

# DMPS

## Digital Mapping Production Services

LARGE SCALE OPERATIONAL SERVICES DEDICATED TO THE PRODUCTION OF HIGH ACCURACY/HIGH QUALITY 2D AND 3D DIGITAL MAPPING INFORMATION

**Digital Mapping  
Production Services  
has been developed by  
THALES Communications  
to provide a global  
management of image map  
and 3D data production.**

- **Data specifications**, end-user and application requirements.
- **Data provision**, management of available civil and military sources.
- **Production process management**, data production centers, sub-contractors and processes.
- **Maps** by processing, updating and formatting existing maps vector databases.
- **Orthoimages** from any kind of earth observation images.
- **DTM and DEM** from various sensors, stereoscopic images, interferometric couples or digital maps.
- **Vectorial layers**, (for example VMAP) obtained by map digitizing, image interpretation or import (DFAD...).
- **Spacemaps**, from images as main source data.
- **Combined data**, space maps and superimposed vectorial layers.
- **3D databases and target models**, from images with stereoscopic properties.
- **Quality**, guarantee of results and data certification within the required time.



## PROCESSING TOOLS

■ GEOMETRIC AND RADIOMETRIC PROCESSING OF IMAGES AND IMAGE SEGMENTS COLLECTED BY ALL EXISTING SENSORS,

■ GEOMETRIC AND COLORIMETRIC PROCESSING OF RASTER MAPS,

■ THE MULTISENSOR GEOMETRIC FUSION TOOL offers a large array of functions that can be applied to the block decomposition specific to any geographic project:

- selection of ground control points,
- manual or automatic selection of tie points (by hierarchical correlation),
- parametric estimation of models or points,
- cartographic projection transformations,
- map and image rectification.



■ THE RADIOMETRIC FUSION TOOL allows:

- radiometric edition of images,
- maps colorimetric processing,
- automatic mosaicking with radiometric equalizing, optimal split line determination, manual post-edition,
- mixing of multispectral sensor channels with various methods.

## DIGITAL TERRAIN DATA GENERATION



- computation of DTM/DEM either by automatic correlation of stereoscopic images or by interactive selection of elevation lines,
- elevation curves issued from digitized map allow a dense DTM/DEM interpolation.

## VECTOR DATA EDITION



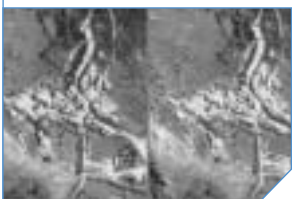
■ extraction of vectorial layers from maps or orthoimages, (the data model e.g. topological data like VMAP, is added to the graphic drawing).

## PROJECT DATA MANAGEMENT



- image data provision management, civil and military sources,
- planning and control of the geographic production project data,
- archiving of data in a worldwide database,
- organization of the data according to the specific project structure,
- query at any time of on-line or off-line data catalogue.

## 3D OBJECT EXTRACTION



- accurate extraction of the geometry of 3D objects from several stereoscopic images,
- computer aided and interactive extraction of objects, by edition of volume features,
- stereoscopic display of source images and perspective viewing of synthesized images,
- objects positioning aid,
- ground points location aid,
- projection of objects on the ground,
- texture mapping,
- management function enabling the permanent storage of extracted objects in a database,
- export of database under standard formats (VRML...).

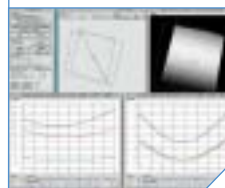
## PRODUCTION PROCESS MANAGEMENT



■ management of one or several centers/sub-contractors and processes at the same time:

- Work planning,
- Control,
- Follow-up production assessment.

## QUALITY CONTROL



- production quality control at every step of the process,
- syntactic, semantic geometric and radiometric checks,
- data certification.