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|  | **2008** |
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| [Ninja – Revison 1] |
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# Game concept

## Game outline

## Setting

## Story

# Game mechanics

## Character & abilities

## Weapons

## Power-ups

## World objects

## Enemies

## Goals & rewards

## Game duration & level structure

# Target market & audience

## Target audience

## Market research

# Artwork & style

## Art direction & colour schema

## Art pipeline & techniques

## Audio direction

## Audio techniques

# User interface & controls

## HUD & in-game user interface

## Menu structure

## Control layout

# Tools and technologies

## XNA

We plan on using the XNA framework to develop our game. Although we have access to the XDK here at Microsoft, neither of our two programmers have had prior experience with the XDK and the development effort / learning curve required would be much higher than developing with XNA. Given that time is at an absolute premium, RAD tools like XNA must be given preference to over traditional tools like the XDK.

## Adobe Photoshop

We plan on using Adobe Photoshop to edit and produce all the art-assets in the game. Photoshop is almost the de-facto standard for editing images and we already have some familiarity with it’s usage.

## TV Support

We aim to support 4 different types of televisions / VDUs:

* Standard definition (480p) with 4:3 aspect ratio
* Standard definition (480p) with 16:9 aspect ratio
* High definition (720p) with 16:9 aspect ratio

## XBOX Live Support

We originally hoped when discussing the idea

# Risk analysis

## Artwork

Artwork is a big worry for this project. We have two programmers working on the game but no dedicated artists. Although some effort could be made by the programmers to produce art assets, the time it would take to produce such assets would undoubtedly be higher and the quality would not be as good as artwork from someone experienced in the field.

We hope to recruit some talent from Microsoft internally to help out but finding artists will be difficult and even more difficult will be finding artists with time to offer. We will need to address this situation shortly once it becomes clearer what assets we will be requiring for the game.

## Time

Time is a major concern with this project. We are looking at a development time which will be 8 weeks long at maximum- which is an extremely short time-frame indeed. We will also have to dedicate some of our time to other duties at Microsoft so we will have to manage the project very carefully if we are to overcome the time hurdle.

## Audio

We are moderately concerned about audio assets although not quite as concerned as we are with artwork. If need be we could always purchase some royalty free sounds and use them in our project. We do not as yet plan to have any speech and it is looking likely that will be also the case for the foreseeable future. We still are deciding what will be done about music also; although that would be less of a concern then the actual sound effects themselves.

## Technical risks

We do not foresee any huge risks with regard to the technical side of the project. The development of the engine itself should be relatively straightforward and there should not be too many technical hurdles to overcome.

## Level design

Level design is a worry for us because we do not have any tools to create worlds with yet. Although it would be desirable to create our own level editor, it would not be wise given the short time span we have at our disposable. The best path would probably be to implement level files in the flexible .XML format and use that to create our levels. We could also follow a path used in previous projects we worked on and use a command-line based level editor; we already have a command parser for this purpose.

## Localisation

Localisation is a slight worry because XNA does not support advanced font rendering engines that could support a multi-byte characters like those found in Chinese. The font rendering in XNA is based on bitmap fonts and can only support a maximum of 256 possible characters. We could take the route of embedding all our text into bitmap files which would then be displayed in game. Photoshop PSD files could then be localised to produce the correct text for each language.

# Schedule

# Project terminology

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|  |  |
| XNA | An easy to use framework for developing games on Windows and XBOX 360. |
| HUD | Heads up display. Part of the user interface in a game that is visible to the player throughout normal game-play. |
| XDK | XBOX Development kit. A proprietary development kit for the XBOX 360 console that includes C++ compilers, code libraries and documentation required to develop for the XBOX 360 platform. |
| PSD | Photoshop document. A layered and highly editable image file format used by the Adobe Photoshop image editor. |
| RAD | Rapid application development |
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