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NAME

stdf4_to_xtdf1.pl - Converts an STDF version 4 file to an XTDF version 1 file

SYNTAX

```
perl stdf4_to_xtdf1.pl [OPTIONS] ARGUMENTS
```

OPTIONS

```
-a, --about  
    Displays information about this program.
```

```
-d, --debug  
    Enables debug mode which outputs debug  
information to  
    standard output.
```

`-h, --help`

Displays help for this program.

ARGUMENTS

`StdFileSpec`

The input STDF file specification.

RETURNS

The program returns a value of `unix true (0)` if no errors occur; otherwise, a value of `unix false (1)` is returned.

STANDARD INPUT

Standard input is ignored.

STANDARD OUTPUT

All output is sent to standard output.

STANDARD ERROR

If an error occurs then a message is output to standard error.

SYNOPSIS

```
perl stdf4_to_xtdf1.pl -a
perl stdf4_to_xtdf1.pl --about
```

Displays information about the program.

```
perl stdf4_to_xtdf1.pl -h
perl stdf4_to_xtdf1.pl --help
```

Displays the help for the program.

```
perl stdf4_to_xtdf1.pl StdFileSpec
```

Surveys the STDF file specified by StdFileSpec and outputs the survey results to standard output.

```
perl stdf4_to_xtdf1.pl -d StdFileSpec  
perl stdf4_to_xtdf1.pl --debug StdFileSpec
```

Surveys the STDF file specified by StdFileSpec and outputs the survey results and debug information to standard output.

NOTE: Use command line redirection to capture standard output to a file.

DESCRIPTION

This program converts an STDF version 4 file to an XTDF version 1 file. An XTDF file is an XML version of a binary STDF file. The STDF field names and data types are emulated using XML as closely as possible to preserve the STDF file structure and content.

Advantages of XTDF compared to STDF:

- + Compatible with standard XML utilities.
- + Easy to enhance and extend contents.
- + Platform independent ASCII.
- + Easy to read.
- + Easy to edit.

Disadvantages of XTDF compared to STDF:

- Larger file size.

The official ASCII format for a binary STDF file is the ASCII Test Data Format (ATDF) defined by Teradyne.

Advantages of XTDF compared to ATDF:

- + Preserves all STDF content (enables loss less conversion back to STDF).
- + Compatible with standard XML utilities.
- + Same syntax as STDF (ATDF has different syntax than STDF).
- + Easy to enhance and extend the syntax.

Disadvantages of XTDF compared to ATDF:

- Larger file size.

Default Output

The default output consists of the XTDF tags and data.

```
<?xml version='1.0' ?>
<!-- stdf4_to_xtdf1.pl V1.0.0 -->
<!-- Copyright (C) 2005 Michael Hackerott -->
<!-- All Rights Reserved -->
<XTDF>
<CREATED>11:20:07 06-DEC-2005</CREATED>
<FILENAME TYPE="INPUT">FT_J750_112KB.stdf</FILENAME>
<FILESIZE TYPE="INPUT" UNIT="BYTES">113756</FILESIZE>
<STDF>
<FAR>
<CPU_TYPE>2</CPU_TYPE>
<STDF_VER>4</STDF_VER>
</FAR>
<MIR>
<SETUP_T>17:12:18 02-NOV-2005</SETUP_T>
<START_T>17:12:18 02-NOV-2005</START_T>
<STAT_NUM>0</STAT_NUM>
<MODE_COD>P</MODE_COD>
<RTST_COD>Y</RTST_COD>
<PROD_COD></PROD_COD>
<BURN_TIM>65535</BURN_TIM>
<CMOD_COD></CMOD_COD>
<LOT_ID>TJMEA0360Y00</LOT_ID>
<PART_TYP>MC9S08GT60CFD</PART_TYP>
<NODE_NAM>J750-08</NODE_NAM>
```

```
<TSTR_TYP>J750</TSTR_TYP>
<JOB_NAM>Final_Test_44qfp</JOB_NAM>
<JOB_REV>9S08GB60_J05</JOB_REV>
<SBLLOT_ID></SBLLOT_ID>
<OPER_NAM>HR268</OPER_NAM>
<EXEC_TYP>IG-XL</EXEC_TYP>
<EXEC_VER>3.40.09</EXEC_VER>
<TEST_COD>FCN</TEST_COD>
<TST_TEMP>-40</TST_TEMP>
<USER_TXT></USER_TXT>
<AUX_FILE></AUX_FILE>
<PKG_TYP></PKG_TYP>
<FAMILY_ID>MC9S08GT60CFD</FAMILY_ID>
<DATE_COD></DATE_COD>
<FACIL_ID>TJN</FACIL_ID>
<FLOOR_ID></FLOOR_ID>
<PROC_ID>L31R</PROC_ID>
<OPER_FRQ>20</OPER_FRQ>
<SPEC_NAM></SPEC_NAM>
<SPEC_VER></SPEC_VER>
<FLOW_ID>MC9S08GT60CFD_FCN</FLOW_ID>
<SETUP_ID>9999</SETUP_ID>
<DSGN_REV></DSGN_REV>
<ENG_ID></ENG_ID>
<ROM_COD></ROM_COD>
<SERL_NUM></SERL_NUM>
<SUPR_NAM></SUPR_NAM>
</MIR>
...
<MRR>
<FINISH_T>18:12:44 02-NOV-2005</FINISH_T>
<DISP_COD></DISP_COD>
<USR_DESC></USR_DESC>
<EXC_DESC></EXC_DESC>
</MRR>
</STDF>
<ELAPSED UNIT="SECONDS">0</ELAPSED>
</XTDF>
```

Additional Debug Output

If the debug mode is enabled then debug information is output in addition to the default XTDF output.

