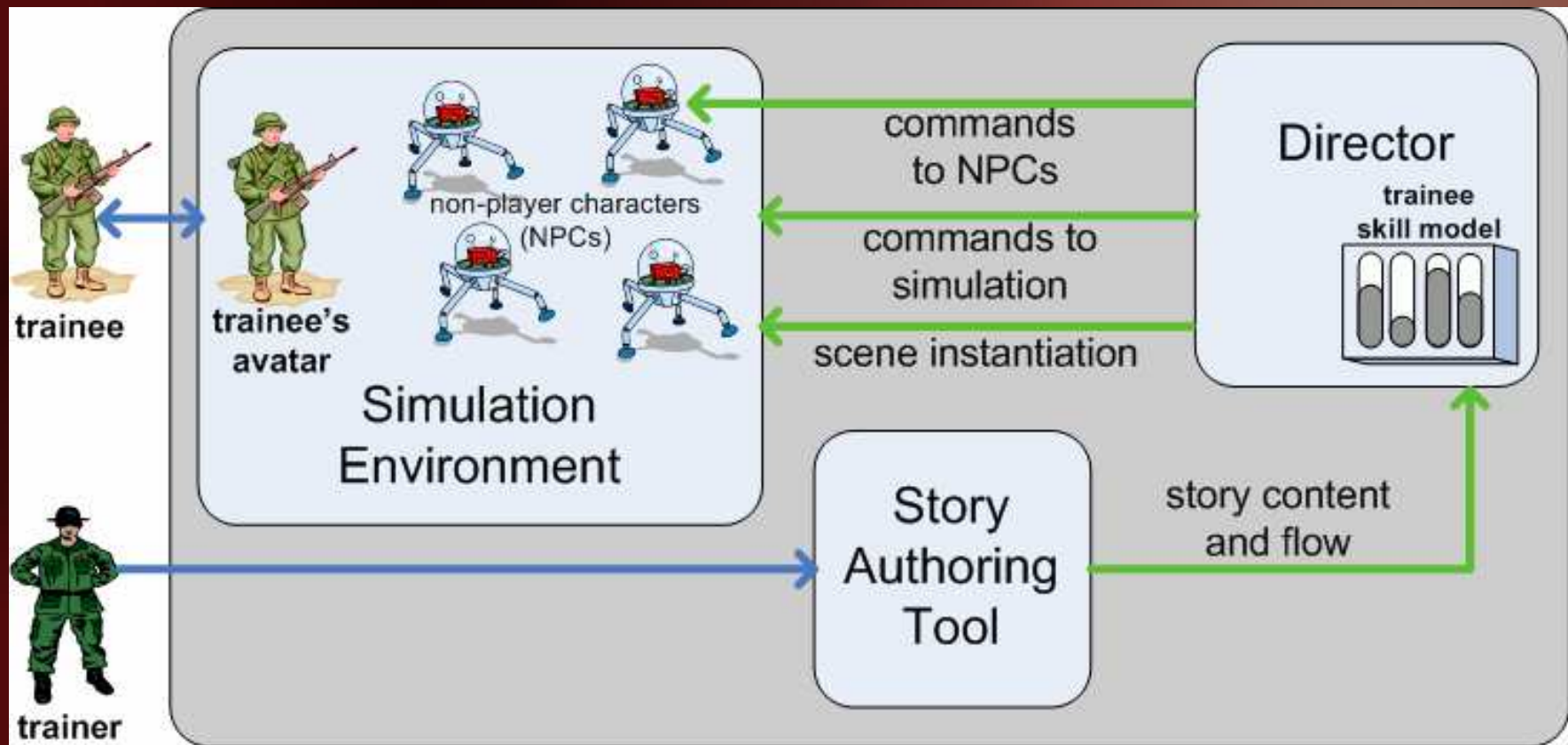


- **Presenters**
- **ISAT**
- **Scribe Design**
- **Scribe Authoring Modes**
- **Golden Nuggets and Coal**
- **Questions**

Interactive Storytelling Architecture for Training

- **Director-based story management**
 - **Interactive Drama Architecture (IDA)**
 - **Intelligent Tutoring**
- **Directs environment and NPCs based on:**
 - **Story content**
 - **Player action**
 - **Hypothesis of player skills**
- **Selects and instantiates abstract content for dramatic and pedagogical reasons**

High-Level ISAT Architecture



How do we put authoring content in the hands of non-programmer authors and content experts?

