

# **DIVERSITY**

**Presents**

## **THE ARCHERS**

(working title)

**Game Design  
& Technical Document**

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## **Game Title - RG**

The working title for this project is The Archers and this is being used pending a discussion on different, possibly cooler titles. It is intended as a passing reference to the ongoing, never-ending radio show of that name, however it is appropriate as it is descriptive of the game.

## **Game Outline – SA**

When the game starts up, the player has the option to select a character to play. This character can be drawn from a library of fantasy, fictional and real-life characters. The player will also have the option to create a character via a library of attributes, possibly uploading a photo which can be mapped onto the character. There will also be an opportunity for the player to create a personalised back story for the created character.

Once a character is decided on, the gamer is then presented with a character-dependent selection of weapons from which to choose. The game itself commences with a weather forecast, and the player then shoots projectiles at various targets, either moving or stationary, and again some of these will be character dependent.

Different game levels will present a variety of challenges to overcome, such as defeating an opponent or beating a timer in order to score points. Pre-determined score results will enable the player to move to the next level of the game. Discussions are ongoing as to whether the game should be 2D, 2.5D or 3D.

It is also intended that in addition to the character back stories, the game will also include information on the history of archery, real life archery ranges, rules, equipment and accessories and links to appropriate websites. It is also intended to allow printouts of the various characters for younger children to colour.

## **Visual Style - LH**

Many visual styles have been considered for The Archers game. Some were rejected as they weren't viable due to time-scale or human resources available. Others were deemed too complex, for example high resolutions realistic game graphics would be unsuitable as the game is designed for simple and casual gameplay and hyper realism may distract the user from the gameplay through flashy visuals. The current favoured style is 2.5D as this will give a better view of the game than 2D whilst not being as graphically demanding as 3D. It is envisaged that 3D may be used for short video sequences within the game.

A cartoon like art style was chosen as it is in keeping with casual game approach adopted by Diversity. This methodology will ensure the game is visually accessible to both adults and children. A vibrant colour scheme will ensure the game imagery is appealing.

## Audio Style - TC

As the game is loading, and until play actually begins it intended to have a light musical score, probably with a tempo in the andante to allegro range. During gameplay there will be various sound effects some of which will be character dependent, eg : for arrows or other projectiles in flight, when an arrow misses or makes contact with the target.

Other intended SFX include audience cheering, booing, applauding or making sympathetic groans. Character appropriate music such as the William Tell Overture will also be included, and it intended to source all these effects either from public domain or royalty free sources or by co-opting musical talent from Diversity's circle of family and friends.

Diversity will produce voice-over announcements by the Archers host, to add to the narrative. Weather reports will be announced at the start of each level and possibly occasional discreet advertisements during the game.

Another intended feature is to allow the player to personalise the music by uploading a playlist, with menu options within the game to pause, play or stop the soundstream.

## Target Audience - PM

With a team name of Diversity, we cannot be other than committed to inclusivity, and with this in mind we have included Zahra Nemati, the first Iranian woman to win a gold medal. We also intend our game to have an appeal across a wide age-range. In addition, with the up-coming Commonwealth Games in 2014 it is hoped that there will be an extra spark of interest in sports-related games.



This game is essentially a simple one, which should make it attractive to a wide audience as the player will not need to invest time in learning complex controls. There is no steep learning curve and can be returned to during short periods of spare time. It is hoped that archery enthusiasts will find it of interest and that it may lead some people to visit their local archery range and have a go.

The inclusion of both fictional and real-life characters will be appealing to a wider audience, ie both those who enjoy fantasy and those who are knowledgeable about archery in real life.

## Gameplay Modes - RG

There are two modes planned for The Archers – a Fun'n'Fantasy mode which will appeal to children and casual players and a Competition mode which will appeal to the more serious archer.

### *Fun'n'Fantasy - RG*

In this mode the player will have the option to play the role of one of a number of famous fictional archers, such as Robin Hood, William Tell, Cupid and also futuristic characters. The game-play will be more relaxed and targets will vary (eg an apple or a valentine heart etc).

