Design Project 2
Level Design
GAM 224, Prof. Robin Burke
Spring 2006

What is it:
Design a level for an action game.

Design constraints:
In this project, you will design a level for the collection game Katamari Damacy.
• As in the card game, the theme of the map will be "alien abduction."
• The mechanics of the game will be like that of Katamari Damacy / We ♥ Katamari. Everyone on the team should have played one of these games.
• To design the level, you will be designing the physical space in which the game will be played. Remember that in this game there are different levels of detail: obstacles / map features at one level of detail become collectable items when the katamari is bigger. Think about the map in layers. Expect at least 3 "perspective shifts" during the course of the level.
• You will need to determine what items will exist on the map. Like the original game, your items should be somewhat whimsical, and they should support the "alien abduction" theme.
• You will need to plan the player's trajectory through the map. Obviously, the player will be free to go wherever he likes (within the constraints of size) but you should visualize what items become available for collection at each stage of game play and consider how the player will navigate to them (and learn that they exist.) You can add barriers as in the original game that can only be crossed at certain katamari sizes.
• Finally, you should make an initial estimate of the beginning and ending size of the katamari and the amount of time the player will be allotted.

Design issues:
The goal in designing a game level is to create a space in which play takes place. The map will determine the activities players engage in – are they avoiding opponents / obstacles, are they selecting among objects, are they planning trajectories? :
• Thematic features: What special qualities of your map will distinguish it as being about "alien abduction"? Remember that the "scene" in this game is sometimes only revealed after the katamari has scaled up – use this mechanic for game play effect.
• Information disclosure: Players will learn about the map as they encounter it at different scales. Think about how knowledge of the distribution of objects is acquired by the player. Consider how you will lead the player to the areas that they need to access.
• Negative feedback: This game is inherently one of positive feedback. What aspects (obstacles, navigational/map issues, opponents) will you add to slow the player down and make the level more challenging?
• Rewards: Funny animations and sounds are an important reward in this game. Think about what items you will imbue with special sounds and animations and figure out where to place them for an enjoyable game experience. Also, remember the "table turning" mechanic and consider what opponents the player will eventually be able to collect.

What to do:
• Meet early and often with your group. One member will be designated by the instructor to be the leader. It will be this person's responsibility to coordinate meetings: before and after class sometimes works well.
• Each meeting should have a specific objective. The first meeting should be a brainstorming meeting in which you arrive at a rough consensus about how to approach the basic design issues, especially how the theme will be realized and the basic outline of the level.
Once the basic outline is in place, there are three interacting subtasks:

- Map creation: This job is to create and update a (2-D) map of the level. This should be done with software tools, so that the map can be easily updated to reflect changes in the design. There should probably be several maps or overlays, each indicating the accessibility of the level at different katamari sizes.
- Item inventory: This job is to come up with a list of all of the items that the player will encounter during the level. Each item should have an associated size, behaviors and sounds (normal, when collected), and approximate frequency / rarity in the level. If time allows, you should try to collect (or create) art work for some of the items.
- Item placement and player trajectory: This job is to identify the locations of items in the level. Not every item needs to be placed – in some areas, it may be sufficient to specify a certain mix of items – but the most significant items will need to be placed on the map, and any special configurations noted (for example, objects piled on top of each other.) Item placement essentially determines the player's trajectory through the level, so this is an important consideration in populating the level. Item placement should be considered an overlay on top of the map.

Regular meeting and coordination will be essential to this project: all of the tasks are inter-related.

Obviously, there will be no way to play your level, but once you have some basic design elements in place, your team should meet at least once in the game lab to play Katamari Damacy and gather additional design ideas.

After the draft design is complete, you should focus on how to present your game to the class. Your presentation should focus on the map, the player trajectory, and the items encountered. You will have no more than 10 minutes to present, so plan to be very concise and to the point – 5 slides is probably the most you should have.

What to turn in:

- 5/22: Submit a zip compressed file with two documents: a draft of the map (in JPG, GIF or PNG format) and a MS Word document containing a draft of the item inventory to the CTI Course On-Line (http://dlweb.cs.depaul.edu/) site under the heading "Design Project #2: Draft design." It is the designated group leader's responsibility to do this.
- 5/30: Submit your PowerPoint slides for a 6 minute presentation to the Course On-Line (COL) site under the heading "Design Project #2: Presentation." I will download these presentations and have them available on the in-room computer during class on 2/13.
- 5/31: Submit a zip compressed file with two documents: the final version of the map and a MS Word document containing the final version of the rules to the Course On-Line site.

Hints and Notes:

- Work on a reasonably large scale (even if your map doesn't fit on one piece of paper.) You can always shrink it or display it in parts.
- Rules of thumb for item placement
  - Think about the environment. How do the items tell the story of the level?
  - Use active items / opponents sparingly but for good effect.
  - Remember that some players are explorers. Provide some cool treats in obscure areas, and enough clues so that the player wonders "How can I get that?"
- Rules of thumb for map / player trajectory
  - Plan your trajectory so that the player gets a quick overview of the environment, even if much of it is not immediately collectable.
  - If you want to have a large map, it will have to be segmented by some kind of barrier to prevent the player getting to the "big" parts too early.
- For the presentation, you may want to present your map in multiple versions or overlays, showing terrain in one, items in another, and player trajectory in another.