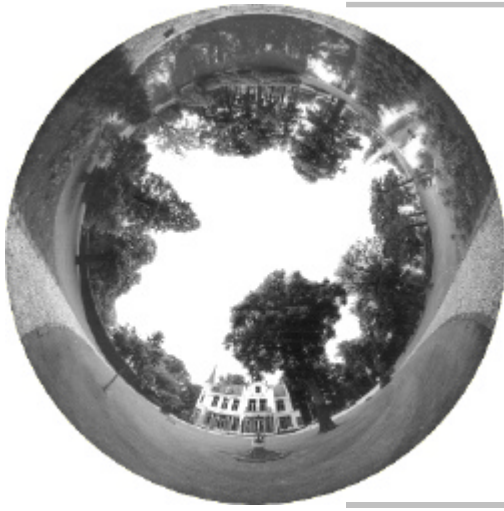


# Frank Data and CycloMedia

## General information



**CYCLOMEDIA®**

### History

At the Faculty of Geodesy of the Delft University of Technology, the idea was originally born to develop a new landsurveying method. With this method, it should be possible to execute measurements using a computer monitor, in a more efficient way than with conventional methods like photogrammetry and tacheometry.

After successful first explorations, Frank Data was established to further develop this idea in a more practical sense and develop equipment and software programs. In the meantime, the main parts of the method are patented and software programs and digital images are delivered on order to various customers.

### Frank Data

Frank Data is a company that is specialized in the fast and efficient production of digital images of an extraordinary nature, the so-called Cycloramas.

**Cycloramas** are digital panoramic images with a horizontal field of view of 360° and a vertical field of view from 30° below up to 60° above the horizon.

**CycloMedia** is the brand name of the Frank Data products on the market.

The Cycloramas are especially used in the professional field for geographic and landsurveying purposes for management and design activities. Moreover, applications are found in the private market like tourist information systems.

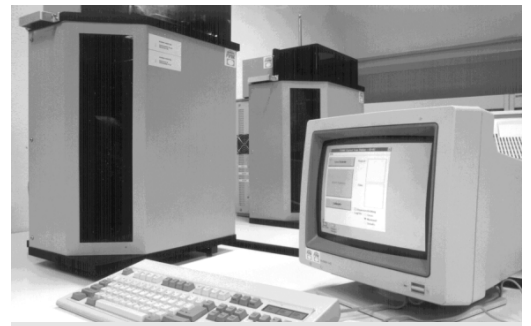
### Cyclorama production

For the production of Cycloramas, cars equipped with a fisheye camera are utilized. With the aid of a computer the position and direction of each picture is registered. Depending on the clients' requirements the shooting interval is defined. This can vary for each application. Subsequently the fisheye recordings are made with the required interval. Every picture records the entire environment around



*Recording vehicle (CycloMedia Recorder)*

a specific position. Thus, an image database is set up with which objects in the environment can be observed from various positions. With this unique data collection technique, about 600 pictures per day can be made. This corresponds with 8 to 16 km road lengths, depending on the application.



*Rotating scanner system (CycloMedia Scanner)*

After development the films are digitized and panoramized in order to change from a fisheye to a panoramic perspective. A scan resolution of 5 micron is used for this fully automated process.

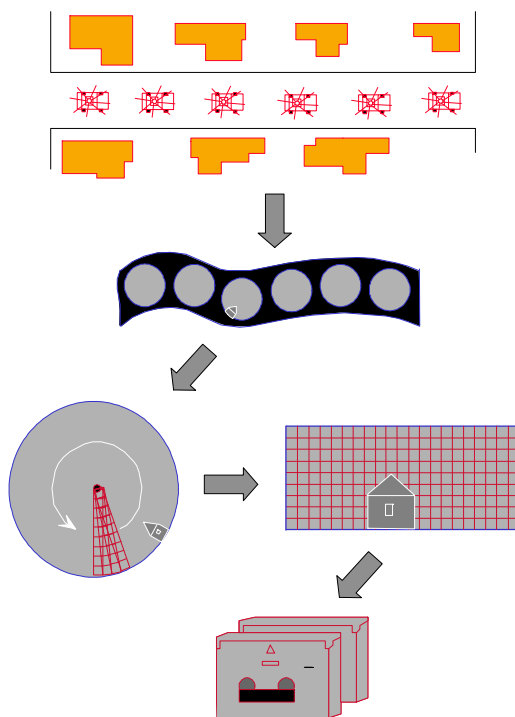
The application the client has in mind is important in this respect, as it is also possible to scan the pictures in a lower resolution. Thus, Cycloramas can be produced from 3 to 88 MB (uncompressed).

The digital panoramic images are delivered to the client on DAT-cassette or CD-ROM. The client can install the Cycloramas with the aid of accompanying software, which also allows compression of the data.





*Frank Data  
is a supplier of optical  
data and systems.  
The developed systems  
are applied in the  
professional market  
for geographics  
and landsurveying  
applications.*



*Production scheme Cycloramas*

## Cycloramas on demand

The facility branch of Frank Data ensures in-time delivery of Cycloramas, made on the required location with the required accuracy and quality. The client only has to define the area, the shooting interval and the application. Frank Data takes care of the ready-to-use end product.

It is also possible to have Cycloramas produced from difficult attainable locations (for example inside buildings or from a boat).

## Research & Development

Frank Data is constantly occupied with Research and Development to improve and extend the usage possibilities of Cycloramas. Thus the usage possibilities of your panoramic images are enlarged and you will be able to use your image files increasingly.

Free of charge software is available to look around in your Cycloramas 360° and for example zoom in and out. In addition, for the use of Cycloramas in (GIS-) programs you apply Frank Data can be of advice to you.

## Application of Cycloramas

The usage possibilities of Cycloramas are numerous. These applications are available as separate plug-in modules, and are described in disparate leaflets under the brand name CycloMedia.

The applications can be divided into two types:

### *Consultation*

In general the lower resolution Cycloramas are used for this purpose in order to visualize objects and their environment.

With specially developed software, these panoramic images can also be used for the positioning of objects and for the projection of new designs.

For consultancy purposes, no high demands are made upon your computer.

### *Measuring*

For this purpose high resolution Cycloramas are used in order to execute measurements more accurate than 5 cm. This application is used for 2D and 3D measurements and for the updating of digital maps.



**For more information  
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