

# Mechatronik

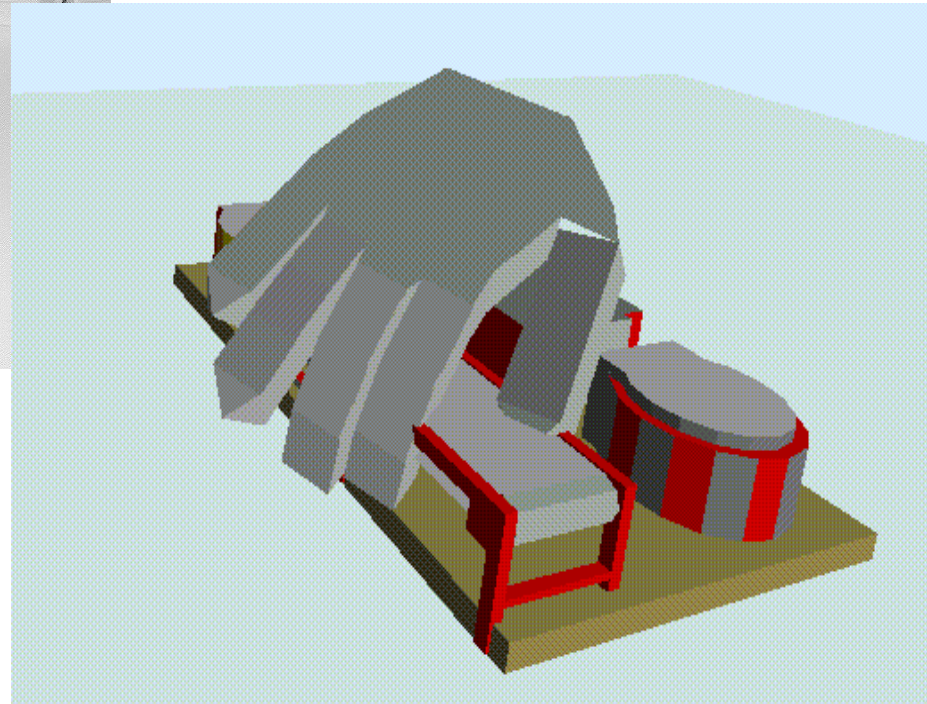
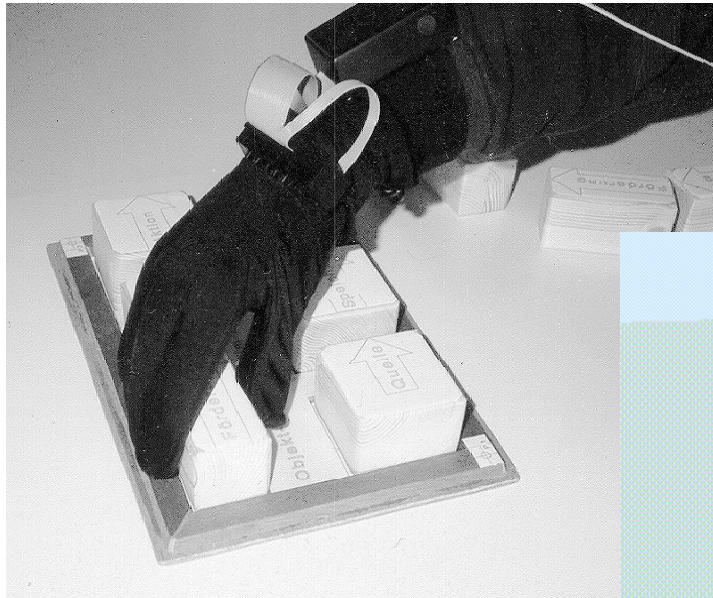
Prof. Dr. F.-W. Bruns

