AccountMate 7 for SQL/Express

Crystal Reports

Component Reference Guide

“Sample”

Copyright © 1997 - 2006 by

AccountMate Software Corporation
88 Rowland Way
Novato, CA 94945
United States of America

www.accountmate.com

Copyright

COPYRIGHT WARNING

All rights reserved. This publication and the related software and documentation are protected by the copyright laws of the United States and other countries. No part of this publication and the related software and documentation may be reproduced in any form or by any means without the written permission of AccountMate Software Corporation. The copying, duplication, sale or other unauthorized use or distribution of this material shall constitute a violation of such copyright laws, resulting in civil damages of up to $100,000 per violation, plus criminal penalties of up to one year imprisonment and/or a $25,000 fine.

GENERAL DISCLAIMER

Although AccountMate Software Corporation has made reasonable efforts to provide accurate, reliable information on this documentation, AccountMate Software Corporation assumes no responsibility for the accuracy of the information. Therefore, all information and materials are provided "AS IS" without warranty of any kind. ACCOUNTMATE SOFTWARE CORPORATION DISCLAIMS ANY WARRANTIES, EXPRESS OR IMPLIED, REGARDING ANY MATTER WHATSOEVER RELATING TO OR REFERENCED BY THIS DOCUMENTATION, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE. ACCOUNTMATE SOFTWARE CORPORATION MAKES NO WARRANTY THAT THE DOCUMENTATION WILL MEET YOUR REQUIREMENTS, OR THAT THE RESULTS OBTAINED FROM USING THE DOCUMENTATION OR FROM ANY SERVICES OFFERED THROUGH THE DOCUMENTATION WILL BE ACCURATE OR RELIABLE. AccountMate Software Corporation reserves the right to modify the product and service information contained in this documentation without notice to current or prospective customers.

LIMITATION OF LIABILITIES

ACCOUNTMATE SOFTWARE CORPORATION SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR REVENUES, COSTS OF REPLACEMENT GOODS, LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS ANY AND ALL SECTIONS OF THIS DOCUMENTATION OR ANY ACCOUNTMATE SOFTWARE CORPORATION PRODUCT, DAMAGES RESULTING FROM USE OF OR RELIANCE ON THE INFORMATION PRESENT, EVEN IF ACCOUNTMATE SOFTWARE CORPORATION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY. THEREFORE, SOME OF THE ABOVE LIMITATIONS MAY NOT APPLY.

TRADEMARKS

AccountMate® is a registered trademark of AccountMate Software Corporation

August 2006

Contents

Introduction **5**

1 – Features **6**

Preview Window 6
Smart Navigation 6
View Magnification 6
Search Text 6
Report Drill-down 6
Multiple Report Preview Window 7
Export Report 7
Data Refresh 7
Drill-down Color 7
Use of Bitmaps in Reports 7

2 – Crystal Reports Environment **8**

Crystal Report Environment Setup 8
Report Definition File Options 12
Commonly Used Commands 13
Report Template 15

3 – AccountMate Report Files **17**

Menu Options Table (Ammenu.DBF) 18
Report Control Table (Amrctl.DBF) 19
Report Sorting Option Table (Amrsrt.DBF) 20
Report Filter Criteria Table (Amrftr.DBF) 22
Crystal Reports System Formula (Amcrprop.DBF) 24
AccountMate Report Visual Class (Amsqlrpt.VCX) 25

4 – Crystal Reports Components **39**

Stored Procedures 39
Report Program Files 39
Report Definition Files 39
Report Drill-Down 40

5 – Standards for AccountMate Crystal Reports **42**

Formulas 42
Report Definition File 44
AccountMate-Defined Crystal Reports Functions 47
Stored Procedures 47
Report Program Files 47
Memory Variables 48
Tips 48

6 – Creating a Report **49**

1 – Add the Menu Option 49
2 – Build the Report Interface 55
3 – Create the Report Program File 71

4 – Create the Stored Procedure 74
5 – Create the Report Definition File 82
7 – Adding features to the report 106
Drill-Down 106
Group Tree 106
Report Group Total 106
Report Grand Total 107
Preview the Report 108

Introduction

This manual is designed to give readers an overview of the Crystal Reports version of AccountMate. The standards used to build a report as well as how to create a new report will be discussed.

The ***Features*** chapter describes the Crystal Reports features available in AccountMate such as the new preview window, smart navigation tool, view magnification, new export options and drill-down reporting capabilities.

The ***Crystal Reports Environment*** chapter describes the Crystal Reports environment settings AccountMate Crystal Reports use when creating the report definition files. Commonly used commands and shortcuts as well as report templates will also be discussed.

The ***AccountMate Report Files*** chapter will discuss the tables used to build the report interface and how the objects are placed in the report criteria area of the report interface. The system formula table as well as the report visual class library will also be discussed.

