

The 3<sup>rd</sup> CARNet Users Conference, CUC 2001.  
"From Communication to Collaboration over the Internet"  
Zagreb, Croatia, 24-26<sup>th</sup> September 2001.

# **Virtual People in a Computer World**

**S.Baksa, M.Skoko & I.Baksa**

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The CFG project offers the manufacture of digital identity of real actors, creating their virtual 3D character, such that can present them in a new and sophisticate manner in any media:

- computer animation,
- TV,
- movie and video production,
- new generation computer games,
- shopping centers,
- museums,
- movie theatres school and university education performances,
- scientific simulations and visualizations,
- Internet communities, etc.

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## The first Croatian virtual fashion show.



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A virtual model of a real actor can be developed employing hand modeling methods, using conventional anthropometric measuring procedures, or by import of contemporary 3D digitally scanned real models.

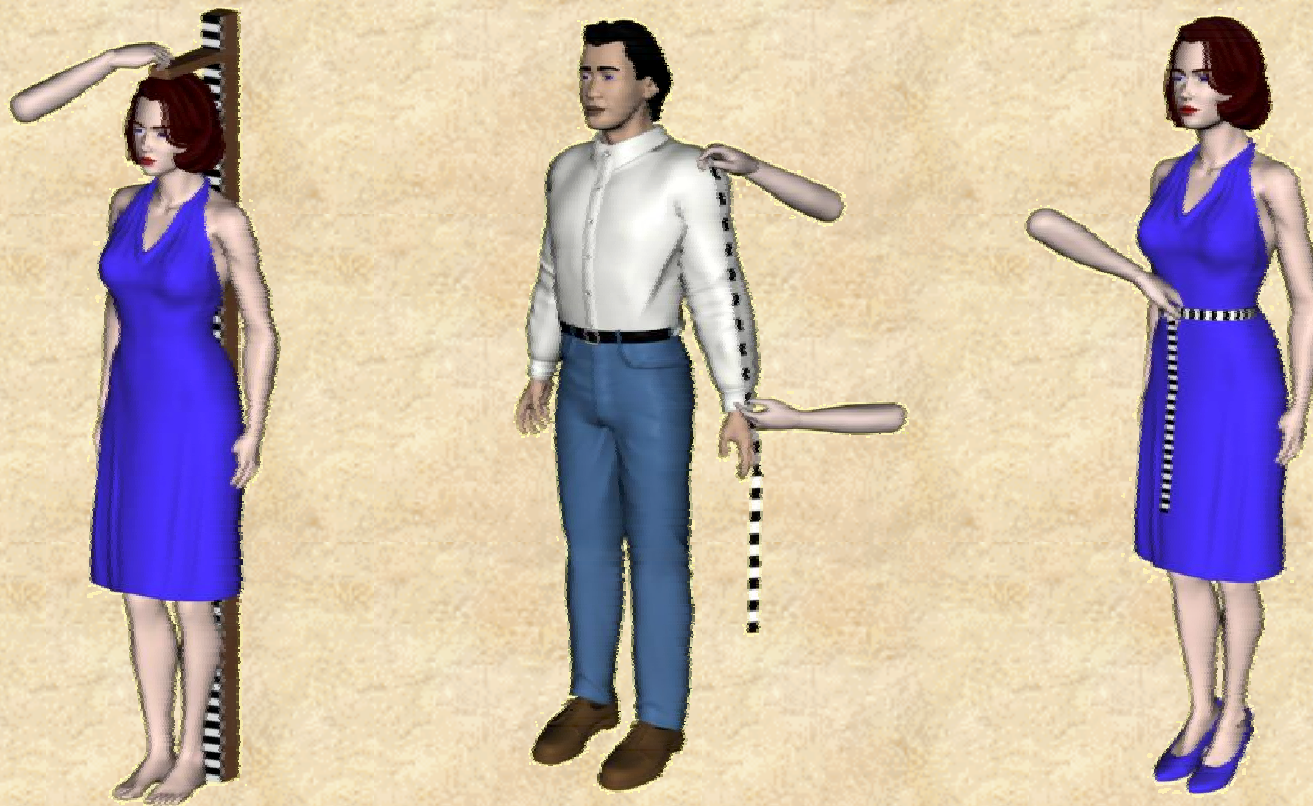
To design and model a virtual character using hand techniques and at adequately high level of quality, it is necessary to be familiar with anthropometric characteristics of the human body.