# 13. Complex Objects

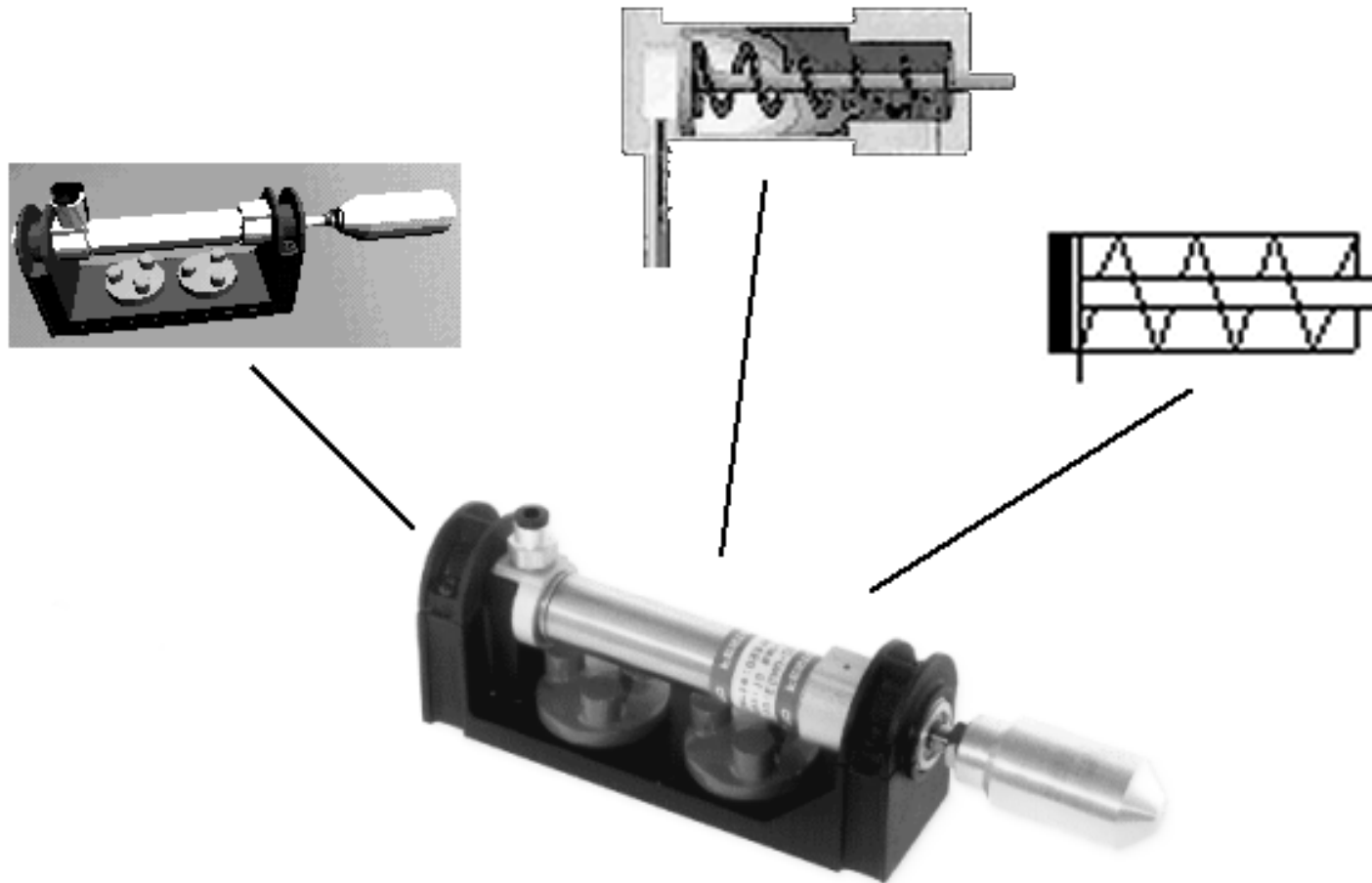
Modellierung mit *Complex Objects*

1 Realteil                    +                    N Virtuelle Teile  
Hyperbonds

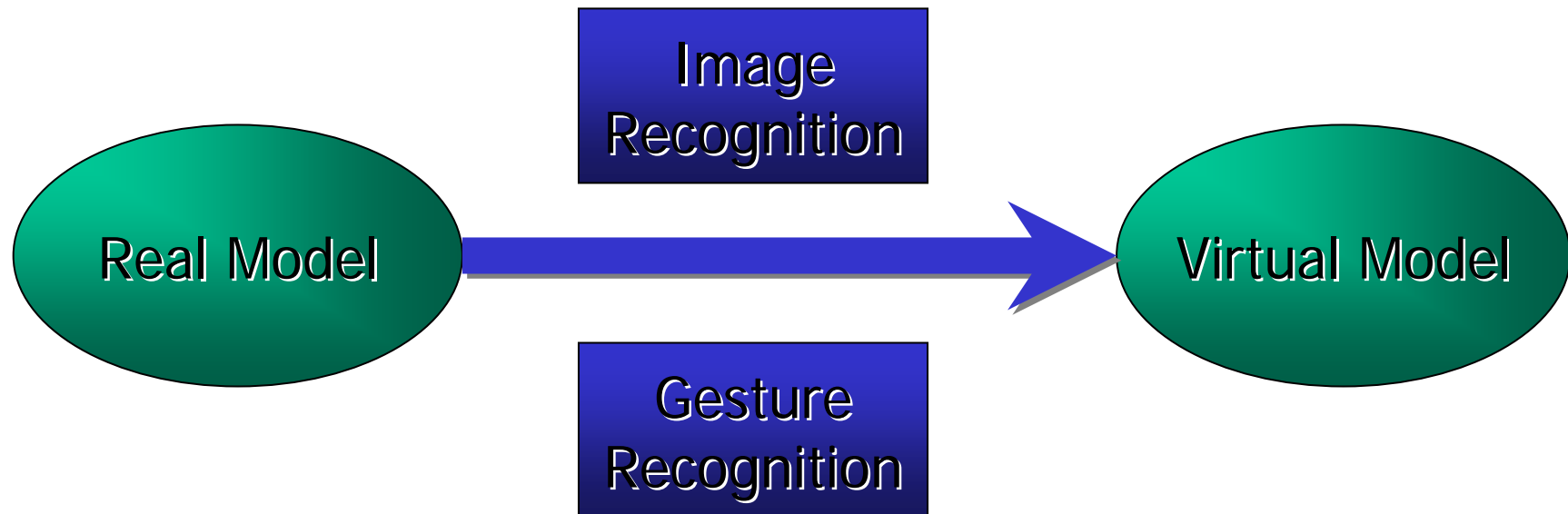
# Komplexes Objekt Förderband



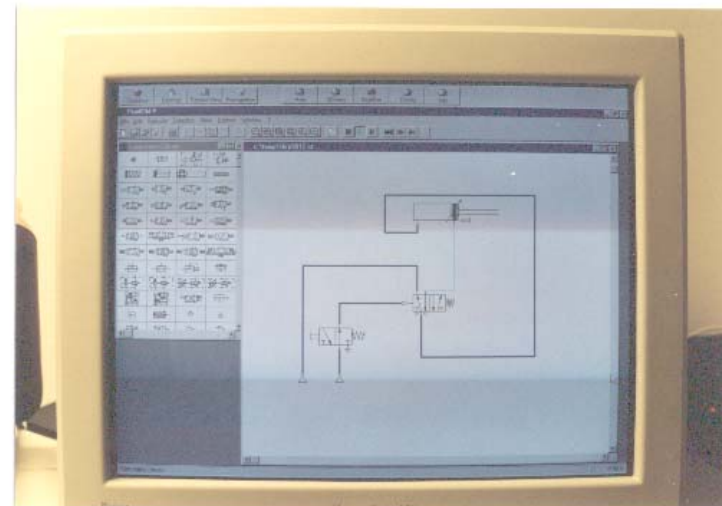
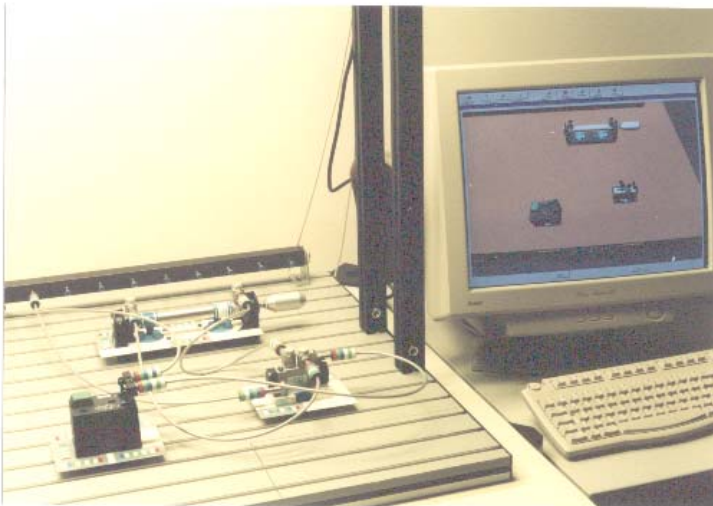
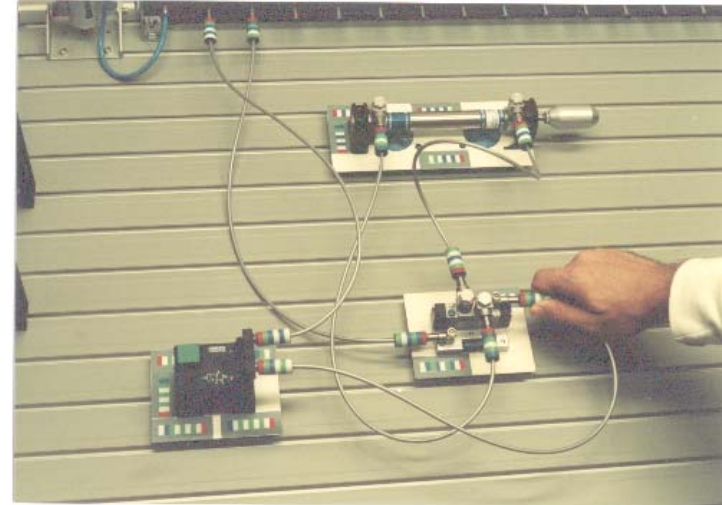
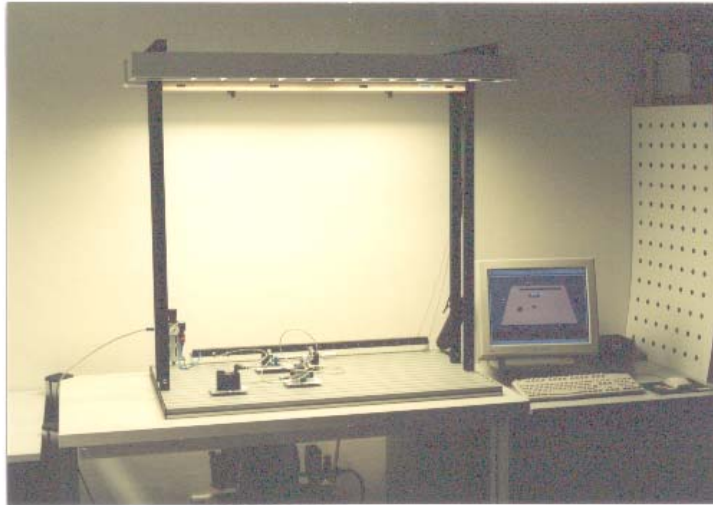
# Komplexes Pneumatik-Object



