PROGRAM DOCUMENTATION

FEBRUARY 1980

CHANGE RECORD

Revision	Date	Pages Affected
A	2/80	Initial Release

680507A

FOREWORD

This document provides detailed information regarding accounting software for the PCC 2000, BASIC 2000-1-H. This information enables a customizing of software for a user's application. Although it is written for the PCC 2000 accounting software, most of it also applies to the accounting software for the MITS 300, BASIC.

This document is divided into three sections:

Section 1, System Documentation, describes the data structures, design constraints, and routines common to all of the accounting software packages. The section is divided into the following subsections:

- System flowchart (program names and file names)
- File structures
- Data file layouts and field explanations
- Limitations and restrictions
- Common routines (code breakdown and functional description)

Section 2, Program Documentation, covers the fifteen programs that are unique in the Payroll System. Each program documentation has three subsections:

- Data files (used for input or output)
- Functional description (of each program)
- Code breakdown (with functional description)

Section 3, Sorted Cross-Reference and Variable Definition, lists and defines all variables used in the programs covered in Section 2.

This document should be used in conjunction with the PCC 2000 Payroll System User's Manual (document number 248073).

Programming terms in this document are defined in C. J. Sippl's <u>Data Communication Dictionary</u>, copyright 1976, and do not connote interpretations outside the computer industry.
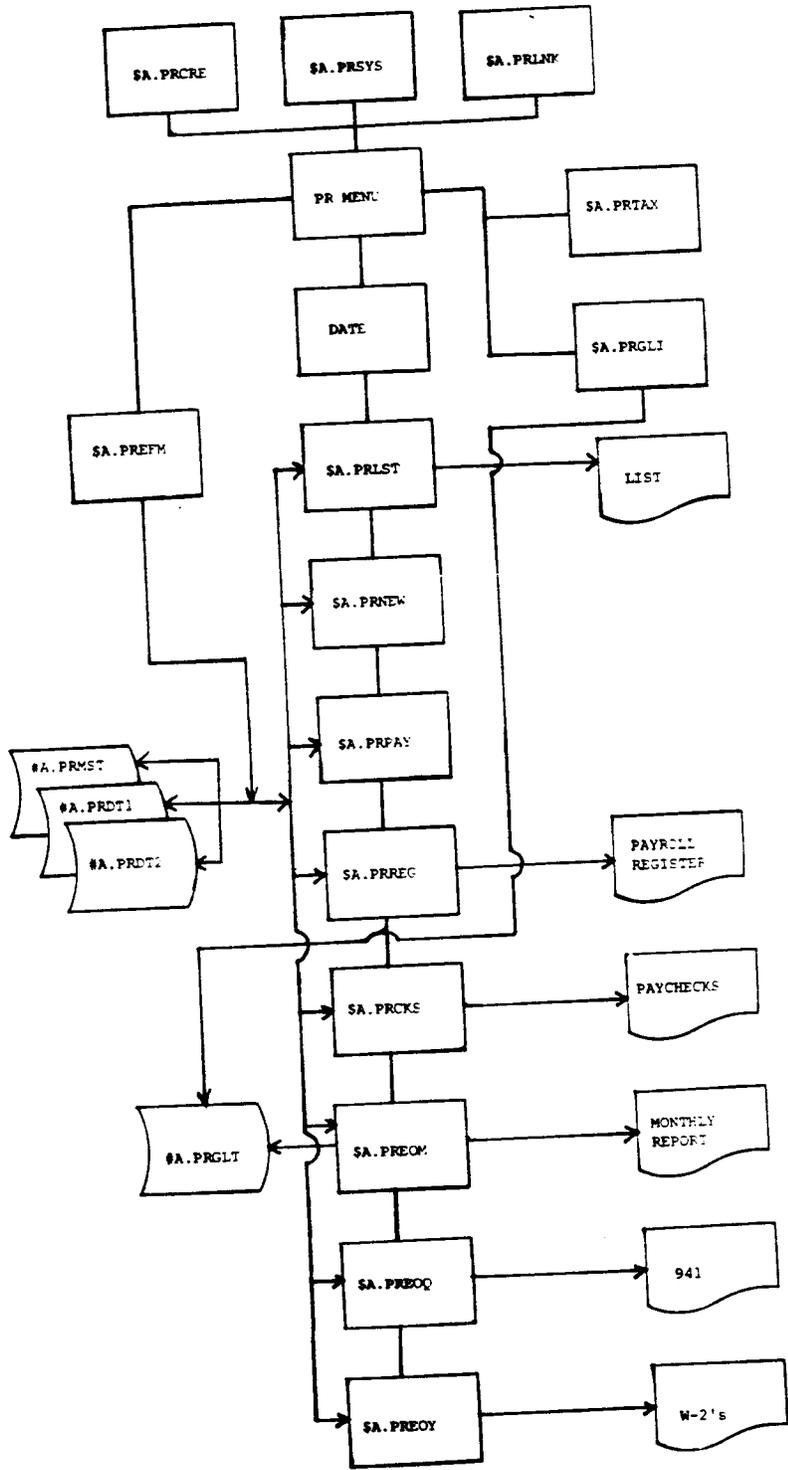
680507A

TABLE OF CONTENTS

680507A

SECTION 1

SYSTEM DOCUMENTATION

1   SYSTEM DOCUMENTATION

1-1   SYSTEM FLOWCHART

680507A

The Payroll system creates and maintains four data files: the Payroll Master File, the Tax Tables File, and two Detail Files.

The PR Master File #A.PRMST contains a record for each employee in the system. #A.PRMST is maintained in ascending sequence by employee number and requires three sectors of disk storage per employee. #A.PRMST contains all personal information and the current pay period information. Detail File #A.APRDT1 contains the current earnings and deductions, monthly earnings and deductions, and yearly earnings and FICA deduction. Detail File #A.PRDT2 contains the rest of the yearly deductions, the quarterly earnings and deductions, and personal information.

The Tax Table File #A.PRTAX contains one record for federal tax information (one record maximum), half a record for each state's information (26 records maximum), half a record for local information (10 records maximum), and one record for each table (one record maximum). Tables are entered in pairs (single and married) and two sectors are needed per table.

1-3   DATA FILE LAYOUTS AND FIELD EXPLANATIONS

The seven data files in the Payroll System are listed below.

SECTION	NAME	TYPE	DESCRIPTION
1-3-1	#A.PRMST	ISAM random	Payroll Master File
1-3-2	#A.PRDT1	ISAM random	Payroll Detail File 1
1-3-3	#A.PRDT2	ISAM random	Payroll Detail File 2
1-3-4	#A.PRTAX	ISAM random	Payroll Tax Tables File
1-3-5	#A.PRLNK	sequential	System Linkage File
1-3-6	#A.PRSYS	sequential	System Parameter File
	#A.PRHLP	random	Help Message File

This document covers all but the #A.PRHLP File. The Linkage File and System Parameter File are accessed by all programs and are not specifically mentioned.

1-3-1   #A.PRMST Payroll Master File Layout

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Dept/Employee Number	6	KY$	A$(0)
2	Name	24	FI$(1)	A$(1)
3	Local Code	2	FI$(2)	A$(2)
4	State Code	2	FI$(3)	A$(3)
5	Marital Status	1	FI$(4)	A$(4)

680507A

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
6	Exemptions-Federal	2	FI$(5)	A$(5)
7	Exemptions-State	2	FI$(6)	A$(6)
8	Social Security Number	9	FI$(7)	A$(7)
9	Pay Period	1	FI$(8)	A$(8)
10	Pay Type	1	FI$(9)	A$(9)
11	Pay Rate	4	FI$(10)	A$(10)
12	Insurance Deduction	4	FI$(11)	A$(11)
13	Misc. Deduction #1	4	FI$(12)	A$(12)
14	Misc. Deduction #2	4	FI$(13)	A$(13)
15	Current Regular Hours	2	FI$(14)	A$(14)
16	Current OT Hours	2	FI$(15)	A$(15)
17	Current Other Hours	2	FI$(16)	A$(16)
18	Paid-Thru Date	4	FI$(17)	A$(17)
19	Current Check Number	6	FI$(18)	A$(18)
20	Date Employed	4	FI$(19)	A$(19)
21	Date Terminated	4	FI$(20)	A$(20)
22	Status	1	FI$(21)	A$(21)
	Filler	37		
	Total	128 bytes = 1 record		

This is an ISAM random file. The PR Master File contains one record
for each employee and is maintained in ascending order by a six-digit
employee number. Twenty-two fields are maintained in the Payroll
Master File. Master File Fields are described below.

FIELD 1 Department/ Employee Code	Up to six characters identify each employee. The first three identify his department; others identify him in his department. Put the same characters in the first three positions if department is not used. Store employees alphabetically if their initials are in reverse order to the employee code. For example, Clyde V. Rusk in department 101 has a code of 101RCV.
FIELD 2 Name	The employee's name as it appears on checks and forms has at most 24 characters.
FIELD 3 Local Code	A number from 53 to 72 represents the taxing city. If no city tax is deducted, field 3 is zero.
FIELD 4 State Code	A number from 53 to 72 represents the taxing state. The state codes are assigned in Appendix C-3 of the Payroll System User's Manual (document #248073).

FIELD 5 Marital Status	One character is an 'M' for married or an 'S' for single.
FIELD 6 Exemptions- Federal	Two digits represent the number of exemptions claimed by the employee for Federal Withholding.
FIELD 7 Exemptions- State	Two digits represent the number of exemptions claimed by the employee for State Withholding.
FIELD 8 Social Security Number	The nine digits of the employee's social security number are entered without hyphens.
FIELD 9 Pay Period	One character specifies the pay period: W is weekly, B is biweekly, M is monthly, and S is semimonthly. Hourly employees are paid weelkly or biweekly.
FIELD 10 Pay Type	One character specifies the pay type: H is hourly, E is hourly by exception, S is salaried, and D is draw and commission.
FIELD 11 Pay Rate	Three decimal places specify hourly employee rates. For salaried or draw and commissioned employees this field contains gross pay or draw per pay period.
FIELD 12 Insurance Deduction	A dollar amount to be deducted for insurance from the employee's pay each period
FIELD 13 Miscellaneous Deduction #1	A dollar amount to be deducted from the employee's pay each period
FIELD 14 Miscellaneous Deduction #2	A dollar amount to be deducted from the employee's pay each period
FIELD 15 Current Regular Hours	This field is not accessible to the user. It contains regular hours up to four decimal places for hourly and hourly by exception employees.
FIELD 16 Current Overtime Hours	This field is not accessible to the user. It contains overtime hours up to four decimal places for hourly and hourly by exception employees.

#A.PRMST - Payroll Master File Layout (continued)

FIELD 17 Current Other Hours	This field is not accessible to the user. It contains other hours up to four decimal places for hourly and hourly by exception employees.
FIELD 18 Paid thru Date	This field is not accessible to the user. It contains the date entered in the PAY Program or it defaults to the current date.
FIELD 19 Current Check Number	This field is not accessible to the user and contains. spaces after the PAY Program, a valid check number af- ter the CKS Program, or a flag in the NEW Program that determines if a check was written.
FIELD 20 Date Employed	Eight alphanumeric characters identify the month/day/ year the employee was hired. Format must be MM/DD/YY.
FIELD 21 Date Terminated	If an inactive record is created, this field contains the date the employee was terminated. It has the same format as Field 20.
FIELD 22 Status	This field is inaccessible to the user. It contains the employee status: A is active, or I is inactive.