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## Conventional anthropometric measuring procedures

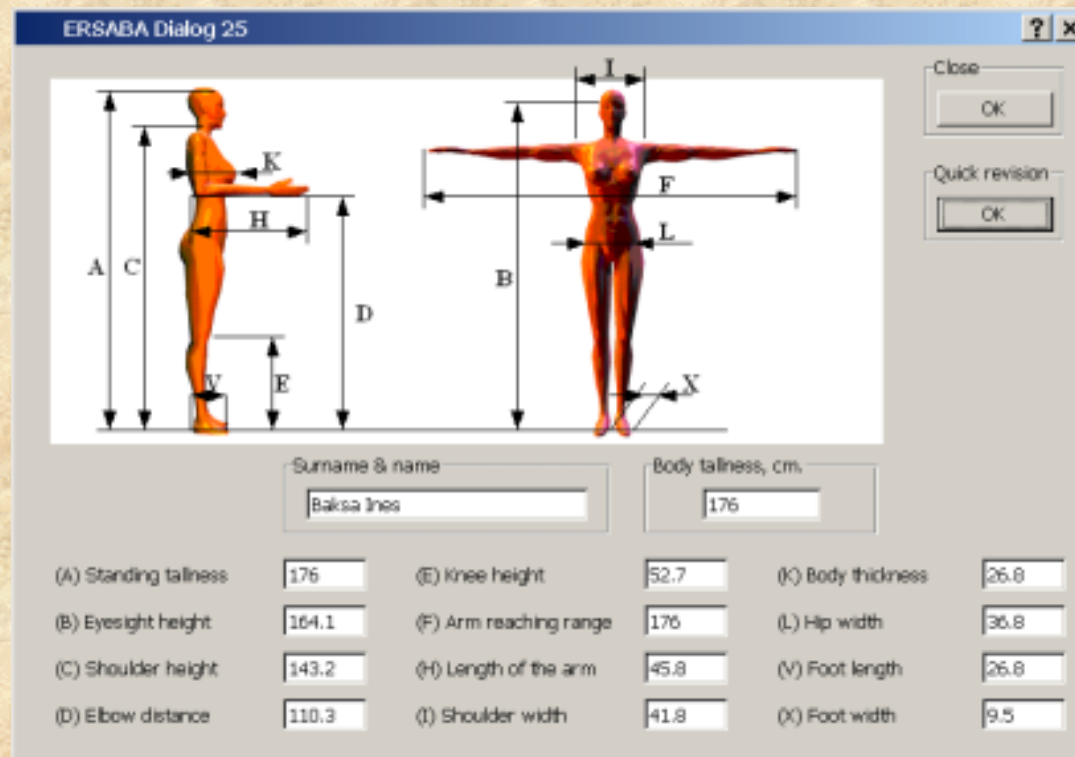


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Software package *ERSABA 4.2.*, was used to determine anthropometric values of the human body.