# Synchronisation zwischen realem and virtuellem Model



# Coupled Real and Virtual Modeling



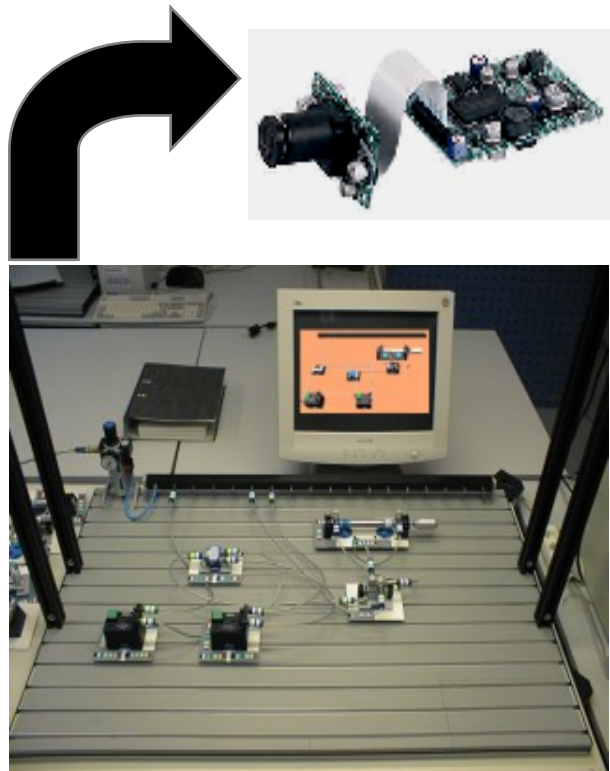
25.07.2006

F. Wilhelm Bruns

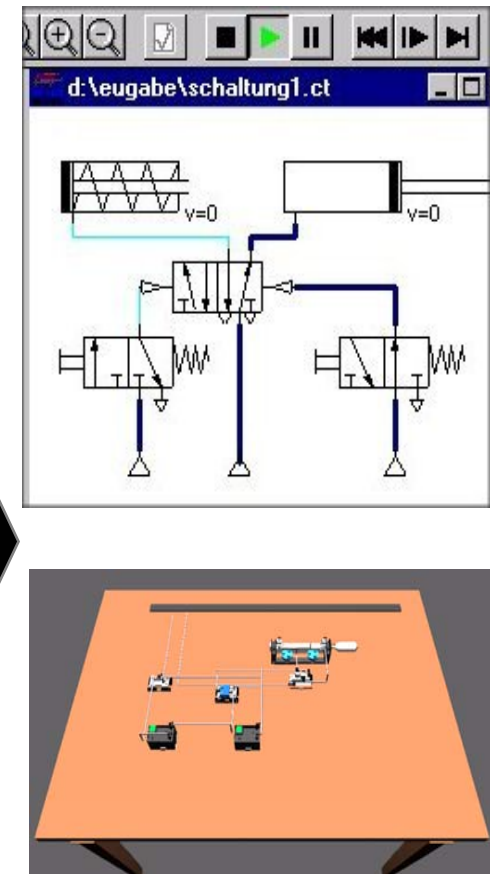
6

# Medienintegration

Reale Welt



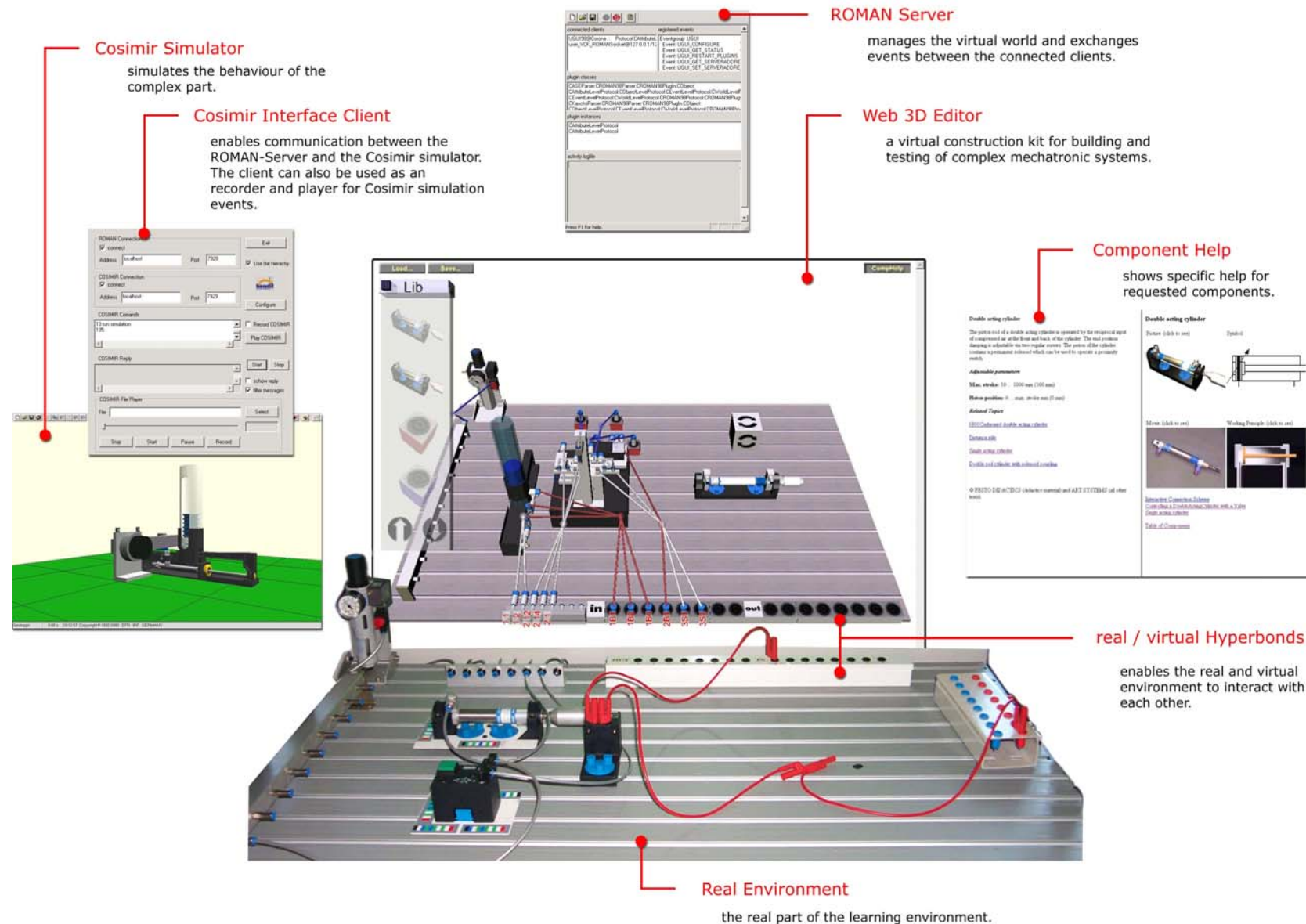
Virtuelle Welt



**Object Manager  
and  
Object Database**

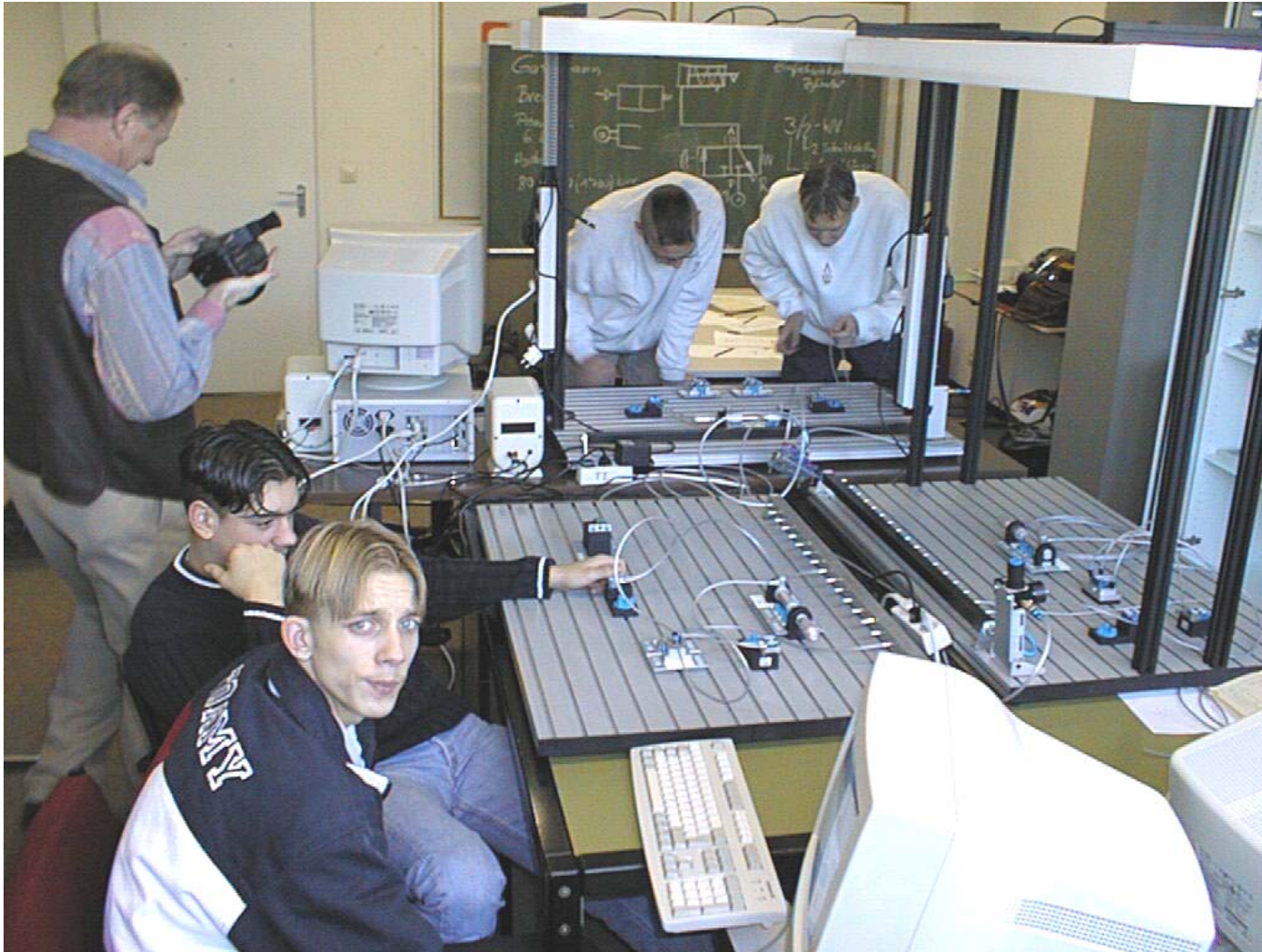