The Scribe Authoring Tool

- **Built for authoring interactive narratives**
- **Provides visual connection to underlying story logic**
- **Designed for subject matter experts (SMEs) to produce story / scenario content**

1. Generality

- Standardize means of representing multiple environments
- Linking with multiple architectures

2. Usability

- Error checking, efficiency, and is easy to use for non-programmers

3. Pacing and Timing

- **Timing of events that can be controlled by the author**

4. Enables Debugging

- **Debugging content inside of the production tool**

Overview of Scribe

Element Placement

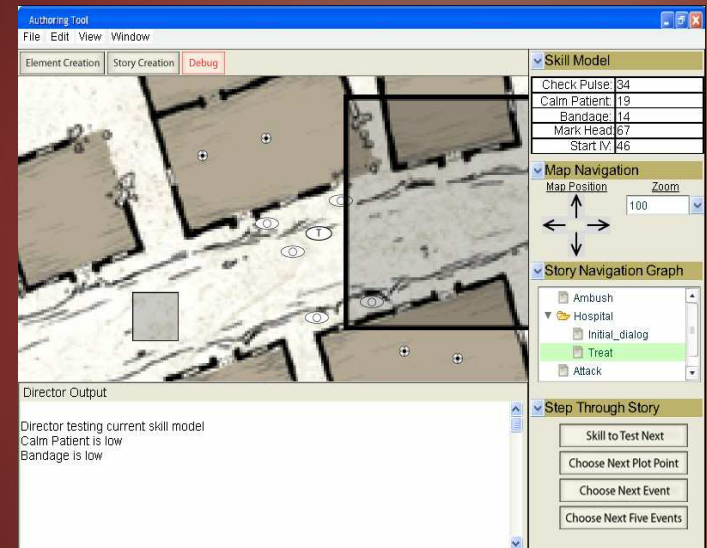
Interaction with the
game environment

Story Creation

Creation of story events that
occur as the player is inside the
game environment

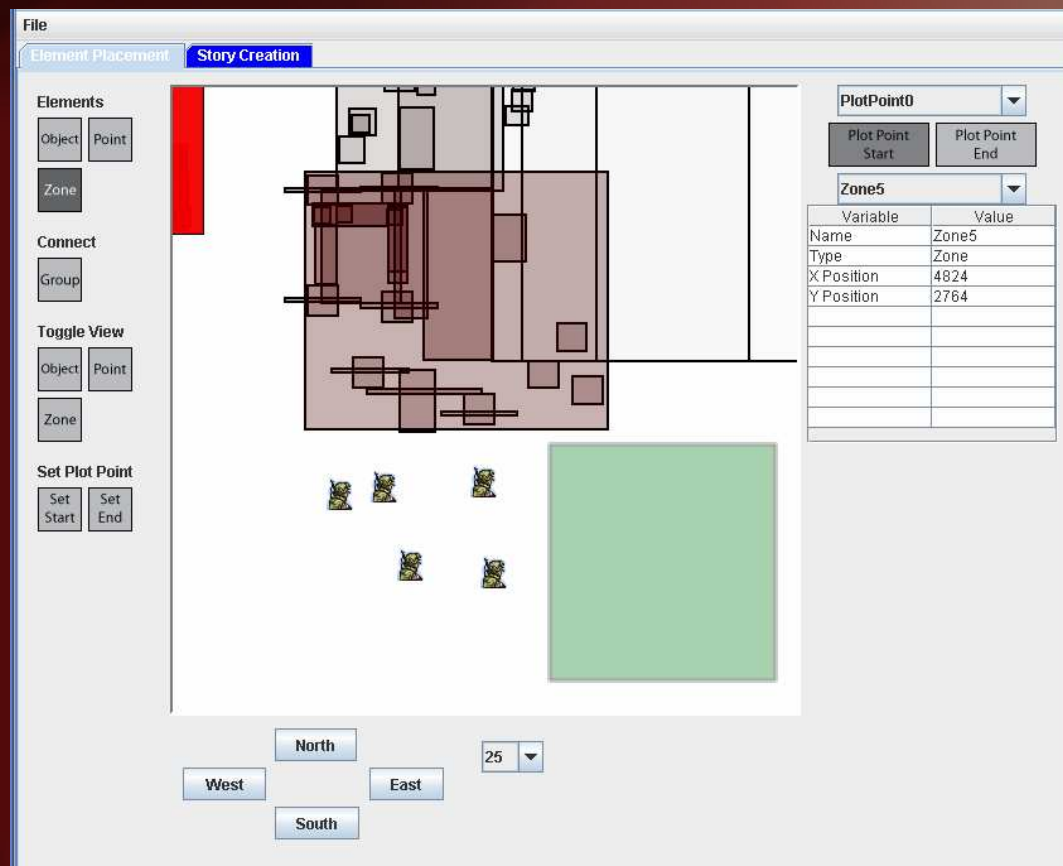
Debugging

Allows the author to review story
content inside of Scribe



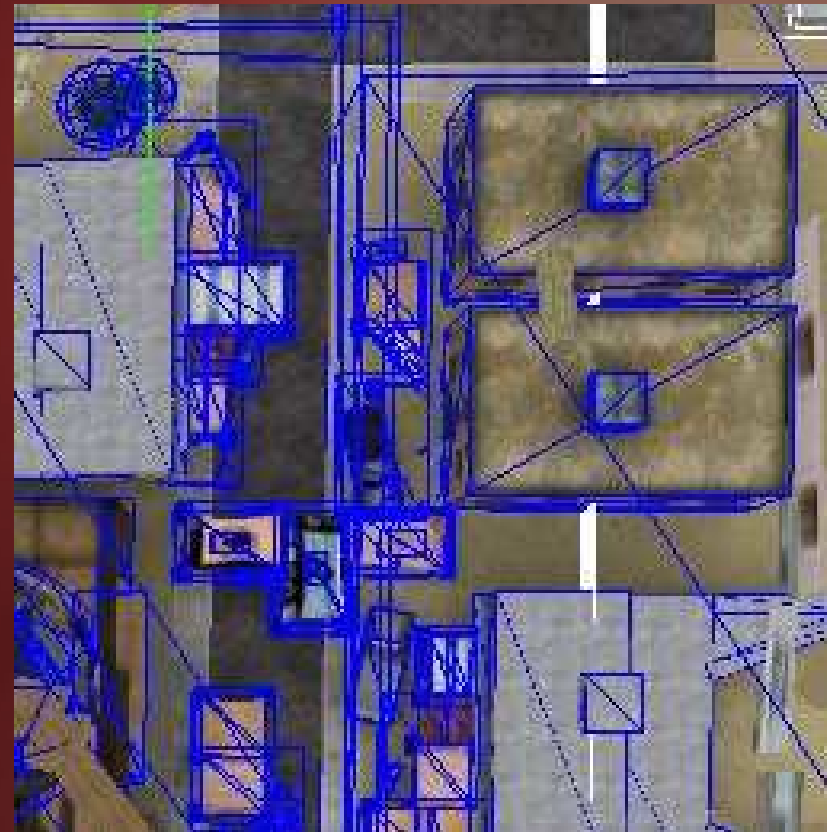
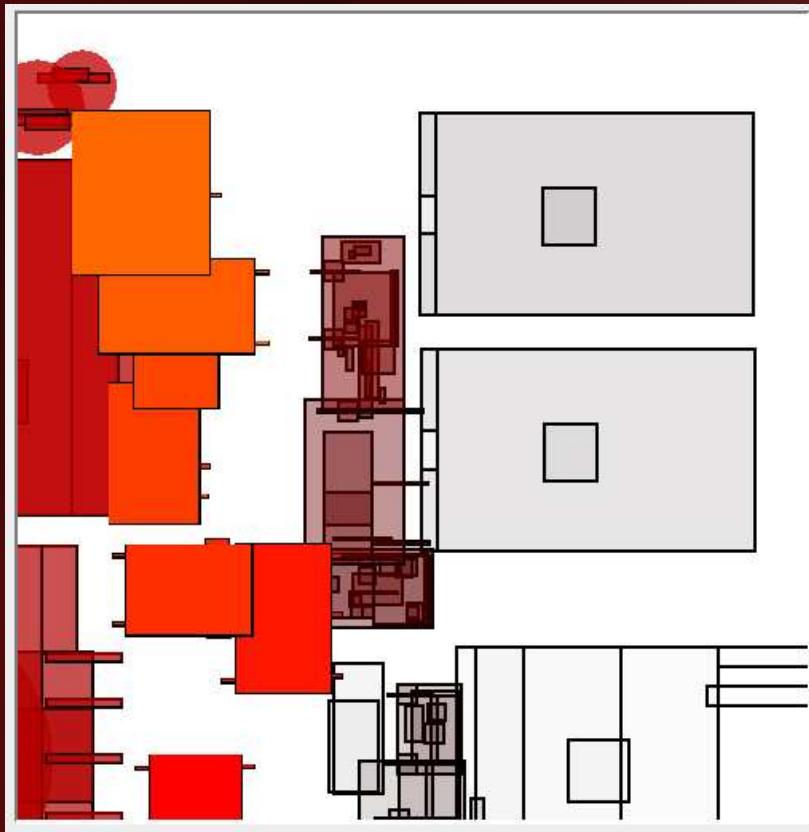
Element Placement

