

# ORACLE FOR SCO UNIX INSTALLATION & USER'S GUIDE

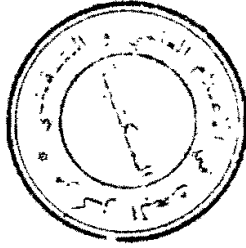
VERSION 6.0  
April 24, 1990

Part No. 5643-V6.0

**ORACLE**

---

The Relational Database Management System



# SQL\*REPORT USER'S GUIDE

*July 3rd, 1986*

ORACLE Part No. 3603-V1.0

---

© Copyright 1985, 1987 Oracle Corporation Belmont, California, USA.  
All rights reserved. Printed in U.S.A.

ORACLE Part No. 3603-V1.0

**Contributing Author:** Rita Moran

**Contributors:** Ned Dana, Rich Hallock, Larry Baer

This program documentation contains proprietary information of Oracle Corporation. The reproduction of this material, in whole or in part, without the express written consent of Oracle Corporation, is strictly prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. Oracle Corporation does not warrant that this documentation is error-free.

ORACLE is a registered trademark of Oracle Corporation.  
SQL\*Report and SQL\*Text are trademarks of Oracle Corporation.

## PREFACE

### PURPOSE

---

This guide describes how to use SQL\*Report, a versatile report generation program which includes two ORACLE utilities:

**RPF** The ORACLE Report Text Formatter enables you to control the final format of reports.

**RPT** The ORACLE Report Generator enables you to include information from ORACLE databases in your letters and reports.

This manual is designed to serve two purposes. As a user's guide, it explains how RPF and RPT work, and demonstrates their use. As a detailed reference manual, it provides descriptions of RPF and RPT syntax and commands. Examples of the files created or used are shown, as well as diagrams illustrating the processes involved.

Version 5.1 changes are outlined in the chapters "Overview of RPF" and "Overview of RPT."

### AUDIENCE

---

This guide is written for users of the ORACLE Relational Database Management System who need a simple text formatter, as well as those who wish to embed in their documents information drawn from ORACLE databases.

Very little background is required to use the ORACLE Text Formatter (RPF). You need only know how to use the editor for your particular computer system. The ORACLE Report Generator (RPT) requires familiarity with SQL and the ORACLE RDBMS. Although programming

---

---

skills are not required, they would prove helpful if you wish to make full use of this product.

## **HOW THIS MANUAL IS ORGANIZED**

---

This manual contains three parts and an appendix, as described below:

### **PART I: INTRODUCTION TO SQL\*REPORT**

Chapter 1 introduces you to SQL\*Report and explains the relationship between RPF and RPT, its two components.

### **PART II: REPORT TEXT FORMATTER - RPF**

Chapter 2 provides an overview of RPF.

Chapter 3 demonstrates the use of RPF in formatting a simple letter and a tabular report.

Chapter 4 provides a complete description of RPF syntax and commands.

### **PART III: REPORT GENERATOR - RPT**

Chapter 5 provides an overview of RPT.

Chapter 6 demonstrates the use of RPT in preparing tabular reports, nested reports, and letters, with database information embedded in the text.

Chapter 7 gives a complete description of RPT syntax and statements.

### **APPENDIX**

The Appendix provides five additional examples of RPF and RPT use.

## **HOW TO USE THIS MANUAL**

---

If you are new to SQL\*Report, you should follow this manual in sequence in order to master RPF before going on to RPT. Users already familiar

---

---

with the material can locate specific statements or commands in the index and proceed directly to the section needed.

Version 5.1 changes are outlined in the chapters "Overview of RPF" and "Overview of RPT."

## CONVENTIONS USED IN THIS MANUAL

The following conventions are observed in this manual:

### **Filenames**

Filenames appear in capital letters, as in INIT.ORA. Portions of the filenames which may vary appear in lower case, as in SGADEFx.ORA.

### **Reserved words and keywords**

These words also appear in capital letters in examples and in text, to indicate that they are to be entered as is, and that they have reserved meanings within ORACLE.

### **Key names**

Key names appear in capital letters, and are enclosed in square brackets as in [RETURN].

