

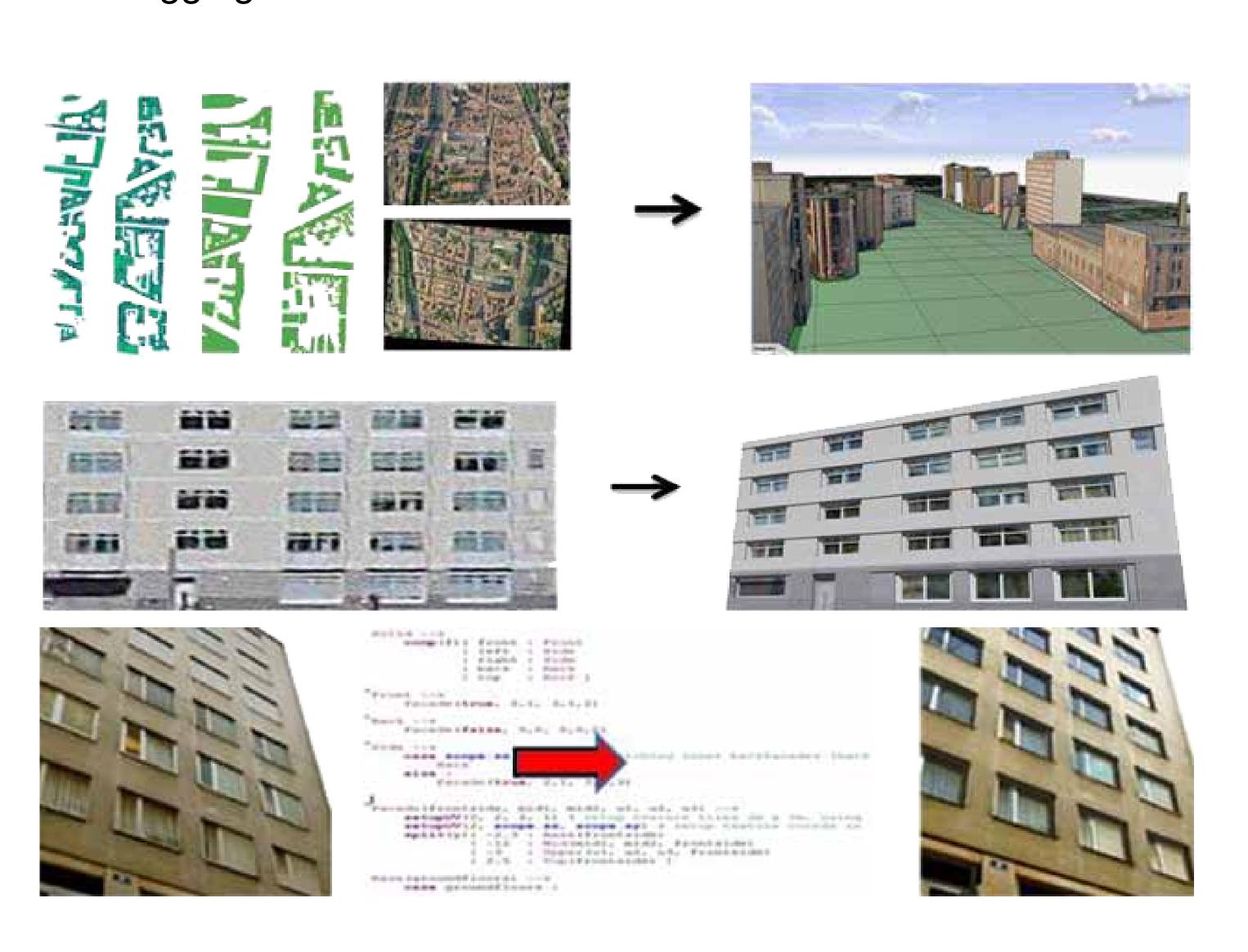
3D reconstruction, storage, and online exploitation of large and highly detailed urban areas

The V-City Builder

Based on Procedural's CityEngine system enhanced with Katholieke Universiteit Leuven's algorithms, the Builder automatically reconstructs large-scale 3D urban environments with high quality from input cadastral data, BLOM's aerial oblique images and ground pictures.

