

Industry-specific

QAD SOLUTIONS

Manufacturing Applications

**Technical Reference
Advanced Pricing Management
Entity Diagrams**



78-0616A
Advanced Pricing Management 2.2 and higher
MFG/PRO 9.0 and eB
November 2003

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QAD Inc.

6450 Via Real

Carpinteria, California 93013

Phone (805) 684-6614

Fax (805) 684-1890

<http://www.qad.com>

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2 Advanced Pricing Management Entity Diagrams

This book includes diagrams that detail key relationships among various tables in the Advanced Pricing Management database.

Other APM Documentation

- For software installation instructions, refer to the appropriate installation guide for your system.
- For information on using Advanced Pricing Management, refer to *User Guide: Advanced Pricing Management* and *User Guide Supplement: Advanced Pricing Management*.
- For additional technical details, refer to *Advanced Pricing Management Database Definitions*.
- To view documents online in PDF format, see the *Supplemental Documents on CD*.

Note Advanced Pricing Management installation guides are not included on a CD. Printed copies are packaged with your software. Electronic copies of the latest versions are available on the QAD Web site.

Online Help

Advanced Pricing Management has an extensive online help system. Help is available for most fields found on a screen. Procedure help is available for most programs that update the database. Most inquiries, reports, and browses do not have procedure help.

For information on using the help system, refer to *User Guide: Advanced Pricing Management*.

QAD Web Site

The QAD Web site provides a wide variety of information about the company and its products. You can access the Web site at:

<http://www.qad.com>

For users with a QAD Web account, product documentation is available for viewing or downloading at:

<http://support.qad.com/documentation/>

You can register for a QAD Web account by accessing the Web site and clicking the Accounts link at the top of the screen. Your customer ID number is required. Access to certain areas is dependent on the type of agreement you have with QAD.

Web features include an online solution database to help users answer questions about setting up and using the product. Additionally, the QAD Web site has information about training classes and other services that can help you learn about Advanced Pricing Management.

Conventions

Although MFG/PRO is available in several interfaces, APM is currently only available through the character interface.

This document uses the text or typographic conventions listed in the following table.

If you see:	It means:
monospaced text	A command or file name.
<i>italicized monospaced text</i>	A variable name for a value you enter as part of an operating system command; for example, <i>YourCDROMDir</i> .
indented command line	A long command that you enter as one line, although it appears in the text as two lines.
Note	Alerts the reader to exceptions or special conditions.
Important	Alerts the reader to critical information.
Warning	Used in situations where you can overwrite or corrupt data, unless you follow the instructions.

4 Advanced Pricing Management Entity Diagrams



Chapter 1

Diagram Conventions

This chapter explains the diagram conventions used in this volume.

Introduction **6**

How to Use the Diagrams **7**

Introduction

This guide details major relationships between tables in an Advanced Pricing Management (APM) database. These diagrams are designed to help:

- Programmers interested in customizing or modifying the standard Advanced Pricing Management system. The diagrams show relationships that must be preserved in any customization or modification.
- Programmers writing queries or custom reports. The diagrams show which tables can be joined and the field specifications required to make them join. Note that all possible table relationships are not shown, just the major ones.
- Administrators interested in the availability of custom reports. The diagrams show which reports you can prepare.
- Users of Progress Results who want to determine the relationships available for reporting.

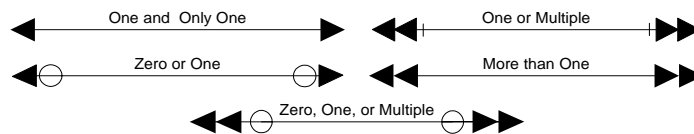
These diagrams are meant to be used in conjunction with *Advanced Pricing Management Database Definitions*, which is available separately.

Entity Relationship Diagrams

In a relational database, each table is a self-contained collection of data about a single thing (or *entity*). There are five relationship line identifiers that can be combined to distinguish 15 specific entity relationships.

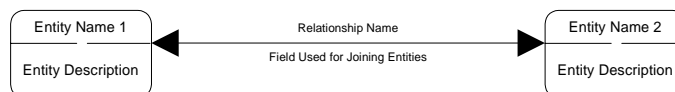
The five relationship lines are displayed in Figure 1.1

Fig. 1.1
Table Relationship Description



Relationships are identified by using the lines, as shown in Figure 1.2.

Fig. 1.2
Table Relationship Description



A bar symbol (|) indicates an OR relationship when more than one field can be used for joining.

Relationship Examples

Figure 1.3 shows that one customer can have zero or more sales orders and that one sales order has one and only one customer.

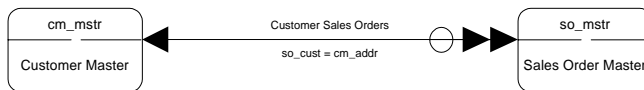


Fig. 1.3
cm_mstr to so_mstr
Relationship
Example

To join these two tables within Progress, you would set so_cust equal to cm_addr or vice versa.

```

FOR EACH cm_mstr EACH so_mstr WHERE cm_addr = so_cust:
    DISPLAY cm_addr so_nbr.
END.
    
```

Figure 1.4 shows that one accounts payable master can have zero or one check masters and that one check master must have one and only one accounts payable master.

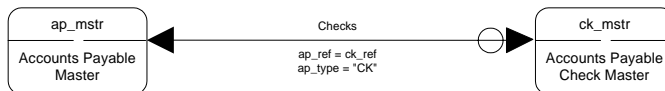


Fig. 1.4
ap_mstr to ck_mstr
Relationship
Example

To join these two tables within Progress, set ap_ref equal to ck_ref and ap_type equal to CK.

```

FOR EACH ap_mstr EACH ck_mstr WHERE ap_ref = ck_ref AND ap_type = CK:
    DISPLAY ap_vend ck_bank ck_nbr.
END.
    
```

How to Use the Diagrams

To review an area of APM functionality, use the Table of Contents to locate the diagram for that area. Within each diagram, find the entity (table) that you are interested in and trace out the relationships.

Not all relationships are shown in any one diagram; if you are interested in the other relationships, use the cross-reference table in Chapter 3 to find the other diagrams the tables appear in.

8 Advanced Pricing Management Entity Diagrams

When creating a report or browse, use the entity relationship diagrams to decide which table names you should use (and the join relationships). If no relationship exists between two tables, a report showing such a relationship is not possible.

For Progress Results users, these diagrams indicate the relationships that you can show. Progress Results shows the names of tables that have relationships with a specified table. These diagrams show those tables in graphic form and show the subsidiary relationships between tables.



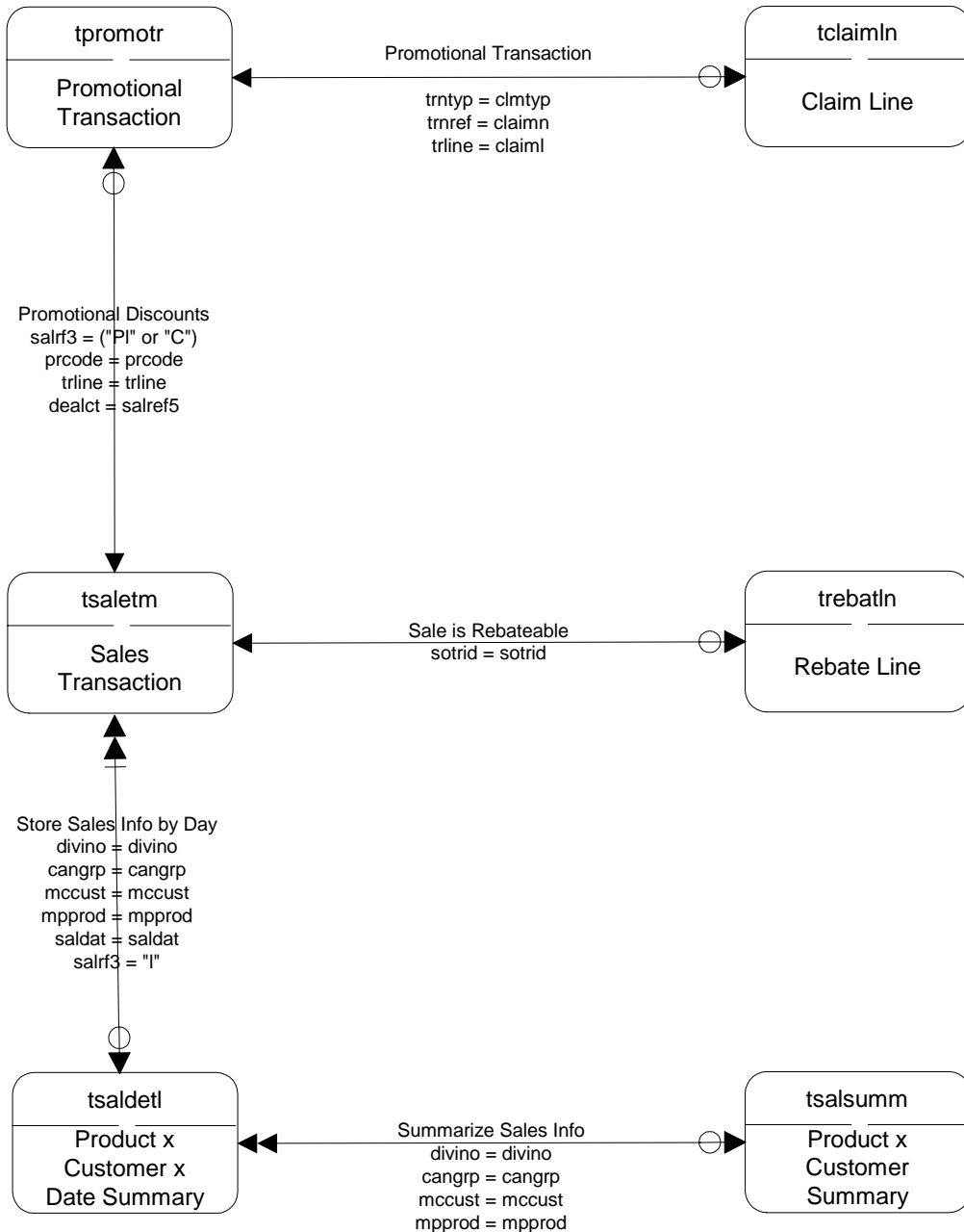
Chapter 2

Advanced Pricing Management Entity Diagrams

These diagrams are meant to be used in conjunction with *Advanced Pricing Management Database Definitions*, which is available separately. The entity diagrams are in alphabetical order starting on the next page.

