



ESO - LA SILLA

# EUROPEAN SOUTHERN OBSERVATORY

Organisation Européenne pour des Recherches Astronomiques dans l'Hémisphère Austral

Europäische Organisation für astronomische Forschung in der südlichen Hemisphäre

## LA SILLA OBSERVATORY

┌ **La Silla Management** ─┐

**Recommendation**  
**of the WG on Documentation**

LSO-PLA-ESO-00000-0001

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└ **INTERNAL USE ONLY** ─┘

Prepared U. Weilenmann, D. Gojak 29.08.00  
Name Date Signature

Approved  
Name Date Signature

Released J. Melnick  
Name Date Signature

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# 1 Introduction

## 1.1 Purpose and Scope

This document shall define the management of the official documentation at La Silla, considering all kinds of media available such as CD-ROM's, Tapes, Optical Storage, etc. This scheme shall be applied to all documentation that is handled within the Observatory and contractors involved in La Silla Observatory projects.

## 1.2 Related Documents

[1] VLT-PLA-ESO-00000-0005 VLT Program Documentation Plan

[2] VLT-INS-ESO-01000-0001 Directive for Preparation of Technical Specifications

# 2 Classification and Type of Documents

The document classification should depend of its contents or the topic that it treats, independently of the media on that is stored. The classification according the media is a sub-classification inside the group.

## 2.1 Text Documents

These are the vast majority of documents produced and include all those documents like Internal Memos, Technical notes, Specifications, Manuals, etc. The characteristic of this class of documents is that they are produced mostly inside ESO and are linked to operations and maintenance of the observatory.

## 2.2 Drawings

This class contains all types of drawings that are not directly part of, e.g., a manual or other type of document. Drawings exist already in large quantities in places like Astroworkshop, Logistics, Electronics.

## 2.3 Technical Manuals of Non-ESO Equipment

These are manuals for equipment that are in use at ESO labs, telescopes etc. and contain information supplied by the manufacturer of this equipment. They may contain both text documents and drawings, which do not follow any ESO standard.

## 2.4 Administrative and Technical/Operational Forms

There is an uncountable number of forms in circulation, most of them are paper copies. Some MS-EXCEL forms have also been introduced recently like i.e. the Travel Order/Claim form. It is not recommended to use these form as original EXCEL files, because they are platform dependent. The use of web-base tools is encouraged instead.

## **2.5 CD-ROM's**

They contain information of a more general type, catalogues of suppliers, software, libraries etc.

## **2.6 Magnetic/Optical Storage**

Mainly used for digital data storage, but also the most important media for the storage of documents and drawings. Also, used as backup media for any type of data.

## **2.7 Data Libraries**

Contain building blocks for CAD tools like OrCAD or AutoCAD and also for other applications, not necessarily in the CAD field, such as simulation of electronic circuits etc.

## **2.8 Catalogues**

This category includes general product information's, technical data sheets for electronic circuits, but not books collected in the ESO Library. They are either available in book form or on electronic media.

# **3 Layout**

## **3.1 Layout and Size**

Text documents and drawings shall follow a standard layout to make them easier to read, more logical for the archive and easier to be found again. Templates shall be made available to generate new documents. A document templates should be comprised of the following important document chapters:

- Front Cover
- Change Record
- Table of Contents
- Distribution List

The document has to be properly marked with:

- Title
- Document Number
- Revision/Issue Number
- Date
- Names
- Page Numbers

Every drawing shall have a Drawing Header containing all the relevant information:

- Title and Assembly Name
- Document Number
- Issue Number
- Date
- Names

The size for text documents is A4 and for drawings any of the standard DIN formats (A4 - A0).

## 3.2 Templates

Text templates shall be made available for the standard text processor tools in a public area of the off-line computer system. They shall be maintained by the Technical Office Staff in order to guarantee uniformity. The following templates will be supplied:

- a. Multi-Page Docs. with: Front Page, Table of Contents, Text Body etc.:
  - Document
  - Short Document
  - Technical Report
- b. Single-Page Docs:
  - ESO Memo
  - ESO FAX Page
  - ESO Letter
  - ESO Purchase Request
- c. Others:
  - Document Distribution List
  - other Forms used at ESO

## 3.3 Language

Any official document shall be written in English. No specific recommendation for spell-check is made, whether US or UK English shall be used.

