### Description: \\lpserver\QRSTFiles\Projects\Logo\MPG Logo Horizontal 500x200.png **programmer test**

At Magic Pixel Games, we are less interested in what people can search for on the internet. Instead, we are looking for awesome people to join our merry band.

Please answer the following questions.

You will have 48 hours to complete. Email your answers back to the person that mailed the test to you.

1. Pick any one thing in your home. How would you improve it?

2. Magic Pixel Games is offering a course on driving an 18-wheeler truck, taught by an instructor custom tailored to your specifications. How would you like to be taught?

3. If you could go anywhere in time and space, where would you go?

4. Which of these describes better how you like to work? Why? Combinations are fine.

1. To have a full specification of what is required.
2. To have a rough guideline which you work out with the appropriate client(s).
3. Snippets of code from other tasks/projects that you can adapt to suit.
4. Create as much of the code from scratch as possible.

5. You have two weeks left before the project ships. You can only choose one task to implement/fix, which would you pick and why?

1. The Technical Director has figured out a pipeline enhancement which improves the quality of most of the textures in the game.
2. QA found a crash which occurs on 1% of playthroughs, if you do a specific sequence out of order.
3. The Creative Director has found from extensive playtesting that many players are having a hard time beating a challenge 30% through the game. He has developed a fix that works 100%.

6. Find four kinds of errors in the code below:

class AirplaneLog

{

public:

AirplaneLog( )

{

}

~AirplaneLog( )

{

delete [ ] m\_pPilotName;

m\_pPilotName = NULL;

}

float GetFlightTime( ) const

{

return m\_FlightTime;

}

void AddDelay( float delay )

{

m\_FlightTime += delay;

}

void SetPilotName( const char\* pPilotName )

{

assert( pPilotName != NULL );

pPilotName = new char[strlen( pPilotName )];

strcpy( m\_pPilotName, pPilotName );

}

protected:

float m\_FlightTime;

char\* m\_pPilotName;

};

7. What does this function do?

unsigned int Goodness( unsigned int value )

{

unsigned int result = 0;

while ( value )

{

result += !(value & 0x1);

value >>= 1;

}

return result;

}

8. If you were to start developing an engine or tool pipeline from scratch what 3 things would you focus to make sure you have a solid foundation for future development.