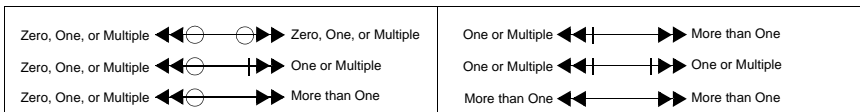
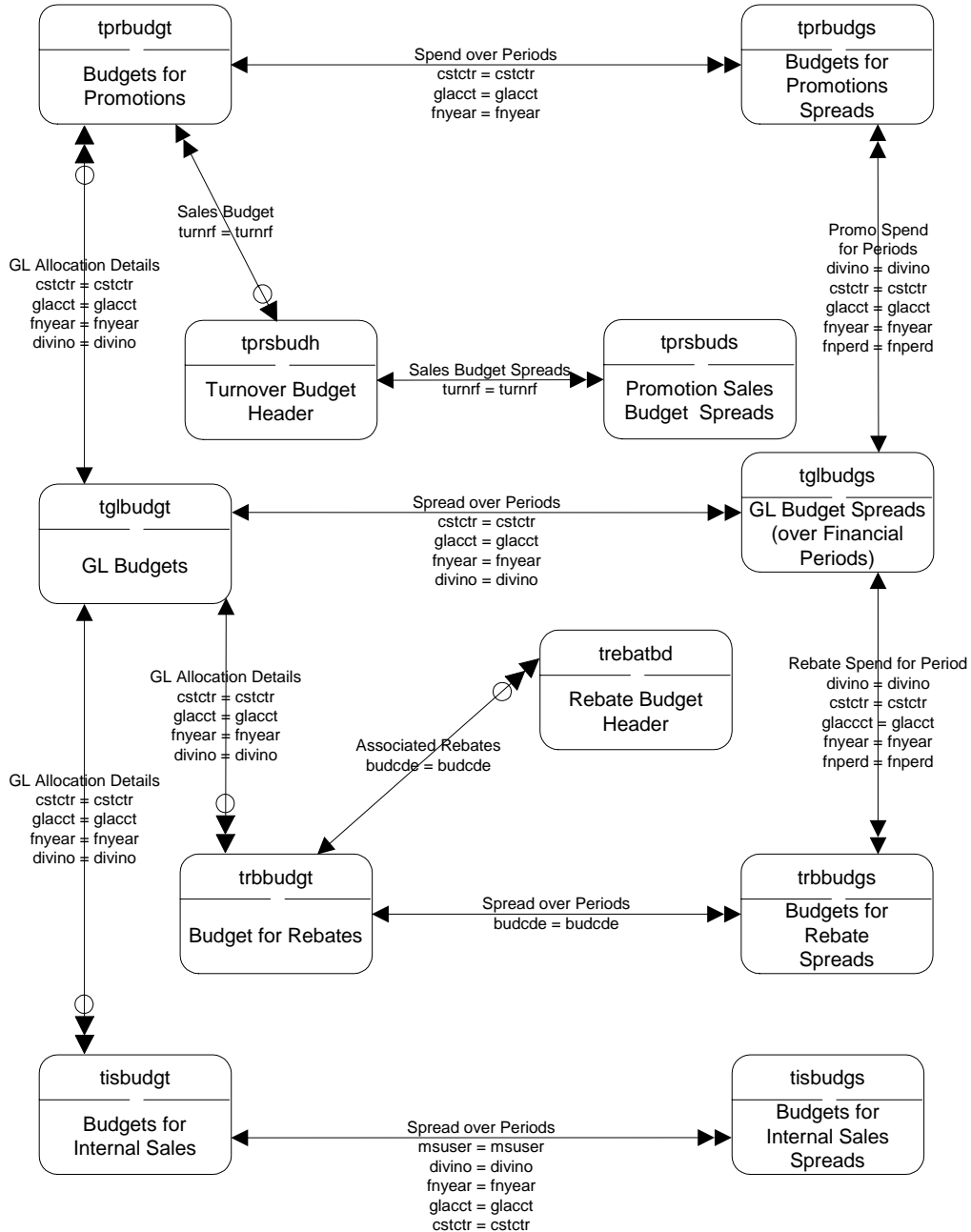
Table 3.1 on page 36 lists each table included in the diagrams and indicates the title of the diagram where the table appears.

Base Transaction

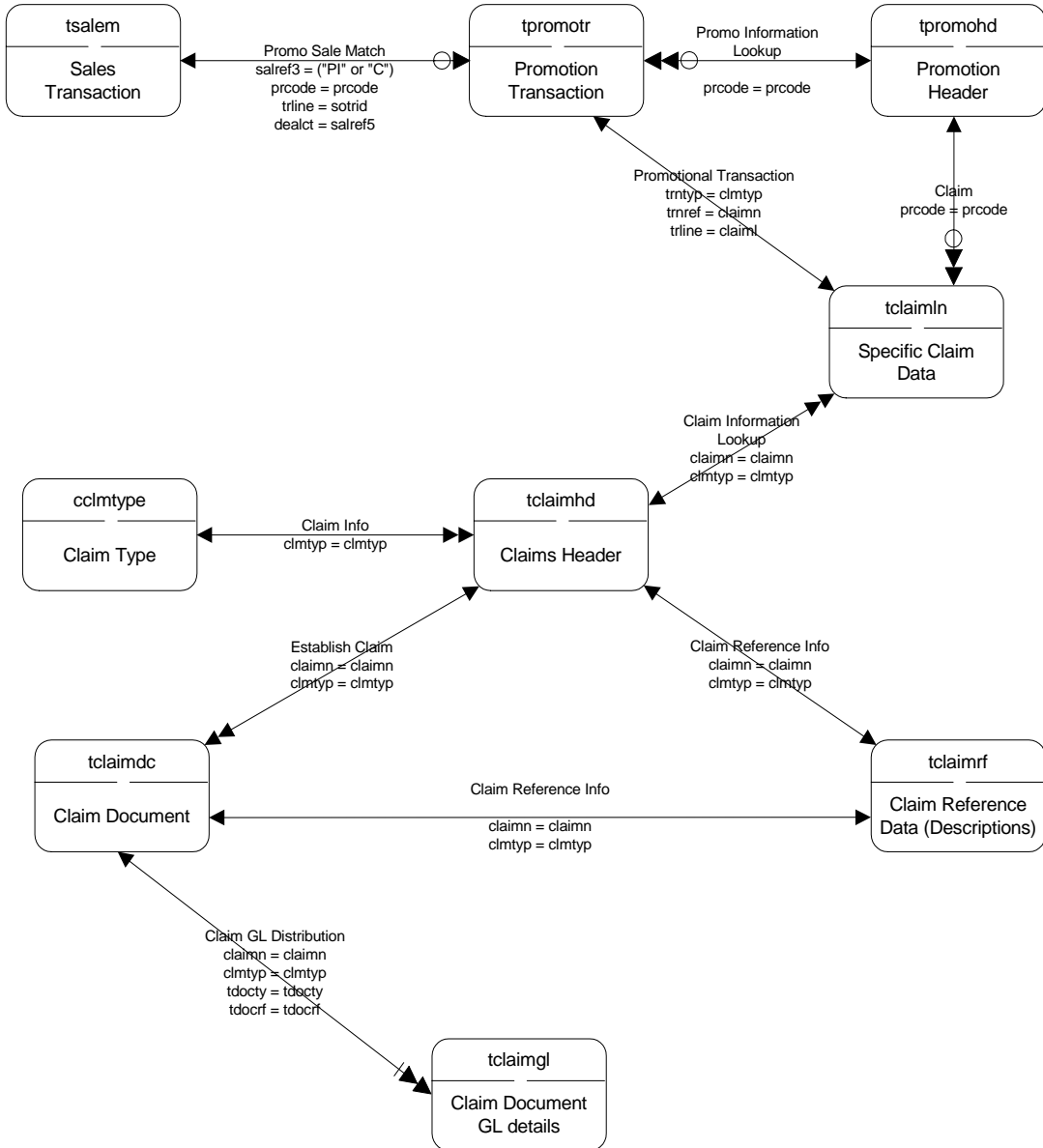


Zero or One ← ⊕ → One and Only One	Zero or One ← ⊕ → One or Multiple	One and Only One ← ⊕ → Zero, One, or Multiple
Zero or One ← ⊕ → Zero or One	Zero or One ← ⊕ → More than One	One and Only One ← → One or Multiple
Zero or One ← ⊕ ⊖ → Zero, One, or Multiple	One and Only One ← → One and Only One	One and Only One ← → More than One

Budgets

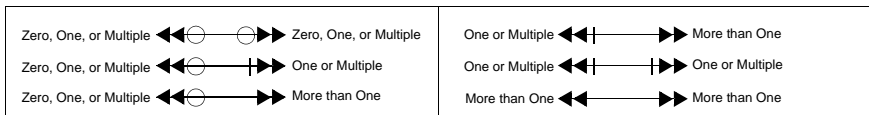
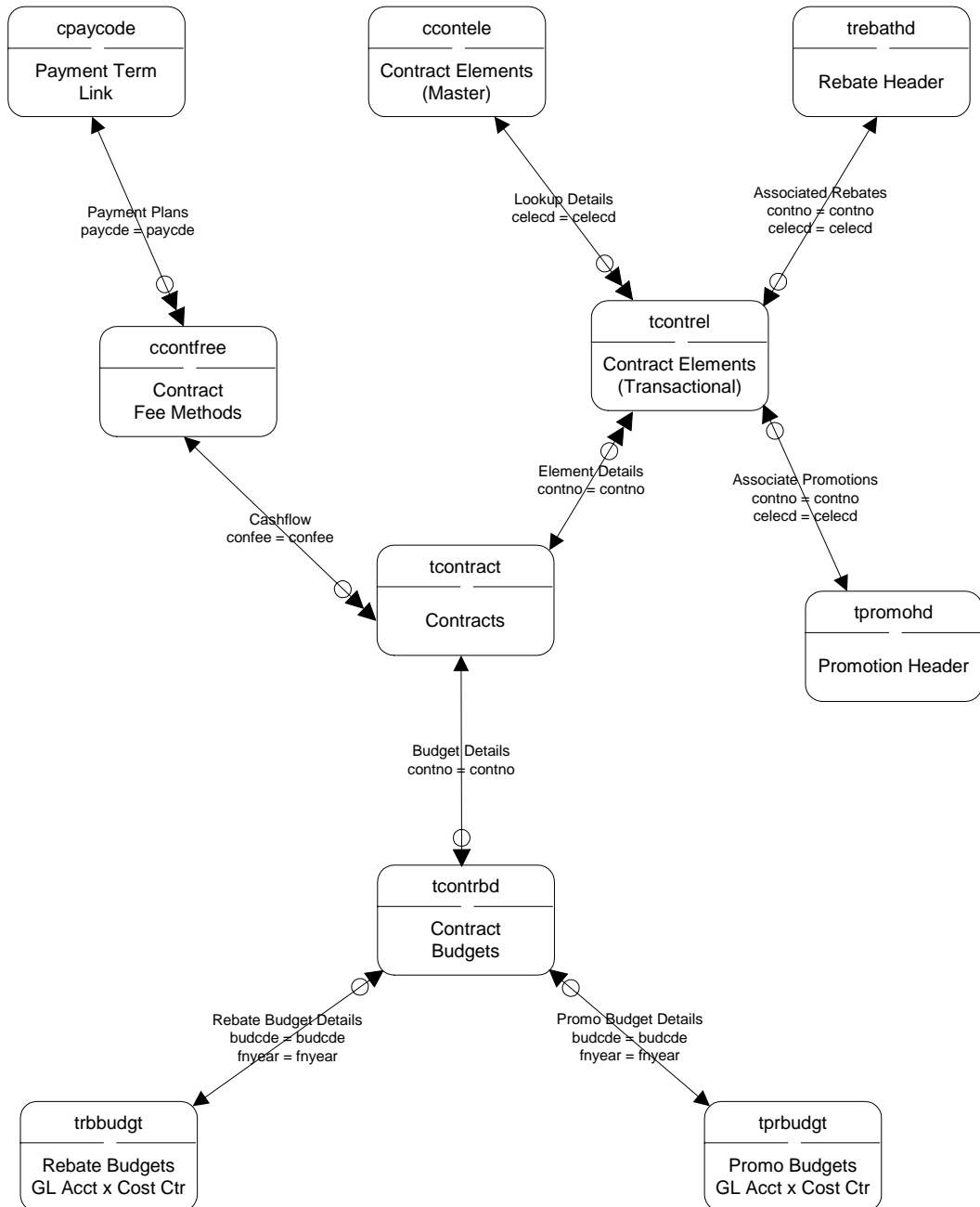