# 4 Tools

## 4.1 Text Processors

For all new documentation, standard formats and tools should be used. These tools currently are FM and Latex for text documents, or if preferred, some editor that allows conversion to FM format (e.g., some well-known text processors for Pecs). MS-Word is already used in Garching by technical staff and in Administration. However, large documents cannot be properly handled with these text processors and produce a lot of overhead to readers if they are distributed in electronic form. And above this the MS-Office tools are all platform dependent and require a PC with Windows installed on them.

Web based documents in HTML/XML can be produced with almost any processor nowadays, but the maintenance and final editing of these documents should be done with the ESO standard DreamWeaver tool.

**Recommended output formats: Postscript, PDF, ASCII, FrameMaker, HTML, XML, ev. MS-Word**

## 4.2 Drawing editors

Even if standard tools have not been defined yet, AutoCad and OrCad are used by many persons. Users who already are satisfied with their usual draft editors, will continue using them. Here is more important that the output format is standard as the kind of tool used.

The format conversions must not jeopardize the edition of the document (e.g., a schematic converted to HPGL or Postscript cannot be edited except the original format is preserved).

**Recommended output formats: Postscript, PDF, JPG/GIF, HPGL.**

Old documents in computer readable form (e.g., old word processors, graphics, etc.) must be converted to Postscript for distribution, but could also be converted to some standard text and/or graphic tools in case they have to be edited. Plain ASCII documents could be left as they are, provided they are in suitable format for reading and/or printing.

For old text, drawings and schematics in paper form, no time should be invested in digitalizing them unless really needed (e.g., for upgrades, updating, etc.). Otherwise, the amount of resources required will be beyond the Teams possibilities. For important drawings and schematics a GIF/JPG file could be created to obtain the requested information faster. This should be decided by each Team.

**4.3 Standard tools**

All tools should be part of a standard computer configurations. according the previous definitions.

**4.4 Format and Browsers**

A unique format for all information shall be used to browse through any document and retrieve it from the network. Netscape, Ghostview, Acrobat Reader should be part of all the standard computer installations.

All multi-page documents, text and graphics shall be converted to Postscript format (Acrobat .pdf when available). This enables on-line browsing and/or printing. Postscript format uses normally a lot of space. Transforming them into .pdf format with the Acrobat Distiller, these files can be considerably reduced in size.

For single-page graphics, GIF or JPG shall be used (specially for old schematics, for which the source file is not available and scanning is required if on-line availability is necessary). For long documents, which comply with the standard documentation formats, the source file (e.g., FM or LaTeX) could also be made available for anybody who may want to use it as a template, but it should be marked as such (Sample Template).

Many technical drawings are already digitized (GIF/JPG format) or they exist in their original digital format provided by OrCAD, AutoCAD, Euclid etc. Due to historical reasons the WG does not recommend a single standard since the output file provided is in Postscript format.

**4.5 Recommendation for Document Distribution**

It seem very convenient to distribute documents by e-mail as an attachment or as separate files embedded in the e-mail. According to experience this is 95% of the e-mail traffic and it clogs mailboxes, makes loading, copying and forwarding slow and cumbersome. And that also in case the document attachment is not requested by the mail addressee. Despite the increase in memory and storage capacity, this problem cannot be easily tackled.

Therefore, *the proposed solution is to use Hypertext references* in e-mails which point to the web pages where these documents can be found and individually downloaded if required.

In the upcoming discussions about the documentation project, this issue has to be studied.

**5 Identification of Documents and Drawings**

The identification scheme follows strictly the VLT recommendation and is consistent ESO wide. That means that it can be expanded in the future without modifications. The key for this identification scheme shall be made available on the Web, to get people adapted to it so they use the codes properly and consistently.