## Command syntax

### **Commands**

This font is used to identify text which must be entered exactly as shown:

```
SELECT * FROM
```

### **Variables**

Variables appear in italics. Users must substitute an appropriate value.

*arg1*

Variables may also appear within angle brackets, as in:

---

<arg1>

**Alternative items**

Alternative choices are always separated by vertical bars. The set of alternative choices is enclosed by curly braces if one of the items is required, or by square brackets if the item is an optional alternative. (See below for the notation convention for required or optional items.)

**Required items**

Required items are enclosed in curly braces. Users must choose one of the alternatives.

```
.DEFINE { <macro1> | <macro2> }
```

**Optional items**

Optional items are enclosed in square brackets.

```
.FPRINT [spacing] <variable>
```

**Repetitive items**

An ellipsis represents an arbitrary number of similar items.

```
.FPRINT [spacing] <variable> [[spacing] [<variable>]]
```

**New or revised material**

Newly added or revised material is highlighted with a bar in the margin, as demonstrated by this paragraph.

The following symbols should always be entered as they appear in the command format:

period	.
comma	,
hyphen	-
semicolon	;
colon	:
equal sign	=
backslash	\
single quote	'
double quote	"
pound sign	#
parentheses <sup>2</sup>	()

---

---

## RELATED PUBLICATIONS

---

Along with this guide, you may want to refer to the following documents published by Oracle Corporation. You will automatically receive titles which relate to products you have purchased; you will not necessarily need nor receive all documents. The release notes are updated frequently to reflect recent changes in the products.

Documentation parts for the ORACLE RDBMS are:

- *ORACLE RDBMS Release Notes* ORACLE Part No. 3001
- *ORACLE Overview and Introduction to SQL* ORACLE Part No. 3801
- *The ORACLE Database Administrator's Guide* ORACLE Part No. 3601
- *ORACLE Utilities User's Guide* ORACLE Part No. 3602
- *ORACLE Error Messages and Codes* ORACLE Part No. 3605

Documentation parts for SQL\*Report are:

- *SQL\*Report Release Notes* ORACLE Part No. 3012

For every operating system on which ORACLE is supported, an installation and user's guide is also provided, as in:

- *ORACLE for DEC VAX/VMS Installation and User's Guide* ORACLE Part No. 1001
- *ORACLE for IBM VM/SP Installation and User's Guide* ORACLE Part No. 1003



---

## YOUR COMMENTS ARE WELCOME

---

We value and appreciate your comments as an ORACLE user and reader of the manuals. As we write, revise, and evaluate, your opinions are the most important input we receive. At the back of this manual is a Reader's Comment Form which we encourage you to use to tell us both what you like and dislike about this (or other) ORACLE manuals. If the form is gone, or you would like to contact us, please use the following address, or call us at (415) 598-8000.

Technical Publications Manager  
Oracle Corporation  
20 Davis Drive  
Belmont, California 94002

## TABLE OF CONTENTS

<b>PART I: INTRODUCTION TO SQL*REPORT</b> .....	<b>1</b>
<b>Chapter 1. Introduction</b> .....	<b>3</b>
Welcome to SQL*Report .....	3
A Brief Overview .....	4
<b>PART II: REPORT TEXT FORMATTER - RPF</b> .....	<b>7</b>
<b>Chapter 2. Overview of RPF</b> .....	<b>9</b>
Introduction .....	9
RPF Processing .....	10
Syntax .....	10
RPF Concepts .....	11
RPF Version 5.1 .....	11
<b>Chapter 3. Using the Report Formatter</b> .....	<b>13</b>
<b>Example 1: A Simple Letter</b> .....	<b>13</b>
Using RPF: Four Basic Steps .....	13
Defining a Table .....	14
Invoking a Table .....	14
Entering Text and Other Formatting Commands .....	14
Terminating the Table .....	15
Additional Formatting Commands .....	15
The Default Table .....	15
Defining the Page: Top and Bottom Margins .....	15
Controlling Vertical Spacing .....	15
Controlling New Lines .....	16
Defining Paragraphs .....	16
Running RPF .....	16
<b>Example 2 - A Tabular Report</b> .....	<b>19</b>
Defining Table 1: The Overall Margins .....	19
Defining Columns .....	19
Centering and Underlining .....	19
Nesting Tables .....	20
Entering Data into Columns .....	21
Justifying Text Within a Column .....	21
Moving to a New Line .....	21
Automatic Adjustment of Column Text .....	22
Ending Tables .....	22
<b>More RPF Concepts</b> .....	<b>25</b>
Columns .....	25

