PREFACE

SCOPE OF THIS MANUAL

This binder contains a collection of documents that will assist programmers in developing applications for the ICL ONE PER DESK, the British Telecom Merlin TONTO and the Telecom Australia ComputerPhone. The documents were written for the ICL OPD, and there may be differences in detail for the other product variants. Thus, for example, an application written for one product may not run unchanged on the others.

The documents are design documents, produced by the OPD software development team. Most of them are PSDs (Product Specification Documents), and are subject to changes which are controlled by formal ICL procedures.

This manual specifies interfaces and functions that are supported in versions 0.7, 1.2 and 1.3 of the OPD base software. (The software version is displayed by keying ALT/Z while displaying the Top Level Menu: it is the first number shown after Ver F - the second number relates to the version of telephony.) The specification of Layered Communications is applicable to versions 09 and 14 of T_LINK. (T_LINK 09 is supplied only in 2-slot Rompacks. T_LINK 14 is supplied in some 2-slot Rompacks, in 4-slot Romapcks and in the Memory Expansion Unit.)

The Introduction to this manual describes the concepts essential in developing programs for the OPD and the framework within which they can be developed. You should read this introduction before starting to use the design documents.

The index at the back of the binder gives the page references of section headings in all the documents. Some of the documents may contain cross references to development documents that are not supplied in the binder: you should ignore these references.

SUMMARY OF CONTENTS

The following documents are provided (in this order):

* Kernel Specification, which provides low level facilities for interrupt handling, input/output and device control, and basic hardware management for the remainder of the OPD system.

* Director Facilities for Application Writers, which gives the rules to be followed in writing applications so that they fit into the OPD system architecture.

* Layered Communications, which describes the use of the TLink protocol on the OPD.

* Telephone Directory Application, which defines the interfaces that enable applications to invoke and interrogate the Telephone Directory application.

* Common Subroutines, which describes three software aids that can be used when writing applications for the OPD.

  Application View of Save and Load (Dump and Restore), which describes the Data Record facility from the point of view of the application programmer and the implementor of the facility.

* Printer Manager, which provides common facilities for applications that use a printer.

* Computer Access: Interfaces for Terminal Emulation Programs, which provides information needed to write terminal emulation programs to function within the standard OPD Computer Access environment.

* Policing of Automatic Redial Attempts on OPD, which describes mechanisms for the control of automatically generated redial attempts (AGRA) including use of the bad number list processor (BNLP).

  Writing Manuals, which is a guide to the form and style of user manuals for OPD applications

Appendices contain the OPD store map, the register of entries in the permanent store, the register of filename extensions and listings of INCLUDE files.

Vertical lines in the margin indicate where significant changes have been made to a document since its last issue.

RELATED ISV DOCUMENTS

The following documents are available separately to ISVs:

* OPD Guide to Software Development, which outlines the information and support that ICL provides to ISVs (Independent Software Vendors) covering software development, media replication and product distribution.

  This OPD Guide and the present manual (Programmers Reference) comprise what is called the ISV Pack.

* Cross-Development Environment manual, a reference manual for software developers using the Tutor board or Software Development Unit(SDU).

  BASIC Environment manual, which consists of documents describing the Metacomco BASIC compiler and its use for developing applications on the OPD

* C/Assembler Environment manual, which covers the OPD hosted C interpreter and compiler from Computer One.

* Telephone Handler technical description, which was included

in the first edition of this manual. It defines the procedural interfaces available to applications to carry out a limited set of telephone operations.

Different countries have their own regulations governing the the making of telephone calls under computer control. It is the responsibility of the ISV to ensure that an application complies with the relevant regulations.

USER MANUALS

The following manuals describe the use and facilities of the OPD, and should be read in conjunction with this manual:

* Installation provides instructions for installing the OPD.

* Welcome Package is an introduction to the OPD for the first-time user; it contains a set of scripts for use with a Welcome program, which leads the user through most of the standard facilities.

* Handbook tells you how to operate the OPD, with detailed step by step instructions for using the standard facilities.

* Advanced Operations describes how to alter parameters underlying the operation of the OPD.

* BASIC gives details of the OPD BASIC programming language.

* Messaging describes how to use the electronic messaging application.

* Xchange explains how to use the set of integrated business applications, providing word processing, business graphics, spreadsheet and database facilities.

You should be familiar with MC68000 concepts, and may need to refer to the following manuals: MC68000 16/32-Bit Microprocessor: Programmer's Reference Manual, Edition 4, Motorola, and Voice Synthesiser Memory Data Manual, TMS6100, Texas Instruments, 1980.

TERMINOLOGY

The following terms, used in the documents in this manual, all have the same meaning:

CMOS
CMOS RAM
Permanent store
Non-volatile store

The terms store and memory are used interchangeably in this manual.

ICL endeavours to ensure that the information in this document is correct, but does not accept liability for any error or omission.

Any procedures described in this document for operating ICL equipment should be read and understood by the operator before the equipment is used. To ensure that ICL equipment functions without risk to safety and health, such procedures should be strictly observed by the operator.

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Technical Publication R51004/02

Registered Office: ICL House
Putney
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A member of the STC PLC group

Second Edition December 1985

Readers' views on this publication are welcome and should be sent to:

The Manager
Publications Project
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