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Report on ECDIS Development in Middle-Europe

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In Mai 2001 the international Central Commission for shipping on the river Rhine (ZKR), the international Donau Commission (DK) and the European Commission for Economy of the United Nations (UN/ECE) adopted the

„Standard System for electronic display for charts of inland waterways and related information“
the so called
INLAND ECDIS Standard.

Inland ECDIS make use of the standards of the maritime ECDIS and add specific features for inland waterways charting and navigation if needed:

The standard consists of five parts:

- Part 1 „Performance standard“ – adapted to the IMO-ECDIS Performance Standard A.817(19).
- Part 2 „Data standard“ - supplements IHO S-57.
- Part 3 „Display standard“ – supplements IHO S-52.
- Part 4 „Performance standards, methods of testing and results“ – adapted to IEC 61174.
- Part 5 „Glossary“ adapted to IHO S-52, Appendix 3.

Supplementary features of Inland ECDIS compared to maritime ECDIS:

- specific objects for inland waterways, e.g. traffic signs
- graphical presentation of those specific objects and their information attached to.
- graphical representation of traffic signs assigned to bridges in order to show bridge orientation;
- Two new operation modes:
 - “Navigation mode” and „Information mode” instead of
 - „Route Monitoring” and „Route Planning” of the maritime ECDIS.

The actual Edition 1.01 of the Inland ECDIS, issued November 2001 contains:

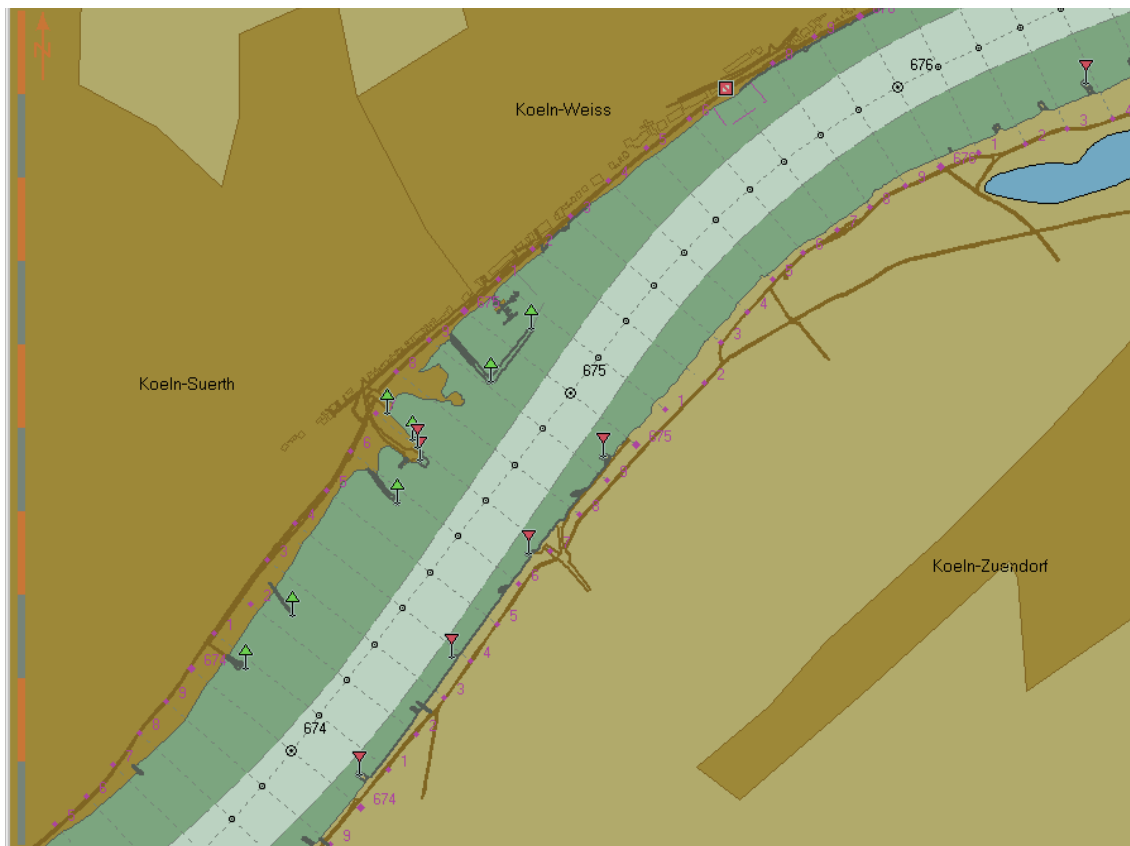
- Wording of all five parts in English, German, French, and Dutch language;
- Expanded Object catalogue and expanded Presentation Library in digital form;
- Legend of symbology;
- Digital Inland Chart 1 together with display software;
- Test data set of Inland ENC.