1-3-2   #A.PRDT1 Payroll Detail File 1 Layout

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Dept/Employee Number	6	KY$	A$(0)
2	Current Earn-Regular	4	F2$(1)	A#(1)
3	Current Earn-OT	4	F2$(2)	A#(2)
4	Current Earn-Other Hours	4	F2$(3)	A#(3)
5	Current Earn-Commission	4	F2$(4)	A#(4)
6	Current Earn-Miscellaneous	4	F2$(5)	A#(5)
7	Current Deduct-FICA	4	F2$(6)	A#(6)
8	Current Deduct-Federal	4	F2$(7)	A#(7)
9	Current Deduct-State	4	F2$(8)	A#(8)
10	Current Deduct-Local	4	F2$(9)	A#(9)
11	Current Deduct-Insurance	4	F2$(10)	A#(10)
12	Current Deduct-Misc.#1	4	F2$(11)	A#(11)
13	Current Deduct-Misc.#2	4	F2$(12)	A#(12)
14	Month Earnings-Regular	4	F2$(13)	A#(13)
15	Month Earnings-OT	4	F2$(14)	A#(14)
16	Month Earnings-Other Hours	4	F2$(15)	A#(15)
17	Month Earnings-Commission	4	F2$(16)	A#(16)
18	Month Earnings-Miscellaneous	4	F2$(17)	A#(17)

680507A

#A.PRDT1 Payroll Detail File 1 Layout (continued)

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
19	Month Deduction-FICA	4	F2$(18)	A#(18)
20	Month Deduction-Federal	4	F2$(19)	A#(19)
21	Month Deduction-State	4	F2$(20)	A#(20)
22	Month Deduction-Local	4	F2$(21)	A#(21)
23	Month Deduction-Insurance	4	F2$(22)	A#(22)
24	Month Deduction-Misc.#1	4	F2$(23)	A#(23)
25	Month Deduction-Misc.#2	4	F2$(24)	A#(24)
26	Year Earnings-Regular	4	F2$(25)	A#(25)
27	Year Earnings-OT	4	F2$(26)	A#(26)
28	Year Earnings-Other Hours	4	F2$(27)	A#(27)
29	Year Earnings-Commission	4	F2$(28)	A#(28)
30	Year Earnings-Miscellaneous	4	F2$(29)	A#(29)
31	Year Deduction-FICA	4	F2$(30)	A#(30)
	Filler	2		
	Total	128 bytes = 1 record		

This is an ISAM random file. PR Detail File 1 contains one record for each employee. It is maintained in ascending sequence by a six-digit employee number. There are 31 fields maintained in PR Detail File 1.

FIELD 1
Dept./Employee Code

FIELD 2
Regular Earnings   Dollar value of salary, draw or regular hours earnings

FIELD 3
Overtime Earnings   Dollar value of overtime wages at one and a half regular rate (hourly and hourly by exception)

FIELD 4
Other Hours
Earnings   Dollar value of other hour wages at a rate set in tax table program (hourly and hourly by exception)

FIELD 5
Commission
Earnings   Dollar value of commissions (commission employees only)

FIELD 6
Miscellaneous Income   Dollar value of miscellaneous income entries

FIELD 7
FICA Deductions   Dollar value of FICA deductions withheld

7

680507A

FIELD 8   Dollar value of federal income tax deductions
Federal Deductions

FIELD 9   Dollar value of state income tax deductions
State Deductions

FIELD 10   Dollar value of city or county income tax, if any
Local Deductions

FIELD 11   Dollar value of amount deducted for group
Insurance Deduction insurance

FIELD 12   Dollar value of deduction defined by user
Misc. Deduction #1

FIELD 13   Dollar value of deduction defined by user
Misc. Deduction #2

FIELD 14   Dollar value of salary, draw, or regular hour
Regular Earnings   earnings

FIELD 15   Dollar value of overtime wages at one and a half
Overtime Earnings   regular hour rate (hourly and hourly by exception)

FIELD 16   Dollar value of other hour wages at a rate set in
Other Hrs Earnings   tax table program (hourly or hourly by exception)

FIELD 17   Dollar value of commissions for commission
Commission Earnings employee

FIELD 18   Dollar value of miscellaneous income entries
Miscellaneous Income

FIELD 19   Dollar value of FICA deductions withheld
FICA Deductions

FIELD 20   Dollar value of federal income tax deductions
Federal Deductions

FIELD 21   Dollar value of state income tax, if any
State Deductions

FIELD 22   Dollar value of city or county income tax, if any
Local Deductions

FIELD 23   Dollar value of group insurance deduction
Insurance Deduction

FIELD 24   Dollar value of deduction defined by user
Misc. Deduction #1

FIELD 25   Dollar value of deduction defined by user
Misc. Deduction #2

FIELD 26   Dollar value of salary, draw, or regular hour
Regular Earnings   earnings

FIELD 27   Dollar value of overtime wages at one and a half
Overtime Earnings   regular hour rate (hourly and hourly by exception)

FIELD 28   Dollar value of other hour wages at a rate set in
Other Hr Earnings   tax table program (hourly and hourly by exception)

FIELD 29   Dollar value of commissions (commission employees)
Commission Earnings

FIELD 30   Dollar value of miscellaneous income entries
Miscellaneous Income

FIELD 31   Dollar value of FICA deductions withheld
FICA Deductions

1-3-3   #A.PRDT2 - Payroll Detail File 2 Layout

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Dept/Employee Number	6	KY$	A$(0)
2	Year Deduction-Federal	4	F3$(1)	A#(31)
3	Year Deduction-State	4	F3$(2)	A#(32)
4	Year Deduction-Local	4	F3$(3)	A#(33)
5	Year Deduction-Insurance	4	F3$(4)	A#(34)
6	Year Deduction-Misc. #1	4	F3$(5)	A#(35)
7	Year Deduction-Misc. #2	4	F3$(6)	A#(36)
8	Quarter Earning-Regular	4	F3$(7)	A#(37)
9	Quarter Earning-OT	4	F3$(8)	A#(38)
10	Quarter Earning-Other	4	F3$(9)	A#(39)
11	Quarter Earning-Commission	4	F3$(10)	A#(40)
12	Quarter Earning-Miscellaneous	4	F3$(11)	A#(41)
13	Quarter Deduction-FICA	4	F3$(12)	A#(42)
14	Quarter Deduction-Federal	4	F3$(13)	A#(43)
15	Quarter Deduction-State	4	F3$(14)	A#(44)

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
16	Quarter Deduction-Local	4	F3$(15)	A#(45)
17	Quarter Deduction-Insurance	4	F3$(16)	A#(46)
18	Quarter Deduction-Misc. #1	4	F3$(17)	A#(47)
19	Quarter Deduction-Misc. #2	4	F3$(18)	A#(48)
20	Address Line 1 of 2	24	F3$(19)	A$(20)
21	Address Line 2 of 2	24	F3$(20)	A$(23)
	Filler	2		
	Total	128 bytes = 1 record		

This is an ISAM random file. PR Detail File 2 has one record per employee and is maintained in ascending order by a six-digit employee number (21 fields in PR Detail File 2).

FIELD 1
Department Employee
Code

FIELD 2   Dollar value of federal income tax deduction
Federal Deductions

FIELD 3   Dollar value of any state income tax deduction
State Deductions

FIELD 4   Dollar value of any city or county income tax
Local Deductions

FIELD 5   Dollar value of group insurance amount
Insurance Deduction

FIELD 6   Dollar value of deduction defined by user
Misc. Deduction #1

FIELD 7   Dollar value of deduction defined by user
Misc. Deduction #2

FIELD 8   Dollar value of salary, draw, or regular hour
Regular Earnings   wages

FIELD 9   Dollar value of overtime wages at one and one-half
Overtime Earnings   regular hour rate (hourly and hourly by exception)

FIELD 10   Dollar value of other hour wages at a rate set in
Other Hr Earnings   tax table program (hourly and hourly by exception)

FIELD 11 Commission Earnings	Dollar value of commissions (commission employees)
FIELD 12 Miscellaneous Income	Dollar value of miscellaneous income entries
FIELD 13 FICA Deductions	Dollar value of FICA deductions withheld
FIELD 14 Federal Deductions	Dollar value of federal income tax deduction
FIELD 15 State Deductions	Dollar value of any state income tax deduction
FIELD 16 Local Deductions	Dollar value of any city or county income tax deduction
FIELD 17 Insurance Deduction	Dollar value of group insurance deduction
FIELD 18 Misc. Deduction #1	Dollar value of deduction defined by user
FIELD 19 Misc. Deduction #2	Dollar value of deduction defined by user
FIELD 20 Address 1 of 2	The first line of the employee's address contains up to 24 characters denoting his street number and possibly his apartment number.
FIELD 21 Address 2 of 2	Second line of the employee's address contains his city, state, and zip code.

680507A

#A.PRTAX Payroll Tax File Layout

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Date Last Updated	4	TF$(1)	DU$
2	Federal ID Number	9	TF$(2)	FN$
3	FICA %	4	TF$(3)	FPER
4	FICA Limit	4	TF$(4)	FMAX#
5	Federal Exemptions Allowance	4	TF$(5)	EXEM#
6	Federal Unemployment Limit	4	TF$(6)	FUL#
7	Standard Workweek (unpacked)	4	TF$(7)	FWK
8	Other Hour Rate (unpacked)	4	TF$(8)	TV
9			TF$(9)	
10	"TAX" postscript	3	TF$(10)	
	Filler	88		
	Total	128 = 1 record		

This is an ISAM random file. The PR Tax File contains one record for federal data, one record for each state's data, and two records for each table entered. There are eight federal record fields, 24 state record fields, and three times twelve table record fields maintained.

FIELD 1
Date Last Updated

Date the file was last updated is maintained by the system.

FIELD 2
Federal ID

The company's assigned federal ID number, nine digits, no hyphens, or pound signs

FIELD 3
FICA Percentage

The current Federal Insurance Contributions Act percentage is used to figure deductions from an employee's pay.

FIELD 4
FICA Limit

The dollar limit of gross salary up to which an employee's FICA deduction is made

FIELD 5
Federal Exemption
Allowance

The dollar amount per dependent deducted from each employee's annual pay before calculating income tax withholding

FIELD 6
Federal
Unemployment Limit

Dollar value of the limit of individual gross pay upon which Federal Unemployment is paid

FIELD 7
Standard Workweek

The number of hours per week for calculating employee's hourly pay (usually 40)

680507A

| FIELD 8 Other Hour Rate | The number to multiply the employee's hourly rate by to obtain his other hour pay. For double time it is 2 and for time and a half it is 1.5. |

| FIELD 9 | N/A |

| FIELD 10 "TAX" Postcript | Contains the value "TAX" |

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	State or Local Code	2	TX$(1)(15)	TC
2	String Name	12	TX$(2)(16)	TN$
3	ID Number	9	TX$(3)(17)	TI$
4	Percentage for Withholding	4	TX$(4)(18)	TX#(1)
5	Amt or % of Std Ded/Single	4	TX$(5)(19)	TX#(2)
6	Amt or % of Std Ded/Married	4	TX$(6)(20)	TX#(3)
7	Minimum Deduction	4	TX$(7)(21)	TX#(4)
8	Maximum Deduction	4	TX$(8)(22)	TX#(5)
9	Personal Exemption Single	4	TX$(9)(23)	TX#(6)
10	Personal Exemption Married	4	TX$(10)(24)	TX#(7)
11	Exemption per Dependent	4	TX$(11)(25)	TX#(8)
12	Limit of Unemployment	4	TX$(12)(26)	TX#(9)
13	Table Address for Single (+1 for Married)	2	TX$(13)	TB

FIELD NUMBER	FLAGS	2	BIT	FIELD NAMES
14	Table or % for Withholding (T,P)		1	TX%(1)
15	Based on Gross or Tax (G,T)		2	TX%(2)
16	Based on State or Federal Tax (S,F)		3	TX%(3)
17	Amount or % on Standard Deduction (A,P)		4	TX%(4)
18	Take Standard Deduction before or after (B,A)	5	TX%(5)
19	Deduct FICA (Y,N)		6	TX%(6)
20	Deduct Federal (Y,N)		7	TX%(7)
21	FICA-Federal before or after (B,A)		8	TX%(8)
22	Subtract Personal from Total Exemption (Y,N)	9	TX%(9)
23	Take Exemption before or after (B,A)		10	TX%(10)
24	Is There Withholding Tax? (Y,N)		11	TX%(11)

63x2=126 (two states per record)

| | Filler | 2 | | |

| Total | | 128 bytes = 1 record |

This is an ISAM random file.

The PR Tax File contains one record for federal data, one record for each state's data, and two records for each table entered. There are eight federal record fields, 24 state record fields, and three times twelve table record fields maintained. There may be up to 26 state and ten local tax records each containing data for two states or localities. This provides up to 52 state and 20 local tax records.

