METS SPECIFICATION FOR SUL ETDS
USING DUBLIN CORE

Revision 3/24/03 pc
Revision 11/21/03 LC
changes: deleted the slash after xlink; added a slash after http://www.loc.gov/METS;
deleted quotes around "ETD" and "TD"; added a slash after SOURCE="[31.5]; changed
words for note[24], [29] and note[31.5].
Revision 11/19/04 la
change: added "<METS:note>UMI=[7.1]</METS:note>"
Revision 1/26/05 la
change: xlink namespace declaration in METS root element changed from
xmlns:xlink="http://www.w3.org/TR/xlink" to
xmlns:xlink="http://www.w3.org/1999/xlink"
Revision 5/20/05 pc
changes: changed title; added first paragraph about choice of Dublin Core or MODS;
added ability to reference DVD in METS:fileSec; added ability to send a file not intended
for online use in METS:strucMap [41.5]
Revision 6/21/05 pc
change: at Lu's suggestion, changed type=source (for archive only files) to
METS:FLocat/@use from METS:Div/@type [41.5 deleted].
Revision 12/13/05 la
change: added CHECKSUMTYPE="MD5" in METS:file
Revision 7/21/07 pc
change: added FDA ACCOUNT_INFO in a digiProv section within AMDSec.
Revision 8/23/07 pc
change: moved digiProv to follow sourceMD
Revision 1/14/11 cn
change: closed METS:mdWrap tag in the DMD2, cleaned up code

FCLA accepts METS files using either Dublin Core or MODS for descriptive metadata.
Use of MODS is encouraged. This specification covers how to format METS using
Dublin Core for ETDs.

The METS file consists of ascii text exactly as shown below, with the exception that line
spacing and line indentation is shown only for readability here and need not appear in the
actual METS file.

Where variable content must be supplied, it is shown as a number in brackets, e.g. [1].
See the description keyed to the number below for how to format the content.

It is assumed that the ETD should also be archived in the Florida Digital Archive (FDA).
If not, the digiProvMD section within the <METS:amdSec> can be omitted, as well as
the namespace and schemaLocation references to daitss.

```xml
<?xml version="1.0" standalone="no"?><METS:mets
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:METS="http://www.loc.gov/METS/"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:palmm="http://www.fcla.edu/dls/md/palmm/"
xmlns:techmd="http://www.fcla.edu/dls/md/techmd/"
xmlns:rightsmd="http://www.fcla.edu/dls/md/rightsmd/"
xmlns:daitss="http://www.fcla.edu/dls/md/daitss/"
xsi:schemaLocation="http://www.loc.gov/METS/
http://www.loc.gov/standards/mets/mets.xsd
http://purl.org/dc/elements/1.1/
http://www.dublincore.org/schemas/xmls/simpledc20021212.xsd
http://www.fcla.edu/dls/md/palmm/ http://www.fcla.edu/dls/md/palmm.xsd
http://www.fcla.edu/dls/md/techmd/ http://www.fcla.edu/dls/md/techmd.xsd
http://www.fcla.edu/dls/md/rightsmd/ http://www.fcla.edu/dls/md/rightsmd.xsd
http://www.fcla.edu/dls/md/daitss/ http://www.fcla.edu/dls/md/daitss/daitss.xsd"
OBJID="[1]"
TYPE="ETD"
LABEL="[2]">

<METS:metsHdr CREATEDATE="[3]" LASTMODDATE="[4]" ID="[5]" RECORDSTATUS="new">
    <METS:agent ROLE="CREATOR" TYPE="ORGANIZATION">
        <METS:name>[6]</METS:name>
        <METS:note>projects=ETD</METS:note>
        <METS:note>[7]</METS:note>
        <METS:note>server=TD</METS:note>
        <METS:note>UMI=[7.1]</METS:note>
    </METS:agent>
</METS:metsHdr>

<METS:dmdSec ID="DMD1">
    <METS:mdWrap MIMETYPE="text/xml" MDTYPE="DC" LABEL="Simple
    Dublin Core">
        <METS:xmlData>
            <dc: title>[8]</dc:title>
            <dc:date>[9]</dc:date>
            <dc:creator>[10]</dc:creator>
            <dc:publisher>[12]</dc:publisher>
            <dc:subject>[13]</dc:subject>
            <dc:description>[14]</dc:description>
            <dc:language>[15]</dc:language>
        </METS:xmlData>
    </METS:mdWrap>
</METS:dmdSec>
```

```xml
<METS:dmdSec ID="DMD2">
    <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER"  LABEL="PALMM Extensions">
        <METS:xmlData>
            <palmm:thesis>
            <palmm:committeeChair>[16]</palmm:committeeChair>
            <palmm:committeeCoChair>[17]</palmm:committeCoChair>
            <palmm:committeeMember>[18]</palmm:committeeMember>
            <palmm:graduationDate>[19]</palmm:graduationDate>
            <palmm:degree>[20]</palmm:degree>
            <palmm:degreeDiscipline>[21]</palmm:degreeDiscipline>
            <palmm:degreeGrantor>[22]</palmm:degreeGrantor>
            <palmm:degreeLevel>[23]</palmm:degreeLevel>
            </palmm:thesis>
        </METS:xmlData>
    </METS:mdWrap>
</METS:dmdSec>

<METS:amdSec>
    <METS:techMD ID="[24]">
        <METS:mdWrap MDTYPE="OTHER" OTHERMDTYPE="TECHMD">
            <METS:xmlData>
                <techmd:creationMethod SOFTWARE="[25]" VERSION= "[26]"></techmd:creationMethod>
                <techmd:compression SCHEME="[27]" LEVEL="[28]"</techmd:compression>
            </METS:xmlData>
        </METS:mdWrap>
    </METS:techMD>

    <METS:rightsMD ID="[29]">
        <METS:mdWrap MDTYPE="OTHER" OTHERMDTYPE="RIGHTSMD">
            <METS:xmlData>
                <rightsmd:accessCode>[30]</rightsmd:accessCode>
                <rightsmd:embargoEnd>[31]</rightsmd:embargoEnd>
            </METS:xmlData>
        </METS:mdWrap>
    </METS:rightsMD>

    <METS:sourceMD ID="SMD1">
        <METS:mdWrap MDTYPE="OTHER" MIMETYPE="text/xml" OTHERMDTYPE="PALMM">
            <METS:xmlData>
                <palmm:entityDesc SOURCE="[31.5]"/>
            </METS:xmlData>
        </METS:mdWrap>
    </METS:sourceMD>

    <METS:digiprovMD ID="DPMD1">
        <METS:mdWrap MDTYPE="OTHER" OTHERMDTYPE="DAITSS">
            <METS:xmlData>
                <daitss:daitss>
                    <daitss:AGREEMENT_INFO ACCOUNT="[44]" PROJECT="[45]"/>
                </daitss:daitss>
            </METS:xmlData>
        </METS:mdWrap>
    </METS:digiprovMD>
</METS:amdSec>
```

```
<METS:fileSec>
    <METS:fileGrp ID="FG1">
        <METS:file ID="[32]" MIMETYPE="[33] " SEQ="[34]" CREATED="[35]" SIZE="[36]"
CHECKSUM="[37]" CHECKSUMTYPE="MD5"   ADMID="[38]">
            <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="[39]" xlink:href="[39]" USE=[39.5]/>
        </METS:file>
    </METS:fileGrp>
</METS:fileSec>

<METS:structMap ID="SM1">
    <METS:div TYPE="ETD" DMDID="DMD1">
        <METS:div ORDER="1" TYPE="main" LABEL="[40]>
            <METS:fptr FILEID="F1"/>
        </METS:div>
        <METS:div ORDER="[41]" TYPE="section" LABEL="[42]">
            <METS:fptr FILEID="[43]"/>
        </METS:div>
    </METS:div>
</METS:structMap>

</METS:mets>
```