### *Competition- RG*

In this mode the player will have a choice of selecting the character of an internationally reknowned archer (champions from international tournaments, gold medal olympians etc\*). The rules for this section will loosely follow international archery rules<sup>1</sup> (eg with regard to target size and range). The player will also be able to select from a range of equipment

**\* (Disclaimer - in a RL commerical game we would obviously require endorsement from RL named persons, and for characters where copyright is not ours, but for the purposes of this exercise it should be taken that all necessary permissions have been duly obtained. Further, all images used in this document are intended merely as illustrations of the characters for internal purposes and will not be used within the game as we do not hold the copyright for them.)**

## Game Story - PM & RG

From Paleolithic<sup>2</sup> times, skill with bow and arrow was a vital survival tool, both for hunting and in warfare, as it distanced the archer from being in too close proximity of his target. Since practise is required for the attainment of every skill, it is not surprising that boys were encouraged to train in its use from a very young age, and play being the most pleasant form of learning, it is unsurprising that archery is one of the oldest sports.

There is no story as such in The Archers – rather there are individual stories depending on which mode the player selects.

In Competition mode the object of the game will be to progress from novice to Gold Medal Winner through a variety of levels. All Competition levels will follow the rules of The World Archery Organisation.<sup>1</sup> The story in this mode is of a budding young archer working his or her way up through the ranks from novice to gold medallist. It is anticipated that this section of the game will be implemented in phase 7 of development.

In Fun'n'Fantasy mode the story and the object of the game will vary (eg Robin Hood must rescue Maid Marian, William Tell must save his son etc) and each character will have his or her own story.

## Character Back Stories – PM & RG

### *Robin Hood<sup>3</sup> - RG*

A legendary hero in English folklore, there are numerous stories of the derring-do of Robin Hood, his exploits in robbing the rich to help the poor, his persistent defiance of his arch-nemesis the Sheriff of Nottingham and of course his love interest in the (compulsorily) beautiful Maid Marian. There are several locations in Merrie England which claim to be his birthplace, the earliest one dating to 1422.



Robin may have been a yeoman, or he may have been of noble birth – certainly the story as most people know it today was romanticised during the Victorian era – but whatever the truth is, it makes a jolly good yarn where our noble and honorable Robin defeats the wicked Sherriff and wins a purse of gold in the archery competition in order to free his Lady Marian.

### *William Tell<sup>4</sup> - RG*

William Tell is another folk hero, hailing from Switzerland around the time of the foundation of the Old Swiss Confederacy. There are many variations of this story – in some, he kills the wicked Gessler who is oppressing the poor people of the nation, however the earliest versions of the story do not include this assassination. The most popular version of the story has William forced to prove his marksmanship by shooting an apple off his son's head. Naturally our hero wins through and defeats the tyrant Gessler.

### *Legolas Greenleaf<sup>5</sup> – PM*

Legolas is an elf hero character featured in the epic novel The Lord of The Rings series created by J. R. R. Tolkien in 1954. Son of the Elvenking, Legolas fights bravely to defeat the forces of evil, overcoming the initial antagonism between himself and the dwarf Gimli. Legolas is one of the major characters featured in The Lord of The Rings film series.

### *John Rambo – PM*

Rambo is an antihero character created by David Morrell in the novel First Blood in 1972. Sylvester Stallone made this character his own in 1982 when he played the part in the first Rambo film. The movie was much acclaimed and led to various sequels.

Rambo is renowned for being aggressive and a rebellious lone wolf who resorts to violence to solve problems.



### *Hawkeye<sup>6</sup> – PM*

Hawkeye/Clint Barton is a Marvel comics superhero created in 1994 by Stan Lee and Don Heck. Hawkeye has been featured in many comics also in various movies. His latest movie appearance was in The Avengers in 2012. The story of his abusive childhood and how he achieved the status of Superhero can be read [here](#).