Die Edition 1.01 is available for download under www.ccr-zkr.org and

distributed on CD from Zentralkommission für die Rheinschifffahrt, Sekretariat, 2 Place de la République, F-67082 Strasbourg Cedex, France on request.

Compatibility of Inland ECDIS with maritime ECDIS

Due to the commonalities of the IMO, IHO and River Rhine Commission standards a Maritime ECDIS is basically able to be operated as Inland ECDIS. It does only need a software enhancement containing processing capabilities for the specific inland waterways objects and their visualisation.

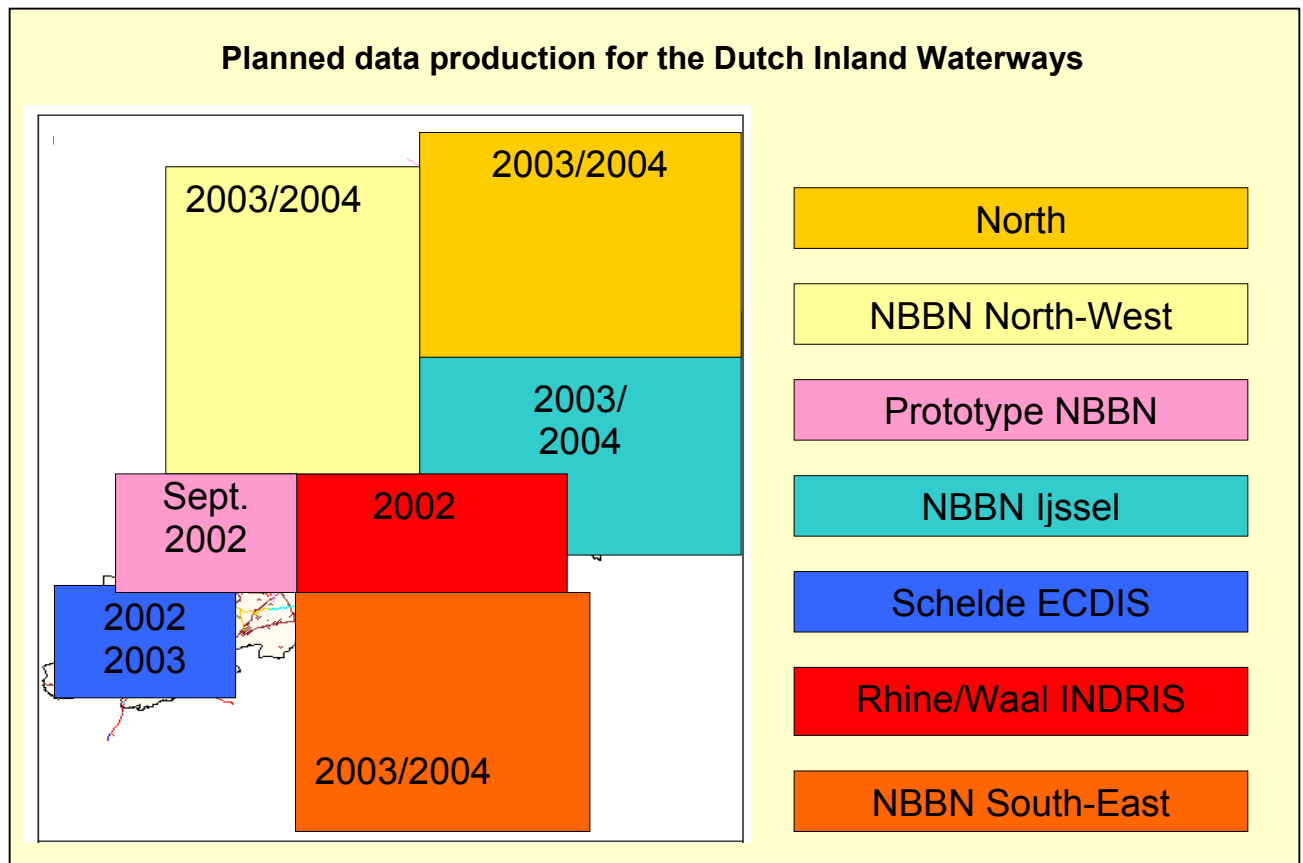


Inland ECDIS in Information mode (River Rhine near Cologne)