# Interacting Components





# BREVIE in Aktion



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# BREVIE Evaluation

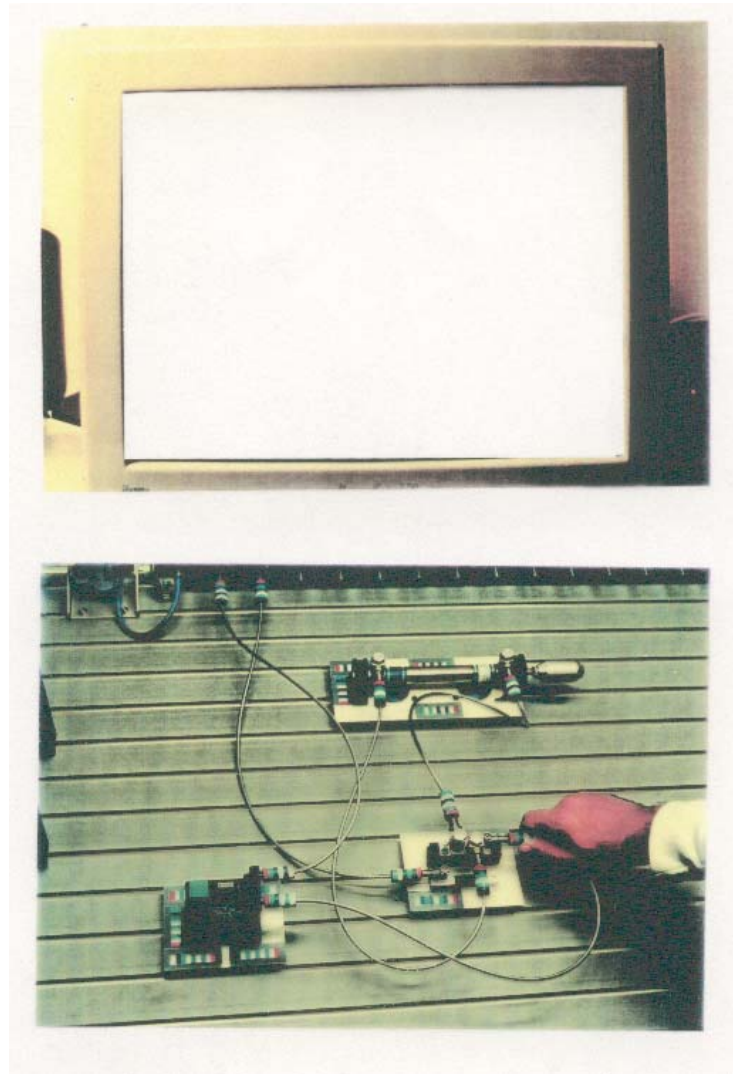
12 Prototypes at 4 European Test-Sites

4 Groups with different Learning Media

16 Hour-Courses in Basics of Pneumatic

<http://www.brevie.uni-bremen.de>

# Imagine !

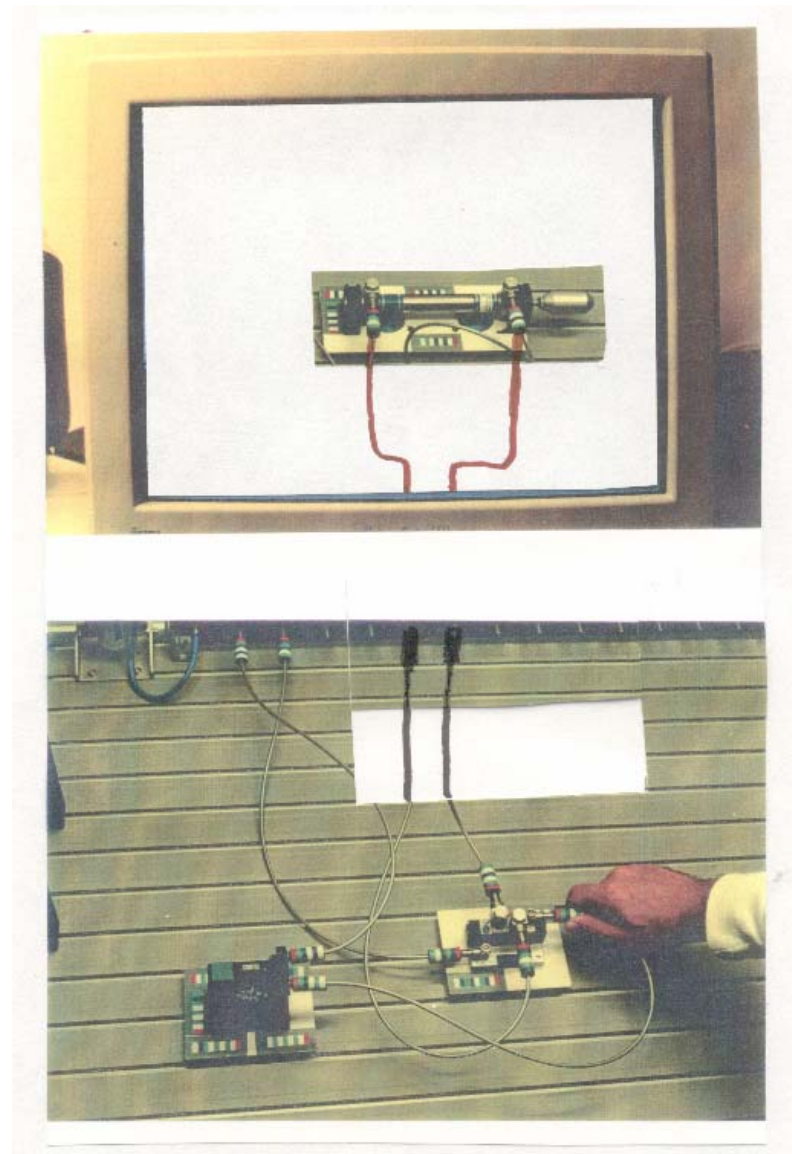


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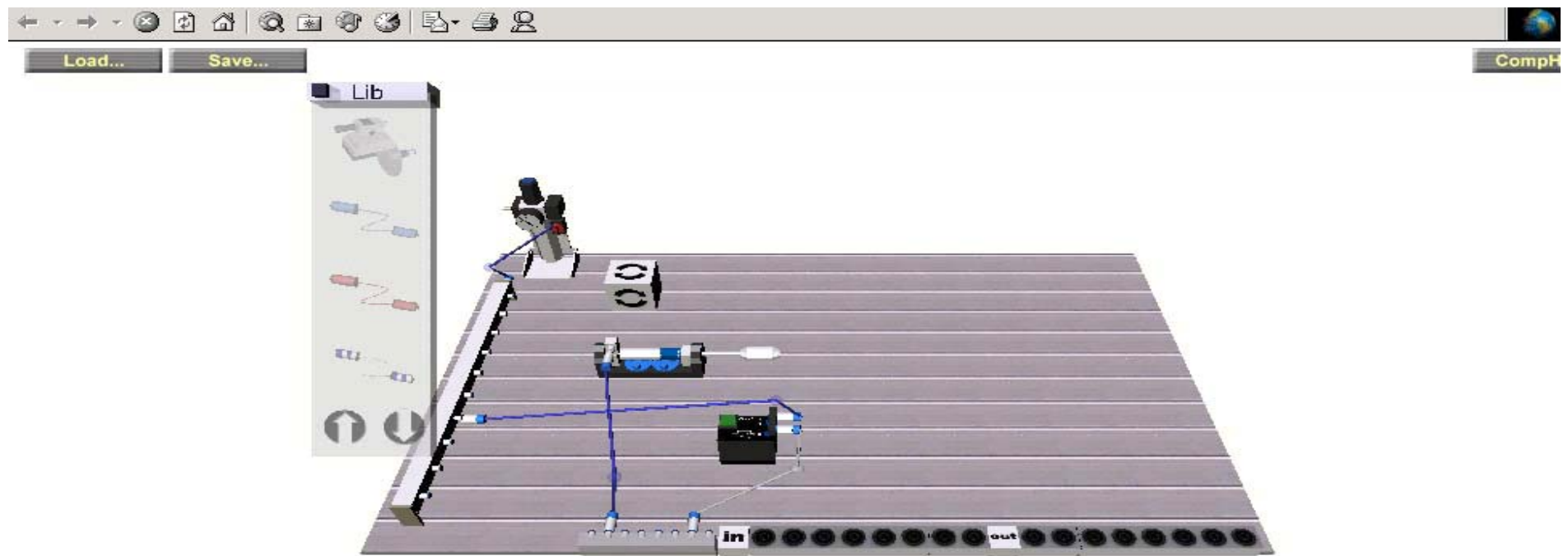
11