FIELD 2   The name of the state or locality, maximum of 12
State or Local Name   characters

FIELD 3   State or local ID number assigned to the company
State or Local ID   (nine digits maximum, no hyphens)

FIELD 4   The numeric value of any percentage used
Percent Withholding

FIELD 5   The fixed amount or percentage used to calculate
Dollar Amount or %   the standard deduction for single people
Standard Deduction
Single

FIELD 6   Same as above, for married people
Dollar Amount or %
Standard Deduction
Married

FIELD 7   Minimum dollar amount for the standard deduction
Minimum Standard   (0 if not used)
Deduction

FIELD 8   Maximum dollar amount for the standard deduction
Maximum Standard   (0 if not used)
Deduction

FIELD 9   Dollar amount of a personal exemption for single
Personal   people, if used
Exemptions Single

FIELD 10   Dollar amount of a personal exemption for married
Personal   people, if used
Exemptions Married

FIELD 11   Dollar value to be multiplied by the number of
Exemptions   exemptions claimed
per Dependent

FIELD 12   Dollar limit of unemployment for this state
Unemployment Limit

FIELD 14   Flag that selects tax table or percentage
Calculate by
Table or % (T,P)

FIELD 15   Is the tax calculated with employee's gross pay
Based on Gross or   or other tax as the base?
Tax (G,T)

FIELD 16   If tax is based on a tax and this is a local
Based on State or   government record, then is state or federal tax
Federal (S,F)   used as a base?

FIELD 17   If there is a standard deduction, is it calculated
Amount or % on   using a fixed dollar amount or a percentage of the
Standard   base?
Deduction (A,P)

FIELD 18   Is the standard deduction, if used, taken before
Standard Deduction   or after the tax is calculated?
Before or After
Calculation (B,A)

FIELD 19   Should the amount of FICA withholding be deducted?
Deduct FICA

FIELD 20   Should the amount of federal withholding be
Deduct Federal   deducted?

FIELD 21   If FICA of federal is deducted, should it be taken
Deduct FICA-Federal   out before or after tax is calculated?
Before or After
Calculation (B,A)

FIELD 22   Do you subtract 1 for single people or 2 for
Subtract Persons   married people from the number of exemptions
from Total   claimed before multiplying by the allowance per
Dependents (Y,N)   dependent?

FIELD 23   Deduct the exemption allowance before or after
Exemptions   the tax is calculated?
Before or After
Calculation (B,A)

FIELD 24   Flag indicating whether this state or local
Is There With-   government has a withholding tax
holding Tax? (Y,N)

#A.PRTAX Payroll Tax File Layout-State and Federal Tables (continued)

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Minimum of range	4	TM$(I)	packed
2	Amount	4	TM$(I)	packed
3	% over minimum	2	TO$(I)	
		10 X 12 = 120		
	FILLER	8		

Total number of bytes = 128

This is an ISAM random file. The PR Tax File contains one record for federal data, one record for each state's data, and two records for each table entered. There are eight fields maintained in the federal record, 24 fields in the state records, and three times twelve fields in the table records. Tax tables are stored per record in pairs, one for single and one for married people. There are a pair of federal tables and a pair of tables for each state or locality that uses tables in its calculations. Both single and married tables must be present even if they are identical. Each table contains 12 lines of the following:

FIELD 1 Minimum of Range	The minimum dollar amount for which this line in the table applies
FIELD 2 Amount of Tax	The dollar amount of the tax to charge for this range in the table
FIELD 3 Fraction Over Minimum	A fraction (in form .XXXX) represents the percent of the base minus the range's minimum that is added to the tax for the total tax.

EXAMPLE: When range is from 1300 to 1600, tax is 25.00+6% of amount over 1300, and the payroll system tax table reads:

Minimum of Range	Amount of Tax	Fraction over Minimum
1300	25.00	.06

1-3-5   #A.PRLNK Data Disk Linkage File

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES	
1	Disk drive number (data)	1	DK%	VV$(1)
2	Current date	8	VD$	VV$(2)
3	1	1	IM	
4	0	1	IP	

1-3-6 #A.PRSYS System Parameter File

FIELD NUMBER	FIELD DESCRIPTION	FIELD WIDTH	FIELD NAMES
1	System name	24	VV$(1)
2	Diskette title/version	24	VV$(2)
3	Creation date	8	VV$(3)
4	Disk type code	1	VV$(4)
5	Company name	24	VV$(5)
6	Address 1	24	VV$(6)
7	Address 2	24	VV$(7)
8	GL present ? (Y or N)	1	VV$(8)

1-4 RESTRICTIONS AND LIMITATIONS

The following are restrictions in the Payroll System:

o It does not handle non-taxable items, such as expense reimbursements and tips.

o It does not keep vacation and sick leave.

o Entering new employees is time consuming.

o The overall system runs slow.

o It does not handle earned income credits as per Federal Law, effective July 1979.

o It does not maintain all W-2 information in the Employee Master File.

o Hardware limitations and restrictions are in the PCC 2000 Payroll System User's Manual (pages 1 to 7 of document #248079).

1-5 COMMON ROUTINES

1-5-1 Common Routines For the Payroll System (46000-49999)

LINE NUMBER	DESCRIPTION
46000-46230	Retrieve a record from the PR Master File, check for file errors, and set up buffers.
46500	Retrieve succeeding record, initialize variables, and set up arrays.

1-5-1   Common Routines For the Payroll System (46000-49999) (continued)

LINE NUMBER	DESCRIPTION
47000-47060	Create a record, check for file errors, and restore a record.
47500-47600	Restore a record and check for file errors.
48000	Set the number of files and buffers in ISAM.
48050	Set up and rewind files for the PR Master File.
48100-48600	Dimension arrays, open the PR Master File, set up data, and read start byte and length data to establish the field for the PR Master File.
49000	Close all ISAM files.
49500	Delete a record from the PR Master File.

1-5-2   Common Routines For All Accounting Systems (50000-59999, 65520-65529)

LINE NUMBER	DESCRIPTION
50000-50899	PROGRAM SETUP reads run-time parameters, sets up basic functions, and opens the Help File.
50900-50999	PRINT HEADING
51000-51099	ALPHANUMERIC STRING INPUT ROUTINE prohibits double quotes and accesses the Help File when "?" is entered.
51200-51399	NUMERIC INPUT allows digits, one decimal point, and a "+" or "-" sign. It also checks if the input is between preset lower and upper bounds.
51400-51499	DATE INPUT (MM/DD/YY) requires a month from 1 to 12, a day from 1 to 31, and a year from 10 to 99.
51600-51799	DOLLARS AND CENTS INPUT ROUTINE edits out "$" and allows digits, one decimal point, and a "+" or "-" sign.
51800-51999	YES/NO INPUT ROUTINE adds "(Y/N)?" to the prompt, and sets the YES Flag to a -1 on a "Y" response or to a 0 on a "N" response.
52000-52099	CRT OUTPUT ROUTINE clears screen and prints out message.
54000	INVALID ENTRY ERROR ROUTINE
54100-54110	SEVERE SYSTEM ERROR ROUTINE
54200	NUMBER OUT OF RANGE ERROR ROUTINE
54300	INCORRECT DATE ERROR ROUTINE
54500-54599	BASIC ERROR ROUTINE

LINE NUMBER	DESCRIPTION
55000-55099	PACK ROUTINE packs the significant digits into an unprintable string, pads the string on the left to its original length, and insures a unique key for an ISAM file entry (P$= key + 4 byte unique increment).
55100-55199	UNPACK ROUTINE unpacks strings packed in the PACK ROUTINE in lines 55000-55099.
59000-59999	HELP FILE LOOKUP prints the help message.
65520	SEND ALL OUTPUT TO PRINTER
65525	SEND ALL OUTPUT TO CRT
65528	INITIALIZE PRINTER ROUTINE sets the logical page length equal to the physical page length.
65529	SET PAPER TO TOP OF PAGE

680507A

680507A

SECTION 2

PROGRAM DOCUMENTATION

2-1   PR MENU – PAYROLL MENU

2-1-1   PR MENU Data Files

        #A.PRLNK

2-1-2   PR MENU Functional Description

        PR MENU provides a selection of programs that may be run.

2-1-3   PR MENU Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00320	Set up the program and constants, clear string space, print header, and branch to appropriate menu display.
00330-01045	Display Master Activity Menu. On END response, update #A.PRLNK File and terminate. On UTILITY response, branch to utility menu. On DATE response, update the current date. Run the selected program.
01080-01199	Display Utility Menu for selection and set up header for hard or floppy disk utility (only the floppy disk is currently used on the PCC 2000). Set menu return switch and update #A.PRLNK File. Run the selected utility.
01900-01920	Update current date.
02000-02020	Update #A.PRLNK File.
02100-02229	Read menu prompts by parameter and display menu.
10000-10250	Data statements for the menu prompts
19900-19980	Terminate program, print end-of-program message, and return to the system menu.

2-2 $A.PRNEW – NEW PERIOD INITIALIZATION

2-2-1 $A.PRNEW Data Files

        #A.PRMST, #A.PRDT1, #A.PRDT2

2-2-2 $A.PRNEW Functional Description

        $A.PRNEW accumulates the current amounts into the MTD, QTD, and YTD
        amounts and clears the current amounts for a new period.

2-2-3 $A.PRNEW Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00540	Set up program and constants, and clear string space. Initialize Employee File and select pay period to run.
00550-00690	Get employee record. If employee is active and his pay period is selected, display "WORKING ON". Retreive PR Detail 1 Record, accumulate gross earnings and determine if it is initialized. If check number is blank, warn user that no check was written and prompt "CONTINUE?". Clear, initialize, and put current fields back in file. Get next employee record until end of file.
00700-00720	Check for initializing another pay period.
19900-19980	Terminate program, close all ISAM files, and return to system menu.
22000-22050	Initialize employee fields. Accumulate current amounts in MTD, QTD, and YTD amounts.
40000-40110	Initialize the PR Master File and all Detail Files.

2-3 $A.PRPAY - PAYROLL CALCULATIONS

2-3-1 $A.PRPAY Data Files

#A.PRTAX, #A.PRMST, #A.PRDT1

2-3-2 $A.PRPAY Functional Description

$A.PRPAY calculates all or selected employees' pay and stores the figures in the current fields of the PR Master File.

2-3-3 $A.PRPAY Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00670	Set up program and constants, clear string space, print header, and open files. Select pay period and paid thru date. Set flag for ALL or SELECTED employees.
00675-00780	Select one employee. Determine if he is active, if it his pay period, and if his check number is blank. Perform loop of calculations. Get next employee.

680507A

2-3-3 $A.PRPAY Code Breakdown (continued)

LINE NUMBER   DESCRIPTION

00800-00884   Select all employees. Read PR Master File using the P1
               Flag and determine if each employee is active, if it is
               his pay period, and if his check number is blank. Per-
               form loop of calculations (hourly and salary first).

00900-00941   If check number isn't blank, a check was written and was
               not posted using the New Period Initialization Program.

00950-00960   Part of select all employees

01000-01040   Verify specifically selected employee's name and social
               security number.

01060-01120   Build employee record with current payroll calculations.
               Get employee record. Split up by pay type and enter
               hours: Hourly and Hourly by Exception, Salaried, Commis-
               sion and Draw. Calculate tax and update employee record.

02000-02220   Enter Hourly and Hourly by Exception employees' hours.
               Use standard Federal Tax hours if ALL Hourly employees
               are selected (double for biweekly employees). Zero over-
               time and other hours. Prompt for regular and overtime
               of Hourly by Exception and SELECTED Hourly employees.

02500-02550   ALL employees require their record salary; a SELECTED
               employee requires his pay-period or record salary.

03000-03060   Enter commission for this pay period only.

05000-05150   Calculate taxes with the following deductions:
                   If ALL employees, default to employee record.
                   If SELECTED employee, prompt for each deduction and
                       default to the employee record on no response.
                   If near or over FICA limit, multiply by FICA percent.
                   If FEDERAL, annualize gross pay, subtract exemptions,
                       and lookup in Federal Table.
                   If STATE-ST% is -1, get state tax table, check for no
                       tax, figure state tax base, total exemptions,
                       finalize tax base, look up in table, take percent
                       if percentage, deannualize, and round off.
                   If LOCAL-ST% is 0, follow STATE-ST% procedure above.
                   INSURANCE-, MISCELLANEOUS DEDUCTION #1-, MISCELLANEOUS
                   DEDUCTION #2-

06000-06044   Set up for federal annualization.

24   680507A

06045-06050	Subtract federal exemptions. If federal exemptions=99, there is no withholding. Set tax base minus exemption amount.
06060-06230	Look up in Federal table (single-6080, married-6200).
07000	Set up for state deduction.
07100	Set up for local deduction.
07500-07560	Get state or local table.
07570-07595	Figure state or local tax base.
07600-07640	Figure state or local standard deduction.
07650-07695	Figure state or local exemption and dependent amount. If personal exemptions are subtracted from total then use exemption count minus one for singles, and exemption count minus two for married. Personal married exemption is taken only if exemption count is over one.
07700-07755	Finalize state/local tax base and take Standard, FICA, Dependent, and Federal deductions before calculating.
07760-07770	Calculate state or local tax by table or percent.
07780-07880	Finalize state/local withholding tax. Take Standard, Dependent, Federal, and FICA deductions before calculating tax. Deannualize and round off. Determine if state/local tax < 0 or > than gross earnings. Set state/local deduction field in employee record.
08000-08080	State or local table lookup

2-4 $A.PRREG - PAYROLL REGISTER

2-4-1 $A.PRREG Data Files

#A.PRMST, #A.PRDT1

2-4-2 $A.PRREG Functional Description

$A.PRREG prints ALL or SELECTED employees and their current pay data.

