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TNO report

RA 34087

**Triangler, a massive collaborative geometric
outdoor mobile interactive game**

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Project	Mobile Interactive Gaming (acquisition)
Project number	035.96005/01.07.08
Lead number	BR - 512460
Commissioned by	Ir. Jan W. Burgmeijer
Summary	This document contains TNO's entry to the 2006 IMG Awards.

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1 Introduction

1.1 TNO and mobile interactive gaming

TNO has selected mobile interactive gaming as one of its research focus points in the context of Ambient Networks and Intelligence. In order to acquire funding for this subject, appealing game scenarios are needed as a basis. Triangler is a game concept that could be developed to a game scenario for this purpose.

TNO will use Triangler and/or other game scenarios for

1. discussions with the Dutch creative industry to further develop the game scenarios. For example Hogeschool der Kunsten (partner in the Center for Advanced Gaming and Simulation, AGS) and the Game Developers Club of Universtity Utrecht.
2. acquisition of funding from the government and/or industry partner
3. basis to develop advanced communication, location, presence and augmented reality technologies.

1.2 The IMG Awards (copied from imgawards.com)

The International Mobile Gaming Awards (IMGA), launched in 2004 is the leading platform for Innovation in Mobile Entertainment worldwide.

Each year mobile gaming studios, individual developers, students and researchers are challenged to come up with the most innovative concepts for tomorrow's mobile games. An international jury selects the 25 most appealing, original and creative ideas that seem to be technically feasible.

Leading companies in Mobile Entertainment then provide resources to the 25 nominees to enable them to finish their application on time (before January 2007). The IMGA brings together Industry leaders and top talent in Mobile Entertainment and displays the most innovative Mobile Entertainment Games and Applications to a broad worldwide audience.

2 Triangler (from the entry form)

2.1 Game Description (max. 150 words)

Triangler is a massive collaborative geometric outdoor mobile interactive game. Two teams of 100 players play a two-hour match in a city or rural area.

The object of the game is to enclose enemy players with 2000-meter equilateral triangles formed by you and your team buddies. Using advanced location-based and presence services you can locate yourself, your team buddies and enemy players, learn about the availability-for-making-a-new-Triangle status of your buddies and publish your own status. Using advanced group voice and chat communications, you coordinate the Triangle formation with your team buddies. The more enemy players your team's Triangles enclose the more points your team scores. The team that scores most points wins.

The value and fun of the game is in the competitive collaboration. Strategic planning of Triangler gathering points, tactical coordination of triplet formation and operational sharing of communication tasks all help to enhance your team's score

2.2 Target commercial release platform (device and/or carrier)

The target commercial release platform Java 2 Mobile Edition (J2ME). The game will be played on mobile devices with J2ME, GPRS support for internet access and built-in GPS or GPS access through Bluetooth.

2.3 Target marketing strategy and business model (max. 150 words)

Initially, the game will be marketed as a serious game to enhance team collaboration and to train people's multitasking skills in stressed situations. Our target audience is disaster recovery teams, including emergency services, police, army, mayors, ministers and secretaries of state. A secondary target audience is large corporations for whom Triangler is mainly a large-scale team-building exercise. The initial business model will be a single fee per played match. In future, we foresee scaling up to a downloadable consumer-market game and other licensing models.



Triangler: "form Triangles and enclose enemies"

- Massive: a two-hour match between two 100-player teams
- Collaborative: form 2000m equilateral Triangles with your buddies
- Mobile interactive: advanced location and communication services
- Game: the more enemies your team's Triangles enclose the more points your team scores. The team that scores most points wins.

Hey Yellow and Red, let's make a Triangle?

OK Green. Red, can you move a little bit south?