Reality  
with a  
Hole

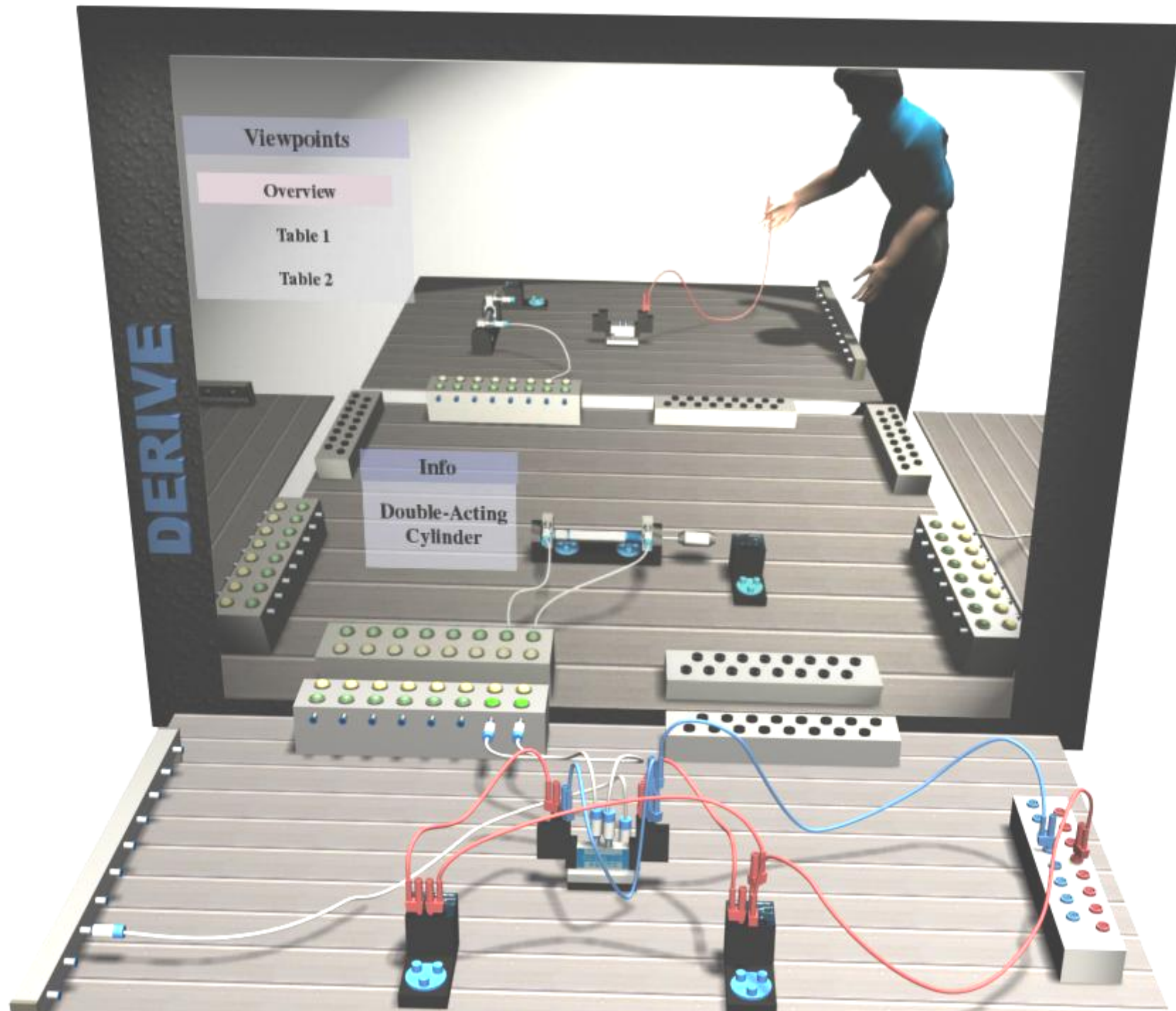


I am not a  
cylinder





## Distributed Mixed Reality Circuit



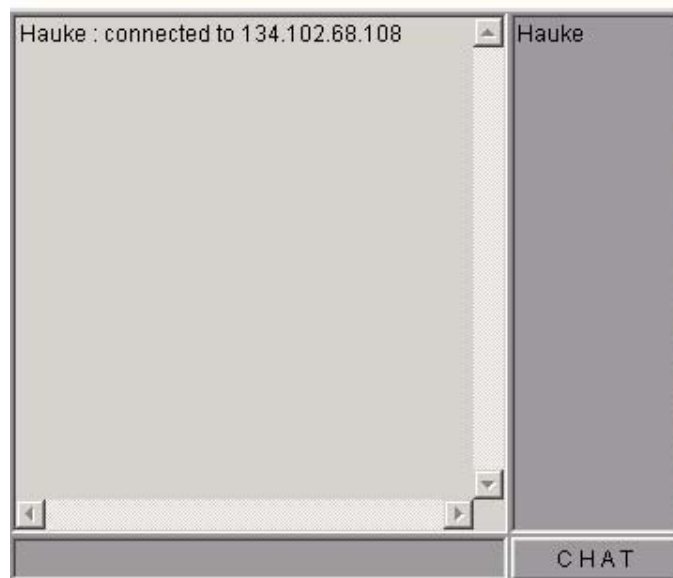
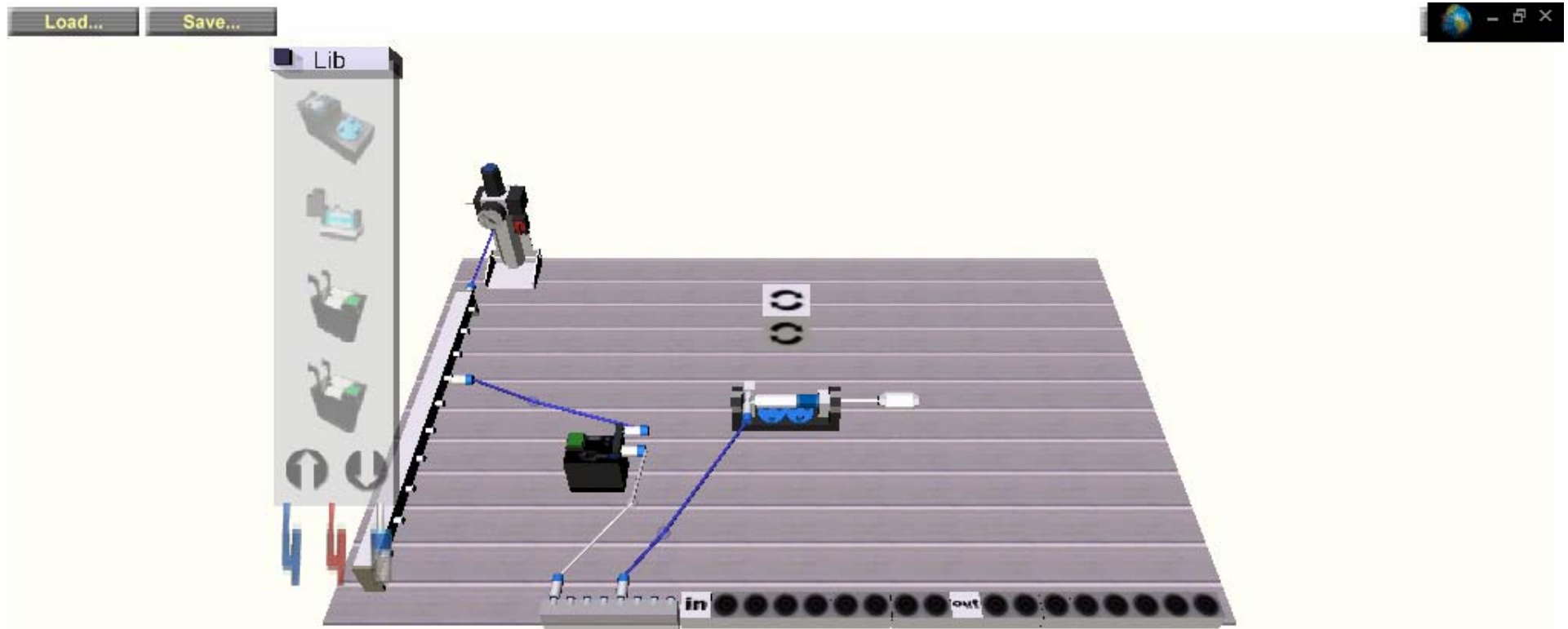


Life Demonstration at  
Supercomputing 2001 - Denver

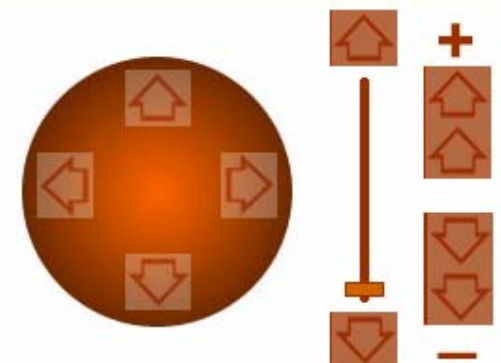
*Air pressure to the Internet*

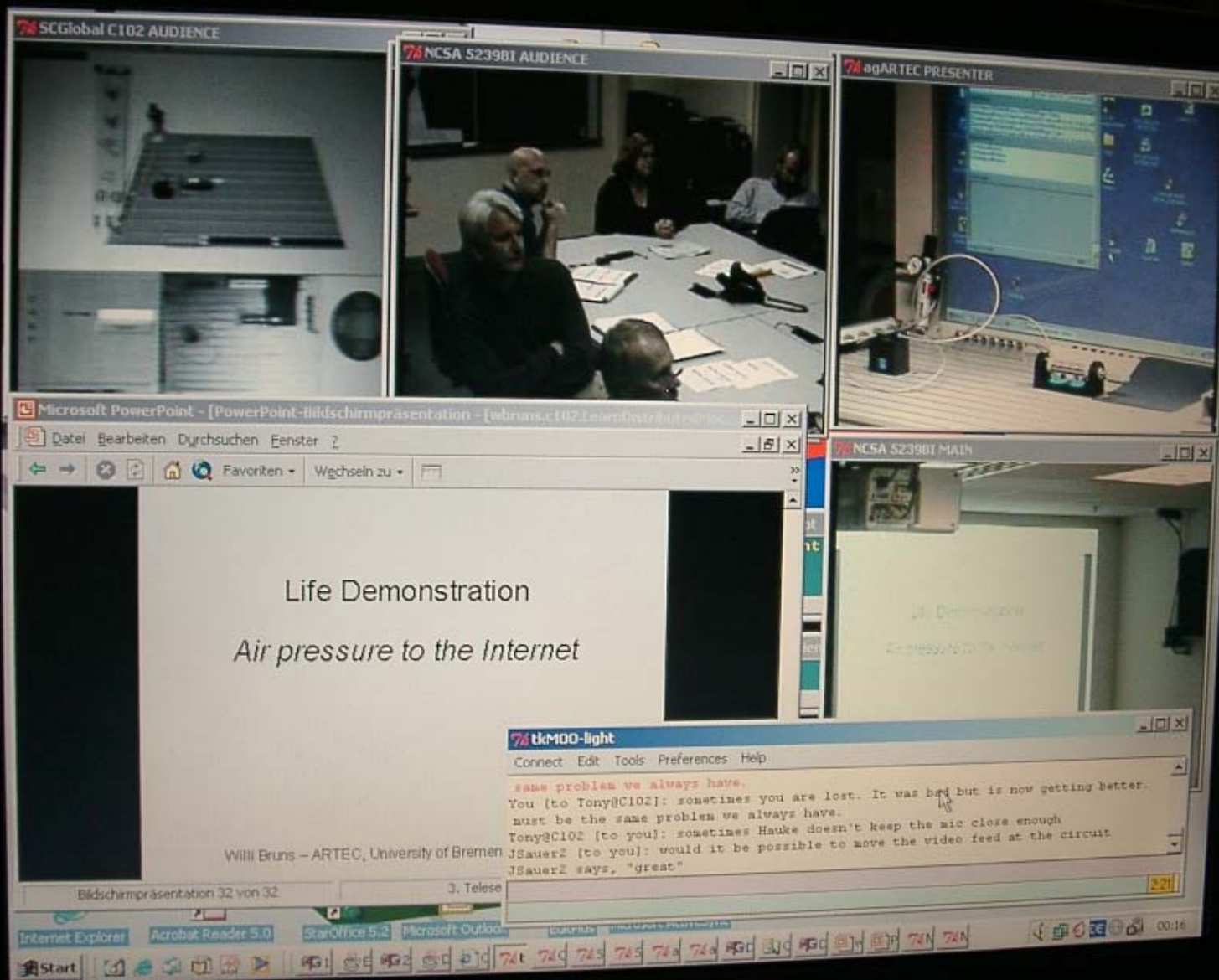
The ACCESS Grid  
Alliance Center for Collaboration Education Science and  
Software

