

GBT Memo #272

Green Bank Telescope (GBT) Memo Series Latex Template

Glen Langston

NRAO Green Bank

GlenLangston@alum.mit.edu

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Abstract

The Green Bank Telescope (GBT) memo series provides documentation of design and testing of components of the observing system. The memo series was initiated by Roger Norrod in July 1989, and has contributions by many authors. The memo series formats are heterogeneous, and will remain so. To facilitate writing GBT memos, we suggest a template for the LaTeX format of the memo series contributions. The main advantage of using this template is that it allows direct linking of other web based documents internally, enabling easier access to referenced documents.

This memo also summarizes other memo and notes series, which are currently available at the NRAO in Green Bank. The GBT Memo series is available on the web at:

<https://safe.nrao.edu/wiki/bin/view/GB/Knowledge/GBTMemos>

Change Record

Revision	Date	Author	Sections/Pages Affected
			Remarks
1.0	2011-Feb-09	G. Langston	All
			Initial version that gets the bugs out of the Latex Format.
1.1	2011-Feb-09	G. Langston	All
			Add in EDTN info from Sue Shears.
1.2	2011-Feb-09	G. Langston	Section 4.
			Fix EDTN start date.
1.2	2011-Feb-09	G. Langston	Section 4.
			Roger pointed out an NRAO Library link to many memo series that I was un-aware of.

1. Motivation

This memo is a *suggestion* for the format of GBT Memos written using LaTeX. The purpose of this memo is to aid others in writing GBT memos, as documentation is critical for efficient operation of the Telescope and also for development of future instruments. The memo series topics include design studies, engineering tests, software analysis and interface specifications for the Green Bank Telescopes (GBT). These notes are available as links below. Once entered, no memo is deleted (Memos may be marked as one of Current, Superseded or Obsolete When several members of our group are developing a note it may be kept on line, and the status will be In Preparation). The main advantage of using this format is the ability to directly link references to other web-based documents into the document text. In the memo series, PDF format versions of figures are encouraged, generally allowing easier access world wide. The LaTeX style uses only PDF figures.

Memo series of this type have been used in many other projects at the NRAO, and have been very successful in providing a way to organize information and allow for its rapid and widespread dissemination. (For example see memo 1 of the OVLBI series at <http://www.gb.nrao.edu/ovlbi/memos.html>)

For those who are not familiar with the concept, the basic ideas are as follows. Any interested person may write and submit a technical memo on a subject relevant to the series. A central distribution point is established to receive contributions, assign each a sequence number, enter it into an index, and send copies to those who have asked to be on a mailing list. The contributions are not reviewed by anyone, and therefore have no official status whatsoever; they can, and often do, contain preliminary ideas and opinions. The numbered memos can then be referred to in future work, and since most people actively working on a given project will have copies, there is a common, written basis for discussions. Of course, this is no substitute for formal documentation of actual design decisions.

2. Contributions

Contributions are accepted from anyone, at any institution, worldwide. The only guidelines are that the memos should be closely related to the subject of the series, and should be kept reasonably brief. Copies of papers or data published elsewhere should not be included, but references should be given. Voluminous information (like long listings) that might be of value to only a few readers should be omitted, but instructions for finding that information should be given.

Submission of contributions in machine-readable form is encouraged. Normally the author will be given an account and password to allow editing of the “NRAO Wiki” project web pages. The author will update the index and attach the files to the web page.

Preferred file format is either ASCII text or PDF. If documents are generated based on TeX or Word input, these files should also be included. File name conventions for the series is as follows:

File name	extension	File type
=====	=====	=====
GBTMemo272.txt		Plain text format input memo
GBTMemo272.pdf		PDF format memo for memo
GBTMemo272.tex		LaTeX format input for memo
GBTMemo272Fig1.pdf		PDF Format figure 1 of memo.
GBTMemo272.ps		Postscript format memo (discouraged)
GBTMemoLogo.pdf		PDF format of Logo for GBT memos

To facilitate LaTeX format contributions having a common format, the notes page has a “tar-ball”:

<https://safe.nrao.edu/wiki/bin/view/GB/Knowledge/GBTMemos/GBTMemo.tar>

containing the files above and an associated LaTeX style file `GBTMemo.sty`. For the latest details, examine `README.GBTMemo`.

3. Distribution

For the present series, the distribution point will be at the NRAO in Green Bank. Requests for help in submitting contributions should be sent to:

Ms. Shirley Curry
NRAO, P. O. Box 2
Green Bank, WV 24944
phone: 304/456-2240 fax: 304/456-2170
email: scurry@nrao.edu

The GBT memos may be assigned numbers by emailing the above contact or by editing the Memo Series Wiki page and reserving a memo number. No special mailing lists will be maintained, but memos will be available via the Internet. When a new memo is released, the memo index:

<https://safe.nrao.edu/wiki/bin/view/GB/Knowledge/GBTMemos>

will be updated and the update announced via email. The index will include title, author, date, a one-sentence summary (if provided by the author), and some status codes (e.g., we will attempt to flag obsolete memos).

