Here is the job:

We are attempting to get our electronic medical records (EMR) system to produce an xml file called a “CCR” (Continuity of Care Record) that meets ASTM standards and will pass government inspection. We are attempting to certify our EMR with the government, and this is one of the requirements.

A CCR is a snapshot of patient information that allows one electronic medical records system to send information about a medical patient to another EMR. Because the CCR is in a standard format, all EMRs should theoretically be able to read it.

To fulfill the requirements, we need the CCR xml file to be able to display in HTML format using our CCR viewer, which you can see at:

Ccdccrviewer.com

We also need to be able to have our file pass the validator that the government uses, which is available at:

<http://sourceforge.net/search/?q=ccr+validator>

There are some associated files on GitHub. Unfortunately, I’ve had limited luck getting the ccrvalidator to work. I hope you are able to do it, as that is the application that will be used by our tester to validate our file.

Our xml file is generated by concatenating a bunch of text fields in our database with the required xml tags. We need you to examine the CCR xml file our database currently produces, and figure out what is different from the validated example files I’m sending. The goal is for you to tell us what changes we need to make to the file that our system produces so that the CCR file will display in HTML on the viewer, and pass the SourceForge validator.

I’m including with this email a couple of files that already work so that you have some examples. I’m also including the xsl schema for CCR files from ASTM, and the ASTM documentation that specifies the file format (this is only for reference… it’s really long and I think you’ll have better luck comparing the example files with the one from our system).

The files I’m sending are:

John Smith.xml: the test file produced by our system

CCR example from Drummond.xml: a validated file that our testing body sent us. This is the standard against which we are testing John Smith.xml

CCR specs ASTM.pdf: the formal standards for a CCR

CCR adjunct.xsd: the ASTM xsd file for validating a CCR (I think this is what it is… I’m not very good with xml. It was provided by ASTM as part of the CCR standards).

John Smith\_validated.xml: another validated CCR file that you can use to compare John Smith.xml against

I’ve used Altova’s DiffDog to compare some of these files and that has been helpful. A trial version is available from Altova’s website if you don’t have it.

One thing to watch out for… the ASTM standard for a CCR doesn’t allow empty fields (e.g. <tag></tag>). I’ve thought that maybe this was something that was preventing John Smith.xml from loading, but I haven’t been able to find any empty fields. Hmm.

I appreciate your work on this. This is the last task we have to complete before we can certify, and we are trying to get it done as soon as possible.

When you are working, please use the oDesk Team software for all your billable hours as we find this greatly helps our ability to collaborate.

Please email me anytime with questions.

Kevin

Kevin Cranmer, MD

President, ODOS Industries, Inc.

<http://sourceforge.net/search/?q=ccr+validator>

Test Tool

[http://sourceforge.net/projects/ccrvalidator/files/ValidationService/1.0/](http://www.odesk.com/leaving_odesk.php?ref=http%253A%252F%252Fsourceforge.net%252Fprojects%252Fccrvalidator%252Ffiles%252FValidationService%252F1.0%252F)

Release Notes Validation Service 1.0

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Released: July 18, 2010

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This release includes many bug fixes from version 0.9. It also includes rules to

check for Meaningful Use constraints in the Certification and HIT Standards

regulations.

This version is optimized for Apached Tomcat 6.0 but should work on any J2EE 1.4

container running Java 1.5 or higher. This application reads from the filesystem

and write the uploaded file as a temp file, therefore, you may need to configure

the standard security policy

See: http://tomcat.apache.org/tomcat-6.0-doc/security-manager-howto.html

If running in a protected environment, you can disable the security manager,

although not recommended.

The rules for validation checks can be found in WEB-INF/classes/org/astm/ccr/rules.

The 'core' subfolder is to assist in the processing of the CCR by the rules engine

and does not contain validation tests. Folder 'v1' contains the constraints for

ASTM CCR E2369-05 schema and implementation guide. Folder 'meaningfuluse'

contains the check for Meaningful Use. Version 1.0 is setup to test all

constraints and report a failed validation test if any of the tests return

a failed result.

Please post any problems or issues on the issue tracker:

http://sourceforge.net/tracker/?group\_id=302483

Thanks,

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