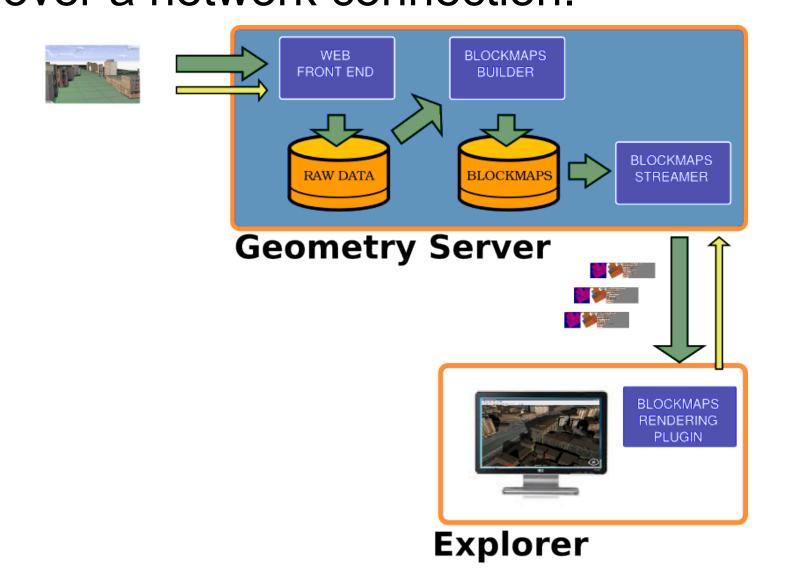
Innovation

- Automatic texturing, occluder removal and inpainting
- Architectural element identification and rules extraction
- Procedural remodelling, compression and semantical metatagging



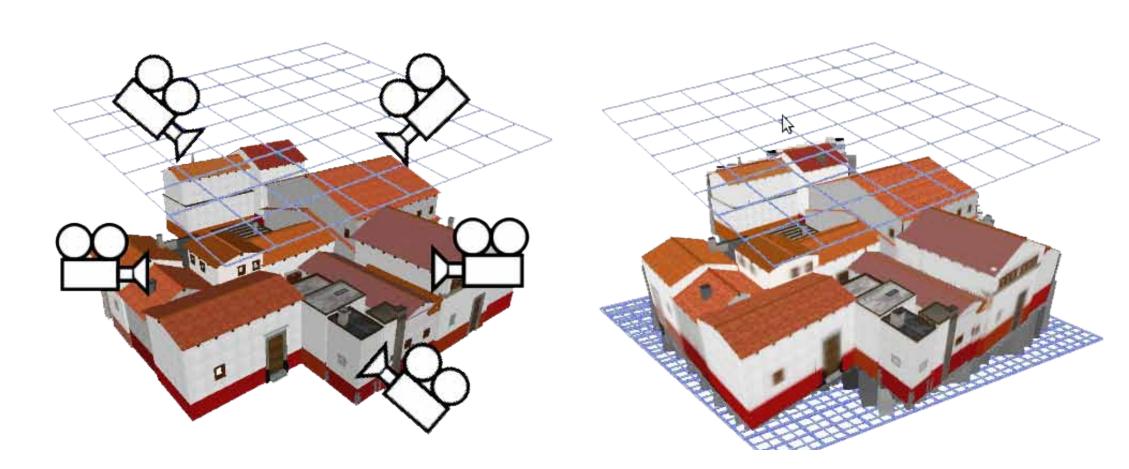
The V-City Server

Developed by both CNR and CRS4, this module is in charge of transforming large scale representations of urban environments into good quality low-bitrate multiresolution representations suitable for streaming and rendering. It automatically optimises, compresses and stores the geographical and architectural data published by the Builder and streams them in realtime over a network connection.



Innovation

- Blockmaps, a new compression method specially designed to provide a high quality but low-bitrate representation of 3D urban environments
- Blockmaps, a building block approach for a multiresolution streaming and rendering of whole cityscapes.



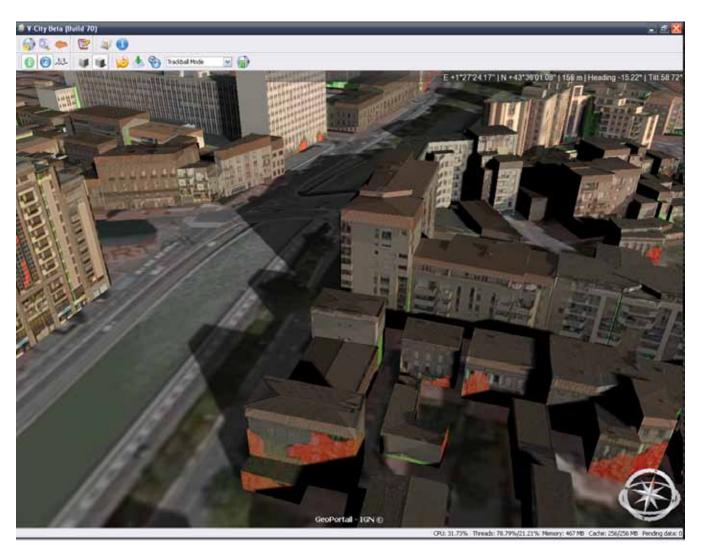
The V-City Explorer

The V-City Explorer is the next-generation globe viewer based on DIGINEXT's future VirtualGeo3 system offering unprecedented rendering capabilities. It can display massive and extremely detailed urban environments, seamlessly integrated into their 3D landscape.