2-4-3 $A.PRREG Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00560	Set up program, constants, and arrays; clear string space. Set Printer Flag to terminal or printer.

680507A

2-4-3 $A.PRREG Code Breakdown (continued)

LINE NUMBER	DESCRIPTION
00600-00960	Print headers. Get employee record. Check active status and correct pay period. Store employee data. Convert and total for register print. If net pay is zero, don't print. Print register detail. If printer selected, check paging. Accumulate department totals. Get next employee until end of file and loop back.
01000-01160	Print department totals; accumulate grand totals. Advance page; print headers and grand totals. If no more pay periods need printing, terminate. Clear total fields and loop back.
02000	Clear department totals.
19900-19980	End program; close ISAM files; return to system menu.
21500-21590	Heading routine
22000-22200	Unpack and convert all dollar amounts to printable form.
23000-23200	Print register detail.
24000-24250	Print department totals.
25000-25080	Print grand totals.
40000-43990	Set up data arrays and constants necessary for register printout. Set up and open ISAM files.

2-5 $A.PRCKS - PRINT PAYROLL CHECKS

2-5-1 $A.PRCKS Data Files

#A.PRMST, #A.PRDT1, #A.PRDT2

2-5-2 $A.PRCKS Functional Description

$A.PRCKS prints checks for all or selected employees by pay period.

2-5-3 $A.PRCKS Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00500	Set up program, constants and arrays for writing checks. Clear string space.
00600-00770	Check mask print routine. Position checks in printer. Print mask as many times as needed.

680507A

00860-01060	Gather check printing data. Input check writing date, starting check number, and pay period. If all checks are to be printed, GOTO 'ALL' routine. If specific checks are to be printed, GOTO 'SPECIFIC' routine.
01200-01270	Print 'ALL' checks routine. Get employee record; check active status and correct pay period. Unpack buffer fields. Calculate totals needed to print check. Ensure gross or net pay is not <= 0. Print check detail. Restore employee record with updated check number. Clear fields and loop back for next employee.
02000-02200	For 'SPECIFIC' checks: Input employee code and check for active employee and correct pay period. Unpack buffer employee fields. Calculate totals needed to print check. Ensure gross or net pay is not <= 0. Print check detail. Restore employee record with updated check number. Clear employee fields for next employee. Prompt for more checks or pay periods to print.
09000-19980	End routine prints final totals (number checks printed, earnings, deductions, and net), closes ISAM files, and returns to system menu.
22000-22500	Calculate all totals needed to print check.
23000-24520	Print check and rewrite check number into Employee File.
27000-27020	Error trap for deductions that exceed or equal earnings
28000-28330	This special algorithm takes numerical amount of check and produces a literal for printing checks (i.e. $12.84 to Twelve dollars and 84/100s).
40000-43990	Set up constants for printing checks; read data arrays.

2-6 $A.PREOM - END OF MONTH

2-6-1 $A.PREOM Data Files

#A.PRMST, #A.PRDT1, #A.PRDT2, #A.PRGLI, #A.PRGLT, #A.PRTAX

2-6-2 $A.PREOM Functional Description

$A.PREOM initializes monthly totals, sets up the Transfer File in GL, and prints the monthly summary.

2-6-3 $A.PREOM Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00580	Set up program and constants; clear string space. If new period initialization hasn't run, end program. Prompt to skip reports and clear data; print warning before clearing data.
00600-00640	Write report, open Tax File, field buffer, get federal data and employee record, and display "WORKING ON". Get next detail record. Total each employee's data. Get next employee record and if not EOF, loop back.
00700-00750	Close Tax File, erase arrays, and print monthly summary report. Create GL Transfer File; print GL transaction register. Prompt to clear MTD data; if NO, terminate. Erase arrays and close all open ISAM files.
00800-00850	Open PR Detail 1 File, field buffer, get each record, initialize proper MTD fields, and put them back in file.
19900-19980	End routine and return to system menu.
20500-20540	Top of page routine
21000-21050	Print headings.
22000-23600	Print GL transactions register. Loop 28 times to print those with an entry, print totals, advance page, and print Unemployment Tax Report. Get next state tax record and print state data.
25000-25210	Total each active or inactive employee data. Accumulate MTD total regular hours, overtime hours, other hours, earnings, income, non-MTD total income, and non-MTD department totals. If GL present and department is not assigned a GL account number, post '*'. Total YTD and MTD earnings. Get state code, compare total earnings with state unemployment limit, and accumulate amount to be added to federal unemployment amount.
26000-26150	Print monthly report.
28000-28150	Get GL interface data; if GL is present, read GL Interface File. Open Tax File, field buffer, and get federal data.
28200-28320	Create GL Transfer File. If GL is not present, print report. Enter posting date, open GL Transfer File, and field buffer. Set up buffer data and report variables. Update disk GL Transfer File.
40000-40190	Set up report display constants.

2-7 **$A.PREOQ - END OF QUARTER**

2-7-1 **$A.PREOQ Data Files**

#A.PRMST, #A.PRDT1, #A.PRDT2, #A.PRTAX

2-7-2 **$A.PREOQ Functional Description**

$A.PREOQ initializes quarterly totals and prints quarterly reports.

2-7-3 **$A.PREOQ Code Breakdown**

LINE NUMBER	DESCRIPTION
00000-00580	Set up program and constants, clear string space, and initialize PR Master. Prompt to run new period initialization and end of month; if NO, end program. Prompt to omit reports and clear QTD data. Open PR Master.
00600-00660	Set up quarterly report headers. Get next employee record until EOF. If total quarterly gross = 0, get next employee record. Accumulate totals and loop back to get next employee record.
00690-00740	Print 941 Summary. Prompt to clear QTD data; if NO, terminate. Close all ISAM files.
00800-00870	Clear fields routine opens PR Detail 2 File, establishes the field for the buffer, gets each record, initializes proper QTD fields, and returns them to the file.
19900-19980	Terminate, close ISAM files, and return to system menu.
20500-20998	Top of page routine
21000-21050	Print headings.
23000-23120	Print 941 headings.
23200-23245	Print total footing per page.
23250-23600	Print 941 Report and state unemployment totals.
30000-30150	Print each employee's accumulated data, social security number, and name. Accumulate number of employees, and QTD and YTD earnings. Compare earnings with federal unemployment limit and add proper amounts to federal unemployment total. Print taxable FICA wages. Get state data, compare earnings with state unemployment limit, and add proper amount to state unemployment total. Print state unemployment wages.
40000-40120	Get and set up Tax File data. Dimension and set up constants. Open Tax File and establish the buffer field. Get and store federal data. Set up and get state data.

680507A

2-8 $A.PREOY - END OF YEAR

2-8-1 $A.PREOY Data Files

#A.PRMST, #A.PRDT1, #A.PRDT2, #A.PRTAX

2-8-2 $A.PREOY Functional Description

$A.PREOY prints all or selected W-2s, clears YTD data fields, and
deletes all inactive employees with a zero balance.

2-8-3 $A.PREOY Code Breakdown

LINE NUMBER	DESCRIPTION
00000-00580	Set up program and constants, clear string space, and initialize Tax File. Prompt to run new period initialization, end of month, and end of quarter; if NO, terminate. Prompt to skip W-2s and clear YTD data; if YES, print a warning and clear YTD data.
00590-00630	Set up W-2. Prompt to print all or specific W-2s and branch to proper routine.
00640-00710	Print specific W-2s. Prompt for employee code. Get employee and state tax data and print W-2. Prompt for more W-2s.
00715-00750	Print all W-2s. Get next employee until EOF. Subtotal each 41st W-2. Print W-2 and add to subtotals and grand totals. Loop back for next employee.
00760-00870	Clear YTD data fields. Prompt to clear YTD data; if NO, terminate. Set up and rewind PR Master. Get next employee until EOF; delete inactive employees. Display "WORKING ON". Clear YTD fields and update the file. Loop back for next employee.
19900-19980	End routine; close ISAM files; return to system menu.
20500-20540	Top of page routine
21000-21050	Print headings.
24000-24145	Set up and load W-2s in print buffer. Print mask to to determine if adjustments are needed. Set at top of form and start printing.
24150-24240	Print W-2 mask.
24500-24650	Print W-2. Get state tax data. Print data for W-2 including state or local tax data.

680507A

2-8-3 $A.PREOY Code Breakdown (continued)

25000-25020   Print final W-2 total; verify if total needed or if it was printed; print total W-2; skip to last of next set.

26000-26110   Print W-2 subtotal.
27000-27020   Print voided W-2.

40000-40120   Get and set up Tax File data; dimension and set up constants. Open Tax File and establish the buffer field. Get and store federal data.

2-9 $A.PREFM - EMPLOYEE FILE MAINTENANCE

2-9-1 $A.PREFM Data Files

#A.PRMST, #A.PRDT1, #A.PRDT2

2-9-2 $A.PREFM Functional Description

$A.PREFM adds (reactivates), changes, or deactivates employees.

2-9-3 $A.PREFM Code Breakdown

LINE NUMBER   DESCRIPTION

00000-00900   Set up program and constants, clear string space, and open PR Master. Display file layout if desired.

00910-00970   Program control loop prompts to add, change, delete, or end an employee, and then branches to proper routine.

01000-01270   Payroll addition routine inputs and verifies department/ employee code. Get employee; if he exists, prompt to reactivate and change fields. Input name, address lines 1 and 2, local and state codes, marital status, federal and state exemptions, social security number, pay period, pay type and rate, insurance decuction, miscellaneous deductions 1 and 2, and date of hire. Zero termination date. If month, quarter, or year data is required, input it; else intitialize these fields. Enable field changes. Update PR Master and loop back for more.

02000-02190   Payroll change routine inputs department/employee code, gets employee, and inputs field number to be changed. Routine prompts for more field changes; if NO, it updates PR Master.

680507A

2-9-3 $A.PREFM Code Breakdown (continued)

03000-03140	Payroll deletion routine inputs department/employee code, gets and verifies employee, and ensures he is active. It prints current record value, totals current fields and does not delete employee if the total is not equal to zero. It prompts to assure deletion, inputs termination date, and marks employee status inactive. Finally, it updates the PR Master.
03200-03320	Employee department change message
19900-19980	Terminate, close ISAM files, and return to system menu.
30000-30030	Input and verify department/employee code.
30100-30120	Input employee name.
30200-30220	Input address line 1.
30300-30320	Input address line 2.
30400-30410	Input local code.
30500-30510	Input state code.
30600-30620	Input marital status.
30700-30710	Input federal exemptions.
30800-30810	Input state exemptions.
30900-30920	Input social security number.
31000-31020	Input pay period.
31100-31120	Input pay type.
31200-31210	Input pay rate.
31300-31310	Input insurance deduction.
31400-31410	Input miscellaneous deduction 1.
31500-31510	Input miscellaneous deduction 2.
31600-31610	Input date of hire.
31700-31710	Input termination date.
31800-31810	Input current month, quarter, or year amounts.
37000-37090	Display the current record value.
40000-40350	Set up constants and dimension arrays.

2-10 $A.PRLST - EMPLOYEE FILE LIST

2-10-1 $A.PRLST Data Files

         #A.PRMST, #A.PRDT1, #A.PRDT2

2-10-2 $A.PRLST Functional Description

         $A.PRLST prints all or personal data for ALL or SELECTED employees.

2-10-3 $A.PRLST Code Breakdown

LINE NUMBER   DESCRIPTION

00000-00525   Set up program and constants; clear string space.

00530-00650   Prompt for run-time parameters. Set up printer or ter-
                minal output, for ALL or PERSONAL data, and for ALL or
                or SELECTED employees.

00660-00700   Print ALL employees routine rewinds files, gets next
                employee until EOF (when it prints totals), prints
                employee details, accumulates totals, and loops back for
                next employee.

00750-00850   Print SELECTED employees routine inputs department/em-
                ployee code data, gets employee, prints his data, and
                prompts for more employees (terminates on NO response).

