OPEN DOCUMENT FORMAT

The world over, a debate is brewing over open document format (ODF)[1]. In order to understand it, we have to consider,

- What is the proprietary format?
- How is the proprietary format protected?
- What is the open standard?
- Why open standards are being advocated over proprietary format?
- What is open document format?

Proprietary Format

An office suite is a bundle of computer applications that help to create different kinds of office documents or files (documents), namely a text document, or a presentation or a spread sheet. These are created and saved in different formats by the office suites. These formats are generally proprietary. They are rendered with the help of Computer Software and are protected along with them.

Due to the TRIPS, the object code of the computer software is always protected as a copyright. If the source code of the computer software is also published then it is protected as copyright otherwise as a trade secret. In some countries, under certain circumstances, computer software may be protected as a patent. Even if the software is protected as a patent, the source code is protected as a trade secret as it is generally never disclosed. Consequently, the details of the proprietary format—being result of Computer Software—is also so protected. In such a situation reverse engineering is the only way to find out the source code (for details see the article INTELLECTUAL PROPERTY RIGHTS IN COMPUTER SOFTWARE at http://yksingh.blogspot.com/2006/03/intellectual-property-rights-in.html).

The use of proprietary format has the following consequences.

(i) The user can not change the office suite. In case the company making the office suite chooses not to develop it further, or is wound up then the office documents are stuck in that format. The user can not change over to any other office suite unless the other office suite is capable of opening the documents saved in the format of the earlier office suite.

(ii) In case the documents are for public viewing or downloading or printing then every one who wishes to view or download or print should have the office suite

1 State Commonwealth of Massachusetts has adopted ODF for submission of documents. European Union and Microsoft are discussing it in their negotiations.

capable of opening documents of that format. This may restrict these activities.

Any office suite can be made, so as to open the documents created in any other format only if the details of the other format are known. In case, the details of the other format are not public then the proprietor of that format may disclose it after charging royalty. However, it is generally not disclosed even after charging royalty. In such a situation the only option left is to reverse engineer or the decompile the computer software/programme. This is permissible under certain circumstances (for details see the article INTELLECTUAL PROPERTY RIGHTS IN COMPUTER SOFTWARE at http://yksingh.blogspot.com/2006/03/intellectual-property-rights-in.html). However it is time consuming and expensive process. It entails unnecessary expenditure and wastage of time. Let's consider what is open standard.

Open Standards

There is no agreement over the meaning of the word 'open standards' in the IT World. However, European commission in one of its reports[1] has recommended open standards to attain interoperability in the context of pan-European services. The report also explained the minimal characteristics that a specification and its attendant documents must have in order to be considered as open standard. These are as follows :

- The standard is adopted and will be maintained by a not-for-profit organisation, and its ongoing development occurs on the basis of an open decision-making procedure available to all interested parties (consensus or majority decision etc.).
- The standard has been published and the standard specification document is available either freely or at a nominal charge. It must be permissible to all to copy, distribute and use it for no fee or at a nominal fee.
- The intellectual property - i.e. patents possibly present - of (parts of) the standard is made irrevocably available on a royalty-free basis.
- There are no constraints on the re-use of the standard.

The minimal characteristics as stated above truly capture the spirit and philosophy behind the open standards. This may be universally accepted and I will also be using the word open standards in the same way.[2]

1Kindly see European Inter Operability Framework for Pan-European e-Government Services at http://ec.europa.eu/idabc/servlets/Doc?id=19529.

2Two other popular definition of open standards are mentioned in the following papers:

1. 'Open Standards: principle and practice' by Bruce Perens at

Reason for Advocating Open Standards

The proponents of open standards for office documents say that information technology has flourished only in open standards. The Internet, the web, the protocol transfer are all based on open standards. They say that healthy competition will grow only if open standards are adopted as it avoids monopoly. Some of the examples of open standards {as mentioned in Wikipedia

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http://perens.com/OpenStandards/Definition.html. The six principles stated by him are as follows:

(i) Availability: Open Standards are available for all to read and implement.

(ii) Maximize End-User Choice: Open Standards create a fair, competitive market for implementations of the standard. They do not lock the customer in to a particular vendor or group.

(iii) No Royalty: Open Standards are free for all to *implement,* with no royalty or fee. *Certification* of compliance by the standards organization may involve a fee.

(iv) No Discrimination: Open Standards and the organizations that administer them do not favour one implementer over another for any reason other than the technical standards compliance of a vendor's implementation. Certification organizations must provide a path for low and zero-cost implementations to be validated, but may also provide enhanced certification services.

(v) Extension or Subset: Implementations of Open Standards may be extended, or offered in subset form. However, certification organizations may decline to certify subset implementations, and may place requirements upon extensions (see *Predatory Practices*).

(vi) Predatory Practices: Open Standards may employ license terms that protect against subversion of the standard by *embrace-and-extend* tactics. The licenses attached to the standard may require the publication of reference information for extensions, and a license for all others to create, distribute, and sell software that is compatible with the extensions. An Open Standard may not otherwise prohibit extensions.