4. Relationship to other NRAO GB memo series

A number of NRAO GB memo/note series exist, and are in various states of development. The NRAO Library maintains a link to some of the GB memos (but not to project notes):

http://www.nrao.edu/library/nrao_memos.shtml

The more recent of these memo series are listed below.

CICADA The Configurable Instrument Collaboration for Agile Data Acquisition (CICADA) Project Notes concern development of Digital Signal Processing hardware. The series was initiated by Glen Langston, Randy McCulloch and John Ford in 2007.

<https://safe.nrao.edu/wiki/bin/view/CICADA/CicadaNotes>

DSS The Dynamic Scheduling System Project Notes describe software for automatic selection of the optimum projects for observation with the GBT. The series was initiated by Karen O’Neil and Dana Balser in January 2007.

<https://safe.nrao.edu/wiki/bin/view/GB/Dynamic/DynamicProjectNotes>

EDIR The Electronics Division Internal Reports are the longest running documentation system still active in Green Bank. The first report was written by J. Cohen and T. Orhaug in June 1962. <http://www.gb.nrao.edu/electronics/edir>

EDTN The Electronics Division Technical Notes are the *second* longest running documentation system still active in Green Bank. The lowest number note was written by Roger Norrod in May 1981. The very first note was number 100, written by C. Coats in January 1979. <http://www.gb.nrao.edu/electronics/edtn>

GBT Commissioning During initial testing of the operational GBT system, Ron Maddalena organized the first test reports in memo series. The first memo is by McKinnon and Maddalena in January, 2001. Many of these documents are now in the GBT Memo series.

<http://www.gb.nrao.edu/~rmaddale/GBT/Commissioning>

MLLN The MIT Lincoln Laboratory NRAO project notes describe the development of an automatic control system for the NRAO 43m (aka. 140 ft) telescope for use in study of the Earth’s ionosphere. The MLLN series was initiated by Glen Langston in February 2005. <https://safe.nrao.edu/wiki/bin/view/Mit43M/MLLNProjectNotes>

OVLBI The Orbiting Very Long Baseline Interferometry project (OVLBI) describes development of a spacecraft tracking system in Green Bank. The memo series was initiated by Larry D’Addario in May 1990. <http://www.gb.nrao.edu/ovlbi/memos.html>

PTCS The Precision Telescope Control System has an extensive memo series. This series was initiated by Richard Prestage in February 2003.

<https://safe.nrao.edu/wiki/bin/view/GB/PTCS/ProjectNotes>

5. Conclusion

We suggest a LaTeX format to facilitate the GBT project through documentation based on a freely available notes series. Any concerned person may contribute to this series.

REFERENCES

L. D’Addario, 1990, NRAO. The OVLBI Memo Number 1.

http://www.gb.nrao.edu/ovlbi/memos/es1_memoser.txt

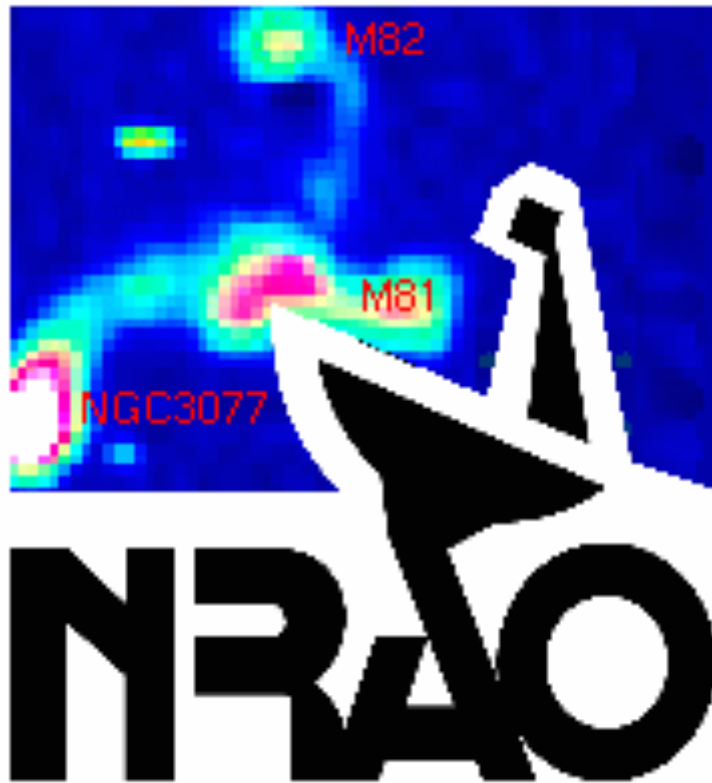


Fig. 1.— This is an example figure. It’s the GBT Memo logo.