XML or own-format file?

Asked 16 years ago Modified 16 years ago Viewed 1k times



When is a good idea to save information in a XML file and when in a own-format file?



For XML (or other standard) I see:



- (+) Standard format.
- (-) It's tedious to hand modify.



For own-format files I see:

- (-) We need to build a own-parser (non-standard).
- (+) It can be easy to hand modify the files.

xml

file

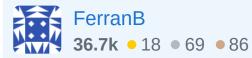
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edited Dec 10, 2008 at 23:46

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asked Dec 8, 2008 at 11:34



By "own format" do you mean JSON or YAML or some totally non-standard format? – S.Lott Dec 8, 2008 at 11:36

Can you give some more information what the file format is good for? And who are the primary editors, humans or programs? Is it configuration? A narrative document? Data storage? – Torsten Marek Dec 8, 2008 at 13:04

12 Answers

Sorted by:

Highest score (default)





Use XML when it's a good fit in various ways:

12

 Need to share between different applications which are all capable of handling XML



Natural tree-like structure



 Primarily data easily represented as text (binary data is a bit of a kludge in text-based formats)



Extensibility is important



- Performance isn't critical (parsing XML isn't exactly blazingly fast - although if performance is important and you go for XML, shop around for a fast parser, as there's a wide difference between fastest and slowest)
- Schema can be pre-defined and documents can be verified against it
- Simpler formats (e.g. name=value pairs) don't cut it

Basically if there's a pretty natural representation of your data model in XML, that may well be the easiest way of

handling it. If you'd end up having to mess around a lot to fit it in with XML, think about other formats. Note that there are plenty of other standard (or "somewhat standard" - e.g. supported by tools on multiple platforms) formats available beyond just XML.

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answered Dec 8, 2008 at 11:39

Jon Skeet

1.5m • 889 • 9.3k • 9.3k



For XML I see:

6

• (+) Standard format.



(-) It's tedious to hand modify.
 I only use XML when the API requires it.



For JSON/YAML I see:



- (+) Standard format.
- (+) It's easy to hand-modify.

I use JSON/YAML for almost everything. Except when an interface requires something else.

For CSV I see:

- (+) Standard format.
- (+) It's easy to hand-modify.
- (-) It's a little murky when the column names are screwy or data isn't in simple first-nromal form.

I use CSV whenever possible.

For Language Serializers I see:

- (+) Standard format for the given language.
- (-) nearly impossible to hand-modify.

I use serialized files once in a while to pass data among processes when I'm sure both sides are in the same language.

For own-format files I see:

- (-) We need to build a own-parser (non-standard).
- (+) It can be easy to hand modify the files.

I avoid inventing my own file format. Haven't invented my own file format in years.

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edited Dec 8, 2008 at 16:49

answered Dec 8, 2008 at 16:17



S.Lott

391k ● 82 ● 517 ● 788



XML gives you the power of XSLT and Xpath, your own format does not.

3



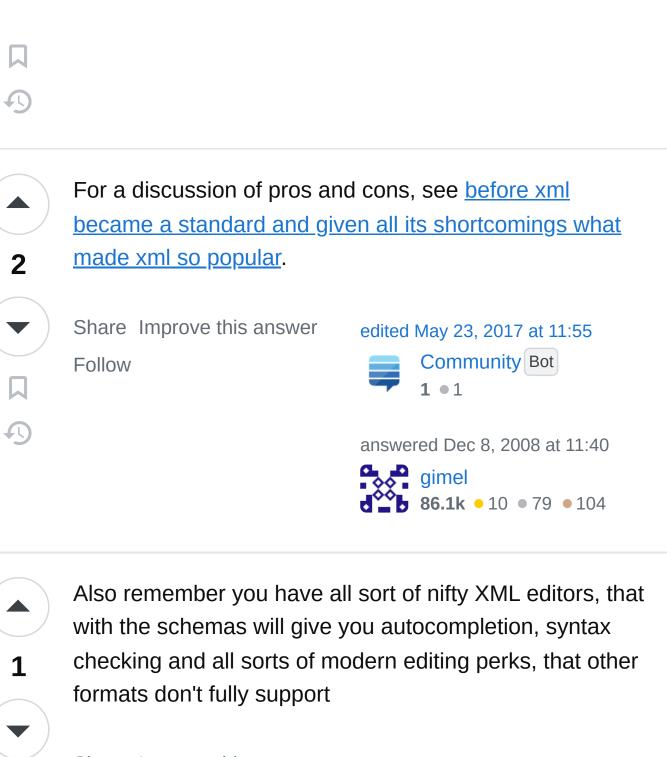
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answered Dec 8, 2008 at 16:20



annakata

75.7k • 18 • 115 • 180





answered Dec 8, 2008 at 11:43

Robert Gould

69.7k • 61 • 191 • 275



(-) It's tedious to hand modify.