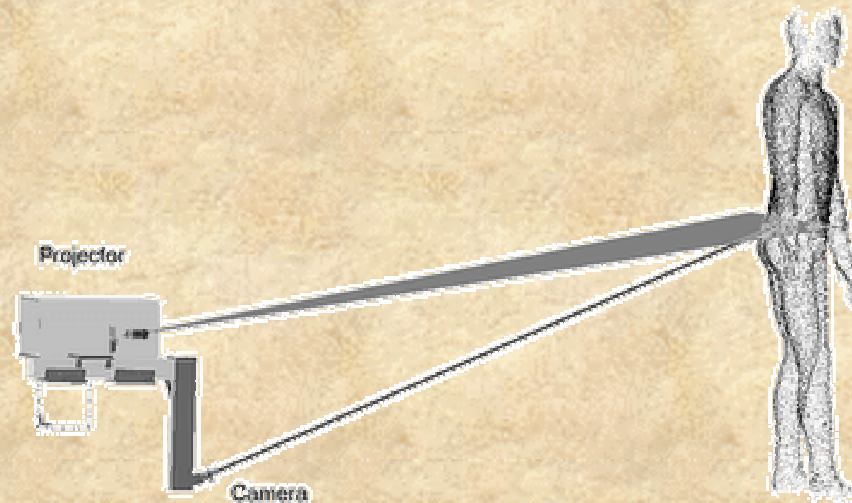


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## Digital 3D scanner



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3D cloud of coordinate points.



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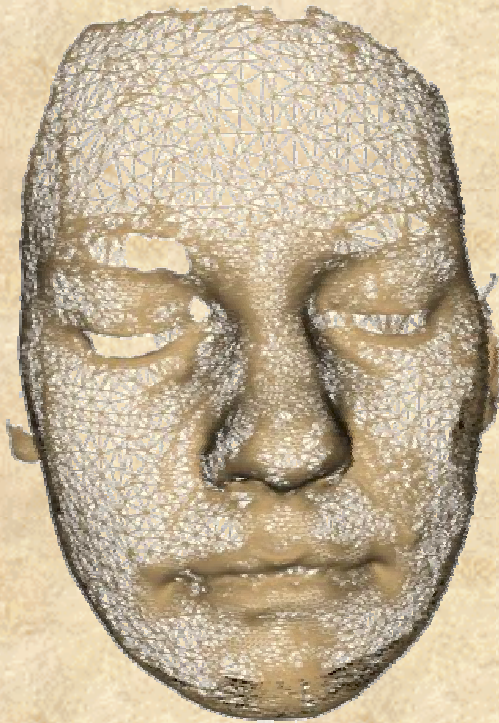
Photographs of a real model.



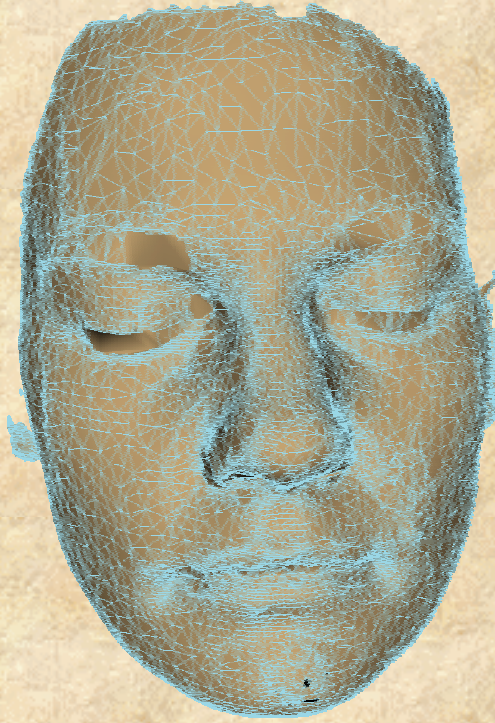
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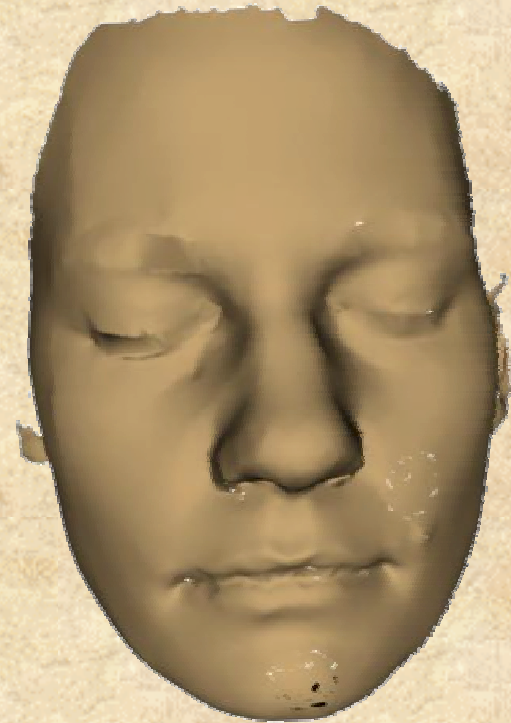
## Digitize the face of the real model.



