Alibi Generation

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The Problem
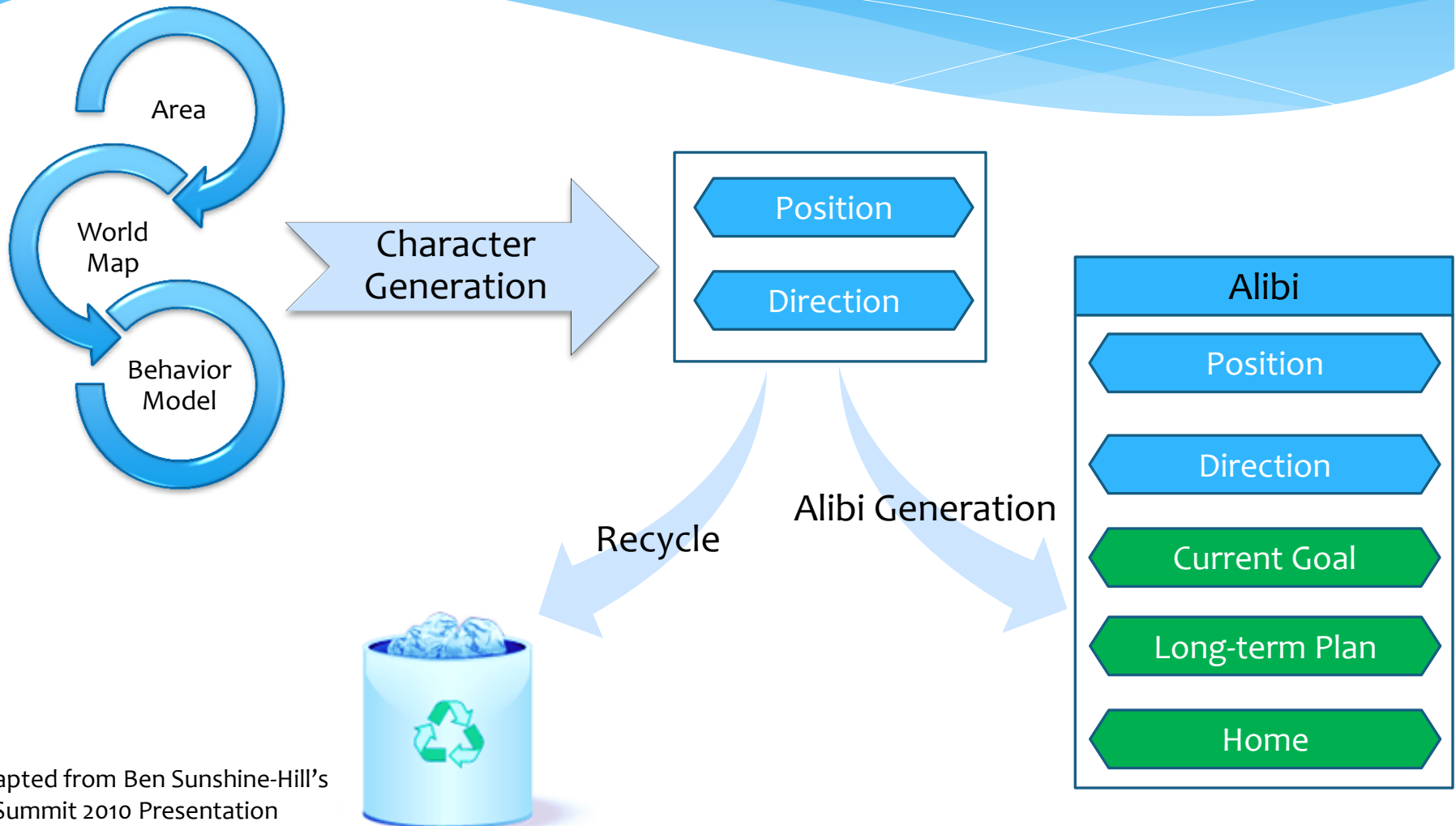
Goals of Method

* Realistic AI characters
* Fast calculations
* Limited saved data

How it Works

Area

World Map

Behavior Model

Character Generation

Position

Direction

Recycle

Alibi Generation

Alibi

Position

Direction

Current Goal

Long-term Plan

Home

Adapted from Ben Sunshine-Hill's
AI Summit 2010 Presentation

How Do We Determine an Alibi?

* Offline:
    * Run a full simulation of all AI characters for some period of time
   * Save the probabilities that describe the relationships between different goals/goal types
* Runtime:
    * Generate initial agents
    * Pick first goal at random
    * Use saved probabilities to influence random behaviors

Additional Details

* Save probability table for transitioning from one location type to another
* Apply that table when a decision is needed
* Keep prior state information when doing a round-trip
* Use bounded goals for home, work, etc. as needed
  * _My_ home vs. a home
* Use a specific goal as appropriate
  * A restaurant vs. a _good_ restaurant
* Stay for a random amount of time based on saved probabilities

Example

* John Q. Agent leaves home ("Home.883") and goes to his workplace ("Work.231").

