



IMMERSIVE PRODUCTION AND DELIVERY OF INTERACTIVE 3D CONTENT

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Classification and Approval

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RE@CT Consortium Overview

Participant no. *	Participant organisation name	Short name	Country
1 (Coordinator)	British Broadcasting Corporation	BBC	UK
2	Fraunhofer HHI	HHI	Germany
3	INRIA	INRIA	France
4	University of Surrey	Surrey	UK
5	Artefacto	ART	France
6	OMG	OMG	UK

Abstract

The RE@CT project aims to revolutionise the production of realistic characters and significantly reduce costs by developing an automated process to extract and represent animated characters from actor performance capture in a multiple camera studio. The key innovation introduced by RE@CT is the development of methods for analysis and representation of 3D video to allow reuse for real-time interactive animation. This will enable efficient authoring of interactive characters with video quality appearance and motion.

RE@CT aims to demonstrate its results in two application scenarios : an augmented reality application will demonstrate usage for serious gaming in education and entertainment. A production alongside a TV programme will demonstrate new synergies for developing a traditional programme and an interactive application in parallel.

This document outlines the various dissemination activities undertaken by the project partners during the second period and plans for further dissemination in the final year of the project. Section 3 describes the various instruments identified by the project to disseminate its results. Section 4 lists the dissemination activities undertaken over the last year, while section 5 outlines currently known plans for dissemination into the next reporting period.

1 Introduction

The RE@CT project aims to revolutionise the production of realistic characters and significantly reduce costs by developing an automated process to extract and represent animated characters from actor performance capture in a multiple camera studio. The key innovation introduced by RE@CT is the development of methods for analysis and representation of 3D video to allow reuse for real-time interactive animation. This will enable efficient authoring of interactive characters with video quality appearance and motion.

The project builds on the latest advances in 3D and free-viewpoint video from the contributing project partners. For interactive applications, the technical challenges are to achieve another step change in visual quality and to transform captured 3D video data into a representation that can be used to synthesise new actions and is compatible with current gaming technology.

RE@CT aims to demonstrate its results in two application scenarios : an augmented reality application will demonstrate usage for serious gaming in education and entertainment. A production alongside a TV programme will demonstrate new synergies for developing a traditional programme and an interactive application in parallel.

The project completed its second year on 30th November 2013, and significant progress was made on the initial demonstrator and the underlying technologies, which resulted in the project being able to disseminate its results at various public demonstrations, as well as through publications and other dissemination tools. This document outlines the various dissemination activities undertaken by the project partners during this period, and plans for further dissemination in the next year. Dissemination is seen as essential to ensure that the RE@CT project's stakeholders, including the European Commission, and relevant research communities are kept informed of the results of the project, and their potential applications, as they become available.

This is the second version of this document, and updates on actual dissemination activities undertaken will be provided at regular intervals as part of the project's quarterly reports, as well as in the form of a third annual update to this deliverable.

2 Related Documents

The following deliverables are related to and complement this report, and should be read in conjunction with it:

- D1.1.2 2nd Annual Activity Report
- D7.1.2 2nd Annual Exploitation Report
- D7.2.2 2nd Annual IPR Report
- D7.3.2 2nd Annual Standardisation Report

3 Dissemination Tools and Mechanisms

3.1 During the lifetime of the Project

RE@CT has been using a variety of mechanisms and tools to disseminate its results as widely as possible to the relevant audiences, including :

- Articles in targeted magazines and journals
- External presentations at scientific conferences and to FP7 activities: the project results were presented at targeted international and regional conferences and also to other related FP7 activities such as concertation meetings. Representatives of RE@CT are active in the EU Future Internet and networked media related concertation activities, such as the Networked Electronic Media (NEM) initiative.
- Public demonstrations and presentations at national and international conventions such as the International Broadcasting Convention (IBC), ICT2013, CVMP, and CVPR, and the proceedings of such events.
- Consortium Partners' websites, internal publications and presentations : the various partners regularly update their senior management and other relevant people in their organisation at large of the project's results, progress and benefits. An example of this is at BBC R&D where project progress is documented in internal technical notes, and communicated to staff via internal lunchtime lectures, and internal demonstrations.
- The RE@CT project public website (<http://react-project.eu>) – see below

