

Preparing a SDMS CD - Lessons Learned

The following information, issues, and examples are provided to help people to prepare the SDMS index spreadsheet more easily and without errors.

Which version of the SDMS specifications do you use?

Unless specifically directed otherwise, you ALWAYS use the version in effect at the moment you do the work. For example, you prepared several PDF files when version 3.1 was in effect, but by the time you went to prepare the index file and the CD, the version of the SDMS specifications had changed to 3.2. Use version 3.2 for the creation of the index file and the CD, but do NOT go back and change your previously created PDF files.

What is the SDMS CD Audit Report?

- The CD Audit Report is generated by a program that looks at the entire CD.
- It goes through the XML file line by line and checks the information.
- It also verifies some of the data against information already in our system.
- It verifies that the file names and locations of the files on the CD are correct.

ISSUE - Which version of Excel to use

In order for Excel to give you the option of saving your data in "XML Data" format, you have to be using a version of Excel that supports XML data encoding. For Excel 2003, only the standalone version and the Office Professional version (includes Access) support this feature. If you did not use one of these, the index file preparer would not have seen the 2 blue boxes when they created the index file (they MUST put the data within these boxes in order for it to be XML tagged by Excel), and they would not be offered the option of saving their data in "XML Data" format (the only format we accept).

ISSUE - The file format of the XML file was "XML Spreadsheet," NOT "XML Data"

When you generate the XML file from the index file, please use the "XML Data" option (see page 29 of the SDMS Contractors Specifications - version 3.1).

If you want to check the file to verify it was created properly, open it with NOTEPAD. The second line of an XML file MUST contain the following phrase within it: Root
IF the second line contains: mso-application progid="Excel.Sheet"
then you have the wrong file format.

ISSUE – We cannot read your CD.

If we were unable to load or audit the CD due to CRC errors, the most likely cause is the CD was cut at or near the top speed the PC would allow.

We recommend cutting a CD at no faster than 16x (if possible - due to incompatibilities between machines at the higher speeds). If a speed faster than this must be used, use the slowest speed the machine offers.

What is a document?

The following is from the SDMS Specifications – version 3.1 (page 12):

Inspection Documents

An inspection document is defined as a file or group of files that together address a particular issue or contract requirement pertaining to a particular structure, and are delivered on the same CD or equivalent media.

One way of thinking of this is that when you give us a paper report, you included certain items inside the report. For example, you may have included a Regular bridge (structural) inspection report, an Underwater inspection report, and Electrical/Mechanical report, and a Priority Repair letter inside the bound paper report. This is a (complex) document. I use the term complex because each of these items, if submitted alone, would also qualify to be a document. This is why we have a TOC code for each of these items.

As the paper report was bound together, we also expect the electronic file to be “bound” together in one of the following ways:

Either as one physical PDF file, with one TOC index entry for each type of sub-document located inside the PDF file, for a total of 4 TOC entries. This represents one “Document.”

Or as several physical PDF files, with one or more TOC index entries for each file, for a total of 4 TOC entries. Again, this group of files together represent one “Document.”

ISSUE – Priority Repair Letters

There is some confusion regarding how to provide Priority Repair letters. The following rules and guidance may help clarify the issues:

1. There are several TOC codes provided for priority repair letters. Please be careful to choose the correct one.
2. Even if there are several Priority Repair letters in one PDF file, only one TOC code of any particular type is to be used. The only time you would have more than one index entry for priority repair letters (of course using different TOC codes) is if there are Priority Letters of different types present.
3. Point to the actual physical file the Priority Repair letter is in. A few people have made up a name for a priority repair letter thinking this was necessary. Just the opposite, if you make up a name, and a physical file with that exact name is not on the CD, then the CD will be rejected.
4. The SDMS Contractors Specifications is a forward looking specification. Therefore, it will sometimes provide codes for ways of working that are not yet generally done. For example, there is a code for a Priority Repair letter provided as a separate document, and another for the same document when provided inside another document. Although we currently do not have a formal procedure for submitting Priority Letters in separate PDF files (at the time the Priority Repair letter is originally issued) with the intent of loading them to our SDMS, the time will come when this will be standard practice. Therefore we have provided a code for this eventuality (and have provided guidance on how to name the file).

ISSUE - Data Types Changed

If you paste data into the XML enabled sections of the Excel spreadsheet, you have to be careful NOT to change the data types. The default data type for all fields is “TEXT”.