## 5.1 Text Documents

The Document Number has the following structure:

**AAA - BBB - CCC - nnnnn - mmmm**

where:	<b>AAA</b> denominates the Project ->	NTT	Upgrade
		VLТ	VLТ Project
		ESO	Garching
		LSO	La Silla Observatory
		3P6	3.6m Upgrade
		PAO	Paranal Observatory
		GEN	??? used in Garching
		ARC	??? used in Garching
	<b>BBB</b> is the type of document ->	PLA	Plan
		SPE	Specification
		TRE	Technical Report
		MAN	Manual
		MIN	Minutes of Meeting
		SOW	Statement of Work
		LIS	List
		INS	Instruction
		DWG	Drawing
		SCH	Schematic, Layout, Diagram
		DAS	Data Sheet
		DDS	Digital Data Storage
		SRS	Software Requirement Specification
		SFS	Software Functional Specification
		SDD	Software Design Document
		SUM	Software User Manual
		SMM	Software Maintenance Manual
		ATP	Acceptance Test Procedure
		ITP	Integration Test Procedure
		MTP	Modular Test Procedure
		ICD	Interface Control Document
		GEN	General Description
		DAT	Data
		VER	Verification Procedure
		PRO	Generic Procedure
		DWF	Drawing Web Format
		etc.	

.....continued

CCC is the issuing part -> ESO (normally the case for internal docs.)

CCC can be selected at discretion of the document publisher, but it should either reflect the name of the company, the consortia or the institute that issues the document.

some explanatory examples:

REO	REOS (i.e. M1 docs)
CZO	Carl Zeiss (i.e. 2.2m tel. manuals)
TEK	Tektronix (i.e. for manuals)
HAR	HARPS Consortium
HP	Hewlett Packard (i.e. manuals)

**nnnnn** is the Product Structure code which has to be defined for each Project separately. For LSO documents the WG proposes:

-> first two digits for the Team:

00nnn	Management
10nnn	Logistics, Hotel+Transport
20nnn	Infrastructure
22nnn	2.2m + 1.5 <sup>2</sup> m Team
36nnn	3.6m + CAT Team
40nnn	NTT
50nnn	SEST
60nnn	Electronics
63nnn	Infrared
66nnn	Detectors
70nnn	Mechanics
75nnn	Optics
80nnn	Software

-> last three digits for Project Identification, WP or WC code:

nn000	e.g. Team Management
nn100	e.g. Manuals
nn200	e.g. Reports
nn300	e.g. Projects
nn000 ... nn999	etc.

**mmmm** is a 4 digit sequential number from 0000 ... 9999

Some examples:

LSO-MIN-ESO-63000-0043	Minutes of the IRS Team #43
3P6-SPE-ESO-00012-0001	Requirement Specifications for WC12 of the 3.6m Upgrade
LSO-MAN-ESO-22100-0003	IRAC Users Manual #3
LSO-SCH-ESO-63300-0056	IRAC Schematics #56
LSO-MAN-CZO-22100-0123	2.2m Manual from Zeiss #123
LSO-SCH-TEK-60100-0234	Tektronix Manual of Scope #234

The teams will be free to establish their own numbering concept within these rules in accordance with the Technical office.

## 5.2 Drawings

Most of the old drawings are archived under an already existing numbering scheme. The idea is here to maintain this old system and apply the new system slightly modified to new drawings.

The new code will be simply: LSO-DWG-ESO-'old drawing code'  
 which is: LSO-DWG-ESO-Telescope-Project.Assembly.No  
 e.g.: LSO-DWG-ESO-152-666.02.03

means:

152	=	1.52m Telescope
666	=	Focus Drive Project
02	=	End Switch Assembly
03	=	Spring Housing

A similar approach has to be found for drawings in the Logistics Team. The restrictions of the DOS file names conventions on PC's collide with this scheme (unless WINDOWS 95 is implemented on all machines). There is no way to solve this problem, however the WG proposes the following work-around: The identification has to be written on any drawing independently of the file name on the system. To keep things clear, an internal index has to be maintained that links drawing numbers to file names. On UNIX systems there will be no problem to store the documents under the identification code.

## 5.3 Others

All other categories, as mentioned under 2.3 to 2.7, shall intend to follow the above mentioned identification scheme as close as possible. It is obvious that existing information cannot be easily put under this scheme, but the WG recommends to apply it to all new documentation.

