



ICE

Integrated Cartographic Environment



ICE

ICE is a template-based system to produce and manage ICAO Annex 4 and tailored aeronautical charts in a geographic information system (GIS) environment. It ensures control over the processes involved in the production and maintenance of aeronautical charts and provides a high level of automation to significantly reduce production time and costs.

ICE can insert, extract and update all of the aeronautical feature data and chart templates that are needed to generate new charts and update existing charts for each Aeronautical Information Regulation and Control (AIRAC) cycle. It is fully integrated with IDS AirNav's PLX workflow management system and maintains a live connection with the centralized aeronautical database and other geographical data sources.

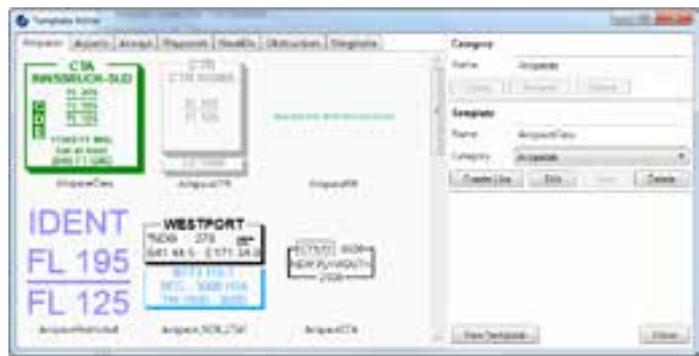
By default, ICE includes a database and a predefined set of rules (chart templates) which allow the immediate production of ICAO compatible charts. ICE allows the rule sets to be edited in order to configure new chart templates.

This flexibility enables a chart producer to meet their evolving requirements as ICAO, EUROCONTROL and ARINC continue to enhance the concept of a default aeronautical database.

Features and Characteristics

The main features of ICE are as follows:

- Automated production and maintenance of ICAO Annex 4 aeronautical charts;
- Fully integrated with IDS AirNav's PLX workflow management system;
- Data change reports;
- Complex chart layout definition;
- Rule driven definition of chart symbology and labeling;
- Powerful label template editor which allows the label specifications to be designed (using boxes, text, symbols)
- Chart editor functionalities (label editing, masking....) which allow the charts to be cleaned-up in order to produce a finished output ready for publishing/printing purposes.



Label specification editor

Benefits

- Live database connection guarantees data quality;
- Fully integrated with IDS AirNav's PLX workflow management system;
- ICE is able to identify which charts need to be updated following the change of an attribute value in one of the connected databases;
- Generates reports on chart changes in both tabular and graphical formats enabling easy visualization of any chart changes;
- Chart layout definition allows the definition of both static and dynamic information (dynamic legends, dynamic lists of features, etc.);

- Rule driven definition of chart symbology and labeling allows the cartographer to define a set of rules (using a preview of the final output) which indicate which data needs to be symbolized and the proper ICAO compliant symbolization to be used;
- Label placement deconfliction tools ensure that labels do not overlap and reduce the time required to clean up the charts;
- Time saving: the system remembers the manual clean up performed by the cartographer in previous chart production.

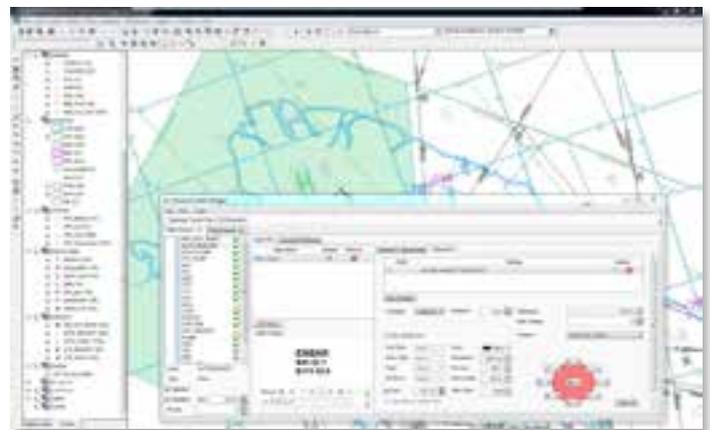


Chart design with label rules definition

Chart Update Workflow

ICE is designed to reduce the time spent creating new charts and amending existing charts and to grant a high level of control during the chart production process following the AIRAC cycle.

The typical chart update methodology is:

- The user inserts all the new or changed aeronautical features into the database;
- The system recognizes all the charts that need to be updated due to the data changes;
- The user has only to perform some simple clean up to make the charts ready for publishing. The results of this clean-up are stored thus reducing the amount of clean up required the next time the modified chart is produced;
- Charts can then be printed without the need for further pre-print work.