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Call Management System

Release 3 Version 2
Migration

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Migration

Table of Contents

		Page
Chapter 1	**Introduction**	**1-1**
	Overview	**1-1**
	Audience	**1-1**
	How to Use this Document	**1-2**
	Organization of this Document	**1-2**
	The CMS Helpline	**1-3**
	Supported Switch Releases	**1-4**
	Supported CMS Software Releases	**1-5**
Chapter 2	**User Interface**	**2-1**
	Overview	**2-1**
	R3 Migrate Data Window	**2-2**
	Field Descriptions	**2-2**
	Action List Entries	**2-3**
	Additional Requirements	**2-4**
	Operational Cases	**2-4**
	User Permission	**2-4**
	Invalid Device	**2-5**
	Invalid ACD	**2-5**
	Run Conditions —Single-User	**2-6**
	Run Conditions — Data Collection Off	**2-6**
	Tape Not Mounted	**2-7**
	Volume Read Error	**2-7**
	Non-CMS Volume	**2-8**
	Data Write Error	**2-8**
	Process Is Running	**2-9**
	Volume Prompt —First Volume	**2-9**
	Volume Prompt — Subsequent Volume	**2-10**
	Volume Order	**2-11**
	Partial Migration and Restart	**2-11**
	Completed Migration and Restart	**2-12**
	Tape Changed	**2-12**
	R2 Migrate Data Window	**2-13**
	Field Descriptions	**2-13**
	Action List Entries	**2-14**
	Operational Cases	**2-15**
	Partial Migration and Restart	**2-15**
	Completed Migration and Restart	**2-16**
	Tape Changed	**2-16**
	Stop Date/Stop Time Validation	**2-17**
	End of Current Volume	**2-17**
	Print Migration Log	**2-18**

Chapter 3 R3-to-R3V2 Migration — First ACD, New Computer 3-1
Overview 3-1
Procedure 3-2
1. Do a ‘‘cmsadm'' Backup of R3 CMS 3-2
2. Do a Full Maintenance Backup of R3 CMS 3-2
3. Back Up Customer UNIX Files. 3-3
4. Install the R3V2 CMS 3-5
5. Administer Printers for the R3V2 CMS 3-6
6. Migrate System Administration Data 3-6
Prerequisite Administration 3-6
Procedure" 3-7
7. Perform Post System Administration Migration Tasks 3-9
8. Migrate ACD Administration Data" 3-10
Prerequisite Administration 3-10
Procedure 3-10
9. Restore Customer UNIX Files 3-11
10. Busy Out CMS Link 3-13
11. Take Down R3 Link/Bring Up R3V2 Link 3-13
12. Start R3V2 CMS Data Collection and Verify Link 3-14
13. Do an Incremental Backup of the R3 CMS 3-14
14. Migrate Full Historical Data 3-15
Prerequisite Administration 3-15
Procedure 3-15
15. Migrate Incremental Historical Data 3-17
Prerequisite Administration 3-17
Procedure 3-17
16. Do a ‘‘cmsadm'' Backup of R3V2 CMS 3-18
17. Do a Full Maintenance Backup of R3V2 CMS 3-18

Chapter 4 R3-to-R3V2 Migration — First ACD, Existing Computer 4-1
Overview 4-1
Procedure 4-2
1. Do a “cmsadm'' Backup of R3 CMS 4-2
2. Do a Full Maintenance Backup of R3 CMS 4-2
3. Busy Out CMS Link 4-2
4. Do an Incremental Maintenance Backup of R3 CMS 4-3
5. Turn Off CMS 4-3
6. Install INFORMIX Version 4.10 4-4
7. Upgrade the CMS Application 4-4
8. Set Authorizations 4-4
9. Change Switch Parameters (If Necessary) 4-5
10. Migrate System Administration Data 4-5
Prerequisite Administration 4-5
Procedure 4-6
11. Perform Post System Administration Migration Tasks 4-8
Start R3V2 CMS Data Collection and Verify Link 4-9
13. Do a “cmsadm'' Backup of R3V2 CMS. 4-9
14. Migrate Full Historical Data 4-10
Prerequisite Administration 4-10
Procedure 4-10
15. Migrate Incremental Historical Data 4-12
Prerequisite Administration 4-12
Procedure 4-12
16. Do a “cmsadm'' Backup of R3V2 CMS. 4-13

17. Do a Full Maintenance Backup of R3V2 CMS 4-13

Chapter 5 R3-to-R3V2 Migration — Multiple ACDs 5-1
Overview 5-1
Multiple ACD Migration 5-2
Procedure 5-3
1. Do a “cmsadm" Backup of the Source R3 CMS 5-3
2. Do a Full Maintenance Backup of the Source CMS 5-3
3. Back Up Customer UNIX Files 5-4
4. Record Information About Existing ACD 5-6
5. Create an ACD on the Target CMS 5-7
6. Migrate System Administration Data 5-7
Prerequisite Administration 5-7
Procedure 5-8
7. Perform Post System Administration Migration Tasks 5-10
8. Migrate ACD Administration Data” 5-11
Prerequisite Administration 5-11
Procedure 5-11
9. Restore Customer UNIX Files 5-12
10. Busy Out the Source CMS Link 5-14
11. Do an Incremental Backup of the Source CMS” 5-14
12. Take Down Source CMS Link/Bring Up Target CMS Link” 5-15
13. Start Target CMS Data Collection and Verify Link” 5-15
14. Migrate Full Historical Data 5-16
Prerequisite Administration 5-16
Procedure 5-16
15. Migrate Incremental Historical Data 5-18
Prerequisite Administration 5-18
Procedure 5-18
16. Do a “cmsadm" Backup of the Target CMS 5-19
17. Do a Full Maintenance Backup of Target CMS 5-19

Chapter 6 R3V2-to-R3V2 Migration — G2.2-to-G2.2/EAS 6-1
Overview 6-1
ACD-G2.2 EAS Migration 6-2
Procedure 6-3
1. Do a “cmsadm" Backup of the CMS without G2.2 EAS 6-3
2. Do a Full Maintenance Backup of the CMS without G2.2 EAS 6-3
3. Turn Off CMS 6-3
4. Execute the “swsetup" Command on the CMS without EAS 6-4
5. Activate EAS on the Switch” 6-4
6. Change Data Storage Allocation for CMS with EAS” 6-4
7. Start CMS Data Collection and Verify Link 6-5
8. Migrate Full Historical Data 6-6
Prerequisite Administration 6-6
Procedure 6-6
9. Do a “cmsadm" Backup of the CMS with G2.2 EAS 6-9
10. Do a Full Maintenance Backup of the CMS with G2.2 EAS 6-9

Chapter 7 R2-to-R3V2 Migration 7-1
Overview 7-1
Multiple ACD Migration 7-2
Options for Multiple ACD Migration 7-3
Procedure 7-4

1. Perform Pre-Migration Tasks . . . 7-4
2. Install the Migration Program on R2 CMS . . . 7-6
3. Transfer R2 Administration Data to Tape . . . 7-7
Convert Tape Format — CTC to SCSI" . . . 7-10
4. Migrate R2 Administration Data to R3V2 . . . 7-11
Prerequisite Administration . . . 7-11
Procedure . . . 7-11
5. Perform Post Administration Migration Tasks . . . 7-15
6. Take Down R2 Link/Bring Up R3V2 Link . . . 7-18
7. Transfer R2 Historical Data to Tape . . . 7-18
Convert Tape Format — CTC to SCSI . . . 7-22
8. Migrate R2 Historical Data To R3V2 CMS . . . 7-23
Prerequisite Administration . . . 7-23
Procedure . . . 7-23
9. Perform Post Historical Migration Tasks . . . 7-28

Chapter 8 R2-to-R3.0 (R3V1) Migration . . . **8-1**
Overview . . . 8-1
Procedure . . . 8-2
1. Perform Pre-Migration Tasks . . . 8-2
2. Install the Migration Program on R2 CMS . . . 8-4
3. Transfer R2 Administration Data to Tape . . . 8-5
Convert Tape Format — CTC to SCSI" . . . 8-8
4. Migrate R2 Administration Data to R3.0 . . . 8-9
Prerequisite Administration . . . 8-9
Procedure . . . 8-9
5. Perform Post Administration Migration Tasks . . . 8-13
6. Take Down R2 Link/Bring Up R3.0 Link . . . 8-16
7. Transfer R2 Historical Data to Tape . . . 8-16
Convert Tape Format — CTC to SCSI . . . 8-20
8. Migrate R2 Historical Data To R3.0 . . . 8-21
Prerequisite Administration . . . 8-21
Procedure . . . 8-21
9. Perform Post Historical Migration Tasks . . . 8-26

Chapter 9 Migration Log Messages . . . **9-1**
Overview . . . 9-1
R3-to-R3V2 Migration Log Messages . . . 9-2
Standard Messages . . . 9-2
System Administration Data Migration Messages . . . 9-2
ACD Administration Data Migration Messages . . . 9-3
Historical Data Migration Messages . . . 9-4
Error Messages . . . 9-6
R2-to-R3V2 Migration Log Messages . . . 9-9
Standard Messages . . . 9-9
Error Messages . . . 9-10

Appendix A Fixing R2 Migrated Custom Reports . . . **A-1**
Overview . . . A-1
Step 1: Move Misplaced Text . . . A-1
Step 2: Fix Report Input Fields . . . A-1
Step 3: Fix Report Fields . . . A-3
Step 4: Fix the Row Search Window . . . A-5
Step 5: Add Highlighting . . . A-7

Step 6: Define No-Scroll Regions A-7

Appendix B Data Migration Tables B-1
Overview B-1
R3-to-R3V2 Migration Tables. B-2
Custom Report References to Database Items B-5
R2-to-R3V2 Migration Tables. B-8
Custom Report References to Database Items B-8
Historical Database Item Mapping B-13
Calculation Migration B-20

List of Figures

Figure 2-1: **R3 Migrate Data Window** **2-2**

Figure 2-2: **R2 Migrate Data Window**. **2-13**

Chapter 1
Introduction

Overview **1-1**
Audience **1-1**
How to Use this Document **1-2**
Organization of this Document **1-2**
The CMS Helpline **1-3**
Supported Switch Releases **1-4**
Supported CMS Software Releases **1-5**

Overview

The Release 3 Version 2 Call Management System (R3V2 CMS) provides a method to migrate data from a Release 2 (R2) CMS or a Release 3.0 (R3) CMS to the R3V2 system. The migrated data gives the R3V2 CMS an initial database from which to operate.

The following items are migrated:

- System Administration data
  - — Custom reports (R2 custom reports may require tuning)
  - — Dictionary items (calculations and synonyms)
  - — Time Tables and Shortcuts. (R3 only - R2 schedules are not migrated)
- ACD Administration data
  - — Exceptions (R3 only)
  - — Split and Agent synonyms
- Historical data
  - — Agents, Splits
  - — Trunks, Trunk Groups
  - — Vectors, VDNs (if applicable)

For a complete list of migrated items, see Appendix B. This manual describes how to migrate the R2 or R3 CMS data to the R3V2 CMS.

Audience

The primary audiences for this document are:

- The customer’s CMS administrator,
- TSC engineers who provision the CMS and provide customer support, and
- AT&T field technicians who install the CMS host computer.

How to Use this Document

The following table lists the migration scenarios and their associated chapters that are included in this book.

R3 -> R3V2, new computer (first ACD) Chapter 3

R3 -> R3V2, existing computer (first ACD) Chapter 4

R3 -> R3V2 (second through fourth ACDs) Chapter 5

R3V2 (without EAS) -> R3V2 (with EAS) Chapter 6

R2 -> R3V2 Chapter 7

R2 -> R3.0/R3V1 Chapter 8

Organization of this Document

This document is organized as follows:

Chapter 1: Introduction

Chapter 2: User Interfaces

Discusses the R3 Migrate Data and R2 Migrate Data windows and their associated acknowledge windows.

Chapter 3: R3-to-R3V2 Migration - First ACD, New Computer

Describes how to migrate the R3 CMS data to an R3V2 CMS. These steps apply to the first ACD (ACD1) that will reside on a newly installed CMS host computer.

Chapter 4: R3-to-R3V2 Migration - First ACD, Existing Computer

Describes how to migrate the R3 CMS data to an R3V2 CMS. These steps apply to the first ACD (ACD1) and will reside on the customer's existing CMS host computer.

Chapter 5: R3-to-R3V2 Migration - Multiple ACDs

Describes how to migrate the R3 CMS data to an R3V2 CMS with existing ACDs. These steps apply to the second through fourth ACDs (ACD2-ACD4) thus creating a multi-ACD environment on the R3V2 machine.

Chapter 6: R3V2-to-R3V2 Migration

Describes how to migrate the R3V2 CMS data from a Generic 2.2 switch without EAS to an R3V2 CMS on a Generic 2.2 switch with EAS.

Chapter 7: R2-to-R3V2 Migration

Describes how to migrate the R2 CMS data to an R3V2 CMS. You can use these steps to migrate the data from one or more R2 ACDs to the R3V2 machine.

Chapter 8: R2-to-R3.0 (R3V1) Migration

Describes how to migrate the R2 CMS data to an R3.0 CMS. You can use these steps to migrate the data from one R2 ACD to the R3.0 machine.

Chapter 9: Migration Log Messages

Discusses the migration log messages that appear in the migration logs. These messages can be status messages that always appear or error messages that appear when problems occur.

Appendix A: Fixing Migrated R2 Custom Reports

Provides the steps that enable R2 migrated custom reports to run in the R3V2 CMS.

Appendix B: Migration Data Tables

Contains tables that show how the R3 or R2 CMS data is migrated to the R3V2 CMS.

The CMS Helpline

You can call the CMS Helpline to report a problem with the R3V2 CMS software or if you need to consult with someone about your CMS data migration. Call the CMS Consultant Group at the Technical Support Center (TSC) by following these steps:

1. Dial the AT&T Call Center Helpline: **1-800-344-9670**.
2. Press **1** from a touch-tone phone. (If you are dialing from a rotary phone, you will have to wait for an agent.)
3. Press the number that prompts you for ‘‘CMS.’’
4. Press the number that prompts you for ‘‘Release 3 (R3) CMS.’’
5. Press the number that prompts you ‘‘to request assistance or to report a new problem.’’

In addition, you may call the above number if you wish to contract AT&T to do the CMS data migration. AT&T will perform the migration on a time and materials basis.

Supported Switch Releases

The R3V2 CMS supports the switch release changes shown in the following table. You can change the switch release using the *swsetup* command from the ‘‘cmssvc’’ menu. Note that once you change to a new switch release, it may not be possible to change back to the previous release.

Current switch	New switch releases supported
System 85-R2V4	R2V4, G2.1, G2.2, G2.2/EAS, G3r, G3V2
Definity®-G1.1	G1.1, G3i, G3r, G3V2
Definity-G2.1	R2V4, G2.1, G2.2, G2.2/EAS, G3r, G3V2
Definity-G2.2	G2.2, G2.2/EAS, G3r, G3V2, G3V2/EAS
Definity-G2.2/EAS	G2.2/EAS, G3V2
Definity-G3i	G3i, G3r, G3V2, G3V2/EAS
Definity-G3r	G3r, G3V2, G3V2/EAS
Definity-G3V2	G3V2, G3V2/EAS
Definity-G3V2/EAS	G3V2/EAS

Note

If you are upgrading from a G3iV1 to a G3iV1.1 switch, leave the switch type on the R3V2 CMS set as G3i. If you do change the switch type on the R3V2 CMS to G3V2, make sure to change the CMS type on the switch to R3V2. Changing the settings does not add any features or increase your data capacities.

Note

If you are upgrading from a G3rV1 to a G3rV1.1 switch, leave the switch type on the R3V2 CMS set as G3r unless you have a need for any of the new capacities available for the G3rV1.1. The new capacities are 255 measured splits, 5200 measured agents, 665 measured trunk groups.

If you want to use the new capacities, change the CMS type on the switch to R3V2 and the switch type on the CMS to G3V2. If you change the CMS and switch types, CMS vector contents will allow you to type in the ‘‘converse’’ vector step, but the switch will not accept a vector with this step.

Supported CMS Software Releases

The R3V2 CMS supports migration from these CMS software loads:

- Release 2 CMS: Load 2.31 EDI Issue 1.4 or later
- Release 3 CMS: Load 3.2m5.1 EDI Issue 1.5 or later.

If your CMS software release is an earlier load than those listed above, you need to upgrade your CMS software prior to the migration.

Chapter 2
User Interface

Overview 2-1

R3 Migrate Data Window 2-2
Field Descriptions **2-2**
Action List Entries **2-3**
Additional Requirements **2-4**
Operational Cases **2-4**
User Permission **2-4**
Invalid Device **2-5**
Invalid ACD **2-5**
Run Conditions —Single-User **2-6**
Run Conditions — Data Collection Off **2-6**
Tape Not Mounted **2-7**
Volume Read Error **2-7**
Non-CMS Volume **2-8**
Data Write Error **2-8**
Process Is Running **2-9**
Volume Prompt —First Volume **2-9**
Volume Prompt — Subsequent Volume **2-10**
Volume Order **2-11**
Partial Migration and Restart **2-11**
Completed Migration and Restart **2-12**
Tape Changed **2-12**

R2 Migrate Data Window 2-13
Field Descriptions **2-13**
Action List Entries **2-14**
Operational Cases **2-15**
Partial Migration and Restart **2-15**
Completed Migration and Restart **2-16**
Tape Changed **2-16**
Stop Date/Stop Time Validation **2-17**
End of Current Volume **2-17**
Print Migration Log **2-18**

List of Figures

Figure 2-1: **R3 Migrate Data Window** **2-2**

Figure 2-2: **R2 Migrate Data Window**. **2-13**

Overview

This chapter discusses the R3 Migrate Data and the R2 Migrate Data windows and their associated acknowledge windows.

R3 Migrate Data Window

Use this window to migrate R3.0 CMS data to ACDs on the R3V2 CMS machine. This window is located in the System Setup subsystem.

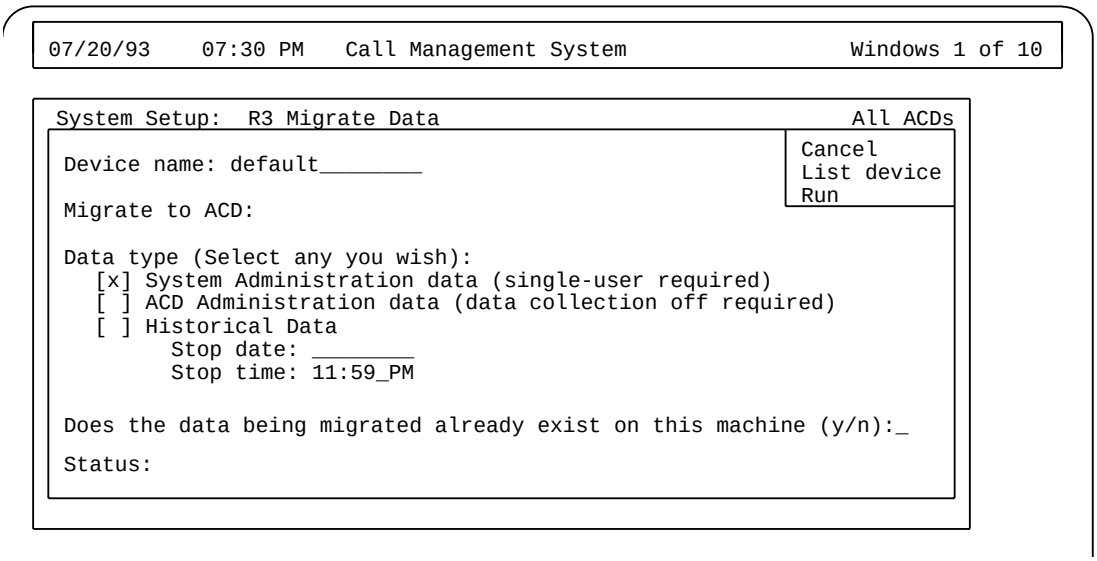

Figure 2-1: R3 Migrate Data Window

Field Descriptions

`Device name:`

Enter the device name from which the data being migrated will be read.

Valid input is the name of a device that has been defined in the Backup/Restore Devices window (normally “default"). This field is 20 characters long.

`Migrate to ACD:`

Enter the name or number of the ACD into which data will be migrated.

Valid input is a number 1 through 4 or the synonym corresponding to an existing “live" ACD on the target CMS. This field is 20 characters long.

`Data type:`

Choose the type of data you are migrating: system administration data, ACD administration data, or historical data. Appendix B lists the data items and their associated type. The CMS must be in single-user mode to migrate system administration data. The CMS must have data collection turned off to migrate ACD administration data. The CMS may be in single- or multi-user mode to migrate historical data. (Note: May select any or all at same time.)

`Stop date:`

Enter the date through which you wish to record data for migration to the CMS. The migration process does not migrate data later than the stop date you specify.

Valid input is a date in mm/dd/yy or in relative format. This field is eight characters long.

`Stop time:`

Enter the time through which you wish to record data for migration to the CMS. The migration process does not migrate data collected after the stop date and time you specify.

Valid input is a time in hh:mmXM or in HH:mm (24-hour) format. This field is 8 characters long.

`Does the data being migrated already exist on this machine (y/n):`
`Enter y if you are migrating data for the` *`first`* `ACD to an` *`existing`* `computer. If you are migrating data for any other ACD or to a new computer, enter n. The value you enter in this field does not affect the historical data migration.`

Action List Entries

`Cancel`

Results in an acknowledgment window that asks if you want to cancel the migration. If you answer y to terminate the migration, the migration is stopped and “Canceled" is displayed on the status line.

`List device`

Brings up a secondary window listing the available device names defined in the “Backup/Restore Devices” window. The window lists the device names, paths, descriptions, and device types.

Run

Starts the migration.

If you elect to migrate system administration data, the Run entry verifies that CMS is in single-user mode.

If you elect to migrate ACD administration data, the Run entry verifies that data collection is off.

If you elect to migrate historical data, the migration may proceed

Additional Requirements

- You cannot execute this window to migrate data for a nonsupported migration path.
- You cannot run this window on a timetable.

Operational Cases

The following cases may occur during the execution of the R3 Migrate Data screen. Each case describes the input conditions, the application action, and what you should do.

User Permission

Input Condition	You do not have write permission to the System Setup subsystem.
Application Action	The Run Action Item is not displayed.
What To Do	If you cannot run this window, change permissions so that you have the appropriate write permission.

Invalid Device

Input Condition You entered an invalid device name in the device field.

Application Action The device name is validated when the Run entry is selected and the following acknowledge window is displayed:

```
Invalid device name entered. Press Return to go
back to the previous window and specify the device
name again.

Press return to continue:
```

What To Do Press Return to get back to the main window and enter a valid device. Or administer the device in the Backup/Restore Devices window.

Invalid ACD

Input Condition You entered an invalid ACD number or synonym in the ACD field.

Application Action The following message window is displayed:

```
Enter ACD name or number.
Numeric input must be between 1 and 4. Decimal points are not
allowed.
The ACD name must already exist in the Dictionary subsystem.
Multiple values are not allowed.
Enter the ACD you are migrating data to.
```

What To Do Enter a valid ACD to clear the message window. Check spelling, administer name in Dictionary.

Run Conditions — Single-User

Input Condition You selected System Administration data and CMS is in multiuser mode.

Application Action The following acknowledge window is displayed:

```
ERROR: CMS must be in Single User state to
migrate System Administration data.

Press return to continue:
```

What To Do Press to clear the acknowledge window and use “System Setup: CMS State" to change CMS to single user state.

Run Conditions — Data Collection Off

Input Condition You selected ACD Administration data and data collection for this target ACD is turned on.

Application Action The following acknowledge window is displayed:

```
ERROR: Data Collection must be off for the ACD
to migrate ACD Administration data.

Press return to continue:
```

What To Do Press Return to clear the acknowledge window and use “System Setup: Data Collection" screen to turn off PC for the target ACD.

Tape Not Mounted

Input Condition Tape is not mounted in the designated tape drive.

Application Action The following acknowledge window is displayed:

```
ERROR: Cannot read the volume. Please check
the volume and/or the device drive.

Press return to continue:
```

What To Do Press Return to clear the acknowledge window. Another acknowledge window displays to prompt for the volume.

Volume Read Error

Input Condition There is an error with the volume read.

Application Action The following acknowledge window is displayed:

```
ERROR: Migration errors have occurred with the current volume.
Enter yes to skip this volume or no to cancel the migration.

Enter 'y' for yes or 'n' for no:
```

An error message indicating the read problem is written to the Services error log. The status line displays “Failed" and the main window is locked.

What To Do If you enter n, the migration stops. “Canceled" is displayed on the status line and the window is unlocked. The following error message is written to Customer and Services logs: `Migration canceled by the user.`

If you enter y, the status line is cleared and the volume prompt (subsequent volume) window is displayed. In either case, if a table is involved, its migration is not completed but its migrated data is accessible.

Non-CMS Volume

Input Condition The mounted volume is not a CMS backup volume.

Application Action The following acknowledge window is displayed:

```
ERROR: Mounted volume is not a CMS backup volume.

Press return to continue:
```

What To Do Press Return to clear. Another acknowledge displays to prompt for the correct volume.

Data Write Error

Input Condition There is an error with data write.

Application Action The following acknowledge window is displayed:

```
ERROR: Migration errors have occurred with table=ttttt.
Enter yes to skip the table or no to cancel the migration.
Enter 'y' for yes or 'n' for no:
```

An error message indicating the reload problem is written to the Customer and Services error logs. The status line displays “Failed" and the main window is locked.

What To Do If you enter y, the acknowledge window clears. The status line displays “Working", and the migration continues with the next table on the volume.

If you enter n, the migration stops. The status line displays “Canceled" and the window is unlocked. The following error message is written to Customer and Services logs: `Migration canceled by the user.`

In either case, depending on the error, the table may or may not be accessible. Manual correction may have to be performed.

If the customer encounters this message, they should call the TSC.

Process Is Running

Input Condition Process is reloading data to disk.

Application Action The main window's status line displays “Working", and then status field reports the migration status.

What To Do You can exit the window and bring it up later without affecting the actual migration process running in the background. In addition to using the migration log file, you can use the window to display feedback from the background process.

Volume Prompt — First Volume

Input Condition The migration is started and the first volume is needed.

Application Action The following acknowledge window is displayed:

```
To start the migration, load the first CMS Maintenance Backup
volume into the device drive.
Enter yes when ready or no to cancel.

Enter ’y’ for yes or ’n’ for no:
```

The main window is locked.

What To Do If you load a backup volume and enter \f(CWy\f1, the acknowledge window clears. The migration checks for these conditions before starting the reload:

- CMS Maintenance Backup Volume
- Database compatibility
- Volume order
- Supported migration path.

If you enter n, the migration stops. The status line displays “Canceled'' and the window is unlocked. The following error message is written to Customer

and Services logs: `Migration canceled by the user.`

Volume Prompt — Subsequent Volume

Input Condition The backup spans multiple tapes and the current tape is not the last one.

Application Action The following acknowledge window is displayed:

```
To continue the migration, load volume xxxxxxxxx into the
device drive.
Enter yes when ready or no to cancel the migration.

Enter ’y’ for yes or ’n’ for no:
```

The main window is locked. The volume label should be the next volume in sequence.

What To Do Unload the current volume and load the requested volume. If you load the volume and enter y, the acknowledge window clears, and the migration checks to make sure it has the right volume before starting the reload.

If you enter n, the migration stops. The status line displays “Canceled" and the window is unlocked. The following error message is written to Customer and Services logs: `Migration canceled by the user.`

Volume Order

Input Condition — The mounted volume is not the volume in sequence for reload.

Application Action — The following acknowledge window is displayed:

```
ERROR: Mounted volume is not the request volume.

Press return to continue:
```

What To Do — Same as “Non-CMS Volume." Unload current volume and load requested volume.

Partial Migration and Restart

Input Condition — The migration has been running, is stopped or aborted, and then restarted.

Application Action — The following acknowledge window displays:

```
Migration has been run before, but did not complete.
Enter yes to continue the migration where it left
or no to rerun the migration from the beginning.
Enter y for yes or n for no:__
```

What To Do — If you enter y, the migration starts from where it stopped. That is, the program skips over the data that already has been migrated.

Entering y saves time, especially if you were migrating historical data. (If you were migrating administration data, entering y prevents an excessive amount of messages from being entered into the migration log.)

If you enter n, the program starts the migration from the beginning of the data. If you restart the administration migration, numerous “already `exists`" messages will appear in the migration log due to the data already migrated.

Completed Migration and Restart

Input Condition You have completed the migration and then restart it using the same tape.

Application Action The following acknowledge window displays:

```
Migration has been run before.
Do you want to run it again?
Enter y for yes or n for no:__
```

What To Do

If you enter n, the program returns you to the action list in the R3 Migrate Data window.

If you enter y, the program starts the migration from the beginning of the data. (If you were migrating administration data, numerous “already `exists`" messages will appear in the migration log due to the data already migrated.)

Tape Changed

Input Condition You run a migration, change the tape, then restart the migration. The migration can be either incomplete or complete.

Application Action The following acknowledge window displays:

```
Migration has been run before, but the tape containing
the migration data was not the same as the one currently
in the tape drive. Do you want to run the migration
using the tape in the drive?
Enter y for yes or n for no:__
```

What To Do

If you enter y, the program starts the migration from the beginning of the data.

If you enter n, the program returns you to the action list in the R3 Migrate Data window.

R2 Migrate Data Window

Use this screen to migrate R2 CMS data to ACDs on the R3V2 CMS machine.

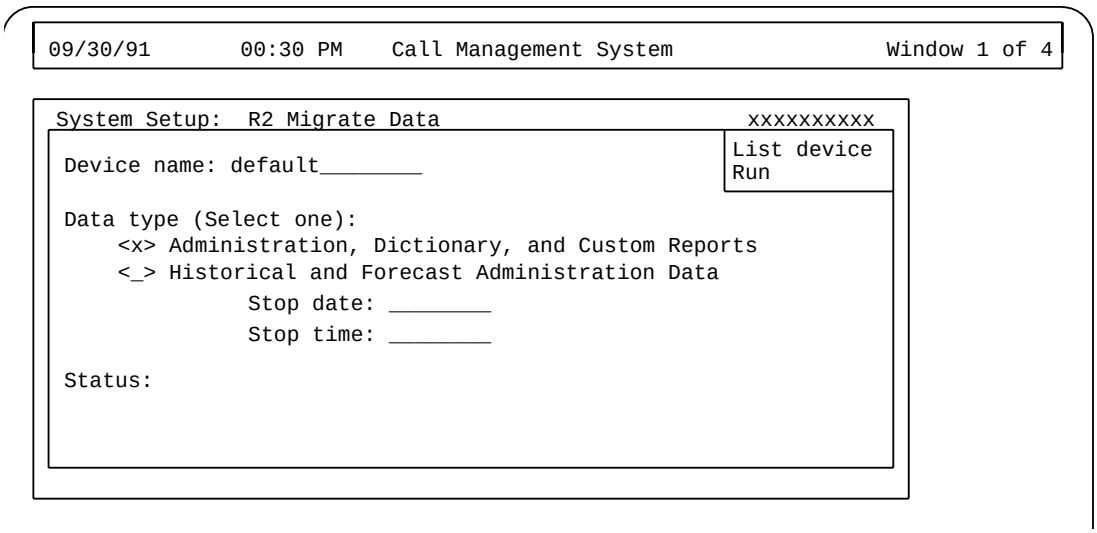

Figure 2-2: R2 Migrate Data Window

Field Descriptions

`Device name:`

Enter the device name from which the data being migrated will be read. Valid input is the name of a device that has been defined in the Backup/Restore Devices window (normally “default"). This field is 20 characters long.

`Data type:`

Choose the type of data you are migrating: system administration, dictionary, custom report, or historical data.

`Stop date:`

Enter the date through which you wish to have data migrated to the CMS. The migration process will not migrate data later than the stop date you specify.

Valid input is a date in mm/dd/yy or in relative format. This field is eight characters long.

`Stop time:`

Enter the time through which you wish to have data migrated to the CMS. The migration process will not migrate data collected after the stop date and time you specify.

Valid input is a time in hh:mmXM or in HH:mm (24-hour) format. This field is eight characters long.

Action List Entries

`List device`

Brings up a secondary window listing the available device names defined in the “Backup/Restore Devices” window. The window lists the device names, paths, descriptions, and device types.

`Run`

Starts the migration.

When the migration completes successfully, the status line displays this message: `Processing completed, see /cms/migrate/migrate.log. This file may contain a list of instructions for manually completing the migration`.

If the migration cannot complete successfully, the status line displays this message: `Failed to migrate: Examine the file, /cms/migrate/migrate.log, for problems`.

Operational Cases

The following cases may occur during the execution of the R2 Migrate Data screen. Each case describes the input conditions, the application action, and what you should do.

Partial Migration and Restart

Input Condition The migration has been running, is stopped or aborted, and then restarted.

Application Action The following acknowledge window displays:

```
Migration has been run before, but did not complete.
Enter yes to continue the migration where it left
or no to rerun the migration from the beginning.
Enter y for yes or n for no:__
```

What To Do

If you enter y, the migration starts from where it stopped. That is, the program skips over the data that already has been migrated.

Entering y saves time, especially if you were migrating historical data. (If you were migrating administration data, entering y prevents an excessive amount of messages from being entered into the migration log.)

If you enter n, the program starts the migration from the beginning of the data. If you restart the administration migration, numerous “already `exists`" messages will appear in the migration log due to the data already migrated.

Completed Migration and Restart

Input Condition You have completed the migration and then restart it using the same tape.

Application Action The following acknowledge window displays:

```
Migration has been run before.
Do you want to run it again?
Enter y for yes or n for no:__
```

What To Do

If you enter n, the program returns you to the action list in the R3 Migrate Data window.