The ***Crystal Reports Components*** chapter describes components such as the stored procedures, report program files and report profiles in order for the Crystal reports to run inside AccountMate.

The ***Standards for AccountMate Crystal Reports*** chapter describes the coding standards followed by AccountMate developers. This chapter is recommended reading for people who want to modify so that their coding will be consistent with that of the AccountMate.

The ***Creating a Report*** chapter describes the processes involved in creating and running a Crystal report. This chapter will create a sample report to illustrate these processes.

The ***Adding more features to the report*** chapter will demonstrate adding features to the reports that are beneficial to the user such as drill-down, group-tree, subtotal and grand total.

All Crystal report definition files (.RPT) are stored in the CRYSTAL directory (e.g. C:\AMSQL\CRYSTAL) when you install AccountMate.

1 – Features

This section will discuss the Crystal Reports features available in AccountMate. These features offer flexibility to the user. Features like the preview window, smart navigation, view magnification, convenient search, drill-down capability, ability to change printer settings, report fonts, export to different file formats and other features will be discussed.

Preview Window

In standard view, the report is displayed one page at a time. The preview window includes a toolbar showing navigational buttons that can be used to browse the report. You can move to the beginning or end of the report or move backward or forward one page at a time. Additional buttons include the export, toggle group tree, stop loading, search text and the refresh button. You will also find a variable zoom control in the toolbar.

Smart Navigation

The preview window shows a split screen. The right pane displays the report while the left pane displays the group tree. The Group Tree shows a high level outline of the hierarchy of groups and/or subgroups, in the familiar tree format. When you click on a tree node, the report will bring you to the page that contains the information for that group. For reports that involve multiple pages, the smart navigation feature of the group tree view makes browsing of the report easier.

View Magnification

By default, the view magnification is set to 100%. View magnification can be changed in the preview window. Options are Page Width, Whole Page and pre-defined percentages. Setting the magnification to 200% makes it easier for users to emphasize important sales figures and highlight important data. You can set the magnification up to 400%.

Search Text

The search capability allows users to browse the report data by typing search expression in the Search window. The search occurs on the current page up to the end of the report. It may be necessary to navigate back to the first page when performing a new search.

Report Drill-down

For the regular Crystal Report, double clicking on a field data may create another tab in the preview window which is called a sub-report. AccountMate made use of this feature but further enhanced it so that when user double-clicks on the field data in the report, it will behave like the user ran a preview of the report that is related to that field value.

This action is what we call a drill-down. This second level report contains detailed information related to the drill-down field value. Drill-down may call a regular AccountMate report or what we call a Report Profile. Report Profiles are reports created to show information about master records (e.g., Customer Profile, Vendor Profile, Item Profile, etc.). With Crystal Reports, multi-level reporting on specific fields can be performed.

5 – Standards for AccountMate Crystal Reports

This section will discuss the coding standards as well as naming conventions used when designing AccountMate Crystal reports.

In most cases, the data needed for a report already exists in the database table fields. Sometimes, however, there are data that needs to be inserted into the report that does not exist in any of the data fields. In such cases, you need to create a formula.

Formulas

AccountMate properties and report variables used in the reports such as oSQLSM.ReportUser, oSQLSM.dSystem, llDetail, lnSortNo, llPrtCriteria and others are created in the .RPT as a formula. A formula is a symbolic statement of the changes you want to perform on a certain data before it is printed on the report. Formula may contain eport fields, functions, and/or operators. All Crystal Report formula have the "@" sign at the beginning of the variable, this being Crystal Reports' method of naming a formula.

There are three types of formulas as defined by AccountMate. We have the system formula, multi-lingual formula, and the user-defined formula. The second and third character of the formula determines the formula type. The sixth character determines the expression, namely: "c" for character, "n" for numeric, "d" for date, "x" for dynamic.

System Formula

The system formula is distinguished by the prefix "@AM_". The value of these formulas is populated at run-time by the report generic driver. These formulas contain AccountMate System Manager class properties, private report variables, and/or global variables.

The table below lists commonly used System Formula. For the complete list, browse the Crystal Reports System Formula Table (Amcrprop.DBF)

System Formula	Description/Value
@AM_cCompany	oSQLCompany.cCompanyName
@AM_cCriteria1, @AM_cCriteria2, @AM_cCriteria3…@AM_cCriteria10	lcCriteria – report criteria selection • The variable string is parsed into 10 formulas to avoid the character limitation of Crystal Reports. Crystal can handle up to 254 characters per parameter only.
@AM_cDateFormat	oSQLCompany.cDFormat
@AM_cDrillColor	gcDrillColor – global variable that contains the font color for the drillable field
@AM_cNotes1, @AM_cNotes2, @AM_cNotes3….@AM_cNotes10	lcNotes – Report notes • The variable string is parsed into 10 formulas to avoid the character limitation of Crystal Reports.