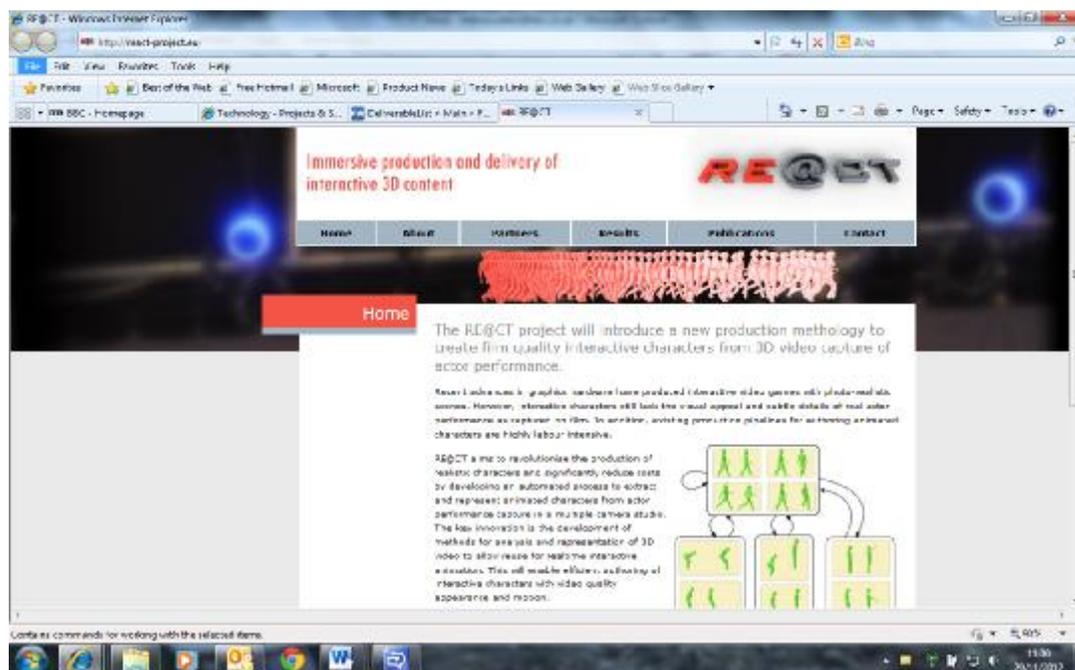


Illustration 1 - The RE@CT project's public website homepage

3.2 After completion of the Project

After closure of the project, dissemination and activities will continue via the project's public website <http://react-project.eu>, where public deliverables, papers and presentations at appropriate events will continue to be available to the public.

RE@CT partners will also continue to present the project results, and further results based on and derived from the project's outcomes after it has completed, to appropriate conventions and other similar events.

As reported in deliverable D7.3.1 and its updated version D7.3.2 (Standardisation Activities) dissemination will also continue via any active standardisation of the Project's results, to be identified during its lifetime.

4 Dissemination Activities in the reporting period

4.1 Publications and public presentations

The table below lists the presentations and publications at conferences and in journals from the various project partners in this reporting period

Presentation/Paper	Authors	Event/publication	Date	Partner
High Detail Flexible Viewpoint Facial Video from Monocular Input using Static Geometric Proxies	M.Kettern, D.Blumenthal-Barby, P.Eisert	MIRAGE 2013, Berlin	6-7 Jun 2013	P02 HHI
Free-viewpoint video rendering for mobile devices	J.Imber, M. Volino, J-Y. Guillemaut, S. Fenney, A. Hilton	MIRAGE 2013, Berlin	6-7 Jun 2013	P04 UoS
Interactive Animation of 4D Performance Capture	D.Casas, M.Tejera,J-Y Guillemaut, A.Hilton	IEEE Transactions on Visualisation and Computer Graphics, Vol 19, No 5	May 2013	P04 UoS
Global Non-rigid Alignment of Surface Sequences.	C. Budd, P.Huang, M.Klaudiny, A.Hilton	International Journal of Computer Vision 102(1-3): 256-270 (2013)		P04 UoS
4D Vision in the Wild	A.Hilton	BMVA Symposium Keynote	Jul 2013	P04 UoS
Interactive Performance Animation from 4D Video Capture	J.Collomosse	Mosaic 3D Games conference, Cambridge	30-31 Oct 2013	P04 UoS
4D Content Production	A.Hilton	Global 3D Forum Keynote, Korea	Oct 2013	P04 UoS
4D Content Production	A.Hilton	Samsung, Korea	Oct 2013	P04 UoS

Presentation/Paper	Authors	Event/publication	Date	Partner
Layered View-dependent Texture Maps	M.Volino, A.Hilton	CVMP	Nov 2013	P04 UoS
Invited talk on 4D Vision	A.Hilton	Microsoft Research, Cambridge	Nov 2013	P04 UoS

4.2 Public Demonstrations

With significant progress on initial demonstrators having been achieved in the first half of the second project year, RE@CT partners were pro-active in demonstrating results at public conferences and exhibitions at the earliest opportunity.