(NOTE: debug mode increases the runtime time and amount of output by approximately 15 to 25 times!)

```

%gOptions = ('debug' => 1);
$gStdfile{'SPEC'} = '..\\data\\inp\\STDF\\FT_J750_112KB.
stdf';
$gStdfile{'PATH'} = '..\\data\\inp\\STDF';
$gStdfile{'NAME'} = 'FT_J750_112KB.stdf';
$gStdfile{'SIZE'} = 113756;
<?xml version='1.0' ?>
<!-- stdf4_to_xtdf1.pl V1.0.0 -->
<!-- Copyright (C) 2005 Michael Hackerott -->
<!-- All Rights Reserved -->
<XTDF>
<CREATED>11:39:05 06-DEC-2005</CREATED>
<FILENAME TYPE="INPUT">FT_J750_112KB.stdf</FILENAME>
<FILESIZE TYPE="INPUT" UNIT="BYTES">113756</FILESIZE>
<STDF>
$gStdfile{'ABO'} = 0;
$gStdfileRec{'LENBIN'} =
    0000 00000010 02 2   α
    0001 00000000 00 0   α
$stdfileRecordRead::status = 2;
$gStdfileRec{'LENHEX'} = '0200';
$gStdfile{'ENDIAN'} = 1;
$stdfileRecordRead::lenhex = '0002';
$gStdfileRec{'LENDEC'} = '2';
$gStdfileRec{'TYPBIN'} =
    0000 00000000 00 0   α
$gStdfileRec{'TYPHEX'} = '0';
$gStdfileRec{'TYPDEC'} = 0;
$gStdfileRec{'SUBBIN'} =
    0000 00001010 0A 10   α
$gStdfileRec{'SUBHEX'} = '0';
$gStdfileRec{'SUBDEC'} = 10;
$gStdfileRecName = 'FAR';
$gStdfileRec{'DATBIN'} =
    0000 00000010 02 2   α
    0001 00000100 04 4   α
$gStdfileRec{'DATHEX'} = '0204';
$gStdfileRec{'DATTXT'} = '00';
<FAR>
$gStdfileFld{'LEN'} = 1
$gStdfileRec{'ABO'} = 0

```

```

$gStdFfld{'BIN'} =
$gStdFfld{'HEX'} = 02
$gStdFfld{'DAT'} = 2
$gStdFfld{'LEN'} = 1
$gStdFrec{'ABO'} = 1
$gStdFfld{'BIN'} =
$gStdFfld{'HEX'} = 04
$gStdFfld{'DAT'} = 4
<CPU_TYPE>2</CPU_TYPE>
<STDF_VER>4</STDF_VER>
</FAR>
$gStdFfile{'ABO'} = 6;
$gStdFrec{'LENBIN'} =
    0000 10101010 AA 170  α
    0001 00000000 00 0   α
$stdFrecordRead::status = 2;
$gStdFrec{'LENHEX'} = 'AA00';
$stdFrecordRead::lenhex = '00AA';
$gStdFrec{'LENDEC'} = '170';
$gStdFrec{'TYPBIN'} =
    0000 00000001 01 1   α
$gStdFrec{'TYPHEX'} = '0';
$gStdFrec{'TYPDEC'} = 1;
$gStdFrec{'SUBBIN'} =
    0000 00001010 0A 10  α
$gStdFrec{'SUBHEX'} = '0';
$gStdFrec{'SUBDEC'} = 10;
$gStdFrecName = 'MIR';
...
<MRR>
$gStdFfld{'LEN'} = 4
$gStdFrec{'ABO'} = 0
$gStdFfld{'BIN'} = æ iC
$gStdFfld{'HEX'} = 9C016943
$gStdFfld{'DAT'} = 1130955164
$gStdFfld{'LEN'} = 1
$gStdFrec{'ABO'} = 4
$gStdFfld{'BIN'} =
$gStdFfld{'HEX'} =
$gStdFfld{'DAT'} =
<FINISH_T>18:12:44 02-NOV-2005</FINISH_T>
<DISP_COD></DISP_COD>
<USR_DESC></USR_DESC>

```

```
<EXC_DESC></EXC_DESC>  
</MRR>  
</STDF>  
<ELAPSED UNIT=" SECONDS ">0</ELAPSED>  
</XTDF>
```

REQUIRES

- Perl 5.6 or newer.
 - Perl core module strict.
 - Perl custom module TDF.pm.
-

SEE ALSO

- perl core and module documentation.
 - STDF Specification V4 published by Teradyne, Inc.
 - ATDF Specification V2 published by Teradyne, Inc.
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AUTHORS

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ACKNOWLEDGEMENT

The Standard Test Data Format (STDF) and ASCII Test Data Format (ATDF) specifications are the original works of Teradyne Inc.

KNOWN BUGS

- The Vn data type not implemented. Therefore, GDR records are not implemented.
-

HISTORY

1.0.0 (200512031456) Michael Hackerott

- Created program.