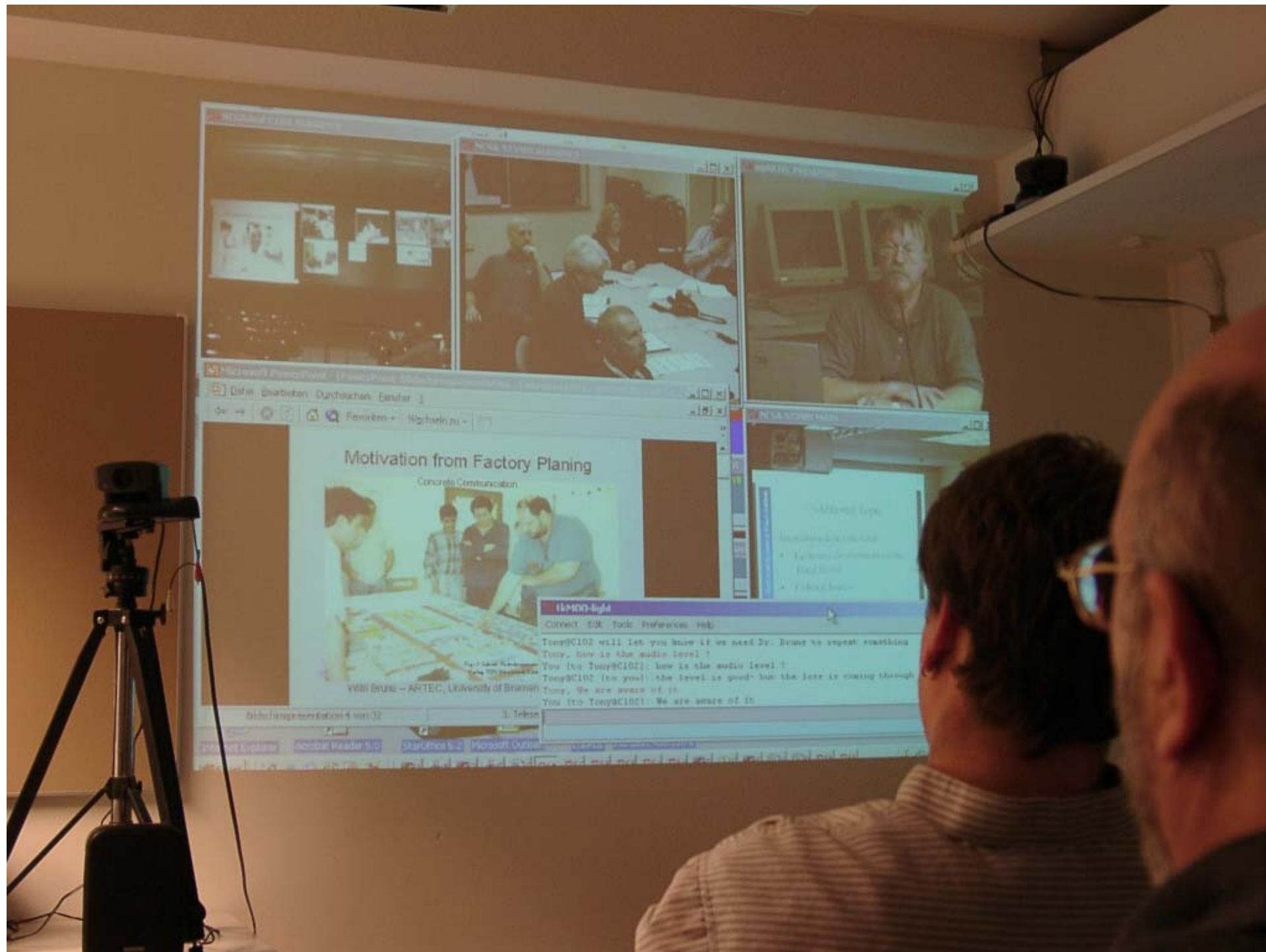
Hauke Ernst, Martin Faust



Video Stop

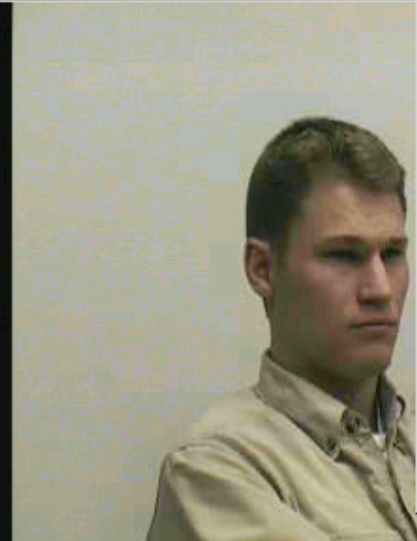









74 PSC Access Grid AUDIENCE



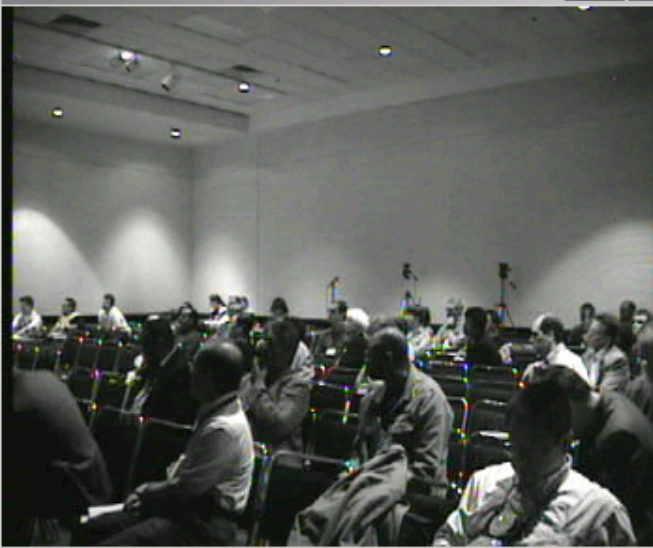
74 SCGlobal C102 PRESENTER




74 SCGlobal C102 AUDIENCE



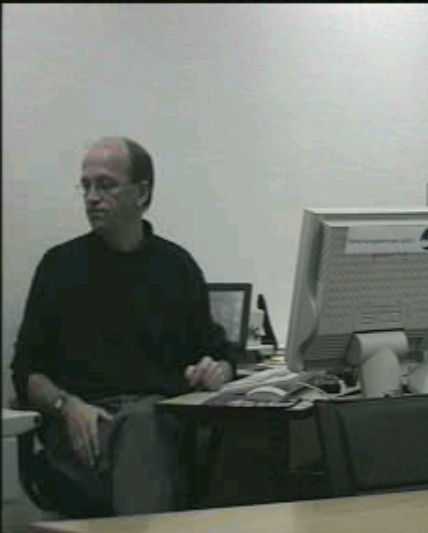
74 SCGlobal C102 MAIN



74 agARTEC AUDIENCE



74 FZ Juelich / ZAM PRESENTER



average of sound. when it goes up to  
problems"

0:09

Internet Explorer

Acrobat Reader 5.0

StarOffice 5.2

Microsoft Outlook

CULTIUS

Microsoft Access 2003

Start

74 1..

74 E..

74 2..

74 D..

74 C..

74 t..

74 C..

74 S..

74 a..

74 S..

74 S..

74 F..

74 1..