If you enter y, the program starts the migration from the beginning of the data. (If you were migrating administration data, numerous “already `exists`" messages will appear in the migration log due to the data already migrated.)

Tape Changed

Input Condition You run a migration, change the tape, then restart the migration. The migration can be either incomplete or complete.

Application Action The following acknowledge window displays:

```
Migration has been run before, but the tape containing
the migration data was not the same as the one currently
in the tape drive. Do you want to run the migration
using the tape in the drive?
Enter y for yes or n for no:__
```

What To Do

If you enter y, the program starts the migration from the beginning of the data.

If you enter n, the program returns you to the action list in the R3 Migrate Data window.

Stop Date/Stop Time Validation

Input Condition You selected to migrate historical data and you enter Run.

Application Action The following window appears:

```
The stop date and time are critical to the migration.
          <date and time>
Are you sure they are correct (y or n)?
Enter y for yes or n for no:__
```

What To Do Enter y if you are sure that the stop date and stop time are correct. Working appears in the lower left-hand corner of the R2 Migrate Data window. The Status: field displays various messages that inform you what is being processed.

Enter n if you wish to enter a new stop date and stop time. The program returns you to the Stop date field of the R2 Migrate Data window. Enter a new stop date and stop time and select Run.

End of Current Volume

Input Condition The historical data migration spans multiple tapes and the current tape is not the last one.

Application Action The following window is displayed:

```
***** END OF CURRENT TAPE *****
Insert proper tape; wait for retension pass to complete
then press <return> to continue.
```

What To Do Replace the current tape with the next tape, wait for the retension to complete (about 3 minutes), and then press Return

Print Migration Log

Input Condition Either the migration completed successfully or failed.

Application Action The following window is displayed:

```
Do you want to print the migration log?
Enter y for yes or n for no:__
```

What To Do Enter y to print the log or n not to print the log. The program returns you to the R2 Migrate Data window.

Chapter 3
R3-to-R3V2 Migration — First ACD, New Computer

Overview 3-1

Procedure 3-2
1. Do a ‘‘cmsadm'' Backup of R3 CMS **3-2**
2. Do a Full Maintenance Backup of R3 CMS **3-2**
3. Back Up Customer UNIX Files **3-3**
4. Install the R3V2 CMS **3-5**
5. Administer Printers for the R3V2 CMS **3-6**
6. Migrate System Administration Data **3-6**
Prerequisite Administration **3-6**
Procedure". **3-7**
7. Perform Post System Administration Migration Tasks **3-9**
8. Migrate ACD Administration Data" **3-10**
Prerequisite Administration **3-10**
Procedure **3-10**
9. Restore Customer UNIX Files **3-11**
10. Busy Out CMS Link **3-13**
11. Take Down R3 Link/Bring Up R3V2 Link **3-13**
12. Start R3V2 CMS Data Collection and Verify Link **3-14**
13. Do an Incremental Backup of the R3 CMS **3-14**
14. Migrate Full Historical Data **3-15**
Prerequisite Administration **3-15**
Procedure **3-15**
15. Migrate Incremental Historical Data **3-17**
Prerequisite Administration **3-17**
Procedure **3-17**
16. Do a ‘‘cmsadm'' Backup of R3V2 CMS **3-18**
17. Do a Full Maintenance Backup of R3V2 CMS **3-18**

Overview

This chapter describes how to migrate an R3 CMS to an R3V2 CMS. The following steps apply to the first ACD (ACD1) that will reside on a *newly installed* CMS host computer.

Step	Action	Responsible Party
1	Do a ‘‘cmsadm'' backup of R3 CMS	customer
2	Do a full maintenance backup of R3 CMS	customer
3	Back up customer UNIX files	customer
4	Install the R3V2 CMS	AT&T Field Technician
5	Administer terminals and printers for the R3V2 CMS	customer
6	Migrate system administration data	TSC
7	Perform post system administration migration tasks	TSC
8	Migrate ACD administration data	TSC
9	Restore customer UNIX files	customer
10	Busy out CMS link	AT&T Field Technician
11	Take down R3 link/bring up R3V2 link	AT&T Field Technician
12	Start R3V2 CMS data collection and verify link	TSC
13	Do an incremental backup of R3 CMS	customer
14	Migrate full historical data	customer
15	Migrate incremental historical data	customer
16	Do a ‘‘cmsadm'' backup of R3V2 CMS	customer
17	Do a full maintenance backup of R3V2 CMS	customer

Note

The customer may contract AT&T to complete Steps 13 through 17 on a time and materials basis.

Procedure

1. Do a ‘‘cmsadm'' Backup of R3 CMS

Task Performed By: Customer

The customer does a ‘‘cmsadm'' backup of the R3 CMS. The ‘‘cmsadm'' backup provides a complete backup of all file systems on the R3 machine in case of failure.

See the *R3 CMS Installation and Maintenance* (585-215-112) document, Chapter 6, ‘‘Backing Up the File Systems From the UNIX System Environment.''

2. Do a Full Maintenance Backup of R3 CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3 CMS. This backup provides the data for the migration.

In the Back Up Data window, select `y` (yes) for the `Verify backup` field. In addition, the following fields should contain an ‘‘**x**'':

- ACD specific data
  - — Full
  - — Current ACD
- System data

See the *R3 CMS Administration* (585-215-511) document, Chapter 12, ‘‘Back Up Data.''

3. Back Up Customer UNIX Files

Task Performed By: Customer

If the CMS administrator or split supervisors created UNIX files (for example, UNIX commands, shell scripts, etc.), the CMS administrator backs up these files.

Using the Migsave Program

The customer can use the `migsave` program to perform this task. The `migsave` program backs up files under the */usr* directory with group ID *cms*, and terminal and printer administration.

This program is available on the R3 CMS field update 3.2S and later. If the customer does not have the `migsave` and `migrest` programs, they can contact the TSC at 1-800-344-9670 so the TSC can download the programs and provide assistance.

At the R3 machine:

1. Insert a floppy disk into the flexible disk drive.

   Note The floppy disk(s) should be formatted and not write protected.

2. Log in as *root*.
3. Access the FACE program by entering:

```
# face
```

   The system displays the FACE menu.

4. From the FACE menu, select `System Administration`.
5. From the System Administration menu, select `File System Operations`.
6. From the File System Operations menu, select `Create File System`.

7. From the Create File System menu, enter a file system name (for example, enter \f(CWcdata\f1).
8. Press F3 for `Save`.
9. Press F5 for `Cont`.
10. After the confirmation message, press F3 for `Cont`.
11. From the File System Operations menu, select `Mount File System`.
12. From the Mount File System menu, enter the file system you created in Step 3.7 (e.g. `/cdata`). Make sure to answer `No` to the "Do you want to mount the file system read-only?"
13. Press F3 for `Save`.
14. Press F5 for `Cont`.
15. Press F7, select `exit`, and press **Return**
16. Change to the */usr* directory by entering:

```
# cd /usr
```

17. Copy the UNIX files from the user's login directory to the floppy disk by entering:

```
# find <login ID> -print | cpio -pdmuv /cdata
```

The `<login ID>` in the above command represents the user's login ID for which you are copying the UNIX files.

Note This command saves *all* files for this `<login ID>`. If you want to save files that are not in a user login directory, copy them to a login directory before completing Step 17.

18. Repeat Step 17 for each user login ID for which you must copy UNIX files.
19. When you are finished copying all the users' UNIX files, access the FACE program by entering:

```
# face
```

    The system displays the FACE menu.

20. From the FACE menu, select `System Administration`.
21. From the System Administration menu, select `File System Operations`.
22. From the File System Operations menu, select `Unmount File System` and press **Return**.
23. Press F7, select `exit`, and press **Return**.

    Remove the floppy disk(s) from the disk drive and label it.

4. Install the R3V2 CMS

Task Performed By: AT&T Field Technician

Involved Parties: TSC and Customer

AT&T Field Technicians install the R3V2 CMS. The TSC provisions the system by setting authorizations, setting up data storage parameters, and setting up the R3V2 CMS application. The customer can turn on the R3V2 CMS and install the additional feature packages, if applicable.

See the following chapters in the *R3V2 CMS Installation and Maintenance* (585-215-122) document:

- Chapter 3 "Installing the Host Computer"
- Chapter 5 ‘‘Connecting the Host Computer to the Switch"
- Chapter 6 ‘‘Setting Up CMS and Installing Feature Packages"

5. Administer Printers for the R3V2 CMS

Task Performed By: Customer

The customer administers the printers for the R3V2 CMS since the migration process does **not** migrate the printer administration data.

Note

The customer skips this step if they used the `migsave` program in Step 3. The `migsave` program also backs up the printer administration data. The customer will restore the printer administration data when they use the `migrest` program in Step 9.

See the following chapters in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 3 ‘‘Printers Worksheet"
- Chapter 12 ‘‘Printer Administration."

6. Migrate System Administration Data

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

The TSC migrates the R3 system administration data using the R3 Migrate Data window. The customer or an AT&T Field Technician needs to be on site to insert the backup tape into the tape drive.

Prerequisite Administration

From the R3V2 CMS:

- A device name needs to be defined in the Backup/Restore Devices window (normally `default`). This is the device from which the data being migrated is read.
- CMS must be in single-user mode.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 12 ‘‘Back Up/Restore Devices"
- Chapter 11 ‘‘CMS State.''

Procedure"

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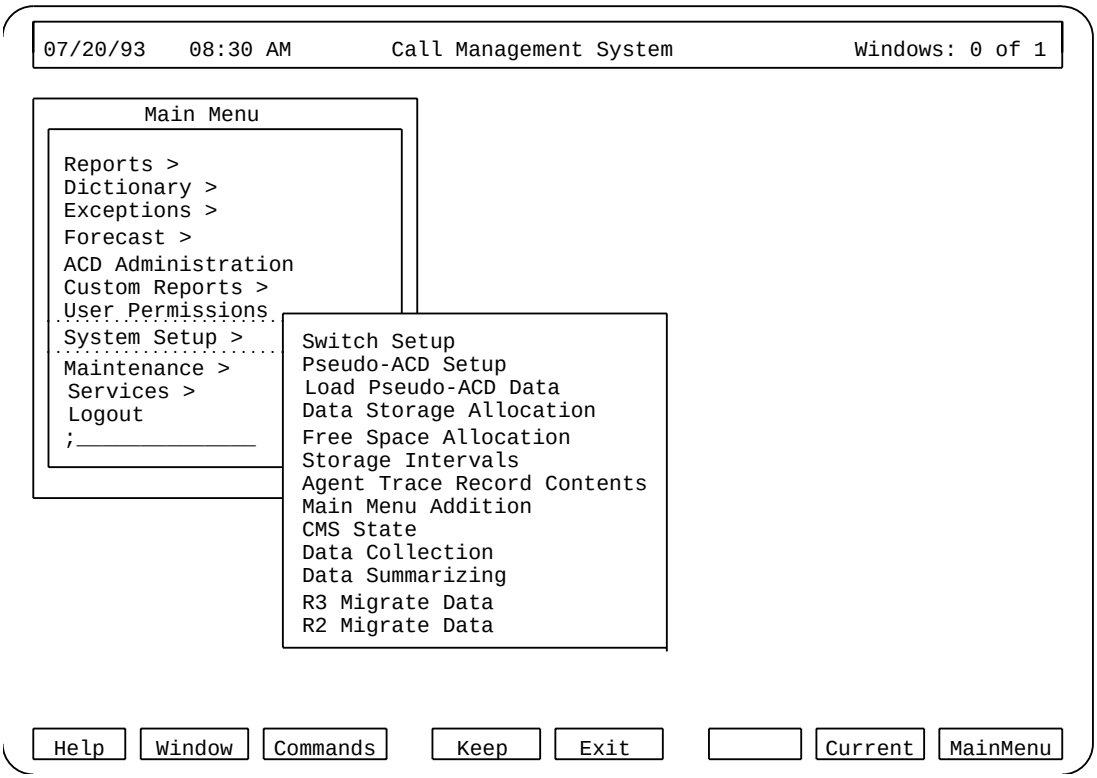
Do these steps at the R3V2 machine:

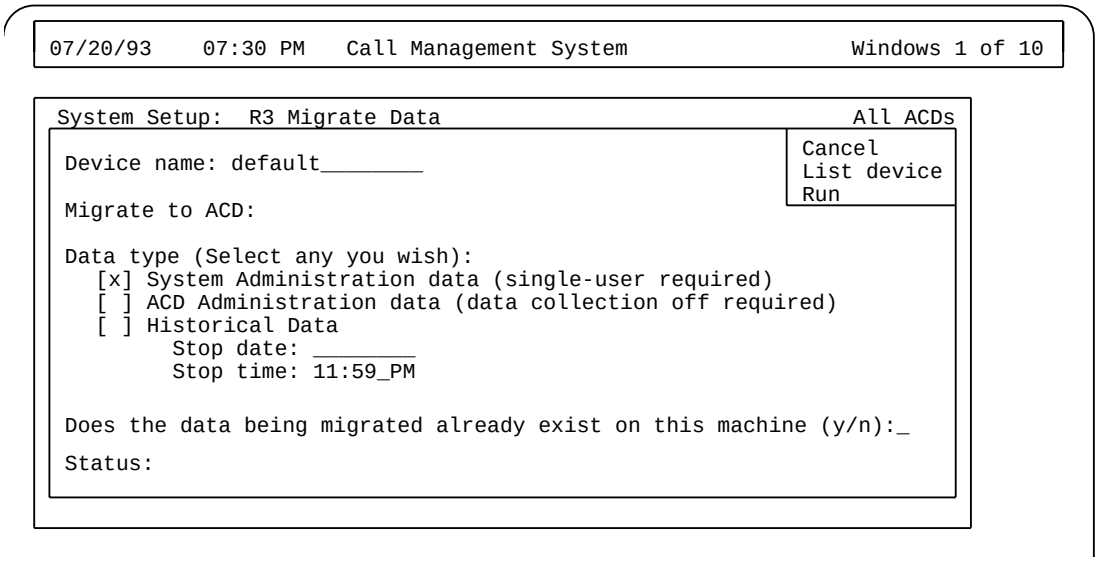
1. Insert the R3 full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `1` or the synonym corresponding to ACD1 in the `Migrate to ACD:` field.
7. Select `System Administration data` (the default) in the `Data type` field.

   Note Do not enter data in the `Stop date:` and `Stop time:` fields.

8. Enter `n` in the `Does the data being migrated already exist on this machine (y/n):` field.

   Note You enter `y` only if you are migrating data for the *first* ACD to an *existing* computer (Chapter 4). If you are migrating data for any other ACD or to a new computer, you enter `n`.

9. Press **Return** to access the Action List.
10. Select `Run` and press **Return**.

`Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what is being processed.

The migration of system administration data takes approximately 1 hour.

If the migration completes successfully, the `Status:` line displays a ‘‘successful'' message similar to the following:

```
Last migration completed (Tue Jul 13 09:49:27
1993)
```

If the migration fails, the `Status:` line displays a ‘‘failed'' message and an error is logged to the customer and services logs.

7. Perform Post System Administration Migration Tasks

Task Performed By: TSC

Involved Parties: Customer

The TSC investigates the customer migration log and takes any necessary corrective action. This log includes the status and progress of all migrations and any problems that arose during the migration.

The customer migration log is located in */cms/migrate/r3mig.log*.

The customer may print this log by entering:

```
$ lp /cms/migrate/r3mig.log
```

See Chapter 9, ‘‘Migration Log Messages'' to look up the message and determine what action you need to take.

Note A migration log also exists for services. The services migration log is located in */cms/maint/r3mig/mig.log*. This log may contain information inappropriate for the customer.

8. Migrate ACD Administration Data"

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

After migrating the system administration data, the TSC migrates the R3 ACD administration data to the R3V2 system. The customer or an AT&T Field Technician needs to be on-site to insert the backup tape into the tape drive.

Prerequisite Administration

From the R3V2 CMS:

- A device name needs to be defined in the Backup/Restore Devices window. This is the device from which the data being migrated is read.
- CMS must have data collection turned off.

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See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 12 ‘‘Back Up/Restore Devices''
- Chapter 11 ‘‘Data Collection.''

Procedure

Use the procedure outlined in Step 6 ‘‘Migrate System Administration Data'' except select `ACD Administration data` in the `Data type` field (Step 6.7).

9. Restore Customer UNIX Files

Task Performed By: Customer

The CMS administrator restores the customer UNIX files to the R3V2 machine.

Note

If the customer used the `migsave` program in Step 3, they need to use the `migrest` program to restore the customer UNIX files. If the customer does not have the `migsave` and `migrest` programs, they can contact the TSC at 1-800-344-9670 so the TSC can download the programs and provide assistance.

At the R3V2 machine:

1. Insert the floppy disk that contains the backup of the customer UNIX files (from Step 3) into the flexible disk drive.
2. Log in as *root*.
3. Access the FACE program by entering:

```
# face
```

   The system displays the FACE menu.

4. From the FACE menu, select `System Administration`.
5. From the System Administration menu, select `File System Operations`.
6. From the File System Operations menu, select `Mount File System`.
7. From the Mount File System menu, enter the file system you want to mount (e.g., `/cdata`). Make sure to answer `No` to "Do you want to mount the file system read-only?"
8. Press F3 for `Save`.
9. Press F5 for `Cont`.

10. Press F7, select `exit`, and press **Return**.
11. Change to the mounted file system by entering:

```
# cd /file system name
```

12. Restore the UNIX files from the floppy disk to the R3V2 CMS by entering:

```
# find <login ID> -print | cpio -pdmv /usr
```

    The <`login ID`> in the above command represents the user's login ID for which you are restoring the UNIX files.

13. Repeat Step 12 for each user that needs his/her UNIX files restored to the R3V2 system.
14. Change to the *root* directory by entering:

```
# cd /
```

15. Access the FACE program by entering:

```
# face
```

    The system displays the FACE menu.

16. From the FACE menu, select `System Administration`.
17. From the System Administration menu, select `File System Operations`.

18. From the File System Operations menu, select `Unmount File System` and press Return.
19. Press F7, select `exit`, and press Return.
20. Remove the floppy disk(s) from the disk drive and label it.
21. Repeat the above steps until you have restored all user UNIX files.

10. Busy Out CMS Link

Task Performed By: AT&T Field Technician

An AT&T Field Technician busies out the CMS link via the switch. You can use the **busy mis** command for the Generic 3 switch or **PROC 028** for the Generic 2 switch.

This step terminates data collection on the R3 CMS. Any further data collection will be done on the R3V2 CMS.

11. Take Down R3 Link/Bring Up R3V2 Link

Task Performed By: AT&T Field Technician

AT&T Field Technicians take down the R3 CMS link to the switch and bring up the R3V2 link. A switch technician needs to make sure that the switch is administered for R3V2 CMS.

12. Start R3V2 CMS Data Collection and Verify Link

Task Performed By: TSC

Once any migration problems are resolved, the TSC restores the R3V2 CMS to multi-user mode, starts data collection, and verifies the link is up.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 11 ‘‘CMS State''
- Chapter 11 ‘‘Data Collection''
- Chapter 12 ‘‘Connection Status.''

At this point, the TSC hands the migration back to the customer.

Note
The customer may contract AT&T to complete the migration on a time and materials basis.

13. Do an Incremental Backup of the R3 CMS

Task Performed By: Customer

At the R3 machine, the customer does a CMS incremental maintenance backup for historical data only. This incremental backup provides historical data from the time the customer completed the full maintenance backup until the technicians busied out the R3 link.

In the Back Up Data window, select `y` (yes) for the `Verify backup` field. In addition, the following fields should contain an ‘‘**x**'':

- ACD specific data
  - — Incremental
  - — Current ACD
- System data

Note
The customer can do this step in parallel with Step 14.

14. Migrate Full Historical Data

Task Performed By: Customer

Now that the R3V2 machine is collecting data, the customer can migrate the R3 historical data.

Prerequisite Administration

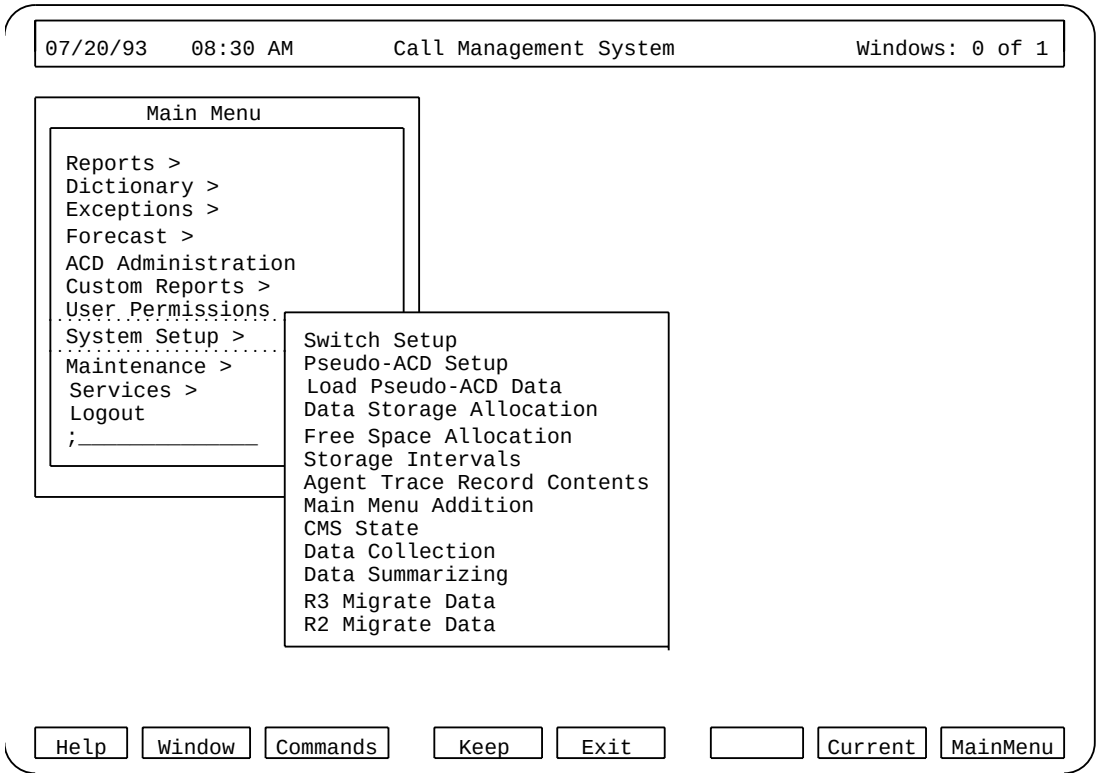
The R3V2 CMS may be in single- or multi-user mode to migrate historical data.

Procedure

At the R3V2 machine:

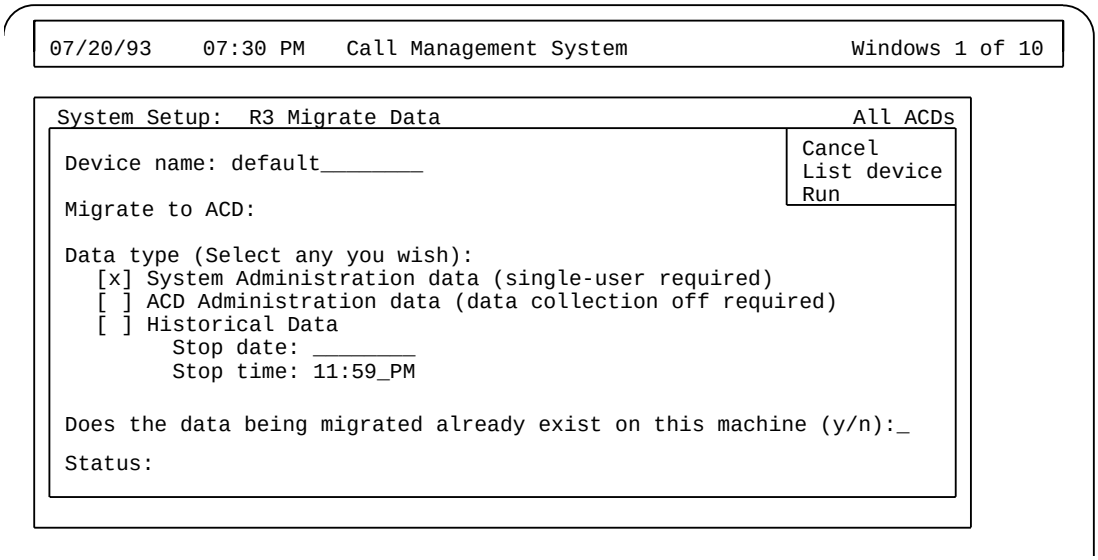
1. Insert R3 full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

   The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `1` or the synonym corresponding to ACD 1 in the `Migrate to ACD:` field.
7. Select `Historical Data` in the `Data type` field.

   Note To migrate all historical data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

8. Select `n` in the `Does the data being migrated already exist on this machine (y/n):` field.

   Note The value you enter in this field does not affect the historical data migration.

9. Press **Return** to access the Action List.

10. Select Run and press Return.

    `Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

    Note Since the migration runs in the background, you can exit the migration window and perform other tasks. Occasionally, you should access the migration window to check the progress.

    The migration of full historical data may take several hours.

    If the migration completes successfully, the `Status:` line displays a ‘‘successful'' message similar to the following:

    ```
    Last migration completed (Tue Jul 13 09:49:27 1993)
    ```

    If the migration fails, the `Status:` line displays a ‘‘failed'' message and an error is logged to the customer and services logs.

15. Migrate Incremental Historical Data

Task Performed By: Customer

To complete the data migration, the customer needs to migrate the incremental historical data.

Prerequisite Administration

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The R3V2 CMS may be in single- or multi-user mode to migrate incremental historical data.

Procedure

Use the procedure outlined in Step 14 ‘‘Migrate Full Historical Data'' except use the **R3 incremental backup tape** instead of the R3 full backup tape.

An acknowledgement will ask you to verify whether to proceed with the incremental migration. Enter y and press Return.

Note To migrate the incremental data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

16. Do a “cmsadm" Backup of R3V2 CMS

Task Performed By: Customer

The customer does a ‘‘cmsadm" backup of the R3V2 CMS. The ‘‘cmsadm" backup provides a complete backup of all file systems on the R3V2 machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, ‘‘Performing a CMSADM Backup."

17. Do a Full Maintenance Backup of R3V2 CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3V2 CMS data. This backup protects you from losing the R3 migrated data plus the R3V2 data initially collected.

In the Back Up Data window, select y (yes) for the `Verify volume can be read after backup` field. In addition, the following fields should contain an ‘‘**x**":

- All ACDs
- ACD specific data
- System administration data
- Historical data
  - — Full

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 12, ‘‘Back Up Data" for more information.

Chapter 4
R3-to-R3V2 Migration — First ACD, Existing Computer

Overview 4-1

Procedure 4-2
1. Do a “cmsadm" Backup of R3 CMS **4-2**
2. Do a Full Maintenance Backup of R3 CMS **4-2**
3. Busy Out CMS Link. **4-2**
4. Do an Incremental Maintenance Backup of R3 CMS **4-3**
5. Turn Off CMS **4-3**
6. Install INFORMIX Version 4.10 . . . . . **4-4**
7. Upgrade the CMS Application **4-4**
8. Set Authorizations **4-4**
9. Change Switch Parameters (If Necessary) **4-5**
10. Migrate System Administration Data **4-5**
Prerequisite Administration **4-5**
Procedure **4-6**
11. Perform Post System Administration Migration Tasks **4-8**
Start R3V2 CMS Data Collection and Verify Link **4-9**
13. Do a “cmsadm" Backup of R3V2 CMS **4-9**
14. Migrate Full Historical Data **4-10**
Prerequisite Administration **4-10**
Procedure **4-10**
15. Migrate Incremental Historical Data **4-12**
Prerequisite Administration **4-12**
Procedure **4-12**
16. Do a “cmsadm" Backup of R3V2 CMS **4-13**
17. Do a Full Maintenance Backup of R3V2 CMS **4-13**

Overview

This chapter describes how to migrate an R3 CMS to an R3V2 CMS. The following steps apply to the first ACD (ACD1) that resides on the customer's *existing* CMS host computer.

Step	Action	Responsible Party
1	Do a “cmsadm'' backup of R3 CMS	customer
2	Do a full maintenance backup of R3 CMS	customer
3	Busy out CMS link	customer
4	Do an incremental maintenance backup of R3 CMS	customer
5	Turn off CMS	TSC
6	Install INFORMIX Version 4.10	TSC
7	Upgrade R3 CMS to R3V2 CMS	TSC
8	Set authorizations	TSC
9	Change switch parameters, if necessary	TSC
10	Migrate system administration data	TSC
11	Perform post system administration migration tasks	TSC
12	Start R3V2 CMS data collection and verify link	TSC
13	Do a “cmsadm'' backup	customer
14	Migrate full historical data	customer
15	Migrate incremental historical data	customer
16	Do a “cmsadm'' backup of R3V2 CMS	customer
17	Do a full maintenance back up of R3V2 CMS	customer

Note

The customer may contract AT&T to complete Steps 13 through 17 on a time and materials basis.

Procedure

1. Do a “cmsadm" Backup of R3 CMS

Task Performed By: Customer

The customer does a “cmsadm" backup of the R3 CMS. The “cmsadm" backup provides a complete backup of all file systems on the R3 machine in case of failure.

See the *R3 CMS Installation and Maintenance* (585-215-112) document, Chapter 6, “Backing Up the File Systems From the UNIX System Environment."

2. Do a Full Maintenance Backup of R3 CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3 CMS. This backup provides the data for the migration.

In the Back Up Data window, select `y` (yes) for the `Verify backup` field. In addition, the following fields should contain an “x":

- ACD specific data
  - — Full
  - — Current ACD
- System data

See the *R3 CMS Administration* (585-215-511) document, Chapter 12, “Back Up Data."

3. Busy Out CMS Link

Task Performed By: Customer or AT&T Field Technician

This step terminates data collection on the source CMS. The customer or an AT&T Field Technician busies out the CMS link via the switch. You can use the **busy mis** command for the Generic 3 switch or **PROC 028** for the Generic 2 switch.

This step terminates data collection on the R3 CMS. Any further data collection will be done on the R3V2 CMS.

4. Do an Incremental Maintenance Backup of R3 CMS

Task Performed By: Customer

The customer does an R3 CMS incremental maintenance backup for historical data only. This incremental backup provides historical data from the time the customer completed the full maintenance backup until the CMS link was busied out.

In the Back Up Data window, select `y` (yes) for the `Verify backup` field. In addition, the following fields should contain an “x":

- ACD specific data
  - — Incremental
  - — Current ACD
- System data

See the *R3 CMS Administration* (585-215-511) document, Chapter 12, “Back Up Data."

5. Turn Off CMS

Task Performed By: TSC

The TSC turns off CMS to upgrade the INFORMIX and CMS applications. The customer calls the TSC to coordinate this step and Steps 6 through 12.

See the *CMS Installation and Maintenance* (585-215-122) document, Chapter 2, “run_cms."

6. Install INFORMIX Version 4.10

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

The TSC installs the INFORMIX 4.10 software used by the R3V2 CMS. The customer or an AT&T Field Technician needs to be on site to insert the INFORMIX floppy disks into the flexible disk drive.

See the *CMS Installation and Maintenance* (585-215-122) document, Appendix D, E, or F (depending on the computer model), “Installing the INFORMIX 4.10 Software'' for more information.

Note
Remember to set up the environment before you install the INFORMIX software package.

7. Upgrade the CMS Application

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

The TSC upgrades the R3 CMS to R3V2 CMS. The customer or an AT&T Field Technician needs to be on site to insert the upgrade tape into the tape drive.

See the *CMS Installation and Maintenance* (585-215-122) document, Chapter 11, “Upgrading the CMS Software.''

8. Set Authorizations

Task Performed By: TSC

The TSC sets authorizations for the R3V2 CMS.

See the *CMS Installation and Maintenance* (585-215-122) document, Chapter 6, “Setting Authorizations.''

9. Change Switch Parameters (If Necessary)

Task Performed By: TSC

The TSC changes the switch parameters if the customer upgraded to a new switch release.

See the *CMS Installation and Maintenance* (585-215-122) document, Chapter 2, “swsetup."

10. Migrate System Administration Data

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

The TSC migrates the R3 system administration data to the R3V2 CMS using the R3 Migrate Data window. The customer or an AT&T Field Technician needs to be on site to insert the backup tape into the tape drive.

Prerequisite Administration

From the R3V2 CMS:

- A device name needs to be defined in the Backup/Restore Devices window (normally “default"). This is the device from which the data being migrated is read.
- CMS must be in single-user mode.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

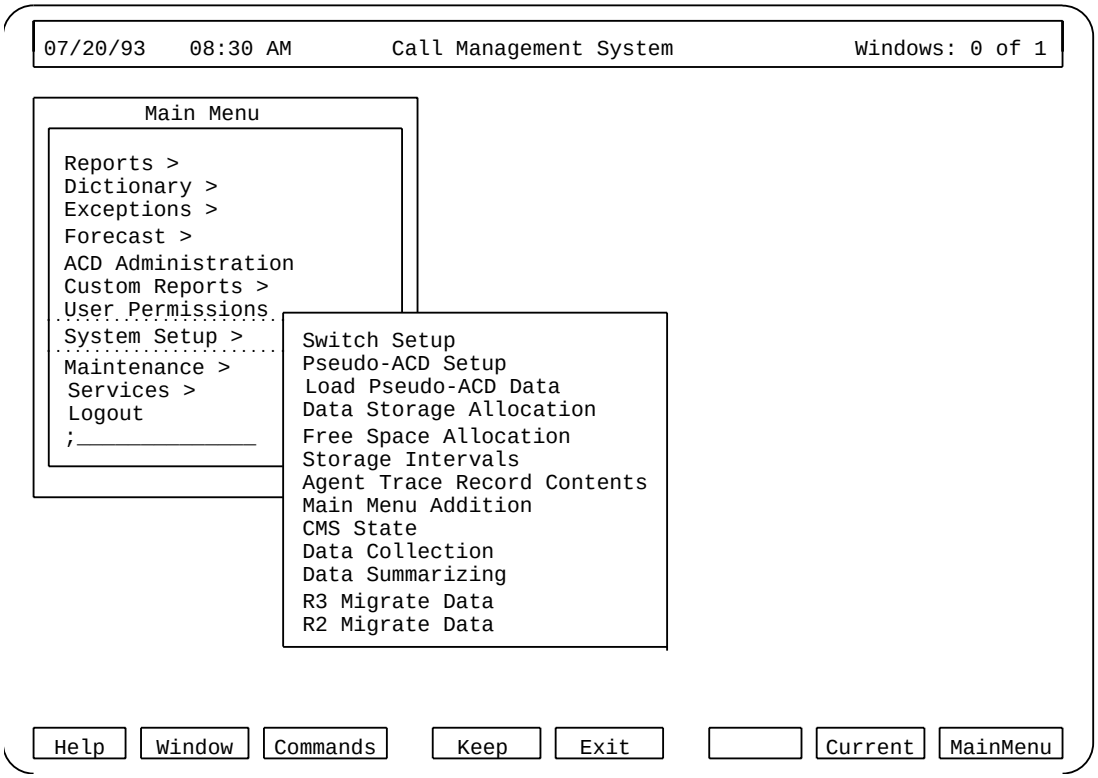
- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “CMS State."