Claims

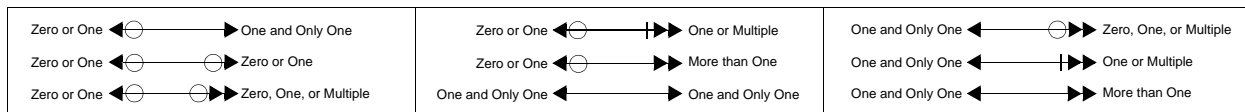
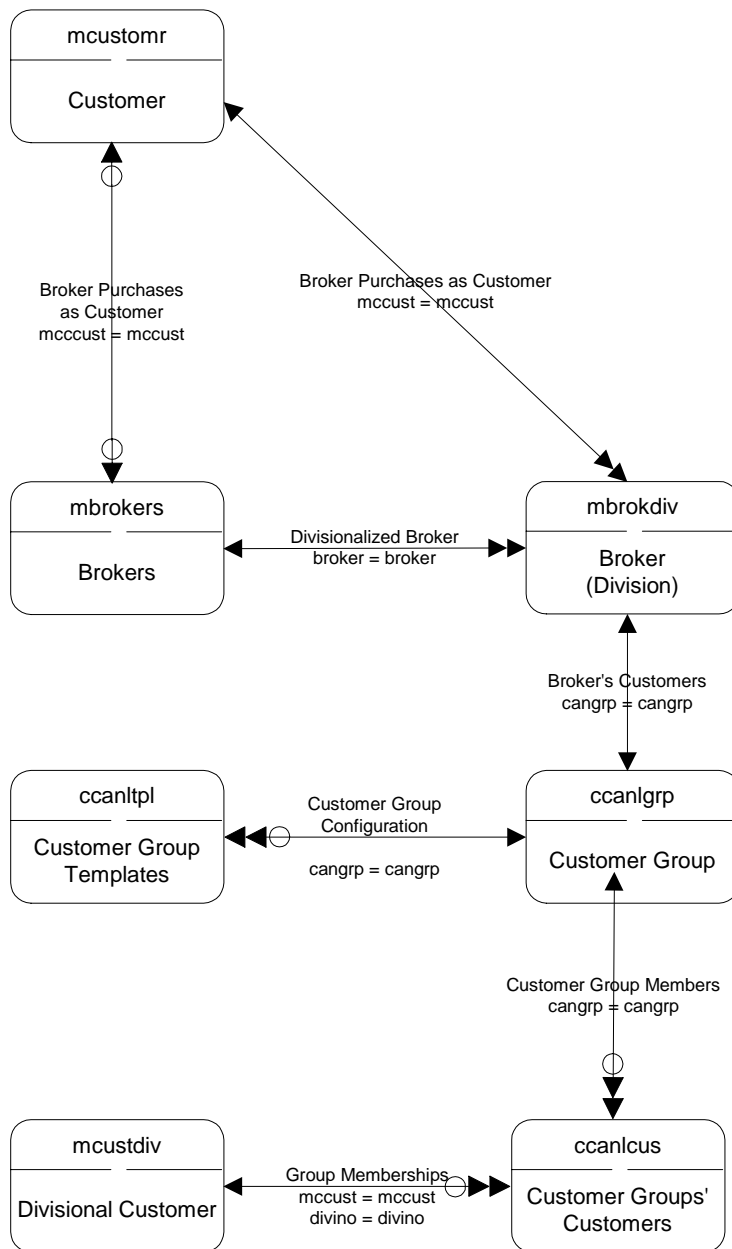


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ ⊥ → One or Multiple	One and Only One ← ⊖ ⊕ → Zero, One, or Multiple
Zero or One ← ⊖ ⊖ → Zero or One	Zero or One ← ⊖ ⊥ ⊥ → More than One	One and Only One ← ⊖ ⊥ ⊥ → One or Multiple
Zero or One ← ⊖ ⊕ → Zero, One, or Multiple	One and Only One ← ⊖ ⊥ ⊥ ⊥ → One and Only One	One and Only One ← ⊖ ⊥ ⊥ ⊥ → More than One

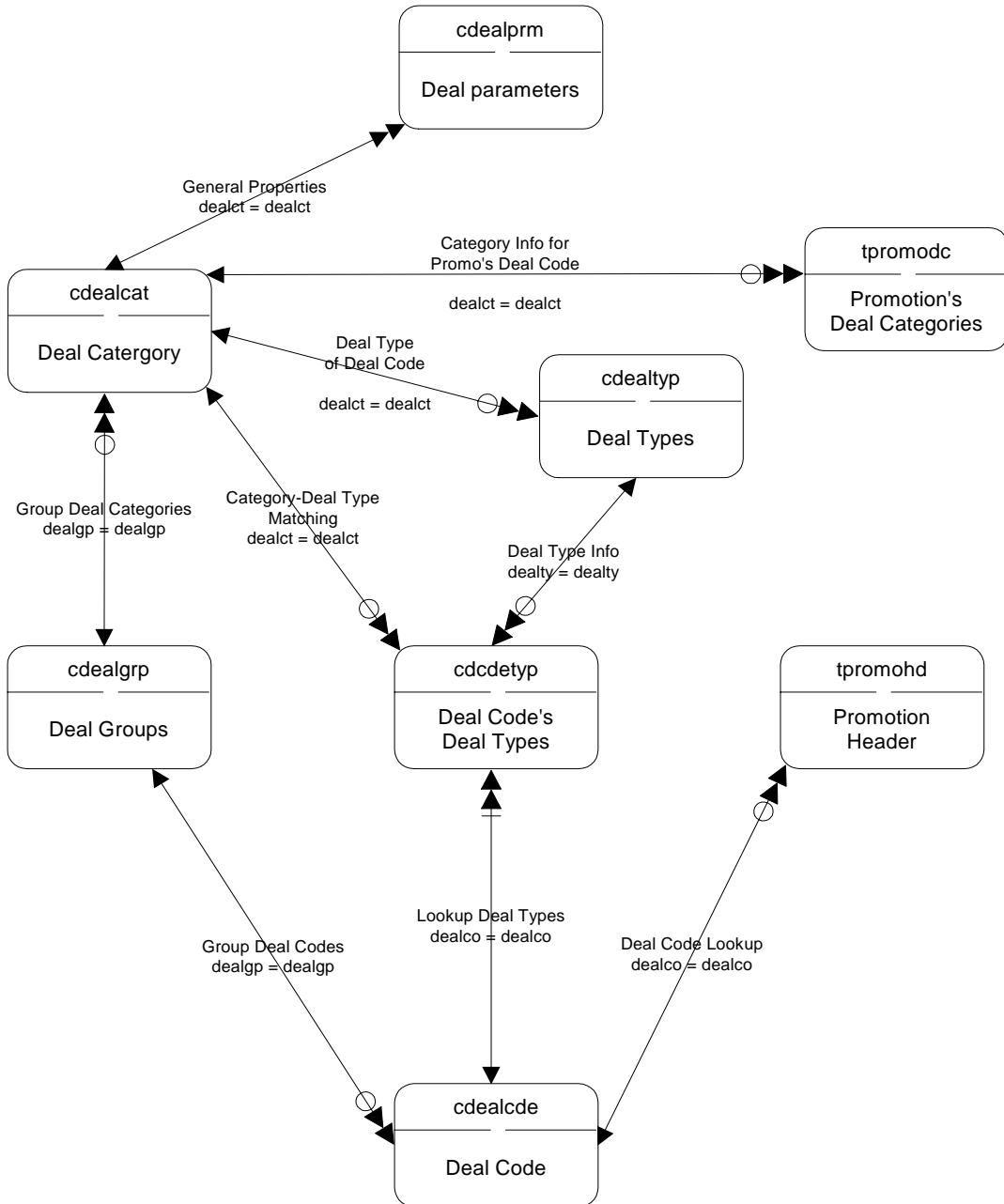
Contracts and Agreements



Customer Group or Brokers Structure

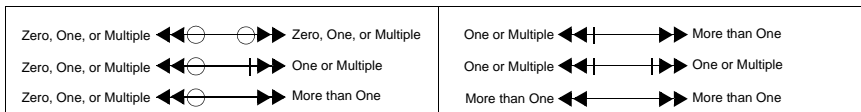
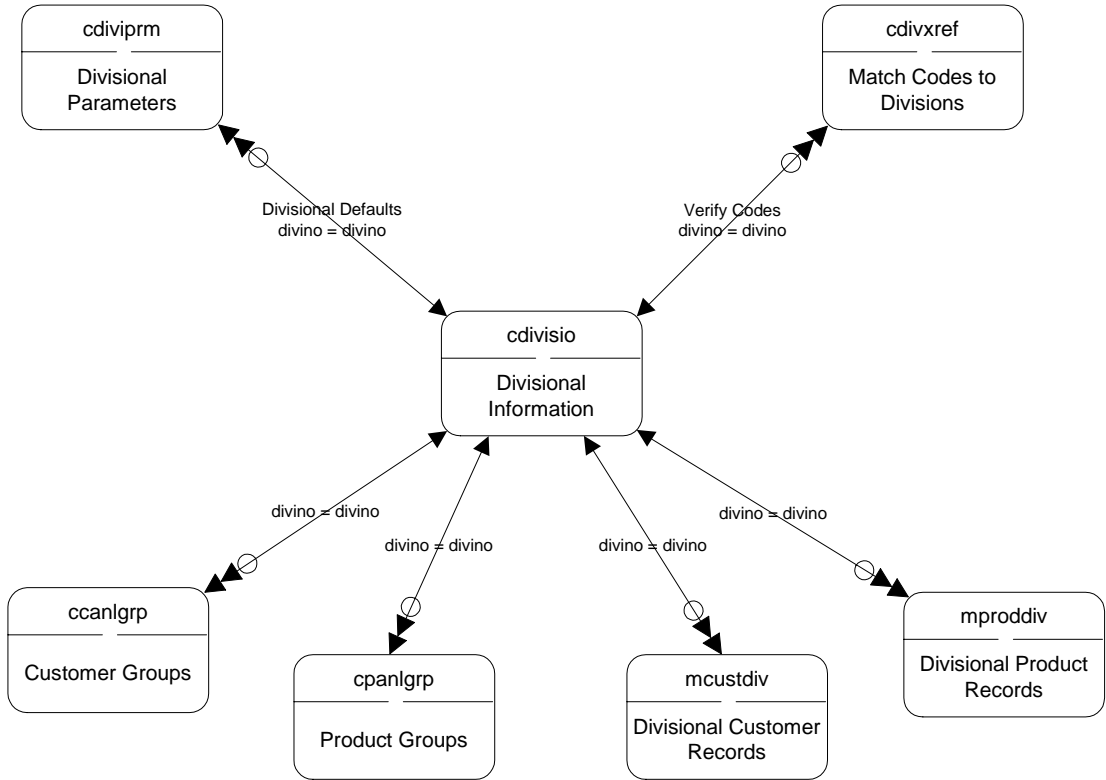


Deal Structure

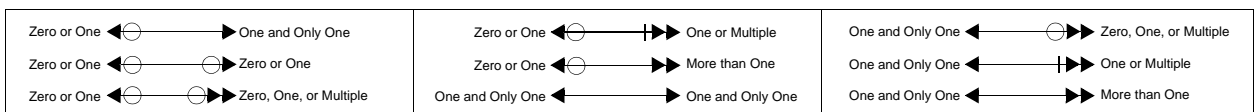
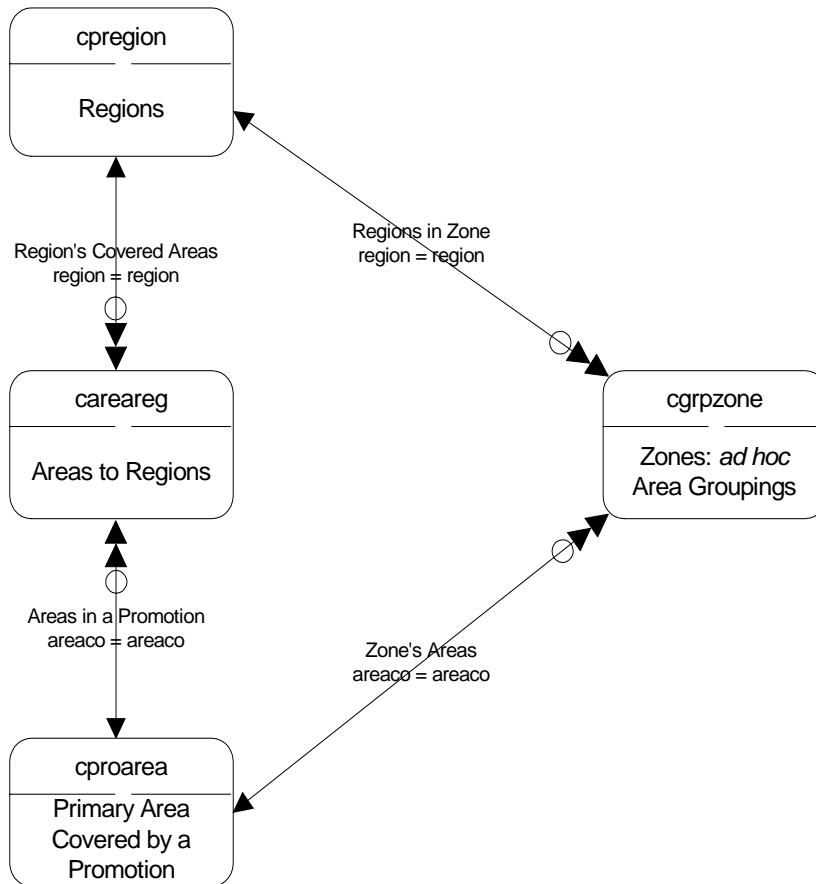


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → ⊕ One or Multiple	One and Only One ← ⊕ → Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → ⊕ More than One	One and Only One ← ⊕ → ⊕ One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊕ → ⊕ One and Only One	One and Only One ← ⊕ → ⊕ More than One