# 6 Registration

## 6.1 Responsibilities

The person who wants to produce a document shall choose the proper code and use the appropriate layout for it. He also has to verify the right sequential number of the documents according to the indicated by the team responsible. The REMEDY tool shall be used for the registration of the document. There a reference is also given to where the document can be physically found, who is the author and responsible for it and other details.

## 6.2 Registration of Documents

The team responsible for documentation shall register the general documents related to the group. If someone wants to issue a document related to an issue managed by another group (e.g., an optician writing requirement specs. for the 3.6m Upgrade) the responsible of that team has to be consulted. He will enter the document into REMEDY which issues the next sequential number.

### 6.3 Registration of Drawings

There is no substantial difference to text documents. Also here, the team responsible has to keep the index up to date and issue the proper codes for new drawings. As far as the drawing data base is maintained on PC's instead of using the REMEDY tool, he will also have to keep the link table up to date.

### 6.4 Release of Documents

New documents require proper release policies. A requirement specification needs obviously a more detailed approval policy than the issue of a technical report. The following signature procedure is proposed:

#### Signatures for Document Release

Type		Prepared	Approved	Released
Plan	PLA	yes	yes	yes
Specifications	SPE	yes	yes	yes
Manual	MAN	yes	no	yes
Minutes	MIN	yes	no	no
Statement of Work	SOW	yes	no	no
Technical Report	TRE	yes	no	no

## 7 Distribution

### 7.1 Confidentiality

All non public documents have to be properly marked with at least one of the following clauses:

- ESO - Internal Use Only
- Preliminary Document - For Review
- Draft - For Review
- Confidential
- Personal - Confidential

Confidential Documents shall never be made available on public accounts or anywhere on the Network, and they shall be kept in personal accounts in encrypted versions only.

### 7.2 Distribution List

A Distribution List shall be available on the Templates account that is always up to date in respect to the hierarchical and personnel point of view. The Technical office shall be responsible for the monthly update of this distribution list. Subsets of this list may be used for special cases. (e.g., NTT Upgrade, Telescope Teams etc.)

### **7.3 Handling of Documents**

Any document produced at the La Silla Observatory shall be distributed internally by the person who prepared the document. This person is also responsible that one copy is archived in the respective team's hard-copy archive.

## **8 Archiving**

### **8.1 Hard-copy Archives and Index**

Every Telescope Team and Support Team shall keep a hard-copy archive, where all the relevant documents, either old or new, are stored and are available for copying, if required. One team member shall be made responsible for maintaining the team archive, file the incoming documents and answer requests from other people for documentation. The WG will not give recommendations on how this archive has to be organized, except for one thing: The team has to supply an index of the documents available in the archive in HTML format to be published on the WWW. This index shall contain the following information:

- Title and short abstract of the document
- Format of the document (.gif .jpg .ps ASCII)
- Doc.Nr. and version
- Date
- Place of the archive where the document can be found

Any hypertext link to documentation in digital form shall be made in this index, provided this document is public.

### **8.2 Public Access**

Using this index any public documentation may be accessed from a single account on the Web. The information may be downloaded or printed. Access restrictions may be implemented if required, to limit the distribution of the public documents to the whole world coordinated with the Technical office.

### **8.3 Central Data Base**

A central data base shall be kept by the Technical office where general documentation like CD-ROM's, Distributor's Catalogues, CAD Libraries are stored. Information on this central data base shall be made available in the form of a News Group or by E-mail. For the respective libraries it is recommended to associate the users to a 'USER GROUPS'. Avoiding to create modules that already have been used will save time. For this purpose the respective account has to be created where the library components will be stored.

According to the different areas, the following USER GROUPS shall be defined:

- ACAD: the user can take existent library components or attach new ones.
- OrCAD: the user can take existent library components or attach new ones.
- TECHNICAL CATALOGUES: Many suppliers are offering their products on CD-ROM's, the technical support officer shall administrate them.
- ESO-STORE: The available stock-merchandise shall be accessible by the corresponding browser.
- TELESCOPE GROUPS: group related information.

- ADMINISTRATION: personal schedules status (vacation, duty, etc.).

#### **8.4 Backup of the Archive**

The teams are responsible for the regular backup of the archive in digital form. The information on the Web shall be backed-up by the Technical office staff.

This document has been prepared with FrameMaker®

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