The Default Table	25
Defining a Table within the Default Table	26
Tables and Columns	27
Defining a Two-Column Table	27
Improper Termination of Commands	29
Using the Backslash	29
Forcing or Deleting Extra Blanks	29
Printing the Backslash	30
Printing RPF Commands	30
RPF Command Reference	31
APN - Alternate Page Number	34
B - Blank	34
CEN - Center	34
CL - Column Literal	35
CS - Column Skip	36
CUL - Center With Underline	36
DT - Define Table	37
F - Figures	38
FR - Flush Right	38
HS - Horizontal Spacing	39
I - Indent	39
L - Literal	40
N - New Line	40
NC - New Column	41
NP - New Page	41
P - Paragraph	41
PAGE - Page	42
PAUSE - Pause	42
R - Right Justify	43
RR - Ragged Right	43
S - Skip	44
SP - Space	44
SPN - Start Page Numbering	45
T - Table	46
TE - Table End	46
TTL - Title	47
TTLU - Title With Underline	47
UL - Underline	48
VS - Vertical Spacing	48
Executing RPF	49
RPF Switches	49
<b>PART III: REPORT GENERATOR - RPT</b>	<b>53</b>
<b>Chapter 4. Overview of RPT</b>	<b>55</b>
Introduction	55
Report Generation Process	56
Executing RPT	57
Report Structure	57
RPT Version 5.1	58
New Commands	58
Consistent Handling of Identifiers	59

Error Message Handling	59
Syntax Check Precedes Report	59
INTO Clauses in RPT	60
<b>Chapter 5. RPT Examples</b>	<b>61</b>
Example 1 - A Sample Letter	61
<b>EXAMPLE 2 - A TABULAR REPORT</b>	<b>68</b>
The Report Program	68
Executing the Report Program	70
Example 3 - Nested Reports	78
<b>Chapter 6. SQL*Report Language Statements</b>	<b>91</b>
Statement Types	91
Syntax	91
Summary of RPT Statements	93
Declarative Statements	95
<b>DECLARE</b>	95
Alphanumeric	96
Numeric	96
Date	98
Keyword Constants	99
<b>SET</b>	100
<b>EQUAL</b>	101
Macro Definition Statements	101
<b>DEFINE</b>	101
<b>SELECT Macro</b>	102
Procedural Macro	104
Macro Execution Statements	105
Procedural Macro Execution	105
<b>SELECT Macro Execution</b>	105
<b>REPORT Statement</b>	107
Nested Reports	109
Disjunctive Reports	112
<b>REPORT Statement Format</b>	114
Program Control Statements	115
Label Definition Statement	115
<b>GOTO Statement</b>	115
<b>IF Statement</b>	117
IF Statement Guidelines	120
<b>IFNULL Statement</b>	120
<b>STOP Statement</b>	121
Arithmetic Statements	121
<b>ADD</b>	122
<b>SUB</b>	122
<b>MUL</b>	123
<b>DIV</b>	123
<b>DSUB</b>	124
Miscellaneous Statements	124
<b>PRINT Statement</b>	124
<b>FPRINT Statement</b>	125
<b>ASK Statement</b>	126
<b>TELL Statement</b>	126

REMARK Statement .....	127
COMMIT Statement .....	127
ROLLBACK Statement .....	127
<b>Appendix A. Appendix .....</b>	<b>129</b>
Example 1 .....	130
Example 2 .....	137
Example 3 .....	146
Example 4 .....	153
Example 5 .....	156
<b>Index .....</b>	<b>159</b>