Procedure

Do these steps to migrate the system administration data:

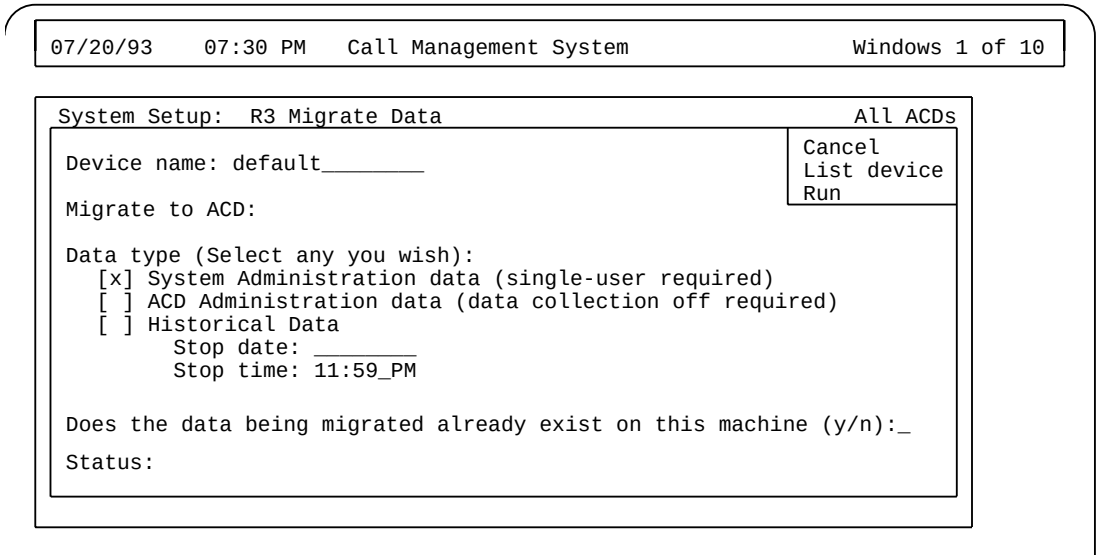
1. Insert the R3 full maintenance backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `1` or the synonym corresponding to ACD1 in the `Migrate to ACD:` field.
7. Select `System Administration data` (the default) in the `Data type` field.

Note Do not enter data in the `Stop date:` and `Stop time:` fields.

8. Enter `y` in the `Does the data being migrated already exist on this machine (y/n):` field.
9. Press **Return** to access the Action List.
10. Select `Run` and press **Return**.

`Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what is being processed.

The migration of system administration data takes approximately 1 hour.

If the migration completes successfully, the `Status:` line displays a “successful" message similar to the following:

```
Last migration completed (Tue Jul 13 09:49:27
1993)
```

If the migration fails, the `Status:` line displays a “failed" message and an error is logged to the customer and services logs.

11. Perform Post System Administration Migration Tasks

Task Performed By: TSC

Involved Parties: Customer

The TSC investigates the customer migration log and takes any necessary corrective action. This log includes the status and progress of all migrations and any problems that arose during the migration.

The customer migration log is located in \f2/cms/migrate/r3mig.log\f1.

The customer may print this log by entering:

```
$ lp /cms/migrate/r3mig.log
```

See Chapter 9, “Migration Log Messages" to look up the message and determine what action you need to take.

Note A migration log also exists for services. The services migration log is located in */cms/maint/r3mig/mig.log*. This log may contain information inappropriate for the customer.

Start R3V2 CMS Data Collection and Verify Link

Once any migration problems are resolved, the TSC restores the R3V2 CMS to multi-user mode, starts data collection, and verifies the link is up.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 11 “CMS State"
- Chapter 11 “Data Collection"
- Chapter 12 “Connection Status.''

At this point, the TSC hands the migration back to the customer.

Note

The customer may contract AT&T to have the TSC complete the migration on a time and materials basis.

13. Do a “cmsadm" Backup of R3V2 CMS

Task Performed By: Customer

The customer does a “cmsadm" backup of the R3V2 CMS. The “cmsadm" backup provides a complete backup of all file systems on the R3V2 machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, “Performing a CMSADM Backup."

14. Migrate Full Historical Data

Task Performed By: Customer

Now that the R3V2 machine is collecting data, the customer can migrate the R3 historical data.

Prerequisite Administration

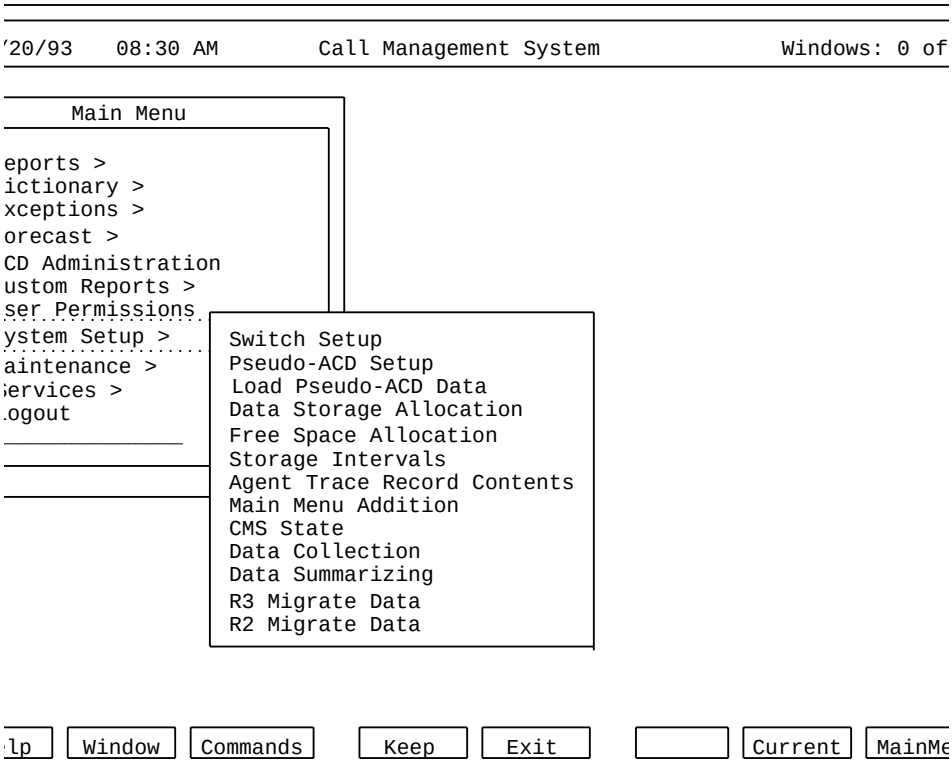
The R3V2 CMS may be in single- or multi-user mode to migrate historical data.

Procedure

Do these steps to migrate R3 historical data:

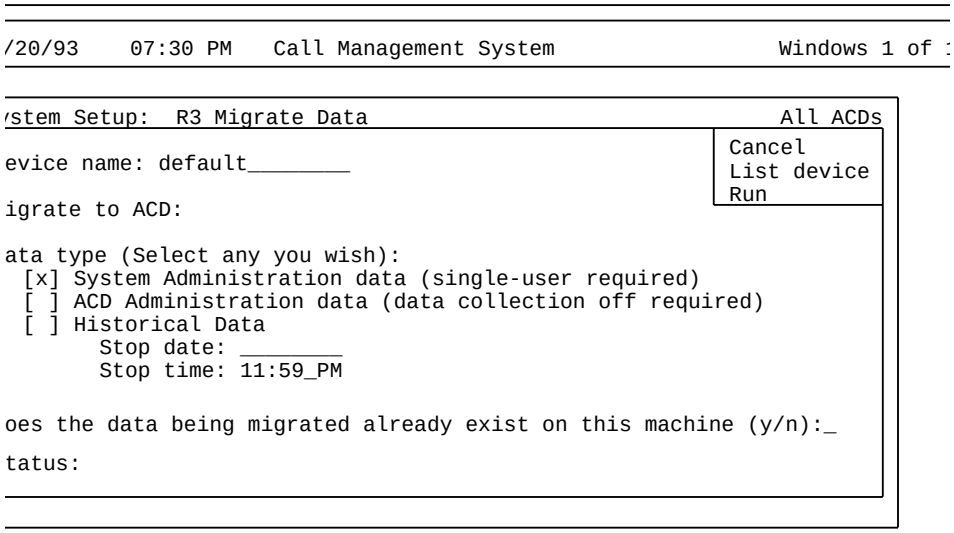
1. Insert R3 full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `1` or the synonym corresponding to ACD 1 in the `Migrate to ACD:` field.
7. Select `Historical Data` in the `Data type` field.

> **Note** To migrate all historical data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

8. Enter `y` in the `Does the data being migrated already exist on this machine (y/n):` field.

> **Note** The value you enter in this field does not affect the historical data migration.

9. Press **Return** to access the Action List.
10. Select `Run` and press **Return**.

`Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

Note Since the migration runs in the background, you can exit the migration window and perform other tasks. Occasionally, you should access the migration window to check the progress.

The full migration of historical data may take several hours.

If the migration completes successfully, the `Status:` line displays a “successful" message similar to the following:

```
Last migration completed (Tue Jul 13 09:49:27
1993)
```

If the migration fails, the `Status:` line displays a “failed" message and an error is logged to the customer and services logs.

15. Migrate Incremental Historical Data

Task Performed By: Customer

To complete the data migration, the customer needs to migrate the incremental historical data.

Prerequisite Administration

The R3V2 CMS may be in single- or multi-user mode to migrate incremental historical data.

Procedure

Use the procedure outlined in Step 14 “Migrate Full Historical Data" except use the **R3 incremental backup tape** instead of the R3 full backup tape.

An acknowledgment will ask you to verify whether to proceed with the incremental migration. Type y and press **Return**.

Note To migrate the incremental data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

16. Do a “cmsadm" Backup of R3V2 CMS

Task Performed By: Customer

The customer does a “cmsadm" backup of the R3V2 CMS. The “cmsadm" backup provides a complete backup of all file systems on the R3V2 machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, “Performing a CMSADM Backup."

17. Do a Full Maintenance Backup of R3V2 CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3V2 CMS data. This backup protects you from losing the R3 migrated data plus the R3V2 data initially collected.

In the Back Up Data window, enter y (yes) in the `Verify volume can be read after backup` field. In addition, the following fields should contain an “x":

- All ACDs
- ACD specific data
- System administration data
- Historical data
  - — Full

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 12, “Back Up Data."

Chapter 5
R3-to-R3V2 Migration — Multiple ACDs

Overview 5-1
Multiple ACD Migration **5-2**

Procedure 5-3
1. Do a “cmsadm" Backup of the Source R3 CMS **5-3**
2. Do a Full Maintenance Backup of the Source CMS **5-3**
3. Back Up Customer UNIX Files **5-4**
4. Record Information About Existing ACD **5-6**
5. Create an ACD on the Target CMS **5-7**
6. Migrate System Administration Data **5-7**
Prerequisite Administration **5-7**
Procedure **5-8**
7. Perform Post System Administration Migration Tasks **5-10**
8. Migrate ACD Administration Data” **5-11**
Prerequisite Administration **5-11**
Procedure **5-11**
9. Restore Customer UNIX Files **5-12**
10. Busy Out the Source CMS Link **5-14**
11. Do an Incremental Backup of the Source CMS” **5-14**
12. Take Down Source CMS Link/Bring Up Target CMS Link” **5-15**
13. Start Target CMS Data Collection and Verify Link” **5-15**
14. Migrate Full Historical Data **5-16**
Prerequisite Administration **5-16**
Procedure **5-16**
15. Migrate Incremental Historical Data **5-18**
Prerequisite Administration **5-18**
Procedure **5-18**
16. Do a “cmsadm" Backup of the Target CMS **5-19**
17. Do a Full Maintenance Backup of Target CMS **5-19**

Overview

This chapter describes how to migrate an R3 CMS to an R3V2 CMS in a multi-ACD environment. The incoming ACD is migrated to either ACD2, ACD3, or ACD4 on the R3V2 target CMS.

You can use the following steps to migrate a subsequent R3 ACD to the target CMS. (Subsequent ACDs may also be R3V2 ACDs.)

The “source" CMS is the R3 or R3V2 CMS from which the ACD data will migrate. The “target" CMS is the R3V2 CMS with the multi-ACDs to which the data will migrate.

Step	Action	Responsible Party
1	Do a “cmsadm“ backup of the source CMS	customer
2	Do a full maintenance backup of the source CMS	customer
3	Back up customer UNIX files	customer
4	Record Information About Existing ACD	TSC
5	Create an ACD on the target CMS	TSC
6	Migrate system administration data	TSC
7	Perform post system administration migration tasks	TSC
8	Migrate ACD administration data	TSC
9	Restore customer UNIX files	customer
10	Busy out the source CMS link	AT&T Field Technician
11	Do an incremental backup of the source CMS	customer
12	Take down source CMS link/bring up target CMS link	AT&T Field Technician
13	Start target CMS data collection and verify link	TSC
14	Migrate full historical data	customer
15	Migrate incremental historical data	customer
16	Do a “cmsadm" backup of the target CMS	customer
17	Do a full maintenance backup of the target CMS	customer

Note

The customer may contract AT&T to complete Steps 14 through 17 on a time and materials basis.

Multiple ACD Migration

Moving multiple ACDs to the same R3V2 machine can cause collisions in the System Administration data. The following items are the potential collisions and their solutions:

- CMS User IDs
  - — Before you migrate data, CMS user IDs must be lower case. This includes any existing R3.0 user IDs with upper-case letters.
  - — The migration program will not migrate CMS user IDs if these user IDs have already been established on the R3V2 machine. The program reports the nonmigrated user IDs in the customer migration log.

    For these user IDs, the program will not migrate user interface attributes (color options, feature access, default values) from other ACDs. In addition, the migration program moves any custom reports, timetables/shortcuts, or menu additions owned by the nonmigrated user IDs to the *cms* user ID.
  - — UNIX system logins for CMS user IDs new to the R3V2 machine are created automatically.
- Custom reports
  - — The migration program makes nonunique custom reports (based on report group, report name, and CMS user ID) unique by renaming them. For example, the program renames the first nonunique report *temp1*, the second *temp2*, etc. The program identifies these custom reports in the customer migration log. You should change the names of these custom reports to something more meaningful after the migration.
  - — Timetables/shortcuts using these reports are still migrated but access the old custom report names instead. You need to modify the timetables/shortcuts to access the new name.
- Timetables/shortcuts

  Like custom reports, the migration program renames nonunique timetables or shortcuts (based on the CMS user ID and timetable/shortcut name) to *temp1*, *temp2*, etc. The program reports these timetables/shortcuts in the customer migration log. You should change the names of these timetables/shortcuts to something more meaningful or delete them if they are no longer needed.

- Dictionary

  The migration program discards all calculations, constants, and custom items with nonunique names. The program reports the discarded names/values in the customer migration log so you can re-enter them if desired.

- Menu additions
  - — The migration program discards all nonunique menu additions (based on the menu name and CMS user ID). The program reports discarded menu additions in the customer migration log.
  - — If the migrated menu additions use customized executables, the customer needs to migrate these executables as well (Steps 4 and 10).

Procedure

1. Do a “cmsadm" Backup of the Source R3 CMS

Task Performed By: Customer

The customer does a “cmsadm" backup of the source CMS. The “cmsadm" backup provides a complete backup of all file systems on the source machine in case of failure.

See the *R3 CMS Installation and Maintenance* (585-215-112) document, Chapter 6, “Backing Up the File Systems From the UNIX System Environment."

2. Do a Full Maintenance Backup of the Source CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the source CMS. This backup provides the data for the migration.

In the Back Up Data window, select `y` (yes) for the `Verify backup` field. In addition, the following fields should contain an “x":

- ACD specific data
  - — Full
  - — Current ACD

  Note

  Since the migration program allows you to migrate only one ACD at a time, you need to select current ACD, **not** all ACDs.

  Make sure that the ACD you want to back up is the current ACD.
- System data

See the *R3 CMS Administration* (585-215-511) document, Chapter 12, “Back Up Data."

3. Back Up Customer UNIX Files

Task Performed By: Customer

If the CMS administrator or split supervisors created UNIX files (for example, UNIX commands, shell scripts, etc.), the CMS administrator backs up these files.

Using the Migsave Program

The customer can use the `migsave` program to perform this task. The `migsave` program backs up files under the */usr* directory with group ID *cms*, and terminal and printer administration.

This program is available on the R3 CMS field update 3.2S and later. If the customer does not have the `migsave` and `migrest` programs, they can contact the TSC at 1-800-344-9670 so the TSC can download the programs and provide assistance.

At the source machine:

1. Insert a floppy disk into the flexible disk drive.

   Note The floppy disk(s) should be formatted and not write protected.

2. Log in as *root*.
3. Access the FACE program by entering:

```
# face
```

   The system displays the FACE menu.

4. From the FACE menu, select `System Administration`.
5. From the System Administration menu, select `File System Operations`.
6. From the File System Operations menu, select `Create File System`.

7. From the Create File System menu, enter a file system name (for example, enter `cdata`).
8. Press F3 for `Save`.
9. Press F3 for `Cont`.
10. After the confirmation message, press F3 for `Cont`.
11. From the File System Operations menu, select `Mount File System`.
12. From the Mount File System menu, enter the file system you created in Step 3.7 (e.g., /`cdata`). Make sure to answer `No` in the `Do you want to mount the file system read-only?` field.
13. Press F3 for `Save`.
14. Press F3 for `Cont`.
15. Press F7 select `exit`, and press **Return**.
16. Change to the */usr* directory by entering:

```
# cd /usr
```

17. Copy the UNIX files from the user's login directory to the floppy disk by entering:

```
# find <login ID> -print | cpio -pdmuv /cdata
```

The `<login ID>` in the above command represents the user's login ID for which you are copying the UNIX files.

Note This command saves *all* files for this `<login ID>`. If you want to save files that are not in this user directory, relocate them to the directory before completing Step 17.

18. Repeat Step 17 for each user login ID for which you must copy UNIX files.
19. When you are finished copying all the users' UNIX files, access the FACE program by entering:

```
# face
```

20. From the FACE menu, select `System Administration`.
21. From the System Administration menu, select `File System Operations`.
22. From the File System Operations menu, select `Unmount File System` and press Return.
23. Press F7, select `exit`, and press Return.

    Remove the floppy disk from the disk drive and label it.

4. Record Information About Existing ACD

Task Performed By: TSC

At the source CMS, the TSC accesses the "cmsadm" menu and executes the *swinfo* command. The TSC writes down this information since it is needed to create an ACD in the next step. In addition, the TSC accesses the Data Storage Allocation window and records that information.

See the following:

- *R3 CMS Installation and Maintenance WGS* (585-215-112) document, Chapter 4, "Displaying Switch Parameters."
- *R3 CMS Administration* (585-215-511) document, Chapter 11, "Data Storage Allocation."

Note If your R3 CMS software load is 3.2F or later, you need to access the "cmssvc" menu to execute the *swinfo* command.

5. Create an ACD on the Target CMS

Task Performed By: TSC

The TSC creates an ACD on the target CMS using the information obtained in the previous step.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 2, “acd_create."

6. Migrate System Administration Data

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

The TSC migrates the source CMS system administration data using the R3 Migrate Data window. The customer or an AT&T Field Technician needs to be on site to insert the backup tape into the tape drive.

Prerequisite Administration

At the target CMS:

- A device name needs to be defined in the Backup/Restore Devices window (normally `default`). This is the device from which the data being migrated is read.
- CMS must be in single-user mode.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

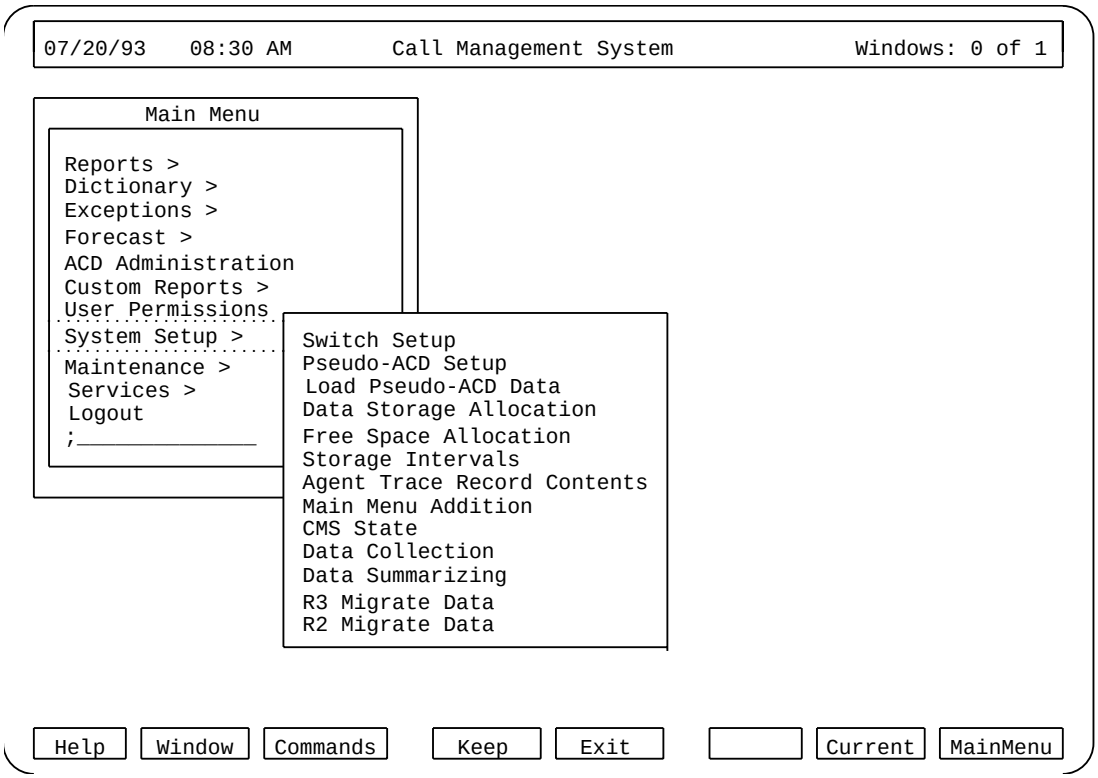
- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “CMS State."

Procedure

Do these steps at the target machine:

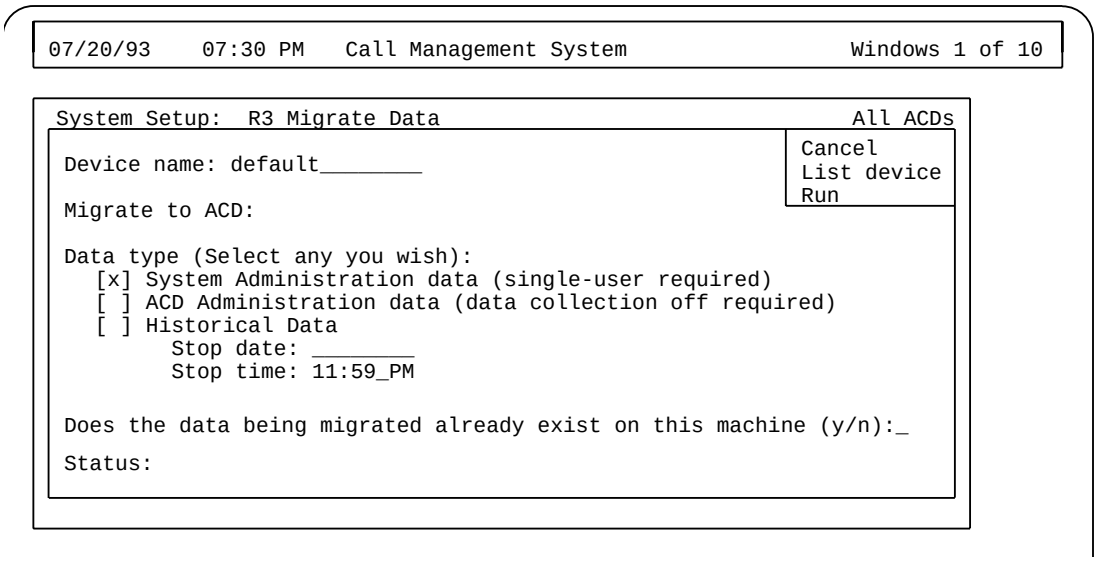
1. Insert the full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the System Setup subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. In the `Migrate to ACD:` field, enter the number (e.g. “2" for ACD2, “3" for ACD3, etc.) or the synonym to which the migrating ACD will be mapped in the target system.
7. Select `System Administration data` (the default) in the `Data type` field.

   Note Do not enter data in the `Stop date:` and `Stop time:` fields.

8. Enter n in the `Does the data being migrated already exist on this machine (y/n):` field.

   Note You enter y only if you are migrating data for the first ACD to an existing computer (Chapter 4). If you are migrating data for any other ACD or to a new computer, you enter n.

9. Press **Return** to access the Action List.
10. Select Run and press **Return**.

`Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what is being processed.

The migration of system administration data takes approximately 1 hour.

If the migration completes successfully, the `Status:` line displays a “successful" message similar to the following:

```
Last migration completed (Tue Jul 13 09:49:27
1993)
```

If the migration fails, the `Status:` line displays a “failed" message and an error is logged to the customer and services logs.

7. Perform Post System Administration Migration Tasks

Task Performed By: TSC

Involved Parties: Customer

The TSC investigates the customer migration log and takes any necessary corrective action. This log includes the status and progress of all migrations and any problems that arose during the migration.

The customer migration log is located in */cms/migrate/r3mig.log*.

The customer may print this log by entering:

```
$ lp /cms/migrate/r3mig.log
```

See Chapter 9, “Migration Log Messages" to look up the message and determine what action you need to take.

Note A migration log also exists for services. The services migration log is located in */cms/maint/r3mig/mig.log*. This log may contain information inappropriate for the customer.

8. Migrate ACD Administration Data”

Task Performed By: TSC

Involved Parties: Customer or AT&T Field Technician

After migrating the system administration data, the TSC migrates the ACD administration data from the source CMS to the target system. The customer or an AT&T Field Technician needs to be on-site to insert the backup tape into the tape drive.

Prerequisite Administration

At the target CMS:

- A device name needs to be defined in the Backup/Restore Devices window. This is the device from which the data being migrated is read.
- CMS must have data collection turned off.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 12 “Back Up/Restore Devices''
- Chapter 11 “Data Collection.''

Procedure

Use the procedure outlined in Step 6 “Migrate System Administration Data'' except select `ACD Administration` data in the `Data type` field (Step 6.7).

9. Restore Customer UNIX Files

Task Performed By: Customer

The CMS administrator restores the customer UNIX files to the target CMS.

Note

If the customer used the `migsave` program in Step 3, they need to use the `migrest` program to restore the customer UNIX files. If the customer does not have the `migsave` and `migrest` programs, they can contact the TSC at 1-800-344-9670 so the TSC can download the programs and provide assistance.

At the target machine:

1. Insert the floppy disk that contains the backup of the customer UNIX files into the flexible disk drive.
2. Log in as *root*.
3. Access the FACE program by entering:

```
# face
```

   The system displays the FACE menu.

4. From the FACE menu, select `System Administration`.
5. From the System Administration menu, select `File System Operations`.
6. From the File System Operations menu, select `Mount File System`.
7. From the Mount File System menu, enter the file system you want to mount (e.g., /cdata). Make sure to answer `No` in the `Do you want to mount the file system read-only?` field.
8. Press F3 for `Save`.

9. Press F3 for `Cont`.
10. Press F7 select `exit`, and press **Return**.
11. Change to the mounted file system by entering:

```
# cd /file system name
```

12. Restore the UNIX files from the floppy disk to the target CMS by entering:

```
# find <login ID> -print | cpio -pdvm /usr
```

    The `<login ID>` in the above command represents the user's login ID for which you are restoring the UNIX files.

13. Repeat Step 12 for each user that needs UNIX files restored to the target system.
14. Change to the *root* directory by entering:

```
# cd /
```

15. Access the FACE menu by entering:

```
# face
```

    The system displays the FACE menu.

16. From the FACE menu, select `System Administration`.

17. From the System Administration menu, select `File System Operations`.
18. From the File System Operations menu, select `Unmount File System` and press Return.
19. Press F7, select `exit`, and press Return.
20. Remove the floppy disk from the disk drive.

10. Busy Out the Source CMS Link

Task Performed By: AT&T Field Technician

An AT&T Field Technician busies out the source CMS link via the switch. You can use the **busy mis** command for the Generic 3 switch or **PROC 028** for the Generic 2 switch.

This step terminates data collection on the source CMS. Any further data collection will be done on the R3V2 CMS.

11. Do an Incremental Backup of the Source CMS”

Task Performed By: Customer

At the source machine, the customer does a CMS incremental maintenance backup for historical data only. This incremental backup provides historical data from the time the customer completed the full maintenance backup until the technicians busied out the source CMS link.

In the Back Up Data window, enter y (yes) for the `Verify backup` field. In addition, the following fields should contain an “x":

- ACD specific data
  - — Incremental
  - — Current ACD
- System data

12. Take Down Source CMS Link/Bring Up Target CMS Link”

Task Performed By: AT&T Field Technician

AT&T technicians take down the link to the source CMS and bring up the link to the target CMS. A switch technician needs to make sure that the switch is administered for R3V2 CMS.

13. Start Target CMS Data Collection and Verify Link”

Task Performed By: TSC

Once any migration problems are resolved, the TSC restores the target CMS to multi-user mode, starts data collection, and verifies the link is up.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 11 “CMS State''
- Chapter 11 “Data Collection''
- Chapter 12 “Connection Status.''

At this point, the TSC hands the migration back to the customer.

Note

The customer may contract with AT&T to have the TSC complete the migration on a time and materials basis.

14. Migrate Full Historical Data

Task Performed By: Customer

Now that the target CMS is collecting data, the customer can migrate the source CMS historical data.

Prerequisite Administration

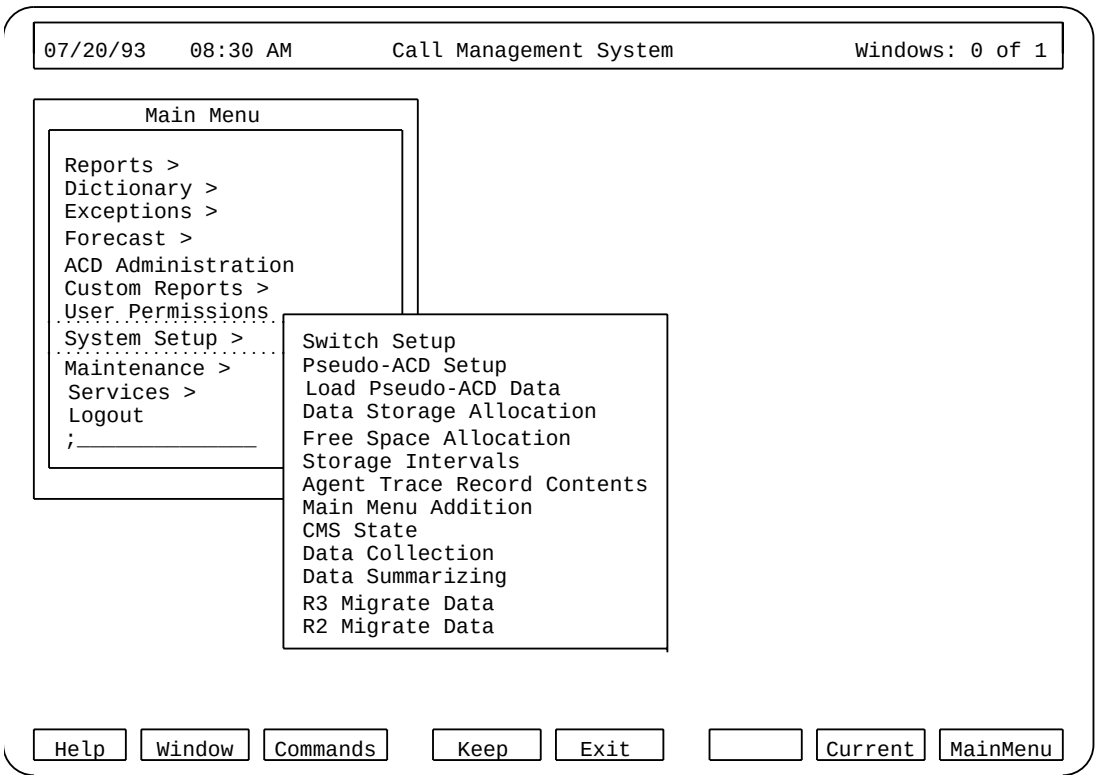
The target CMS may be in single- or multi-user mode to migrate historical data.