I think that depends strongly on the XML/own format that you define. If you use e.g. a binary format (which might



be very efficient to do) it will nearly be impossible to manually edit the file.



43

I think that there are further aspects influencing the choice of a file format such as

- performance
- interoperability with other components
- capability to manually edit files (debugging)
- backward-compatibility issues
- etc

If you are going to use a textual format I would choose an XML-based solution in most of the cases.

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answered Dec 8, 2008 at 11:44





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My rule of thumb is: if I'm going to need to transform or validate it, or I'm going to need to share the data with application domains that I don't control, I consider XML first, and if I'm not, I don't.



Edit:



I forgot about text in general, and Unicode in particular: If a significant portion of my data is text (especially markedup text), and if I need to support Unicode (which any application working with blocks of text generally does), that moves XML up the list in a hurry.

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answered Dec 8, 2008 at 19:15

Robert Rossney

96.6k • 24 • 148 • 218



The ease of editing isn't a major issue, as pointed out above: there are lot of good (and free for some) XML editors around.



Another potential issue is verbosity, although the answer for large files is to gzip them: in lot of languages, it is nearly transparent.



XML is good in a number of ways: the standard is well defined (you don't have to think how to define charset, how to escape stuff, how to handle special cases (multilines, binary, etc.)); it has lot of tools (editors, parsers, XPath, etc.); it is great to exchange data with other tools.

If your needs are very simple, manipulating only Ascii, self-sufficient (only this app will use this format), maybe you can go with another format. But before defining your own, you might take a look at existing text-based formats, like Json, Yaml, even Lua (was a data description language at the origin) or for very simple needs, Windows' ini format or Java's properties.

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answered Dec 8, 2008 at 12:15



By order I use:

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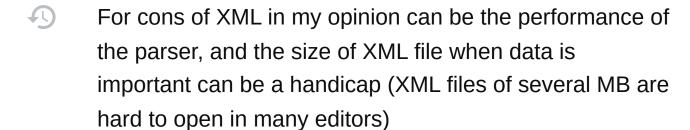
 property file if the data can be represented as key/value



CSV if the data can be represented as a table



XML if complex structure



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answered Dec 8, 2008 at 16:28





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As <u>annakata</u> stated, you can use XSLT and XPATH if you choose the XML route. I've found that with some clever use of XSLT you can create "self-documenting" configuration files.



By creating an .xsl file and adding a declaration such as this to the XML file, a user can simply double-click the XML file and view the results of the transformation in their browser (I know IE and Firefox both support this)





Just thought that might be helpful.

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edited May 23, 2017 at 12:04



answered Dec 8, 2008 at 19:20









XML is usually my first choice. Part of it is because it is the standard configuration file format for my platform choice (.NET). I have found that, almost exclusively, a well-defined XML file is better than a customized format. I will shy away from CSV and flat files, as well, unless they are a requirement of the project.





My reasons for XML as my choice (note that some are platform specific):

- Standard implementation for my platform. Plenty of tooling available to work with XML, XSD, XSLT.
- Schema enforcement (XSD). Allows me to enforce the file structure. Very helpful when the format is consumed by others, as well.
- Navigation (XPath, Linq to Xml). Easy to extract and write nodes and their attributes. Less risk in

writing this type of code over customer readers and writers.

- Transformable (XSLT). Can convert the file to other presentational views with little effort.
- Interoperable. The structure of XML is a natural fit for describing objects. Objects serialized into XML is easily portable and can survive across application boundaries.
- **Easily Editable.** A well-defined XML is easy to read and easy to edit. A simple text editor is enough to get started, and there are many XML editing tools available with a variety of features and price points.

I don't understand the perception that XML would be any less easy to modify by hand than a custom format. XML might be more verbose than a format that you come up with, but it provides contextual relevance to the data it contains. If you can look at (well-formed) XHTML, it is not much different when you look at XML.

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answered Dec 8, 2008 at 19:34





It really depends on your data.



See ESR's <u>The Art of Unix Programming: Ch. 5 Textuality</u> <u>- Data File Metaformats</u>. This quote about sums it up:







XML can be a simplifying choice or a complicating one. There is a lot of hype surrounding it, but don't become a fashion victim by either adopting or rejecting it uncritically. Choose carefully and bear the KISS principle in mind.

XML certainly has its uses, and it is **wonderful** for expressing complicated hierarchical datasets, but it's overkill if all you need to do is store half a dozen key:value pairs, and inappropriate for row-based tabular data.

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answered Dec 8, 2008 at 20:05

Adam Jaskiewicz