- Author works with game representation creating elements that are used in story

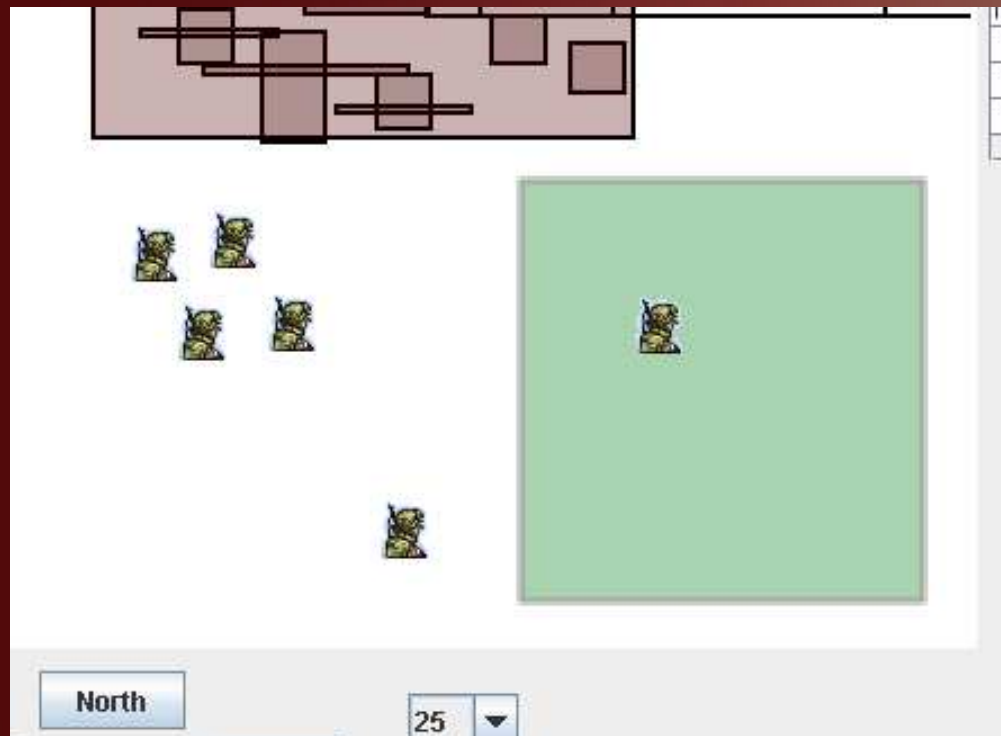


Map Representation

- **Map**
 - 2D representation inside of Scribe



- **Elements:**
 - **Objects** - Items that are represented visually
 - **Points** - 3D points
 - **Zones** - Areas with attributes



Story Creation

- Author creates story events that utilize elements set in Element Placement Mode

The screenshot displays a software interface for story creation, titled "Element Placement" and "Story Creation". The interface is divided into several sections:

