LIGO Laboratory

Date:	13 Nov 2012
Refer to:	M1200366-v1
Subject:	Guidance and format for writing an "Operation Manual" (aka "User's Manual" or "Operator's Manual")
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Title

In order to facilitate finding manuals in the DCC, it is strongly recommended that:

a) all manuals should have a uniform title format so that one can find these in the DCC easily. The title must be "Operation Manual for <device, unit, assembly, ... name>"
b) all manual should be "E" (engineering) type documents
c) a single manual be written to cover all aspects of the operation of a major sub-assembly for a subsystem, i.e. a manual which covers operation, maintenance, calibration, troubleshooting, etc. If one or more of these aspects are already included in other existing documentation, then simply refer the reader to this separate document in the appropriate section of the Operation Manual.

Wiki and the DCC

Many operators have expressed a preference for having the Operation Manual available as a set of wiki pages so that they can be readily edited/revised and more easily kept up to date. This is acceptable, but not sufficient.

a) A written document with a prescribed top-level format must be created and filed into the DCC periodically. This can be simply an electronic capture ("snap shot") of the wiki pages (if the wiki pages are properly formatted and organized).
b) Operators or other knowledgeable users can edit the wiki version. However before a "snap shot" is used to update the DCC, a review of the content, including its readability, is required.

Guidance/format for Operation Manuals

The "Operation Manual" covers operating instructions, maintenance and troubleshooting. If one or more of these aspects are already included in other existing documentation, then simply refer the reader to this separate document.

Guidance for writers to think about while writing:

- Think about how someone else will use the application, especially someone who doesn't know it yet.
- Ideally include a 'quick start' guide and a more in-depth step-by-step tutorial.

- Try not to use terms you use as a developer, try to find the terminology of the user. If this isn't possible then include these terms in the glossary, or list of nomenclature
- Include screenshots. Put arrows and circles in the screenshot, to highlight the function you want to explain.
- Explain simple features in a matrix.
- Explain step-by-step scenarios for what the user may do.
- Consider augmenting the manual with screencasts for explaining processes.
- Include documentation for processes that don't happen very often; The user may have difficulties with these processes.
- Test your manual, especially a quick-start-guide (if included).
- Include all necessary information in the section where it is needed. Repeat the information if needed.
- Explain why this function exists and not just what it does.
- Focus on problems and how they can solved, not just on functions.

Sections

All sections below are to be included, in the order shown below. If a section is not applicable, then do not omit; Include the section and simply note "not applicable" (with the exception of the optional "quick start" section). If a section (e.g. "Maintenance") is covered in a separate manual, then include the section and in it refer the reader to this separate document.

- Table of Contents
- List of Figures
- List of Tables
- List of Nomenclature

1. Safety, general warnings and cautions
2. Description and Purpose: Brief description of the element/component/subsystem covered by this manual and it's purpose.
3. Context within aLIGO: describe where this piece of equipment is within the aLIGO System (e.g. a component of subassembly A, which is part of assembly B, which is within the X subsystem)
4. Quick Start Guide (optional)
5. Setup or initialization
6. Check-out
7. Operating Instructions
8. Calibration
9. Maintenance
10. Storage
11. Troubleshooting
12. References: Include top-level references on the design and specifications for this unit. Include any subsidiary or related manuals.
13. Appendices (if/as needed)