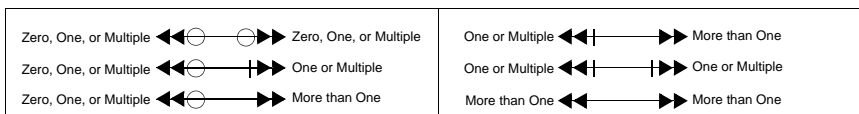
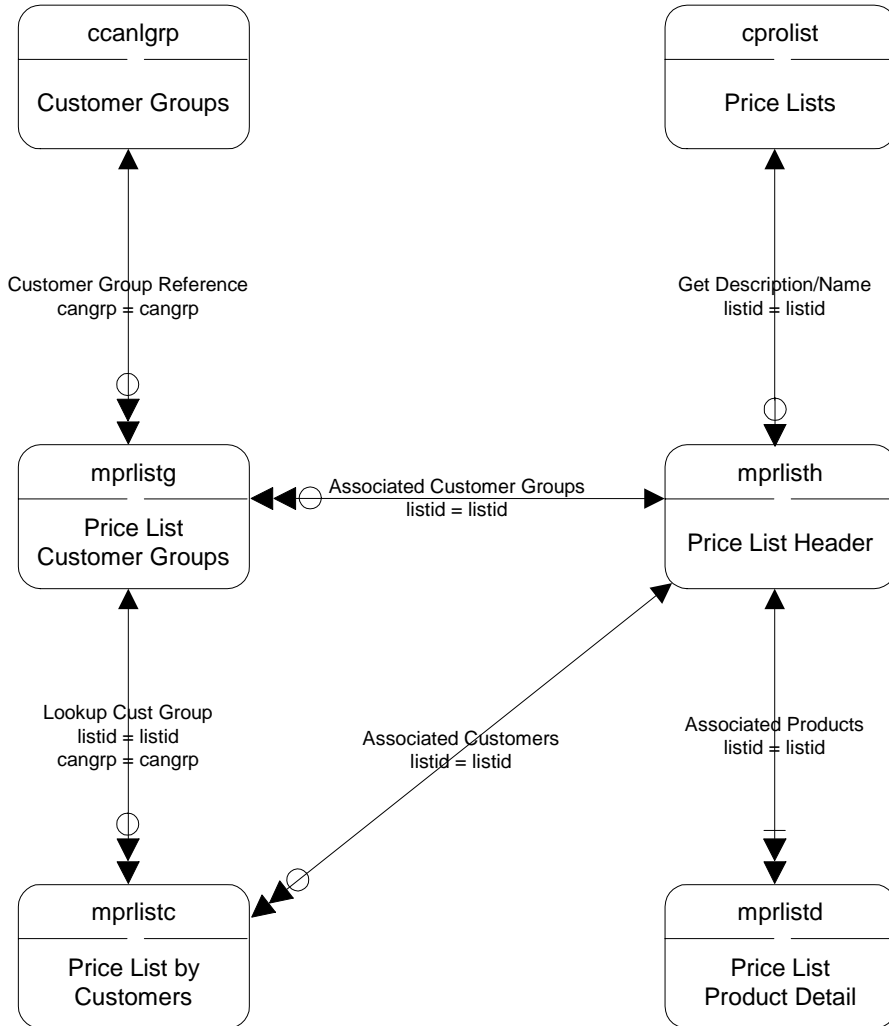
Division Structures



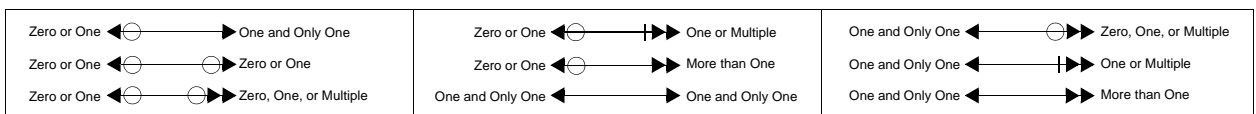
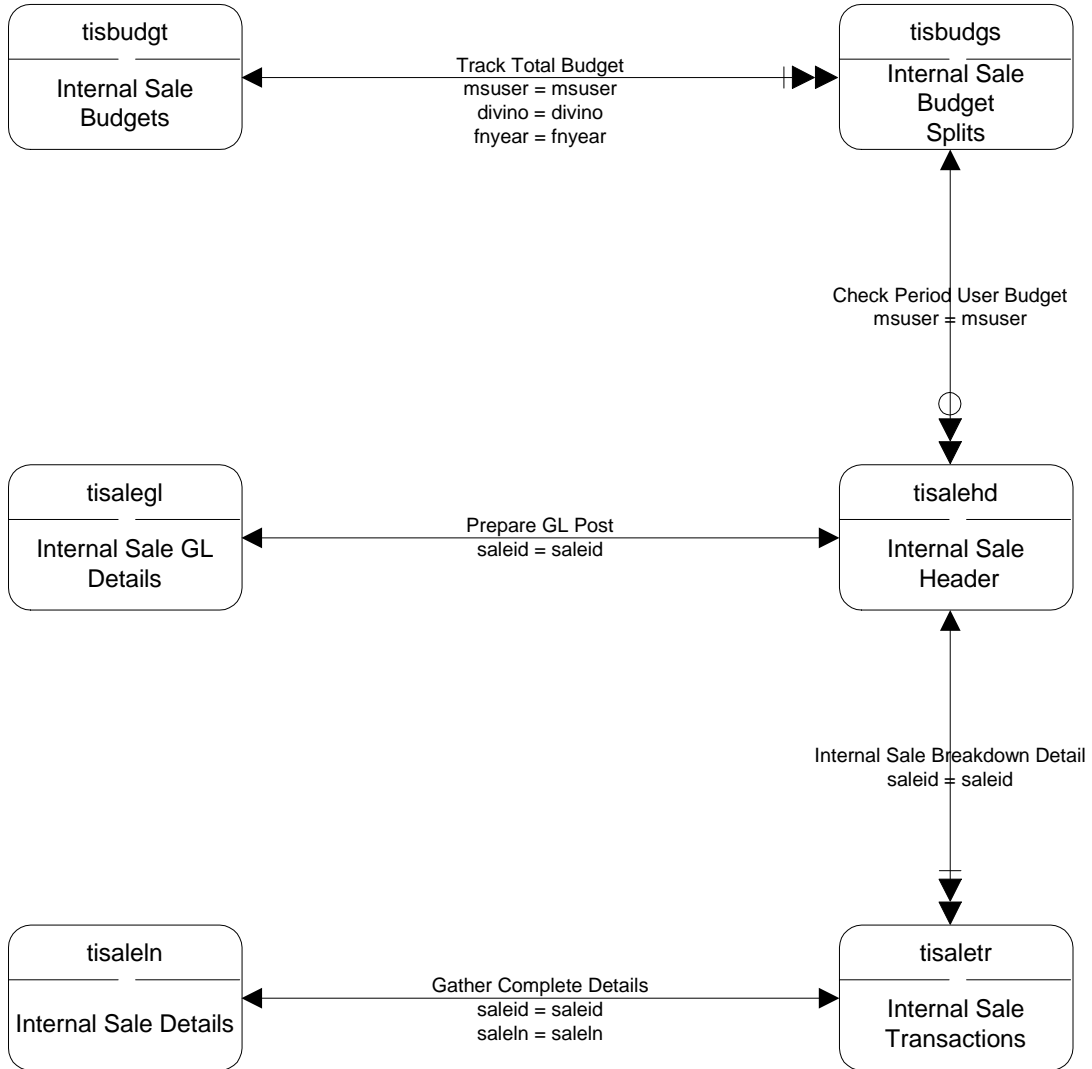
Geographic Structures



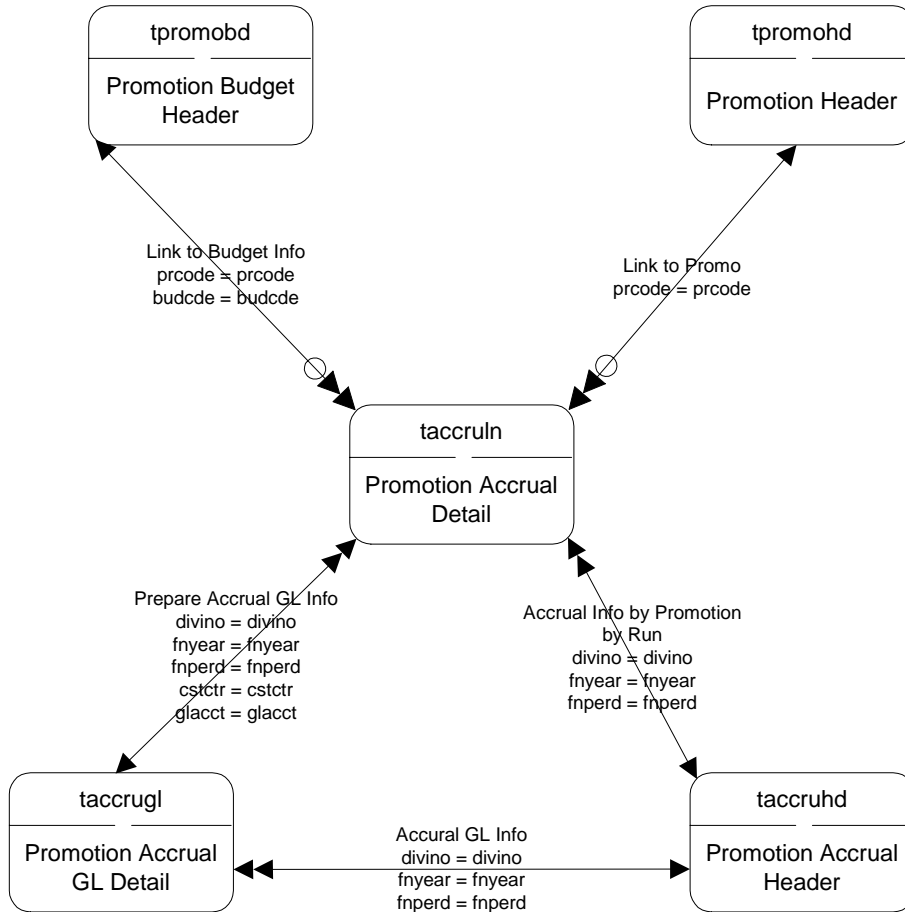
Internal Price List



Internal Sales

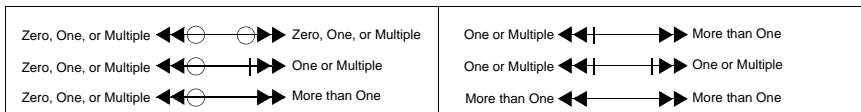
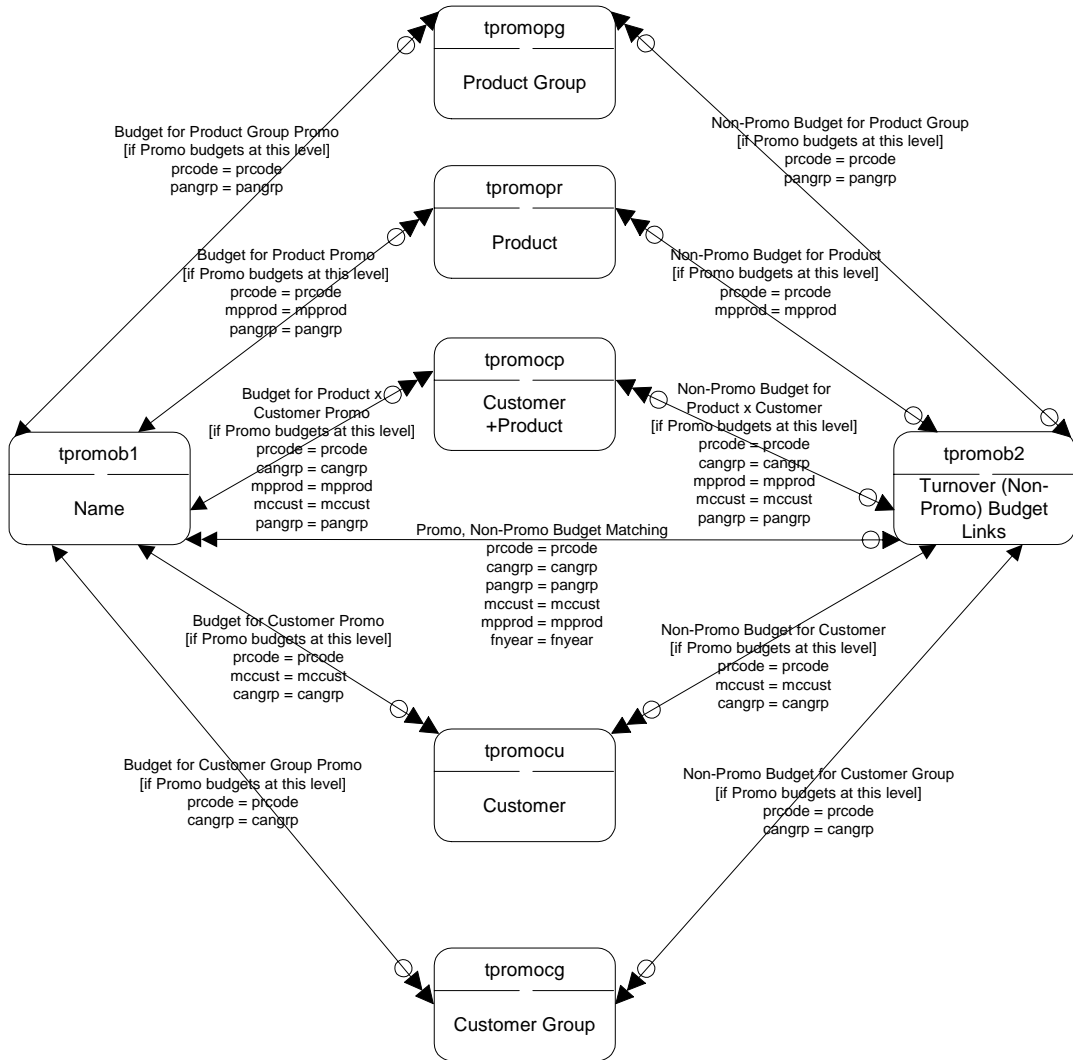


