

Task Group: Survey of architecture and culture heritage by Photo-tacheometry

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Target Audience

Heritage recorders and conservation professionals interested in RecorDIM activities.

SURVEY OF ARCHITECTURE AND CULTURAL HERITAGE BY PHOTO-TACHEOMETRY

Formal definition of photo-tacheometry

Photo-tacheometry is a new fast method to get geometry and/or photorealistic texture about features (e.g. monuments and buildings) for visualization in one step, on site, and at a relative low cost with a high degree of automation. In general, the object's coordinates are derived from a total station, defining regular shapes (i.e. planes, cylinders), and textures are derived from oriented pictures. It is above all an excellent tool to capture mostly regular shaped architecture (indoors and outdoors).

Needs

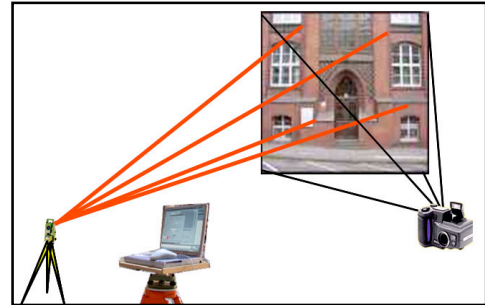
- Tools to enable cost-benefit surveying for the documentation and graphical analyses of cultural heritage and architecture.
- Encourage users to make use of off-the-self technology.
- Aware providers to availability of off-the-self technology in surveying.
- Deliver graphical information on the web.

Target Audience

Professionals (users and providers) dealing with the documentation of cultural heritage and architecture.

Purpose and Objectives

Fast and complete surveying of surfaces and interiors of buildings as well as regular shapes by means of photo-tacheometry.



The main objectives are:

- To aware users and providers of the capability of simple photo-surveying technology for the reconstruction of interior and exterior buildings, monuments and small sites.
- To analyse pros and cons of photo-tacheometry technology when compared to stand-alone surveying, photogrammetry and laser scanning technology.
- To train users for the auto-surveying of cultural heritage by means of state-of-the-art reflectorless (traditional and motorized) total stations and digital imagery.
- To open markets for new surveying techniques concerning regular objects.

Deliverables

- Guidelines for proper use of photo-tacheometry in documenting cultural heritage and modern architecture.
- Case study for the digital image surveying of e.g. modern art museums.
- All the information will be available on the RecorDIM web page.
- Software for photo-tacheometry
- To quickly create virtual models to be placed into the internet for active use.

Seeking help

Private and governmental organizations (for example museums and art galleries) trying to publish their collections and/or buildings on the web. Those organizations interested in this Task Group are asked to cover costs for case studies.