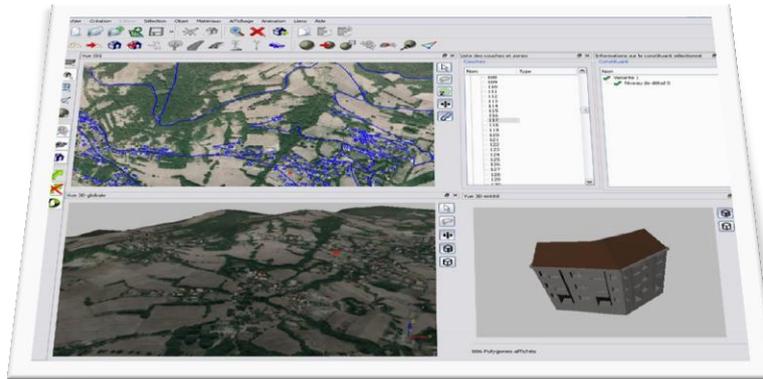


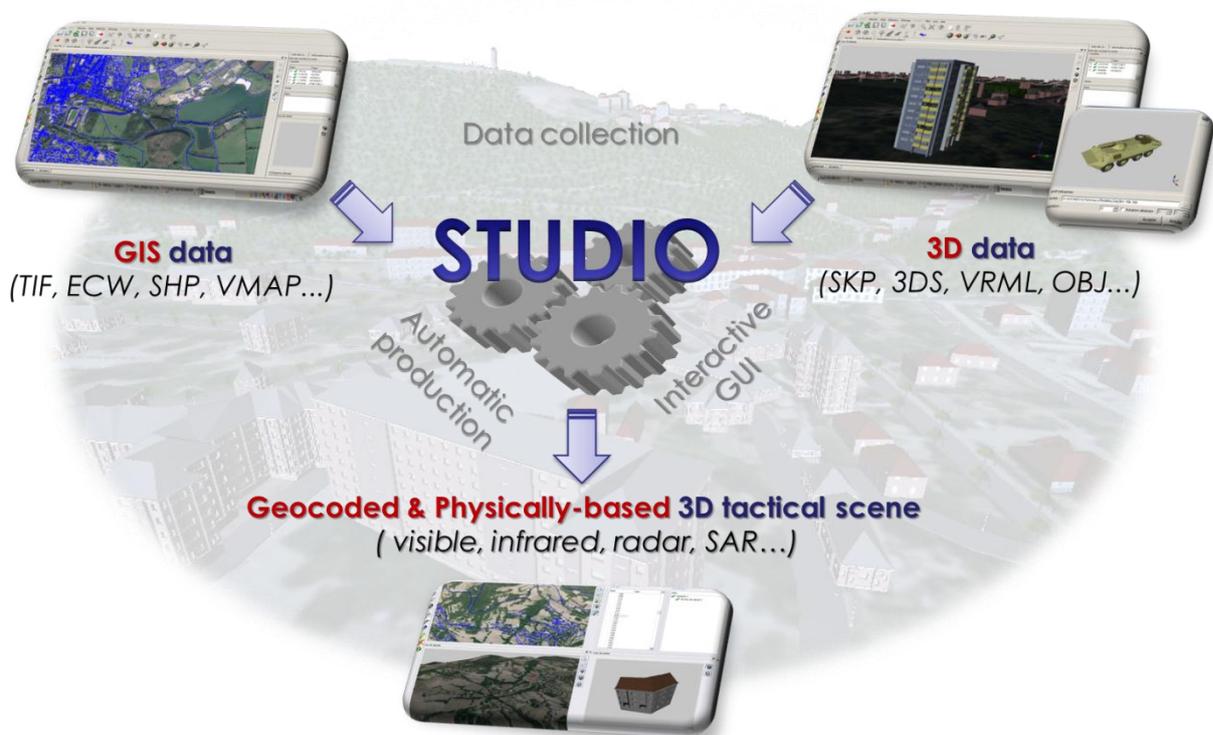
Fast and Interactive Modeling of 3D virtual scenes

Applications

Modeling of a zone of operational interest (urban area, industrial park, port, military base, etc.) in 3 dimensions is a tedious activity when the aimed application requires a particularly detailed virtual environment.



To avoid long and expensive working hours, the **STUDIO** software offers the user the capacity to create these environments within a **minimum of time**, thanks to its **innovative technology** of **automatic generation**.



Point of contact

Reynald DUMONT : Email: Reynald.Dumont@open-groupe.com ; Tel : +33 (0)2 99 12 71 71

Targeted Users

The **STUDIO** application is designed for the production of rich and realistic 3D environments by personnel unfamiliar with 3D modeling software or CAD. With **STUDIO**, the user only uses data he is familiar with (terrain, roads, buildings, etc.), and the graphical interface offers him a friendly manipulation of this data.

Organisation of data

Following the example of a **geographical information system**, **STUDIO** decomposes a scene of operational interest into several **semantic layers**:

- *Terrain.*
- *Road Network.*
- *Supply Network*
- *Buildings.*
- *Forests.*
- *Lakes.*
- *Fields.*
- *Vehicles/Targets*



For example, in order to distinguish them, the operator can consider a layer for secondary roads, another for national roads and one for motorways. The notion of variants is also available to the user; this allows design of various representations of a 3D component (for example opened or closed raising bridges, intact or destroyed buildings).

