

# ICE

## Integrated Cartographic Environment

### » Automated Aeronautical Charts Production

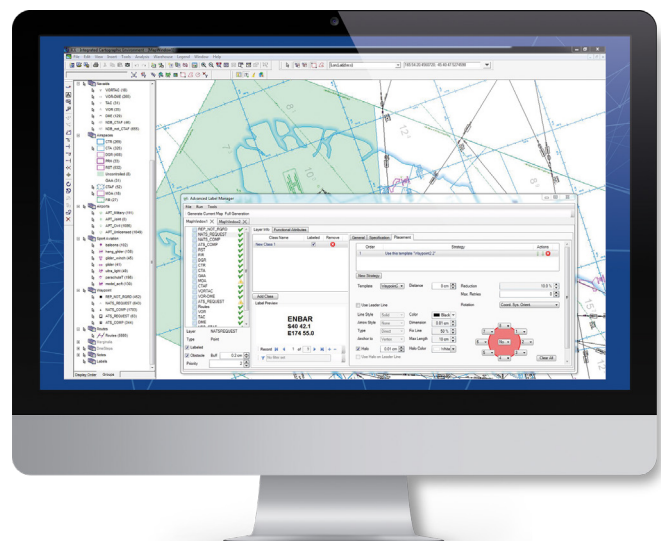
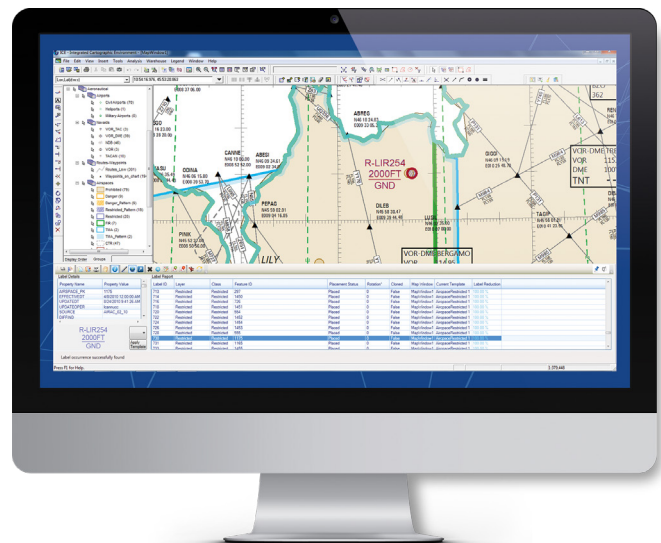
An automated template-based system to create and maintain aeronautical charts in a GIS environment

ICE is the new Aeronautical Charting product based on a GIS Environment developed by IDS and integrated with the IDS AeroDB Suite (IAS). ICE provides a template-based system to produce and manage Charts defined by the ICAO Annex 4 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 is able to 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's IAS 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 Template) that allows the immediate production of ICAO-compatible charts. ICE provides the capability to edit the predefined set of rules in order to configure a new Chart Template. This template can then be used to generate further charts in the same format, as required.

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.

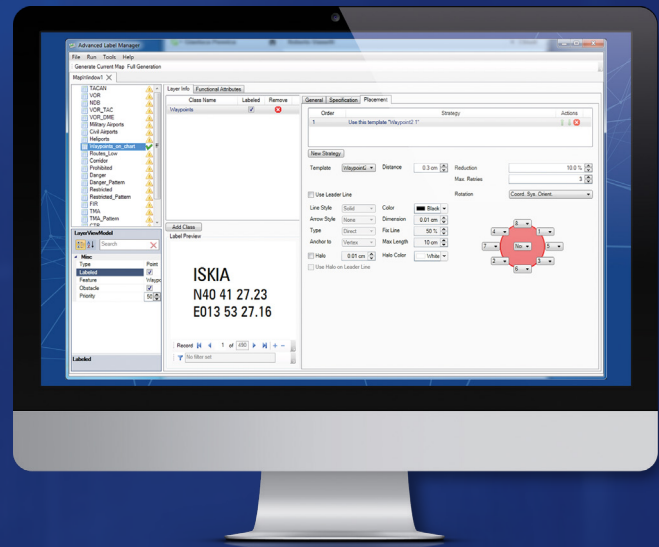


## ICE Integrated Cartographic Environment

### 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's IAS PLX workflow management system.
- Reporting of the data changes
- Complex chart Layout definition
- Rule driven definition of chart symbology and labeling
- Powerful Label Template editor that allows to design the specification of the Label (using boxes, texts, symbols)
- Chart editor functionalities (Label editing, masking...) that allows to clean-up the chart in order to produce the output ready for the publishing/printing purposes.
- What You See Is What You Get (WYSIWYG)



### Benefits:

- The Live connection to the database guarantees the data quality.
- Fully integrated with IDS's IAS PLX workflow management system.
- ICE is able to identify which charts need to be updated following a 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 allowing 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 (having the preview of which the final output would be) that indicates which data needs to be symbolized and the proper ICAO compliant symbolization
- 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 the previous chart production.

### 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.