### ***Green Arrow – PM***

Green Arrow aka Oliver Queen is a DC comic superhero created in 1941 by Mort Weisinger and George Papp. Green Arrow has been featured in his own TV show Arrow as well as various animated movies. Famous for creating trick arrows with special functions such as glue, smoke or tear gas. His creators developed him into a left wing character with a progressive political bent. His story can be read [here](#).

### ***Cupid – PM***

”There’s a boy, a little boy  
Shooting arrows in the blue,  
And he’s aiming them at someone,  
But the question is at who?  
Is it me, or is it you,  
It’s hard to tell until you’re hit,  
But you love those little arrows,  
Though they hurt a little bit.“  
(Hammond-Hazlewood)

Thus sang Leapy Lee in his 1968 hit song [Little Arrows](#) and all his listeners knew that little boy was Cupid, the Roman god of attraction, affection, desire and erotic love. Son of the goddess Venus, over time he acquired the bow and arrow that represent his source of power. As legend goes, when a person is hit by Cupid’s arrow, that person is consumed with an uncontrollable attraction to another. Cupid is now inextricably associated with Valentine’s day and is an icon of romantic love.

### ***Mireya - RG***

Mireya is a good fairy who has been appointed guardian of all the animals in the Fairy Forest. Her job is to collect fruit, nuts, berries and other essentials needed by the animals in her care, and she does this using her magic bow and arrows which can transform into a net or other device appropriate to the object being collected.

### ***John Williams - PM***

John was born on 12 September, 1953 in Pennsylvania, USA. He was the first man to win a gold medal individual at the first archery event in 1972.

### ***Zahra Nemati<sup>7</sup> – RG***

Zahra Nemati is a young Iranian woman. Born in 1985, her sport was originally Taekwondo, in which she holds a black belt, however the 2004 earthquake left her paralysed from the waist down due to a spinal cord injury. Her bravery in moving on to another sport and excelling in it has been invaluable in challenging perceptions of people with physical disabilities and has also inspired other Iranian women to take up sport.

### ***Oh Jin-Hyek - PM***

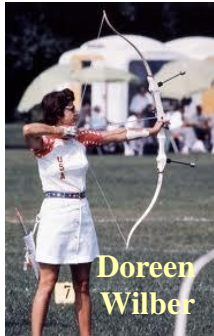
Oh Jin was born on 15 August, 1981 in South Korea. He won his first Olympic gold medal in 2012 and became the first Korean male archer to win an Olympic individual Gold medal.



### ***Rahul Banerjee - PM***

Rahul was born on 15 December, 1986 in India. He won his first gold medal in the Commonwealth Games in 2010 and then went on to the Asian games where he took the bronze with his team.

### ***Doreen Wilber – PM***



Doreen Wilber was born on January 8, 1930 in Rutland, Iowa in USA. She became the first women to win a gold medal individual at the first archery event in 1972 along with John Williams.

### ***Ki Bo-Bae – PM***

Ki Bo was born on 20 February, 1988 in South Korea. She won the women's individual gold medal for archery then went on to compete in the world championship where she also took the gold.

### ***Deepika Kumari – PM***

Deepika was born on 13 June, 1994 in India. She won a gold medal at the women's individual archery commonwealth games in 2010 and went on to play in the Olympics.

## **Gameplay - SA**

There will be a tutorial level to teach players the basic controls of the game. The player will be instructed on the use of their bows and arrows to hit both stationary and moving targets. Depending on the chosen mode (Fun or Competition), the player will progress through various levels of difficulty where different obstacles, such as moving objects, will be encountered, with a score reduction if the object is struck or if the target is missed. Other obstacles will include weather conditions such as wind or rain which will affect the trajectory of the players arrows.

