

**T**\_Vision is a broad-band application research project. It provides a distributed virtual globe as a multimedia interface to visualize any kind of data related to a geographic region. The virtual globe is modeled from high-resolution spatial data and textured with high-resolution satellite images.

A T\_Vision database and real-time rendering system has been developed to handle this huge amount of data. Seamless links between different levels of detail allow continuous zooming from a global view down to recognizable features of only a few centimeters in size. The virtual globe can display many types of data, including biological, sociological, economical, and others.

This project is based on the concept of a transparent and worldwide broad-band, networked topography and surface data bank. Because it is impossible for a single location to store and maintain the huge amount of high-resolution data necessary for such a visualization application, the system automatically establishes an ATM connection to the server that provides the most up-to-date and highest-resolution data required for the current field of view (and visualization layer). These remotely accessed data are integrated unobtrusively into the user's system on the fly. A special T\_Vision user interface based on a large real globe ("earth-tracker") facilitates the user's navigation around the virtual globe, so the user has full control over which information to

view, when, and at which location.

A successful ATM T\_Vision test network between Tokyo and Berlin was established in October 1994. A third node will be added this year, in Sunnyvale, California USA.

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#### **Special Thanks**

Hans Hueber, Hero Ischibashi, Joerg Jacobs, Rolf Kruse, Uli Lipka, Dirk Luesebrink, Gert Monath, Dieter Sachse, Erick Schmitz, Andreas Schneider, Christoph Stratmann, Susi Traeger, Henrik Tramberend and the rest of ART+COM.

T\_Vision is funded by DeteBerkon, Berlin and supported by Wethernews Inc. Tokyo.