Procedure

At the target machine:

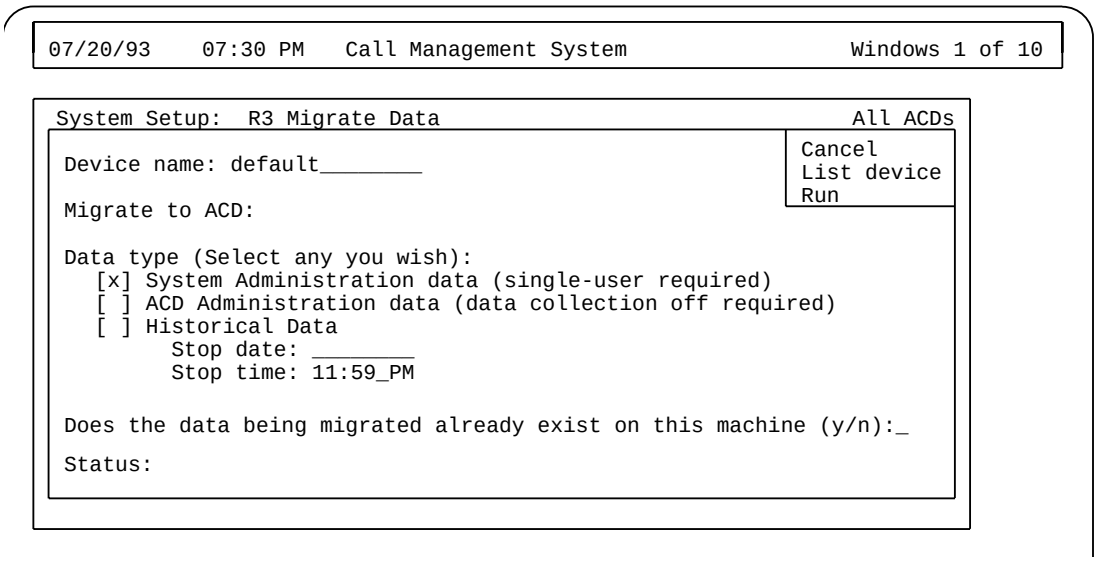
1. Insert R3 full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

   The System Setup menu displays:



4. Select the R3 Migrate Data window.

   The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. In the `Migrate to ACD:` field, enter the number (e.g. “2" for ACD2, “3" for ACD3, etc.) or the synonym to which the migrating ACD will be mapped in the target system.
7. Select `Historical Data` in the `Data type` field.

   Note To migrate all historical data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

8. Enter n in the `Does the data being migrated already exist on this machine (y/n):` field.

   Note The value you enter in this field does not affect the historical data migration.

9. Press **Return** to access the Action List.

10. Select Run and press Return.

    `Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

    Note Since the migration runs in the background, you can exit the migration window and perform other tasks. Occasionally, you should access the migration window to check the progress.

    The migration of full historical data may take several hours.

    If the migration completes successfully, the `Status:` line displays a “successful" message similar to the following:

    ```
    Last migration completed (Tue Jul 13 09:49:27 1993)
    ```

    If the migration fails, the `Status:` line displays a “failed" message and an error is logged to the customer and services logs.

15. Migrate Incremental Historical Data

Task Performed By: Customer

To complete the data migration, the customer migrates the incremental historical data.

Prerequisite Administration

The target CMS may be in single- or multi-user mode to migrate incremental historical data.

Procedure

Use the procedure outlined in Step 14 “Migrate Full Historical Data" except use the **R3 incremental backup tape** instead of the R3 full backup tape.

An acknowledgment will ask you to verify whether to proceed with the incremental migration. Enter y and press Return.

Note To migrate the incremental data on the tape, use the defaults in the `Stop date`: field (blank) and the `Stop time:` field (11:59 PM).

16. Do a “cmsadm'' Backup of the Target CMS

Task Performed By: Customer

The customer does a “cmsadm'' backup of the target CMS. The “cmsadm'' backup provides a complete backup of all file systems on the target machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, “Performing a CMSADM Backup.''

17. Do a Full Maintenance Backup of Target CMS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the target CMS data. This backup protects you from losing the migrated data plus the R3V2 data initially collected.

In the Back Up Data window, select y (yes) for the `Verify volume can be read after backup` field. In addition, the following fields should contain an “x'':

- All ACDs
- ACD specific data
- System administration data
- Historical data
  - — Full

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 12, “Back Up Data.''

Chapter 6
R3V2-to-R3V2 Migration — G2.2-to-G2.2/EAS

Overview **6-1**
ACD-G2.2 EAS Migration **6-2**

Procedure **6-3**
1. Do a “cmsadm" Backup of the CMS without G2.2 EAS **6-3**
2. Do a Full Maintenance Backup of the CMS without G2.2 EAS **6-3**
3. Turn Off CMS **6-3**
4. Execute the “swsetup" Command on the CMS without EAS **6-4**
5. Activate EAS on the Switch” **6-4**
6. Change Data Storage Allocation for CMS with EAS” **6-4**
7. Start CMS Data Collection and Verify Link **6-5**
8. Migrate Full Historical Data **6-6**
Prerequisite Administration **6-6**
Procedure **6-6**
9. Do a “cmsadm'' Backup of the CMS with G2.2 EAS **6-9**
10. Do a Full Maintenance Backup of the CMS with G2.2 EAS **6-9**

Overview

This chapter describes how to migrate an R3V2 CMS running on a Generic 2.2 (G2.2) switch without Expert Agent Selection (EAS) to an R3V2 CMS running on a G2.2 switch with EAS. The ACD is migrated in place to the existing R3V2 CMS.

This migration converts the R3V2 CMS data to the G2.2 EAS format (splits are multiplied by 10).

The following steps apply only to **R3V2** CMS.

Step	Action	Responsible Party
1	Do a “cmsadm“ backup of the CMS without G2.2 EAS	customer
2	Do a full maintenance backup of the CMS without G2.2 EAS	customer
3	Turn Off CMS	TSC
4	Execute the “swsetup“ command on the CMS	TSC
5	Activate EAS on the Switch	AT&T Field Technician
6	Change data storage allocation for CMS with EAS	TSC
7	Start CMS data collection and verify link	TSC
8	Migrate full historical data	customer
9	Do a “cmsadm" backup of the CMS with G2.2 EAS	customer
10	Do a full maintenance backup of the CMS with G2.2 EAS	customer

Note
The customer may contract AT&T to complete Steps 8 through 10 on a time and materials basis.

ACD-G2.2 EAS Migration

After the R3V2-to-R3V2 migration — G2.2 to G2.2/EAS — splits are multiplied by 10 to convert them to the G2.2 EAS format. For example, split 1 becomes split 10, split 2 becomes split 20, and so on. In the Dictionary subsystem, however, split synonyms will still reference the non G2.2 EAS split number (split 1, split 2, etc.).

After the migration, the customer needs to access the Split/Skills window in the Dictionary subsystem and change the Split/Skill number from 1 to 10, 2 to 20, etc.

Procedure

1. Do a “cmsadm" Backup of the CMS without G2.2 EAS

Task Performed By: Customer

The customer does a “cmsadm" backup of the R3V2 CMS without G2.2 EAS. The “cmsadm" backup provides a complete backup of all file systems on the source machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, “Performing a CMSADM Backup."

2. Do a Full Maintenance Backup of the CMS without G2.2 EAS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3V2 CMS without G2.2 EAS. This backup provides the data for the migration.

In the Back Up Data window, enter y (yes) for the `Verify volume can be read after backup` field. In addition, the following fields should contain an “x":

- Current ACD (this is the non-EAS ACD)
- Historical data
  - — Full

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 12, “Back Up Data."

3. Turn Off CMS

Task Performed By: TSC

The TSC turns off CMS so they can execute the *swsetup* command in the next step.

See the *CMS Installation and Maintenance* (585-215-122) document, Chapter 2, “run_cms."

4. Execute the “swsetup" Command on the CMS without EAS

Task Performed By: TSC

At the R3V2 CMS, the TSC accesses the “cmssvc“ menu and executes the *swsetup* command, which allows CMS to run the EAS feature.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 2, “swsetup.''

5. Activate EAS on the Switch”

Task Performed By: AT&T Field Technician

This step terminates data collection on the R3V2 CMS. An AT&T Field Technician busies out the R3V2 CMS link via the switch. Use **PROC 028** for the Generic 2 switch.

The switch technician activates the EAS feature on the switch. After the EAS feature is activated, the AT&T Field Technician releases busy out.

6. Change Data Storage Allocation for CMS with EAS”

Task Performed By: TSC

The TSC changes data storage allocation to add splits/skills.

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 11, “Data Storage Allocation.''

7. Start CMS Data Collection and Verify Link

Task Performed By: TSC

The TSC restores the R3V2 CMS to multi-user mode, starts data collection, and verifies the link is up.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 11 “CMS State"
- Chapter 11 “Data Collection''
- Chapter 12 “Connection Status.''

At this point, the TSC hands the migration back to the customer.

Note

The customer may contract with AT&T to have the TSC complete the migration on a time and materials basis.

8. Migrate Full Historical Data

Task Performed By: Customer

Now that the EAS CMS is collecting data, the customer can migrate the non-EAS CMS historical data.

Prerequisite Administration

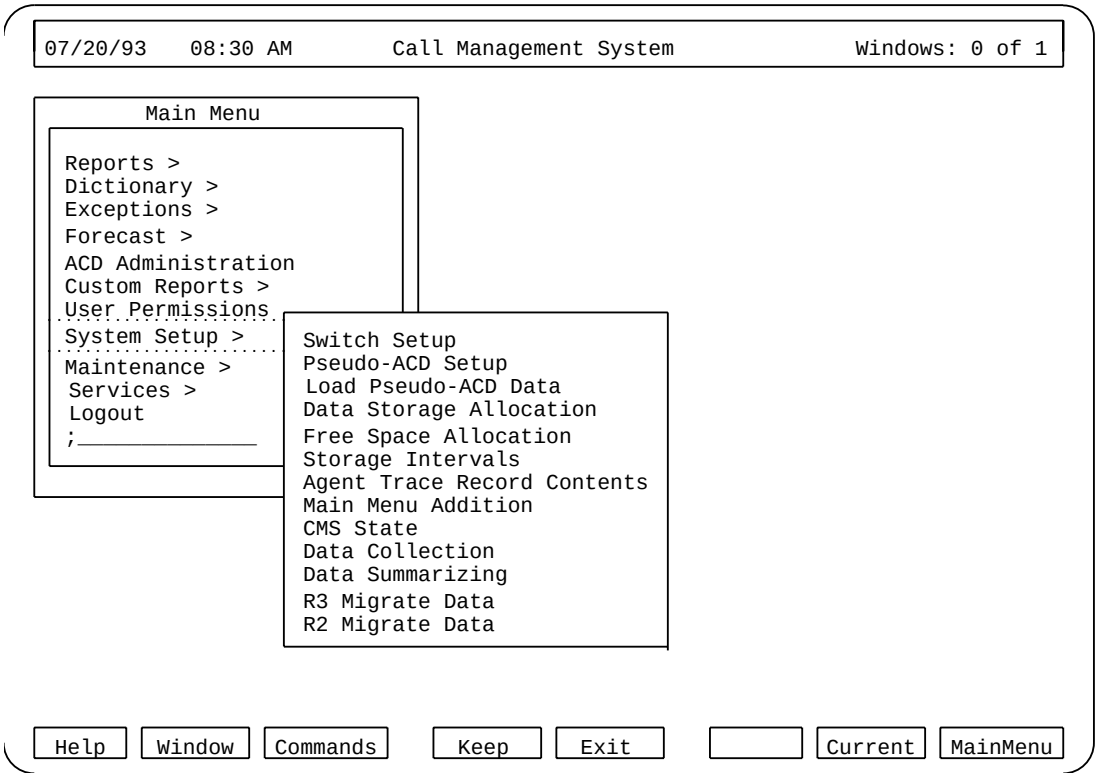
The target CMS may be in single- or multi-user mode to migrate historical data.

Procedure

At the R3V2 machine:

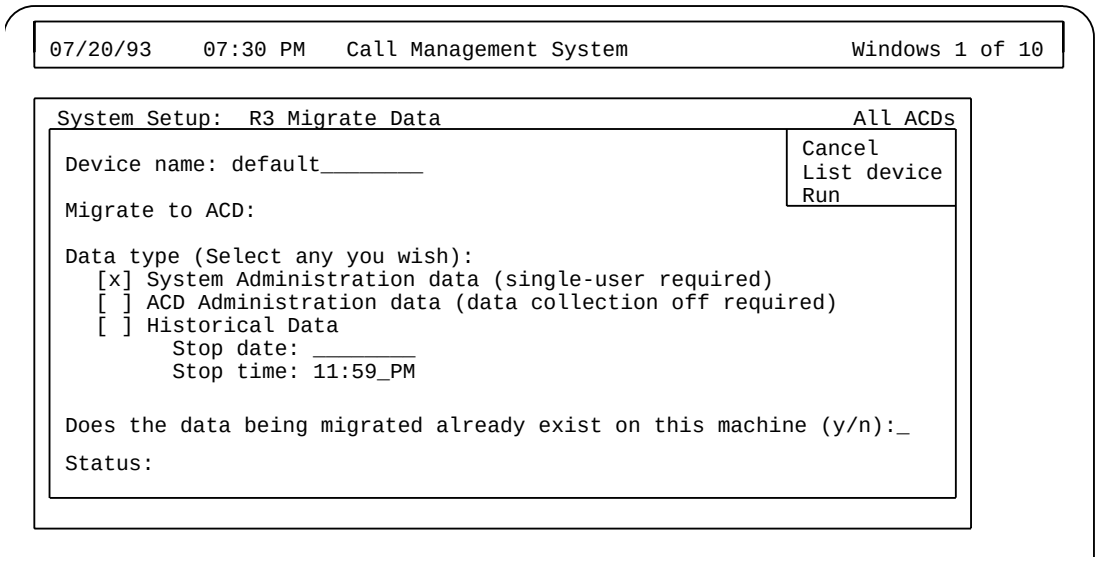
1. Insert the R3V2 full backup tape (from Step 2) into the tape drive.
2. Log in as *cms* and access the CMS Main Menu.
3. Select the `System Setup` subsystem.

The System Setup menu displays:



4. Select the R3 Migrate Data window.

The R3 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. In the `Migrate to ACD:` field, type the number (“1" for ACD1, “2" for ACD2, “3" for ACD3, or “4" for ACD4) or the synonym to which the migrating ACD will be mapped in the target system.
7. Select `Historical Data` in the `Data type` field.

Note To migrate all historical data on the tape, use the defaults in the `Stop date:` field (blank) and the `Stop time:` field (11:59 PM).

8. Enter n in the `Does the data being migrated already exist on this machine (y/n):` field.

   Note The value you enter in this field does not affect the historical data migration.

9. Press Return to access the Action List.
10. Select Run and press Return.

    `Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

    Note Since the migration runs in the background, you can exit the migration window and perform other tasks. Occasionally, you should access the migration window to check the progress.

    The migration of full historical data may take several hours.

    If the migration completes successfully, the `Status:` line displays a “successful" message similar to the following:

    ```
    Last migration completed (Tue Jul 13 09:49:27 1993)
    ```

    If the migration fails, the `Status:` line displays a “failed" message and an error is logged to the customer and services logs.

9. Do a “cmsadm" Backup of the CMS with G2.2 EAS

Task Performed By: Customer

The customer does a “cmsadm" backup of the R3V2 CMS with G2.2 EAS. The “cmsadm" backup provides a complete backup of all file systems on the R3V2 machine in case of failure.

See the *R3V2 CMS Installation and Maintenance* (585-215-122) document, Chapter 8, “Performing a CMSADM Backup."

10. Do a Full Maintenance Backup of the CMS with G2.2 EAS

Task Performed By: Customer

The customer does a full CMS maintenance backup of the R3V2 CMS data. This backup protects you from losing the migrated data plus the R3V2 data collected since the migration.

In the Back Up Data window, enter y (yes) in the `Verify volume can be read after backup` field. In addition, the following fields should contain an “**x**":

- All ACDs
- ACD specific data
- System administration data
- Historical data
  - — Full

See the *R3V2 CMS Administration* (585-215-521) document, Chapter 12, “Back Up Data."

Chapter 7
R2-to-R3V2 Migration

Overview 7-1
Multiple ACD Migration **7-2**
Options for Multiple ACD Migration **7-3**

Procedure 7-4
1. Perform Pre-Migration Tasks **7-4**
2. Install the Migration Program on R2 CMS **7-6**
3. Transfer R2 Administration Data to Tape **7-7**
Convert Tape Format — CTC to SCSI". **7-10**
4. Migrate R2 Administration Data to R3V2 . . . . . **7-11**
Prerequisite Administration **7-11**
Procedure **7-11**
5. Perform Post Administration Migration Tasks **7-15**
6. Take Down R2 Link/Bring Up R3V2 Link **7-18**
7. Transfer R2 Historical Data to Tape **7-18**
Convert Tape Format — CTC to SCSI **7-22**
8. Migrate R2 Historical Data To R3V2 CMS **7-23**
Prerequisite Administration **7-23**
Procedure **7-23**
9. Perform Post Historical Migration Tasks **7-28**

Overview

This chapter describes how to migrate an R2 CMS to an R3V2 CMS. Since the R2 CMS and the R3V2 CMS support multi-ACDs, you can use the following steps to migrate one or more R2 ACDs to the R3V2 machine.

Step	Action	Responsible Party
1	Perform pre-migration tasks	customer
2	Install the migration program on R2 CMS	customer
3	Transfer R2 administration data to tape	customer
4	Migrate R2 administration data to R3V2	customer
5	Perform post administration migration tasks	customer
6	Take down R2 link/bring up R3V2 link	AT&T Field Technician
7	Transfer R2 historical data to tape	customer
8	Migrate R2 historical data to R3V2	customer
9	Perform post historical migration tasks	customer

Note
The customer is responsible for performing the R2-to-R3V2 migration steps (except for Step 6). The customer can, however, contract AT&T to do the migration on a time and materials basis.

Note
Steps 1 through 5 allow you to complete the administration of the R3V2 CMS before it goes into service. You should consider starting these steps 2 to 3 days before the cut over to R3V2.

Multiple ACD Migration

Moving multiple R2 ACDs to the same R3V2 machine can cause collisions in the System Administration data. The following items are the potential collisions and their solutions:

- CMS IDs

  After a login name or user ID has been added to the new system, all subsequent CMS users with the same login name or user ID are not added to the target system. These user IDs are reported in the customer migration log. For these users, user interface attributes (color options, feature access, default values) from other ACDs are not added to the target system.

  Other ownerships (custom reports) are inherited by the existing ID. UNIX® logins for CMS IDs new to the R3V2 machine are created automatically.

- Custom reports

  Custom reports not unique (based on report group, report name, and CMS ID) are made unique by changing the report name. These reports are reported in the customer migration log.

- Dictionary

  All calculations, constants, and custom items with names that are not unique are discarded in migration. The discarded names/values are reported in the customer migration log so that they can be re-entered (by the customer) if desired.

Options for Multiple ACD Migration

When you migrate data from multiple R2 ACDs to an R3V2 CMS, you can use one of or a combination of the following scenarios:

- Migrate the R2 administration data for all the ACDs to R3V2 at one time. This allows you to clean up the administration data (user IDs, dictionary, etc.) for all of the ACDs at the same time. Once the administration data is cleaned up, you can start R3V2 CMS data collection and then migrate the R2 historical data.
- Migrate the R2 administration data and historical data for one ACD at a time to R3V2. This allows you to migrate the administration data for an ACD, clean up the administration data, start R3V2 CMS data collection for the ACD, and then migrate the ACD's R2 historical data. You would repeat this process for the next ACD, until all the ACDs are migrated.

Procedure

1. Perform Pre-Migration Tasks

Perform the following tasks on the R2 CMS.

1. Change R2 archive parameters for any files that will be set up for R3V2 to store the amount of data you want to migrate to R3V2. This should be done 2 to 3 days before performing the R2 to R3V2 historical migration.

   Note For Steps 1.2 and 1.3, there is no need to print out scheduler screens or exceptions administration if you can access a terminal on *both* the R2 CMS and the R3V2 CMS. You can view the R2 screens and then enter the appropriate information into the R3V2 screens.

2. Print out the scheduler screens and write down what each program does. For example, what reports print on what printers, etc.

   R2 scheduled programs do not migrate to the R3V2 system. You will need to re-create these programs on the R3V2 machine. The printout and the written information will aid you in re-creating the programs.

3. Print out the exceptions administration for each split, vector, and trunk group.

   R2 exceptions administration does not migrate to the R3V2 system. You will need to readminister these exceptions on the R3V2 machine. The printout will aid you in readministering the exceptions.

4. Clean up the dictionary:

   a. Print out each area in the Dictionary subsystem except “Login Identifications'' and “Database Items.''

   b. Remove unneeded synonyms, constants, and calculations.

   c. In calculations, you *must* replace all references to standard CMS database items in lower case with upper-case versions.

d. Modify synonyms, constants, and calculations so that all start with a letter.

e. Replace any occurrences of * \ - “ ‘ | ? ; ~ in synonyms with legal characters. R3V2 does not consider these legal characters. All other typewriter characters are legal. If you choose not to replace these characters, the migration program will replace them as follows:

* to blank

\ to blank

- to _

“ to '

‘ to blank

| to blank

? to blank

; to :

~ to blank.

If the program's replacement is acceptable, skip this step.

Note These symbols will not be replaced for calculations.

f. Create agent groups for all extension groups. Then delete the extension groups.

g. Change all constants greater than six characters to six characters or fewer. A character space must be designated for a decimal point. For example, the value “100.00" is a six-character constant.

5. Look carefully at custom reports:

a. Decide whether all custom report designs from R2 will be needed in R3V2. You may find that some R2 custom reports are covered by new, standard R3V2 reports.

b. Remove any unneeded custom reports. Fix or remove any R2 reports that have not been compiled. Reports that have not been successfully compiled in R2 will not be migrated to R3V2.

Note If you used the UNIX® system to move any custom report source files to new directories, those custom reports will not be migrated.

6. Remove Quads 2, 3, and 4 from any reports with multiple quads. Only the first quadrant will be migrated.
7. Clean up CMS user IDs, removing any that are no longer needed.

2. Install the Migration Program on R2 CMS

To install the migration program, do these steps at the R2 CMS *console* terminal:

1. Access UNIX from the CMS Main Menu and log in as *root*.
2. Insert the **CMS R2 Migration Backup 3.2Q** diskette into the diskette drive and close the drive door.
3. Enter the following command to start the installation process:

```
# sysadm installpkg
```

The program responds:

```
Running subcommand 'installpkg' from menu 'softwaremgmt',
SOFTWARE MANAGEMENT


Insert the removable medium for the package you want to install
into the diskette1 drive.
Press <RETURN> when ready. Type q to quit.
```

4. Press **Return**.

Response:

```
Starting to install the R2 CMS Migration program ...

Finished installation.

You may now remove the medium from the diskette1 drive.


Insert the removable medium for the package you want to install
into the diskette1 drive.
Press <RETURN> when ready. Type q to quit.
```

5. Enter q.
6. Remove the diskette from the drive.

3. Transfer R2 Administration Data to Tape

To transfer the R2 CMS administration data, which also includes dictionary and custom report data, do these steps at the 3B2 computer:

1. Insert the tape into the tape drive.

   Note Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

   Note If your 3B2 is equipped with a Small Computer System Interface (SCSI) tape system, use the tapes that came with the new CMS host computer if possible. These tapes provide a better read for the new computer when the data is restored to that system.

   If your 3B2 is equipped with a Cartridge Tape Controller (CTC) tape system, use standard R2 backup tapes since the data must be converted to SCSI by the TSC. Tapes used with a CTC tape system must be formatted.

2. At a terminal logged into R2 CMS, access UNIX through the CMS Main Menu.

Note Make sure that you access UNIX through the R2 CMS Main Menu, otherwise, you will get this error message: `CMS system error, setup getenv failed for ACDHOME.`

3. Enter the following command to start the migration program:

```
$ /usr/bin/migrate
```

The program responds:

```
                R2 CMS to R3 CMS Data Migration

Please answer a few questions before continuing ...

You will need to map the R2 ACD to an R3 ACD.
To complete this mapping process, you will be asked to
enter the following:
    -> The number of the existing R2 ACD
    -> The number of the corresponding R3 ACD.

For example, the R2 ACD 2 will be mapped to the R3 ACD 1.
The mapping is as follows:
       R2 acd2 --> R3 acd1
When prompted for the number of the existing R2 ACD, enter “2”.
When prompted for the number of the corresponding R3 ACD, enter “1”.

Enter the number of the existing R2 ACD:
```

4. Enter the appropriate R2 ACD number. For example, enter 1 for ACD1, 2 for ACD2, etc. Response:

```
Enter the number of the corresponding R3 ACD number:
```

5. Enter the R3V2 ACD number to which this R2 ACD will be mapped.

After the program has established the ACD mapping, it responds with:

```
Select one: <a> for administration and dictionary
            <h> for historical data
            <b> for both options:
```

6. Enter a to migrate the administration, dictionary, and custom reports information. Response:

```
Collecting the set of R2 CMS files to migrate ...

Only one tape is required for the administration, dictionary,
and custom reports migration
```

The program continues:

```
Continuing with the migration ...
Retensioning the tape. This can take up to 3 minutes ...
Migrating synonym ...
Migrating constant ...
Migrating calculation ...
     ....
     ....
Migrating users ...
```

The program continues to display the files and records being migrated to the tape.

When the migration program is finished, the following displays:

```
Migration succeeded.
$
```

The `Migration succeeded` message indicates that the program has finished migrating the information to tape and has returned you to the UNIX prompt.

You can return to the R2 CMS Main Menu by entering:

```
$ exit
```

Convert Tape Format — CTC to SCSI”

If your 3B2 computer is equipped with a CTC tape system, you need to convert the administration data on the CTC tape to the SCSI format. Call the CMS Provisioning Group at the TSC to convert the data:

1. Dial the AT&T Call Center Helpline: **1-800-344-9670**.
2. Press **1** from a touch-tone phone. (If you are dialing from a rotary phone, you will have to wait for an agent.)
3. Press the number that prompts you for “CMS."
4. Press the number that prompts you for “Release 3 (R3) CMS."
5. Press the number that prompts you “to request assistance or to report a new problem."

Once you have received the SCSI tape conversion back from the TSC, you can proceed with Step 4.

4. Migrate R2 Administration Data to R3V2

You migrate the R2 CMS administration, dictionary, and custom report data to R3V2 CMS using the R2 Migrate Data window.

Prerequisite Administration

At the R3V2 CMS:

- A device name needs to be defined in the Backup/Restore Devices window (normally default). This is the device from which the data being migrated will be read.
- You need **write** permission for the System Setup subsystem to migrate the data.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “Feature Access."

Procedure

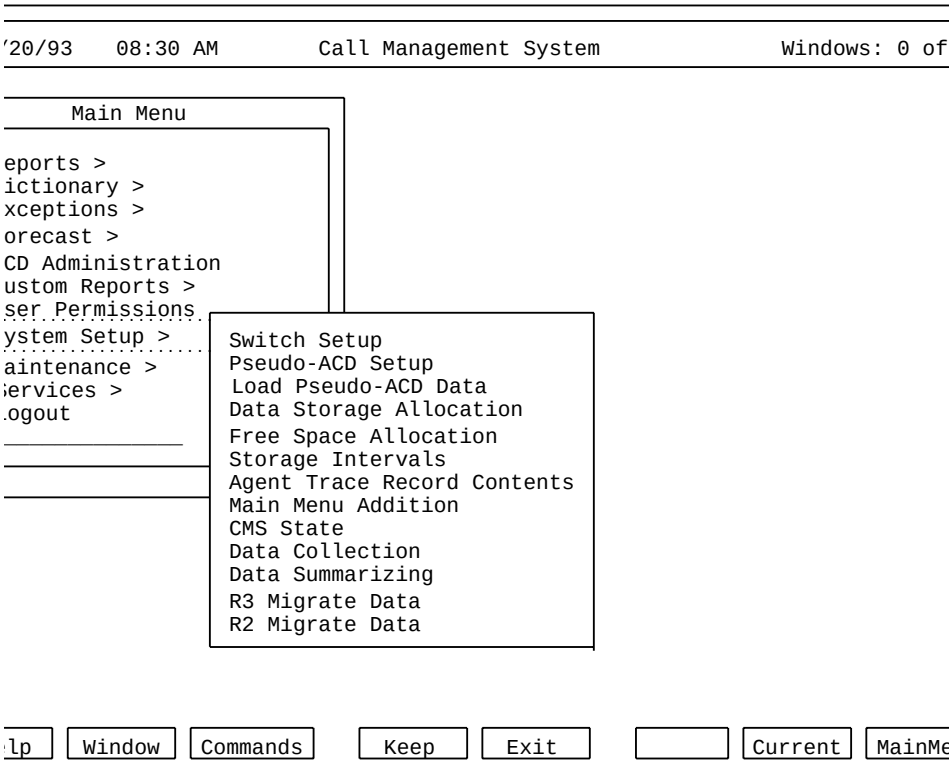
Do the following steps at the R3V2 CMS:

1. Insert the tape that contains the R2 administration data, dictionary items, and custom reports into the tape drive.
2. At a terminal logged into R3V2 CMS, access the CMS Main Menu.

   Note If your personal login ID is to be migrated, you must log in as *cms* to do the migration.

3. Select the `System Setup` subsystem.

The System Setup menu displays:

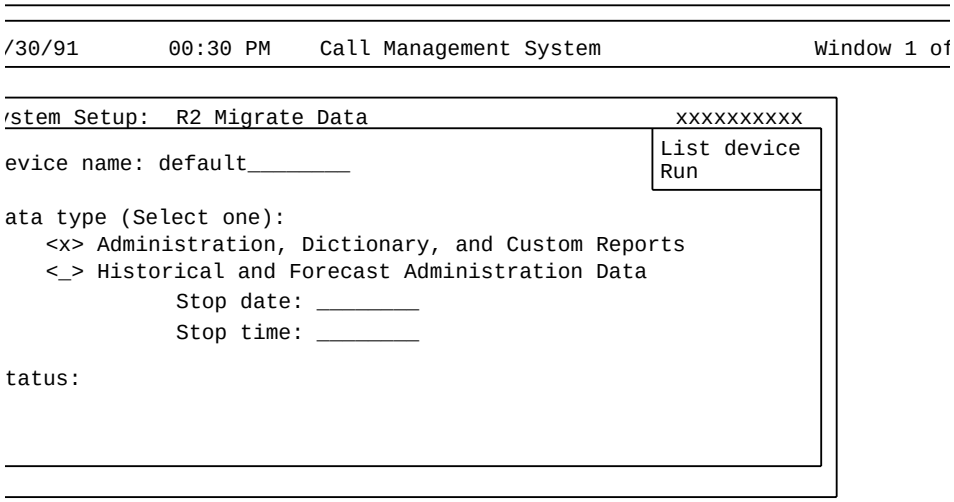


4. Select the R2 Migrate Data Window.

Caution

Do **not** exit this window during the migration. If you exit this window or turn the terminal off, the migration will stop. If the migration stops in the middle, it must be restarted.

The R2 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `Administration, Dictionary, and Custom Reports` (the default) in the `Data type` field.

   Note Do not enter data in the `Stop date:` and `Stop time:` fields. These fields are used only when migrating the historical data.

7. Press **Return** to access the Action List.
8. Select Run and press **Return**.

   `Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

   The migration of administration data, dictionary, and custom reports takes approximately one hour.

If the migration completes successfully, the `Status:` line displays this message:

```
Status: Processing completed, see /cms/migrate/migrate.log.
        This file may contain a list of instructions for
        manually completing the migration.
```

If the migration fails, the `Status:` line displays the following:

```
Status: Failed to migrate: Examine the file, /cms/migrate/migrate.log,
        for problems.
```

In addition, a print window displays:

```
Do you want to print the migration log?
Enter y for yes or n for no:__
```

9. Enter y to print the log. You will need a copy of the log for the next step “Perform Post Administration Migration Tasks."

5. Perform Post Administration Migration Tasks

Perform the following tasks after you have restored the R2 administration data to the R3V2 system. You may want a copy of the *R3V2 CMS Administration* (585-215-521) document on hand as you complete the tasks in this section.

1. Get started on R3V2 CMS.
   a. Go to Chapter 3, “Getting Started and Using CMS Daily'' in the *R3V2 CMS Administration* (585-215-521) document. If your switch supports the Expert Agent Selection (EAS) feature, see Appendix E, “CMS and Expert Agent Selection.''
   b. Complete the appropriate worksheets.
   c. Make sure that all the tasks in the “Getting Started Checklist'' have been completed.
2. Get a copy of the migration log.

   Note If you have not already printed the migration log, enter the following command at the system prompt to print it:
   `lp /cms/migrate/migrate.log.`
3. Fix all problems recorded in the migration log up to but **not** including custom reports. Use the log and Chapter 9, “Migration Log Messages'' to determine what action you need to take.
4. Fix user IDs. See Chapter 10, “User Permissions'' in the *R3V2 CMS Administration* (585-215-521) document.
   a. Decide whether any users need to be administrator type. If so, change their type from `normal user` to `administrator`.
   b. Check the number of windows allowed and the refresh rate for each user. Change them if the defaults are not appropriate.
   c. Check the feature permissions for each user. The default permission for the System Setup subsystem is set to n for both read and write. Change this for any users who will need access.

d. If you have vectoring, set up VDN permissions for all users. (These are set to n by default.)

e. Verify the permissions to splits, trunk groups, and vectors for each user.