a)



b)



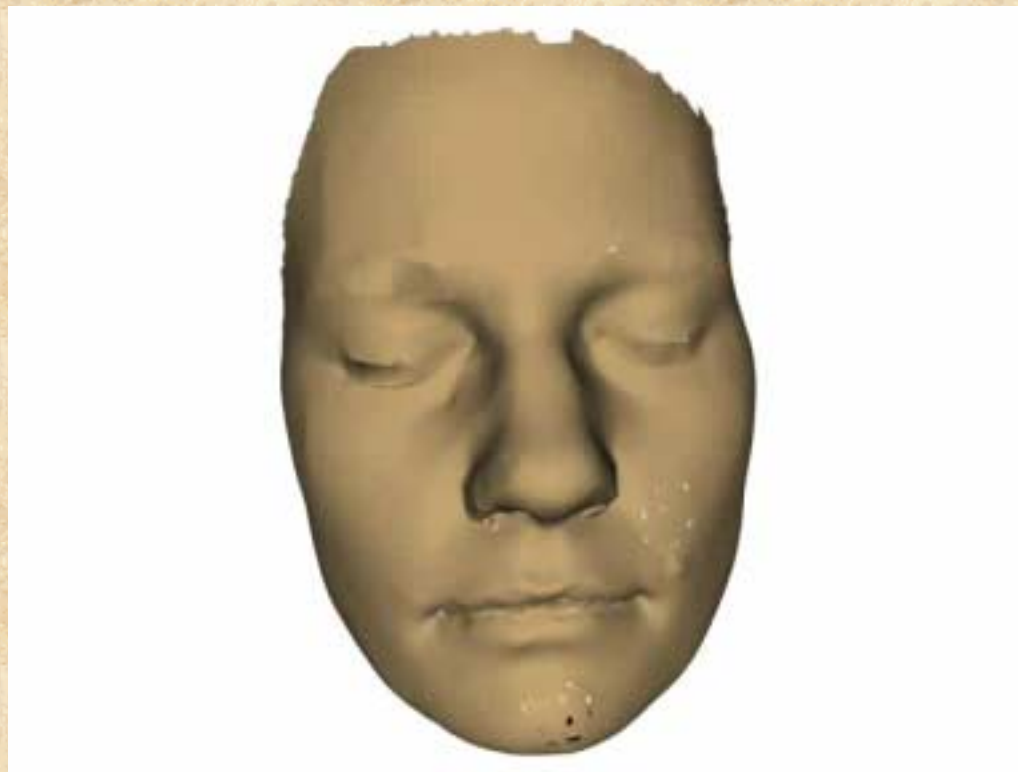
c)

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## 3D face of the real model.