- Plot Points:** A central diagram shows four blue rectangular nodes labeled "PlotPoint0", "PlotPoint1", "PlotPoint2", and "PlotPoint3". Arrows indicate a sequence: PlotPoint0 points to PlotPoint2, PlotPoint0 points to PlotPoint1, and PlotPoint1 points to PlotPoint3.
- Left Panel:** Contains buttons for "New", "Link", "Set", "Precondition", "Action", and "Postcondition".
- Right Panel:** Contains two configuration tables.
 - Selected Plot Point:** A table with columns "Variable" and "Value". The first row shows "Name" as "PlotPoint0" and "Test Skill" as "PlotPoint0".
 - Selected Event:** A table with columns "Variable" and "Value". The first row shows "Name" as "Action0". Other rows include "Type" (Action), "Event" (attack), "id" (solder1), "direction" (north), "x" (100), "y" (40), "z" (1), "duration" (60), "Start Time" (40), "End Time" (100), "Random Start Time" (0), "Random End Time" (0), and "Relative Start Eve...".
- Bottom Panel:** A table with three columns: "Preconditions", "Actions", and "Postconditions".

Preconditions	Actions	Postconditions
Precondition0	Action0	Postcondition0
Precondition1	Action1	Postcondition1
	Action2	Postcondition2

- **Story Creation items:**
 - **Plot Points - Main story points (i.e. scenes)**
 - **Actions - Make up plot points, hold actions for a plot point to perform**
 - **Skills - Variables representing trainable skills of the player**

Story Representation

- **Plot Point**

- **Initialization**

- Logical sentences
 - Planning preconds or director actions
 - E.g. Location() vs. Spawn()

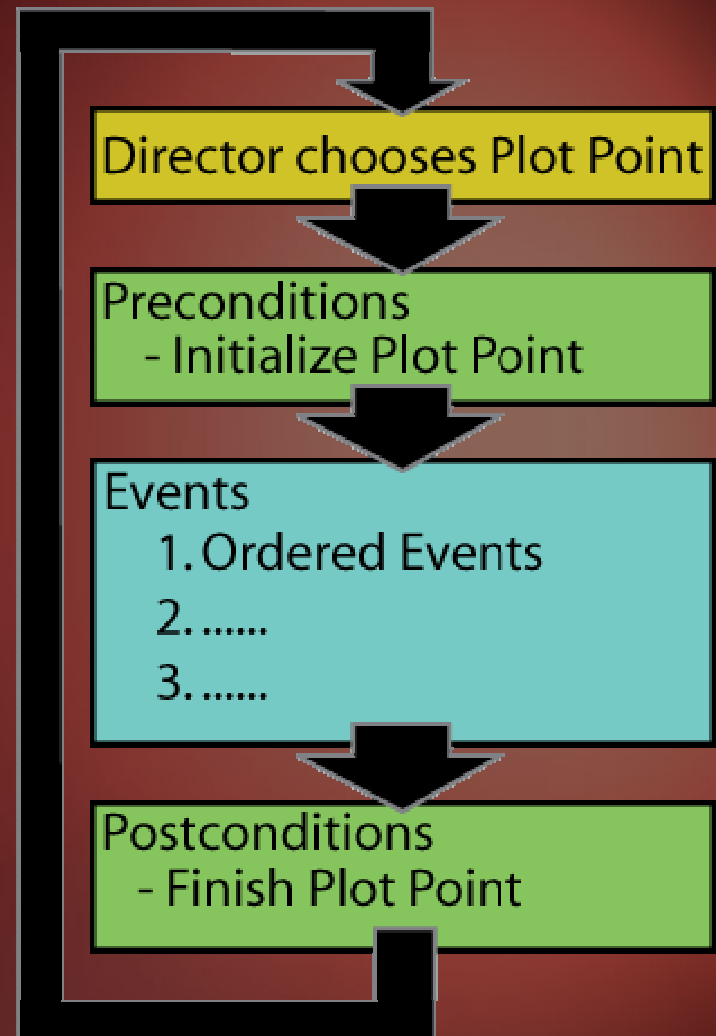
- **Events**

- Actions during the plot point
 - The main story actions that the player experiences