Promotion Accruals

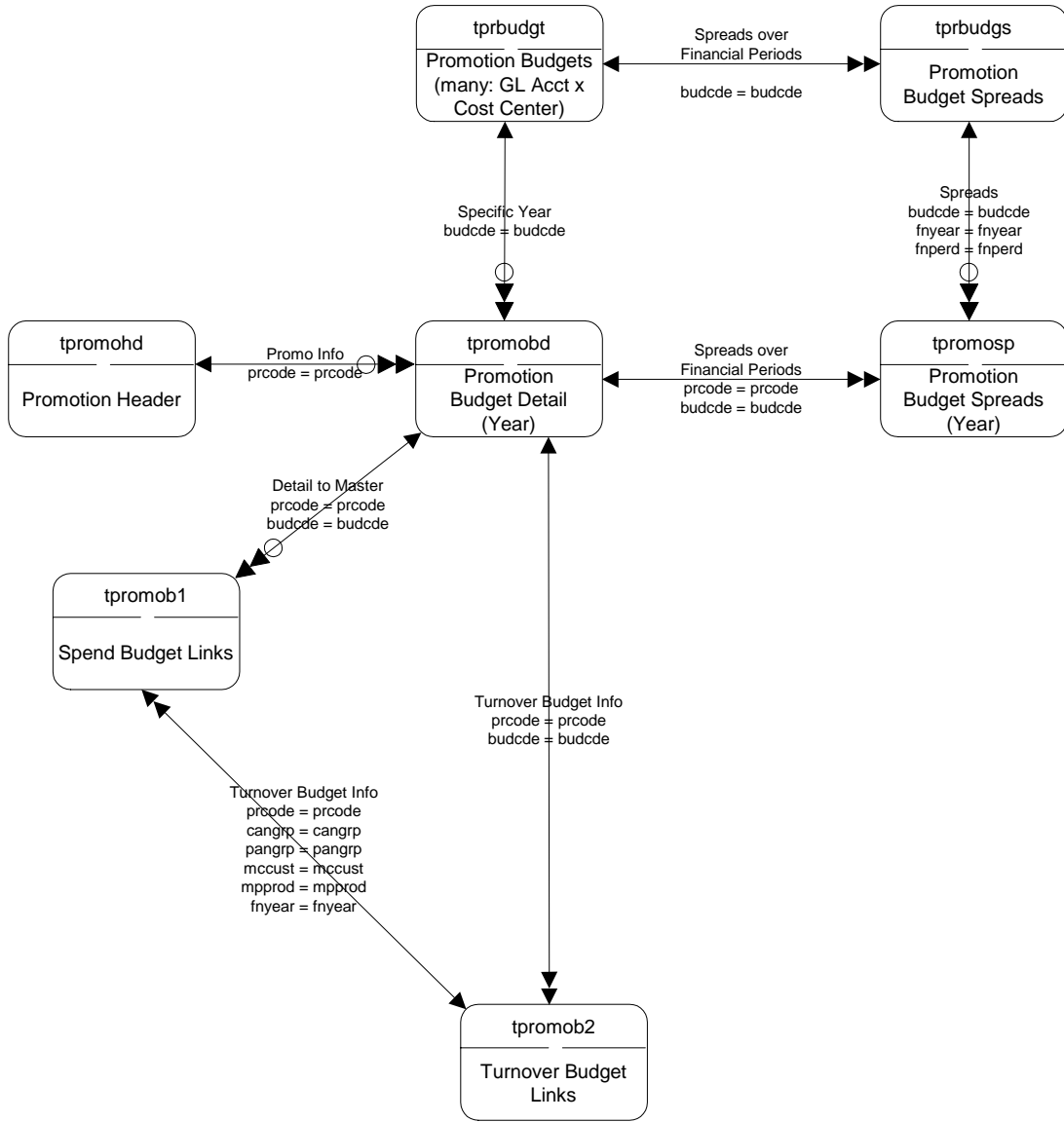


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → One or Multiple	One and Only One ← ⊖ → Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → More than One	One and Only One ← ⊖ → One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊖ → One and Only One	One and Only One ← ⊖ → More than One

Promotion Budget Linkages

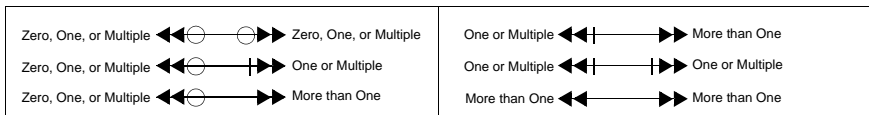
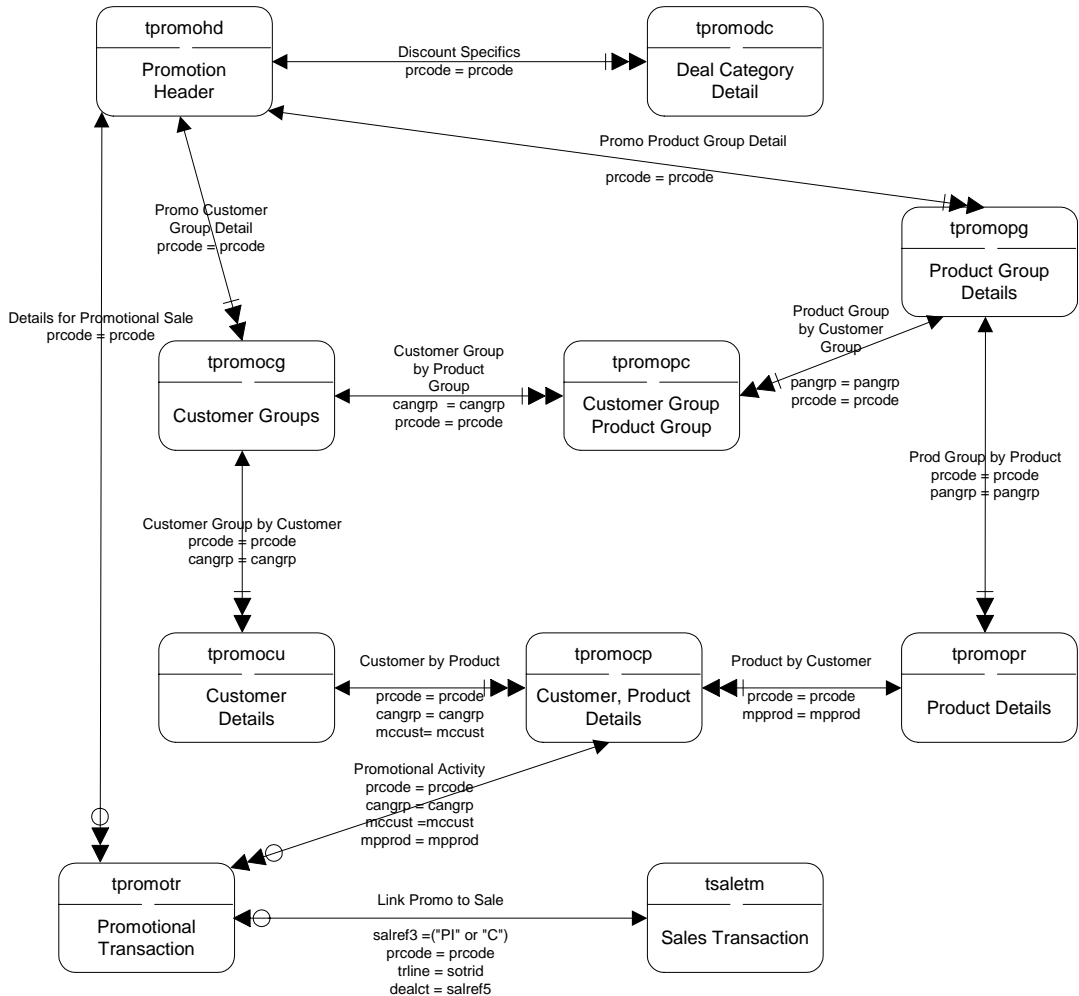


Promotion Budget Structure

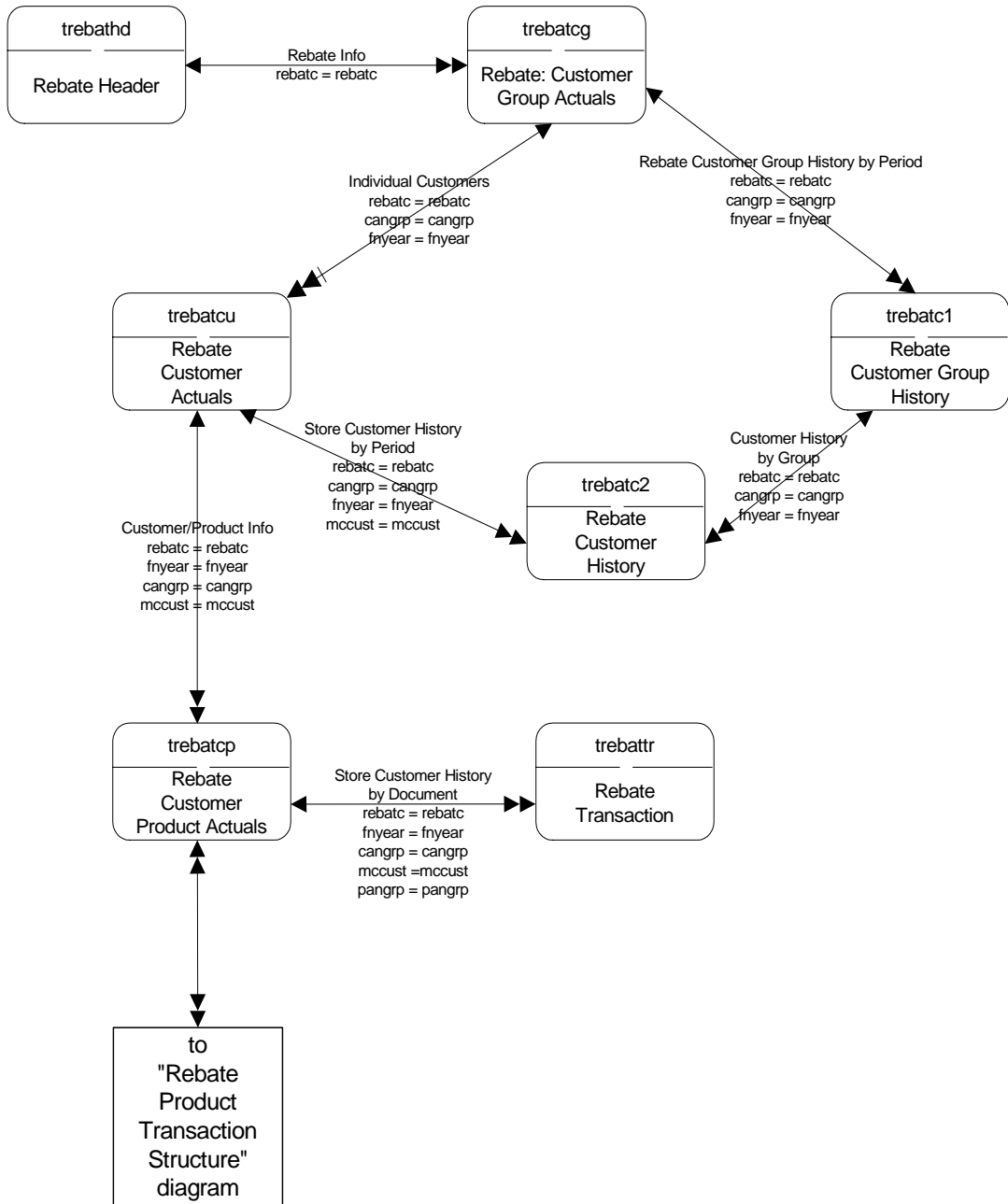


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → One or Multiple	One and Only One ← ⊖ → ⊕ Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → More than One	One and Only One ← ⊖ → One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊖ → One and Only One	One and Only One ← ⊖ → More than One