The first public demonstration of the prototype of the augmented reality cultural heritage game incorporating RE@CT technologies was demonstrated at the Museum of the Château de Montfort-sur-Meu in Brittany (France) in May 2013. P05 Artefacto had been working closely with the museum and its historians to develop the scenario behind the game based on accurate historical facts. The game was used as part of an exhibition on the history of the Lords of Montfort and allowed school children to learn about local history using an interactive educational application.



Illustration 2 – a visitor to the Museum of Montfort using the cultural heritage demonstrator

The prototype of the cultural heritage game was also successfully shown at the MIRAGE 2013 conference in Berlin in June 2013, and an improved version was subsequently demonstrated at IBC2013 in Amsterdam in September, and at the ICT2013 conference and exhibition in Vilnius in November. A video was also shown at all three events to illustrate the test shoot and processing of the data to generate animated 3D models suitable for use in an augmented reality game. The project also demonstrated the updated version of the re-animation engine and rendering techniques developed by P02 HHI, P03 INRIA and P04 UoS.



Illustration 3 – The MIRAGE demonstrations

The IBC demonstrations were very successful and were amongst those selected by IBC for their 'What caught my eye' TV reports. The report including an interview with RE@CT's scientific coordinator, Prof. Graham Thomas, is available on the IBC News website at http://www.ibtvnews.com/cgi-bin/video_play.cgi?id=1774.

The IBC demonstrations were repeated at various locations in the UK by BBC R&D, in order to disseminate the results of the project to other parts of the BBC, and particularly to BBC producers, in view of preparing for the second demonstrator which will be based around a professional production scenario. The demonstrations were also recorded on the BBC R&D's blog <http://www.bbc.co.uk/rd/blog/2013/09/bbc-research-development-at-ibt-2013>

The project was represented at the ICT2013 conference and exhibition in Vilnius, where an improved version of the cultural heritage game, together with the re-animation engine were demonstrated, and representatives of the project were available to answer questions from a steady stream of visitors.



Illustration 3 – The RE@CT stand at ICT2013

4.3 Web activities

In addition to the presentations and demonstrations listed above, the project has also disseminated results via various Web activities.

Public deliverables were posted to the project website as they became available, together with papers published in various journals or conference proceedings as they got clearance. As results based on the project's test-shoots and demonstrator became available, they were uploaded to the website where appropriate.

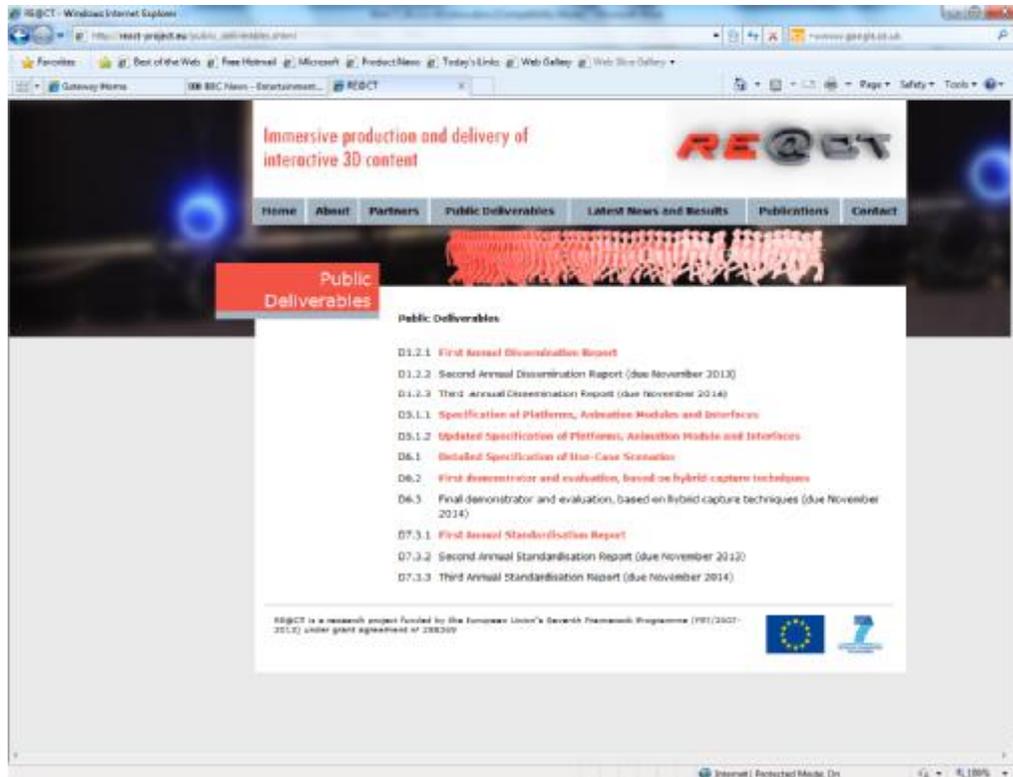


Illustration 4 – The RE@CT project publications on its public website.