* He stays at work for several hours, then starts a round trip to the nearest restaurant ("Restaurant.22").

* After about half an hour, he returns to Work.231.

* After several more hours, he goes back home to Home.883.

* After a little while, he goes to visit his friend at Home.2141.
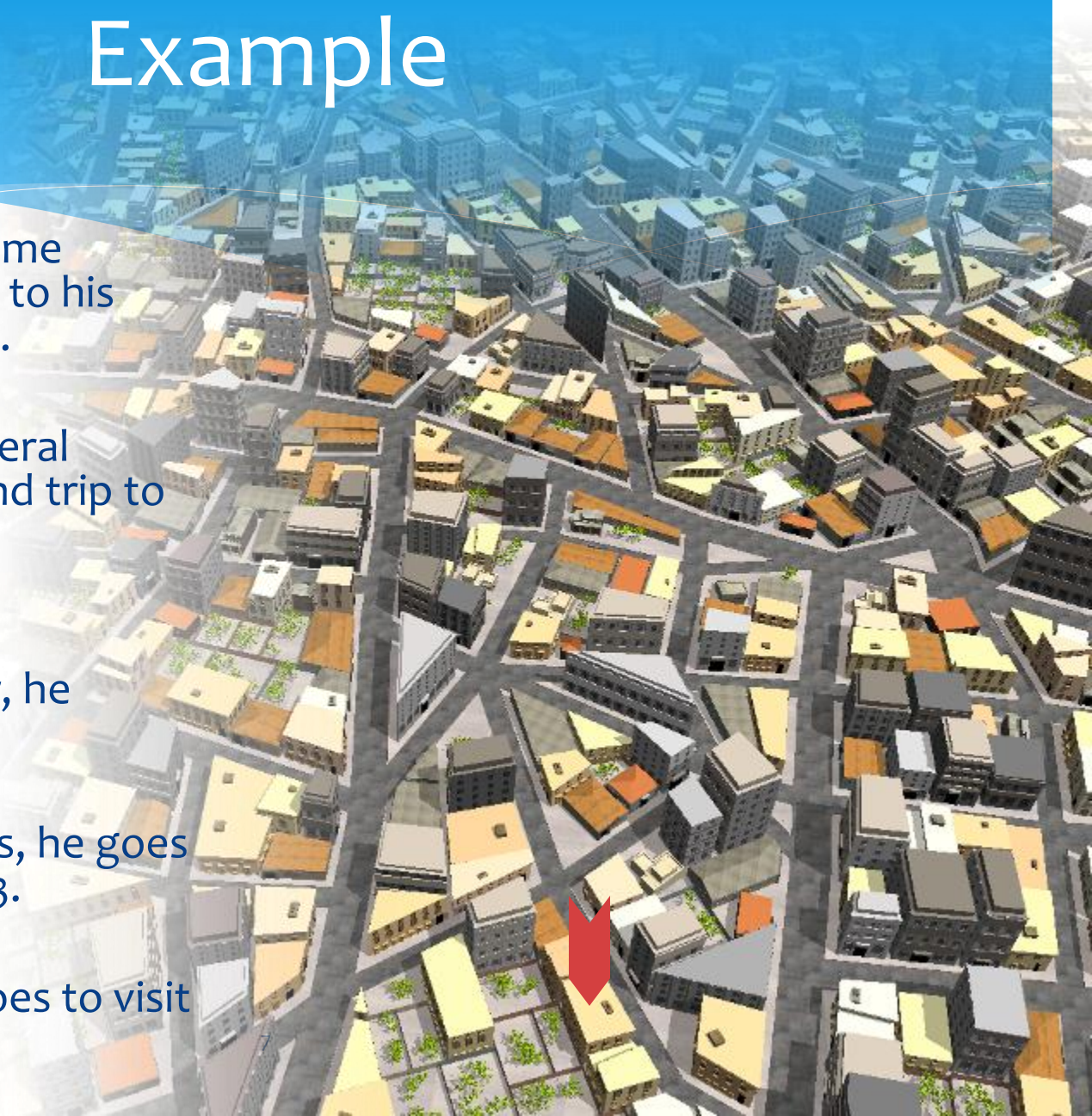
Demo Setup

* Rooms are organized by type (classroom, lab, closet, etc.)
* Building is broken up into waypoints with portals between them
* Table of pre-defined probabilities for goals based on prior visited room's type
* Agent stays inside room for a varying period of time after arriving
* Alibi is generated upon being visible by player
* Player is moveable within simulation

Demo

* [Demo Website](#)

Questions?

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