Actual and planned data coverage

Netherlands

The Dutch inland waterway administration currently develops strategies and the technical infrastructures for data production, certification and distribution covering the Dutch inland waterways completely. The finalisation of the project is scheduled for the end of 2003. The production of the first Inland ENC's has begun already.



Germany

Current and planned data production for German inland waterways:

Inland waterway	from		to		Scheduled year of publication
	km	Destination	Km	Destination	
Rhein	332	Iffezheim	865	Emmerich	2002 *)
Main	0	Mainz	57	Hanau	2002 *)
Main	57	Hanau		Bamberg	2002
Main-Donau-Kanal	0	Bamberg	171	Kelheim	2002
Donau	2415	Kelheim	2201	Jochenstein	2002 *)
Neckar	0	Mannheim	201	Plochingen	2003
Mosel	0	Koblenz	206	Sauermündung	2004
Weser	224	Windheim	250	Landesbergen	2003
Elbe	200	Elstermündung	291	Saalemündung	2003

*) These data are already available

Inland ENC distribution by the following companies:

- Fa. SevenCs Chartworld (www.chartworld.de)
- Fa. Tresco Navigation Systems (www.tresconavigationsystems.be)
- Fa. C-MAP (www.c-map.no)

Updates and actual changes are provided via internet. (www.elwis.de)

For specific narrow river parts depth information will be produced frequently and provided as updates for the particular Inland ENCs.

River Rhine in Switzerland

Data production for the navigable part of the river Rhine is planned.

River Donau in Austria

Full coverage with Inland ENCs plus regular updates are available for free download under www.via-donau.org.

France

French administration plans to produce Inland ENC data for the River Seine between Paris and Rouen until the End of 2002 by conversion and completion of existing digital data.

Contact persons at local inland waterways administration for Inland ECDIS purposes

Netherlands: Nienke S. Bagchus-Winkel, Rijkswaterstaat, Adviesdienst Verkeer en Vervoer, Afdeling Scheepvaart (IBN), Boompjes 200, Postbus 1031, NL-3000 BA Rotterdam; Tel: +31 (0) 10 282 59 23, Fax: +31 (0) 10 282 56 45. E-mail: n.s.bagchus@avv.rws.minvenw.nl

Germany: Claudia Oberheim, Wasser- und Schifffahrtsdirektion Südwest, Brucknerstr. 2, D-55127 Mainz; Tel: +49 (0)6131 979 290, Fax:+49 6131 979 152, E-mail: c.oberheim@wsd-sw.wsv.de.

Belgium: Piet Creemers, Ministerie van de Vlaamse Gemeenschap, Vlaamse Nautische Autoriteit, RIS-Vlaanderen-Evergem, (Rivier Informatie Service), Westbekesluis 26, B-9940 Evergem, Tel: +33 (0)9-253 94 71, Fax: +33 (0)9-253 56 64, E-mail: piet.creemers@lin.vlaanderen.be

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Austria: Bernd Birkhuber, Bundesministerium für Verkehr, Innovation und Technologie, Oberste Schifffahrtsbehörde, Radetzkystrasse 2, A-1030 WIEN, Tel.: +43 (0) 1 71162-5902, Fax: +43 (0) 1 71162-5999, e-mail: bernd.birkhuber@bmvit.gv.at

List of known manufacturers of Inland ECDIS

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Stammheimer Str. 10
D-70806 Kornwestheim
Deutschland
Tel: +49 (0)7154 / 827 100
Fax: +49 (0)7154 / 827 104
www.innovative-navigation.de

Tresco Navigation Systems
Sint Willebrordusstraat 30
B-2990 Wuustwezel
Belgien
www.tresconavigationsystems.com

SevenCs
Entwicklungsgesellschaft für Geo-Informatik mbH,
Ruhrstraße 90,
D-22761 Hamburg
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Fax: +49 (0) 40 851 54 40
www.sevencs.de

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