5. Set up and enable exceptions administration. See Chapter 8, “Exceptions'' in the *R3V2 CMS Administration* (585-215-521) document.

6. Verify that the split call profile parameters migrated. Change the values if desired. See Chapter 9, “ACD Administration'' in the *R3V2 CMS Administration* (585-215-521) document.

7. If you have vectoring, set up VDN call profile parameters. See Chapter 9, “ACD Administration'' in the *R3V2 CMS Administration* (585-215-521) document.

8. Identify critical reports (standard and custom) that you will need to run immediately following the migration.

   If any critical reports are migrated R2 custom reports, go to Step 5.8a; otherwise, go to Step 5.9.

   a. Determine if an R3V2 standard report can be used instead of the migrated R2 custom report. The R3V2 report may require modification through the Custom Report subsystem.

      Note

      It is strongly recommended that you find an R3V2 standard report to use instead of the migrated R2 custom report. Migrated custom reports do not fully migrate, take time to fix, and run 60 percent slower than their R3V2 counterparts.

   b. If you found an R3V2 standard report to use instead of the R2 custom report, go to Step 5.8c; otherwise, go to Step 5.8d.

   c. If you need to modify the R3V2 standard report, edit the report via the Screen Painter and make the necessary changes. Test the design and, if necessary, make corrections until no errors are found.

      When you are satisfied with the R3V2 report design, delete the migrated custom report it replaces.

If there are more migrated custom reports, repeat the applicable Steps 5.8a through 5.8d; otherwise, go to Step 5.9.

d. Go to Appendix A and follow the steps to make your migrated R2 custom report run in the R3V2 system.

Check the migration log to see if the report has specific error messages from the migration. If so, go to Chapter 9, “Migration Log Messages'' and look up the messages. Perform the indicated actions to resolve the problem. Run test design and, if necessary, make corrections until no errors are found.

If there are more migrated custom reports, repeat the applicable Steps 5.8a through 5.8d; otherwise, go to Step 5.9.

9. Set up timetables. See Chapter 6, “Timetables and Shortcuts'' in the *R3V2 CMS Administration* (585-215-521) document.

a. Set up timetables to schedule the reports you identified in Step 5.8 and any other reports you want to schedule.

Note Do not schedule any migrated custom reports until you have adjusted the reports to run in the R3V2 system, fixed any migration problems, and tested the reports to make sure they will run.

b. Set up timetables to do administration tasks such as nightly backup.

c. Add any additional timetables for new reports that were not available in the R2 system, but are needed in R3V2. For example, if you did not have vectoring on the R2 system but have it on the R3V2 system, you may want to schedule some vectoring reports.

10. On an as needed basis, fix the remaining migrated custom reports by repeating the applicable Steps 5.8a through 5.8d for each report.

6. Take Down R2 Link/Bring Up R3V2 Link

The AT&T technicians take down the R2 CMS link to the switch. It is important that you write down the exact date and time the R2 CMS link was brought down. This information will be needed when migrating the historical data.

The technicians bring up the link between the R3V2 CMS and the switch. A switch technician needs to make sure that the switch is administered for R3V2 CMS. At this point, data collection begins on the R3V2 CMS. There will be a period of time, while the historical data migration takes place, that full historical reporting capabilities are not available.

7. Transfer R2 Historical Data to Tape

To transfer the R2 CMS historical data, do the following steps at the 3B2 computer:

1. Insert the tape into the tape drive.

   Note
   Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

   Note
   If your 3B2 is equipped with a Small Computer System Interface (SCSI) tape system, use the tapes that came with the new CMS host computer if possible. These tapes provide a better read for the new computer when the data is restored to that system.

   If your 3B2 is equipped with a Cartridge Tape Controller (CTC) tape system, use standard R2 backup tapes since the data must be converted to SCSI by the TSC. Tapes used with a CTC tape system must be formatted.

2. At a terminal logged into R2 CMS, access UNIX through the CMS Main Menu.

   Note
   Make sure that you access UNIX through the R2 CMS Main Menu, otherwise, you will get this error message: `CMS system error, setup getenv failed for ACDHOME`.

3. Enter the following command to start the migration program:

```
$ /usr/bin/migrate
```

The program responds:

```
                R2 CMS to R3 CMS Data Migration

Please answer a few questions before continuing ...

You will need to map the R2 ACD to an R3 ACD.
To complete this mapping process, you will be asked to
enter the following:
    -> The number of the existing R2 ACD
    -> The number of the corresponding R3 ACD.

For example, the R2 ACD 2 will be mapped to the R3 ACD 1.
The mapping is as follows:
       R2 acd2 --> R3 acd1
When prompted for the number of the existing R2 ACD, enter “2”.
When prompted for the number of the corresponding R3 ACD, enter “1”.

Enter the number of the existing R2 ACD:
```

4. Enter the appropriate R2 ACD number. For example, enter 1 for ACD1, 2 for ACD2, etc. Response:

```
Enter the number of the corresponding R3 ACD number:
```

5. Enter the R3V2 ACD number to which this R2 ACD will be mapped.

After the program has established the ACD mapping, it responds with:

```
Select one: <a> for administration and dictionary
            <h> for historical data
            <b> for both options:
```

6. Enter h to migrate the historical data. Response:

```
Collecting the set of R2 CMS files to migrate ...

Calculating the number of tapes needed for the historical
 data migration ...

The number of cartridge tapes needed to
migrate the CMS data is X (X.XX)

Do you have enough tapes to continue the R2 CMS
historical data migration (y, n)?
```

If you enter n, the following message displays:

```
Signing off.
$
```

The migrate data program has been interrupted and exited. You are currently in the UNIX system. Once you have the necessary number of tapes, you can begin the migrate program again from Step 7.1.

If you enter y, the program responds:

```
Continuing with the migration ...
Retensioning the tape. This can take up to 3 minutes ...
```

The migration of historical data can take up to 2 to 3 hours to download data to a single tape. Therefore, if your database requires multiple tapes, this process could take several hours.

The program continues:

```
Migrating hagent ...
Migrating dagent ...
     ....
     ....
```

If the data is being migrated to more than one tape, the following message appears when it is time to change tapes:

```
***** END OF CURRENT TAPE *****
Insert proper tape; wait for retension pass to complete
then press <return> to continue.
```

7. Replace the current tape with a blank tape, wait for the retension to complete (about 3 minutes), and then press **Return**.

   Note Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

The program responds:

```
Continuing with the operation ...
```

When the migration is finished, the following message displays:

```
Migration succeeded.
$
```

The `Migration succeeded` message indicates that the program has finished migrating the information to the tape and has returned you to the UNIX prompt.

You can return to the R2 CMS Main Menu by entering:

```
$ exit
```

Convert Tape Format — CTC to SCSI

If your 3B2 computer is equipped with a CTC tape system, you need to convert the historical data on the CTC tape(s) to the SCSI format. Call the CMS Provisioning Group at the TSC to convert the data:

1. Dial the AT&T Call Center Helpline: **1-800-344-9670**.
2. Press **1** from a touch-tone phone. (If you are dialing from a rotary phone, you will have to wait for an agent.)
3. Press the number that prompts you for “CMS."
4. Press the number that prompts you for “Release 3 (R3) CMS."
5. Press the number that prompts you “to request assistance or to report a new problem."

Once you have received the SCSI tape conversion back from the TSC, you can proceed with Step 8.

8. Migrate R2 Historical Data To R3V2 CMS

You migrate the R2 CMS historical and forecast administration data to the R3V2 CMS using the R2 Migrate Data window. This migration is almost identical to the administration migration except that you enter a stop date and stop time.

Prerequisite Administration

- A device name needs to be defined in the Backup/Restore Devices window (normally default). This is the device from which the data being migrated is read.
- You need **write** permission for the System Setup subsystem to migrate the data.
- You need to set the R3V2 CMS interval size to 30 minutes for the migration of R2 CMS historical data. R2 CMS has an interval size of 30 minutes, but R3V2 CMS has interval sizes of 15, 30, or 60 minutes. If you wish a different R3V2 interval size, you can change it after the migration.

See the following sections in the *R3V2 CMS Administration* (585-215-521) document:

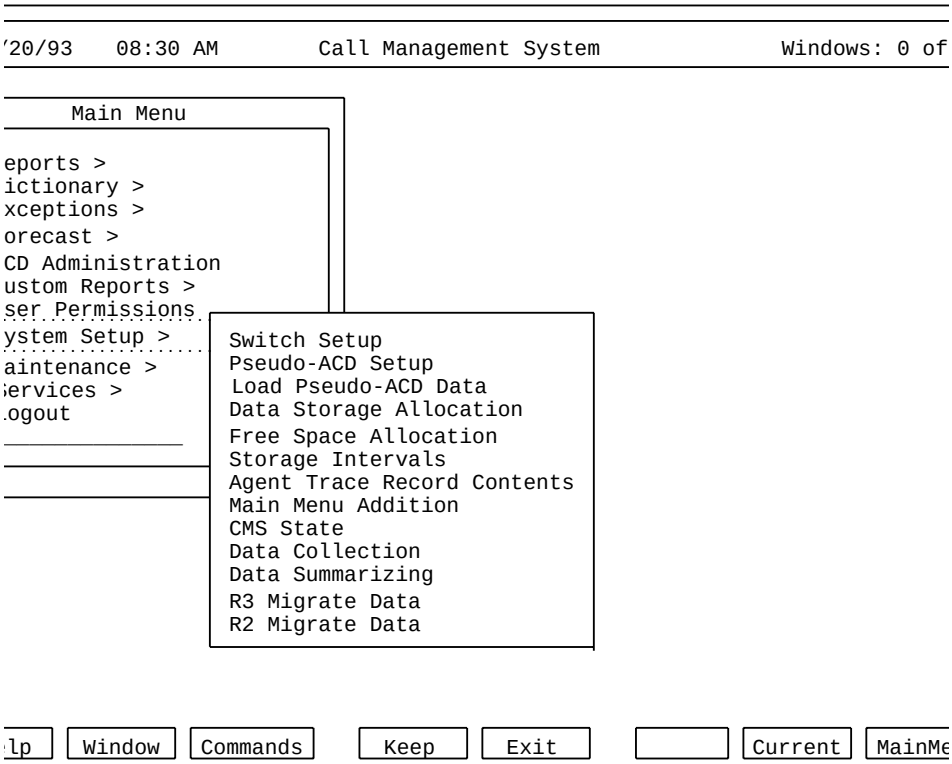
- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “Feature Access"
- Chapter 11 “Storage Intervals."

Procedure

Do the following steps at the R3V2 CMS:

1. Insert the tape that contains the R2 historical data and forecast administration data into the tape drive.
2. At a terminal logged into R3V2 CMS, access the CMS Main Menu.
3. Select the `System Setup` subsystem.

The System Setup menu displays:

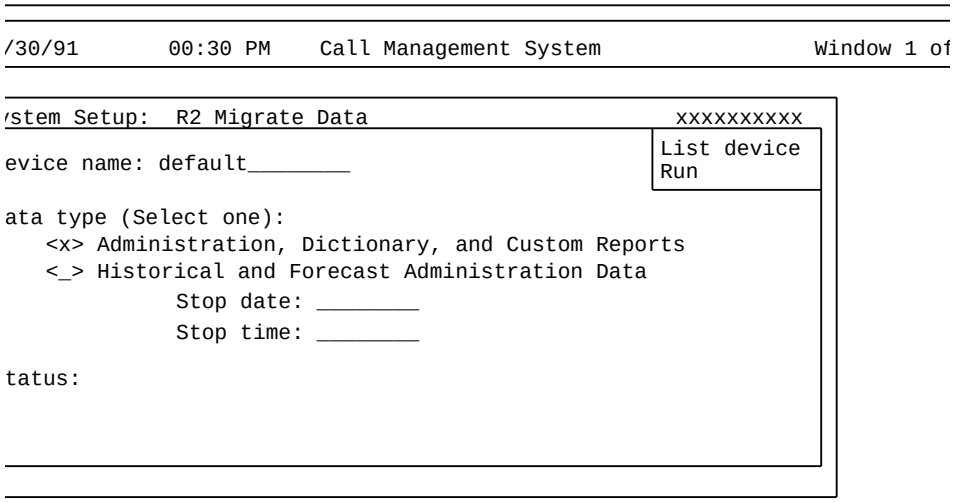


4. Select the R2 Migrate Data Window.

Caution

Do **not** exit this window during the migration. If you exit this window or turn the terminal off, the migration will stop and then must be restarted.

The R2 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `Historical and Forecast Administration Data` in the `Data type` field.
7. In the `Stop date` field, type the date you recorded when the technicians brought down the R2 link. The stop date can be typed in the month/day/year format (09/08/93) or in the relative date format (-1).

   Caution If you enter a date and time more recent than when the R2 link was brought down, you will delete any R3V2 data collected up to the date/time you enter.

8. In the `Stop time` field, type the time you recorded when the technicians brought down the R2 link. The stop time is entered in the `hh:mm AM/PM` format. The default for this field is `11:59 PM`.
9. Press **Return** to access the Action List.
10. Select `Run` and press **Return**.

After entering Run, the following window displays:

```
The stop date and time are critical to the migration.
          <date and time>
Are you sure they are correct (y or n)?
Enter y for yes or n for no:__
```

11. If you are sure that the stop date and stop time are correct, enter y. Working appears in the lower left-hand corner of the R2 Migrate window. The Status: field displays various messages that inform you what is being processed.

    If you wish to enter a new stop date and stop time, enter n. The program returns you to the Stop date field of the R2 Migrate window. Enter a new stop date and stop time and select Run.

    The migration of historical data and forecast administration data may take several hours.

    If more than one tape of historical data is being migrated, this window appears when it is time to change tapes:

```
***** END OF CURRENT TAPE *****
Insert proper tape; wait for retension pass to complete
then press <return> to continue.
```

12. Replace the current tape with the next tape, wait for the retension to complete (about 3 minutes), and then press Return.

If the migration completes successfully, the `Status:` line displays this message:

```
Status: Processing completed, see /cms/migrate/migrate.log.
        This file may contain a list of instructions for
        manually completing the migration.
```

If the migration fails, the `Status:` line displays the following:

```
Status: Failed to migrate: Examine the file, /cms/migrate/migrate.log,
        for problems.
```

In addition, a print window displays:

```
Do you want to print the migration log?
Enter y for yes or n for no:__
```

13. Enter y to print the log. You will need a copy of the log for the next step “Perform Post Historical Migration Tasks."

9. Perform Post Historical Migration Tasks

Perform the following tasks after you have restored the R2 historical data to the R3V2 system. You may want a copy of the *R3V2 CMS Administration* (585-215-521) document on hand as you complete the tasks in this section.

1. If you have not already printed the migration log, enter the following command at the system prompt to print the log:
   `lp /cms/migrate/migrate.log`.

   The `migrate.log` file provides a record of what happened during the migration. Use this log and Chapter 9, “Migration Log Messages" to determine what actions you need to take.

2. If forecasting is installed, fix any errors related to the forecast administration.

3. If forecasting is installed, run the forecast manager to recollect data for the forecasting tables from the migrated historical data. Then schedule the forecast manager in a timetable if you are planning to use forecasting. See Chapter 14, “Forecasting" and Chapter 6, “Timetable and Shortcuts" in the *R3V2 CMS Administration* (585-215-521) document.

This completes the R2-to-R3V2 CMS migration steps.

Chapter 8
R2-to-R3.0 (R3V1) Migration

Overview 8-1

Procedure 8-2
1. Perform Pre-Migration Tasks **8-2**
2. Install the Migration Program on R2 CMS **8-4**
3. Transfer R2 Administration Data to Tape **8-5**
Convert Tape Format — CTC to SCSI" **8-8**
4. Migrate R2 Administration Data to R3.0 . . . . . **8-9**
Prerequisite Administration **8-9**
Procedure **8-9**
5. Perform Post Administration Migration Tasks **8-13**
6. Take Down R2 Link/Bring Up R3.0 Link **8-16**
7. Transfer R2 Historical Data to Tape **8-16**
Convert Tape Format — CTC to SCSI **8-20**
8. Migrate R2 Historical Data To R3.0 . . . . . **8-21**
Prerequisite Administration **8-21**
Procedure **8-21**
9. Perform Post Historical Migration Tasks **8-26**

Overview

This chapter describes how to migrate an R2 CMS to an R3.0 CMS..

Step	Action	Responsible Party
1	Perform pre-migration tasks	customer
2	Install the migration program on R2 CMS	customer
3	Transfer R2 administration data to tape	customer
4	Migrate R2 administration data to R3.0	customer
5	Perform post administration migration tasks	customer
6	Take down R2 link/bring up R3.0 link	AT&T Field Technician
7	Transfer R2 historical data to tape	customer
8	Migrate R2 historical data to R3.0	customer
9	Perform post historical migration tasks	customer

Note

The customer is responsible for performing the R2-to-R3.0 migration steps (except for Step 6). The customer can, however, contract AT&T to do the migration on a time and materials basis.

Note

Steps 1 through 5 allow you to complete the administration of the R3V2 CMS before it goes into service. You should consider starting these steps 2 to 3 days before the cut over to R3.0.

Procedure

1. Perform Pre-Migration Tasks

Perform the following tasks on the R2 CMS.

1. Change R2 archive parameters for any files that will be set up for R3.0 to store the amount of data you want to migrate to R3.0. This should be done 2 to 3 days before performing the R2 to R3.0 historical migration.

   Note For Steps 1.2 and 1.3, there is no need to print out scheduler screens or exceptions administration if you can access a terminal on *both* the R2 CMS and the R3.0 CMS. You can view the R2 screens and then enter the appropriate information into the R3.0 screens.

2. Print out the scheduler screens and write down what each program does. For example, what reports print on what printers, etc.

   R2 scheduled programs do not migrate to the R3.0 system. You will need to re-create these programs on the R3.0 machine. The printout and the written information will aid you in re-creating the programs.

3. Print out the exceptions administration for each split, vector, and trunk group.

   R2 exceptions administration does not migrate to the R3.0 system. You will need to readminister these exceptions on the R3.0 machine. The printout will aid you in readministering the exceptions.

4. Clean up the dictionary:

   a. Print out each area in the Dictionary subsystem except “Login Identifications'' and “Database Items.''

   b. Remove unneeded synonyms, constants, and calculations.

   c. In calculations, you *must* replace all references to standard CMS database items in lower case with upper-case versions.

d. Modify synonyms, constants, and calculations so that all start with a letter.

e. Replace any occurrences of * \ - “ ‘ | ? ; ~ in synonyms with legal characters. R3.0 does not consider these legal characters. All other typewriter characters are legal. If you choose not to replace these characters, the migration program will replace them as follows:

* to blank

\ to blank

- to _

“ to '

‘ to blank

| to blank

? to blank

; to :

~ to blank.

If the program's replacement is acceptable, skip this step.

Note These symbols will not be replaced for calculations.

f. Create agent groups for all extension groups. Then delete the extension groups.

g. Change all constants greater than six characters to six characters or fewer. A character space must be designated for a decimal point. For example, the value “100.00" is a six-character constant.

5. Look carefully at custom reports:

a. Decide whether all custom report designs from R2 will be needed in R3. You may find that some R2 custom reports are covered by new, standard R3.0 reports.

b. Remove any unneeded custom reports. Fix or remove any R2 reports that have not been compiled. Reports that have not been successfully compiled in R2 will not be migrated to R3.

Note If you used the UNIX® system to move any custom report source files to new directories, those custom reports will not be migrated.

6. Remove Quads 2, 3, and 4 from any reports with multiple quads. Only the first quadrant will be migrated.
7. Clean up CMS user IDs removing any that are no longer needed. Change any R2 user IDs that contain upper-case letters to lower case.

2. Install the Migration Program on R2 CMS

To install the migration program, do these steps at the R2 CMS *console* terminal:

1. Access UNIX from the CMS Main Menu and log in as *root*.
2. Insert the **CMS R2 Migration Backup 3.2Q** diskette into the diskette drive and close the drive door.
3. Enter the following command to start the installation process:

```
# sysadm installpkg
```

The program responds:

```
Running subcommand 'installpkg' from menu 'softwaremgmt',
SOFTWARE MANAGEMENT


Insert the removable medium for the package you want to install
into the diskette1 drive.
Press <RETURN> when ready. Type q to quit.
```

4. Press **Return**.

Response:

```
Starting to install the R2 CMS Migration program ...

Finished installation.

You may now remove the medium from the diskette1 drive.


Insert the removable medium for the package you want to install
into the diskette1 drive.
Press <RETURN> when ready. Type q to quit.
```

5. Enter q.
6. Remove the diskette from the drive.

3. Transfer R2 Administration Data to Tape

To transfer the R2 CMS administration data, which also includes dictionary and custom report data, do these steps at the 3B2 computer:

1. Insert the tape into the tape drive.

   Note Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

   Note If your 3B2 is equipped with a Small Computer System Interface (SCSI) tape system, use the tapes that came with the new CMS host computer if possible. These tapes provide a better read for the new computer when the data is restored to that system.

   If your 3B2 is equipped with a Cartridge Tape Controller (CTC) tape system, use standard R2 backup tapes since the data must be converted to SCSI by the TSC. Tapes used with a CTC tape system must be formatted.

2. At a terminal logged into R2 CMS, access UNIX through the CMS Main Menu.

Note Make sure that you access UNIX through the R2 CMS Main Menu, otherwise, you will get this error message: `CMS system error, setup getenv failed for ACDHOME.`

3. Enter the following command to start the migration program:

```
$ /usr/bin/migrate
```

The program responds:

```
                R2 CMS to R3 CMS Data Migration

Please answer a few questions before continuing ...

You will need to map the R2 ACD to an R3 ACD.
To complete this mapping process, you will be asked to
enter the following:
    -> The number of the existing R2 ACD
    -> The number of the corresponding R3 ACD.

For example, the R2 ACD 2 will be mapped to the R3 ACD 1.
The mapping is as follows:
       R2 acd2 --> R3 acd1
When prompted for the number of the existing R2 ACD, enter “2”.
When prompted for the number of the corresponding R3 ACD, enter “1”.

Enter the number of the existing R2 ACD:
```

4. Enter the appropriate R2 ACD number. For example, enter 1 for ACD1, 2 for ACD2, etc. Response:

```
Enter the number of the corresponding R3 ACD number:
```

5. Enter the R3.0 ACD number to which this R2 ACD will be mapped.

After the program has established the ACD mapping, it responds with:

```
Select one: <a> for administration and dictionary
            <h> for historical data
            <b> for both options:
```

6. Enter a to migrate the administration, dictionary, and custom reports information. Response:

```
Collecting the set of R2 CMS files to migrate ...

Only one tape is required for the administration, dictionary,
and custom reports migration
```

The program continues:

```
Continuing with the migration ...
Retensioning the tape. This can take up to 3 minutes ...
Migrating synonym ...
Migrating constant ...
Migrating calculation ...
     ....
     ....
Migrating users ...
```

The program continues to display the files and records being migrated to the tape.

When the migration program is finished, the following displays:

```
Migration succeeded.
$
```

The `Migration succeeded` message indicates that the program has finished migrating the information to tape and has returned you to the UNIX prompt.

You can return to the R2 CMS Main Menu by entering:

```
$ exit
```

Convert Tape Format — CTC to SCSI”

If your 3B2 computer is equipped with a CTC tape system, you need to convert the administration data on the CTC tape to the SCSI format. Call the CMS Provisioning Group at the TSC to convert the data:

1. Dial the AT&T Call Center Helpline: **1-800-344-9670**.
2. Press **1** from a touch-tone phone. (If you are dialing from a rotary phone, you will have to wait for an agent.)
3. Press the number that prompts you for “CMS."
4. Press the number that prompts you for “Release 3 (R3) CMS."
5. Press the number that prompts you “to request assistance or to report a new problem."

Once you have received the SCSI tape conversion back from the TSC, you can proceed with Step 4.

4. Migrate R2 Administration Data to R3.0

You migrate the R2 CMS administration, dictionary, and custom report data to R3.0 CMS using the R2 Migrate Data window.

Prerequisite Administration

At the R3.0 CMS:

- A device name needs to be defined in the Backup/Restore Devices window (normally default). This is the device from which the data being migrated will be read.
- You need **write** permission for the System Setup subsystem to migrate the data.

See the following sections in the *R3 CMS Administration* (585-215-511) document:

- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “Feature Access."

Procedure

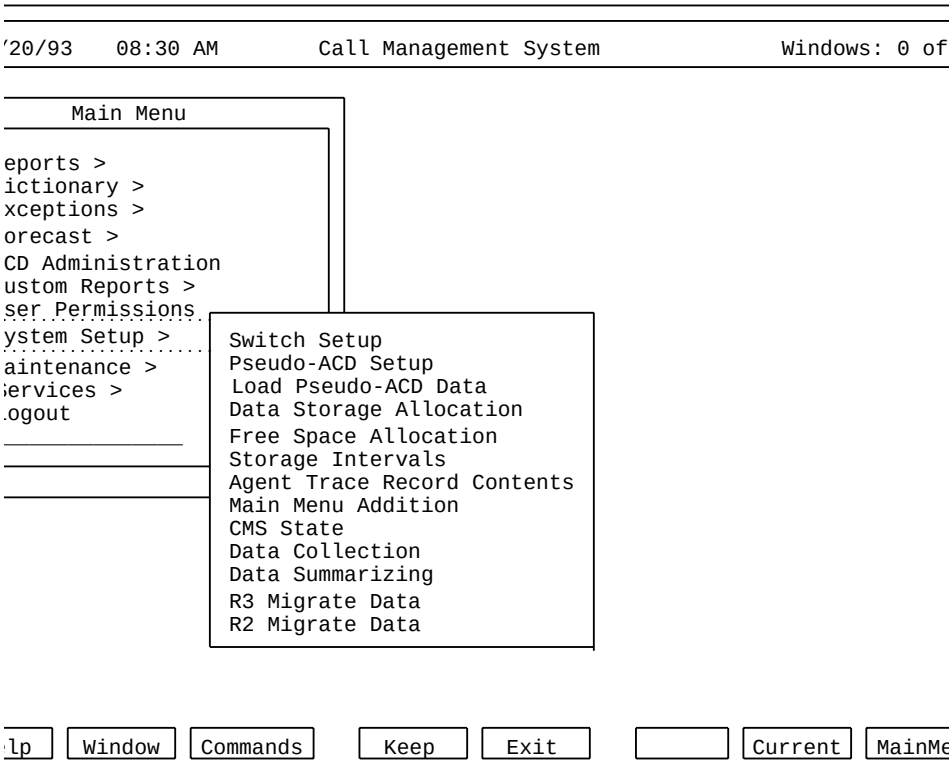
Do the following steps at the R3.0 CMS:

1. Insert the tape that contains the R2 administration data, dictionary items, and custom reports into the tape drive.
2. At a terminal logged into R3.0 CMS, access the CMS Main Menu.

   Note
   If your personal login ID is to be migrated, you must log in as *cms* to do the migration.

3. Select the `System Setup` subsystem.

The System Setup menu displays:

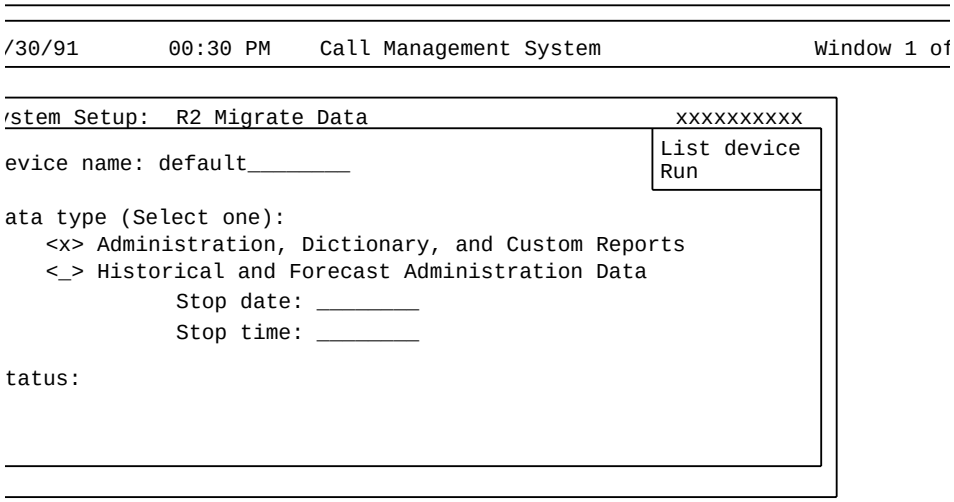


4. Select the R2 Migrate Data Window.

Caution

Do **not** exit this window during the migration. If you exit this window or turn the terminal off, the migration will stop. If the migration stops in the middle, it must be restarted.

The R2 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `Administration, Dictionary, and Custom Reports` (the default) in the `Data type` field.

   Note Do not enter data in the `Stop date:` and `Stop time:` fields. These fields are used only when migrating the historical data.

7. Press **Return** to access the Action List.
8. Select Run and press **Return**.

   `Working` appears in the lower left-hand corner of the window. The `Status:` field displays various messages that inform you what the program is processing.

   The migration of administration data, dictionary, and custom reports takes approximately one hour.

If the migration completes successfully, the `Status:` line displays this message:

```
Status: Processing completed, see /cms/migrate/migrate.log.
        This file may contain a list of instructions for
        manually completing the migration.
```

If the migration fails, the `Status:` line displays the following:

```
Status: Failed to migrate: Examine the file, /cms/migrate/migrate.log,
        for problems.
```

In addition, a print window displays:

```
Do you want to print the migration log?
Enter y for yes or n for no:__
```

9. Enter y to print the log. You will need a copy of the log for the next step “Perform Post Administration Migration Tasks."

5. Perform Post Administration Migration Tasks

Perform the following tasks after you have restored the R2 administration data to the R3.0 system. You may want a copy of the *R3 CMS Administration* (585-215-511) document on hand as you complete the tasks in this section.

1. Get started on R3.0 CMS.
    a. Go to Chapter 3, “Getting Started and Using CMS Daily'' in the *R3 CMS Administration* (585-215-511) document. If your switch supports the Expert Agent Selection (EAS) feature, see Appendix E, “CMS and Expert Agent Selection.''
    b. Complete the appropriate worksheets.
    c. Make sure that all the tasks in the “Getting Started Checklist'' have been completed.
2. Get a copy of the migration log.

    Note
    If you have not already printed the migration log, enter the following command at the system prompt to print it:
    `lp /cms/migrate/migrate.log.`

3. Fix all problems recorded in the migration log up to but **not** including custom reports. Use the log and Chapter 9, “Migration Log Messages'' to determine what action you need to take.
4. Fix user IDs. See Chapter 10, “User Permissions'' in the *R3 CMS Administration* (585-215-511) document.
    a. Decide whether any users need to be administrator type. If so, change their type from `normal user` to `administrator`.
    b. Check the number of windows allowed and the refresh rate for each user. Change them if the defaults are not appropriate.
    c. Check the feature permissions for each user. The default permission for the System Setup subsystem is set to n for both read and write. Change this for any users who will need access.

d. If you have vectoring, set up VDN permissions for all users. (These are set to n by default.)

e. Verify the permissions to splits, trunk groups, and vectors for each user.

5. Set up and enable exceptions administration. See Chapter 8, “Exceptions'' in the *R3 CMS Administration* (585-215-511) document.

6. Verify that the split call profile parameters migrated. Change the values if desired. See Chapter 9, “ACD Administration'' in the *R3 CMS Administration* (585-215-511) document.

7. If you have vectoring, set up VDN call profile parameters. See Chapter 9, “ACD Administration'' in the *R3 CMS Administration* (585-215-511) document.

8. Identify critical reports (standard and custom) that you will need to run immediately following the migration.

   If any critical reports are migrated R2 custom reports, go to Step 5.8a; otherwise, go to Step 5.9.

   a. Determine if an R3.0 standard report can be used instead of the migrated R2 custom report. The R3.0 report may require modification through the Custom Report subsystem.

      Note

      It is strongly recommended that you find an R3.0 standard report to use instead of the migrated R2 custom report. Migrated custom reports do not fully migrate, take time to fix, and run 60 percent slower than their R3.0 counterparts.

   b. If you found an R3.0 standard report to use instead of the R2 custom report, go to Step 5.8c; otherwise, go to Step 5.8d.

   c. If you need to modify the R3.0 standard report, edit the report via the Screen Painter and make the necessary changes. Test the design and, if necessary, make corrections until no errors are found.

      When you are satisfied with the R3.0 report design, delete the migrated custom report it replaces.

If there are more migrated custom reports, repeat the applicable Steps 5.8a through 5.8d; otherwise, go to Step 5.9.

d. Go to Appendix A and follow the steps to make your migrated R2 custom report run in the R3.0 system.

Check the migration log to see if the report has specific error messages from the migration. If so, go to Chapter 9, “Migration Log Messages'' and look up the messages. Perform the indicated actions to resolve the problem. Run test design and, if necessary, make corrections until no errors are found.

If there are more migrated custom reports, repeat the applicable Steps 5.8a through 5.8d; otherwise, go to Step 5.9.

9. Set up timetables. See Chapter 6, “Timetables and Shortcuts'' in the *R3 CMS Administration* (585-215-511) document.

a. Set up timetables to schedule the reports you identified in Step 5.8 and any other reports you want to schedule.

Note Do not schedule any migrated custom reports until you have adjusted the reports to run in the R3.0 system, fixed any migration problems, and tested the reports to make sure they will run.

b. Set up timetables to do administration tasks such as nightly backup.

c. Add any additional timetables for new reports that were not available in the R2 system, but are needed in R3. For example, if you did not have vectoring on the R2 system but have it on the R3.0 system, you may want to schedule some vectoring reports.

10. On an as needed basis, fix the remaining migrated custom reports by repeating the applicable Steps 5.8a through 5.8d for each report.