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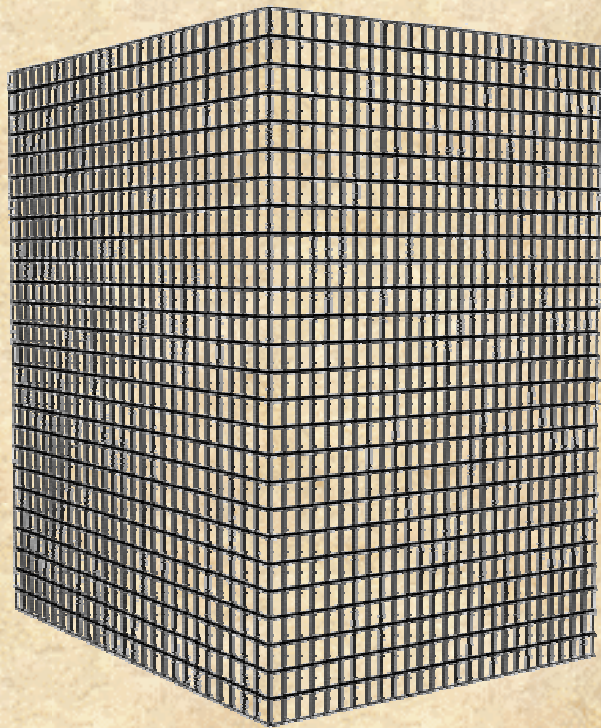
Based on fashion photographs of a real model.



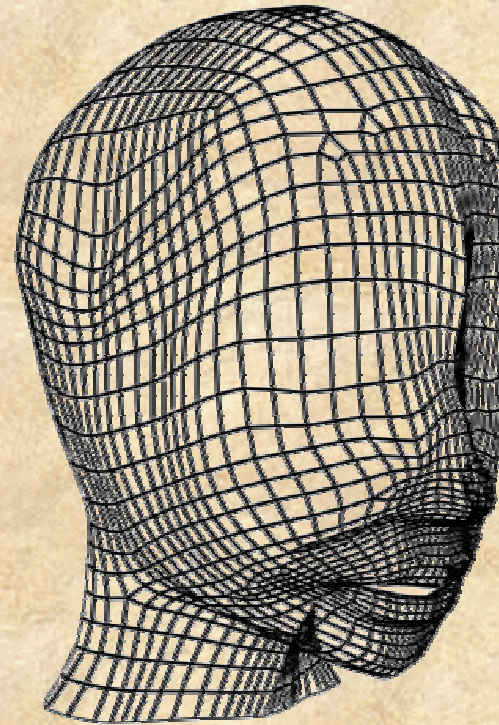
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## Phases of constructing the segment of the head of the virtual model.



a)



b)

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c)



d)

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## Virtual 3D model of the real person.



e)

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The whole of the personal 3D body form is done employing  
the same principle.



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## Virtual 3D model of the real person.



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Photographs of a real model.



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To bring a digital character into the life of a virtual world is one of the most demanding and most complex procedures in computer animation.

On the level of macro animation, individual extremities of virtual characters are animated, while micro animation includes facial animation.

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Conventional approach to the animation of 3D characters includes the animation of key frames.