[1] A unique 10-character identifier we call the "entityID". This should begin with the characters "SFE" (for USF) and "UFE" (for UF). The remaining 7 characters are entirely up to you as long as you ensure they are unique. You could, for example, just assign them sequentially, e.g. SFE0000001, SFE0000002, etc.

[2] The title of the ETD. This is redundant with dc:title given later.

[3] The date and time of creation of the METS file (not the ETD itself) relative to Greenwich mean time in the format: yyyy-mm-ddThh:mm:ssZ. If the time cannot be supplied, use zeros: yyyy-mm-ddT00:00:00Z.

[4] The date and time of the last modification of the METS file relative to Greenwich mean time in the format: yyyy-mm-ddThh:mm:ssZ. Normally this will be the same as the date and time of creation [3].

[5] An identifier we call the "packageID". In the case of an ETD, the packageID is the same as the entityID, so this should be the same value that is supplied for [1].

[6] A code indicating who created the metadata. For USF this is "USFSO" (USF Systems Office). For UF it is "UFRGP" (UF Research and Graduate Programs).

[7] If you want a bibliographic record to be created from this metadata, provide this element with the value: makerules="title,X" where X is the 2-character NOTIS Institution group or 3-character Aleph Institution group where you want the record created.

[7.1] Either "yes" or "no". It's used to flag whether ETD goes to UMI or not.

[8] The title of the ETD. This should be the same as [2].

[9] The year the ETD was accepted in format yyyy. It is used as the date of publication in the MARC record.

[10] The author of the ETD. The name should be given in cataloging format, surname first. E.g. Daniel, Robert M. III.

[11] Intentionally omitted.

[12] The name of the issuing university, in some constant form: University of South Florida or University of Florida.

[13] Subject terms or phrases assigned by the student, separated by semicolon/blank. E.g. Reindeer; Santa Claus; Christmas iconography.

[14] The abstract supplied by the student.

[15] The language of the ETD, probably English.

[16] The name of the committee chair, surname first.

[17] The name of the committee co-chair, surname first.