01000   Prompts for READY to print totals
19900-19999   Terminate, close ISAM files, and return to system menu.

20000-20550   Print employee detail. If printer selected, check paging
                after each employee is printed.

21000-21050   Heading routine
22000-22100   Totaling routine
22500-22660   Print totals routine
40000-40370   Set up constants to print employee details.

2-11 $A.PRLNK - LINKAGE FILE MAINTENANCE

2-11-1 $A.PRLNK Data Files

        #A.PRLNK

2-11-2 $A.PRLNK Functional Description

        $A.PRLNK creates or updates the PR System Link File.

2-11-3 $A.PRLNK Code Breakdown

LINE NUMBER   DESCRIPTION

00000-01160   Set up program and constants, clear string space, print
                header, and prompt and set up the drive to be mounted.

02000-02010   Program control determines whether to create or update,
                and branches to the proper module.

680507A

2-11-3 $A.PRLNK Code Breakdown (continued)

04000-04030   Create and open the file as output. Output first two
              parameters and close the file.

05000-05050   Set up to update file by opening it as input and reading
              all its data. Display header on the screen, accept new
              input and update data in memory. Open the file for out-
              put and write all data. Close file and terminate.

05700-05799   Accept update input subroutine inputs alphanumerics,
              dates, numerics, and YES/NOs using general, date, nu-
              meric, and YES/NO input routines, respectively.

05800-05859   Print header subroutine
05900-05999   Read in data description elements.
19900-19999   Terminate, print report footing, and unload disks.

2-12 $A.PRSYS - PARAMETER FILE MAINTENANCE

2-12-1 $A.PRSYS Data Files

          #A.PRSYS

2-12-2 $A.PRSYS Functional Description

          $A.PRSYS creates or updates the PR System Parameter File.

2-12-3 $A.PRSYS Code Breakdown

          LINE NUMBER   DESCRIPTION

          00000-01160   Set up program and constants, create string space, print
                        header, and prompt and set up drive to be mounted.

          02000-02010   Program control determines to create or update, and
                        branches to the create or update module.

          04000-04020   Create and open file as input. Output the first two
                        parameters and close the file.

          05000-05660   Set up to update file by opening it as input, reading
                        its data, and closing it. Display header on screen. Ac-
                        cept new input and update memory data. Open file as
                        output and write data to file. Close file and terminate.

          05700-05799   Accept update input subroutine inputs alphnumerics,
                        dates, numerics, and YES/NOs using general, date, nu-
                        meric, and YES/NO input routines, respectively.

2-12-3 $A.PRSYS Code Breakdown (continued)

05800-05859   Print header subroutine
05900-05999   Read in data description elements.
19900-19999   Terminate, print report footing, and unload disks.

2-13 $A.PRCRE - PAYROLL FILE CREATION

2-13-1 $A.PRCRE Data Files

#A.PRMST, #A.PRDT1, #A.PRDT2

2-13-2 $A.PRCRE Functional Description

$A.PRCRE creates ISAM headers for Payroll Master and two Detail Files.

2-13-3 $A.PRCRE Code Breakdown

LINE NUMBER   DESCRIPTION

00000-01160   Set up program and constants, clear string space, print
               header, and prompt and set up drive to be mounted.

06000-06310   ISAM create logic prints warning of destruction of data.
               Sets up ISAM, creates Payroll Master and two detail
               files. It prints message when it is completed.

19900-19999   Terminate, print screen footing, and unload disks.

2-14 $A.PRTAX - TAX TABLES MAINTENANCE

2-14-1 $A.PRTAX Data Files

#A.PRTAX

2-14-2 $A.PRTAX Functional Description

$A.PRTAX maintains, creates, or lists federal and state tax tables
required by the Payroll System.

2-14-3 $A.PRTAX Code Breakdown

LINE NUMBER   DESCRIPTION

00000-00400   Set up program and constants, clear string space, open
               and field Tax File.

00405   If Tax File is not created; branch to create routine.

LINE NUMBER	DESCRIPTION
00410-00440	Prompt for list, create, update, or end; if END, terminate; if LIST, CREATE, or UPDATE branch to list, create, or update routine, respectively.
00450-00700	Update federal tax. Prompt for update, and get Tax File record 1 to store federal data. If federal tax isn't updated, set Tax Table variable and exit to state tax update routine. Dispaly federal tax data. Set the date last updated in the Tax File. Input and edit federal ID number, FICA percent and limit, federal exemption allowance and unemployment limit, and standard work week and other hourly rates. Set table variable and postscript. Update federal data in record 1.
00720-00870	Prompt to update federal tables; if NO, branch to update state code. Get and display federal table single (record 2). Update and write to file federal table single. Get and display federal table married (record 3). Update and write to file federal table married.
00880-00980	Prompt to change or create state/local code. Get state/local record and detail data to update. If tables are attached, branch to table update routine; else, update state/local data on the disk. Prompt for more state/local codes. Update table variable in federal data record (record 1) and set postscript to "TAX".
01000-01110	Update state/local tax tables. Prompt to update state/local tables; if NO, update disk state data and return. Set state table single pointer. Get and display state table single. Update and write to the disk state table single. Get and display state table married. Update and write to the disk state table married.
02000-02090	Print federal data; set paper to top of page. Prompt to print federal data; if NO, branch to print state data routine. Print header. Get and print federal tax data and federal table single. Get and print federal tax table married. Fall through to print state data routine.
02100-02204	Print state information routine prompts for all, specific, or no state data prints; if NO, return; if ALL, set flag and branch to print all states routine. Prompt for specific state/local code to print. Check for end. Get state record. Check for page space, and print state data. If state tables are attached, get and print single and married tables. Loop for more.

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02250-02320    Print all states routine displays "WORKING ON", gets
               state, looks for available state data and page space,
               and prints state data.  If tables are attached, it gets
               and prints state table single and married, and loops.

10000-10070    Print table routine
12000-12090    Input and update table values routine

14000-14060    Get and decode state/local data, set record number, and ·
               get record. Change variables from buffer to usable form.

16000-16380    If LIST chosen, print state data; else, prompt for in-
               put and update all state tax data.

17000-17020    Print numerics or input state tax data.
17100-17120    Print numeric range or input state tax data.
17200-17240    Print alphanumerics or input state tax data.

18000-18120    Create Tax File routine warns user and provides a branch
               before initializing first 40 records of Tax File.

19900-19980    Terminate and return to system menu.
21000-21020    Header routine for LIST option

40000-40210    Get table routine dimensions variables, opens files,
               fields buffer, displays table header, and sets up format
               variables and functions (FNB=read bit, FNS=set bit, and
               FNC=clear bit).
```

2-15 $A.PRGLI - GL INTERFACE FILE MAINTENANCE

2-15-1 $A.PRGLI Data Files

        #A.PRGLI

2-15-2 $A.PRGLI Functional Description

        $A.PRGLI maintains or creates the GL interface data.

2-15-3 $A.PRGLI Code Breakdown

```
LINE NUMBER    DESCRIPTION
-------------------------------------------------------------------
00000-00533    Set up program and constants, and clear string space.
               If help is needed, display Help File message.  Prompt
               to create, or update and set Process Flag.
```

00535-00590   Set up display screen. Perform input loop 28 times. Up-
               date disk file and terminate.

01000-01090   Input loop prints standard prompts and optional '*'
               codes and accepts inputs.

02000-02030   Update disk file.

19900-19980   Terminate and return to system menu.

40000-41010   Set up screen display and header constants. Read data
               for the standard account names. If creating file,
               branch out; else, open GLI File, read it from disk,
               and prepare to update it.

680507A

SECTION 3

SORTED CROSS-REFERENCE AND VARIABLE DEFINITION

3-1   PR MENU

3-1-1   PR MENU Variable Description

Variable	Description
DK%(	Disk drive that programs are stored on
FS	See common routines
I	General index
IM	Menu Index
IP	Flag for program to run
M$	Description of P$
M$(	Menu
MM$	NM-1 (allows menu to be read)
N1$-N5$	Common File and program names
NM	Used to read through the submenu
NM$	Holds selection in submenu
P$	Holds selection in main menu
P$(	Holds selection in submenu
PN$	Program title
PP$	Menu headings; holds PN$; indicates start of menu subsection
Q	See common routines
Q$	See common routines
QT	See common routines
R$	See common routines
RA	Flag
RL	See common routines
SC$	Clear screen code
TP$	Menu selected
VD$	Current date
VT$	Disk type (H for hard or F for floppy)

680507A

PR MENU - Variable Cross Reference

Variable	References
#1	2010
DK%	2010
I	1014, 1086, 1089, 1092, 1105, 1106, 1108, 1110, 1120, 1130, 1135, 1137, 1140, 1160, 1164, 1166, 1168, 1170, 1180, 1185, 1190, 2122, 2226
IM	320, 1089, 1095, 2010
IP	1089, 2010
M$	2118
M$(	2120, 2122, 2226
MM$	2116, 2124
N1$	2000
NM	1014, 1086, 2116, 2120, 2122, 2226
NM$	2116
P$	2118
P$(	1014, 1089, 2120, 2122, 2226
PN$	2108, 19950
PP$	330, 1080, 2108, 2114
Q	1010, 1084, 1900
Q$	1000, 1082, 1900, 2000, 2010
QT	1010, 1084, 1900
R$	1012, 1013, 1014, 1089, 1095, 1920
RA	2118, 2120
RL	1910
SC$	2108

680507A

3-1-2   PR MENU - Variable Cross Reference (continued)

Variable   References

SET   19960

TP$ 2114

VD$ 1920, 2010

VT$ 1080, 1100

680507A

3-2 $A.PRNEW

3-2-1 $A.PRNEW Variable Description

Variable	Description
A#	Earnings
A#(	Array that holds numeric data in Detail Files
A$(	Array that holds alphanumeric data in PR Files
BELL$	Terminal Bell
ER%	See common routines
FNSD!(	See common routines
FS	See common routines
FS%	Flag set for first retrieve
I	General index
J	General index
N1$-N5$	Common file and program names
PN$	Program title
PP$	Menu headings; holds PN$; indicates start of menu subsection
Q	See common routines
Q$	See common routines
RL$	See common routines
U1$	Format string
VO$	See common routines
YES	See common routines

3-2-2 $A.PRNEW - Variable Cross Reference

Variable References

A#   600, 610, 650

A#(600, 22030, 22040, 40000

A$(570, 580, 590, 610, 620, 640,
          665, 22000, 22010, 40000

BELL$ 630

ER%   560

FNSD!(22000

FS%   550

I   630, 22020, 22030

J   22020, 22030, 22040

PN$ 19950

PP$ 540, 575, 580, 700

Q   520, 660, 710, 19960

Q$ 520, 660, 700, 19960

RL$ 530, 540

U1$ 650, 40010

VO$ 590, 665

YES   660, 710

3-3 $A.PRPAY

3-3-1 $A.PRPAY Variable Description

Variable	Description
A#	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
AO#	Amount over minimum
BELL$	Terminal Bell
BL	Variable for user defined function
CA	Flag to calculate ALL employees pay
D#	Deduction
D$	Fielded string in the Tax File
DK%	Main data disk drive
E#	Number of exemptions times exemption amount per dependent
EI$	Set to entered data
ER%	See common routines
EXEM#	Federal exemption allowed
F8%	Flag for determining calculations
FI$	Federal ID
FMAX#	FICA limit
FNB(	Function used to read a bit
FNID#(	See common routines
FNRO#(	Function used to round up to the cents level
FNSD!(	See common routines
FPER	FICA percent
FRT	Other hours rate
FS	See common routines
FS%	Flag set during first retrieve of Employee File
FWK	Standard workweek
GE#	Gross earnings
GR	Used to locate state or local code record
GT#	Percent or amount for standard deduction
I	General index
IC	State code
IL	Marital status
KEY$	Key used to access an ISAM file
LB!	See common routines
MA#(	Dimensioned area used to calculate state and local tax
MM#(	Dimensioned area used to calculate state and local tax
MO!(	Dimensioned area used to calculate state and local tax
N!	See common routines
N1$-N5$	Common program and file names
NE	Number of exemptions

OH!	Other hours
P1	Flag to read Employee File
PN$	Program title
PP$	Pay period
PT$	Paid through date
Q	See common routines
Q$	See common routines
QS	See common routines
R$	See common routines
RH	Current regular hours
RI	See common routines
RL	See common routines
RL$	See common routines
SA#(	Dimensioned area in Tax File
SC$	See common routines
SLIM#	California SDI limit
SM#(	Dimensioned area in Tax File
SO!(	Dimensioned area in Tax File
SPER	California SDI percent
SR	Locates values in the tax table
ST%	Flag to indicate state or local tax
TO$(	Array to hold percent over minimum in tax table
TA$(	Array to hold amount in tax table
TB	Location in tax table (single)
TC	State or local code
TF	Location in tax table (married)
TF$	Holds value from first record of Tax File
TF$(	Array to hold value from first record of Tax File
TI$	ID number
TM$	Array to hold range minimum for tax table
TN$	String name
TQ#	Accumulated deductions
TT#	Amount of FICA deduction
TX#(	Holds value in Tax File
TX$	Holds values in Tax File (records 31-40)
TX%(	Flags used in Tax File
UB!	See common routines
VD$	See common routines
VH	Current overtime hours
WC	Set to times payroll is to be calculated per year
WT#	Withholding

$A.PRPAY Variable Description (continued)

XX#	Used in rounding function
XY#	Used in rounding function
YES	See common routines
YGE#	YTD gross earnings

3-3-2 $A.PRPAY - Variable Cross Reference

Variable   References

#5   7500, 8010, 40030, 40040, 40050, 40060,
            40110, 40130, 40150, 40170

A#(2045, 2050, 2060, 2070, 2520, 2535,
            2540, 2550, 3000, 3020, 3025, 3040, 3060,
            5000, 5008, 5010, 5020, 5030, 5035, 5042,
            5047, 5057, 5070, 5072, 5080, 5100, 5110,
            5130, 5140, 5320, 5330, 5340, 5350, 5360,
            5370, 6110, 7000, 7100, 7560, 7590, 7740,
            7750, 7810, 7820, 7870, 40000

A$(720, 730, 825, 827, 830, 840,
            850, 900, 910, 1000, 1010, 1080, 1090,
            1100, 1120, 2000, 2020, 2025, 2030, 2040,
            2050, 2060, 2070, 2200, 2210, 2520, 2540,
            2550, 3000, 3020, 5069, 5070, 5072, 5080,
            5100, 5130, 6010, 6020, 6030, 6040, 6045,
            6050, 6060, 7000, 7100, 7610, 7660, 7670,
            7695, 8010, 9105, 9210, 9230, 40000

AO#   8060, 8070

BELL$ 884, 920, 30000

BL   40200

CA   650, 680, 1020, 2000, 2500, 3000,
            5002, 5040, 5070, 5080, 5310

D#   5008, 5042, 5047, 5057, 5072, 5320

D$ 40050, 40060, 40110

DK%   40020

E#   7680, 7690, 7695, 7720, 7790

EI$ 2045, 2530, 3050, 40195

ER%   710, 820, 1110, 6043, 7860

EXEM#   6050, 40130

F8%   5042, 6044

FI$ 40140

Variable	References
FMAX#	5010, 5030, 40130
FNB(	7540, 40200
FNID#(	2050, 2060, 2070, 2520, 2540, 3000, 3020, 7530, 8030, 8040, 8060, 8070, 40130, 40150, 40170
FNRO#(	2050, 2060, 2070, 5035, 5370, 6110, 7840, 40190
FNSD!(	1120
FPER	5010, 5020, 5030, 40130
FRT	2070, 40140
FS%	700, 810
FWK	2200, 2210, 40140
GE#	1120, 5000, 5020, 5350, 5360, 6000, 7580, 7860
GR	7500
GT#	7620, 7630, 7640, 7710, 7780, 9210, 9230
I	884, 920, 6080, 6081, 6100, 6200, 6220, 6221, 6230, 7530, 7535, 7540, 8020, 8030, 8040, 8050, 8060, 8070, 30000, 40110, 40150, 40160, 40170, 40180
IC	7000, 7100, 7500, 7615, 7832
IL	7610, 7620
KEY$	700
LB!	2010
MA#(	6230, 40015, 40170
MM#(	6200, 6230, 40015, 40170

