



Bitmanagement
INTERACTIVE WEB3D GRAPHICS

3D Client Software - Interactive, online and in real-time



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Native BS Contact 3D Client Software Hardware Independent



Stereoscopic



Windows



Linux



Cave Systems



Nokia Smartphones



iPhone
IPad,
Ipod

Mac



Android + Tegra 2

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Bitmanagement Customers





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3D Globe – realtime zoom



Technology:

Mapping geospatial 2D and 3D data at the correct location on a 3D globe automatically.

Perception:

Seamless zooming from map overview to ground level and Building interior with The same online software.

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Energy and power facilities





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3D Vienna – realtime view



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Technology:

Complete cities can be visualized in realtime with BS Contact Geo on the Internet.

Perception:

Highly detailed appearance of the 3D city. High accuracy showing trees, building sites and fully textured houses.



Selected Geospatial Customers



Exxon

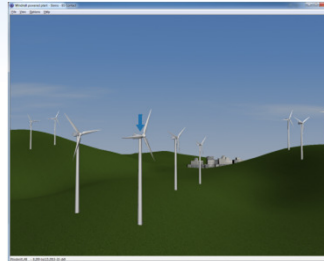


Vorher Nachher

rnv
Stark im Nahverkehr Rhein-Neckar



BERTELSMANN



SIEMENS



DB Mobility Networks Logistics

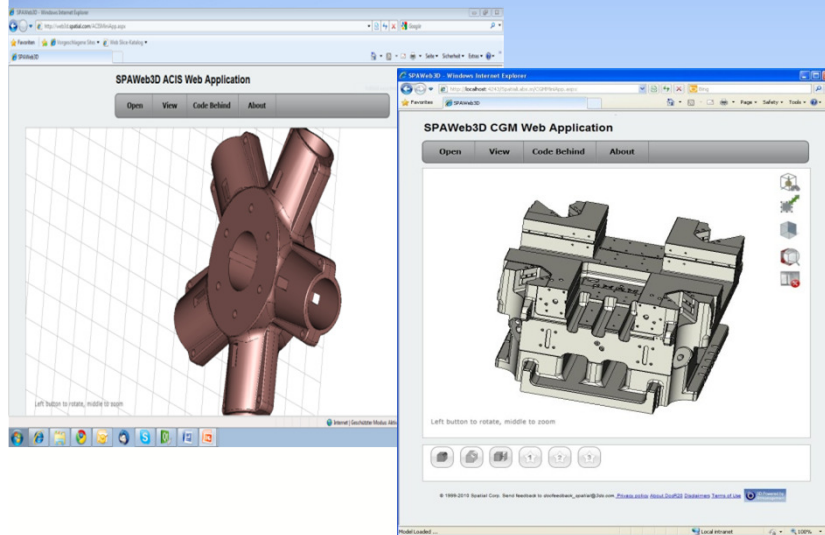


DAIMLER



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Cloud-interface to ACIS Kernel



Technology:

The ACIS Kernel sends X3D models to the BS Contact client for visualization. The scene graph can be manipulated remotely.

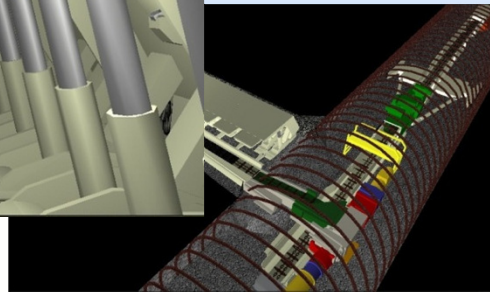
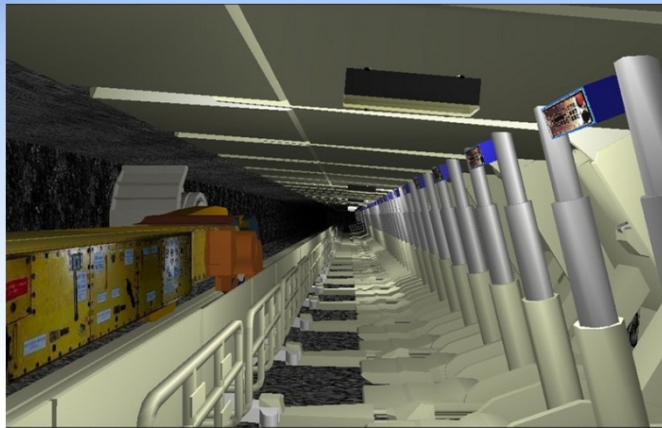


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DSK Virtual Mining



Virtual Training

Trainingsystem
for mining
operators of
Deutsche
Steinkohle AG.