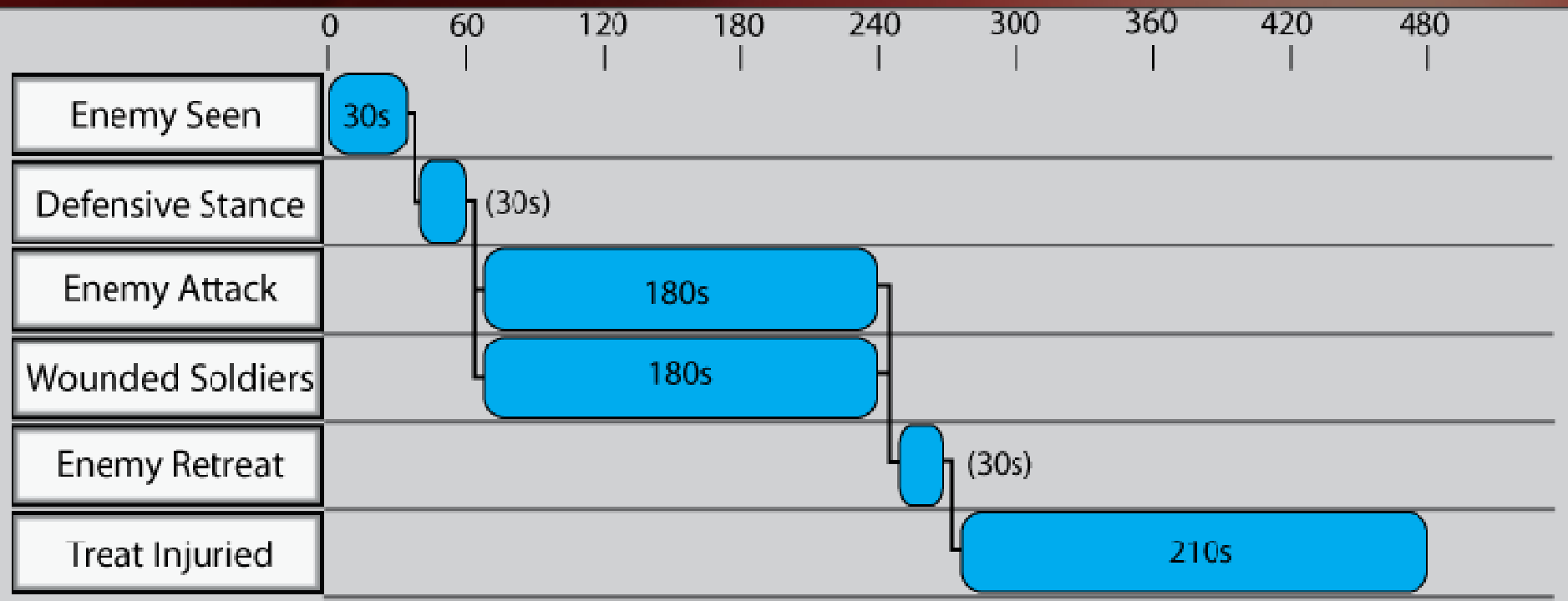
- **Finalization**

- Logical sentences
 - Planning postconds or director actions

- **Partial ordering links**



- **Plot Point Timing**
 - Events given temporal attributes



Debugging

- **Author communicates with Director Agent while stepping through created story content inside of Scribe**

The screenshot shows the Scribe Authoring Tool interface. At the top, there are tabs for 'Element Creation', 'Story Creation', and 'Debug' (which is selected). The main window displays a top-down map of a building complex with several circular markers. To the right of the map is a control panel with several sections:

- Skill Model:** A table showing skill levels for various actions.

Check Pulse:	34
Calm Patient:	19
Bandage:	14
Mark Head:	67
Start IV:	46
- Map Navigation:** Includes a 'Map Position' field and a 'Zoom' dropdown set to '100'. Below these are four directional arrow icons for navigation.
- Story Navigation Graph:** A tree view showing story elements: 'Ambush', 'Hospital' (expanded), 'Initial_dialog', 'Treat' (highlighted in green), and 'Attack'.
- Step Through Story:** A section with four buttons: 'Skill to Test Next', 'Choose Next Plot Point', 'Choose Next Event', and 'Choose Next Five Events'.

At the bottom of the window is a 'Director Output' pane containing the following text:

```
Director testing current skill model  
Calm Patient is low  
Bandage is low
```


Golden Nuggets

- Major functionality is done
- Started to use Scribe
- XML standards for communication
- We are on schedule



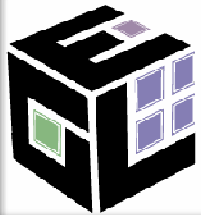
- **Connecting other environments and architectures to Scribe**
- **Needs usability testing**
- **Test cases and prototype of debugging ability**



Questions?

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games for
entertainment
& learning lab



Soar Technology
Thinking *inside* the box.