Green, Yellow, I'll run. I see we can enclose six Grays if we're fast

2000m

2000m

2000m

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Triangler, by M. Oskar van Deventer

20 September 2006

Triangler: advanced location-based and sensor services

- Locating (📍) yourself and buddies for Triangles, finding enemies
- Presence (👤) service to check the availability of your buddies
- Heart rate sensors (❤️) to check the team's fatigue status



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Triangler, by M. Oskar van Deventer

20 September 2006



Triangler: advanced group communication services

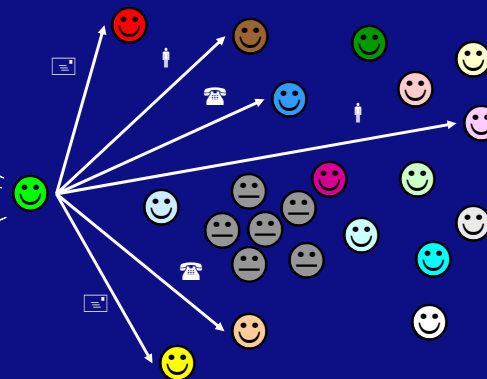
- Parallel chat (💬), voice (📞) and image (🖼️) communications
- Group communications for co-ordinated Triangle formation
- Follow the match live on TV (📺) and internet (🌐)

📞 Hey Blue, can you move a bit east, and Orange a bit north?

💬 Hey Yellow and Red, let's make a Triangle?

👤 Brown is busy
👤 Pink is available

📍 I see six Grays that we can enclose



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Triangler, by M. Oskar van Deventer

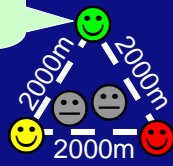
20 September 2006



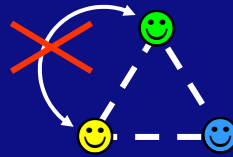
Triangler: simple rules

1. Your team scores points when you form a 2000 meter equilateral Triangle with two of your team buddies. The score is the number of enemies that your Triangle encloses
2. You cannot make a Triangle with any of your buddies more than once per game
3. You cannot make a Triangle within 100 meters of any of your previous Triangle points

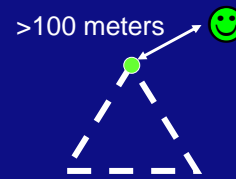
The Colored Team scores two points!



Rule 1



Rule 2



Rule 3

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Triangler, by M. Oskar van Deventer

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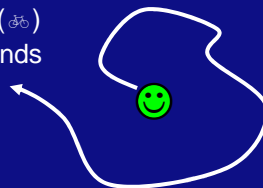


Triangler: enhancing group dynamics

- Large group collaboration to faster create more Triangles
 - Operational sharing of (communication) tasks
 - forming your own Triangles
 - keeping track of potential hostile Triangles
 - Strategic planning of Triangler gathering points
 - Tactical coordination to create more Triangles



- Healthy outdoor social activity
 - Keep moving (🚲)
 - Make new friends



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20 September 2006



Triangler: serious game for e.g. disaster recovery teams

- Initial marketing focus: serious game
 - to enhance team collaboration and
 - to train people's multitasking skills
 - in stressed situations
- Target audience
 - Disaster recovery teams: emergency services, police, army, mayors, ministers and secretaries of state
 - Large corporations: large-scale team-building exercise
 - Future: downloadable mobile consumer-market game
- Business model
 - Initial: single fee per played match
 - Future: other licensing models

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Triangler: highly scalable

- Triangler Park
 - 300 meter Triangles
 - 30 player-teams
 - 1 hour for a game
- Triangler Continent
 - 1000 kilometer Triangles
 - 10.000's of players
 - 100 days for a game
- Triangler Stellar
 - Making (scaled) stellar constellations
 - Orion
 - Pleiades
 - Cassiopeia



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About Oskar van Deventer and TNO



Oskar's
Cube

- Dr.ir. M. Oskar van Deventer is one of the world's most prolific designers of mechanical puzzles. Several tens of his designs are commercially available. Oskar also designs one-player computer thinking games, see www.clickmazes.com. Oskar's day-time job is at TNO where he develops new telecommunication architectures.
- TNO is a 5000-employees national Dutch research institute. TNO's mission is to bring innovation to small and large businesses. TNO has a wide scope, ranging from cars crash tests, food safety, anti-terrorism measures to development of advance ICT systems. One of TNO's focus points is innovations in (serious) gaming.
- Acknowledgements for valuable inputs from Rob Kooij, Victor Klos, Hans Stokking, Arnoud de Jong, Alma Schaafstal and Jan Burgmeijer