Promotion Structure

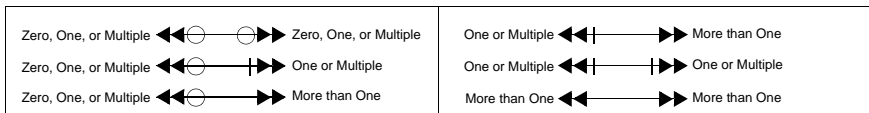
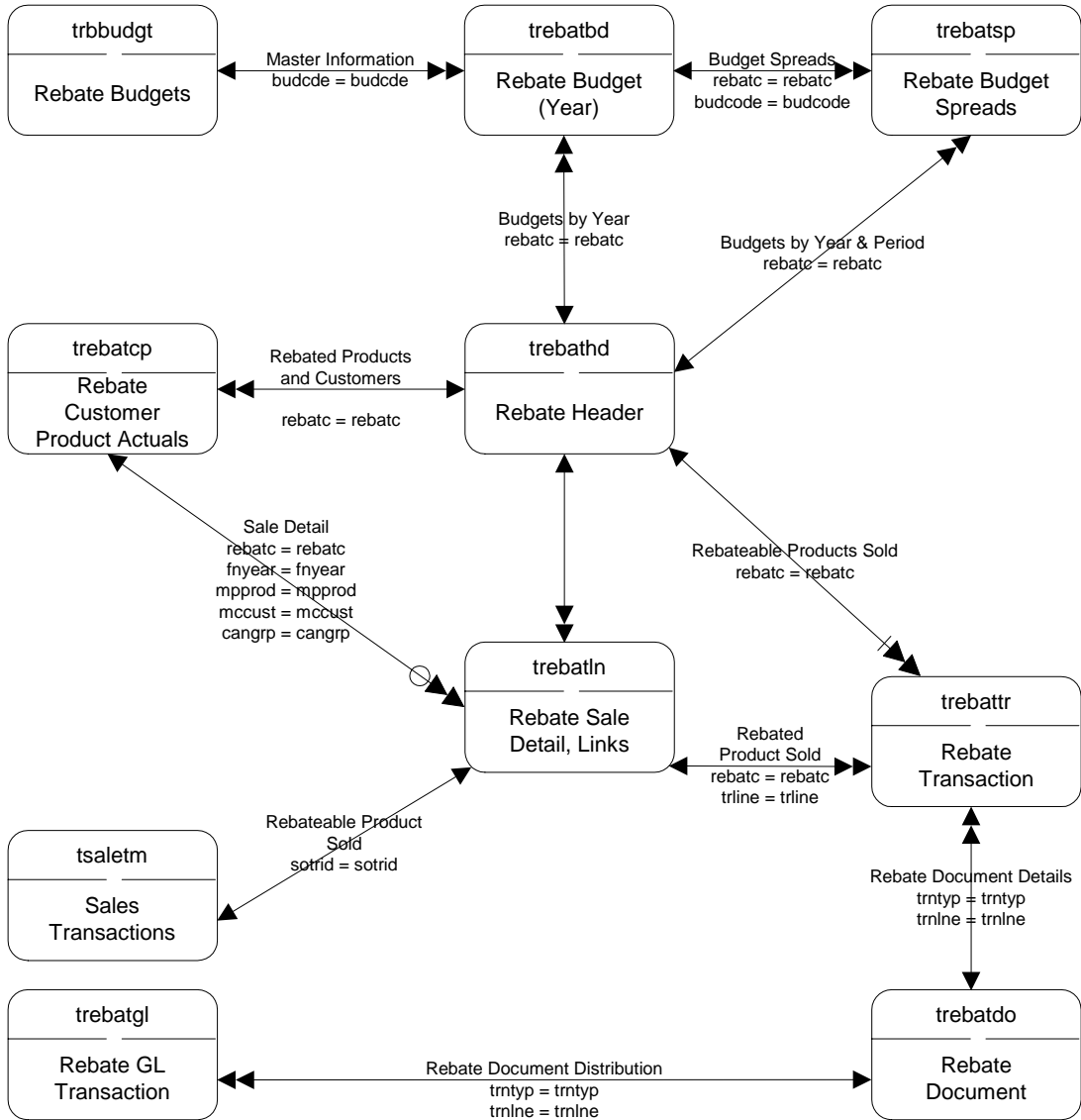


Rebate Customer Transaction Structure

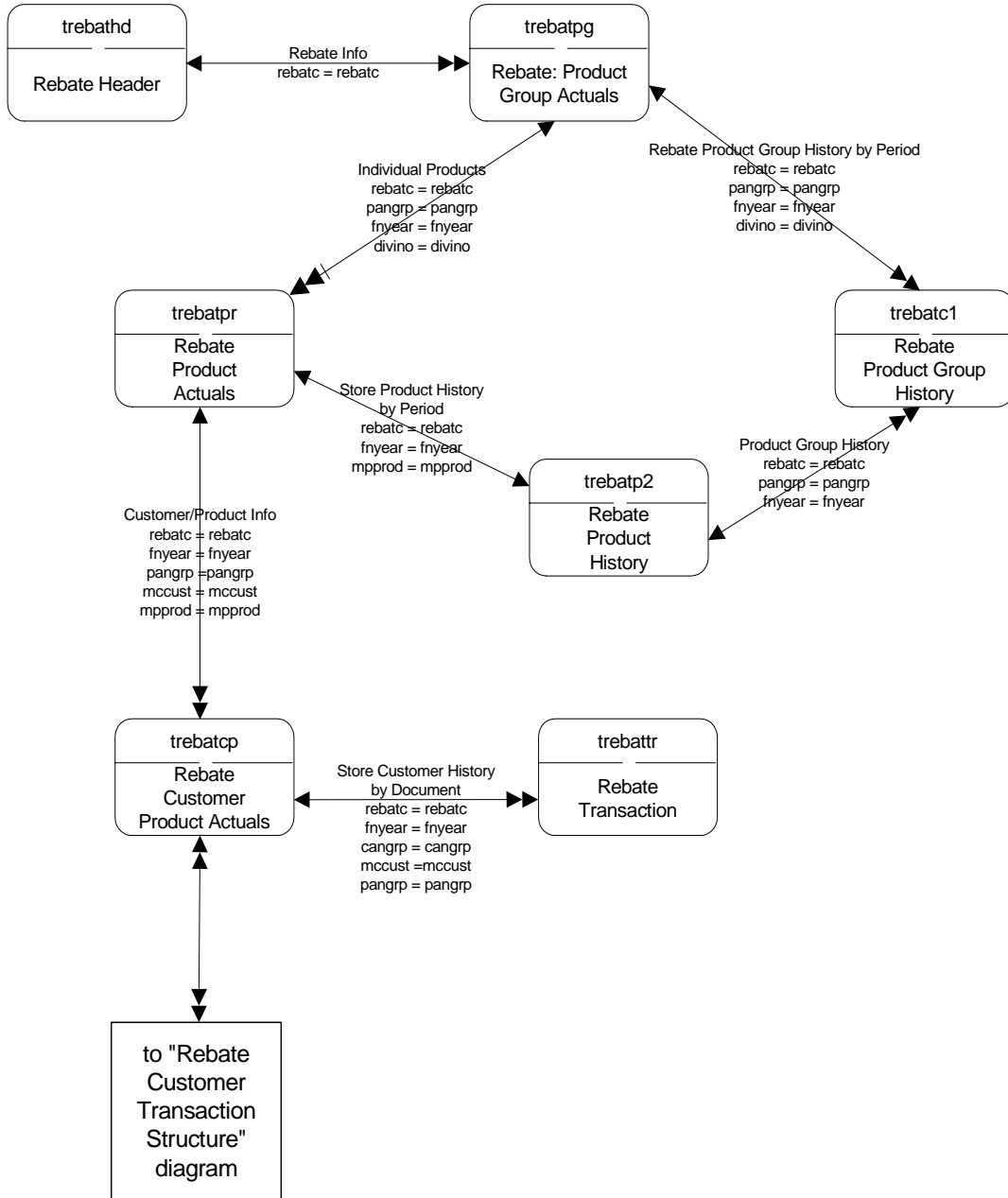


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → ⊕ One or Multiple	One and Only One ← ⊕ → Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → ⊕⊕ More than One	One and Only One ← ⊕ → ⊕ One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊕ → ⊕ One and Only One	One and Only One ← ⊕ → ⊕⊕ More than One