6. Take Down R2 Link/Bring Up R3.0 Link

The AT&T technicians take down the R2 CMS link to the switch. It is important that you write down the exact date and time the R2 CMS link was brought down. This information will be needed when migrating the historical data.

The technicians bring up the link between the R3.0 CMS and the switch. A switch technician needs to make sure that the switch is administered for R3.0 CMS. At this point, data collection begins on the R3.0 CMS and the 6386 WGS is the processor in use. There will be a period of time, while the historical data migration takes place, that full historical reporting capabilities are not available.

7. Transfer R2 Historical Data to Tape

To transfer the R2 CMS historical data, do the following steps at the 3B2 computer:

1. Insert the tape into the tape drive.

   Note Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

   Note If your 3B2 is equipped with a Small Computer System Interface (SCSI) tape system, use the tapes that came with the new CMS host computer if possible. These tapes provide a better read for the new computer when the data is restored to that system.

   If your 3B2 is equipped with a Cartridge Tape Controller (CTC) tape system, use standard R2 backup tapes since the data must be converted to SCSI by the TSC. Tapes used with a CTC tape system must be formatted.

2. At a terminal logged into R2 CMS, access UNIX through the CMS Main Menu.

   Note Make sure that you access UNIX through the R2 CMS Main Menu, otherwise, you will get this error message: `CMS system error, setup getenv failed for ACDHOME`.

3. Enter the following command to start the migration program:

```
$ /usr/bin/migrate
```

The program responds:

```
                R2 CMS to R3 CMS Data Migration

Please answer a few questions before continuing ...

You will need to map the R2 ACD to an R3 ACD.
To complete this mapping process, you will be asked to
enter the following:
    -> The number of the existing R2 ACD
    -> The number of the corresponding R3 ACD.

For example, the R2 ACD 2 will be mapped to the R3 ACD 1.
The mapping is as follows:
       R2 acd2 --> R3 acd1
When prompted for the number of the existing R2 ACD, enter “2”.
When prompted for the number of the corresponding R3 ACD, enter “1”.

Enter the number of the existing R2 ACD:
```

4. Enter the appropriate R2 ACD number. For example, enter 1 for ACD1, 2 for ACD2, etc. Response:

```
Enter the number of the corresponding R3 ACD number:
```

5. Enter the appropriate R3.0 ACD number. This number is always “1” for Release 3.0 CMS.

After the program has established the ACD mapping, it responds with:

```
Select one: <a> for administration and dictionary
            <h> for historical data
            <b> for both options:
```

6. Enter h to migrate the historical data. Response:

```
Collecting the set of R2 CMS files to migrate ...

Calculating the number of tapes needed for the historical
 data migration ...

The number of cartridge tapes needed to
migrate the CMS data is X (X.XX)

Do you have enough tapes to continue the R2 CMS
historical data migration (y, n)?
```

If you enter n, the following message displays:

```
Signing off.
$
```

The migrate data program has been interrupted and exited. You are currently in the UNIX system. Once you have the necessary number of tapes, you can begin the migrate program again from Step 7.1.

If you enter y, the program responds:

```
Continuing with the migration ...
Retensioning the tape. This can take up to 3 minutes ...
```

The migration of historical data can take up to 2 to 3 hours to download data to a single tape. Therefore, if your database requires multiple tapes, this process could take several hours.

The program continues:

```
Migrating hagent ...
Migrating dagent ...
     ....
     ....
```

If the data is being migrated to more than one tape, the following message appears when it is time to change tapes:

```
***** END OF CURRENT TAPE *****
Insert proper tape; wait for retension pass to complete
then press <return> to continue.
```

7. Replace the current tape with a blank tape, wait for the retension to complete (about 3 minutes), and then press **Return**.

   Note Make sure the tape is not write-protected (black arrow in the upper left-hand corner of the cartridge points away from “safe").

The program responds:

```
Continuing with the operation ...
```

When the migration is finished, the following message displays:

```
Migration succeeded.
$
```

The `Migration succeeded` message indicates that the program has finished migrating the information to the tape and has returned you to the UNIX prompt.

You can return to the R2 CMS Main Menu by entering:

```
$ exit
```

Convert Tape Format — CTC to SCSI

If your 3B2 computer is equipped with a CTC tape system, you need to convert the historical data on the CTC tape(s) to the SCSI format. Call the CMS Provisioning Group at the TSC to convert the data:

1. Dial the AT&T Call Center Helpline: **1-800-344-9670**.
2. Press **1** from a touch-tone phone. (If you are dialing from a rotary phone, you will have to wait for an agent.)
3. Press the number that prompts you for “CMS."
4. Press the number that prompts you for “Release 3 (R3) CMS."
5. Press the number that prompts you “to request assistance or to report a new problem."

Once you have received the SCSI tape conversion back from the TSC, you can proceed with Step 8.

8. Migrate R2 Historical Data To R3.0

You migrate the R2 CMS historical and forecast administration data to the R3.0 CMS using the R2 Migrate Data window. This migration is almost identical to the administration migration except that you enter a stop date and stop time.

Prerequisite Administration

- A device name needs to be defined in the Backup/Restore Devices window (normally default). This is the device from which the data being migrated is read.
- You need **write** permission for the System Setup subsystem to migrate the data.
- You need to set the R3.0 CMS interval size to 30 minutes for the migration of R2 CMS historical data. R2 CMS has an interval size of 30 minutes, but R3.0 CMS has interval sizes of 15, 30, or 60 minutes. If you wish a different R3.0 interval size, you can change it after the migration.

See the following sections in the *R3 CMS Administration* (585-215-511) document:

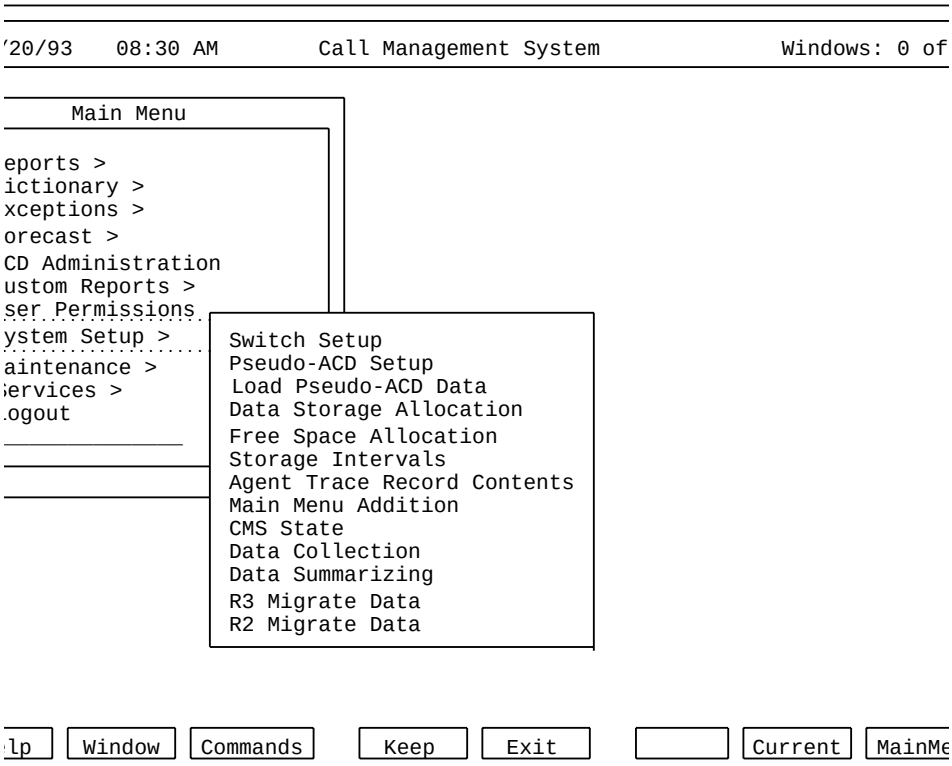
- Chapter 12 “Back Up/Restore Devices"
- Chapter 11 “Feature Access"
- Chapter 11 “Storage Intervals."

Procedure

Do the following steps at the R3.0 CMS:

1. Insert the tape that contains the R2 historical data and forecast administration data into the tape drive.
2. At a terminal logged into R3.0 CMS, access the CMS Main Menu.
3. Select the `System Setup` subsystem.

The System Setup menu displays:

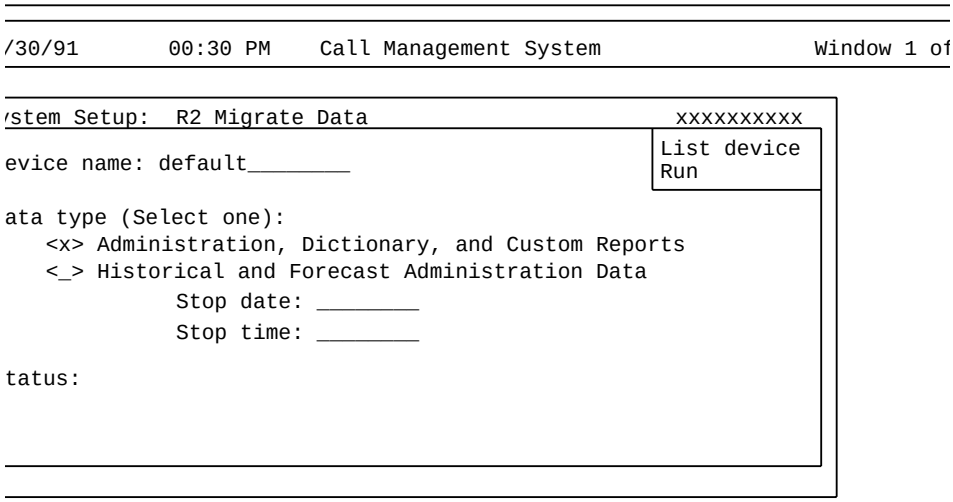


4. Select the R2 Migrate Data Window.

Caution

Do **not** exit this window during the migration. If you exit this window or turn the terminal off, the migration will stop and then must be restarted.

The R2 Migrate Data window displays:



5. Select the device name from which the data being migrated will be read (normally `default`).
6. Select `Historical and Forecast Administration Data` in the `Data type` field.
7. In the `Stop date` field, type the date you recorded when the technicians brought down the R2 link. The stop date can be typed in the month/day/year format (09/08/93) or in the relative date format (-1).

   Caution If you enter a date and time more recent than when the R2 link was brought down, you will delete any R3.0 data collected up to the date/time you enter.

8. In the `Stop time` field, type the time you recorded when the technicians brought down the R2 link. The stop time is entered in the `hh:mm AM/PM` format. The default for this field is `11:59 PM`.
9. Press **Return** to access the Action List.
10. Select `Run` and press **Return**.

After entering Run, the following window displays:

```
The stop date and time are critical to the migration.
          <date and time>
Are you sure they are correct (y or n)?
Enter y for yes or n for no:__
```

11. If you are sure that the stop date and stop time are correct, enter y. Working appears in the lower left-hand corner of the R2 Migrate window. The Status: field displays various messages that inform you what is being processed.

    If you wish to enter a new stop date and stop time, enter n. The program returns you to the Stop date field of the R2 Migrate window. Enter a new stop date and stop time and select Run.

    The migration of historical data and forecast administration data may take several hours.

    If more than one tape of historical data is being migrated, this window appears when it is time to change tapes:

```
***** END OF CURRENT TAPE *****
Insert proper tape; wait for retension pass to complete
then press <return> to continue.
```

12. Replace the current tape with the next tape, wait for the retension to complete (about 3 minutes), and then press **Return**.

If the migration completes successfully, the `Status:` line displays this message:

```
Status: Processing completed, see /cms/migrate/migrate.log.
        This file may contain a list of instructions for
        manually completing the migration.
```

If the migration fails, the `Status:` line displays the following:

```
Status: Failed to migrate: Examine the file, /cms/migrate/migrate.log,
        for problems.
```

In addition, a print window displays:

```
Do you want to print the migration log?
Enter y for yes or n for no:__
```

13. Enter y to print the log. You will need a copy of the log for the next step “Perform Post Historical Migration Tasks."

9. Perform Post Historical Migration Tasks

Perform the following tasks after you have restored the R2 historical data to the R3.0 system. You may want a copy of the *R3 CMS Administration* (585-215-511) document on hand as you complete the tasks in this section.

1. If you have not already printed the migration log, enter the following command at the system prompt to print the log:
   `lp /cms/migrate/migrate.log`.

   The `migrate.log` file provides a record of what happened during the migration. Use this log and Chapter 9, “Migration Log Messages" to determine what actions you need to take.

2. If forecasting is installed, fix any errors related to the forecast administration.

3. If forecasting is installed, run the forecast manager to recollect data for the forecasting tables from the migrated historical data. Then schedule the forecast manager in a timetable if you are planning to use forecasting. See Chapter 14, “Forecasting" and Chapter 6, “Timetable and Shortcuts" in the *R3 CMS Administration* (585-215-511) document.

This completes the R2-to-R3.0 migration steps.

Chapter 9
Migration Log Messages

Overview 9-1

R3-to-R3V2 Migration Log Messages 9-2
Standard Messages **9-2**
System Administration Data Migration Messages **9-2**
ACD Administration Data Migration Messages **9-3**
Historical Data Migration Messages **9-4**
Error Messages **9-6**

R2-to-R3V2 Migration Log Messages 9-9
Standard Messages **9-9**
Error Messages **9-10**

Overview

The migration program writes messages to different log files depending on what type of migration occurred.

For example, if you are performing an R3-to-R3V2 migration, you need to view this file: */cms/migrate/r3mig.log*.

Note The R3V2 CMS software application also contains a migration log for services. The services migration log is located in */cms/maint/r3mig/mig.log*. This log may contain information inappropriate for the customer.

If you are performing an R2-to-R3V2 migration, you need to view this file: */cms/migrate/migrate.log*.

Turn to one of the following sections:

- R3-to-R3V2 Migration Log Messages
- R2-to-R3V2 Migration Log Messages.

Look up the migration log message and decide what action you need to take.

R3-to-R3V2 Migration Log Messages

This section describes the messages that may result in an R3-to-R3V2 migration. These messages are located in the *cms/migrate/r3mig.log* and the */cms/maint/r3mig/mig.log* files.

Standard Messages

The following messages are a sample of the migration comments that should always appear in the log. The messages are offset in a constant width font. Variables in a message are italicized. For example, in the message

```
The stop date/time for all tables is: date
```

the variable *date* would appear as “Tue Mar 3 13:23:10 1992." Each message is presented with an explanation for that message.

System Administration Data Migration Messages

Message:	`Migrating db/gem/h_custom...`
Explanation:	Migration of R3 custom reports source files - historical to R3V2.
Message:	`Migrating db/journal/timetable...`
Explanation:	Migration of R3 timetable source files to R3V2.
Message:	`Migrating dbitems`
Explanation:	Migration of R3 dictionary database items, constants, and calculations to R3V2.
Message:	`Migrating dbtbls...`
Explanation:	Migration of R3 dictionary database items to R3V2.
Message:	`Migrating users...`
Explanation:	Migration of R3 user data to R3V2.

Message: `Migrating features...`

Explanation: Migration of R3 feature permissions to R3V2.

Message: `Migrating main_menu...`

Explanation: Migration of R3 main menu addition data to R3V2.

Message: `Migrating h_custom...`

Explanation: Migration of R3 custom reports information - historical to R3V2.

Message: `Migrating r_custom...`

Explanation: Migration of R3 custom reports information - realtime to R3V2.

Message: `Migrating ttsched...`

Explanation: Migration of R3 timetable information to R3V2.

ACD Administration Data Migration Messages

Message: `Migrating aar_agents...`

Explanation: Migration of R3 agent trace active agents to R3V2.

Message: `Migrating acds...`

Explanation: Migration of R3 ACD permissions to R3V2.

Message: `Migrating agroups...`

Explanation: Migration of R3 dictionary agent groups to R3V2.

Message: `Migrating dbstatus...`

Explanation: Migration of R3 historical database archiving status to R3V2.

Message: `Migrating mctex...`

Explanation: Migration of R3 malicious call trace exception data to R3V2.

Message: `Migrating split_pro...`

Explanation: Migration of R3 split call profile administration to R3V2.

Message: `Migrating tg_ex_adm...`

Explanation: Migration of R3 trunk group exception administration to R3V2.

Message: `Migrating vdn_pro...`

Explanation: Migration of R3 VDN call profile administration to R3V2.

Message: `Migrating vdns...`

Explanation: Migration of R3 VDN permissions to R3V2.

Message: `Migrating vectors...`

Explanation: Migration of R3 vector permissions to R3V2.

Historical Data Migration Messages

Message: `Migrating d_secs...`

Explanation: Migration of R3 seconds data collected in day to R3V2.

Message: `Migrating dagent...`

Explanation: Migration of R3 daily historical agent data to R3V2.

Message: `Migrating dtkgrp...`

Explanation: Migration of R3 daily historical trunk group data to R3V2.

Message: `Migrating dvector...`

Explanation: Migration of R3 daily historical vector data to R3V2.

Message: `Migrating f_dsplit...`

Explanation: Migration of R3 forecast daily split data to R3V2.

Message: `Migrating f_itkgrp...`

Explanation: Migration of R3 forecast interval trunk group data to R3V2.

Message: `Migrating hcwc...`

Explanation: Migration of R3 hourly historical call work code data to R3V2.

Message: `Migrating htrunk...`

Explanation: Migration of R3 hourly historical trunk data to R3V2.

Message: `Migrating m_secs...`

Explanation: Migration of R3 seconds data collected in month to R3V2.

Message: `Migrating msplit...`

Explanation: Migration of R3 monthly historical split data to R3V2.

Message: `Migrating mvdn...`

Explanation: Migration of R3 monthly historical VDN data to R3V2.

Message: `Migrating wagent...`

Explanation: Migration of R3 weekly historical agent data to R3V2.

Message: `Migrating wtkgrp...`

Explanation: Migration of R3 weekly historical trunk group data to R3V2.

Message: `Migrating wvector...`

Explanation: Migration of R3 weekly historical vector data to R3V2.

Error Messages

Error messages appear in the migration log when the migration program detects a problem during migration. The following Error messages are samples of messages that might appear in the log. They are presented alphabetically. Variables in a message are italicized. Each message is presented with its cause and a resolution.

Message: `Collision in user login: username. All ownerships are transferred to user 'cms'.`

Cause: There is already a login ID established with this username for CMS. The username being migrated is causing the conflict. The CMS administrator (‘cms') becomes the owner of custom reports, timetables, shortcuts, etc., that were previously owned by the migrated username.

Resolution: If the migrating user is a different one than the user that is already established for CMS, the system administrator should create a different username for this user and transfer the ownerships to this user after the migration. If the migrating user and the existing one are the same, the administrator should consult with the user about the disposition of ownerships.

Message: `Dictionary collision: name='custom_name' item_type='cust_def'`

Cause: There is already the same custom table with the same item name already defined in dictionary.

Resolution: Verify that the migrating table is the same as the existing one. If they are different, one table has to be renamed and database items must be re-entered for the renamed table.

Message: `Dictionary collision: name='custom_name' item_type='const' formula='A CONSTANT'`

Cause: There is already a constant with the name but a different value.

Resolution: You need to enter the constant again and rename it.

Message: `Dictionary collision: name='custom_name' item_type='calc' formula='CALCULATION FORMULA'`

Cause: There is already a calculation with ’*custom_name*’ as the name but with different contents.

Resolution: You need to enter the formula again and rename it.

Message: `Dictionary collision: name='custom column name' table= 'custom table name'`

Cause: There is already a dictionary item for this column in the same table.

Resolution: Verify that the migrating table is the same as the existing one. If they are different, one table has to be renamed and database items must be re-entered for the renamed table.

Message: `Due to name collision, historical report 'report name' (username) has been changed to tempx`

Cause: The name of the migrated historical report, which belongs to the user specified in parentheses, collided with a historical report already present in R3V2.

Resolution: Rename the report to something more meaningful than the automatically assigned name.

Message: `Due to name collision, real-time report 'report name' (username) has been changed to tempx`

Cause The name of the migrated real-time report, which belongs to the user specified in parentheses, collided with a real-time report already present in R3V2.

Resolution: Rename the report to something more meaningful than the automatically assigned name.

Message: `Due to name collision, timetable 'timetable name' (username) has been changed to tempx`

Cause The name of the migrated timetable, which belongs to the user specified in the parentheses, collided with a timetable already present in R3V2.

Resolution: Rename the timetable to something more meaningful than the automatically assigned name. If the timetable is no longer needed, delete it.

Message: `Due to name collision, short cut 'short cut name' (username) has been changed to tempx`

Cause The name of the short cut being migrated collided with a short cut already present in R3V2.

Resolution: Rename the short cut to something more meaningful than the automatically assigned name. If the short cut is no longer needed, delete it.

Message: `Error in creating UNIX login for user 'username'. The user may have already had UNIX log...`

Cause: The user already has a UNIX login in R3V2 CMS.

Resolution: If the user *username* already has a UNIX login, ignore this message. Otherwise, verify that this user can log on and report any problems to Services.

Message: `Menu addition: Name collision: custom menu name (/bin/date).`

Cause: There is already a menu item with the same name as the one being migrated.

Resolution: If the menu item refers to a different application, you need to re-enter the menu name with a new name. Otherwise, ignore this message.

Message: `WARNING: custom report 'report name' (username) contains obsolete column 'column name'`

Cause: One of the columns used directly in this custom report (owned by *username*) is no longer valid in R3V2.

Resolution: You must delete/change the obsolete column from the report in order to use it. NOTE: The only obsolete column that is likely to be used by the customer is I_AUXTIME for ‘agent' tables because it was one of the columns made available to the customer. Its R3V2 equivalence is TI_AUXTIME. CAUTION: Migration program will not be able to detect the use of I_AUXTIME indirectly through table-independent formulas because I_AUXTIME is no longer valid with ‘agent' tables but still valid with other historical tables.

Message: `WARNING: Dictionary: calculation 'calculation name' contains obsolete column: COLUMN NAME`

Cause: The *COLUMN NAME* is no longer valid with R3V2 CMS.

Resolution: You need to modify the formula to use a different column, or stop using the formula altogether. Following columns are no longer valid:

ABNRINGTIME	O_ABNRINGCALLS
ADJROUTETIME	O_ABNVECCALLS
BH_OBUSYCALLS	O_BACKUPCALLS
BH_ODISCCALLS	O_BUSYCALLS
HOLDABNTIME	O_CONNECTCALLS
INTERFLOWTIME	O_DISCCALLS
LOOKFLOWTIME	O_TRANSFERRED
O_ABNQUECALLS	

R2-to-R3V2 Migration Log Messages

This section describes the messages that result from an R2-to-R3V2 migration. These messages are located in the `/cms/migrate/migrate.log` file.

Standard Messages

The following messages should always appear in the log. The messages are offset in a constant width font. Variables in a message are italicized. For example, in the message

`The stop date/time for all tables is: date`

the variable *date* would appear as “Tue Mar 3 13:23:10 1992." Each message is presented with an explanation for that message.

Message: `Getting user input...`

Explanation: R2 CMS migration processing message.

Message: `Initializing temporary database tables...`

Explanation: R2 CMS migration processing message.

Message: `Successfully built temporary database tables.`

Explanation: R2 CMS migration processing message.

Message: `The stop date/time for all tables is: date`

Explanation: Gives the stop date/time input on the R2 CMS Migration window.

Message: `Migrating Historical Custom Report report name`

Explanation: This message is printed for each historical custom report that is migrated.

Message: `Migrating Realtime Custom Report report name`

Explanation: This message is printed for each real-time custom report that is migrated.

Message: `Migration completed.`

Explanation: R3V2 CMS finished migrating either the administration or historical data.

Error Messages

These messages appear in the log when the migration program detects a problem. These messages are presented alphabetically, with two special characters presented in this order: *, <. Variables in a message are italicized. Each message is presented with its cause and a resolution.

Message: `*** INTERNAL ERROR: contact services (`*`error number, time stamp`*`) ***`

Cause: While processing data in the table listed above this message, an internal R3V2 CMS error occurred.

Resolution: You should contact services immediately and do not remove the migration log file. Services needs the *`error number`* and *`time stamp`* to find more information in their error log.

Message: <*`calculation name`*> `contains items not found in R3 database.`

Cause: The calculation *`calculation name`* has items in its formula that cannot be found in the R3V2 dictionary database. These items can be database items or other calculations. T}

Resolution: Verify the calculation's formula in the dictionary subsystem and either modify the formula or add back any calculations used in the formula.

Message: <*`calculation name`*> `not found in the R3 database.`

Cause: One of the following conditions may cause this message to occur:

1. The formula for *`calculation name`* has items that cannot be found in the R3V2 dictionary. Usually this occurs when an R2 calculation contains a nested calculation and the original calculation is migrated before the nested one.
2. The calculation or database item is misspelled, in which case the calculation fails on R2.

Resolution:

1. Migrating an original calculation before the nested one is not a problem. No action needs to be taken. Verify that they are both in the dictionary.
2. If the calculation or database item is misspelled, use the R3V2 dictionary subsystem to correct the spelling. Note that if you correct the spelling, the calculation or database item may work in R3V2.

Message: <*group name*> was an extension group in R2, and is now an agent group in R3.
The extensions in this group have been changed to login ids.

Cause: R3V2 CMS does not allow groups set up by extension numbers, only by login IDs. Any R2 CMS extension groups migrated to R3V2 CMS are changed to agent groups, and the associated extensions are changed to login IDs.

Resolution: Review this group to determine if using the extensions as login IDs is appropriate for your system. If using extensions as login IDs is not appropriate, you need to delete the contents of the group and then add the appropriate login IDs.

Message: <*login ID*> has no default printer. Assign default printer via User Data.

Cause: No default printer was assigned to *login ID* in the User Data window.

Resolution: Use the User Data window and assign a default printer to *login ID*.

Message: <*synonym name*> begins with non-alpha character. Change name after migration. Look for synonym in *synonym group*

Cause: Synonym names must begin with a letter in R3V2 CMS. The synonym *synonym name* does not begin with a letter and was migrated to R3V2 CMS.

Resolution: List the synonym in the R3V2 dictionary subsystem and modify *synonym name* to begin with a letter.

Message: Calculation <*calculation name, calculation equation*>: already in R3 dictionary.

Cause: The calculation *calculation name* already existed in the R3V2 dictionary database when this migration was done.

Resolution: Verify that the R3V2 calculation is appropriate for your reports and modify it if necessary. User may choose to replace standard calculation by the new one. If this is a standard R3V2 calculation, you must make a new R3V2 custom calculation with the R2 formula. Then change the custom reports that use the old calculation name to use the new calculation name. If you migrate the administration data more than once, this message will appear for all the calculations that were migrated the first time.

Message: `calculation truncated: calculation name calculation equation`

Cause: When this R2 CMS calculation was migrated, the formula was too long for R3V2 CMS.

Resolution: Modify the calculation using the Dictionary: Calculation window so that it can be used in a custom report. This modification may require building other calculations to nest within this one.

Message: `Call profile permissions exist for split split number R2 service level = service level R2 increment = interval size`

Cause: The call profile parameters for split *split number* already existed in the R3V2 CMS system when this migration was done.

Resolution: Verify the split call profile parameters in ACD Administration and modify them if necessary. If you migrate the administration data more than once, this message will appear for all the call profile permissions that were migrated the first time. T}

Message: `Cannot migrate custom report: Custom report name compiler errors at bottom of file: /cms/migrate/r2customnn`

Cause: The R2 custom report *custom report name* had compiler errors in the R2 system, so the report could not be migrated to R3V2 CMS.}

Resolution: This custom report did not function in R2 because of the compiler errors. You have to manually re-create the report in the R3V2 CMS if the design is still needed. You can edit the failed report which is located in /cms/migrate/r2custom*nn*.}

Message: `Cannot find database item in dictionary: <item name>`

Cause: The database item *item name* was not found in the R3V2 dictionary.

Resolution: If you need the database item in a custom report, manually add it to the R3V2 dictionary.

Message: `Cannot migrate R2 dictionary item <item name> to R3 dictionary item.`

Cause: The R2 item *item name* did not have a map to an R3V2 dictionary item. One of the following conditions cause this message to occur:

1. No mapping exists.
2. The item is misspelled.

Resolution:

1. Check Appendix B for the list of R2 items that are not mapped to R3V2. If the R2 item is not mapped, you need to replace the R2 item with a similar R3V2 item.
2. If the item is misspelled, you can correct the spelling and then manually add it the R3V2 system.

Message: `Changed name of report to TMPn. Make adjustments as necessary.`

Cause: A custom report already existing in the R3V2 system has the same name as an R2 custom report to be migrated. The R2 custom report was migrated to the R3V2 system under the name TMP*n*.

Resolution: If you want to change the name of the TMP*n* report, use the R3V2 Screen Painter for custom reports. First, add a report with a new name. Then, copy the TMP*n* report to the new name. Finally, delete the TMP*n* report.

Message: `Constant <constant name, constant value>: already exists as an R3 constant.`

Cause: The constant *constant name* already existed in the R3V2 dictionary database when this migration was done. The R2 constant, therefore, was not migrated.

Resolution: Verify that the R3 constant is appropriate for your reports and modify it if necessary. If you modify the constant, be careful that this constant is not being used in any new R3V2 custom reports, because the new value will affect those reports as well. If you migrate the administration data more than once, this message will appear for all the constants that were migrated the first time

Message: `Custom Report: report name`
`Failed to swap repeat and totals lines.`

Cause: R3 CMS does not allow repeated rows above a non-repeated row. When this R2 custom report was migrated, the program attempted to swap the non-repeated row with the repeated rows but was unsuccessful.

Resolution: Use the R3V2 Screen Painter and swap the repeated rows with the non-repeated row. The problem report is *report name* entered on the line just above this error message.

Message: `Custom report field refers to <database item> which you must resolve to <set of R3 database items>`

Cause: The following R2 database items map to more than one R3V2 database items:

R2 Item	R3 Equivalent
ASSOCIATION	SPLIT, LOGID
CALLPROFCHG	SVCLEVELCHG, PERIODCHG
EVENT	MALICIOUS, ASSIST

Resolution: Determine which R3V2 equivalent is appropriate for the report. Use the Screen Painter to edit the report and substitute the R3V2 equivalent for the R2 database item. The custom report was the one being migrated at the time of this message. For example, to change CALLPROFCHG to SVCLEVELCHG, select the “Field" option on the Screen Painter and change CALLPROFCHG to SVCLEVELCHG. In the Dictionary subsystem, set the synonym to “slvl_chg" (this indicates that the Acceptable Service Level has changed). After setting the synonym, the report will display YES/NO instead of 1/0.

Message: `Date field being deleted because it goes beyond the width of report: row=<row> col=<col> width=<width>`

Cause: The length of the date field in the migrated real-time report exceeds 132 columns and cannot be migrated.

Resolution: You need to use the editor to add the field to the migrated report.

Message: `Error adding acd permissions for user login`

Cause: When migrating R2 CMS user logins, the migration program could not add the ACD permissions for *user login*.

Resolution: Use the R3 User Permissions: ACD Permissions window and check the permissions for *user login*. Modify the permissions if necessary.

Message: `Error in adding directory.`

Cause The migration program could not add the home directory to the UNIX system.

Resolution: Use the FACE program to add the login to the UNIX system.

Message: `Error in adding` *`login ID`* `to UNIX.`

Cause: The migration program could not add *login ID* to the password file.

Resolution: Use the FACE program to add the login to the UNIX system.

Message: `Error in adding <`*`synonym name`*`> to table.`

Cause: The migration program could not add the synonym *`synonym name`* to the R3V2 dictionary database.

Resolution: List the synonyms in the R3V2 dictionary subsystem and add this synonym if necessary. The synonym type is whatever type that was being migrated at the time of the message; that is split, vector, VDN, or trunk group. See the previous log entry for the synonym type.

Message: `Error in adding feature permissions for` *`user login`*

Cause: When migrating R2 CMS user logins, the migration program could not add the feature permissions for *`user login`*.

Resolution: Use the R3V2 User Data: Feature Access window and check the permissions for *`user login`*. Modify the permissions if necessary.

Message: `Error in adding input variable:` *`report variable`*

Cause: During the migration of an R2 custom report, the program could not add the variable *`report variable`* to the R3V2 version of the report.

Resolution: Use the R3 Screen Painter and add the variable for that report if that variable is necessary for the report to run. Verify all row search IDs to make sure they have the correct syntax.

Message: `Error in adding member <`*`member number`*`> to group <`*`group name`*`>.`

Cause: The migration program could not add group member *`member number`* to group *`group name`*.

Resolution: Display the contents of the group in the R3V2 dictionary subsystem and add the member if necessary.

Message: `Error in adding user login`

Cause: When migrating R2 CMS user logins, the migration program could not add the login *user login*.

Resolution: Use the R3V2 User Permissions subsystem and check that the user login exists and has the correct permissions. Add or modify the user login if necessary.

Message: `ERROR: too many select (repeat) statements: row search number`

Cause: The number of select conditions in an R2 custom report exceeded the maximum of ten row search IDs for an R3V2 report.

Resolution: The R2 report is not migrated. You have to re-create the report in R3V2 CMS.

Message: `ERROR: too many select statements: row search number`

Cause: The number of select conditions in an R2 custom report exceeded the maximum of ten row search IDs for any report in R3V2 CMS.

Resolution: The R2 report is not migrated. You have to re-create the report in R3V2 CMS.

Message: `Errors during this compile. Cannot migrate custom report. Compiler errors at bottom of file: <source file>`

Cause: The report did not compile in R2 and is not migrated to R3V2.

Resolution: If you need the information from this report, re-create it in R3V2.

Message: `Expression field being deleted because it goes beyond the width of report: row=<row> col=<col> width=<width> R3 expression: <expression>`

Cause: This field in the migrated real-time custom report exceeded the allowable length of 132 columns and was not migrated.

Resolution: You need to add the field into the real-time custom report in R3V2 using the editor.

