Formats for Black River Astronomical Society Documents

On a number of occasions over the last several years the Black River Astronomical Society has run into difficulties with documents produced on computers. Some information brought to club meetings could not be shown, corrections and additions that were time critical could not be made to The Guidescope and the observing calendar, errors in email addresses were difficult to recognize, and other problems arose. The root cause of these problems was the use of proprietary document formats that required the purchase and use of specific software, specific versions of software, and/or the use of specific operating systems in order to revise or edit documents. In an effort to overcome these issues the BRAS Board formed a committee to explore the issue and make recommendations. Another goal of the committee was to find recommendations that made it possible for any BRAS member to contribute to or edit documents for the club on any personal computer without incurring costs for software or adopting a particular computing platform. At the August 2012 BRAS Board meeting the recommendations made by the documents committee were unanimously approved as standards for BRAS documents.

The Black River Astronomical Society has now adopted the Open Document Format for all club documents. The Open Document Format (ODF) is an ISO standard approved in May of 2006 for a variety of office suite documents. It is the only ISO document standard that is fully and openly disclosed and described, and the only one with more than one office suite that fully implements an ISO document standard. Document file format standards are defined in several categories under the ODF:

.odt for text/word processing
.ods for spreadsheets
.odp for presentations (like Powerpoint)
.odg for drawings/graphics
.odf for mathematical formulae
.odb for databases

ODF files are stored as compressed plain text with XML markup, the same as website HTML markup, but with different <tags> that describe formatting and layout. The standard ODF files are automatically saved with 'zip' file compression applied on save and they are decompressed transparently when opened. This means that anyone with a standard file compression utility and a text editor can recover and read all information in any ODF file even if they have no office suite software that supports ODF. In part because of the default compression, ODF documents are typically about 10% to 20% of the size of the same content file in Microsoft Office formats, making for smaller email attachments, faster internet downloads, and savings in hard drive space. Newer versions of the ODF specification allow for file encryption using AES256 algorithms, the same standard required by the US government for files up to and including “Top Secret”, so we can securely exchange files with personal information by email when needed.

There are a number of office suites and individual spreadsheet and word processing programs that support Open Document Formats. Many of these programs run on all three major platforms; Windows, Apple, and linux, and several work online through a browser. Currently the leading office suite for ODF appears to be LibreOffice, which can also read in most Microsoft Office documents you already have and then save them in ODF format for continued and repeated BRAS use. Nearly all of these ODF supporting programs are free (as in no cost) and many are also licensed in a manner that prevents them from being taken over, or purchased and killed or taken proprietary. In other

words they will remain both free of cost and freely available. These programs are full-featured and operate in a manner that should be familiar for any office suite user, with a few minor adjustments. We have also adopted a specific program for producing the Guidescope if the current editor wishes to use a full desktop publishing program for that job instead of a word processor. That desktop publishing program is Scribus, which is also available for free from http://www.scribus.net/, and will also run on Windows, Apple, and linux. The Mac OS X version requires an Intel processor and Leopard 10.5 or higher.

Scribus, and most office suites that support ODF formats, also supports direct output to Adobe Acrobat .pdf formatted files, which is the format that BRAS has chosen for BRAS document final distribution, as .pdf readers are installed on nearly all computers in some form, making it simple and easy for members to read without the need for an office suite. The better of these programs, such as LibreOffice, can embed the ODF document within the .pdf file, allowing the .pdf file itself to be opened and edited in LibreOffice.

In short, three file formats are now acceptable for creation and sharing of BRAS club documents, plain text, the ODF office document formats, and Scribus desktop publishing format for the Guidescope. PDF format is the standard chosen for distribution of the final product to BRAS members.

A list of programs that support ODF formats is available on Wikipedia at http://en.wikipedia.org/wiki/OpenDocument

Our members can pick which of these programs they would like to use (except for the Microsoft programs). ODF version 1.2 is preferred.