Input Data

To produce his 3D environment, the user can apply a wide variety of geographical or geometrical data in standard collectively used formats (SHP, DTED, 3DS, OBJ, VRML, SKP, FLT).

The use of cartographic data (MNT, aerial photography, vector data) allows to have a medium of production which the operator can enrich by means of ergonomic drawing functions.

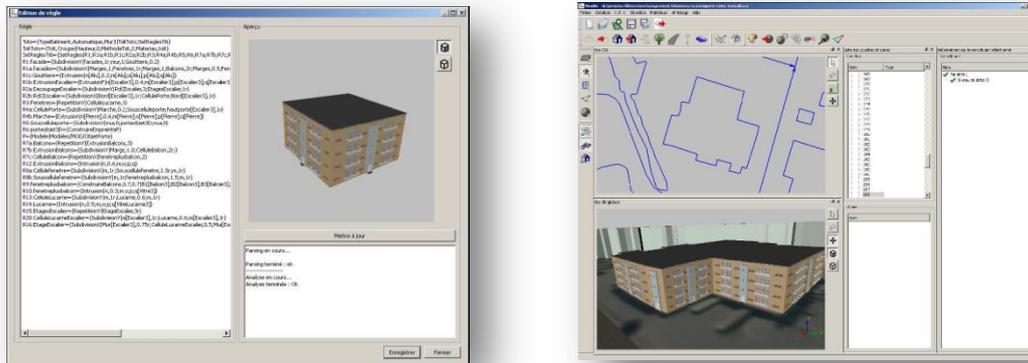
The addition and the placement of 3D models are also intuitive.

Finally, the software constantly protects the link between the geographical entry data and the associated 3D production; this facilitates the modification of the elements of scene without having to manipulate CAD features or 3D modelers.

Technology

The **STUDIO** software is equipped with automatic 3D construction functions for buildings, transport networks (roads, rivers / channels, railroads), supply networks (power lines, pipelines, telephone lines) and vegetation.

These apply the notion of grammatical scripts to produce from a simple footprint and height information, a building including doors, windows, balconies, roof, fireplaces, etc.



This technology allows to automatically produce with the maximum of details:

- Roads (containing street furniture, lampposts, vegetation, vehicles).
- Parking (containing street furniture, lampposts, vegetation, vehicles).
- Bridges (of various types with apron, piles or masts, cables...).
- Supply Networks (for example power lines with location of masts and cables, electrified lines for railroads, etc.).

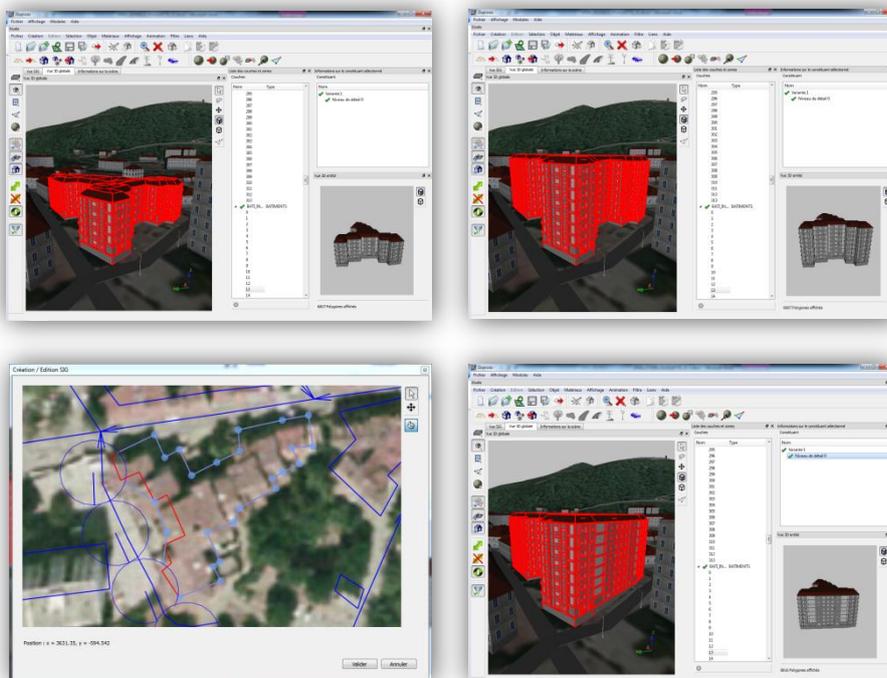


The geometry is also directly generated with the desired graphic representation (color, texture). This can be easily modified or enriched with physical information for a sensor simulation (infrared imaging, radar imaging).

Interactive and intuitive ergonomics (WYSIWYG)

The numerous technical innovations of **STUDIO** offer the user the possibility of modifying his environment by a simple mouse click. Most of the operations are accessible within only a few clicks (move, copy and paste, zoom, modification of height, ground imprints).

On the example below, a building (top left), submits the modification of its height (top right), next changes its terrain imprint (bottom left), this impacts automatically the shape of the building (bottom right).



2014 Innovation

The 3.0 version of **STUDIO** can contain an additional module called **VBS Connect** which is specifically dedicated to the export of scenes under **VBS 2**



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