[18] The name of a committee member, surname first. This element can be repeated as many times as necessary. Use multiple <palmm:committeeMember> elements, don't but multiple names in one element.

[19] The student's graduation date in the format yyyy-mm-dd. This is optional unless you want a note created in the cataloging record with this information.

[20] The type of degree granted. For mapping to MARC, catalogers prefer the abbreviated form, that is "M.A." rather than "Master of Arts".

[21] Name of the college or department. This is used to create two fields in the cataloging record, a non-standard subject heading and a note.

[22] The name of the institution in standard form, the same as [12].

[23] Either "Masters or "Doctorate".

[24] One complete <METS:techMD> section is required for each file included in the ETD. So for example, if there is only a single PDF, there would be one <METS:techMD> section; if there were a PDF and a AVI file, there would be two. The value of the ID attribute should match with one of the values in [38].

[25] The name of the software program creating the file described in this <METS:techMD> section. We should jointly set up a controlled list of these, so the same form of name is used for all files created by the same programs. [26] The version of the software program creating the file. E.g. 5.0. So for example, if a PDF file was created using Adobe Acrobat 5.0, this would be encoded:
<techmd:creationMethod software="Adobe Acrobat" version= "5.0">
</techmd:creationMethod>

[27] The compression element is optional, used only if the file is compressed. The scheme attribute indicates the compression scheme used. The level attribute [28] indicates the compression level or ratio.

[29] One <METS:rightsMD> section must be provided for each different set of access information. If the entire ETD is only one file, or if all files have the same access information, then only one <METS:rightsMD> section is needed. The value of the ID

attribute should match with one of the values in [38].

[30] A code indicating the access information for the file or files that reference this <METS:rightsMD> section. Valid codes are:
Code Meaning
public No access restrictions.
private No access allowed.
campus Access allowed to university community only.
If the code is "private" or "campus", a <rightsmd:embargoEnd> element [31] must also appear.

[31] If the <rightsmd:accessCode> element value is "private" or "campus", the date that the file becomes public, in the format yyyy-mm-dd.

[31.5] The source/owner of the file. Use "UF", "UCF", "USF" or "UWF".

[32] One <METS:file> element must be included for every physical file comprising the ETD. The value of the ID attribute is an unique XML identifier for the file, in the form Fn where n increments from 1, e.g. F1, F2, F3.

[33] The Internet Media Type of the file, from the IANA master list at http://www.isi.edu/in-notes/iana/assignments/media-types/media-types. For a PDF, use "application/pdf".

[34] An integer indicating the order of the file within the set of files comprising the ETD. The main PDF should always be 1. If there is no inherent order to accompanying files, just assign arbitrary SEQ numbers to the remaining files.

[35] Date and time of file creation, in the format yyyy-mm-ddThh:mm:ss, e.g. 2000-08-22T06:32:00.

[36] The size of the file in bytes.

[37] The MD5 checksum for the file. This is very important, as we verify the checksum on ingest to insure the data has reached us without corruption.

[38] The ADMn designations of the <METS:techmd> and <METS:rightsmd> sections that correspond to this file. Information about any given file is broken up into techmd, rightsmd and file sections, and the ID attribute relates together all of the sections describing the same file. Multiple ADMn designations are separated by blanks e.g.: ADM1 ADM3.

[39] OTHERLOCTYPE and xlink:href go together as the type of value and value of the file designation in xlink:href. For online (FTP-ed) files, use OTHERLOCTYPE="SYSTEM" and xlink:href="[the filepath and filename of the file]". Give the path relative to the path of the METS xml file. So, for example, if you FTP to us the METS xml file and the ETD PDF in the same directory, you need only supply the filename, e.g.: xlink:href="main.pdf".

For files sent on media, OTHERLOCTYPE should be "CD" or "DVD", and xlink:href should be the filename of the file on the DVD. This should be the same as the eyereadable file name on the exterior of the DVD and/or its housing.
[39.5] If the file is not intended for online use, but rather is a master sent for archiving only, a USE attribute should be used with value "archiveonly". If the file is intended for loading online the USE attribute should be omitted, regardless of whether the file should or should not be archived.

[40] The title of the ETD, redundant with [2] and [8]. If there is only a single PDF, there should only be one <METS:div> under the <METS:div TYPE="ETD"> with a TYPE="main". If there are associated files, then there shoud be a <METS:div> for each of them sequentially incrementing ORDER [41] and FILEID [43] attributes. The FILEID relates this <METS:div> back to the ID attribute of the <METS:file> section for the same file. Associated files should have attribute TYPE="section".

[42] If the associated file has a title of its own, different from the title of the main ETD, then use the LABEL attribute with the title of the associated file as its value. Otherwise, omit the LABEL attribute.

[43] The value of the FILEID relates this <METS:div> back to the corresponding <METS:file> information.

[44] The FDA Account code for the FDA Affiliate under whose Agreement the ETD should be archived.

[45] The FDA Project code under which the ETD should be archived. For most Affiliates, the code will be "ETD".