## **Obstacles - SA**

Throughout the game there will be a number of different obstacles that the player will have to overcome to advance in the game. There will be an option, for the fainthearted, to turn any or all of the obstacles off. Some of these difficulties are relatively harmless, some may cause damage or score reduction, and some are sufficiently difficult to prevent the player achieving their goal (ie winning the gold medal in Competition mode). Their types are detailed below:

### ***Wind - SA***

Anything stronger than a slight breeze will have an effect on the direction of the arrow. It is intended that there will be 3 or 4 levels of wind strength, coming from one of the 4 major compass points. So, for example a stiff breeze from the east will change the arrow direction towards the west, from the north it will shorten the arrow's flight whilst from the south it will extend the distance the arrow travels. The level of wind strength and the direction will be generated randomly at each stage of the game.

### ***Rain - SA***

Rain is another factor which the player will need to take into consideration when taking aim. Again, there will be three or four strengths of rainfall, which will force the trajectory of the arrow lower to varying degrees. As wind is a separate obstacle, the rain will always be deemed to be falling straight down and the strength will be determined randomly. A weather forecast will be displayed advising the player of weather conditions.

### ***Time Limit - SA***

In some of the Fun'n'Fantasy levels in the game there will be added challenges for the player other than just reaching the end. (Eg Robin Hood must shoot a number of bags of gold within a specified time in order to rescue Maid Marian etc)

### ***Lives - SA***

In Competition levels, players begin the game with 5 lives. If the player misses all shots in a bout a life is lost. When a player reaches the end of a level a life is gained.

### ***Miscellaneous - SA***

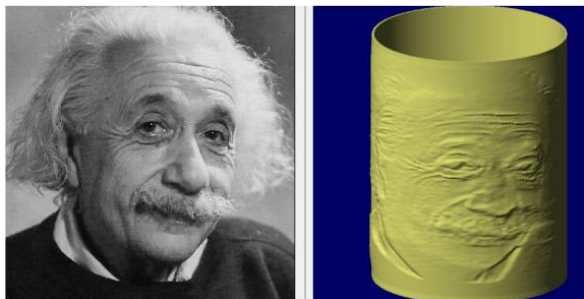
Depending on the chosen mode, there may be other miscellaneous obstacles on the field for the player to avoid. Collision with an obstacle may result in a score reduction or may affect the flight of the arrow. The obstacles may be in the form of balloons, bird poop, or other such objects. These objects may be stationary or mobile to provide the player with varying degrees of challenge.

## **Customisation – RG**

It is intended to allow the game player a degree of customisation both with regards to character and to equipment. Whilst some options will be available immediately it is envisaged the major customisation functions will be added during phase 7 of development

### ***Character Customisation - RG***

Depending on the different mode selected, the player will be able to select a character, with options for male/female, male/female paralympian, black, pink or olive skin tone, black fair, brown or ginger hair and different eye colour.



Ideally it will be possible for the player to upload a small jpg or gif of their face which can be used in place of the character head. This can be done by converting the image into a mesh which is then be wrapped around an object, as can be seen in the Einstein example shown here.

It is also intended that the player will be able to choose from a small wardrobe of clothing and accessories with the option to change the colours of the objects. If development time permits it would also be desirable to add a function which would allow more artistic players to upload images of aretfacts which may be used in the game.

## ***Equipment Customisation - RG***

In both the Competition and the Fun'n'Fantasy the player will be able to select from an armoury of bows & arrows and other equipment as appropriate, with RL brands and makes for the Competition mode together with fantasy and trick arrows for different characters. In addition to the upload function for user-created artefacts as mentioned above, the game will also offer the player the option to create bows, arrows and other accessories via a simple graphics library/customisation function, although this will not be implemented until phase 7 of development.

## **Controls - TC**

It is envisaged that there will be three different modes of control, dependent on the game machine the player is using.

### ***Mouse - TC***

The direction of the shot to left and right will be determined by cursor movement in those directions. Moving the mouse forwards or backwards will determine the angle of the shot whilst the strength of the shot, determining how far the arrow will fly will be determined by how long the left mouse key is held down.