Rebate Detail

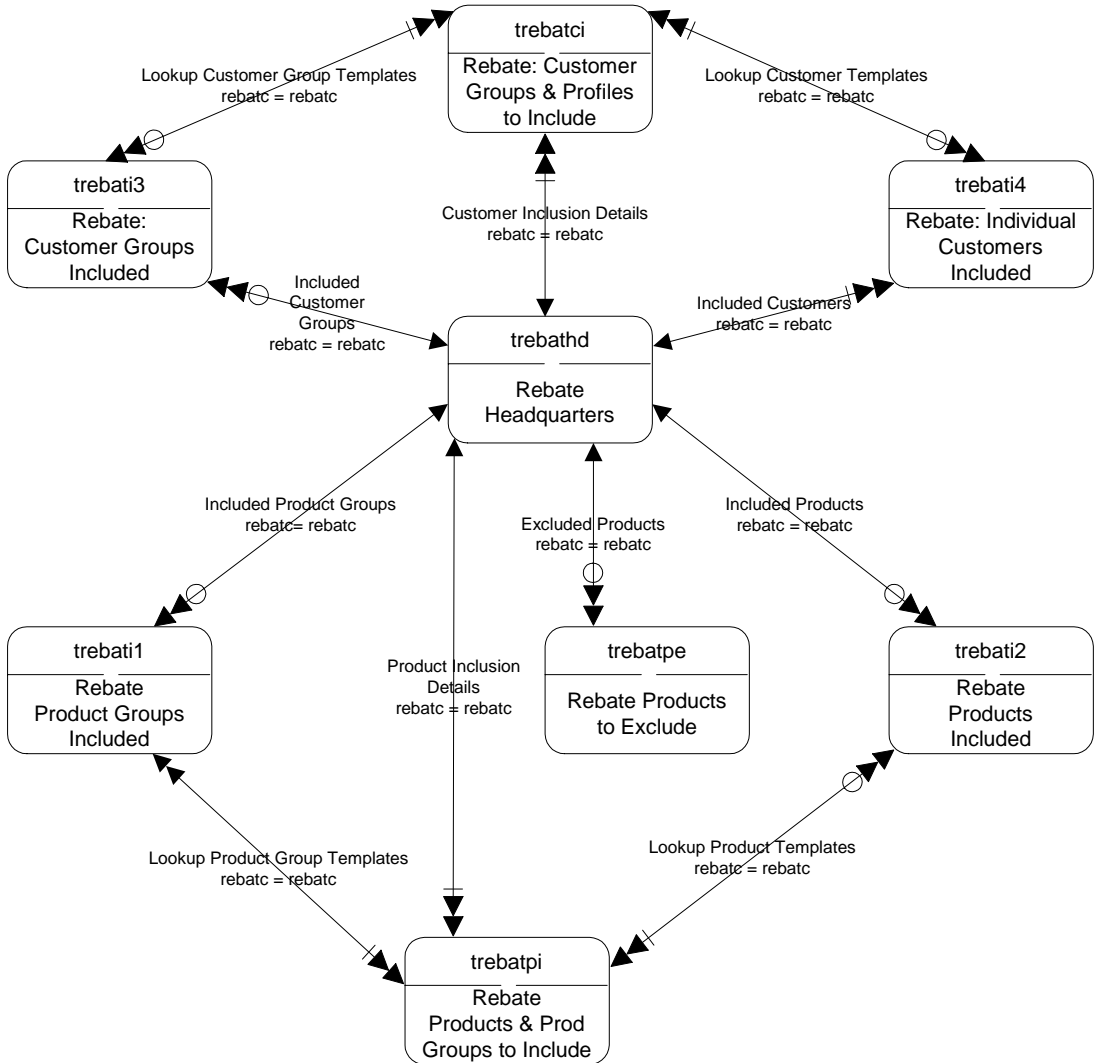


Rebate Product Transaction Structure



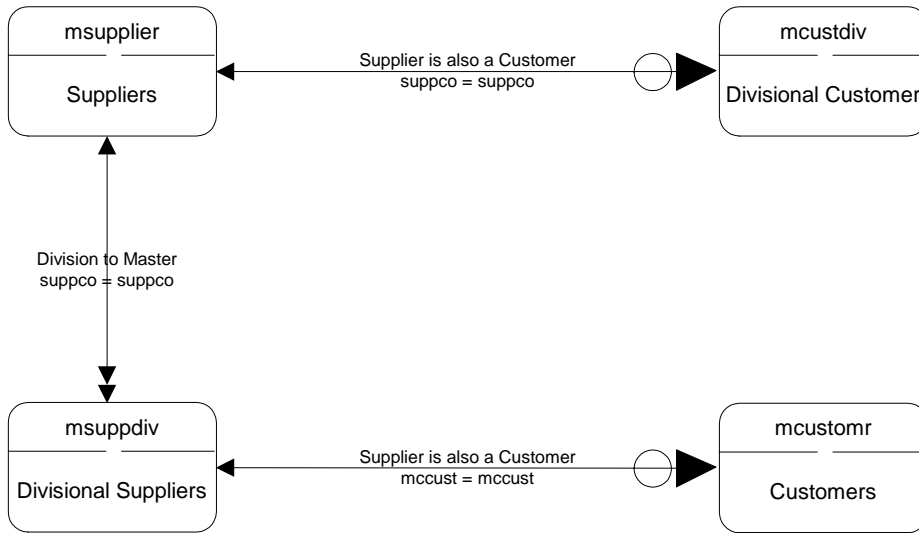
Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ ⊥ → One or Multiple	One and Only One ← ⊕ → Zero, One, or Multiple
Zero or One ← ⊖ ⊙ → Zero or One	Zero or One ← ⊖ ⊥ ⊥ → More than One	One and Only One ← ⊕ ⊥ → One or Multiple
Zero or One ← ⊖ ⊙ ⊙ → Zero, One, or Multiple	One and Only One ← ⊕ ⊥ ⊥ → One and Only One	One and Only One ← ⊕ ⊥ ⊥ → More than One

Rebate Setup Structure



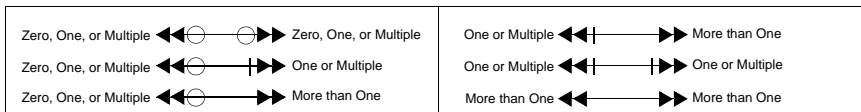
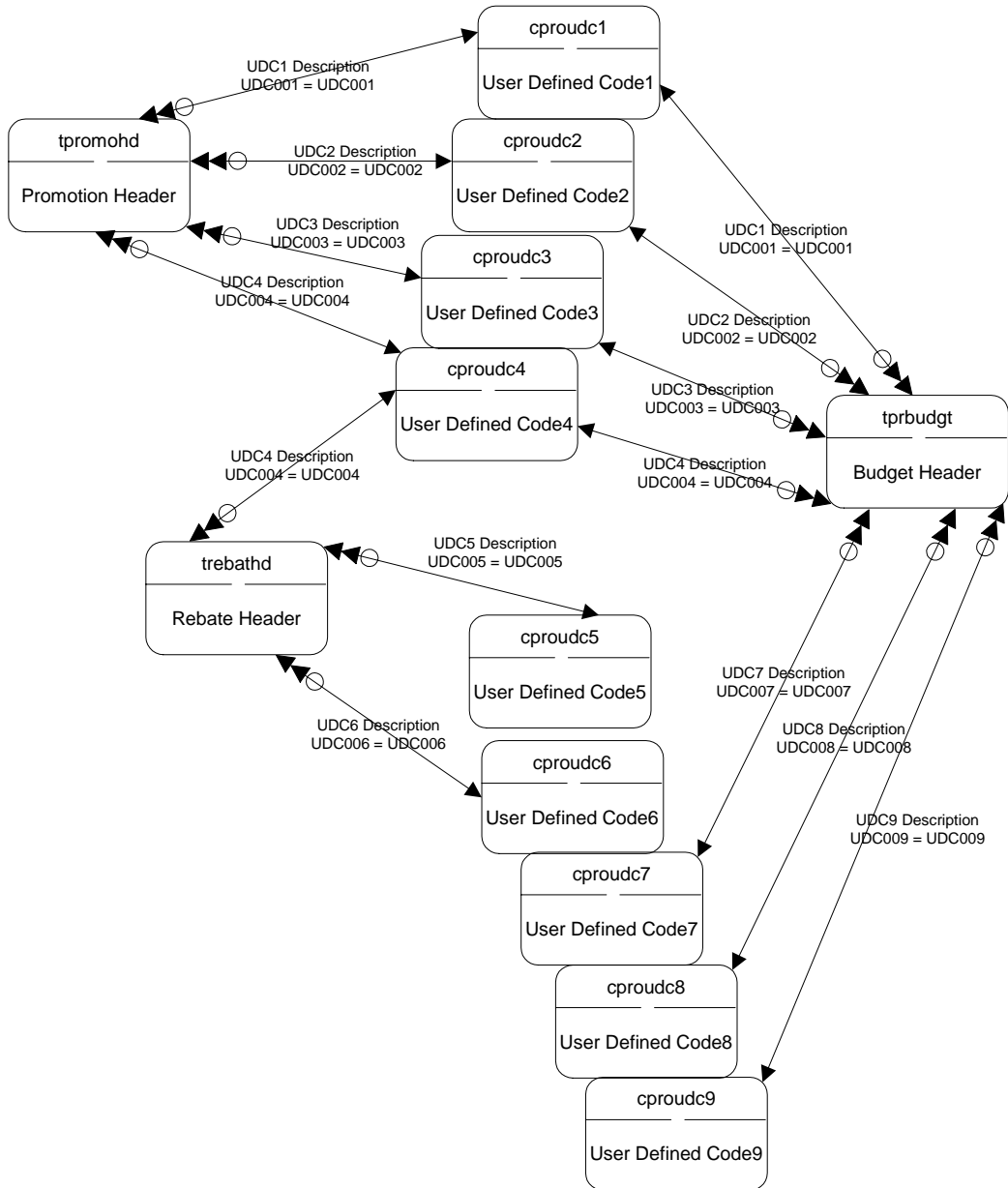
Zero, One, or Multiple	◀◀○◻▶▶	Zero, One, or Multiple	One or Multiple	◀◀◻▶▶	More than One
Zero, One, or Multiple	◀◀○◻▶▶	One or Multiple	One or Multiple	◀◀◻▶▶	One or Multiple
Zero, One, or Multiple	◀◀○◻▶▶	More than One	More than One	◀◀◻▶▶	More than One

Suppliers

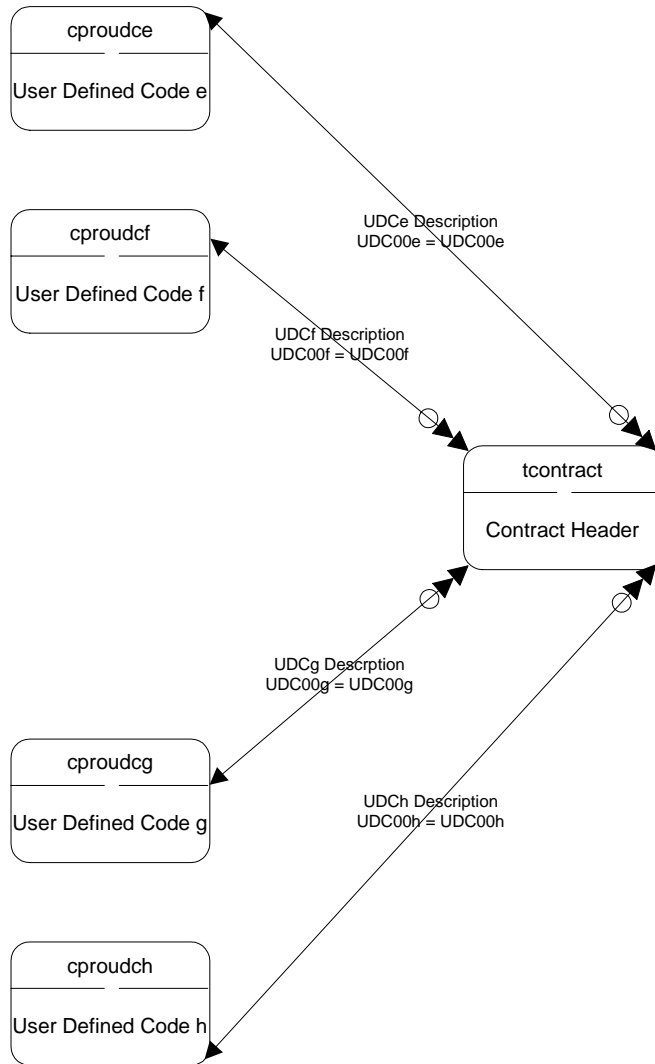


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → One or Multiple	One and Only One ← ⊕ → Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → More than One	One and Only One ← ⊕ → One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊕ → One and Only One	One and Only One ← ⊕ → More than One