A statistics parser was installed to monitor the traffic to the project's website. There was a surge of visits in particular after the IBC demonstrations in Amsterdam in September, as shown in Illustration 5.

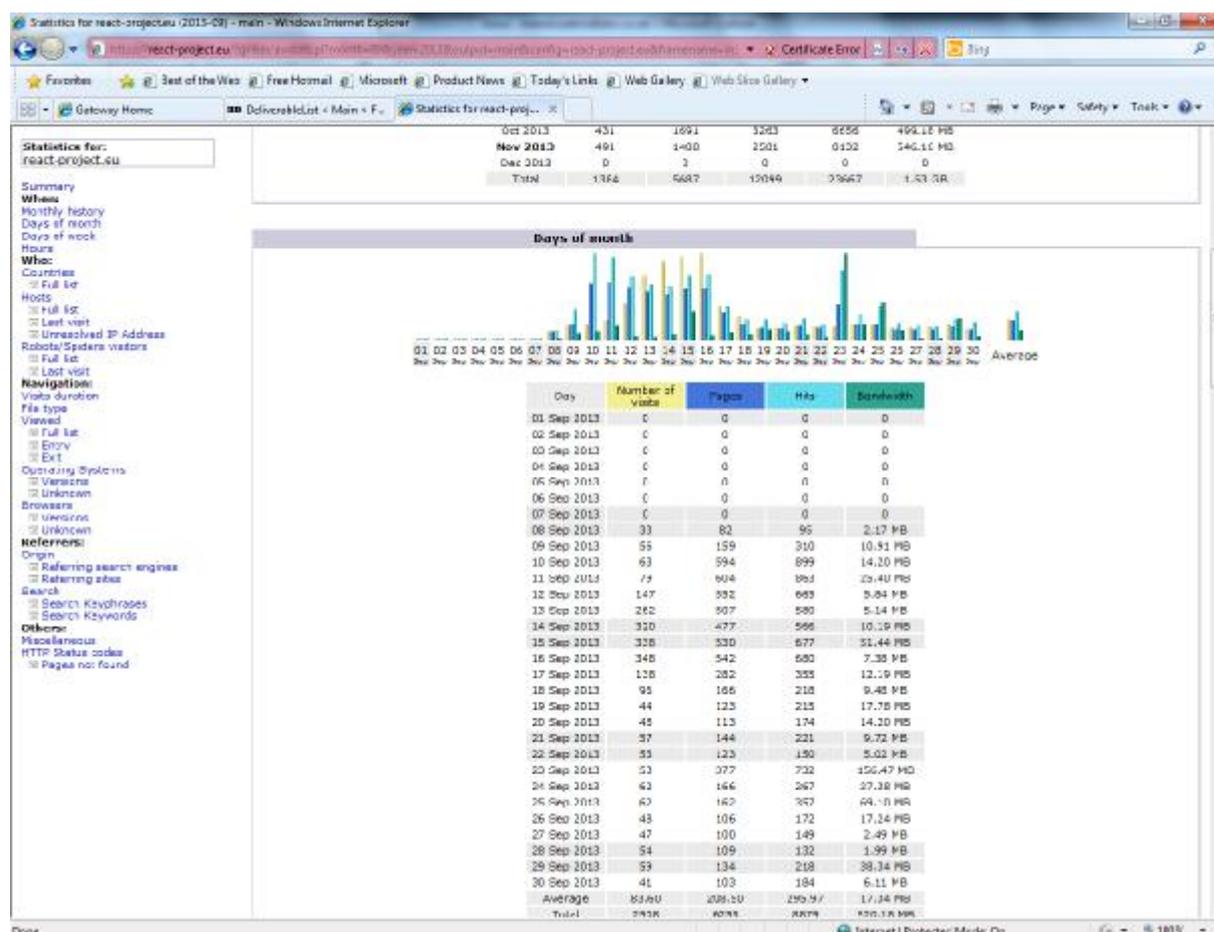


Illustration 5 – Statistics of visits to the RE@CT website in September. Note the increase in hits after IBC2013

In addition to its dedicated website, the project has also published its results via the websites of conferences and symposia listed in the table above, as part of these events programmes and proceedings.

5 Planned dissemination activities in the next reporting period

The project has already identified suitable events and conferences for continued dissemination of and updates to its results into the forthcoming reporting period. In particular, RE@CT partners have already submitted papers to Eurographics2014 and to CVPR2014.