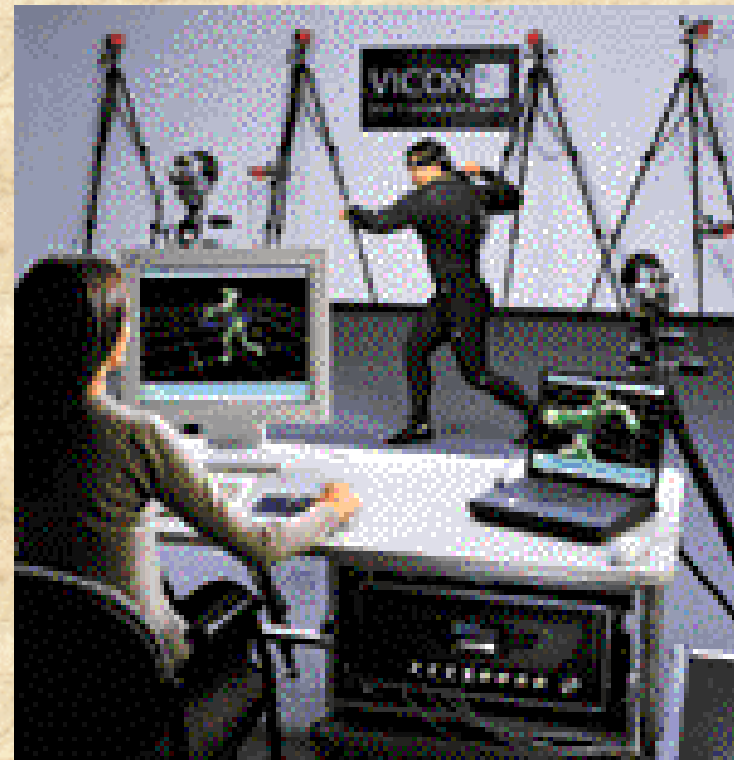


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## Motion capture systems



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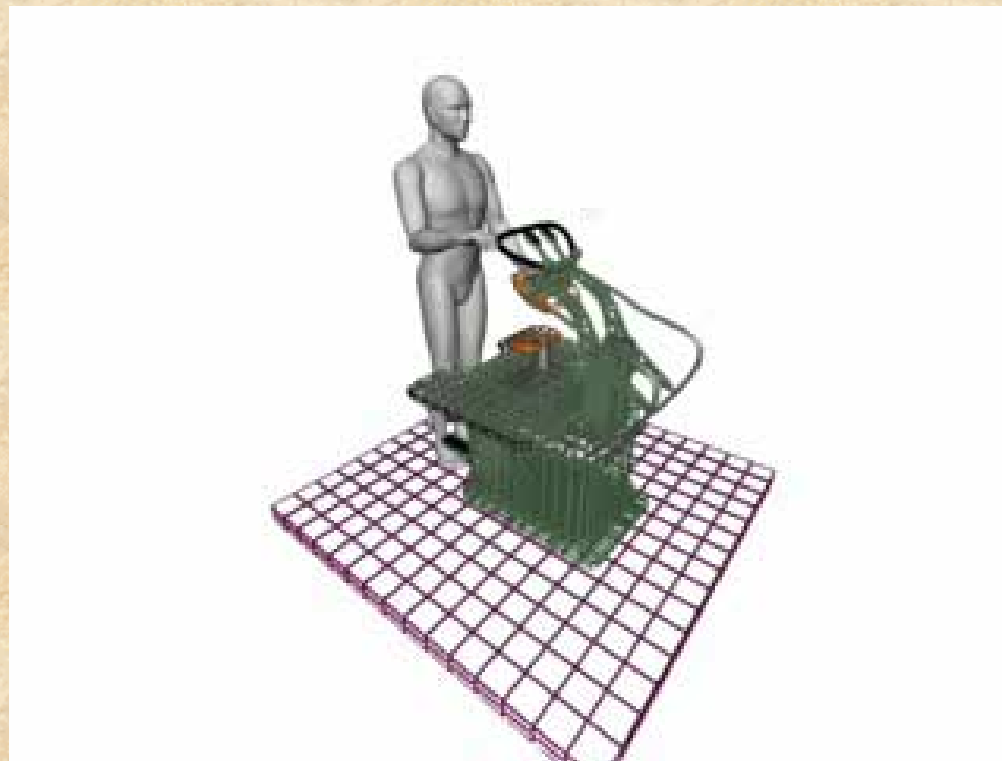
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## Scientific simulation and visualization



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## TV studios



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Development team of the CFG project can offer to the people round the world on-screen virtual try-on of articles of clothing selected for their cyber character, based on their own bodily measures and photographs from their real working and living environment. It comes together with catwalk presentation and in the customer's real sites, where they live and move.

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Thank you, for your attention  
Speaker: Baksa Sarajko, B. Sc.

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