Thanks to the BlockMap technology, the V-City Explorer can navigate through massive cities, complete with picture-perfect facades and architectural details, at breakneck speeds.

Innovation

- Multiscale geographic rendering, from global scale to indoors, with AAA video game rendering quality (shadows, SSAO, vegetation, animations...)
- Blockmap technology
- Multi-view stereoscopic rendering
- Multi-projection support
- Standard compliant (INSPIRE, CityGML, Collada, KML...)
- Fully configurable for tailored needs with its SDK and scripting language



The V-City Table

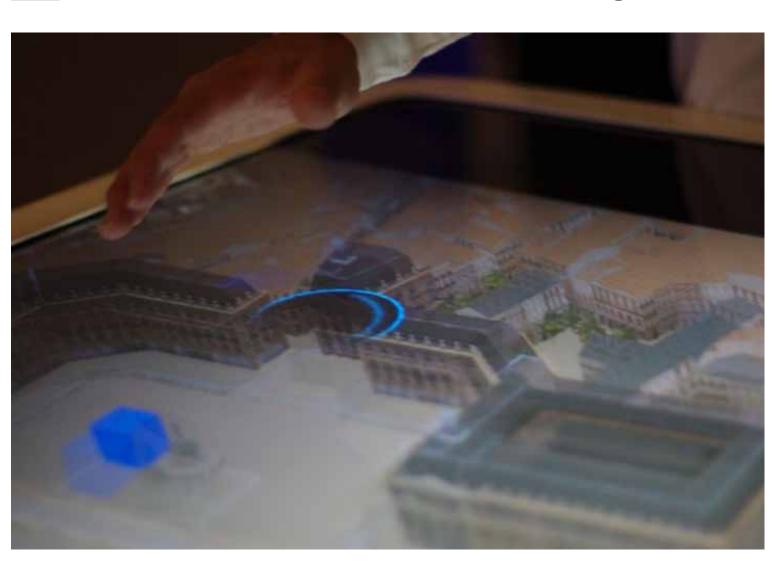


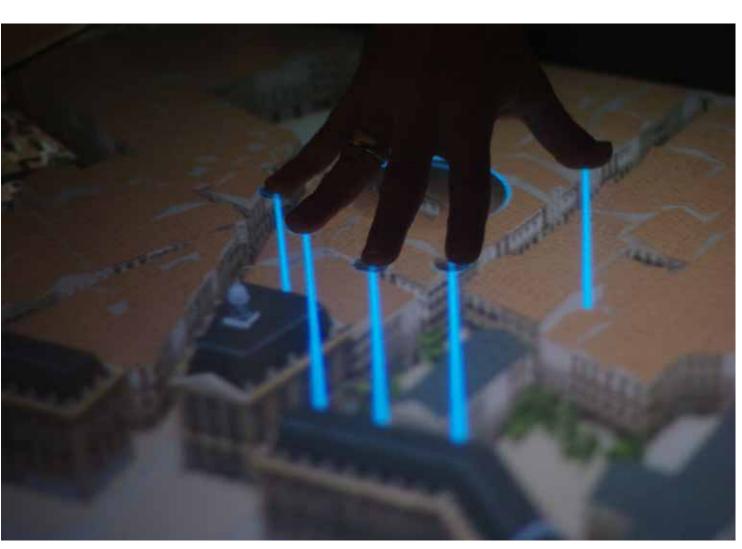
The Map Table is a revolutionnary multitouch, multiuser, stereoscopic device developed by Immersion. It allows both the 3D visualization and interaction with the geospatial environment displayed by the Explorer.

Two technologies, namely immersive 3D visualization and multitouch tactile surfaces, have been brought together for the first time to create this amazing device.

Innovation

- Multi-touch with proximity sensing
- Multi-users and collaborative visualisation
- Multi-view stereoscopic rendering
- Intuitive multitouch navigation techniques





http://vcity.diginext.fr