User Defined Codes I

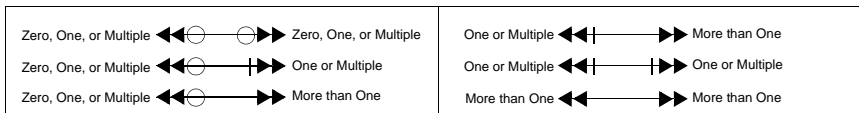
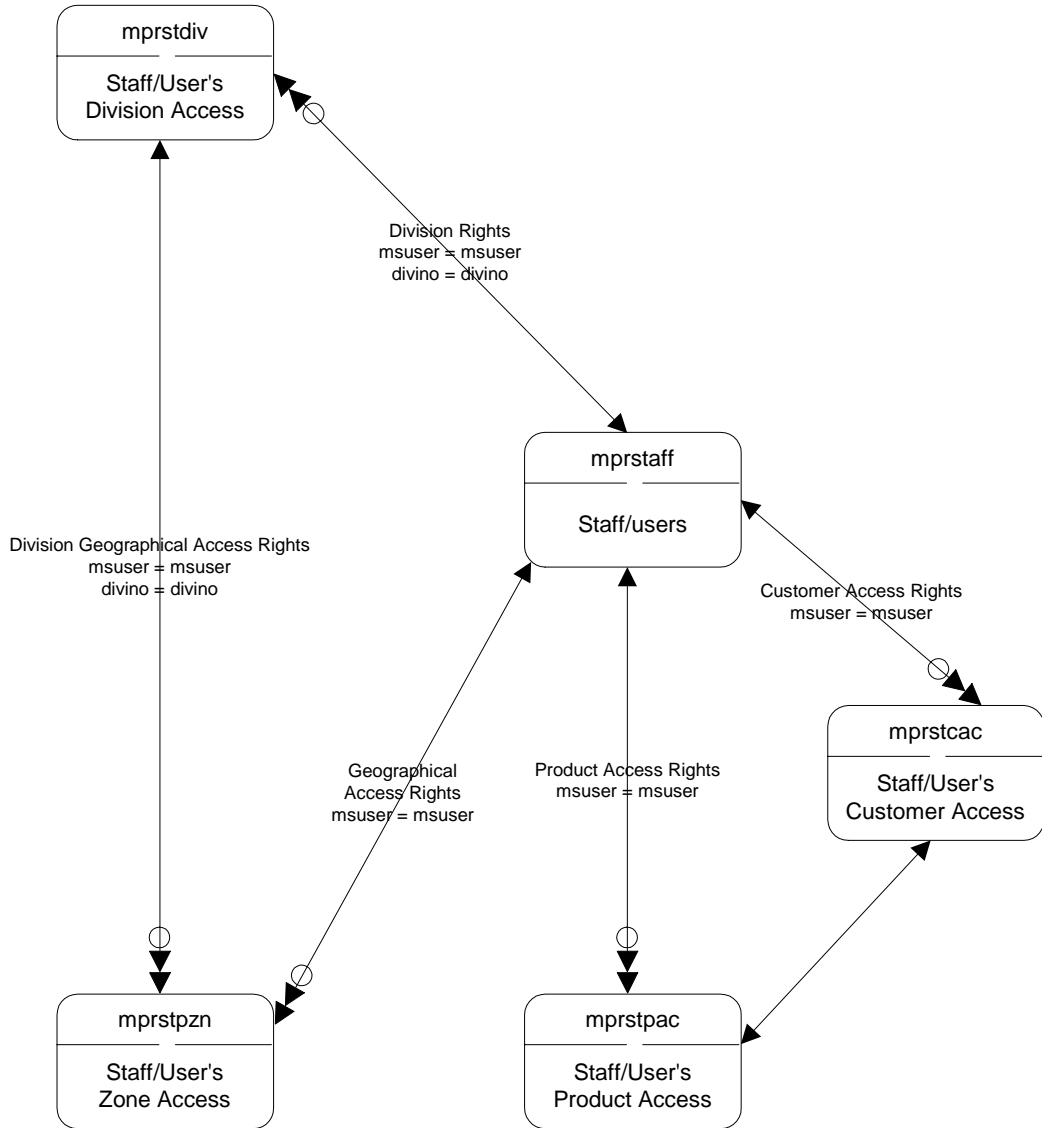


User Defined Codes II

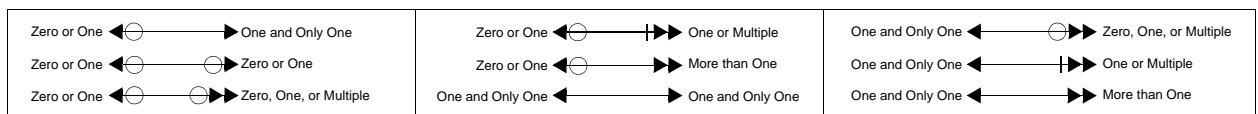


Zero or One ← ⊖ → One and Only One	Zero or One ← ⊖ → One or Multiple	One and Only One ← ⊖ → Zero, One, or Multiple
Zero or One ← ⊖ → ⊖ Zero or One	Zero or One ← ⊖ → More than One	One and Only One ← ⊖ → One or Multiple
Zero or One ← ⊖ → ⊕ Zero, One, or Multiple	One and Only One ← ⊖ → One and Only One	One and Only One ← ⊖ → More than One

Users or Staff



34 Advanced Pricing Management Entity Diagrams



The background of the page is a grayscale image of several interlocking gears. The gears are arranged in a way that they appear to be meshing together, with some in sharp focus and others blurred in the background. The lighting creates highlights and shadows on the teeth of the gears, giving them a three-dimensional appearance.

Chapter 3

Table/Diagram Cross-Reference

This chapter provides a cross-reference of Advanced Pricing Management tables and the diagrams in which they appear.

Advanced Pricing Management Cross-Reference **36**

Advanced Pricing Management Cross-Reference

Table 3.1 lists APM tables in alphabetical order and indicates the diagrams where the tables appear.

Table 3.1
Cross-Reference of
Database Tables

Table Name	Diagram Name
careareg	Geographic Structures
ccanlcus	Customer Group or Brokers Structure
ccanlgrp	Customer Group or Brokers Structure
ccanlgrp	Division Structures
ccanlgrp	Internal Price List
ccanltpl	Customer Group or Brokers Structure
cclmtype	Claims
ccontele	Contracts and Agreements
ccontfee	Contracts and Agreements
ccostset	Product Structure with Profiles
ccprof1v	Customer Structure and Profiles
ccprof2v	Customer Structure and Profiles
ccprof3v	Customer Structure and Profiles
ccprof4v	Customer Structure and Profiles
ccprof5v	Customer Structure and Profiles
ccprof6v	Customer Structure and Profiles
ccprof7v	Customer Structure and Profiles
ccprof8v	Customer Structure and Profiles
ccprof9v	Customer Structure and Profiles
cdcdetyp	Deal Structure
cdealcat	Deal Structure
cdealcde	Deal Structure
cdealgrp	Deal Structure
cdealprm	Deal Structure
cdealtyp	Deal Structure
cdvhiprm	Division Structures

Table 3.1 — *Cross-Reference of Database Tables* — (Page 1 of 7)

Table Name	Diagram Name
cdivisio	Division Structures
cdivxref	Division Structures
cgrpzone	Geographic Structures
cpanlgrp	Division Structures
cpanlgrp	Product Structure with Profiles
cpaycode	Contracts and Agreements
cpprof1v	Product Structure with Profiles
cpprof2v	Product Structure with Profiles
cpprof3v	Product Structure with Profiles
cpprof4v	Product Structure with Profiles
cpprof5v	Product Structure with Profiles
cpprof6v	Product Structure with Profiles
cpprof7v	Product Structure with Profiles
cpprof8v	Product Structure with Profiles
cpprof9v	Product Structure with Profiles
cpreion	Geographic Structures
cproarea	Geographic Structures
cprolist	Internal Price List
cproudc1	User Defined Codes I
cproudc2	User Defined Codes I
cproudc3	User Defined Codes I
cproudc4	User Defined Codes I
cproudc5	User Defined Codes I
cproudc6	User Defined Codes I
cproudc7	User Defined Codes I
cproudc8	User Defined Codes I
cproudc9	User Defined Codes I
cproudce	User Defined Codes II
cproudcf	User Defined Codes II
cproudcg	User Defined Codes II
cproudch	User Defined Codes II
mbrokdiv	Customer Group or Brokers Structure

Table 3.1 — *Cross-Reference of Database Tables* — (Page 2 of 7)

Table Name	Diagram Name
mbrokers	Customer Group or Brokers Structure
mcprof1v	Customer Structure and Profiles
mcprof2v	Customer Structure and Profiles
mcprof3v	Customer Structure and Profiles
mcprof4v	Customer Structure and Profiles
mcprof5v	Customer Structure and Profiles
mcprof6v	Customer Structure and Profiles
mcprof7v	Customer Structure and Profiles
mcprof8v	Customer Structure and Profiles
mcprof9v	Customer Structure and Profiles
mcustdiv	Customer Group or Brokers Structure
mcustdiv	Customer Structure and Profiles
mcustdiv	Division Structures
mcustdiv	Suppliers
mcustomr	Customer Group or Brokers Structure
mcustomr	Customer Structure and Profiles
mcustomr	Suppliers
mpprof1v	Product Structure with Profiles
mpprof2v	Product Structure with Profiles
mpprof3v	Product Structure with Profiles
mpprof4v	Product Structure with Profiles
mpprof5v	Product Structure with Profiles
mpprof6v	Product Structure with Profiles
mpprof7v	Product Structure with Profiles
mpprof8v	Product Structure with Profiles
mpprof9v	Product Structure with Profiles
mprlistc	Internal Price List
mprlistd	Internal Price List
mprlistg	Internal Price List
mprlisth	Internal Price List
mproddiv	Division Structures
mproddiv	Product Structure with Profiles

Table 3.1 — *Cross-Reference of Database Tables* — (Page 3 of 7)

Table Name	Diagram Name
mproduct	Product Structure with Profiles
mprstaff	Users or Staff
mprstcac	Users or Staff
mprstdiv	Users or Staff
mprstpac	Users or Staff
mprstpzn	Users or Staff
msuppdiv	Suppliers
msupplier	Suppliers
taccrucl	Promotion Accruals
taccruhd	Promotion Accruals
taccruln	Promotion Accruals
tclaimdc	Claims
tclaimgl	Claims
tclaimhd	Claims
tclaimln	Base Transaction
tclaimln	Claims
tclaimrf	Claims
tcontract	Contracts and Agreements
tcontract	User Defined Codes II
tcontrbd	Contracts and Agreements
tcontrol	Contracts and Agreements
tglbudgs	Budgets
tglbudgt	Budgets
tisalegl	Internal Sales
tisalehd	Internal Sales
tisaleln	Internal Sales
tisaletr	Internal Sales
tisbudgs	Budgets
tisbudgs	Internal Sales
tisbudgt	Budgets
tisbudgt	Internal Sales
tprbudgs	Budgets

Table 3.1 — Cross-Reference of Database Tables — (Page 4 of 7)

Table Name	Diagram Name
tprbudgs	Promotion Budget Structure
tprbudgt	Budgets
tprbudgt	Contracts and Agreements
tprbudgt	Promotion Budget Structure
tprbudgt	User Defined Codes
tpromob1	Promotion Budget Linkages
tpromob1	Promotion Budget Structure
tpromob2	Promotion Budget Linkages
tpromob2	Promotion Budget Structure
tpromobd	Promotion Accruals
tpromobd	Promotion Budget Structure
tpromocg	Promotion Budget Linkages
tpromocg	Promotion Structure
tpromocp	Promotion Budget Linkages
tpromocp	Promotion Structure
tpromocu	Promotion Budget Linkages
tpromocu	Promotion Structure
tpromodc	Deal Structure
tpromodc	Promotion Structure
tpromohd	Claims
tpromohd	Contracts and Agreements
tpromohd	Deal Structure
tpromohd	Promotion Accruals
tpromohd	Promotion Budget Structure
tpromohd	Promotion Structure
tpromohd	User Defined Codes
tpromopc	Promotion Structure
tpromopg	Promotion Budget Linkages
tpromopg	Promotion Structure
tpromopr	Promotion Budget Linkages
tpromopr	Promotion Structure
tpromosp	Promotion Budget Structure

Table 3.1 — Cross-Reference of Database Tables — (Page 5 of 7)

Table Name	Diagram Name
tpromotr	Base Transaction
tpromotr	Claims
tpromotr	Promotion Structure
tprsbudh	Budgets
tprsbuds	Budgets
trbbudgs	Budgets
trbbudgt	Budgets
trbbudgt	Contracts and Agreements
trbbudgt	Rebate Detail
trebatbd	Budgets
trebatbd	Rebate Detail
trebatc1	Rebate Customer Transaction Structure
trebatc2	Rebate Customer Transaction Structure
trebatcg	Rebate Customer Transaction Structure
trebatci	Rebate Setup Structure
trebatcp	Rebate Customer Transaction Structure
trebatcp	Rebate Detail
trebatcp	Rebate Product Transaction Structure
trebatcu	Rebate Customer Transaction Structure
trebatdo	Rebate Detail
trebatg1	Rebate Detail
trebathd	Contracts and Agreements
trebathd	Rebate Customer Transaction Structure
trebathd	Rebate Detail
trebathd	Rebate Product Transaction Structure
trebathd	Rebate Setup Structure
trebathd	User Defined Codes
trebati1	Rebate Setup Structure
trebati2	Rebate Setup Structure
trebati3	Rebate Setup Structure
trebati4	Rebate Setup Structure
trebatln	Base Transaction

Table 3.1 — *Cross-Reference of Database Tables* — (Page 6 of 7)

Table Name	Diagram Name
trebatln	Rebate Detail
trebatp1	Rebate Product Transaction Structure
trebatp2	Rebate Product Transaction Structure
trebatpe	Rebate Setup Structure
trebatpg	Rebate Product Transaction Structure
trebatpi	Rebate Setup Structure
trebatpr	Rebate Product Transaction Structure
trebatp2	Rebate Detail
trebatrr	Rebate Customer Transaction Structure
trebatrr	Rebate Detail
trebatrr	Rebate Product Transaction Structure
tsaldetl	Base Transaction
tsaletrn	Base Transaction
tsaletrn	Claims
tsaletrn	Promotion Structure
tsaletrn	Rebate Detail
tsalsumm	Base Transaction

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