GAME-ON'2003 FINAL PROGRAMME

Overhead and LCD Projector are standard
The underlined authors are usually the presenters. Papers in grey boxes are candidates for the best paper award
Conference Site: IEE Headquarters Savoy Place
London , United Kingdom

Wednesday, November 19, 2003

08.45 - 17.00 **Registration at IEE Savoy Place**

09.00 - 09.15 **Welcome: ROOM A**

Welcome Address
Quasim Mehdi, Wolverhampton University, Wolverhampton, UK
Norman Gough, Wolverhampton University, Wolverhampton, UK
Philippe Geril, University of Ghent, Belgium

09.15 - 10.00 **Session I: ROOM A**

KEYNOTE SPEAKER

09.15-10.00

Session Chairperson:
Quasim Mehdi, Wolverhampton University, Wolverhampton, UK

KEYNOTE: GAME-40
Working at Thinking About Playing or A year in the life of a Games AI Programmer
S. L. Tomlinson, Andrew Davies and Stephane Assadourian (Warthog Plc)**.....5**

10.00 - 10.30 **Coffee/Tea Break**

10.30 - 12.30 **Session II: ROOM A**

DEVELOPMENTS IN GAMES

10.30-12.30

Session Chairperson:
Stéphane Natkin, CNAM, Paris.

GAME-30
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Kosuke Tsujino Atsuhito Shigiya, Yukihiro Nakamura, Tomonori Izumi, Takao Onoye and Wataru Kobayashi….**.....23**

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12.30 - 13.30 **Lunch**

13.30 - 15.00 **Session III: ROOM A**

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Stefan M. Grünvogel, Academy of Media Arts, Cologne, Germany

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15.00 - 15.30 **Coffee/Tea Break**

WEDNESDAY, NOV 19

15.30 - 17.30 **Session IV: ROOM A**

GAMES ENGINES, MODELLING AND ANIMATION

15.30-17.30

Session Chairperson:
Richard Cant, The Nottingham Trent University, UK

FREE EVENING

Thursday, November 20, 2003

08.30 - 11.00 **Registration at IEE Savoy Place**

09.15-10.00 Session V: ROOM A

KEYNOTE SPEAKER

09.15-10.00 **Session Chairperson:**
Norman Gough, Wolverhampton University, Wolverhampton, UK

KEYNOTE: GAME-37
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10.00 - 10.30 **Coffee/Tea Break**

10.30- 12.30 Session VI: ROOM A

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10.30-12.30- **Session Chairperson:**
Lubo Jankovic, InteSys Ltd/ University of Birmingham, UK

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Pieter Spronck, Ida Sprinkhuizen-Kuyper and Eric Postma.....**93**

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C. Thurau, C. Bauckhage, and G. Sagerer.....**119**

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13.30-15.00 **Session Chairperson:**
Leon Rothkrantz, University of Delft, The Netherlands

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14.30-15.00
EUROSIS MEETING: ROOM A– ALL WELCOME

Session Chairperson:
Philippe Geril, EUROSIS, Ghent University
This meeting is intended to introduce and discuss the European Simulation Society and to report on recent developments for the Digital Games Rseearch Network of Excellence.

13.30 15.00 Parallel Session VIII: ROOM B

3D GRAPHICS

13.30-15.00 **Session Chairperson:**
Stéphane Natkin, CNAM, Paris, France

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THURSDAY, NOV 20

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15.00 - 15.30 **Coffee /Tea Break**

15.30 -17.30 Session IX: ROOM A

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15.30-17.30 Session Chairperson:
David Al-Dabass, The Nottingham Trent University, Nottingham, UK

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Paulo Ribeiro, Francisco Pereira, Bruno Marques, Bruno Leitão and Amílcar Cardoso **…….175**

GAME-47
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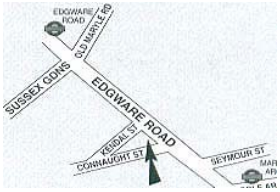
19.30 for 20.00 - **CONFERENCE DINNER**

The MAWAL Lebanese Restaurant located at
65A EDGWARE ROAD, LONDON W2 2HZ. Tel: 020 7262 7262



Dress informal. We will go as a group from 2 different locations. The IEE & the Marble Arch underground Station at the corner of Oxford Street & Edgware Road.