```
Variable  References
-----------------------------------------------------------
MO!(      6230, 40015, 40180

N!        2025, 2030, 2040

NE        7660, 7670, 7680, 7690, 9100, 9105,
          9110

OH!       2000, 2040, 2070

P1        800, 820, 825, 850

PN$       19950

PP$       610, 725, 730, 835, 840

PT$       630, 1120

Q         540, 580, 620, 650, 680, 750,
          780, 930, 960, 1030, 2010, 2045, 2510,
          2530, 3010, 3030, 3050, 5007, 5041, 5046,
          5056, 5071, 5090, 5120, 5310, 19960

Q$        530, 580, 620, 640, 680, 750,
          770, 930, 950, 1030, 2010, 2030, 2040,
          2045, 2510, 2530, 3010, 3030, 3050, 5007,
          5041, 5046, 5056, 5071, 5090, 5120, 5310,
          19960

QS        620

R$        630, 650, 670, 700, 2045, 2520,
          2535, 3025, 3040, 3060, 5110, 5130, 5140

RH        2000, 2020, 2025, 2050, 2200, 2210

RI        620

RL        630, 685, 690, 2020, 2520, 3020,
          5008, 5042, 5047, 5057, 5072, 5100, 5320

RL$       600, 610

SA#(      6100, 40010, 40150

SC$       675, 850, 870
```

3-3-2 $A.PRPAY - Variable Cross Reference (continued)

Variable	References
SLIM#	5340, 5350
SM#(	6080, 6100, 40010, 40150
SO!(	6100, 40015, 40160
SPER	5350, 5360
SR	7500, 7510, 7520, 7530, 7550
ST%	7000, 7100, 7560, 7590, 7615, 7832, 7870
TO$(	8070, 40010, 40110, 40160, 40180
TA$(	8070, 40010, 40110, 40150, 40170
TB	7550, 8010
TC	7520
TF	7520, 40200
TF$	40150
TF$(	40010, 40030, 40130, 40140
TI$	7520
TM$(	8030, 8040, 8060, 40010, 40110, 40150, 40170
TN$	7520
TQ#	5020, 5030
TT#	5020, 5030, 5035
TX#(	7530, 7535, 7620, 7630, 7640, 7690, 7695, 7770, 9210, 9230, 40010
TX$(	7520, 7530, 7550, 40010, 40040, 40050, 40060
TX%(	7540, 7560, 7580, 7620, 7670, 7710, 7720, 7730, 7740, 7750, 7760, 7780, 7790, 7800, 7810, 7820, 9200, 40010

$A.PRPAY - Variable Cross Reference (continued)

Variable	References
UB!	2010
VD$	630
VH	2000, 2030, 2060
WC	6010, 6020, 6030, 6040, 6045, 6110, 7580, 7595, 7740, 7750, 7810, 7820, 7835
WT#	6000, 6045, 6050, 6080, 6100, 6110, 6200, 6230, 7580, 7590, 7595, 7620, 7710, 7720, 7740, 7750, 7755, 7770, 7780, 7790, 7810, 7820, 7835, 7840, 7850, 7860, 7870, 8030, 8060, 8070, 9105, 9110
XX#	40190
XY#	40190
YES	540, 760, 780, 940, 960, 1040
YGE#	5330, 5340, 5350

3-4 $A.PRREG

3-4-1 $A.PRREG Variable Description

Variable	Description
A#(	Array to hold numeric data in Detail Files
A$(	Array to hold alphanumeric data in PR Files
A(	Dimensioned string used to convert strings to numbers
D#(	Department totals
ER%	See common routines
FNID#(	See common routines
FS	See common routines
FS%	Flag set for first retrieve
G#(	Grand totals
H#(	Dollars (earnings and deductions)
H$(	Dimensioned string used to print check numbers
I	General index
I1$	Input string
LC	Line counter
LP	Report To Printer Flag
LS	Initialized variable
N(	Array to hold check numbers
N1$-N5$	Common program and file names
PG	Page number
PN$	Program title
PP$	Pay period
Q	See common routines
Q$	See common routines
QT	See common routines
RL$	See common routines
SC$	See common routines
T1(	Tab
T2(	Tab
TIME	Flag to determine when department changes
U1$	Format string
YES	See common routines
Z$(	Holds variable name for check register
Z1$	Holds heading
Z2$	Holds heading

$A.PRREG - Variable Cross Reference

Variable	References
A#(	850, 1140, 40010
A$(	740, 760, 800, 840, 40000
A(	22020, 22040, 22060, 22080, 23070, 40000, 40500
D#(	940, 1020, 1130, 2000, 24120, 25040, 40000
ER%	720, 1080
FNID#(	23030
FS%	700
G#(	1020, 1130, 2000, 25040, 40000
H#(	850, 1140, 22080, 40010
H$(	800, 840, 1150, 22020, 22040, 23000, 23020, 23030, 23070, 24000, 40000
I	840, 850, 940, 1020, 1130, 1140, 1150, 2000, 21520, 22000, 22020, 22040, 22060, 22080, 22100, 23060, 23070, 23080, 23100, 23120, 24060, 24080, 24100, 24120, 24140, 24200, 25040, 40500
I1$	550, 1090
LC	510, 930, 21540, 23140, 24220
LP	510, 550, 600, 930, 1040, 1060, 1090, 1110, 19920, 21505, 21510, 24220, 25080
LS	510
N(	910, 940, 1130, 22020, 22040, 22080, 22120, 22140, 22160, 23080, 40000
PG	510, 21505, 21510
PN$	19950
PP$	528, 750, 760

3-4-2 $A.PRREG - Variable Cross Reference (continued)

Variable	References
Q	520, 540, 1120, 19960
Q$	520, 530, 1110, 19960
QT	540, 1120
RL$	525, 528, 550, 560
SC$	600
T1(	23080, 40000, 40500
T2(	24100, 40000, 40500
TIME	820, 1160
U1$	23075, 23080
YES	1120
Z$(	23070, 23080, 24100, 40000, 40500
Z1$	23050, 41000
Z2$	24040, 41010

680507A

3-5 $A.PRCKS

3-5-1 $A.PRCKS Variable Description

Variable	Description
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
AA#	Net amount for check
AMT$	Amount of check
AP$	Temporary variable used in special algorithm
BELL$	Terminal bell
BP$	Temporary variable used in special algorithm
CD$	Check written date
CN	Check number
D$(	Holds digits 1-9
ER%	See common routines
FA$	Formatted string used to print totals
FD$	Formatted string used to print totals
FF%	Flag set true before record is restored
FH$	Formatted string
FNDS$(	See common routines
FNID#(	See common routines
FR$	Formatted string
FS	See common routines
FS%	Flag set if all checks are to be written
I	General index
KEY$	Key used to access an ISAM file
LO	Temporary variable used for special algorithm
LB!	See common routines
LC	Line counter
LP	Report To Printer Flag
MS%	Mask Flag
N!	See common routines
N1$-N5$	Common program and file names
OP$	Output string returned from special algorithm
PD$	Paid thru date
PN$	Program title
PP$	Pay period
Q	See common routines
Q$	See common routines
R$	See common routines
RL$	See common routines
T$(	Holds digits 10-19
TC	Total number of checks written

56

$A.PRCKS Variable Description (continued)

TD#	Total deductions
TE#	Total earnings
TH$(	Holds digits hundreds - billions
TS$(	Holds digits 20's and up
U1$	Formatted string used to print numeric amount on the check
UB!	See common routines
WL	Temporary variable to hold length in special algorithm
WS$	Temporary variable used for special algorithm
YES	See common routines
Z1$-Z9$	Headings for check stub

3-5-2 $A.PRCKS - Variable Cross Reference

Variable	References
A#(	22060, 22080, 22100, 22220, 22300, 22320, 22340, 22360, 22380, 40000
A$(	750, 1230, 1234, 2110, 2113, 22000, 22020, 22040, 22400, 23020, 24080, 24120, 24140, 24180, 27000, 40000
AA#(	1245, 1250, 1270, 2125, 2130, 2150, 22000, 22020, 22040, 22060, 22080, 22100, 22120, 22220, 22230, 22260, 22265, 22272, 22300, 22320, 22340, 22360, 22380, 23120, 23140, 23160, 23180, 23200, 23240, 23260, 23400, 23440, 23640, 24070, 28000, 40000
AMT$	28000, 28010, 28020, 28030, 28090, 28120, 28150, 28180, 28200, 28220, 28230
AP$	28270, 28274
BELL$	27020
BP$	28270, 28272, 28274, 28276
CD$	880, 24060
CN	940, 24020, 24180, 24500
D$(	28290, 28320, 41140
ER%	1200, 2100
FA$	200, 9060, 9100, 9140, 23180, 23200, 23240, 23260, 23440, 23640
FD$	200, 23140, 23160, 23400
FF%	1265, 2145
FH$	200
FNDS$(	22400
FNID#(	22000
FR$	200, 23120

$A.PRCKS - Variable Cross Reference (continued)

Variable   References

FS%   1200, 2080

I   1270, 2150, 22200, 22220, 22230, 22240,
            23380, 23400, 23420, 23620, 23640, 27020, 28020,
            28030, 28040, 28060, 28272, 28274, 41140, 41150,
            41160, 41170

KEY$ 2060

L0   28270, 28272

LB!   940

LC   500

LP   19920, 23000, 24520

MS%   760, 24175

N!   940

OP$ 28000, 28060, 28070, 28090, 28130, 28160,
            28190, 28270, 28272, 28274, 28280, 28290, 28300,
            28310, 28320

PD$ 22400, 23600

PN$ 19950

PP$ 995, 1232, 1234, 2111, 2113, 2190

Q   640, 720, 760, 880, 940, 980,
            1030, 2020, 2180, 2190, 19960

Q$ 600, 720, 760, 860, 920, 980,
            1000, 2000, 2160, 2190, 19960

R$ 880, 940, 2020, 2050, 2060

RL$ 680, 740, 990, 995, 1040, 1060

T$(28280, 41150

TC   9020, 24500

TD#   9100, 9140, 22272

Variable   References

TE#   9060, 9140, 22272

TH$(28000, 28070, 28090, 28130, 28160, 28190,
           28270, 28310, 41170

TS$(28300, 41160

U1$ 200, 24070

UB!   940

WL   28220, 28230

WS$ 28000, 28030, 28040, 28050, 28060, 28090,
           28120, 28130, 28150, 28160, 28180, 28190, 28230,
           28240, 28250, 28280, 28290, 28300, 28310, 28320

YES   640, 770, 2180, 2200

Z1$ 23060, 41000

Z2$ 23080, 41010

Z3$ 23100, 41020

Z4$ 23320, 41030

Z5$ 23340, 41040

Z6$ 23360, 41050

Z7$ 23520, 41060

Z8$ 23540, 41070

Z9$ 23560, 41080

3-6 $A.PREOM

3-6-1 $A.PREOM Variable Description

Variable	Description
A#	Holds MTD data fields
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
AT#	Holds MTD total
AT#(	Array to hold MTD total fields
AT(	Array to hold number of active or inactive employees
BELL$	Terminal bell
CT#	Credit totals
D$	Used to zero fields
DA#(	Array used to total amounts for GL transfer
DK%	See common routines
DT#	Debit totals
ER%	See common routines
F$	Used to clear fields
FNDI$(	See common routines
FNID#(	See common routines
FNSD!(	See common routines
FS	See common routines
FS%	Flag to indicate files being read
FUL#	Federal unemployment limit
FUL$	Federal unemployment limit
GA$(	Array to hold account numbers
GC$(	Array to hold department code
GD#(	Holds GL debits
GD$(	Holds GL debits
GR	Locates state record code in file
GS	Locates state record code in file
I	General index
IC	State code
IZ	Used to print bell alarm
J	General index
J1$-J7$	Fielded areas used to update GL Transfer File
LC	Line counter
LP	Report To Printer Flag
N	Indicates a record or an ISAM node
N$	Indicates a record or an ISAM node
