

Japanese domestic standards for surveying data

Each computer aided surveying systems in Japan has its own data structure and format, which has caused difficulties in data exchange between different systems. In order to assure smooth data exchange among computer systems of various surveying equipment manufacturers in Japan, the Japan Surveying Instruments Manufacturers Association (JSIMA) determined several exchange formats for surveying data as follows.

1. SIMA format

SIMA format is a common format between different surveying CAD systems, determined by JSIMA. The latest version .04 was revised in August 2006, and includes data formats for coordinates, alignment, lot, longitudinal profile, cross sectioning and profile leveling.

2. APA-SIMA format

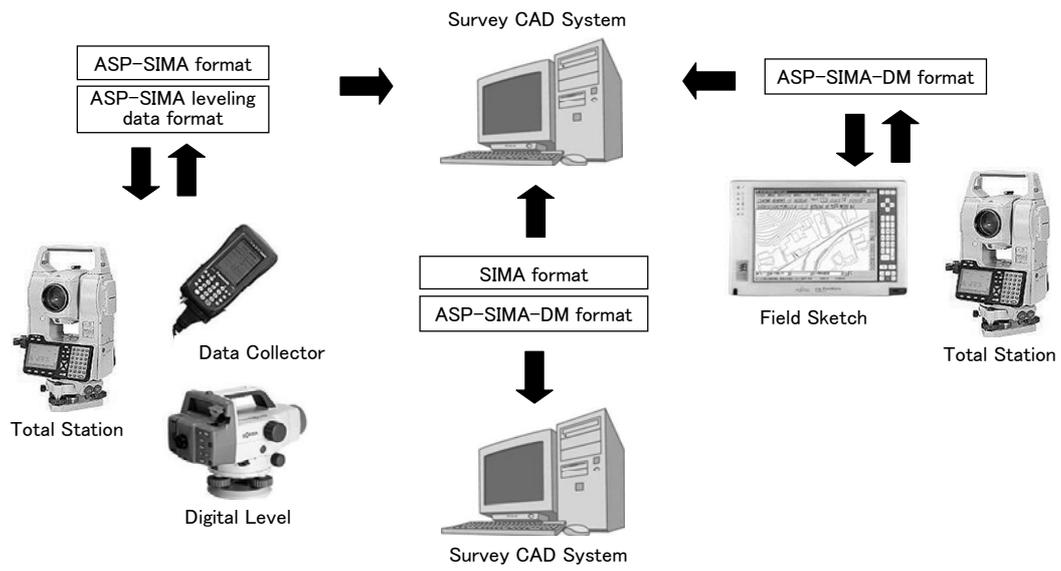
APA-SIMA format is a common format and communication protocol between surveying equipment on site and surveying CAD system at office, determined by the Association of Precise Survey & Applied Technology (APA) and transferred to in 1999 and maintained by JSIMA. The latest version .02 was revised in June 2000, and covers coordinates and original observed data.

3. APA-SIMA leveling data format

APA-SIMA leveling data format is a common output format of data collector for level, determined by JSIMA and authorized by APA in 2002. The latest version is .01.

4. JSP-SIMA-DM format

APA-SIMA-DM format is a common format for total station (TS) based topographic map data, proposed by the Japan Federation of Survey and Planning Association (JSP) and determined by JSIMA. The format is mostly in conformity to DM and extended DM format, the standard digital mapping format for public survey specification of the Ministry of Land, Infrastructure and Transport. The major difference between JSP-SIMA-DM format and DM format is that files in DM are divided into map sheets, while JSP-SIMA-DM does not assume map sheets and can treat whole data seamless as one file.



Functional Diagram of SIMA formats

* refer to URL : <http://www.jsima.or.jp/jsima.html>