Message: `Expression (row=<row number>,col=<column number>) exceeds maximum length and has been truncated: <expression>`

Cause: During migration, the expression *expression* changed and is too long for the **Select** field of the **Field** window.

Resolution: Delete spaces from the expression. If this does not decrease the length of the expression enough, then create a custom calculation in the dictionary for *expression*. Edit the report and substitute the custom calculation for the expression in the **Select** field of the **Field** window.

Message: `Failed to deliver service parameters to running system. After the migration, stop and then restart data collection.`

Cause: The split service parameters from the R2 migration are not in effect for the R3 system.

Resolution: R3V2 CMS data collection must be stopped and then restarted to cause the R3V2 system to use R2 service level parameters. You stop and start data collection in the System Setup: Data Collection window.

Message: `Fatal errors during custom report compilation (file, line)`

Cause: R2 CMS custom report *custom report name* had compiler errors in the R2 system, so it was not migrated to R3V2 CMS.

Resolution: Services may further investigate the problem given the *file*, *line* information.

Message: `Full disk: call services to regain file system space.`

Cause: The migration of R2 CMS data in conjunction with the R3V2 system collecting data, caused the disk space to fill up.

Resolution: Call services immediately to resolve this problem.

Message: `Insufficient number of free blocks (number of blocks) in CMS file system for temporary database tables.`

Cause: The file system does not contain enough free blocks for R3V2 CMS to create the temporary tables needed for the migration.

Resolution: Call services to resolve this situation.

Message: `Invalid user <logname>. Permissions not migrated.`

Cause: The R3V2 CMS system found permission information for a user that was deleted, so the permissions were not migrated. This message lets you know that this condition happened.

Resolution: none needed

Message: `Logid in conflict with R3 CMS: user (user login)`

Cause: When migrating the R2 CMS user logins, the program found that *user login* already existed in R3V2 CMS.

Resolution: All R2 permissions for *user login* were migrated to R3V2 except feature access permissions and split access permissions. You may want to use the User Data subsystem to verify that the R3V2 feature access and split access permissions for this login are appropriate.

Message: `Login ID <login ID name> already exists.`

Cause: A login ID *login ID name* already existed in the R3 dictionary database when this migration was done. The R2 login ID was not migrated.

Resolution: Modify the R2 login ID and manually add it to the R3V2 dictionary subsystem if necessary. If you migrate the administration data more than once, this message will appear for all the login IDs that were migrated the first time.

Message: `Member <member number> is already in group <group name>.`

Cause: The group member *member number* of the group *group name* already existed in the R3V2 dictionary database when this migration was done. The group member was not migrated. If you migrate the administration data more than once, this message will appear for all the group members that were migrated the first time.

Resolution: Modify the group in the R3V2 dictionary subsystem if necessary.

Message: `Multiple repeat statements on different rows in this report. Can't swap.`

Cause: R3V2 CMS does not allow a vertically-repeated field to appear above another repeated field.

Resolution: Use the R3V2 Screen Painter and redesign the report so that all vertically-repeated fields are on the same row. Or, create multiple reports, where each report has a single row of vertically-repeated fields.

Message: `Owner (user ID) not migrated to R3 CMS, ''cms'' will be owner of this report.`

Cause: The R2 *user ID* was not migrated to the R3V2 system. This user owned the custom report that was being migrated at the time of this error message. Since the user was not on the R3V2 system, the migration program changes the owner of the report to the “cms'' user ID.

Resolution: Do the following to transfer ownership of the report back to the original user ID. First, add the R2 *user ID* to the R3V2 system. Next, add a new custom report name for that user. Then, copy the report owned by “cms'' to the new custom report name. Finally, delete the report owned by “cms.”

Note A CMS Administrator logged in as “cms” should do this.

Message: `Problem removing table. Call services to drop r2dbitems.`

Cause: An internal temporary INFORMIX table was not removed when the migration finished.

Resolution: This condition causes no CMS problems, but you should contact services to remove the table to gain addition disk space.

Message: `Problem removing table. Call services to drop r2loginid.`

Cause: An internal temporary INFORMIX table was not removed when the migration finished.

Resolution: This condition causes no CMS problems, but you should contact services to remove the table to gain addition disk space.

Message: `Problem removing table. Call services to drop r2menuperms.`

Cause: An internal temporary INFORMIX table was not removed when the migration finished.

Resolution: This condition causes no CMS problems, but you should contact services to remove the table to gain addition disk space.

Message: `Problem removing table. Call services to drop r2synonyms.`

Cause: An internal temporary INFORMIX table was not removed when the migration finished.

Resolution: This condition causes no CMS problems. However, you should contact services to remove the table to gain addition disk space.

Message: `R2 ASTATE is mapped to WORKMODE. You must manually add DIRECTION to the right of this field.`

Cause: The R2 database item ASTATE was split into two database items for R3V2, that is, WORKMODE and DIRECTION. The migration program maps ASTATE only to WORKMODE.

Resolution: Use the R3V2 Screen Painter to:

1. Make the WORKMODE field five columns.
2. Create a three-column field and enter “cagent.DIRECTION'' in the Select field. In the Dictionary subsystem, set the synonym to “ag_dir.''
3. Assign the new field to the same Row Search Id as WORKMODE.
4. Save the changes by selecting the “Save Design'' option.

Message: `R2 calculation <`*`calculation name`*`> contains <`*`database items`*`> which you must resolve to <`*`set of R3V2 database items`*`>.`

Cause: The following R2 database items map to more than one R3V2 database item:

R2 Item	R3 Equivalent
ASSOCIATION	SPLIT, LOGID
CALLPROFCHG	SVCLEVELCHG, PERIODCHG
EVENT	MALICIOUS, ASSIST
NONACD	CONNECTCALLS, OTHERCALLS
RINGABANDON	ABNCALLS, ABNRINGCALLS
RINGABNTIME	ABNTIME, ABNRINGTIME

Resolution: Determine which equivalent R3V2 database item is appropriate for the calculation. Then, in the Calculations window of the Dictionary subsystem, substitute the equivalent R3V2 database item for the R2 item.

Message: `R2 Login ID (<LOGID>) converted to (<logid>) due to upper case characters.`

Cause: The migrated login ID contained upper case characters.

Resolution: None. The login ID is automatically converted to all lower case characters.

Message: `R2 standard calculation <calculation name> is already in R3V2 dictionary. Review all migrated custom reports using this calculation to make sure the R3 formula is appropriate.`

Cause: Some standard R2 calculations are not included in the standard set of R3V2 calculations. Because they may be used in custom reports, these standard R2 calculations are migrated to the R3V2 system. If, before the migration, you created a custom calculation with the same name as these R2 calculations, the R2 calculation will not migrate and this message occurs.

Resolution: You need to compare the R2 and R3V2 formulas. If the R3V2 formula is appropriate, no action needs to be taken. If you need to use the R2 formula, you can change the R3V2 calculation to contain the R2 formula. However, changing the R3V2 calculation to contain the R3V2 formula will affect R3V2 standard reports.

Message: `Row Search Id row search number will fail because the select list contains a mixture of aggregate and non-aggregate items, and the group by limit for R3 custom reports (8) has been exceeded (number of non-aggregate). Some of the fields will need to be changed or assigned to a duplicate Row Search ID before this report can be executed.`

Cause: R2 CMS allows a mixture of aggregate items (SUM, MAX, MIN, etc.) and non-aggregate items with the same search criteria. The R3V2 database, INFORMIX-SQL, has a limit of eight non-aggregate fields that can be in the same row search criteria with aggregate fields. If this limit is exceeded, this error message occurs.

Resolution: Select the Field option on the Screen Painter. If only one field in the Row Search uses an aggregate and this field is max(tablename.MAXOCWTIME) or a similar database item, then remove the “max" from the field [MAXOCWTIME is the maximum for the collection interval, so max(tablename.MAXOCWTIME) is redundant].

Message: Row Search *row search number*: where clause contains too many characters, *length*, maximum is 245.

Cause: When the criteria for row search ID *row search number* was migrated to R3V2, it was too long for the “select rows where'' field.

Resolution: Edit the row search ID. Remove any unnecessary information in the “select rows where'' field, such as table name, or change the variable to allow a range and decrease the number of “and'' or “or'' clauses or both.

Message: STARTTIME column too small: *number of columns* row=*row number*, col=*column number*

Cause: The R3V2 database item STARTTIME has the form “starttime-endtime.'' If the R2 report did not provide enough space for this expansion, this error occurs.

Resolution: Use the R3V2 Screen Painter to provide additional space.

Message: Synonym <*synonym name*> already exists.

Cause: The synonym *synonym name* already existed in the R3V2 dictionary database when this migration was done. The R2 synonym was not migrated.

Resolution: Modify the R2 synonym name and manually add it to the R3V2 dictionary subsystem if necessary. The synonym type is whatever type was being migrated at the time of the message; that is split, vector, VDN, or trunk group. See the previous log entry for the synonym type. If you migrate the administration data more than once, this message will appear for all the synonyms that were migrated the first time.

Message: Table not migrated. Vectoring package not installed.

Cause: During the historical migration, vectoring data existed on the R2 migration tape, but vectoring was not activated on the R3V2 system. This outage caused the historical vectoring data (half-hour and daily vdn/vector data) not to be migrated.

Resolution: Contact services to have vectoring activated on the R3V2 system and, when activated, remigrate the historical data.

Message: `Terminated by user request?`
`User not administered on UNIX: user login`

Cause: The login *`user login`* was migrated to R3V2 CMS, but does not exist as a login on the UNIX system.

Resolution: Users will be unable to log into R3V2 CMS until they are added to the UNIX system. To add the user login, access User Permissions: User Data window. Press Ctrl Z simultaneously to clear all fields. Type *`user login`* in the first field, select “Find one", then select “Add." This procedure adds *`user login`* to the UNIX system and allows the user to log into R3V2 CMS. Follow the same steps for every user login that was not administered on UNIX. T}

Message: `Text truncated after column 132: row=<`*`row`*`> col=<`*`col`*`>`

Cause: A text field for a migrated real-time report either straddled or exceeded the allowable R3V2 line length of 132 columns. If the field exceeded 132 columns, it was not migrated. If it straddled 132 columns, it was truncated.

Resolution: Use the editor to add or modify the report text field in R3V2.

Message: `The expression <`*`EXPRESSION`*`> could not be resolved in the dictionary. You must fix the expression <`*`EXPRESSION`*`> for the report to work.`

Cause: There is a calculation in the custom report that contains an invalid database item(s), and the calculation can not be resolved in R3V2. The most likely causes for this message are that a referenced database item or another calculation can not be found in the dictionary, or did not migrate.

Resolution: Review previous comments in the migration log for references to the same expression. If there are other comments, this will help you define exactly what the problem is.

Message: `This report goes beyond the maximum number of rows (25).`

Cause: This is a quad report, which is not allowed in R3V2 CMS. Only the first quadrant is migrated.

Resolution: To regain the other quadrants, you must create a new R3V2 custom report for each quadrant.

Message: `Too many date display fields, now adding: date prompt`

Cause: Migrated custom reports can have only one hardcoded date selection. For example, if the report is for yesterday's data, the R2 custom report should designate the date as " –1." This error indicates that the custom report referenced different days among its select statements, e.g., –1 and –3.

Resolution: Use the Screen Painter to edit the report and correct the date.

Message: `Unable to move scroll region to bottom of report. You must do this manually.`

Cause: Not enough rows were available to move the repeated portion of the R2 report to the bottom of the R3V2 report.

Resolution: Edit the custom report via the Screen Painter and move the repeated row to the bottom of the report.

Message: `UNRECOVERABLE ERROR READING TAPE, errno= Failed to open tape: no entry in the device directory. Make sure the Maintenance: Backup/Restore Devices screen has the correct Path.`

Cause: The R2 migration program could not open the tape drive to read the R2 CMS data.

Resolution: Check that the specified tape drive is set up with the correct path in the Maintenance: Backup/Restore Devices window. If you cannot resolve this problem, contact services for additional help. You may have a tape drive hardware problem or need a corrected tape device path.

Message: `UNRECOVERABLE ERROR READING TAPE, errno= Tape drive not ready: there is no tape in the drive.`

Cause: The R2 migration program could not open the tape drive to read the R2 CMS data.

Resolution: Verify that the tape is positioned in the drive correctly and restart the migration. Contact services if problems persist.

Message: User <*user name*>: access permissions already existed for table name

Cause: A specific CMS user login *user name* already had access permissions for a certain *table name* (splits, vectors, or trunk groups).

Resolution: T{ Check that the access permissions for *user login* are correct. If not, manually change them using the R3V2 User Data windows.

Message: VDN Synonym <*VDN synonym name, VDN number*> already exists as R3 synonym.

Cause: A VDN synonym *VDN synonym name* already existed in the R3V2 dictionary database when this migration was done.

Resolution: Modify the R2 VDN synonym name and manually add it to the R3V2 dictionary subsystem if necessary.

Message; Warnings during this compile. Make sure the report works correctly. Warnings at bottom of file: <*source file*>

Cause: During compilation of the custom report, the compiler detected problems. The report was migrated, but may not run in R3V2.

Resolution: Before trying to run the custom report, review and edit it to ensure accuracy.

Appendix A
Fixing R2 Migrated Custom Reports

Overview **A-1**
Step 1: Move Misplaced Text **A-1**
Step 2: Fix Report Input Fields **A-1**
Step 3: Fix Report Fields **A-3**
Step 4: Fix the Row Search Window. **A-5**
Step 5: Add Highlighting **A-7**
Step 6: Define No-Scroll Regions **A-7**

Overview

Not all R2 custom reports work after you migrate them to the R3V2 CMS. In addition, migrated R2 custom reports run about 60 percent more slowly than R3V2 reports and may look different than the R2 versions. This appendix describes some of the steps you can do to get the migrated R2 custom reports working in R3V2.

To make the necessary changes to the migrated custom reports, you should have attended custom report training. Also, have a copy of the *Custom Reports* (585-215-523) document on hand as you go through the steps in this appendix.

During long custom report editing sessions, you should occasionally execute the **`Save design`** option to ensure all report changes are kept. Before the last **`Save design`**, execute the **`Test design`** option and, if necessary, make corrections until no errors are found.

Complete the following steps to fix your R2 migrated custom reports:

Step 1: Move Misplaced Text

R3V2 CMS does not allow repeated rows above a non-repeated row. If an R2 custom report contains repeated rows above a non-repeated row, the migration program swaps these rows so the repeated rows are at the bottom of the migrated report. This swapping may cause heading labels to be off, especially for realtime reports that combine agent and split data. Use the **`Move block`** action list option on the Screen Painter to move text to its appropriate location.

Step 2: Fix Report Input Fields

2.1 Check input field length.

In migrated custom report input windows, the length of input fields is 10. Since synonyms or split names may be up to 20 characters long, you may want to lengthen the input fields to accommodate these entities.

2.2 Combine two input fields.

It is more efficient to replace two input fields of a migrated R2 custom report with one input field defined as a range. For instance, R2 Daily reports have two input fields FIRST_INTERVAL and LAST_INTERVAL to display the start time and the end time of data in a report.

To fix these reports, replace the two input fields with a single input field “Times.'' Define “Times'' as a range (Range/List=y) and select “Time (point in time)'' in the **Type** field. Instead of entering the first and last interval to run the report, you enter a range of time (e.g., 7:30AM-5:00PM).

You can use the same method to fix input fields of migrated R2 weekly and monthly reports. Replace the input fields START_DAY and NUMBER_OF_DAYS with one input field “Dates.'' Define “Dates'' as a range and select “Date'' in the **Type** field.

When replacing two input fields with one, you must also change the row search criteria that reference the input fields. That is, if you delete an input field, you must also delete the “where'' clause(s) that use that input field's variable. If you change an input field to accept a range, you must ensure that the “where'' clause(s) that use that input field's variable use only an equals sign (=).

2.3 Fix input values displayed on a report.

When an R2 custom report is migrated to R3V2 and an input field value is displayed on the report, a separate **Row search ID** is assigned to display that value. For example, an input field is Split Number and that Split Number appears on the report. It is more efficient to use the **Variable/time/date** option on the Screen Painter to display input field values on a report. By using this option, you reduce the number of queries to the database, thus reducing the time it takes to run the report.

Complete these steps to use the Var/Time/Date window to display an input field value on a report:

a. On the Screen Painter, select **Define input**. Select the **List all** action list option for the **Variable name** field. Obtain the name of the variable to be displayed on the report.

> **Note** Check that the input field is the appropriate length for the value the field will be accepting. This is the length that will appear on the report. Lengthen or shorten the input field accordingly.

b. Return to the Screen Painter and use the **Erase block** action list option to remove the report field.

c. Select the **Variable/Time/Date** action list option.

d. Move the cursor to the **Display input variable** option and enter **x** to select. Enter the variable name (obtained in Step 2.3a) in the associated field.

e. Select the **Save** action list option.

Step 3: Fix Report Fields

3.3 Fix time fields.

Any R2 field that displays time (e.g. ACW time, ACD time) that does **not** contain the division operator " / " is migrated to R3V2 as a "time" field. The format for the time is set depending on the type of report: realtime reports are set to minutes and seconds (mm:ss), and historical reports are set to hours and minutes (hh:mm).

Any R2 field that contains an expression with the division operator, or any R2 field that contains a calculation name (e.g., AVG_ANSWER_SPEED), is migrated to R3V2 as a "numeric" field. When reports are run with numeric fields representing time fields, the data displayed is number of seconds. In other words, an average speed of answer of 2 minutes is displayed as "120." If you want these fields to be time fields, you must manually change the fields' type and format.

3.2 Adjust precision.

If an R2 field contains an expression that uses the division operator (e.g., ACDTIME/ACDCALLS), the precision is migrated and set on the R3V2 report. Unlike R2 CMS, however, R3V2 does not automatically set precision for calculation names that contain division (e.g., PERCENT_CALLS_ANS). In migrated custom reports, therefore, precision is not set for fields that contain a calculation name that uses division. You need to manually enter the desired precision (decimal places) for these fields.

Note In R3V2, the field length includes the decimal point. For example, to display “100.00" on a report, the field on the Screen Painter must be six characters long with the decimal digits set to two.

3.3 Change database items.

Note Appendix B “How Data is Migrated" contains the R3V2 equivalent database items and calculations for R2 database items. The R3V2 equivalents will appear in the migrated custom reports.

Administrable Service Level Increments — For R3V2 call profile reports, you can administer each of the first nine service level increments to variable time lengths. Some migrated R2 call profile reports may use PERIOD1 and multiply that database item to get different service levels. You may want to modify these reports to use the R3V2 administrable service level increments (PERIOD1-9 database items).

Number of Calls in Queue — For R2 Split, VDN, and Vector realtime reports, the database item for number of calls in queue is QUECALLS. When these reports are migrated, QUECALLS is mapped to the calculation INQUEUE+INRING. This mapping is acceptable for split reports but not for VDN and Vector reports. For realtime VDN reports, the number of calls in queue is the calculation INPROGRESS–ATAGENT. For Vector reports, the number of calls in queue is the database item INQUEUE. You need to manually change the calculation INQUEUE+INRING to the appropriate data expression in any migrated realtime VDN or Vector custom report.

3.4 Sum data for multiple agent logins.

Agents can be logged into multiple splits on G3 switches. Historical Agent reports not run for a specific split will show multiple rows of data for an agent that was logged into more than one split. You will probably want to “sum'' the data across all splits an agent logs into to display one row of data per agent.

In addition, when an agent logs out and logs back in within the same interval, Interval reports will show multiple rows of data for each agent login session. You may want to “sum'' the data for the interval to display one row of data per interval.

Step 4: Fix the Row Search Window

4.1 Sort data in a report.

If you want your data sorted in a specific order, you must add **`Order by`** criteria in the Row Search window. For example, if a report displays data for multiple days, the data will not be ordered by the date unless you specify ROW_DATE in the **`Order by`** field.

Similarly, if you want the data ordered by time in interval reports, specify STARTTIME in the **`Order by`** field.

4.2 Fix multiple row search IDs.

Each **`Row search ID`** in a custom report represents a query to the database. The more **`Row search IDs`** in a report, the more time it takes to run the report. Sometimes migrated custom reports have multiple **`Row search IDs`** in the same row. For example, the row on the Screen Painter might look like this:

SPLIT	ACDTIME	ACDCALLS	ACWTIME	AUXTIME
0xxxxxxxxxxxxxxxxxx	1xxxxxx	1xxxx	1xxxxxx	1xxxxx

In the above example, **`Row search ID 0`** and **`Row search ID 1`** query the same database table (dsplit). It is more efficient to remove the SPLIT field from **`Row search ID 0`** and reassign it to **`Row search ID 1`** with the other fields.

After the reassignment, the row on the Screen Painter would look like this:

```
SPLIT               ACDTIME  ACDCALLS  ACWTIME  AUXTIME
1xxxxxxxxxxxxxxxxx 1xxxxxx  1xxxx     1xxxxxx  1xxxxx
```

This reduces the number of queries to the database, thus reducing the time it takes to run the report.

Multiple Row search IDs may be necessary in the same row when the report contains data from different database tables (for example, data from split and VDN tables).

Separate Row Search for Agent Login ID — Agent reports often have a separate **Row search ID** for the Agent Login ID field (the login ID field is the only field assigned to the **Row search ID**). This may cause the display of the agent login ID and the associated data to be misaligned. The alignment can be corrected and the report made more efficient by removing the login ID from its current **Row search ID** and assigning it to the **Row search ID** of the remaining fields.

4.3 Change tables for weekly and monthly reports.

R3V2 CMS stores data in intra-hour, daily, weekly, and monthly tables. The weekly and monthly tables are used in R3V2 CMS for weekly and monthly reports where the report shows one row of data for the entire week or month. Migrated R2 weekly and monthly reports use the daily database tables which show multiple rows of data for the week or month. To make these R2 weekly and monthly custom reports more efficient and more consistent with R3V2 CMS, you may want to change them to use the weekly and monthly tables.

To change tables in a report, you must change the table name in the **From table(s)** field of the Row Search window and in the **Select** field of the Field window.

Also, if you want multiple days in the report, weekly or monthly reports that use intra-hour tables (for example, hagent, hsplit, htkgrp, etc.) should be modified to use daily database tables so the reports will run faster.

Step 5: Add Highlighting

Video attributes set on R2 custom reports are **not** migrated to R3V2 CMS. You may want to set any highlighting for migrated custom reports.

Step 6: Define No-Scroll Regions

The no-scroll (stationary) regions are not set on migrated reports. You may want to set the no-scroll regions on those migrated reports you might display on the terminal.

Appendix B
Data Migration Tables

Overview **B-1**

R3-to-R3V2 Migration Tables **B-2**
Custom Report References to Database Items **B-5**

R2-to-R3V2 Migration Tables **B-8**
Custom Report References to Database Items **B-8**
Historical Database Item Mapping **B-13**
Calculation Migration. **B-20**

Overview

This appendix shows how the R3 CMS data and the R2 CMS data are migrated to the R3V2 system. The information is presented as follows:

- R3-to-R3V2 migration tables
- R2-to-R3V2 migration tables
  - — Custom Report References to Database Items
  - — Historical Database Item Mapping
  - — Calculation Migration

R3-to-R3V2 Migration Tables

tabname	application	description	System Admin	ACD Admin	Historical
aar_agents	Agent Act. Recorder	Agents being traced		X	
acd_shifts	DSA,FSA	Agent shifts		X	
acds	User Permissions	ACD access			
ag_actv&	Agent Trace	Agent trace data		X	
ag_ex_adm	Exceptions	Agent exceptions admin		X	
agex&	Exceptions	Agent exceptions data		X	
agrecadm	Agent Trace Records	Agent records admin			
agroups	Dictionary	Agent groups		X	
arch_stat	Archiver	Archive status			
br_dev_types	Backup/Restore	B/R device types			
br_devices	Backup/Restore	B/R devices			
br_fulls	Backup/Restore	Backup history: full backups			
br_increms	Backup/Restore	Backup history: inc. backups			
br_tables	Backup/Restore	B/R tables			
crecadm	Call Records	Call record admin		X	
customer_log	ELOG	Customer error log			
dagent&	Historical reports	Daily agent data			X
db/gem/h_custom#	Custom Reports	Report GEM files(historical)	X		
db/gem/r_custom#	Custom Reports	Report GEM files(real-time)	X		
db/journal/shortcut#	Time Tables	Shortcut settings	X		
db/journal/timetable#	Time Tables	Timetable settings	X		
dberrors	IDBM	Error map: Informix vs. CMS			
dbitems	Dictionary	Database items	X		
dbstatus	Backup/Restore	Hist./forecast tables update status			
dbtbls	Dictionary	Database tables	X		
dcadmin	DSA,SPI,install	Data collection admin			
dcalloc	DSA,FSA	Data storage allocation admin			
dcwc	Historical reports	Daily call work codes data			X
dsplit&	Historical reports	Daily splits data			X
dtkgrp&	Historical reports	Daily trunk groups data			X
dtrunk	Historical reports	Daily trunks data			X
dvdn	Historical reports	Daily VDNs data			X
dvector	Historical reports	Daily vector data			X
error_msg	ELOG	canned customer error msgs			
ex_msgs	Exceptions	Canned exception messages			
f_agposrep	Forecast	Agent Positions Required Report			
f_cday&	Forecast	Current Day Report		X	
f_cdayconf&	Forecast	Current Day Config.		X	

tabname	application	description	System Admin	ACD Admin	Historical
f_cdayrep&	Forecast	Current Day Report		X	
f_chpap	Forecast	Call Handling Profile		X	
f_chprof	Forecast	Call Handling Profile		X	
f_cstap	Forecast	Costs Profile		X	
f_cstprof	Forecast	Costs Profile		X	
f_dataarch	Forecast	Data Storage Alloc.		X	
f_dsplit&	Forecast	Daily Split Data			X
f_dtkgrp	Forecast	Daily Trunk Group Data			X
f_fin	Forecast	Financial Report			
f_finrep	Forecast	Financial Report			
f_hfinrep	Forecast	Hypothetical Financial Report			
f_hypodata	Forecast	Hypothetical Data	X		
f_hyporep	Forecast	Hypothetical Report			
f_intra	Forecast	Intraday Report			
f_intrarep	Forecast	Intraday Report			
f_ispday&	Forecast	Special Day Split Data			X
f_isplit&	Forecast	Interval Split Data			X
f_itkgrp	Forecast	Interval Trunk Group Data			X
f_long	Forecast	Long Term Report			
f_longrep	Forecast	Long Term Report			
f_spdays&	Forecast	Special Day Admin		X	
f_specrep	Forecast	Special Day Report			
f_status	Forecast	Forecast Manager Status		X	
f_tkgpprof	Forecast	Trunk Group Profiles		X	
f_tkreqrep	Forecast	Trunk Required Report			
f_tperfrep	Forecast	Trunk Performance Report			
features	User Permissions	Feature access	X		
filesys	DSA,FSA	Historical reports file systems			
fs_check	CRT	File systems for free space check			
h_custom#	Custom Reports	Custom reports: historical	X		
hagent&	Historical reports	Intrahour agent data			X
haglog&	Historical reports	Intrahour agent login-logout data			X
hcwc	Historical reports	Intrahour call work code data			X
hsplit&	Historical reports	Intrahour split data			X
htkgrp&	Historical reports	Intrahour trunk group data			X
htrunk	Historical reports	Intrahour trunk data			X
hvdn	Historical reports	Intrahour VDN data			X
hvector	Historical reports	Intrahour vector data			X
linkex*	Exceptions	Link exceptions data		X	
magent&	Historical reports	Monthly agent data			X

tabname	application	description	System Admin	ACD Admin	Historical
main_menu#	CRT	Main menu	X		
mctex&	Exceptions	Malicious call trace exceptions		X	
mcwc	Historical reports	Monthly call work code data			X
menu#	CRT	submenu	X		
menu_add#	CRT	Menu additions	X		
menu_help	CRT	Menu help			
menu_item_help	CRT	More help for menu items			
msplit&	Historical reports	Monthly split data			X
mtkgrp&	Historical reports	Monthly trunk group data			X
mtrunk	Historical reports	Monthly trunk data			X
mvdn	Historical reports	Monthly VDN data			X
mvector	Historical reports	Monthly vector data			X
print_adm	Printer Admin	Printer parameters			
r_custom#	Custom Reports	Custom reports: real time	X		
scwininfo#	Short Cuts	Shortcut window info	X		
sp_ex_adm	Exceptions	Split exceptions admin		X	
spex&	Exceptions	Split exceptions		X	
split_pro&	ACD profiles	Split profile		X	
splits&	User Permissions	Split access		X	
std_rpts	Custom Reports	Standard reports list			
synonyms	Dictionary	Synonyms		X	
sys_info	DSA,FSA	DC parameters			
tg_ex_adm	Exceptions	Trunk group exceptions admin		X	
tgex	Exceptions	Trunk group exceptions		X	
tgroups	User Permissions	Trunk groups access		X	
ttsc#	Time Tables,User Perms	Timetables	X		
ttsched#	Time Tables,User Perms	Schedules	X		
ttsctasks#	Time Tables,User Perms	Associated tasks	X		
user_colors#	CRT	Color options	X		
user_defval#	CRT	User defaults	X		
users#	User Permissions	Users	X		
vdn_pro	ACD profiles	VDN profile		X	
vdn_x_adm	Exceptions	VDN exceptions admin		X	
vdnex	Exceptions	VDN exceptions data		X	
vdns	User Permissions	VDN access		X	
vec_x_adm	Exceptions	Vector exceptions admin		X	
vecex	Exceptions	Vector exceptions data		X	
vectors	User Permissions	Vector access		X	
wagent&	Historical reports	Weekly agent data			X
wcwc	Historical reports	Weekly call work code data			X

tabname	application	description	System Admin	ACD Admin	Historical
workcodes	User Permissions	Work codes access			X
wsplit&	Historical reports	Weekly split data			X
wtkgrp&	Historical reports	Weekly trunk group data			X
wtrunk	Historical reports	Weekly trunk data			X
wvdn	Historical reports	Weekly VDN data			X
wvector	Historical reports	Weekly vector data			X

Note

&: tables/data that are affected by EAS format.
#: tables/data that could be affected by user CMS ID conflicts
Tables/data with no 'X' mark will not be migrated in *subsequent* ACDs. For the first ACD, they are either migrated or re-initialized by installation feature.

Custom Report References to Database Items

When migrating from R3V1 to R3V2, all database items are migrated with the same names, except for:

- I_AUXTIME which is TI_AUXTIME in R3V2
- INTERVAL which is INTRVL in R3V2.

In addition, the following table lists database items that have been added to the R3V2 CMS:

Tables	Items	Type
Agent tables	LOGONSKILL	real-time status
	LOGONSKILL2-5	real-time status
	SKILLTYPE,2-4	real-time status
	WORKSKILL	real-time status
	WORKSPLIT4-5	real-time status
	DA_ACWINCALLS	
	DA_ACWINTIME	
	DA_ACWOCALLS	
	DA_ACWOTIME	
	DA_ACWOADJCALLS	
	DA_ACWOOFFCALLS	
	DA_ACWOOFFTIME	
	NOANSREDIR	

Tables	Items	Type
Agent login/logout table	LOGONSKILL2-5 SKILLTYPE,2-4	
Split tables	DA_ACWINCALLS DA_ACWINTIME DA_ACWOCALLS DA_ACWOTIME NOANSREDIR O_ABNCALLS O_OTHERCALLS OTHERCALLS OTHERTIME	
VDN tables	CONNTALKTIME HOLDABNCALLS HOLDCALLS HOLDTIME MAXOCWTIME MAXWAITING NOANSREDIR OLDESTCALL SKILL1-3 SKILLCALLS1-3 SKILLTIME1-3 SKILLACWTIME1-3	real-time status
Call record table	ACD ACWTIME ANSHOLDTIME ANSLOGIN ASSIST AUDIO CALLID CALLING_PARTY CONFERENCE CONSULTTIME DA_QUEUED DIALED_NUM DISPIVECTOR DISPOSITION DISPPRIORITY DISPSPLIT DISPTIME	

Tables	Items	Type
Call record table (contd)	DISPVDN	
	DURATION	
	EQLOC	
	EVENT1-9	
	FIRSTIVECTOR	
	FIRSTIVDN	
	HELD	
	HOLDABN	
	LASTCWC	
	LASTDIGITS	
	LASTOBSERVER	
	MALICIOUS	
	OBSERVINGCALL	
	ORIGLOGIN	
	ROW_DATE	
	SEGMENT	
	SEGSTART	
	SEGSTOP	
	SPLIT1	
	SPLIT2	
	SPLIT3	
	TALKTIME	
	TKGRP	
	TRANSFERRED	

R2-to-R3V2 Migration Tables

Custom Report References to Database Items

The following tables list the R3V2 equivalent database items and calculations for R2 database items. These R3 equivalents may appear in custom reports and in custom calculations in the dictionary. Items marked “Report reference'' have no direct equivalent in the R3V2 database. In these cases, you must change the custom report.