74 P..

22:04

# Online-Labore

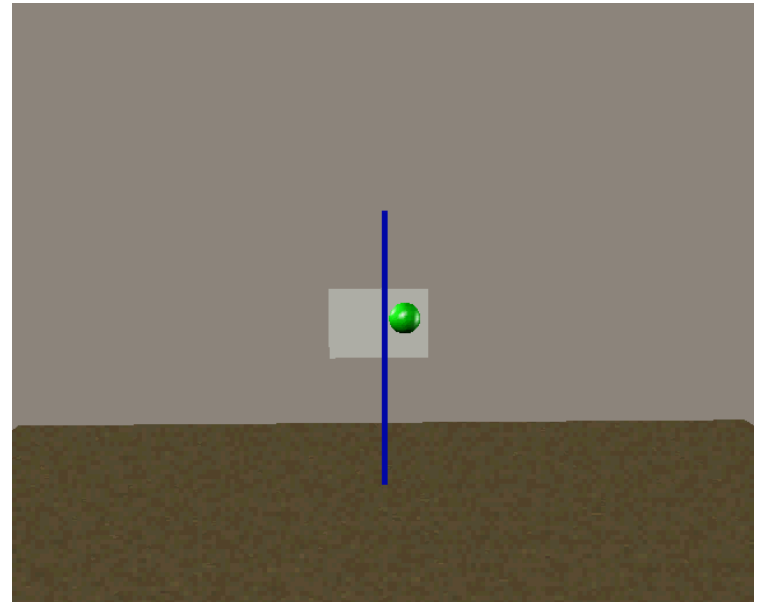
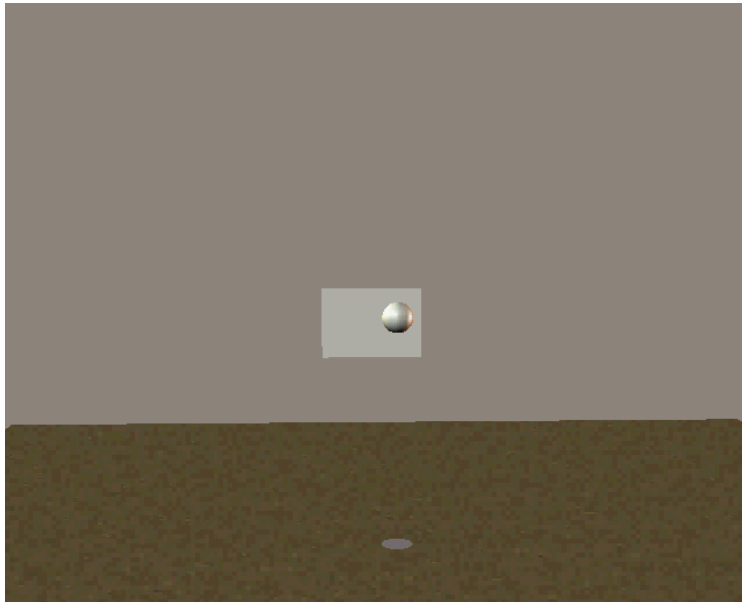
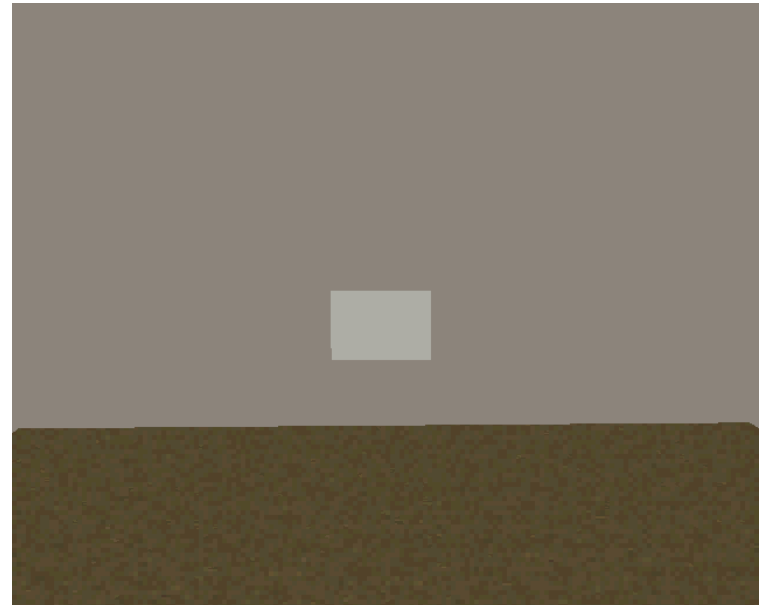
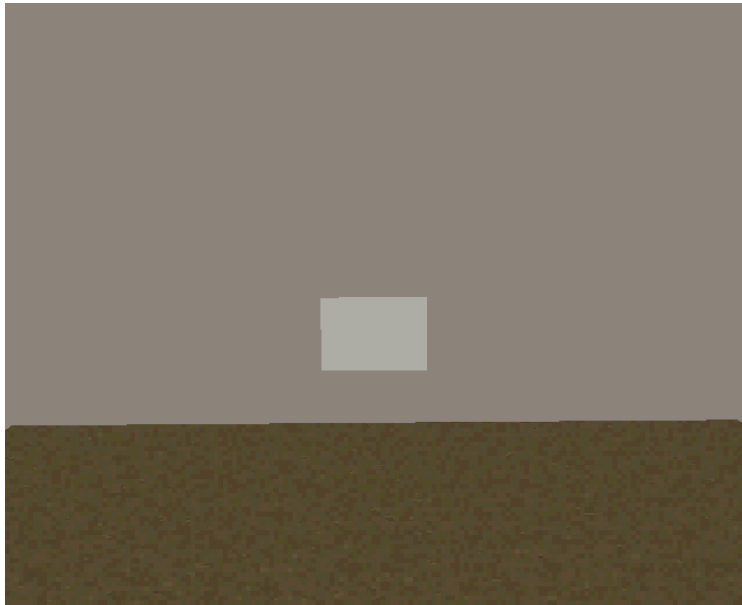
Lab@Future      Course Server

<http://corona.artec.uni-bremen.de>

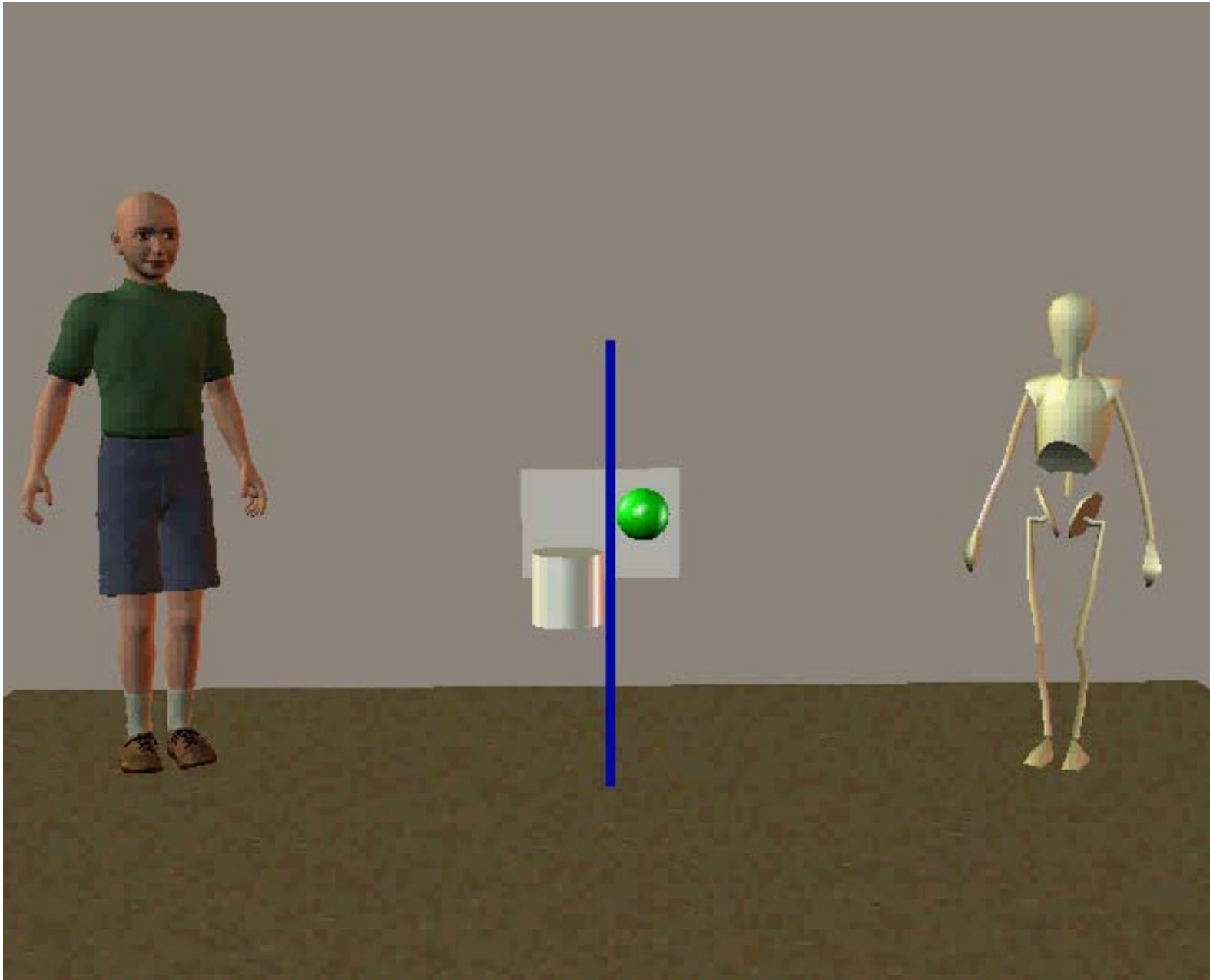


# Vision eines Interfaces

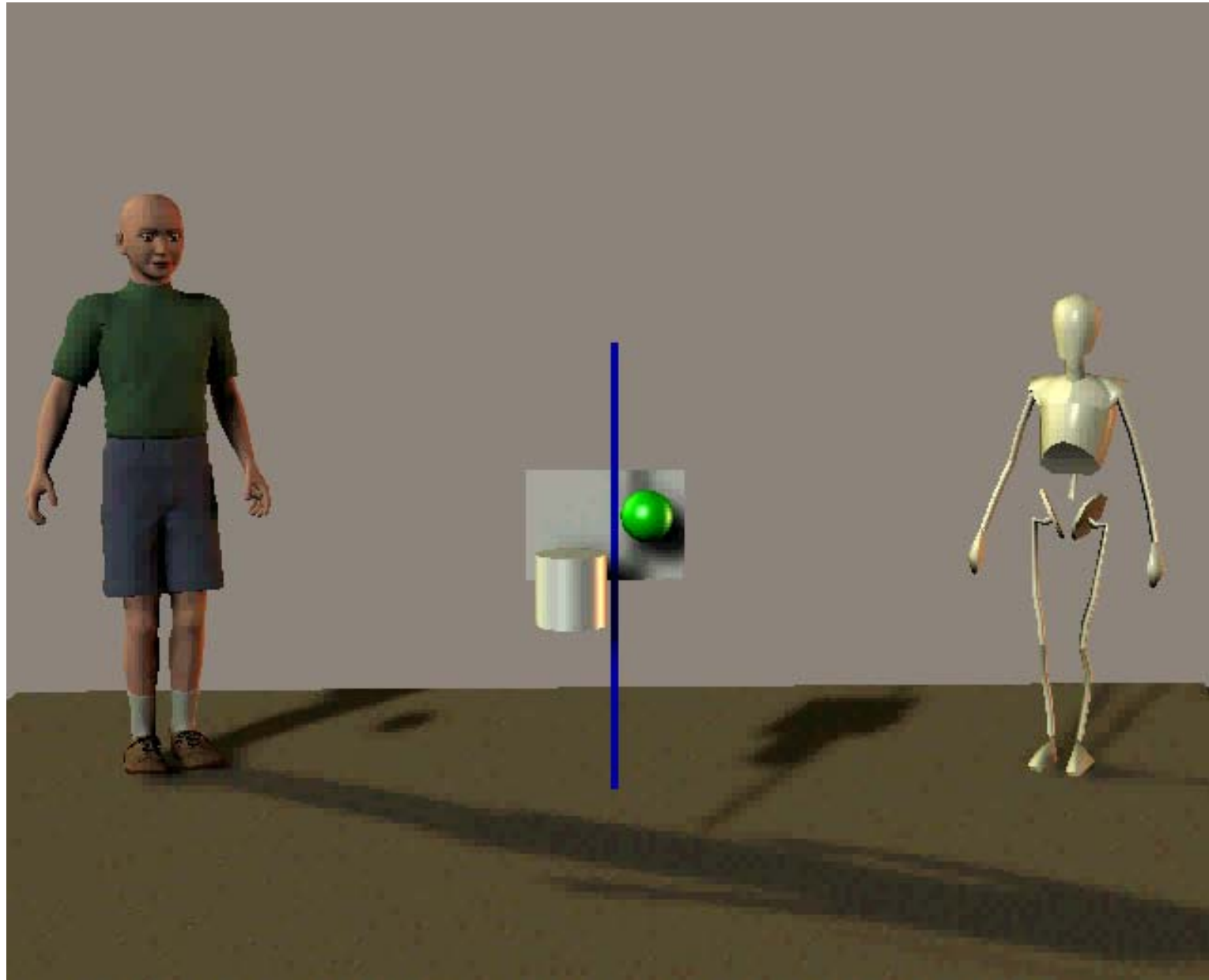
# Simulation als Abstraktion und Scheinerzeugung