It might be possible to add a zoom function on right-click. Another option might be to add a mouse wheel function to cycle through the weapons available to the player, although these functions will also be available via the Menu button which will always be on the screen

### ***Touch Screen - TC***

Sliding a finger across the screen will enable the player to choose the direction of the shot. As with the mouse, the longer the finger remains on the screen, the more powerful the shot.

Moving onto an icon on the screen will allow the player to change weapons. The zoom function will be the same as for tactile phones or screens, ie with thumb and finger.

### ***Keyboard - TC***

The player will also have the option to use the keyboard to play, with the left-right arrow keys to determine direction and the up-down to determine the angle of the shot. The spacebar will fire and other hotkeys, eg Z and X will offer zoom and weapons choice.

## **Platform - SA**

The Archers will be web based using HTML5/JavaScript and will be compatible with all major browsers such as Firefox, Google Chrome, Internet explorer, Safari and Opera. It will also be available for mobile devices such as Ipad, iPhones and Android based phones, as well as tablets where users will be able to use our touch-screen interface to play.

## **Resources - LH**

The Archers will be produced using [Construct 2 by Scirra](#), which has been determined to be the most suitable coding environment for our purposes and fills the brief as it has a function to export to HTML5. Word processing and spreadsheet software is always necessary, and [Weebly](#) is being utilised for the creation of our website.

Access to the world wide web will be used for research on archery, covering modern commercial concerns, the history of the sport, etc. In particular this resource has been invaluable in acquiring a good knowledge of archery equipment such as bows, stands, quivers and attachments, which is necessary for making The Archers as accurate as possible

## **Finance – LH**

### ***Costs - LH***

In terms of production costs, these must, of necessity be kept as low as possible, as we do not have any budget on which to draw. However, it is eminently possible to produce casual games on a very limited budget by utilising all the free resources to which we have access, either via UWS or the internet, such as software, research opportunities, IP and hosting services.

### ***Sales - LH***

The Archers will be available free via online browsers with the possibility of a free mobile app. As the game gains popularity and user numbers rise, micro transactions will be introduced to allow the player to purchase certain objects within the game which are not otherwise available. These will be items such as character skins, accessories and special bows and arrows. As our initial outlay is virtually nil, these micro transactions will be profit.

It is also intended to seek advertising revenue from the archery industry, such as shooting ranges and manufacturers of archery equipment.

### ***Marketing- LH***

Marketing will be done initially through social networks such as Facebook. Diversity will need to invest time in this, but it will require no financial outlay. The Archers website will keep players informed on expansions, upcoming patches or sequels, and will also provide a method of harvesting email addresses for future marketing purposes.

## **Reflections - PM**

This section will be compiled during various stages of development to provide insights on specific problems and challenges encountered and how they were dealt with.

# Appendix A - RG

## *References*

1. World Archery Organisation Rules 2012 <http://www.worldarchery.org/en-us/home/rules/constitutionrules.aspx> (accessed 18th October 2013)
2. History of Archery [https://en.wikipedia.org/wiki/History\\_of\\_archery](https://en.wikipedia.org/wiki/History_of_archery) (accessed 25th October 2013)
3. Robin Hood [https://en.wikipedia.org/wiki/Robin\\_Hood](https://en.wikipedia.org/wiki/Robin_Hood) (accessed 26th October 2013)
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5. Legolas Greenleaf <https://en.wikipedia.org/wiki/Legolas> (accessed 27th October 2013)
6. Hawkeye/Clinton Barton [http://marvel.wikia.com/Clinton\\_Barton\\_\(Earth-616\)](http://marvel.wikia.com/Clinton_Barton_(Earth-616)) (accessed October 30th 2013)
7. Zahra Nemati <http://www.rio2016.com/en/news/news/paralympian-zahra-nemati-makes-archery-history> (accessed October 30th 2013)

# **Appendix B - RG**

## *Development Phases*

1. Planning & Specification
2. Game Design
3. Working Prototype
4. Production & Programming
5. Beta Testing & Bug Fixing
6. Marketing & Program Distribution
7. Expansion Development