N1$-N5$	Common program and file names
P$(	Dimensioned array
PC	Page counter

680507A

3-6-1 $A.PREOM Variable Description (continued)

PD$	Posting date
PL	Page length
PN$	Program title
PO#(	Used to print Unemployment Tax Report
PO$(	Used to print Unemployment Tax Report
Q	See common routines
Q$	See common routines
QS	See common routines
R$	See common routines
RI	See common routines
RL	See common routines
SR	Locates state record code
SUMAX#	State unemployment maximum
SW#	Salary withheld
T$	Fielded area in Detail File
TD	Total other hours
TH	Total hours
TI#	Total income
TQ#	Total quarterly earnings
TV	Total overtime hours
TX$	Used to clear fields
TX$(	Holds alphanumeric data in Tax File
TY#	Total YTD earnings
U1$	Formatted string
UT#	Unemployment tax wages
UT#(	Unemployment tax wages
V$(	See common routines
VD$	See common routines
VO$	See common routines
YES	See common routines
Z$	Used to clear headings for the report
ZC$	Holds report heading
ZD$	Holds '-' for the social security number

$A.PREOM - Variable Cross Reference

Variable	References
#1	820, 830, 840
#5	23550, 25140, 28070, 28090, 28120, 28130, 28220, 28225, 28310
A#	700
A#(	25010, 25020, 25100, 25110, 40000
A$(	625, 25000, 25005, 25040, 25070, 25120, 25180, 40000
AT#	750
AT#(	25010, 26100, 26110, 26120, 28240, 28250, 40000
AT(	25000, 26050, 26060, 40000
BELL$	540, 25060
CT#	22060, 22120
D$	820, 840, 28120, 28130
DA#(	25040, 25060, 28010, 28260
DK%	810, 22200, 28000, 28110, 28206
DT#	22070, 22110
ER%	620, 28060
F$	820, 840
FNDI$(	820, 28280, 28285
FNID#(	25150, 28140
FNSD!(	28225, 28230
FS%	610
FUL#	25190, 25200, 28140
FUL$	28130, 28140

3-6-2 $A.PREOM - Variable Cross Reference (continued)

Variable References

GA$(22040, 28010, 28050, 28070, 28090, 28300

GC$(22035, 22050, 25040, 25080, 28010, 28030,
          28040, 28090, 28295

GD#(22035, 22060, 22070, 28010, 28240, 28250,
          28260, 28270, 28275, 28277, 28280, 28285

GD$(28010, 28280, 28285, 28300

GR   23540, 23550, 25140

GS   25130, 25140

I   540, 830, 840, 850, 20510, 22035,
          22040, 22050, 22060, 22070, 23520, 23530, 23540,
          23550, 23590, 25010, 25030, 25040, 26090, 26100,
          26110, 26120, 28030, 28040, 28050, 28060, 28070,
          28080, 28090, 28260, 28270, 28275, 28280, 28285,
          28290, 28295, 28300, 28310

IC   25120, 25130

IZ   25060

J   23520, 23550, 23560, 23580, 23590

J1$ 28220, 28225, 28300

J2$ 28220, 28230

J3$ 28220, 28230

J5$ 28220, 28295

J6$ 28220, 28225, 28230

J7$ 28220, 28300

LC   20500, 20510, 20520, 20530, 21030, 22040,
          22130, 23520, 23580, 26130

LP   19910, 21040, 22000, 23600, 26030, 26150

N   830, 840

Variable	References
N$	820, 830
P$(	40000
PC	20520, 20530, 21040, 26030
PD$	22040, 28200, 28204, 28230
PL	20500, 20510, 40005
PN$	19950
PO#(	23520, 23550, 23570, 23580
PO$(	23520, 23550, 23570, 23580
Q	504, 506, 520, 570, 740, 19960, 26010, 28204
Q$	502, 520, 570, 730, 19960, 26010, 28202
QS	28204
R$	26020, 28204
RI	28204
RL	28204
SR	23540, 23550, 25130, 25150
SUMAX#	25150, 25160, 25170
SW#	25160, 25170, 25180
T$	820
TD	25005
TH	25005
TI#	25020, 25040, 25060
TQ#	25110, 25160, 25170, 25190, 25200

3-6-2 $A.PREOM - Variable Cross Reference (continued)

Variable References

TV   25005

TX$ 750

TX$(23550, 25150, 28110, 28120

TY#   25100, 25160, 25170, 25190, 25200

U1$ 22060, 22070, 22110, 22120, 22170, 23570,
          23580, 26100, 26110, 26120, 40050

UT#   750

UT#(22170, 23530, 23550, 25180, 25190, 25200,
          40000

V$(25060, 28000, 28055, 28200, 28290

VD$ 28200, 28204, 28225

VO$ 625

YES   504, 520, 570, 740

Z$ 700

Z$(26090, 40000, 40060, 40070, 40075, 40080,
          40090, 40100, 40110, 40120, 40130, 40140, 40150,
          40155

ZC$ 26080, 40160

ZD$ 40170

3-7 $A.PREOQ

3-7-1 $A.PREOQ Variable Description

Variable	Description
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
AF#	Adjusted total of FICA wages
AJ#	Adjustment
BELL$	Terminal bell
D$	Used to zero fields
DK%	See common routines
DQ$	Date quarter ended
EF	Set to total quarterly earnings
EF#	Set to total quarterly earnings
ER%	See common routines
F$	Used to clear fields
FI$	ID number
FMAX#	FICA limit
FNDI$(	See common routines
FNID#(	See common routines
FPER	FICA percent
FS	See common routines
FUL#	Federal unemployment limit
FUL$	Federal unemployment limit
GE	Grand total employees
GF#	Grand total FICA taxes
GR	Locates state record code in file
GS	Locates state record code in file
GW#	Grand total wages
I	General index
IC	State code
J	General index
LC	Line counter
LP	Report To Printer Flag
N	Indicates a record or an ISAM node
N$	Indicates a record or an ISAM node
N1$-N5$	Common program and file names
PC	Page counter
PL	Page length
PN$	Program title
PO#(	Used to print Unemployment Tax Report
PO$(	Used to print Unemployment Tax Report
PT%	Flag for printing totals

680507A

Q	See common routines
Q$	See common routines
Q4#	Set to items on 941 Report
Q5#	941 Report items (income and total income withheld)
R$	See common routines
RL	See common routines
SF	State unemployment wages
SF#	State unemployment wages
SMAX#	State unemployment maximum limit
SR	Locates state record code
T$	Fielded area in Detail File
TE	Total employees
TF#	Total FICA wages on one page of 941 Report
TF$	Dimensioned area in Tax File
TF$(	Holds one of nine fields in Tax File
TS#	Total quarterly earnings
TW#	Total wages on one page of 941 Report
TX$(	Holds alphanumeric data in Tax File
TY#	Total YTD earnings
U1$-U4$	Formatted strings used for printing totals
UT#(	Unemployment tax wages
V$(	See common routines
YES	See common routines

$A.PREOQ - Variable Cross Reference

Variable	References
#1	830, 850, 860
#5	23550, 30070, 40040, 40050, 40070
A#(	630, 30020, 30022, 30120, 40000
A$(	30000, 30010, 30050, 40000
AF#	23450, 23470, 23490
AJ#	23440
BELL$	540
D$	830, 860, 40070
DK%	810, 40030
DQ$	23040, 23070, 23260
EF	30040
EF#	30030, 30034, 30040, 30120
ER%	620
F$	830, 860
FI$	23080, 40050
FMAX#	30030, 30034, 40050
FNDI$(	830
FNID#(	30080, 40050
FPER	23390, 40050
FUL#	30024, 30026, 40050
GE	23240
GF#	23240, 23380, 23390, 23400, 23420, 23440
GR	23540, 23550, 30070

680507A

3-7-2 $A.PREOQ - Variable Cross Reference (continued)

Variable References

GS   30060, 30070

GW#   23240, 23320

I   540, 850, 860, 870, 20510, 23520,
          23530, 23540, 23550, 23590

IC   30050, 30060, 30110, 30130

J   23520, 23550, 23560, 23580, 23590

LC   20500, 20510, 20520, 20530, 21030, 23120,
          23245, 23490, 23520, 23580, 30130, 30140

LP   19910, 21040, 23050, 23600

N   850, 860

N$ 830, 850

PC   20520, 20530, 21040, 23050, 23060, 23070,
          23250, 23490

PL   20500, 20510, 40010

PN$ 19950

PO#(23520, 23550, 23570, 23580

PO$(23520, 23550, 23570, 23580

PT%   690, 23245, 30150

Q   504, 506, 520, 570, 730, 19960,
          23020, 23040

Q$ 502, 520, 570, 720, 19960, 23010,
          23030

Q4#   23440, 23450, 30120

Q5#   23340, 23360, 23490, 30120

R$ 23040

RL   23040

$A.PREOQ - Variable Cross Reference (continued)

Variable	References
SF	30100
SF#	30090, 30092, 30100, 30130
SMAX#	30080, 30090, 30092
SR	23540, 23550, 30060, 30080, 30110
T$	830
TE	23230, 23240, 30010
TF#	23220, 23240, 30120
TF$	40060
TF$(	40000, 40040, 40050
TS#	30020, 30024, 30026, 30030, 30034, 30090, 30092, 30105, 30120
TW#	23220, 23240, 30120
TX$(	23550, 30080, 30110, 40060, 40070
TY#	30022, 30024, 30026, 30030, 30034, 30090, 30092
U1$	23320, 23340, 23360, 23380, 23400, 23420, 23440, 23470, 23490, 23507, 23570, 23580, 40020
U2$	30040, 30100, 40020
U3$	30105, 40020
U4$	23220, 40020
UT#(	23507, 23530, 23550, 30024, 30026, 30130, 40000
V$(	23070, 23080
YES	504, 520, 570, 730

3-8 $A.PREOY

3-8-1 $A.PREOY Variable Description

Variable	Description
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
BELL$	Terminal bell
BT#(	Array to hold numeric data for printing W-2s
D$	Used to zero fields
DK%	See common routines
ER%	See common routines
FI$	ID number
FMAX#	FICA limit
FNID#(	See common routines
FPER	FICA percent
FS	See common routines
FUL#	Federal unemployment limit
GR	Locates state code in record
GS	Locates state code in record
I	General index
IC	State code
J	General index
KEY$	Key used to access an ISAM file
KH$	Set to record key
LC	Line counter
LP	Report To Printer Flag
MA#(	Dimensioned area
MM#(	Dimensioned area
MO!(	Dimensioned area
N1$-N5$	Common program and file names
NM%	Flag to indicate mask has been printed
NP%	W-2 page counter
PC	Page counter
PL	Page length
PN$	Program title
Q	See common routines
Q$	See common routines
R$	See common routines
SA#(	Dimensioned area in Tax File
SF	Flag used to print code on W-2s
SM#(	Dimensioned area in Tax File
SO!(	Dimensioned area
SR	Used in state ID number

ST%	Flag to indicate subtotal printed
T#	Total wages
TO$(	Array to hold percent over minimum in Tax File
TA$(	Array to hold amount in Tax File
TF$(	Array to hold federal data from Tax File
TM$(	Array to hold range minimum in Tax File
TP%	Flag to indicate all W-2s printed
TX#(	Array to hold numeric data in Tax File
TX$(	Holds alphanumeric data in Tax File
TX%	Dimensioned area
U1$	Formatted string
V$(	See common routines
VO$	See common routines
X	Determines number of masks and W-2s printed
X#	Set to total wages or maximum FICA limit
X$	Used to print Xs on mask
YES	See common routines
ZD$	Used to print '-' in social security number

3-8-2 $A.PREOY - Variable Cross Reference