2. 'The meaning of open standards' by Ken Krechmer at http://www.csrstds.com/openstds.html. The ten conditions laid down by him are as follows:
   (i) Open Meeting: All may participate in the standards development process.
   (ii) Consensus: All interests are discussed and agreement found, no domination.
   (iii) Due Process: Balloting and an appeals process may be used to find resolution.
   (iv) Open IPR: IPR related to the standard is available to implementers.
   (v) One World: Same standard for the same capability, world-wide.
   (vi) Open Change: All changes are presented and agreed in a forum supporting the five rights above.

(http://en.wikipedia.org/wiki/Open_standards#Examples_of_open_standards)}[1] are as follows:

(i) System:

GSM (a mobile communications system specified by 3GPP)

(ii) Hardware:

- ISA (a specification by IBM for plug-in boards to IBM-architecture PCs, later standardized by the IEEE);
- PCI (a specification by Intel Corporation for plug-in boards to IBM-architecture PCs);
- AGP (a specification by Intel Corporation for plug-in boards to IBM-architecture PCs).

(iii) Software:

- HTML/XHTML (specifications of the W3C for structured hyperlinked document formatting);
- SQL (a specification approved by ANSI and ISO, with multiple generations of design and additional less official variants);
- IP (a specification of the IETF for transmitting packets of data on a network - specifically, IETF RFC 791);
- TCP (a specification of the IETF for implementing streams of data on top of IP - specifically, IETF RFC 793);
- PDF/X (a specification by Adobe Systems Incorporated for formatted documents, later approved by ISO as ISO 15930-1:2001 [1]);
- Open Document (a specification by OASIS for office documents, approved by ISO as ISO/IEC 26300).

Organisation for the Advancement of Structured Information Standards (OASIS)

OASIS is a non-profit international consortium. It was founded in 1993 under the name of SGML Open as a Consortium of vendors and users devoted to

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(vii) Open Documents: Committee drafts and completed standards documents are easily available for implementation and use.

(viii) Open Interface: Supports migration and allows proprietary advantage but standardized interfaces are not hidden or controlled.

(ix) Open Use: Objective conformance mechanisms for implementation testing and user evaluation.

(x) On-going Support: Standards are supported until user interest ceases rather than when implementer interest declines (use).

1 They may not be based open standards as envisaged by the European commission in the sense that they may not be royalty free.

developing guidelines for interoperability among products that support the Standard Generalised Markup Language (SGML). It expanded scope of its work and is now connected with development, conversions and adoption of E-Business Standards. Thereafter its name was changed to Organisation for the Advancement of Structured information Standards (OASIS) in 1998.

Open Document Format (ODF)

OASIS has come out with open standards for office documents. It is an XML-based file format suitable for office application features that are required by text, spreadsheets, charts and graphical documents. It is owned by OASIS but it is open, any one can implement without paying any licence or royalty to OASIS or to anyone else. This format is called Open Document format (ODF). It was approved by the International Standardisation Organisation (ISO) on May 3, 2006. There is some debate as to whether ODF is based on open standards or not. David A. Wheeler in his article 'Is ODF Open Standard'[1] has reasoned out that ODF is Open Standard.[2]

At present, MS office does not support ODF. It can neither read nor save in this format. Commonwealth of Massachusetts had posted a request for information regarding ODF plug-in for MS Office or a converter that can allow MS Office to open, display and save to ODF format. ODF Foundation has notified the Massachusetts, that they have completed testing of an ODF plug-in for all versions of MS office dating back to MS Office 1997 and it renders the ODF documents, as if it were native to MS Office. According to them they will be formally offering it for review and implementation.[3]

In the meantime, Microsoft has announced[4] that documents created in the next release (now due in 2007) of Microsoft Office products will be based on new, XML-based file formats. They will be distinct from the binary-based file format that has been a mainstay of past Microsoft Office releases. According to them,

- The XML-based formats will be compact, robust file formats that will enable better data integration between documents and back-end systems;
- These formats will be available in an open, royalty-free file format

1 This article is available at http://www.dwheeler.com/essays/opendocument-open.html

2 The Allahabad High Court has adopted Open source Software and Open Document Format. Kindly refer to the FAQ at the court's website at http://www.allahabadhighcourt.in/faq.htm

3 Kindly see at http://www.groklaw.net/article.php?story=20060504015438308

4 Kindly see here http://www.microsoft.com/office/preview/itpro/fileoverview.mspx

specification to maximize interoperability in a heterogeneous environment, and to enable any technology provider to integrate Microsoft Office documents into their solutions.

- The format specifications have been submitted to the Ecma International for formal standardization, so that they may be submitted to the ISO.[1]

Different kinds of IPRs are involved with software and formats. Copyright is one of them. Unless there is specific permission to modify them, they can not be modified. For example, the licenses approved by OSI to be open source software licenses specifically grant right to modify the source code. It is not clear whether the ODF (owned by OASIS) or the XML format (owned by the Microsoft) can be modified by anyone or not.

The next few years will decide, which side the World will tilt but so far as Allahabad High Court is concerned it has already adopted open source and open document format. This may be ascertained from the FAQ at the court's website[2] at http://www.allahabadhighcourt.in/faq.htm.

1 See here http://www.microsoft.com/presspass/press/2005/nov05/11-21EcmaPR.mspx

2 The Allahabad High Court website may be seen. Apart from the other things as provided in any any court's website, it provides,

- RSS feed of its judgements,
- RSS feed for its administrative orders;
- Cause list of the cases listed in the court;
- Webdiary containing the events in the court on that date.