Testing of
machines before
usage in difficult
environments

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Automotive - Augmented Reality





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LEGO Digital Box Augmented Reality Marketing



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IVN-Live Video Avatar -

Mixed Reality Supports Trust on the Internet



Technology:

The live video stream of a video conference session is mapped on the 3D face of the participant's avatar in real-time.

Perception:

Trusted appearance of the avatar in an life-like mixed reality environment.



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R&D Projects

Research Project: FINE

Project start April 1, 2010 – now, 36 months. The Free-viewpoint Immersive Networked Experience project is focused on developing a novel end-to-end architecture for the creation and delivery of a new form of live media content.

Research Project: InterAR

Project start: December 1, 2009 – 24 months. Bitmanagement together with Fraunhofer Institute für Grafische Datenverarbeitung (IGD) jointly engages in the German BMWI funded project “InterAR – Augmented Reality in the Internet on mobile devices”.

Development Project : iDYNAMICTV

Project start: 2008. Bitmanagement is part of a larger project of Telecom Italia. It is focused on Entertainment on the Web, which is a new paradigm.

Software Partner to SpaceTime3D, Inc.

Bitmanagement is a software partner of the SpaceTime project. SpaceTime is a patent-pending novel Graphical User Interface (GUI) for PCs, Tablets, Smartphones and netbook users worldwide.

Development Project: Earth Viewer

Project start: 2006. For Bertelsmann one of the world's leading publishing houses, Bitmanagement has developed an earth viewing application for a comprehensive 3D world atlas for consumer use.

Research Project: ICE-CREAM

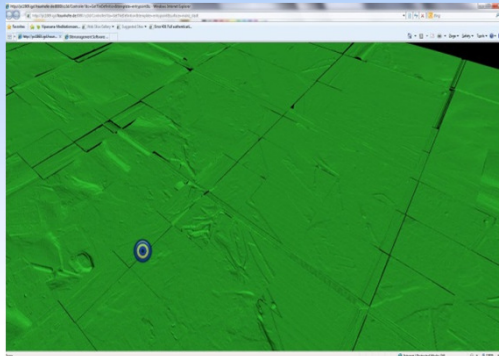
Project start: 2002 – 36 month. Bitmanagement was one of 10 partners of the three-year project “ICE CREAM - Interactive Consumption of Entertainment in Consumer Responsive, Engaging & Active Media” which was led by Philips and funded by the European Commission.



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R&D: 3D Portrayal Interoperability Experiment

Mobile LOD 4 visualization:
Highly detailed city
visualization
>= 10 cm detail.

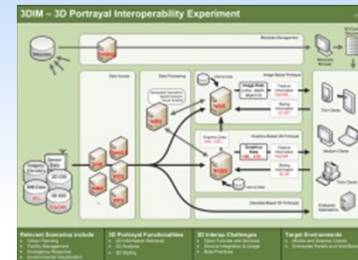


Native X3D:
Geo node support with Octrees and
tiling scheme.



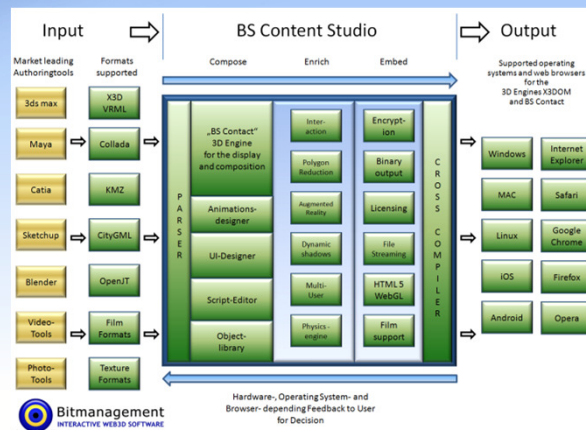
Native CityGML:
EPSG code positioning and 200
map projections
on the fly.

