TOWARDS MRDB IN PRODUCTION AND UPDATING OF DLM/DCM

Hüseyin ÇELİK, Özlem SIMAV
HGK, Harita Genel Komutanlığı-General Command of Mapping
Cartography Department, Cebeci TR06100 Ankara, TURKEY

www.hgk.msb.gov.tr
Overview

➢ HGK Topographic (DLM) /Cartographic (DCM) Database : The Current Situation

➢ Our plans for MRDB?
Current Situation

HGK Photogrammetric Production

HGK Land Completion

DLM₁
TOPO25

SEMI-AUTOMATIC GENERALIZATION

KartoGEN

DCM₁
25K
KARTO25

SEMI-AUTOMATIC GENERALIZATION

DCM₂
50K
KARTO50

MANUAL GENERALIZATION

DCM₃
100K
KARTO100

DCM₄
250K
JOG250

DCM₅
500K
JOG500

HGK Land Completion

Photogrammetric Production

KartoGEN

✓ Created as an extension in ESRI ArcMap application
✓ Components are created in ESRI ArcObjects architecture which is based on .NET technology
✓ The process includes cartographic oriented generalization
✓ Parameters for controlling the process are stored into separate control database tables
Current Situation

✓ A seamless DLM.

✓ There is no connection between the following databases

✓ The products are not connected to the main database.

✓ Separate update cycles for each separate model.

✓ We have to wait one model being updated to proceed another
Due to the unavailable design of the current DLM (TOPO25) and the different updating cycle of each database, the implementation of MRDB in the production process was not considered so far.

However; rising demands for updated data in multi scales and for multi purposes, it is now broadly considered.

To meet these requirements the MRDB is a good solution and it can be offer us better management of updating and better optimization of generalization processes.
What we plan?

HGK Data

DLM
HGK
TOPO25

Supplementary
Data

DCM3
100K
KARTO 100

DCM1
25K
KARTO 25

DCM2
50K
KARTO 50

DCM4
250K
KARTO250

DCM5
500K
KARTO 500

DLM1
25K
TOPO25

DLM2
50K
TOPO 50

DLM3
100K
TOPO 100

DLM4
250K
TOPO 250

DLM5
500K
TOPO 500

CARTOGRAPHIC GENERALIZATION

MODEL GENERALIZATION

SEMI-AUTOMATIC
MODEL GENERALIZATION

CARTOGRAPHIC GENERALIZATION
What we plan?

• To modernize our production system by designing efficient and flexible primary database

• To use unique IDs to perform the matching process.

• To automatically derive secondary databases from our core database by using model generalization techniques.

• To obtain final product (DCM) by cartographically editing and generalizing the relevant DLM.
What we plan?

• To keep consistency across our product while we are incrementally updating them

• To define the update cycle and strategy (feature by feature? or sheet by sheet?)

• To realize our plan we will mainly use;
  • ORACLE for database management
  • ESRI products for generalization and cartographic editing
Thanks for your attention...😊

ozlem.simav@hkg.msb.gov.tr

2nd ICA/EuroSDR NMA Symposium
3-4 December 2015, Kadaster, Amsterdam