Laser-Scan Ltd.

DTMCONVERT DTED - Acceptance Tests

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"DTMCONVERT DTED Acceptance" Category: Acceptance Tests

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1 Introduction

This document describes the acceptance test procedure for the Laser-Scan Package DTMCONVERT DTED.

DTMCONVERT DTED consists of three utilities to allow transfer of data between a DTED magnetic tape format and Laser-Scan DTI and IFF disk formats.

Note that Laser-Scan reserve the right to make minor modifications to this acceptance procedure to match their policy of continued software development.

2 Overview

For the purpose of acceptance, two initial disk files will be supplied:

(a) A disk file in Laser-Scan DTI format, containing DTED elevation data.

(b) A disk file in Laser-Scan IFF format, containing DTED Header (DSI) and Accuracy (ACC) data.

During the acceptance procedure, these initial files will be read and merged using the DTMCONVERT module DTEDIFF. This source DTI file is then converted to DTED offline format on magtape, using DTMCONVERT module DTI2DTED.

The resultant DTED tape will then be read back to a second disk DTI file using DTED2DTI. The matrix data in the resultant DTI file will then be compared with the source DTI data using the DTICOMBINE utility of the MATRIX package.

The utility DTEDIFF will be used again to extract the ACC accuracy subregion and header information from the resultant DTI file into an IFF file. This file is compared with the initial IFF file using the IDIFFERENCE utility of the IMP package.

Acceptance will be performed using a supplied DCL command procedure to invoke the required modules.

3 Preparing for the Acceptance Tests

Check that the Laser-Scan-supplied package initialisation command file LSL$COM:DTMCONVERTINI.COM has been invoked. This has probably been done automatically on your behalf at login time. A good check is to use the DCL command:

```
$ SHOW SYMBOL DTI2DTED
```

to verify that the DCL symbol DTI2DTED exists and points to the program image file of a main DTMCONVERT module "LSL$EXE:DTI2DTED.EXE". If symbol DTI2DTED is not defined then invoke the package initialisation command file by giving the DCL command:

```
$ @LSL$COM:DTMCONVERTINI
```

then repeat the check for the existence of DCL symbol DTI2DTED.

Use the DCL SHOW LOGICAL command to ensure that logical name LSL$DTI points to a suitable working directory to receive the acceptance test DTI files. If not, then use the the DCL DEFINE command to set LSL$DTI appropriately.

Use the DCL SHOW LOGICAL command to ensure that logical name LSL$IF points to a suitable working directory to receive the acceptance test IFF files. If not, then use the SI utility to set LSL$IF appropriately.

The acceptance test command procedure will check for the existence of the required acceptance test data files in their usual directory on the Laser-Scan software distribution directory tree. It will set up a logical name LSL$DTMCONVERT_ACCEPT to point to this directory. It will also copy the initial DTI data file into the working directory pointed at by LSL$DTI, and the initial IFF data file into the working directory pointed at by LSL$IF.

4 **Invoking the Acceptance Tests**

Invoke the acceptance test command procedure by giving the DCL command

```
$ @LSL$COM:DTMCONVERT_ACCEPT
```

5 **Description of Acceptance Procedure**

The acceptance procedure will ask for the device name of a magtape drive to be used. The device name must be given, including the final ":". A scratch magtape must be available on this device, without write protection. Do not mount or allocate this device in advance.

The acceptance procedure will copy the initial DTI and IFF files containing DTED elevation data to working directories. This checks the validity of the software environment including logical names. Note the messages from the DCL COPY utility indicating successful copy.

Pass [ ]/Fail [ ]

Phase 1: The DTMCONVERT module DTEDIFF will be used to extract the ACC accuracy subregion and header information from the initial IFF file and merge it into the source DTI file. Observe the messages from DTEDIFF showing progress and successful completion.

Pass [ ]/Fail [ ]

Phase 2: The DTMCONVERT module DTI2DTED will then be used to convert the source DTI file to a DTED magtape. Observe the messages from DTI2DTED showing progress and successful completion.

Pass [ ]/Fail [ ]

Phase 3: The resultant DTED tape will then be read back to a resultant disk DTI file using the module DTED2DTI. Observe the messages from DTED2DTI showing progress and 100% completion.

Pass [ ]/Fail [ ]

Phase 4: The source and resultant DTI files will then be compared using the DTICOMBINE utility of the MATRIX package. This procedure will generate a further DTI file whose height values will all be zero if the two files are identical. Observe the message from DTICOMBINE indicating:

Value Range : unset

Pass [ ]/Fail [ ]

Phase 5: The utility DTEDIFF will be used again to extract the ACC accuracy subregion and header information from the resultant DTI file into a resultant IFF file. Observe the messages from DTEDIFF showing progress and successful completion.

Pass [ ]/Fail [ ]

Phase 6: The initial and resultant IFF files are compared using the IDIFFERENCE utility of the IMP package. The only differences recorded should be in the header information, such as the NS entry which contains the date of generation, and the HI entry holding file history.

Pass [ ]/Fail [ ]

6 **Conclusions**

This completes the acceptance tests for the Laser-Scan DTMCONVERT software package.

Overall Pass [ ]/Fail [ ]

Comments:

Customer Representative: **Date:**

Laser-Scan Representative: **Date:**