Friday, November 21, 2003

08.30 - 11.00 **Registration at IEE Savoy Place**

09.00 - 10.30 Session X: ROOM A

ALGORITHMS FOR ROUTING AND FLIGHT SIMULATION

09.00-10.30 **Session Chairperson:**
Leon Rothkrantz, University of Delft, The Metherlands

10.30-11.00 **Coffee/Tea Break**

PARALLEL SESSIONS

11.00 - 12.30 **Parallel Session XI – ROOM A**

APPLICATIONS I: MOBILE AND WIRELESS GAMES

11.00-12.30 **Session Chairperson:**
David Al-Babass, The Nottingham Trent University, UK

FRIDAY, NOV 21

GAME-23
A Generic Architecture for Multiplatform Wireless Game Development
Alexandre Damasceno, Börje Karlsson, Danielle Rousy D. da Silva **219**

GAME-24
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11.00 - 12.30 **Parallel Session XII – ROOM B**

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11.00-12.30 **Session Chairperson:**
Pieter Spronck, University of Maastricht, The Netherlands

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GAME-41
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12.30 - 12.45 **Session XIII**

CLOSING SESSION AND BEST PAPER AWARD

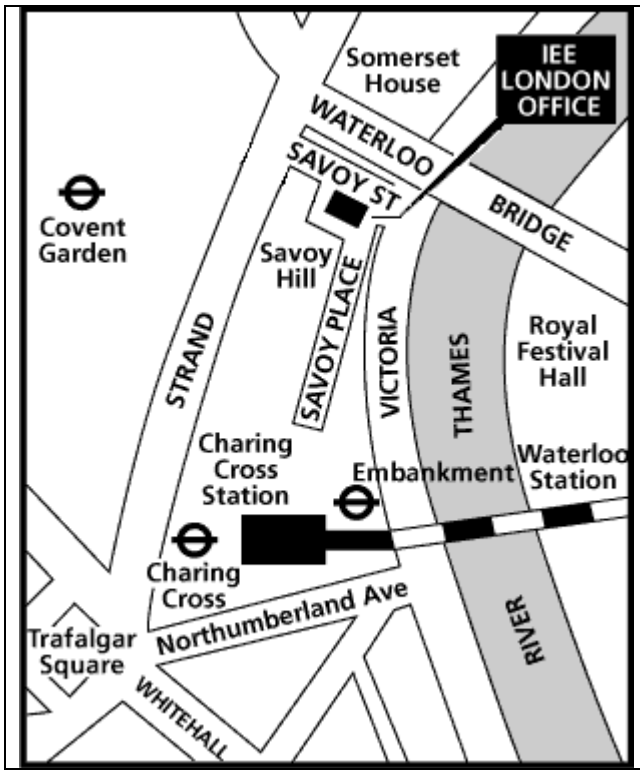
12.30-12.45 Quasim Mehdi, General Conference Organiser
Norman Gough, General Programme Chair
Philippe Geril, EUROSIS

