

OPL

# User Guide



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## INTRODUCTION

Welcome to the OPL User Guide for Psion Series 5, Series 3c and Siena machines. This User Guide describes how you can create and run your own programs using your Psion's built-in programming language.

### KEY

The OPL User Guide uses the following symbols to indicate points of special interest:

 A **note**, for any additional information or details.

 A **warning**, for advice on avoiding problems.

### DIFFERENCES BETWEEN MACHINES

It is important to note that the versions of OPL on the various machines covered by this User Guide are not exactly the same. When information is given which is specific to one of the machines you will see one of the following icons:

 for the Series 5

 for the Series 3c

*Siena* for the Siena

These icons most frequently appear next to paragraphs which describe machine-dependent features. However, in some places they appear along side section headings, in which case that section and all its subsections are specific to the machine indicated. Where no indication is given that information is machine-dependent, you should assume it applies to all three machines.

In general, the Series 3c and Siena versions of OPL are the same, except in a few small points, and hence where you see the Series 3c icon and where information given is indicated as being specific to the Series 3c, it generally refers to **both the Series 3c and the Siena**, unless specific reference is made to the contrary.

## CONTENTS

This User Guide is divided into a number of sections according to subject matter and the level of programming expertise expected of the user. Each of the sections is a self-contained PDF file with its own examples and index. Below is a list of the User Guide sections together with their filenames in brackets and an outline of their contents.

If you haven't programmed in OPL before, it is recommended that you work through the Basics section first. This will help you to get to grips with the basic concepts involved.

Use the Overview and Alphabetical Listing section at any time to find either the appropriate command for the task you want to carry out, or the precise usage of a given command. The information given on commands in this section will also tell you where you can read more about them.

- **You can jump straight to any of the documents listed below by clicking on its title.**

### BASICS (BASICS.PDF)

This serves as an introduction to programming in OPL and explains its basic concepts. It is divided into 4 sections:

- Creating & Running Programs.
- Variables & Constants.
- Loops & Branches.
- Calling Procedures.

### DATA FILE & DATABASE HANDLING (DATABASE.PDF)

This covers the database capabilities of OPL. Its two sections cover:

- Creating, saving and performing operations on data files
- and
- Using databases on the Series 5.

### GRAPHICS & FRIENDLIER INTERACTION (GUI.PDF)

This document is divided into 2 sections, dealing with:

- Using the powerful graphics capabilities of OPL
- and
- How to make your programs friendlier by using features such as menus and dialogs.

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## OPL & DISKS (DISKS.PDF)

This document provides information on OPL's handling on disks used in Psion machines.

## EXAMPLE PROGRAMS (PROGRAMS.PDF)

This section provides supplementary example programs for all the machines covered by the User Guide. These programs aim to illustrate a wide range of OPL's capabilities.

## ERROR HANDLING (ERRORS.PDF)

This document contains information on dealing with errors in your OPL programs, including:

- Syntax errors.
- Errors that occur when running programs.

This document also contains a list of errors and their likely causes.

## ADVANCED TOPICS (ADVANCED.PDF)

This document covers a range of topics suitable for more advanced programmers. These include:

- Where files are stored.
- Safe pointer arithmetic.
- Creating OPL applications.
- Cacheing procedures on the Series 3c and Siena.
- Sprite handling on the Series 3c and Siena.
- I/O functions and commands.
- Recording and playing sounds.
- DYL handling.
- Memory Allocation.

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## USING OPXS ON THE SERIES 5 (OPX.PDF)

This section provides information on OPX procedures provided in the Series 5 ROM for handling the following:

- Date / time extras.
- System controls.
- Bitmaps.
- Sprites.
- Database extras.
- Printing.

## OVERVIEW & ALPHABETICAL LISTING (GLOSSARY.PDF)

- The Overview section of this document lists all the OPL keywords grouped according to purpose. Use this section to find the appropriate command for what you want to do.
- The Listing section lists the OPL keywords alphabetically, providing a reference guide to the usage of each.

## APPENDICES A-G (APPENDS.PDF)

The seven appendices in this section cover the following information:

- **Appendix A:** Summary for experienced users.
- **Appendix B:** Operators and Logical expressions.
- **Appendix C:** Serial/Parallel ports and printing.
- **Appendix D:** Character codes.
- **Appendix E:** Listing of CONST.OPH for the Series 5.
- **Appendix F:** SQL specification for the Series 5.
- **Appendix G:** EPOC32 error values (Series 5 only).