A caveat is in order here. Microsoft claims to support ODF formats. Simply put, Microsoft only claimed this support in the past in an attempt to discredit the ODF format standard by implementing it as badly as possible, then claiming that the ODF standard is broken, rather than Microsoft's intentionally broken implementation of it. This is well documented online, but Wikipedia has been consistently edited by Microsoft partisans who wish to maintain Microsoft's office software monopoly through control of proprietary office formats. There are also some plug-ins for Microsoft Office that claim to provide document exchange with ODF, but these are not 100% compatible or reliable because Microsoft does not publish their complete document format specifications. In August of 2012, as this article was being prepared, Microsoft announced that it was introducing 'real' ODF support with the release of MS Office 2013. This support is for ODF version 1.2, with no compatibility for ODF version 1.1, and with a different, non-compatible implementation of editable .PDF formats than the leading free software office suites. This support also doesn't exist and won't be implemented in versions of MS Office older than 2013. Our goal is to get rid of incompatibility issues, so Microsoft Office 'ODF' documents are not acceptable as standard BRAS ODF formats as of this writing, as they consistently present the problems we're trying to escape.

For those who don't have laptops and are worried about bringing Powerpoint style presentations to meetings, we ask that you bring those in the Open Document Presentaion .odp format, which we will supporting on the computers we bring to meetings. LibreOffice will likely be the office suite installed on available computers at meetings, so LibreOffice Impress (which looks and acts like a near clone of Powerpoint) or another office suite's ODF presentation editor should be used to generate those presentations in .odp format. Impress supports audio and video elements as well as

standard graphics and text elements. Impress might run a non-complex Powerpoint formatted presentation, but bring your own computer (and be prepared to take some time for a possible switch with another computer) if you are determined to show a Powerpoint presentation. Those using Apple and other proprietary file formats should also provide their own computers for meetings.

There are many places to find help for using the programs that support ODF formats. All the office suites and individual programs that support ODF appear to have built in help facilities, and most of them have one or more online help forums.

Here is a short list of the most popular office programs with ODF support, all of which are completely free and run on all or most operating systems:

LibreOffice http://www.documentfoundation.org/ currently the most well supported, feature rich, and has the most developers, including nearly all the former openoffice developers. A very large backlog of features and improvements has been implemented in the last 18-24 months.

openoffice http://www.openoffice.org/ LibreOffice 'forked' from this office suite when Oracle purchased Sun, which used to support openoffice development. Nearly all former Sun openoffice developers are now working on LibreOffice. Oracle donated the openoffice project name to The Apache Foundation after Oracle's owner Larry Ellison failed to force his will on the Sun developers, who left and created the LibreOffice 'fork'. Openoffice is moving ahead on development, although a bit more slowly than LibreOffice at this writing.

Calligra http://www.calligra-suite.org/ a more recent development, growing out of the former Koffice suite.

IBM Lotus Symphony Office http://www-03.ibm.com/software/lotus/symphony/home.nsf/home IBM's version of openoffice, recently discontinued, and code transferred to Apache for use in openoffice.

Google Drive (formerly Google Docs) https://drive.google.com free online editor from Google, editing done inside a browser window

Abiword http://www.abisource.com word processing only, not as up-to-date in some areas of ODF support, but under constant development.

Places to get help and technical support for ODF and office suites that support ODF.

http://www.documentfoundation.org/
http://www.libreoffice.org/get-help/
http://ask.libreoffice.org
http://plan-b-for-openoffice.org
http://www.openoffice.org/
http://www.openoffice.org/support/
http://openoffice.blogs.com/

Youtube.com has many tutorials on using LibreOffice, openoffice, and other software that supports ODF file formats. You only need to search for what you need. In short order we'll also have a group of people within BRAS able to help each other, and should have document templates we can share.

This is a first version of this document. If you have questions about any issues with document formats for BRAS or suggestions for improving this document, please contact llumpkin+BRAS@gmail.com

Summary Table

	Formats:					
	Editing				output for distribution	
Documents:	Scribus Desktop Publishing	ODF text .odt	ODF spreadsheet .ods	ODF Draw .odg	final in PDF	final in editable PDF
The Guidescope	x	x			x	s
Board Minutes		x			x	
BRAS Roster			x		x	s
Financial records/bookkeeping			x			
Publicity flyers		s		s	x	s
Emailed all-club items like announcements	We strongly suggest plain text or freely readable formats and images like .pdf, and avoiding binary or proprietary formats like .doc, .docx, .xls, .xlsx, .pages, .numbers, etc. Please send text as text, not as an image, especially not text as a .jpg					
Official BRAS forms (e.g. membership forms)		x			x	x

x = required formats for official BRAS documents
s = suggested format

.PDF format is to be used for final publication for distribution through email or via the BRAS website.