Friday, November 21 2003 afternoon

Trip on the Thames and visit to the Maritime Museum and Greenwich Observatory

Departure at 13.30 from Savoy Place

MAPS



IEE

MAWAL

Conference Keynote

Working at Thinking about Playing Or A year in the life of a Games AI Programmer

S. L. Tomlinson, Warthog plc.

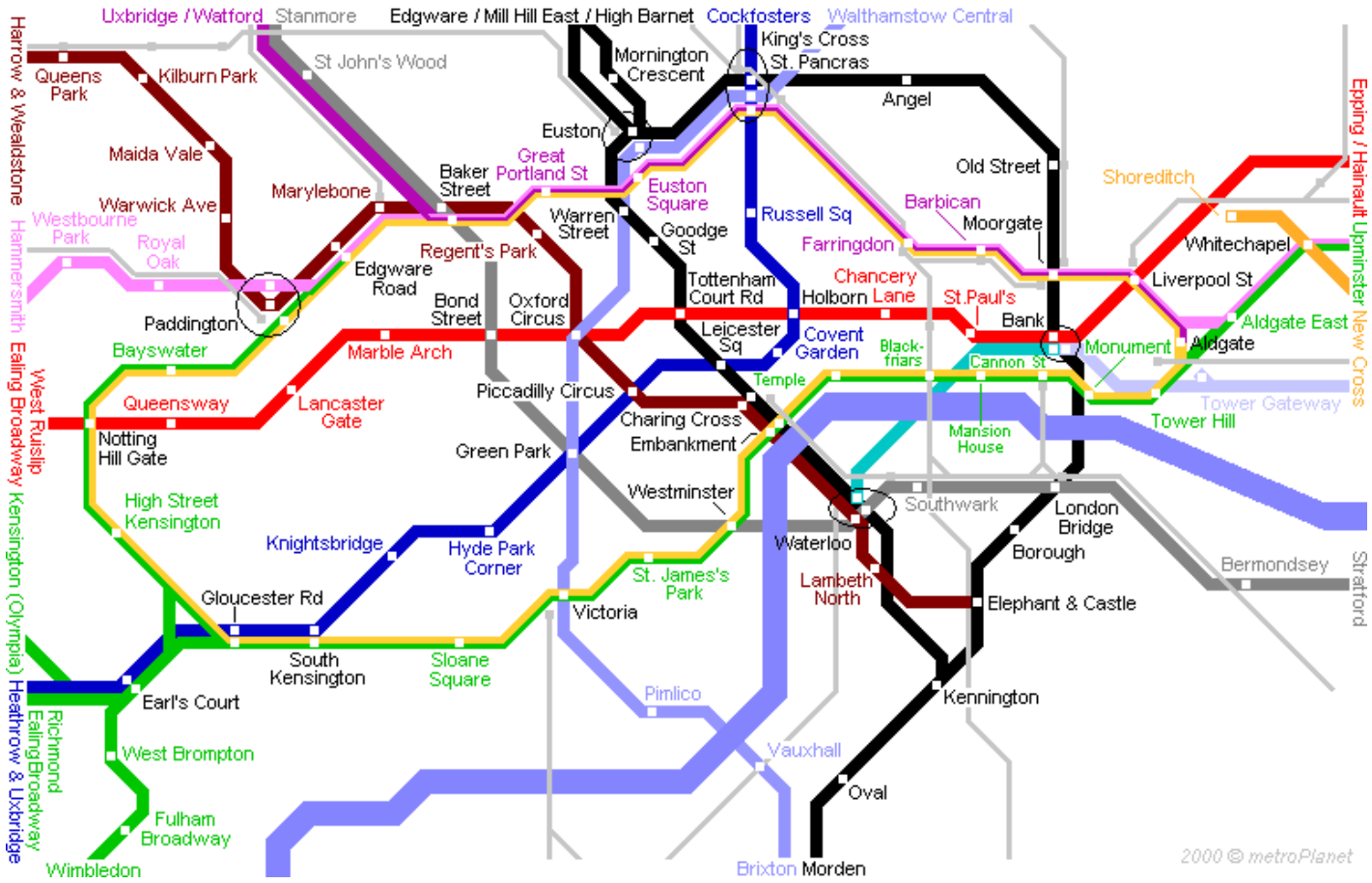
As an AI programmer working in the Games industry I have recently been asked to advise on Games courses at a local University. It was then that I started to realise that the non-games industry AI practitioner may have a very different perspective to one working on Games projects. This paper therefore looks at some of the typical tasks a working AI programmer may be involved with. What kind of technology do we use, and what to we not use, and why ? It is primarily directed at a student audience, although others may also find it interesting.

The first thing to understand is that an AI programmer in a typical UK games company does not spend much of his/her time actually doing AI. On a typical project an AI programmer will often also be involved with core maths, collision physics, vehicle dynamics and animation systems, as well as simply getting the AI objects to think. This will be illustrated with a case study of the authors personal experience on Mace Griffin: Bounty Hunter. The situation is changing though. As the games' buyer becomes more technologically aware and demands more immersive experiences (and therefore more complex games) programming teams are getting larger, and individuals more specialised. But for the same reason the way AI is dealt with is changing. Many projects now have a significant number of 'designers' who are responsible for building and balancing the game levels. Thus the AI programmer must provide an increasing level of access to his system. The boundary between what is in-game AI and what is scripted can vary enormously across the industry and between game genres. A first person shooter for example may be heavily story-lined and require a large amount of scripting. In a formula 1 racing game the AI may still be more autonomous, but needs to appear more realistic on the track.

As well as a general 'day in the life' component, this paper will look at a number of more detailed cases to illustrate some of the technical tricks of the trade. On earlier consoles a lot of behaviour was dealt with using "smoke and mirrors"; it may have looked clever but was actually very simple. This theme is still relevant today however, since it allows us to fit more into the still limited AI budget. This leads to questions: can we cut corners on our path-finding for example? Often the problem is not to find the best solution to a problem, but rather and adequate solution that still looks good in the game. Writing the AI to optimise execution performance is also an important tool in maximising the players experience and so will be discussed, including platform specific and non-platform specific code design tips. There will also be a general look at how games are structured and how this affects the AI programmer.

The paper will conclude by discussing sources of material and advice, with a brief look at one of the most important issues for any programmer working in the Games Industry – how to secure an endless supply of Pizza ! This will be followed by ample time for questions and discussion.

LONDON UNDERGROUND



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