R2 Item	R3 Equivalent	Notes
ABANDON1-10	ABNCALLS1-10	
ABANDONS	ABNCALLS	interval-based to call-based
ABANTIME	ABNTIME	
ACDCALLS	ACDCALLS	interval-based to call-based
ACDCOUNT	ONACD	
ACDTIME	I_ACDTIME	
ACWCOUNT	INACW	
ACWINCALLS	ACWINCALLS	interval-based to call-based
ACWINCOUNT	ONACWIN	
ACWINTIME	I_ACWINTIME	
ACWOUTCALLS	ACWOUTCALLS	interval-based to call-based
ACWOUTCOUNT	ONACWOUT	
ACWOUTTIME	I_ACWOUTTIME	
ACWTIME	I_ACWTIME	
AGENTS	POSITIONS	
AGTIME	ACDTIME	
ALLINUSE	ALLINUSETIME	
ALLTRKSBUSY	–	Report reference
ANSBACK	BACKUPCALLS	
ANSDELAY	ANSTIME	
ANSMAIN	ACDCALLS–BACKUPCALLS	
ANSWERED	ACDCALLS	
ASSISTS	ASSISTS	
ASSOCIATION	SPLIT, LOGID or none	Report reference

R2 Item	R3 Equivalent	Notes
ASTATE	WORKMODE	Report that user will need to add DIRECTION
ATAGENT	ATAGENT	
AUXCOUNT	INAUX	
AUXINCALLS	AUXINCALLS	interval-based to call-based
AUXINCOUNT	ONAUXIN	
AUXINTIME	I_AUXINTIME	
AUXOUTCALLS	AUXOUTCALLS	interval-based to call-based
AUXOUTCOUNT	ONAUXOUT	
AUXOUTTIME	I_AUXOUTTIME	
AUXTIME	TI_AUXTIME (agent) or I_AUXTIME (split)	Report reference (calculations)
BABANDONS	BH_ABNCALLS	
BHANDLEDIN	BH_ACDCALLS	
BALLINUSE	BH_ALLINUSETIME	
BFAILURES	–	Report reference
BINCALLS	BH_INCALLS	
BINTIME	BH_INTIME	
BMBUSYTIME	–	
BNONACD	BH_OTHERCALLS	
BOUTTIME	BH_OUTTIME	
BSOFTFAILS	–	
BUSYHOUR	BH_STARTTIME	
CABINET	–	Report reference
CALLATAGENT	–	Report reference
CALLPROFCHG	SVCLEVELCHG or PERIODCHG	Report reference
CALLS1-10	ACDCALLS1-10	
CARRIED	INCALLS	
CARRIER	–	Report reference
CIRCUIT	–	Report reference
CMODE	–	Report reference
CUMACW	ACWTIME	
CUMRING	RINGTIME	
CUMTALK	ACDTIME	
DIRECTION	DIRECTION	

R2 Item	R3 Equivalent	Notes
DNCALL	–	Report reference
DNEXT	VDN	
DNS	NUMVDNS	
DNSTARTDATE	–	Report reference
DNSTARTTIME	–	Report reference
DNWAITTIME	INTIME–ACDTIME	
EQLOCATION	EQLOC	
EVENT	MALICIOUS or ASSIST	Report reference
EXTCALL	DIRECTION	Report reference
EXTCALLDATE	–	Report reference
EXTCALLTIME	–	Report reference
EXTENSION	EXTENSION	
FAILURES	FAILURES	R2 item includes inbound SHORTCALLS; R3 item does not
FBUSYCALLS	BUSYCALLS	
FBUSYTIME	BUSYTIME	
FDISCCALLS	DISCCALLS	
FDISCTIME	DISCTIME	
FLOWTIME	OUTFLOWTIME	
GROUP	–	Defined in dictionary
GROUPSIZE	TRUNKS	
HOLDABANS	HOLDABNCALLS	
HOLDABANTIME		
HOLDS	HOLDCALLS	
HOLDTIME	HOLDTIME	
IDLETIME	I_AVAILTIME	
INCALLS	INCALLS	
INCOUNT	INBOUND	
INFLOW	INFLOWCALLS	
INPOOL	AVAILABLE	
INPROGRESS	INPROGRESS	
INTIME	INTIME	
INVECTOR	INVECTOR	
LOGDATE	–	Report reference
LOGID	LOGID	

R2 Item	R3 Equivalent	Notes
LOGMODE	–	Report reference
LOGTIME	–	Report reference
MAXAGENTS	MAXSTAFFED	
MAXCALLSWAIT	MAXINQUEUE	
MAXOLDCW	MAXOCWTIME	
MBUSYCOUNT	MBUSY	
MBUSYTIME	MBUSYTIME	
MODULE	–	Report reference
NONACD	CONNECTCALLS (tk gp, vdn) or OTHERCALLS (trunk)	Report reference
NUMACW	–	Report reference
NUMRING	RINGCALLS	
NUMTALK	ACDCALLS	
OCW	OLDESTCALL	
ONHOLD	ONHOLD	
OUTCALLS	OUTCALLS	
OUTCOUNT	OUTBOUND	
OUTFLOW	OUTFLOWCALLS	
OUTTIME	OUTTIME	
OVERFLOWS	BLOCKAGE	
PRICALLS	MEDCALLS	
PRILEVEL	PRIORITY	
PRIORITY	PRIORITY	
QUECALLS	INQUEUE + INRING	
RINGABANDON	ABNCALLS (agent) or ABNRINGCALLS (split)	Report reference
RINGABNTIME	ABNTIME (agent)	Report reference for split table and calculations
RINGANSTIME	ANSRINGTIME (agent)	Report reference for split, VDN tables and calculations
RINGANSWER	ACDCALLS	
RINGASSOC	–	Report reference
RINGCALLS	RINGCALLS	
RINGCOUNT	INRING	
RINGTIME	I_RINGTIME	

R2 Item	R3 Equivalent	Notes
ROUTEDCALLS	INTERFLOWCALLS	
ROUTETIME		
SLOT	–	Report reference
SOFTFAIL	–	Report reference
SPLIT	SPLIT	
STAFCOUNT	STAFFED	
STAFTIME	I_STAFFTIME	
STATE_DATE	–	Report reference
STROKE1-9	EVENT1-9	
SVCLVL	SERVICELEVEL	
TIMEMARK	AGTIME	TIMEMARK was time of day, AGTIME is duration in state
TRK_NDX	EQLOC	
TRKGRP	TKGRP	
TRKSINUSE	NUMINUSE	
TRUNKASSOC	–	Report reference
TRAFFIC	ACCEPTABLE	
TSTATE	TKSTATE	
VECCALL	–	Report reference
VECSTARTDATE	–	Report reference
VECSTARTTIME	–	Report reference
VECTIME	INTIME	
VECTOR	VECTOR	
WINDOW	PERIOD1-9	R2 item was constant, R3 item may have different value for each period

Historical Database Item Mapping

The following tables show how the R2 historical data values are migrated to the R3V2 database. If the R3V2 Equivalent column contains a dash, the R2 value is not migrated to R3V2 CMS.

Many R2 items with the “TIME'' suffix (for example, ACWINTIME) are migrated to two items in the R3V2 database: an interval-based item (I_ACWINTIME) and a call-based item (ACWINTIME).

The value 30 is put into the R3V2 item INTRVL, since R2 CMS stores data in 30-minute intervals.

In some cases, the meanings of the R2 and R3V2 items are **not** the same. The migration program attempts to migrate the data values to that R3V2 item which is closest in meaning to the corresponding R2 item, however, some items are not identical. These items are identified in the “Notes'' column.

Agent Data

R2 Item	R3 Equivalent	Notes
ACDCALLS	ACDCALLS	interval-based to call-based
ACDTIME	I_ACDTIME, ACDTIME	R2 value migrates to two R3 items
ACWINCALLS	ACWINCALLS	interval-based to call-based
ACWINTIME	I_ACWINTIME, ACWINTIME	R2 value migrates to two R3 items
ACWOUTCALLS	ACWOUTCALLS	interval-based to call-based
ACWOUTTIME	I_ACWOUTTIME, ACWOUTTIME	R2 value migrates to two R3 items
ACWTIME	I_ACWTIME, ACWTIME	R2 value migrates to two R3 items
AGHOUR	–	
AGMINUTE	–	
ASSISTS	ASSISTS	
AUXINCALLS	AUXINCALLS	interval-based to call-based
AUXINTIME	I_AUXINTIME, AUXINTIME	R2 value migrates to two R3 items

Agent Data (Contd.)

R2 Item	R3 Equivalent	Notes
AUXOUTCALLS	AUXOUTCALLS	interval-based to call-based
AUXOUTTIME	I_AUXOUTTIME, AUXOUTTIME	R2 value migrates to two R3 items
AUXTIME	TI_AUXTIME	
CMODE	–	
EXTENSION	EXTENSION	
GROUP	–	Defined in dictionary
IDLETIME	I_AVAILTIME, TI_AVAILTIME	R2 value migrates to two R3 items
INTERVAL	STARTTIME	
JDATE	ROW_DATE	
LOGID	LOGID	
LOGMODE	–	
QUALITY	INCOMPLETE	
SERIAL	–	
SPLIT	SPLIT	
STAFTIME	I_STAFFTIME, TI_STAFFTIME	R2 value migrates to two R3 items
STROKE1-9	EVENT1-9	

Split Data

R2 Item	R3 Equivalent	Notes
ABANDON1-10	ABNCALLS1-10	
ABANDONS	ABNCALLS	
ABANTIME	ABNTIME	
ACDCALLS	ACDCALLS	interval-based to call-based
ACDTIME	I_ACDTIME	
ACWINCALLS	ACWINCALLS	interval-based to call-based
ACWINTIME	I_ACWINTIME, ACWINTIME	R2 value migrates to two R3 items
ACWOUTCALLS	ACWOUTCALLS	interval-based to call-based
ACWOUTTIME	I_ACWOUTTIME, ACWOUTTIME	R2 value migrates to two R3 items
ACWTIME	I_ACWTIME	
ANSDELAY	ANSTIME	

Split Data (Contd.)

R2 Item	R3 Equivalent	Notes
ANSWERED+ABANDONS+OUTFLOW	CALLSOFFERED	
ASSISTS	ASSISTS	
AUXINCALLS	AUXINCALLS	interval-based to call-based
AUXINTIME	I_AUXINTIME, AUXINTIME	R2 value migrates to two R3 items
AUXOUTCALLS	AUXOUTCALLS	interval-based to call-based
AUXOUTTIME	I_AUXOUTTIME, AUXOUTTIME	R2 value migrates to two R3 items
AUXTIME	I_AUXTIME	
CALLPROFCHG	SVCLEVELCHG, PERIODCHG	R2 value migrates to two R3 items
CALLS1-10	ACDCALLS1-10	
CUMACW	ACWTIME	
CUMTALK	ACDTIME	
HOLDABANS	HOLDABNCALLS	
HOLDABANTIME		
HOLDS	HOLDCALLS	
HOLDTIME	HOLDTIME	
IDLETIME	I_AVAILTIME	
INFLOW	INFLOWCALLS	
INTERVAL	STARTTIME	
JDATE	ROW_DATE	
MAXAGENTS	MAXSTAFFED	
MAXCALLSWAIT	MAXINQUEUE	
MAXOLDCW	MAXOCWTIME	
NUMACW	–	
NUMTALK	–	
OUTFLOW	OUTFLOWCALLS	
PRICALLS	MEDCALLS	
QUALITY	INCOMPLETE	
SERIAL	–	
SPLIT	SPLIT	
STAFTIME	I_STAFFTIME	
STROKE1-9	EVENT1-9	
SVCLVL	SERVICELEVEL	
TRAFFIC	ACCEPTABLE	
WINDOW	PERIOD1-9	R2 item was constant, R3 item may have different value for each period

Trunk Group Data

R2 Item	R3 Equivalent	Notes
ABANDONS	ABNCALLS	
ALLINUSE	ALLINUSETIME	
ANSWERED	ACDCALLS	
BABANDONS	BH_ABNCALLS	interval-based to call-based
BHANDLEDIN	BH_ACDCALLS	interval-based to call-based
BALLINUSE	BH_ALLINUSETIME	
BFAILURES	–	
BINCALLS	BH_INCALLS	interval-based to call-based
BINTIME	BH_INTIME	interval-based to call-based
BMBUSYTIME	–	
BNONACD	BH_OTHERCALLS	
BOUTCALLS	BH_OUTCALLS	interval-based to call-based
BOUTTIME	BH_OUTTIME	interval-based to call-based
BSOFTFAILS	–	
BUSYHOUR	BH_STARTTIME	
FAILURES	FAILURES	R2 item includes inbound SHORTCALLS; R3 item does not
GROUPSIZE	TRUNKS	
INCALLS	INCALLS	
INTERVAL	STARTTIME	
INTIME	INTIME	
JDATE	ROW_DATE	
MBUSYTIME	MBUSYTIME	
NONACD	CONNECTCALLS	
OUTCALLS	OUTCALLS	
OUTTIME	OUTTIME	
QUALITY	INCOMPLETE	
SERIAL	–	
SOFTFAIL	–	
TRKGRP	TKGRP	

Trunk Data

R2 Item	R3 Equivalent	Notes
ABANDONS	ABNCALLS	
ANSWERED	ACDCALLS	R2 item includes ACDCALLS plus calls that went to coverage or were forwarded; R3 item is only ACDCALLS.
CABINET	EQLOC	R2 item is a segment of R3 item
CARRIER	EQLOC	R2 item is a segment of R3 item
CIRCUIT	EQLOC	R2 item is a segment of R3 item
FAILURES	FAILURES	R2 item includes inbound SHORTCALLS; R3 item does not
INCALLS	INCALLS	
INTERVAL	STARTTIME	
INTIME	INTIME	
JDATE	ROW_DATE	
MBUSYTIME	MBUSYTIME	
MODULE	EQLOC	R2 item is a segment of R3 item
NONACD	OTHERCALLS	
OUTCALLS	OUTCALLS	
OUTTIME	OUTTIME	
QUALITY	INCOMPLETE	
SERIAL	–	
SLOT	EQLOC	R2 item is a segment of R3 item
SOFTFAIL	–	
TRKGRP	TKGRP	
TRK_NDX	–	

Vector Data

R2 Item	R3 Equivalent	Notes
ABANDONS	ABNCALLS	
ABANTIME	ABNTIME	
ANSBACK	BACKUPCALLS	
ANSDELAY	ANSTIME	
ANSMAIN+ANSBACK	ACDCALLS	
CARRIED	INCALLS	
FBUSYCALLS	BUSYCALLS	
FBUSYTIME	BUSYTIME	
FDISCCALLS	DISCCALLS	
FDISCTIME	DISCTIME	
FLOWTIME	OUTFLOWTIME	
FLOWTIME + FBUSYTIME + FDISCTIME	OTHERTIME	
INFLOW	INFLOWCALLS	
INTERVAL	STARTTIME	
JDATE	ROW_DATE	
NONACD + OUTFLOW + FBUSYCALLS + FDISCCALLS	OTHERCALLS	
OUTFLOW	OUTFLOWCALLS	
QUALITY	INCOMPLETE	
ROUTEDCALLS	INTERFLOWCALLS	
ROUTETIME	INTERFLOWTIME	
SERIAL	–	
VECTIME	INTIME	
VECTOR	VECTOR	

VDN Data

R2 Item	R3 Equivalent	Notes
ABANDONS	ABNCALLS	
ABANTIME	ABNTIME	
AGTIME	ACDTIME	
ANSDELAY	ANSTIME	
ANSWERED	ACDCALLS	
CARRIED	INCALLS	
DNEXT	VDN	
DNWAITTIME+AGTIME	INTIME	
FBUSYCALLS	BUSYCALLS	
FBUSYTIME	BUSYTIME	
FDISCCALLS	DISCCALLS	
FDISCTIME	DISCTIME	
FLOWTIME	OUTFLOWTIME	
FLOWTIME + FBUSYTIME + FDISCTIME	OTHERTIME	
INFLOW	INFLOWCALLS	
INTERVAL	STARTTIME	
JDATE	ROW_DATE	
NONACD	CONNECTCALLS	
OUTFLOW	OUTFLOWCALLS	
OUTFLOW + FBUSYCALLS + FDISCCALLS + NONACD	OTHERCALLS	
QUALITY	INCOMPLETE	
SERIAL	–	
VECTOR	VECTOR	

Calculation Migration

The following tables list the R3 equivalent calculations for R2 calculations.

R2 Calculation	R3 Equivalent	Notes
AGENT_CALL_OUT	No R3 calculation	maps to ONACWOUT + ONAUXOUT
AUX_WORK_TIME	No R3 calculation	maps to I_AUXTIME – I_AUXOUTTIME – I_AUXINTIME (split) or to TI_AUXTIME – I_AUXOUTTIME – I_AUXINTIME (agent)
AVG_ABANDON_TIME	AVG_ABANDON_TIME	
AVG_ABANDON_TIME_SUM	AVG_ABANDON_TIME_SUM	
AVG_ACD_TALK_TIME	AVG_ACD_TALK_TIME	call-based in R3; interval-based in R2
AVG_ACD_TALK_TIME_HH	AVG_ACD_TALK_TIME	
AVG_ACD_TALK_TIM_SUM	AVG_ACD_TALK_TIM_SUM	call-based in R3; interval-based in R2
AVG_ACD_TT_HH_SUM	AVG_ACD_TALK_TIM_SUM	
AVG_ACW_TIME	AVG_ACW_TIME	R2 calc does not include ACW extn time; R3 calc does; call-based in R3; interval-based in R2
AVG_ACW_TIME_SUM	AVG_ACW_TIME_SUM	R2 calc does not include ACW extn time; R3 calc does; call-based in R3; interval-based in R2
AVG_ANSWER_SPEED	AVG_ANSWER_SPEED	
AVG_ANSWER_SPEED_SUM	AVG_ANSWER_SPEED_SUM	
AVG_COMP_ACW_TIME	AVG_ACW_TIME	
AVG_COM_TALK_TIME	AVG_ACD_TALK_TIME	
AVG_HOLD_TIME_IN	AVG_TRK_HOLD_TIME_IN	call-based in R3; interval-based in R2

R2 Calculation	R3 Equivalent	Notes
AVG_HOLD_TIME_IN_SUM	AVG_TRK_HOLD_IN_SUM	call-based in R3; interval-based in R2
AVG_HOLD_TIME_OUT	AVG_TRK_HOLD_TIM_OUT	call-based in R3; interval-based in R2
AVG_HOLD_TIM_OUT_SUM	AVG_TRK_HOLD_OUT_SUM	call-based in R3; interval-based in R2
AVG_HUNTANS_TIME	No R3 calculation	maps to (ANSTIME – ANSRINGTIME) / ACDCALLS
AVG_INIT_RING_TIME	No R3 calculation	maps to RINGTIME / RINGCALLS
AVG_RINGABN_TIME	No R3 calculation	maps to ABNTIME / ABNCALLS [agent table only]
AVG_RINGANS_TIME	No R3 calculation	maps to ANSRINGTIME / ACDCALLS
AVG_TALK_TIME_IN	AVG_TALK_TIME_IN	call-based in R3; interval-based in R2
AVG_TALK_TIME_IN_SUM	AVG_TALK_TIME_IN_SUM	call-based in R3; interval-based in R2
AVG_TALK_TIME_OUT	AVG_TALK_TIME_OUT	call-based in R3; interval-based in R2
AVG_TALK_TIM_OUT_SUM	AVG_TALK_TIM_OUT_SUM	call-based in R3; interval-based in R2
AVG_TERM_RING_TIME	No R3 calculation	maps to RINGTIME / RINGCALLS
AVG_WORK_TIME	No R3 calculation	maps to (I_ACDTIME + I_ACWTIME – I_ACWINTTIME – I_ACWOUTTIME) / ACDCALLS
AVG_WORK_TIME_SUM	No R3 calculation	maps to sum(I_ACDTIME + I_ACWTIME – I_ACWINTTIME – I_ACWOUTTIME) / sum(ACDCALLS)
CALLS_OFFERED	No R3 calculation	maps to database item CALLSOFFERED
DNTIME	No R3 calculation	maps to database item INTIME
EXT_CALL_IN	EXT_CALL_IN	call-based in R3; interval-based in R2
FULLTIME_AGENT	AVG_POS_STAFF	
FULL_AG_NUM_CALL	CALLS_PER_POS	
HR_STAFF_TIME	No R3 calculation	maps to I_STAFFTIME / 3600
HUNTABANDON	No R3 calculation	maps to ABNCALLS – ABNRINGCALLS
HUNTANSTIME	No R3 calculation	maps to ANSTIME – ANSRINGTIME
INCOMING_CCS	No R3 calculation	maps to INTIME / 100
MIN_STAFF_TIME	No R3 calculation	maps to I_STAFFTIME / 60
NUM_CALL_IN	No R3 calculation	maps to ACDCALLS / MAXSTAFFED
NUM_CALL_OUT1	No R3 calculation	maps to INTERVAL * 60 * ((AUXOUTCALLS + ACWOUTCALLS) / (I_STAFFTIME – I_AUXTIME))
NUM_CALL_OUT2	EXT_CALL_OUT	call-based in R3; interval-based in R2
OUTGOING_CCS	No R3 calculation	maps to OUTTIME / 100
PERCENT_ACD_TIME	PERCENT_ACD_TIME	
PERCENT_ACD_TIME_SUM	PERCENT_ACD_TIME_SUM	

R2 Calculation	R3 Equivalent	Notes
PERCENT_AUX_WORK	PERCENT_AUX_WORK	
PERCENT_AUX_WORK_SUM	PERCENT_AUX_WORK_SUM	
PERCENT_BUSY_ALL	PERCENT_ALL_BUSY	
PERCENT_BUSY_ALL_SUM	PERCENT_ALL_BUSY_SUM	
PERCENT_CALL_ABAN	PERCENT_CALL_ABAN	R3 calc includes all calls offered; R2 calc includes only answers, abandons and outflows
PERCENT_CALL_ANS	PERCENT_CALL_ANS	R3 calc includes all calls offered; R2 calc includes only answers and abandons
PERCENT_CALL_ANS_SUM	PERCENT_CALL_ANS_SUM	R3 calc includes all calls offered; R2 calc includes only answers and abandons
PERCENT_MAINT_TIM	PERCENT_MBUSY	
PERCENT_MAINT_TM_SUM	PERCENT_MBUSY_SUM	
PERCENT_SERV_LEVL	PERCENT_SERV_LVL_SPL	
PERCENT_STAFF_IN	No R3 calculation	maps to 100 * (I_ACDTIME + I_ACWTIME – I_ACWINTIME – I_ACWOUTTIME) / I_STAFFTIME
PERCENT_STAFF_OUT	No R3 calculation	maps to 100 * (I_ACWOUTTIME + I_AUXOUTTIME) / I_STAFFTIME
SEC_STAFF_TIME	No R3 calculation	maps to I_STAFFTIME
TRKBUSY	No R3 calculation	maps to INTIME + OUTTIME
V_AVG_ANS_SPEED_SUM	AVG_ANSWER_SPEED_SUM	

Index

Symbols

"Fields, Fixing for Custom Reports A-3
"swinfo" command 5-6
"swsetup'' 6-4

A

ACD Permissions 9-14
Activate EAS 6-4
Administration Data
  Migrate 3-10, 5-11, 7-11, 8-9
  Transfer to Tape 7-7, 8-5
Agent Groups 7-5, 8-3, 9-11
Archive Parameters 7-4, 8-2
Authorizations
  Set 4-4

B

Backup
  "cmsadm'' (R3) 3-2, 4-2, 5-3
  "cmsadm'' (R3V2) 3-18, 4-9, 4-13
  "cmsadm'' (R3V2)" 6-9
  ''cmsadm'' (R3V2) 6-3
  Incremental 3-14, 4-3, 5-14
  Maintenance (R3) 5-3
  Maintenance (R3)" 4-2
  Maintenance (R3V2) 3-18, 4-13, 6-3, 6-9
  UNIX Files 3-3, 5-4

C

Calculation 9-10, 9-12
Call Profile
  Parameters 7-16, 8-14
  Permissions 9-12
Call Profile" "Reports A-4
Cartridge Tape Controller . . 7-10, 7-22, 8-8, 8-20
Change Switch Parameters 4-5
Change Tables in Custom Reports A-6
CMS
  Change Data Storage Allocation 6-4
  Custom Reports and migration 7-2
  Dictionary and migration 7-2
  Helpline 7-10, 7-22, 8-8, 8-20
  Install 3-5
  Login IDs and migration 5-2, 7-2
  Provisioning Group 7-10, 7-22, 8-8, 8-20
  Start Data Collection 4-9, 5-15, 6-5
  Turn off 4-3, 6-3
  Upgrade 4-4
Compile
  R2 Reports that Do Not 7-5, 8-3
Constants 7-5, 8-3, 9-13
Contracting AT&T to Do Migration . . 3-1, 4-1, 5-1, 6-1, ... 7-1, 8-1
Convert CTC to SCSI 7-10, 7-22, 8-8, 8-20
Create ACD
  "swinfo" on source CMS 5-6
  Target CMS 5-7
Custom Reports 7-17, 8-15
  Examine before Migration 7-5, 8-3
  Fixing A-1
  Identifying R3V2 Substitutes for 7-16, 8-14
  Moving Text A-1
  Quad Reports 7-6, 8-4
  that Do Not Compile 7-5, 8-3
Cutover 7-1, 8-1

D

Data
  Not Migrated 7-4, 8-2
Data Collection 9-17
Data Migration Tables B-1
Dictionary 9-10, 9-12
  Cleaning Up 7-4, 8-2
Disk, Full 9-17

E

EAS
  Activate on Switch 6-4
Equivalent Database Items A-4, B-5, B-8
Error Messages
  Data Collection (R3) 2-6
  Logged for R2-to-R3V2 9-10
  Logged for R3-to-R3V2 9-6
  Single User state 2-6
  Tables 2-8
  Tape 2-7, 2-8, 2-12, 2-16
Exceptions Administration . . . 7-4, 7-16, 8-2, 8-14
Exit Migrate Window 7-12, 7-24, 8-10, 8-22
Extension Groups 7-5, 8-3, 9-11

F

FACE Program 9-14, 9-15
Feature Permissions 9-15
Fix
  Custom Reports A-1
  Multiple Rows A-5
  Report Fields A-3
  Row Search Window A-5
Forecast
  Administration 7-23, 7-28, 8-21, 8-26
  Manager 7-28, 8-26
Free Blocks 9-17
Full Disk" 9-17

H

Helpline for CMS 7-10, 7-22, 8-8, 8-20
Highlighting A-7
Historical Data
  Migrate to R3V2 3-15, 4-10, 5-16, 6-6, 7-23, 8-21
  Transfer to Tape 7-18, 8-16

I

Incremental Historical Data
  Migrate to R3V2 . . . . . 3-17, 5-18
Input Fields, Fixing for Custom Reports A-1
Install
  INFORMIX" 4-4
  Migration Program 7-6, 8-4
  R3V2 CMS 3-5
Interval Size 7-23, 8-21

L

Legal Characters for Synonyms 7-5, 8-3
Link to Switch 3-13, 5-15, 7-18, 8-16
Log Messages
  R2-to-R3V2 9-9
  R3-to-R3V2 9-2
Login ID 5-2, 5-5, 5-13
Login ID, copying to R3V2" 3-4, 3-12

M

Menu, System Setup 7-12, 7-24, 8-10, 8-22
Messages
  Error R2-to-R3V2 9-10
  Error R3-to-R3V2 9-6
  Standard R2-to-R3V2 9-9
  Standard R3-to-R3V2 9-2
Migrate
  Administration Data 3-10, 5-11, 7-11, 8-9
  Historical Data 3-15, 4-10, 5-16, 6-6, 7-23, 8-21
  Incremental Historical Data 3-17, 5-18
  System Administration Data 3-6, 4-5, 5-7
  UNIX Files 3-11, 5-12
Migrate Administration Data . 3-10, 5-11, 7-11, 8-9
Migrate Data Window
  Action List (R2) 2-14
  Action List (R3) 2-3
  Data type
    field (R2) 2-13
  Data type: field (R3) 2-2
  Device name
    field (R2) 2-13
    field (R3) 2-2
  Invalid ACD (R3) 2-5
  Invalid Device (R3) 2-5
  Migrate to ACD: field (R3)" 2-2
  Print Log 2-18
  R2 CMS 2-13
  R3 CMS 2-2, 3-16
  Run Conditions (R3) 2-6
  Stop date
    field (R2) 2-13
  Stop Date/Time 2-17
  Stop Date: field (R3) 2-3
  Stop date: field (R3) 2-3
  Stop time
    field (R2) 2-14
  Stop time: field (R3) 2-3
  Stop/Restart 2-11, 2-15
  User Permission (R3) 2-4
Migrate Data Window R3 CMS 2-2
Migrate Historical Data 3-15, 4-10, 5-16, 6-6, 7-23, 8-21
Migrate Incremental Historical Data . . . 3-17, 5-18
Migrate System Administration Data . 3-6, 4-5, 5-7
Migrating
  Custom Reports 5-2, 7-2
  Login IDs 5-2, 7-2
Migrating Custom Reports 5-2, 7-2
Migrating the CMS Dictionary 7-2
Migration
  Install Program 7-6, 8-4
  Log Messages . . 7-14, 7-15, 7-17, 7-27, 7-28, 8-12, ... 8-13, 8-15, 8-25, 8-26, 9-1
  Partial
    Migration
      Restarting 2-11, 2-15
  Potential Data Collisions 5-2, 6-2
  Pre-Migration Tasks 7-4, 8-2
  Program 7-19, 8-17
  R2-to-R3V2 Steps 7-1, 8-1
  R3-to-R3V2 ACD2 - ACD4 Migration Steps . 5-1
  R3-to-R3V2 on Existing Computer Steps . . . 4-1
  R3-to-R3V2 Steps 3-1
  R3V2-to-R3V2 Migration Steps 6-1
  Restarting 2-12, 2-16
  Starting 2-9
  Stopping/Restarting 2-15
Migration Log Messages 9-1
Multiple Row Search IDs A-5, A-6
Multiple Rows, Fixing A-5

N

Non-repeated Row 9-14
No-Scroll Regions A-7
Number of Calls In Queue A-4

O

Overview
  R2-to-R3V2 . . . . . 7-1, 8-1
  R3-to-R3V2 on Existing Computer 4-1
  R3-to-R3V2 on New Computer 3-1

R3-to-R3V2, ACD2 - ACD4 5-1
R3V2-to-R3V2 6-1

P

Partial Migrations 2-11, 2-15
Perform Post-Migration Tasks 7-28, 8-26
Post-Migration Tasks 7-15, 7-28, 8-13, 8-26
Potential Data Collisions 5-2, 6-2, 7-2
Precision
  Adjusting a Field's A-4
Pre-Migration Tasks 7-4, 8-2
Prerequisite Administration . 3-15, 3-17, 4-5, 4-10, 4-12, 5-7, 5-11, 5-16, 5-18, 6-6, 7-11, 7-23, 8-9, ... 8-21
Print Migration Log 2-18, 7-28, 8-26
Printer setup 3-6
Printout, Migration Log 3-9, 4-8, 5-10, 9-2
Program, Migration 7-6, 7-19, 8-4, 8-17
Provisioning Group 7-10, 7-22, 8-8, 8-20

Q

Quad Reports 7-6, 8-4
Queue, Number of Calls In A-4

R

R2 Migrate Data Window . . 7-13, 7-25, 8-11, 8-23
R2-to-R3V2 Migration Log Messages 9-9
R2-to-R3V2 Migration Overview 7-1, 8-1
R3 Equivalent Database Items A-4
R3 Migrate Data Window 4-11, 5-17, 6-7
R3-to-R3V2 Migration Log Messages 9-2
R3-to-R3V2 Migration Overview 3-1, 4-1
R3-to-R3V2 Migration Overview, ACD2 - ACD4 . 5-1
R3V2 Equivalent Database Items B-8
R3V2-to-R3V2 Migration Overview 6-1
Repeated Rows 9-14, 9-18
Report Input Fields, Fixing A-1
Restore UNIX Files 3-11, 5-12
Row Search Window, Fixing A-5

S

Scheduler Screens 7-4, 8-2
Screen Painter 9-13, 9-18
Select Conditions 9-16
Service Level Increments A-4
Service Level Parameters 9-17
Set Authorizations 4-4
Small Computer System Interface . 7-10, 7-22, 8-8, 8-20
Sort Data A-5
Starting Migration 2-9
Status Field 7-14, 7-27, 8-12, 8-25
Stop Date/Time 7-25, 8-23
Stopping/Restarting Migration 2-15
Switch Parameters
  Change 4-5
Switch, Link to 3-13, 5-15, 7-18, 8-16
Synonym 9-11, 9-15
  Legal Characters 7-5, 8-3
System Administration Data
  Migrate 3-6, 4-5, 5-7
  Post-Migration 3-9, 4-8, 5-10
System Setup Menu 7-12, 7-24, 8-10, 8-22

T

Tables
  Data Migration B-1
Take Down Link 3-13, 7-18, 8-16
Take Down Link" 5-15
Tape
  Convert Format 7-10, 7-22, 8-8, 8-20
  Maintenance Backup 4-2, 5-3, 6-3
  Transfer Administration Data 7-11, 8-9
  Transfer Historical Data 6-6, 7-23, 8-21
  Transfer R2 Administration Data 7-7, 8-5
  Transfer R2 Historical Data 7-18, 8-16
  Transfer R3 Administration Data 4-5, 5-7
  Transfer R3 Historical Data 3-15, 5-16
  Transfer R3 system administration data 3-6
Tasks
  Post-Migration 7-15, 7-28, 8-13, 8-26
  Pre-Migration 7-4, 8-2
Terminate Data Collection . . . 3-13, 4-2, 5-14, 6-4
Text, Moving in a Custom Report A-1
Time Fields A-3
Timetable 7-17, 7-28, 8-15, 8-26
TMP Reports 9-13
Transfer
  Administration Data to Tape 7-7, 8-5
  Historical Data to Tape 7-18, 8-16
Transfer Administration Data to Tape . . . 7-7, 8-5
Transfer Historical Data to Tape 7-18, 8-16
Transfer R3 Historical Data 4-10
Turn Off CMS 4-3, 6-3

U

UNIX System 9-14, 9-15
Upgrade CMS 4-4
Use 2-2
User IDs 7-6, 8-4

V

Variable 9-15
Variable/Time/Date A-3
Vectoring 7-16, 8-14

W

Window
Multiple Tapes 7-26, 8-24
R2 Migrate Data 7-13, 7-25, 8-11, 8-23
R3 Migrate Data 3-16, 4-11, 5-17, 6-7
Stop Date/Time 7-26, 8-24