

Paper for Consideration by TSMAD and DIPWG

S-101 Support Files

Submitted by:	S-101 Work Item Leader
Executive Summary:	This paper is to review the Phase 2 support file functions
Related Documents:	S-101 Product Specification
Related Projects:	UKHO support file paper

Introduction / Background

1. As part of the development process for S-101, it was determined that the S-101 support file and management set will be reviewed in phase two of the project. This paper examines the existing content for support files and seeks TSMAD and DIPWG discussion on the existing content and discussion regarding how support files must be managed.

Analysis/Discussion

2. Currently the information regarding Support files in S-101 was last discussed at TSAMD20/DIPWG2. Progress was made in specifying the types of support files that can be used and the naming convention.
3. At TSMAD18/DIPWG1 the UKHO submitted a paper regarding support files. Support files were also discussed at TSMAD 20/DIPWG 2 and the resulting action was for the S-101 Work Item Leader to resubmit this paper for the next joint meeting. This will form the starting point for discussion on support file management, specifically clause 6.2 and clause 7. This paper is located as an annex to this discussion paper.
4. In addition, TSMAD needs to discuss how support files will be managed in S-101.
5. As noted in the UKHO paper regarding S-57 Support File management "Data servers were unable to provide any additional information pertaining to these files and there was no guidance given as to how these should be managed in an ECDIS. Manufacturers were very much left to decide for themselves how this was done. Experience has shown that these methods are wide and varied and range from the use of complex algorithms to just copying all external files to disc."
6. The support file metadata will be discussed via the metadata paper submitted at TSMAD 23. In its paper the UKHO has offered the following solution to support file management and storage on the ECDIS.

File Management

When a support file is created or a subsequent version issued it will carry an issue date and a CRC value calculated on the content. These values will held in the relevant fields within the "SupportFileDiscoveryMetadata" record and must not change while the file is still current³.

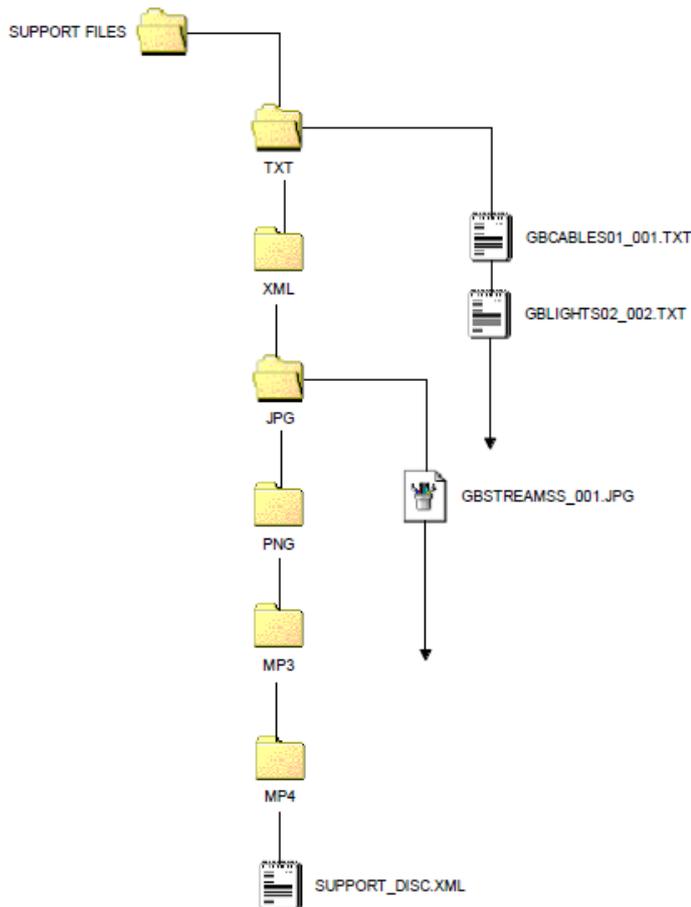
The type of a support file is indicated in the "status" field, i.e. new file, new version of an existing file or cancelled. Support files carrying the "Cancelled" flag can be removed from the ECDIS. Data Servers must ensure that the support file record is retained in the "SupportFileDiscoveryMetadata" file for a sufficient period⁴. This is to ensure that the cancellation message is available to an ECDIS that is not subject weekly updating, e.g. vessels at sea, in refit, etc.

QUESTION for TSMAD: Does TSMAD agree in principle to the following support file management methodology
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7. In addition, the UKHO has offered the following solution to support file locations:

The "SupportFileDiscoveryMetadata" files will be stored in a location specified by the pathname field [filePath] defined in the Catalogue.xsd file. The "filePath" field in the "SupportFileDiscoveryMetadata" record identifies the actual location of the support file on the exchange set.

In instances where the exchange set is formatted with a hierarchal folder structure it would be preferable to have dedicated directory for support files. There would then be sub directories for the specific types of support file. The diagram across seeks to illustrate this.



For the purposes of integrated ENC services where the exchange set may include ENCs from a number of different countries, the "Support File" directory could be located at the country level. This would mean that each country's support files would be held separately.

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April 2009

Example of a possible Folder/File Structure

QUESTION for TSMAD: Does TSMAD agree in principle to the following support file location methodology

Recommendations

8. TSMAD discuss the two question posed by the UKHO paper and use this as a basis for S-101 support file management
9. TSMAD develop support file encoding rules to assist in the management of support files. For example do we want a separate support file for each ENC, especially when that information is duplicated across multiple ENCs or use one support file for multiple ENCs?

Action Required of TSMAD and DIPWG

The TSMAD and DIPWG is invited to:

- a. discuss support file management in S-101 based on the ideas from the UKHO and include the proposed methodology into S-101.