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日本語訳 

한국어 

Provide as much information as you can about your title.
Monday, 25th of September 2006, 6 p.m. CET (Central European Time)

See also [HOW TO PARTICIPATE FOR GENERAL RULES OF ENTRY FOR THE INTERNATIONAL MOBILE GAMING AWARDS](#)

ENTRY FORM

COMPANY DETAILS

Developer Company

Developer Company Address

Developer Company Profile (max. 100 words)

Developer URL

CONTACT DETAILS

» Your name

» Your job title

» Your address

» Email

oskar.vandeventer@tno.nl

» Phone

+31 651 914 918

THE GAME

» Game Title

Triangler

» Game Description (max. 150 words)

Triangler is a massive collaborative geometric outdoor mobile interactive game. Two teams of 100 players play a two-hour match in a city or rural area.
 The object of the game is to enclose enemy players with 2000-meter equilateral triangles formed by you and your team buddies. Using advanced

» Target commercial release platform (device and/or carrier)

The target commercial release platform Java 2 Mobile

» Target release date

March 2007

» Target marketing strategy and business model (fixed fee, subscription, embedded, etc.) (max. 150 words)

Initially, the game will be marketed as a serious game to enhance team collaboration and to train people's multitasking skills in stressed situations. Our target audience is disaster recovery teams, including emergency services, police, army, mayors, ministers and secretaries of

ELIGIBILITY FOR STUDENT COMPETITION

The 2006 iMGA features a parallel student competition. If your development team is in full-time education (i.e. school or University) on the launch date of May 25 2006, your game will also be eligible for the student competition.

» Select competition eligibility

- Open competition only
- Open competition AND student competition

» Please indicate the award categories into which your submission should be entered

- Most Innovative Game
- Best Interactive Experience
- Excellence in 3D
- Best Use of Connectivity
- Best Use of Flash

iMGA PRIMARY CATEGORIES

DOWNLOADABLE: 400KB (half megabyte) maximum size, distributed via a carrier environment, typically programmed in Java, Brew, Flash, etc.

**ALTERNATE DISTRIBUTION: No size restriction, typically more than 500KB
Designed for distribution via – Memory card, Web download Device
bluetooth / sharing, PC sync.**

» Choose category:

- Downloadable
 Alternate distribution

» **SUPPORT MATERIAL**

Please list the names of any media files and other materials you have sent to entries@imgawards.com or to our postal address. Please include the URL where your project is presented and a one page summary of the Supporting Materials.

Triangler.ppt Triangler illustration 1.jpg Triangler illustration 2.jpg Triangler illustration 3.jpg Triangler illustration 4.jpg Triangler illustration 5.jpg

**THE MINIMUM REQUIREMENTS FOR ENTRY ARE : AT LEAST THREE (3)
ILLUSTRATIONS (SCREENSHOTS OR VISUALS) THAT BEST REPRESENT YOUR
GAME PLUS A PROJECT SUMMARY (POWERPOINT, PDF OR WORD FORMAT).
SUBMIT THESE BY EMAIL TO (entries@imgawards.com)**

» **iMGA SECONDARY CATEGORIES**

Indicate in which category you consider your title is the most innovative

- Concept
 Art
 Gameplay
 Networking (local or global)
 3D Graphics
 Video
 Camera
 Audio
 Interface (touch screen, analogue, voice, etc.)

» **I have read the GENERAL RULES OF ENTRY FOR THE INTERNATIONAL
MOBILE GAMING AWARDS (iMG AWARDS) and I agree with its content**

- Yes No

» **I am the copyright holder of this Title**

- Yes No

» **I am the copyright holder of all the Artwork submitted in relation to this
title**

- Yes No

If you have replied **NO** to one of the 2 questions above please enter the names of the copyright holders of any property entered by you and explain how copyright issues are dealt with.

Our artwork contains some Google Earth shots, of which the copyright has been accordingly acknowledged on the artwork itself.

» I confirm that I legally represent the holder(s) of any rights to the submitted material and I allow the Management of the International Mobile Gaming Awards to publish screenshots and information of my title on the site www.imgawards.com, on partner and sponsor sites and to use the material to promote the IMGA.

Yes

No

Submit

Reset

» Symbolizes required field