## LIST OF ILLUSTRATIONS

Figure 1.	Report Generation Process	5
Figure 2.	Creating a Formatted Document Using RPF	12
Figure 3.	A Simple Letter - RPF Input	17
Figure 4.	A Simple Letter - RPF Output	18
Figure 5.	A Tabular Report - RPF Input	23
Figure 6.	A Tabular Report - RPF Output	24
Figure 7.	Example 1 - Default Table	26
Figure 8.	Example 2 - Table Within Default Table	26
Figure 9.	Example 3 - Two-Column Table within Current Column	28
Figure 10.	RPF Commands Summary (APN - F)	31
Figure 11.	RPF Commands Summary (FR - PAUSE)	32
Figure 12.	RPF Commands Summary (R - VS)	33
Figure 13.	Example 1 - Sample Letter Output File	63
Figure 14.	Example 1 - Sample Letter Program List (Part 1 of 3)	64
Figure 15.	Example 1 - Sample Letter Program List (Part 2 of 3)	65
Figure 16.	Example 1 - Sample Letter Program List (Part 3 of 3)	66
Figure 17.	Example 1 - Sample Letter Program Structure	67
Figure 18.	Example 2 - Tabular Report Output File	71
Figure 19.	Example 2 - Tabular Report Program List (Part 1 of 3)	72
Figure 20.	Example 2 - Tabular Report Program List (Part 2 of 3)	73
Figure 21.	Example 2 - Tabular Report Program List (Part 3 of 3)	74
Figure 22.	Example 2 - Tabular Report Partial Interim File (Part 1 of 2)	75
Figure 23.	Example 2 - Tabular Report Partial Interim File (Part 2 of 2)	76
Figure 24.	Example 2 - Tabular Report Program Structure	77
Figure 25.	Example 3 - Nested Report Output File (Part 1 of 2)	81
Figure 26.	Example 3 - Nested Report Output File (Part 2 of 2)	82
Figure 27.	Nested Report Program Listing (Part 1 of 7)	83
Figure 28.	Nested Report Program Listing (Part 2 of 7)	84
Figure 29.	Nested Report Program Listing (Part 3 of 7)	85
Figure 30.	Nested Report Program Listing (Part 4 of 7)	86
Figure 31.	Nested Report Program Listing (Part 5 of 7)	87
Figure 32.	Nested Report Program Listing (Part 6 of 7)	88
Figure 33.	Nested Report Program Listing (Part 7 of 7)	89
Figure 34.	Example 3 - Nested Report Program Structure	90
Figure 35.	Report Statement Structure	108
Figure 36.	Nested Report Structure	109
Figure 37.	Multiple Reports Within a Report	111
Figure 38.	Disjunctive Report	113
Figure 39.	Sample GOTO Program	116

Figure 40. Sample IF Statement Program	119
Figure 41. Example 1: Listing (Part 1 of 4)	131
Figure 42. Example 1: Listing (Part 2 of 4)	132
Figure 43. Example 1: Listing (Part 3 of 4)	133
Figure 44. Example 1: Listing (Part 4 of 4)	134
Figure 45. Example 1: Sample Report (Part 1 of 2)	135
Figure 46. Example 1: Sample Report (Part 2 of 2)	136
Figure 47. Example 2: Listing (Part 1 of 7)	138
Figure 48. Example 2: Listing (Part 2 of 7)	139
Figure 49. Example 2: Listing (Part 3 of 7)	140
Figure 50. Example 2: Listing (Part 4 of 7)	141
Figure 51. Example 2: Listing (Part 5 of 7)	142
Figure 52. Example 2: Listing (Part 6 of 7)	143
Figure 53. Example 2: Listing (Part 7 of 7)	144
Figure 54. Example 2: Sample Report	145
Figure 55. Example 3: Listing (Part 1 of 4)	147
Figure 56. Example 3: Listing (Part 2 of 4)	148
Figure 57. Example 3: Listing (Part 3 of 4)	149
Figure 58. Example 3: Listing (Part 4 of 4)	150
Figure 59. Example 3: Sample Report (Part 1 of 2)	151
Figure 60. Example 3: Sample Report (Part 2 of 2)	152
Figure 61. Example 4: Relation of RPT Dates to ORACLE Dates (Part 1 of 2)	154
Figure 62. Example 4: Relation of RPT Dates to ORACLE Dates (Part 2 of 2)	155
Figure 63. Example 5: RPT Date Variables (Part 1 of 2)	157
Figure 64. Example 5: RPT Date Variables (Part 2 of 2)	158