

# Newsletter

Issue 01 - July & August 2007

Welcome to the first issue of the Custom-Fit newsletter.

This newsletter will bring the latest developments of the Custom-Fit project to the reader. In this first issue, a brief introduction of Custom-Fit project is given, followed by a closer look at some advance in the project: the Neutral Scan Format (NSF), which stores all the information about the customer and the product. As the Rapid Manufacturing sector is developing rapidly, some of the latest developments will also be highlighted in the newsletter.

We hope this publication will be of interest of all the readers.

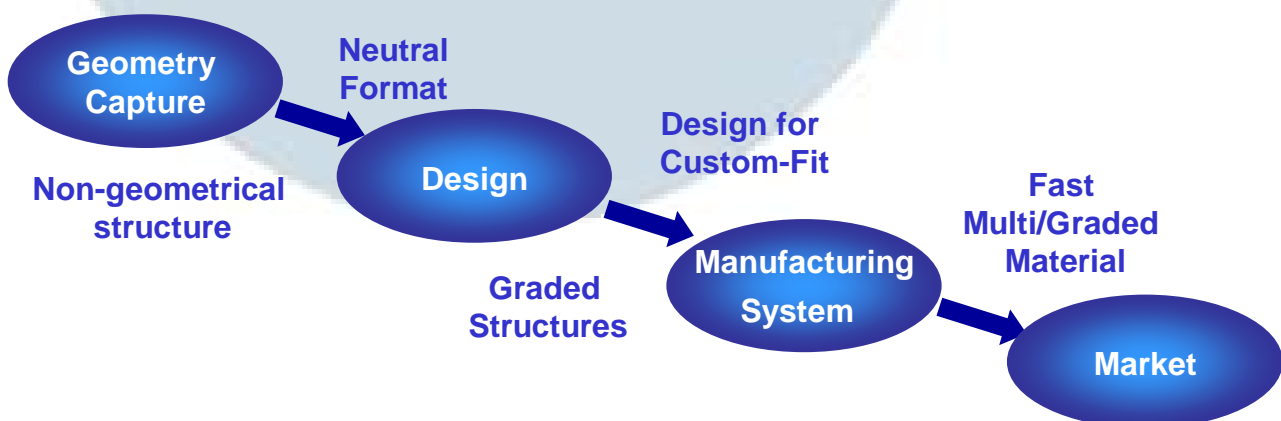
The Editorial Team



Custom-Fit is an industry led project to investigate the possibility of moving towards knowledge based manufacturing and customised production through integration of knowledge in Rapid Manufacturing, Information Technology and Material Science. Funded under the Sixth Framework Programme, the project involves 33 partners from around Europe.

Custom-Fit aims to create a fully integrated system for the design, production and supply of individualised products. These products, including motorcycle seats, helmets, implants and prosthesis, are customised to fit the requirements of the consumers, both geometrically and functionally. The parts or components will be produced directly from CAD data using Rapid Manufacturing.

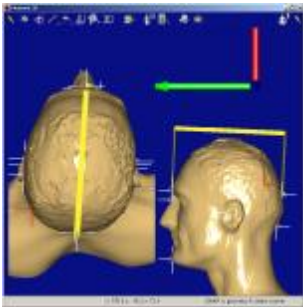
Visit our website: <http://www.custom-fit.org/>



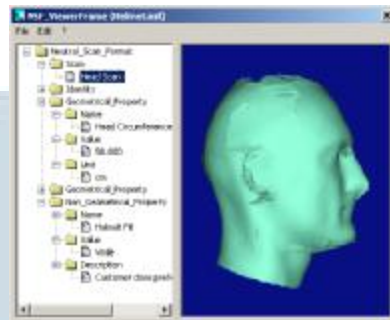
**“Complete Concept”** of Custom-Fit: from capturing of data, to final verification

## Neutral Scan Format (NSF)

The ultimate aim of Custom-Fit is to provide customised products. From designing a product to finally delivering it, a huge amount of data and information were generated. Scanning data, CAD data, STL files, personal data..., all these information has to be stored within a system that is capable of linking each piece of information to one another, so as to use the right data to design the right product for the right person. The **Neutral Scan Format (NSF) file**, developed within the Custom-Fit project by Human Solution, is the platform for storing the geometrical (i.e. body measurements) and non-geometrical (i.e. customer personal detail and preferences) information. A user interface, NSF viewer has been developed to edit and create NSF-Files. The interface displays the contents of a NSF file in hierarchical format. It is able to display 3D scans stored in a file or load them via the internet if these files are stored as URL in the NSF file. The viewer enables the user to add geometrical and non-geometrical properties to the file as well as personal customer information.



Extraction of head measurements from a 3D head scan



NSF viewer



Order tracking form

## Additive Manufacturing Industry

The additive manufacturing sector has been growing steadily over the past three years with average annual growth of 23.2%. Here are some figures that provide some perspective of the past and future of this industry:

- Products and services for additive fabrication grew by an estimated US\$884 million over the past 13 years, from 1993-2006
- Annual unit sales of additive manufacturing systems increased by more than 26 times over the same period; in 2006, 4165 machines were sold
- Service providers worldwide generated an estimated US\$330.6 million from the sales of parts and patterns, which is an increased of 24.7% from 2005
- More companies are now adopting rapid manufacturing; the proportion of companies adopting rapid manufacturing for custom and short-run production increased from 9.6% in 2006 to 11.7% in 2007.

( Facts and figures extracted from Wohlers Report 2007)

## Upcoming Events

- General Assembly Meetings of CF in Alicante, Spain 29 – 31 Oct 2007
- 3rd International Conference on Advanced Research in Virtual and Rapid Prototyping, Leiria, Portugal 24 – 29 Sep 2007
- TCT 2007 Conference Coventry, UK 26 – 27 Sep 2007
- K 2007 Düsseldorf, Germany 24 – 31 Oct 2007
- Euro-uRapid Dec 2007, Frankfurt am Main, Germany
- EuroMold 2007, 5-8 Dec 2007, Frankfurt am Main, Germany
- More: <http://www.custom-fit.org/index.php/events/>