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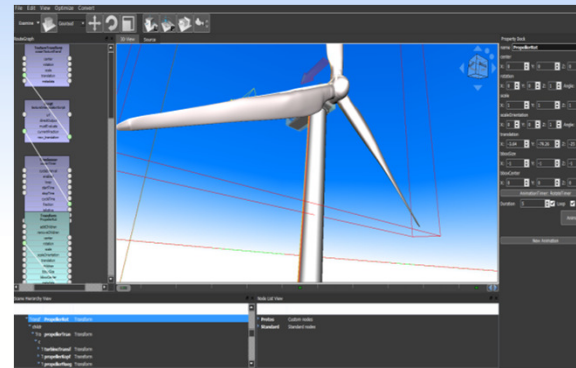


OGC[®]
Making location count.
www.opengeospatial.org

R&D: BS Content Studio



Toolchain support
Competitive advantage 18 months
Native Apps and Web Apps





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Why a tool for the 3D Web?

For Web3D you need a lot of skills.

You need:

Knowledge about 3D graphics
Knowledge about XML
Knowledge about networking

Artistic skills and programming skills...
Left brain and right brain...

So we have 3 design principles: easy, easy, easy



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BS Content Studio - design principles

- X3D conforming
- Interactive content
- Multi-media content
- Fast production and management of scenes
- Compose – Enrich – Embed

Optimization of

- rendering speed
- web-delivery
- embedding in websites

Native Apps output cross platform with the BS Contact 3D engine
windows, mac, iOS, android

X3DOM output for Webapps

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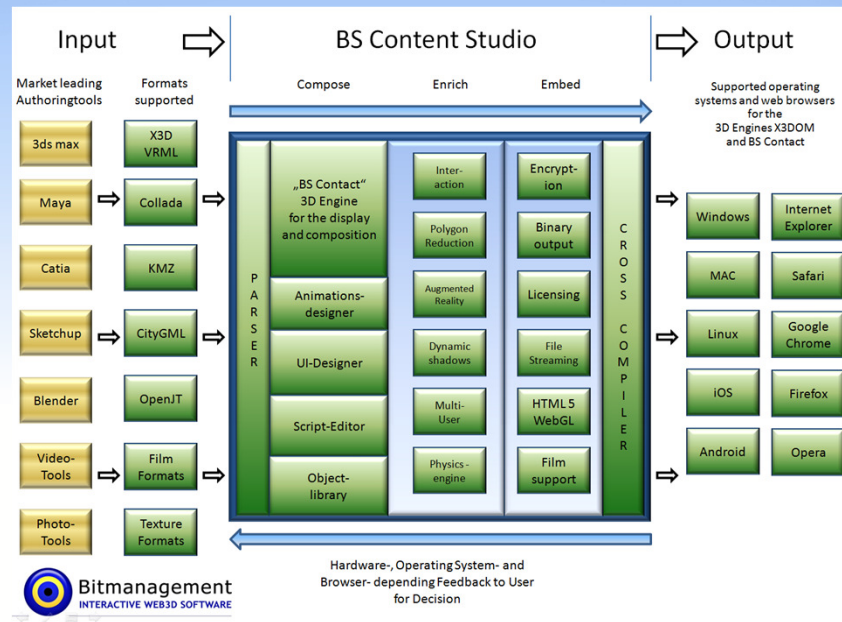
BS Content Studio - design principles

Current features of BS Content Studio

- Transforming (translate, rotate, scale, manipulate center) from scene elements
- Editing the appearance of shapes.
- Creating animations by manipulating fields
- Optimizing scene by static batching or instance batching
- Exporting into VRML, X3d, X3DB, X3DOM
- Optimizing or Reducing mesh complexity by planar or cell reduction
- Scene property editing for Worldinfo, Background, and Navigation
- Display of route graph for easy editing



Component overview





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BS Contact + BS Content Studio
Your window to your data

Please download and try
BS Content Studio

www.bitmanagement.com/en/download/studio

Peter.Schickel@bitmanagment.com

Thank you!

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BS Contact 3D Engine-
Your window to your data

Bitmanagement is uniquely **suited**
with existing **know-how** and **software**
to elaborate a **central** and **holistic view** on **your 3D data**.

This makes the **life cycle** of your products,
with **actual** states, **planning** states and **alternatives**
interactive, web-enabled,
visible and **usable**.

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