Note: For example, we have seen structure numbers expressed as “numeric” and as “custom.” Both are examples of a technician changing the data type or not setting it correctly wherever they created their data. The fact is that if you enter the data directly into the XML areas of the spreadsheet (within the blue boxes), using a XML compliant version of Excel, then you don’t have to change anything. However, people often try to do things faster.

Warning – If you try to do things faster and you end up corrupting the data types you will have to do it over.

The following example shows what look like good structure numbers in Excel, but if you look how the data comes in to the Audit program you can see that the leading zeros were not present in the structure number shown in cell D14 (and others). This is because the originator used the “custom” data type to make the structure number “look right” in the source spreadsheet – a clear warning that they were in trouble.

Doc Type	Date of Index	Submit Medium	Number of Docs	Index Rows Total	Prime Consultant	CD Consultant	Project Group	Agree Mod Num	CD CoA	This Index file is for Inspection Documents ONLY		
Inspection	20060828	CD	22	22	A47	A47	ST4G	00	C			
Doc Number	Doc Line Number	Doc Total Lines	Structure Number	Inspection Firm	Inspection Type	Cycle Number	Doc Date	Doc Total Files	Doc File Number	File Name	TOC Item Code	Doc Review Priority
1	1	1	1810165	A47	R	13	20050308	1	1	1810165_20050308_cy13.pdf	100	3
2	1	1	1810169	A47	R	2	20050308	1	1	1810169_20050308_cy02.pdf	100	4
3	1	1	1808171	A47	R	9	20050311	1	1	1808171_20050314_cy09.pdf	100	4
4	1	1	1808172	A47	R	9	20050309	1	1	1808172_20050309_cy09.pdf	100	4
5	1	1	1809153	A47	R	13	20050309	1	1	1809153_20050309_cy13.pdf	100	1
6	1	1	1808163	A47	R	8	20050310	1	1	1808163_20050315_cy08.pdf	100	4
7	1	1	1231160	A47	R	14	20050310	1	1	1231160_20050310_cy14.pdf	100	3
8	1	1	1229150	A47	R	13	20050314	1	1	1229150_20050330_cy13.pdf	100	3
9	1	1	1241150	A47	R	13	20050316	1	1	1241150_20050310_cy13.pdf	100	3
10	1	1	0905150	A47	R	13	20050318	1	1	0905150_20050505_cy13.pdf	100	2
11	1	1	0906155	A47	R	14	20050321	1	1	0906155_20050315_cy14.pdf	100	3
12	1	1	0906157	A47	R	14	20050322	1	1	0906157_20050407_cy14.pdf	100	3
13	1	1	2010172	A47	R	11	20050323	1	1	2010172_20050322_cy11.pdf	100	3
14	1	1	0725153	A47	R	13	20050324	1	1	0725153_20050329_cy13.pdf	100	3

Process Structure CD by Step:

1.1: Select .xml Index file Drive/Directory: Drive: C:\ Directory: SDMS\ST4G

1.2: Select CD Data Drive/Directory: D:\

1.3: Enter Output Drive/Directory: C:\ SDMS_Audit

2: View Structure CD Contents

3: Audit Structure CD

4: Load Valid Structure Data to Database

Exit

Doc_Type	Date_of_Inde	Submit_Medi	Number_of_D	Index_Rows_	Prime_Consul	CD_Consulta	Proi_Group	Agree_Mod_	CD_CoA
Inspection	20060828	CD	22	22	A47	A47	ST4G	00	C

Doc_Number	Doc_Line_Nu	Doc_Total_Li	Structure_Nu	Inspection_Fir	Inspection_Ty	Cycle_Numbe	Doc_Date	Doc_Total_Fil	Doc_File_Nu	File_Name	TOC_Iter
8	1	1	1229150	A47	R	13	20050314	1	1	1229150_200	100
9	1	1	1241150	A47	R	13	20050316	1	1	1241150_200	100
10	1	1	905150	A47	R	13	20050318	1	1	0905150_200	100
11	1	1	906155	A47	R	14	20050321	1	1	0906155_200	100
12	1	1	906157	A47	R	14	20050322	1	1	0906157_200	100
13	1	1	2010172	A47	R	11	20050323	1	1	2010172_200	100
14	1	1	725153	A47	R	13	20050324	1	1	0725153_200	100
15	1	1	725157	A47	R	3	20050329	1	1	0725157_200	100