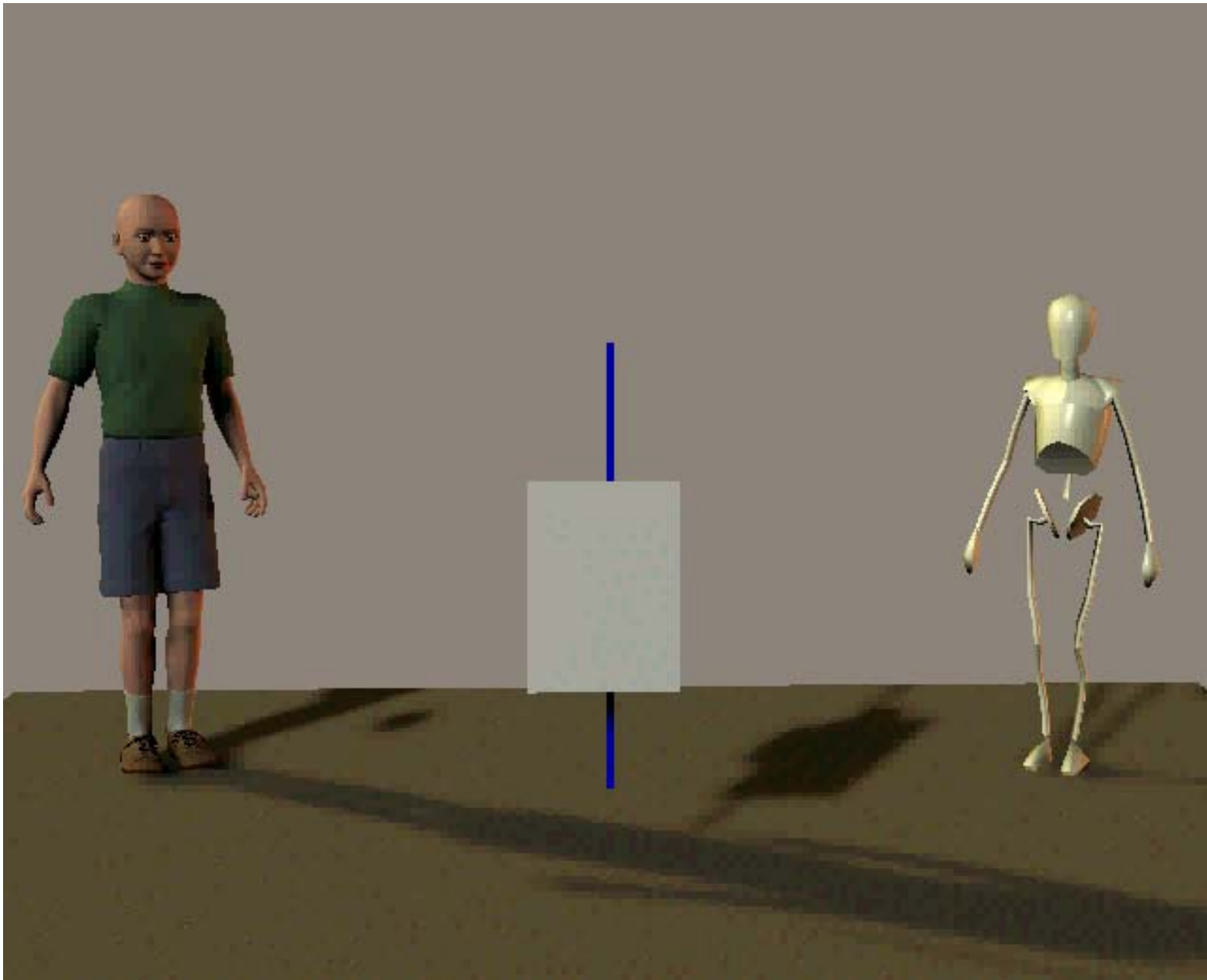
# Funktional gekoppelte Welten



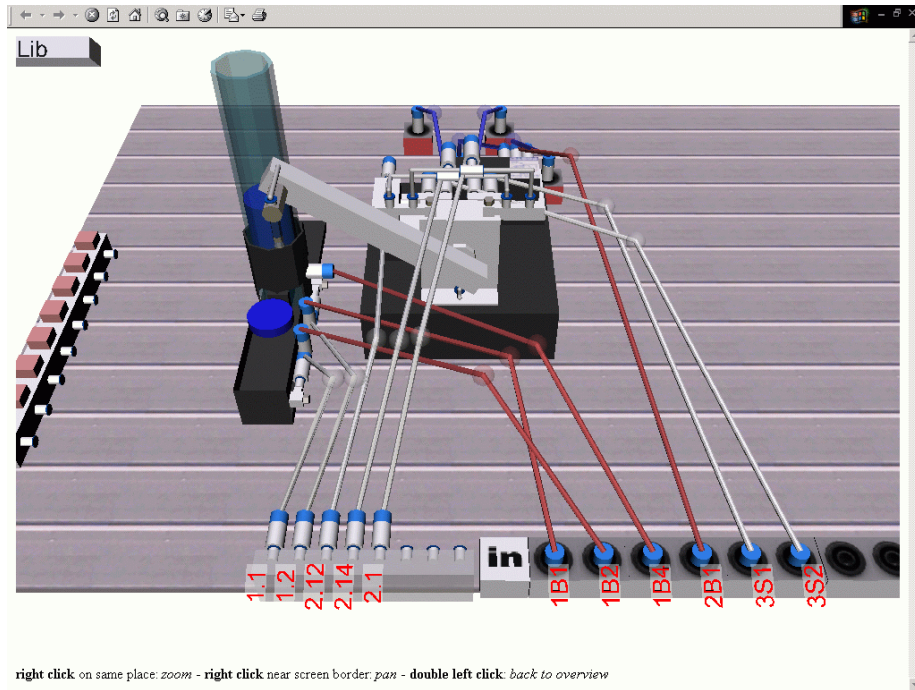
# Fortsetzung physikalischer Phänomene



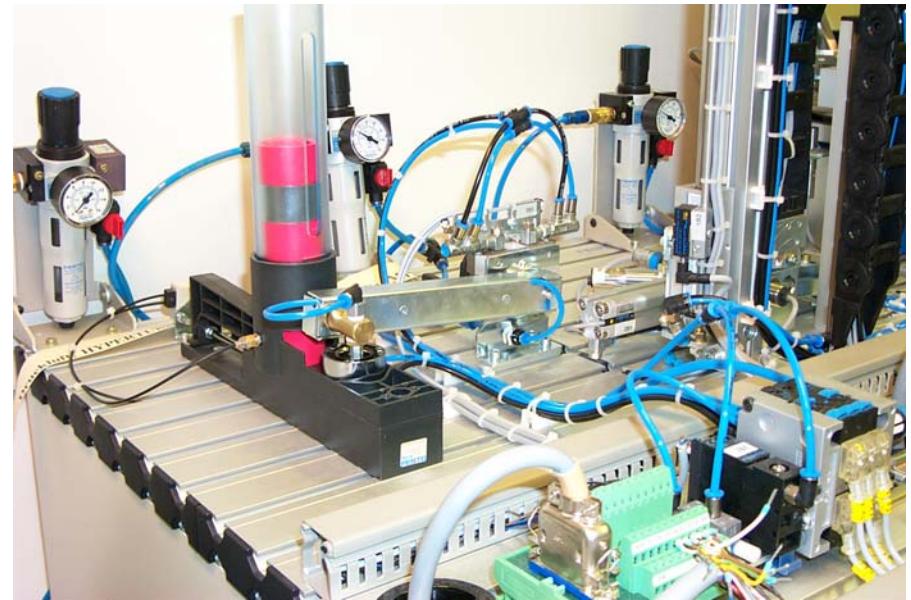
# Versteckter Hyper-Bond Mechanismus



# Virtuell



# Real



Abbild ?



Original ?