```
Variable   References
-----------------------------------------------------------
#5         24504, 24615, 40030, 40040, 40050, 40060,
           40100

A#(        850, 24540, 24545, 24560, 24600, 24620,
           40000

A$(        830, 840, 24500, 24530, 24590, 24612,
           24613, 40000

BELL$      540

BT#(       24540, 24545, 24560, 24570, 26050, 26060,
           26070, 26080, 26100, 40000

D$         40050, 40060

DK%        40020

ER%        670, 730, 820

FI$        24520, 26040, 40100

FMAX#      24565, 40100

FNID#(     40100

FPER       40100

FUL#       40100

GR         24504, 24615

GS         24502, 24504, 24614, 24615

I          540, 850, 20510, 26090, 26100, 27000,
           27020

IC         24500, 24502, 24613, 24614

J          24080, 25020

KEY$       660, 810, 830

KH$        810, 830

LC         20500, 20510, 20520, 20530, 21030
```

Variable	References
LP	21040
MA#(	40015
MM#(	40015
MO!(	40015
NM%	24050, 24075
NP%	735, 740, 25000, 25010, 26110
P	740
PC	20520, 20530, 21040
PL	20500, 20510
PN$	19950
Q	504, 506, 520, 570, 610, 640, 690, 780, 19960, 24010, 24060
Q$	504, 520, 570, 600, 640, 690, 770, 19960, 24010, 24060
R$	620, 630, 650, 660
SA#(	40010
SF	24500, 24611, 24613, 24635
SM#(	40010
SO!(	40015
SR	24502, 24509, 24611, 24614, 24635, 26010
ST%	25000, 26000
T#	24545, 24550, 24565, 24610, 24630
TO$(	40010
TA$(	40010

$A.PREOY - Variable Cross Reference (continued)

Variable	References
TF$(	40010, 40030, 40100
TM$(	40010
TP%	740
TX#(	40010
TX$(	24509, 24611, 24635, 26010, 40010, 40040, 40050, 40060
TX%(	40010
U1$	24540, 24550, 24560, 24570, 24600, 24610, 24620, 24630, 26050, 26060, 26070, 26080, 40110
V$(	24510, 26020, 26030
VO$	840
X	24075, 24080, 25010, 25020
X#	24565, 24570
X$	24150, 24160, 24170, 24180, 24190, 24210, 24220, 40110
YES	504, 530, 570, 700, 780, 24070
ZD$	24530, 40110

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680507A

3-9-1 $A.PREFM Variable Desciption

Variable	Description
A#	Total current earnings
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
A1$	Contains department number
A2$	Contains employee number
B1$-B3$	Set up as 128 byte string
C$(	Holds prompt messages for personal data
CE$	Prompt message 'ENTER'
CV$	Prompt message 'CURRENT VALUE'
ER%	See common routines
FC	Maintenance code (A, C, or D)
FF%	Flag for deleting employees
FNDI$(	See common routines
FNDS$(	See common routines
FNID#(	See common routines
FNSD!(	See common routines
FO$	Fill out
FR%	Flag to reactivate an employee
FS	See common routines
I	General index
I1$	Input string
IQ(	Quarterly earnings
J	General index
KEY$	Key used to access an ISAM file
L1%(	Length
L3%(	Length
LB!	See common routines
N!	See common routines
N1$-N5$	Common program and file names
NI	Number of personal fields to be changed
PN$	Program title
Q	See common routines
Q$	See common routines
QT	See common routines
R$	See common routines
RL$	See common routines
SC$	See common routines
U1$	Format string
U3$	Format string

77

$A.PREFM Variable Description (continued)

UB!	See common routines
YES	See common routines
ZP$(	Holds headings
ZZ$(	Holds headings

$A.PREFM - Variable Cross Reference

Variable   References

A#   3081, 3082

A#(1170, 1186, 3081, 31810, 32020, 40000

A$(1040, 1060, 1140, 1230, 1240, 2050,
           3050, 3065, 3140, 30020, 30120, 30220, 30320,
           30410, 30510, 30620, 30710, 30810, 30920, 31020,
           31115, 31120, 31210, 31310, 31410, 31510, 3161Q,
           31710, 37010, 37020, 37035, 37040, 37050, 37055,
           37060, 37065, 40000

A1$ 37020, 37030

A2$ 37020, 37030

B1$ 40350

B2$ 40350

B3$ 40350

C$(30000, 30100, 30200, 30300, 30400, 30500,
           30600, 30700, 30800, 30900, 31000, 31100, 31200,
           31300, 31400, 31500, 31600, 31700, 37030, 37035,
           37040, 37050, 37055, 37060, 37065, 40000, 40010,
           40020, 40030, 40040, 40050, 40060, 40070, 40080,
           40090, 40100, 40110, 40120, 40130, 40140, 40150,
           40160, 40170, 40180

CE$ 30000, 30100, 30200, 30300, 30400, 30500,
           30600, 30700, 30800, 30900, 31000, 31100, 31200,
           31300, 31400, 31500, 31600, 31700, 31800, 40190

CV$ 37030, 37035, 37040, 37050, 37055, 37060,
           37065, 40190

ER%   1050, 2060, 3060

FC   910, 1000, 2000, 2120, 2185, 3000,
           30030

FF%   3140

FNDI$(31210

FNDS$(37065

Variable	References
FNID#(	37055
FNSD!(	1140, 1230, 31610, 31710
FO$	30020, 30120, 30220, 30320, 30410, 30510, 30710, 30810
FR%	1100, 1240
I	1170, 1185, 1186, 1230, 31800, 31810, 32000, 32020, 32040, 32070, 37040, 37050, 37060, 37065, 37070
I1$	900
IQ(	31810, 32020, 40350
J	1185, 31800, 31810, 32010, 32020, 32060
KEY$	1040, 1240, 2050, 3050
L1%(	30020, 30120, 30410, 30510, 30710, 30810
L3%(	30220, 30320
LB!	2110, 30400, 30500, 30700, 30800, 30900, 32050
N!	2110, 30405, 32060
NI	2110, 2120, 2140, 2142, 2144, 2145
PN$	19950
Q	870, 900, 930, 1080, 1160, 1200, 2110, 2150, 3100, 19960, 30000, 30100, 30200, 30300, 30400, 30500, 30600, 30700, 30800, 30900, 31000, 31100, 31200, 31300, 31400, 31500, 31600, 31700, 31800, 32050, 32080
Q$	860, 920, 1075, 1150, 1190, 2100, 2150, 3090, 19960, 30000, 30030, 30100, 30200, 30300, 30400, 30500, 30600, 30700, 30800, 30900, 31000, 31100, 31200, 31300, 31400, 31500, 31600, 31700, 31800, 32050, 32070

$A.PREFM - Variable Cross Reference (continued)

Variable   References

QT   1200

R$ 965, 30010, 30020, 30110, 30120, 30210,
           30220, 30310, 30320, 30405, 30410, 30505, 30510,
           30610, 30620, 30705, 30710, 30805, 30810, 30910,
           30920, 31010, 31020, 31110, 31115, 31120, 31210,
           31310, 31410, 31510, 31610, 31710, 31810, 32055,
           32090, 32100

RL$ 940, 950, 960

SC$ 1000, 1185, 1186, 2000, 2145, 3000,
           32000

U1$ 32020, 37060, 40200

U3$ 37055, 40200

UB!   2110, 30400, 30500, 30700, 30800, 30900,
           32050

YES   870, 1085, 1170, 12??, 2170, 3110,
           30030

ZP$(31800, 32000, 32040, 32070, 40000, 40340

ZZ$(31800, 32020, 40000, 40210, 40220, 40230,
           40240, 40250, 40260, 40280, 40290, 40300, 40310,
           40320, 40330

680507A

3-10-1 $A.PRLST Variable Description

Variable	Description
A#(	Array to hold numeric data from the Detail Files
A$(	Array to hold alphanumeric data from the PR Files
AT#	Dimensioned area to hold totals
ER%	See common routines
FNDS$(	See common routines
FNID#(	See common routines
FS	See common routines
FS%	Flag to indicate just personal data to be printed
I	General index
IA$	Input variable
IQ(	Quarterly earnings
KEY$	Key used to access an ISAM file
LA	Flag indicating all printable data in Employee File
LC	Line counter
LP	Report To Printer Flag
LS	Flag indicating only selected employees to be displayed
N1$-N5$	Common program and file names
PC	Page counter
PL	Page length
PN$	Program title
Q	See common routines
Q$	See common routines
QT	See common routines
R¢	See common routines
RL$	See common routines
SC$	See common routines
TA	Total active employees
TD	Total other hours
TH	Total regular hours
TI	Total inactive employees
TV	Total overtime employees
U1$-U3$	Format strings
YES	See common routines
Z$(-ZF$	Holds headings for the listings

3-10-2 $A.PRLST - Variable Cross Reference

Variable	References
A#(	20150, 20160, 20170, 20180, 22030, 40000
A$(	20010, 20020, 20030, 20040, 20050, 20060, 20070, 20080, 20090, 20100, 20110, 22000, 22010, 40000
AT#(	22030, 22100, 22590, 22600, 22610, 22620, 40000
ER%	680, 685, 790
FNDS$(	20020, 20030, 20090
FNID#(	20070
FS%	604
I	20140, 20150, 20160, 20170, 20180, 20510, 22030, 22100, 22570, 22580, 22590, 22600, 22610, 22620
IA$	1000
KEY$	780
LA	590, 604, 20120, 20220, 22020, 22550
LC	510, 20220, 20225, 20500, 20510, 20520, 20530, 21030, 22505, 22506, 22560, 22640
LP	510, 550, 566, 645, 840, 19910, 20000, 20210, 21040, 22500, 22505, 22640, 22650
LS	510, 630, 650
PC	510, 20520, 20530, 21040
PL	20220, 20225, 20500, 20510, 40010
PN$	19950
Q	540, 565, 580, 620, 760, 820, 19960
Q$	530, 565, 570, 610, 750, 810, 19960

680507A

Variable	References
QT	540, 580, 620
R$	760, 770, 780
RL$	550, 560, 590, 600, 630, 640
SC$	645, 830, 1000
TA	22000, 22100, 22520
TD	22010, 22100, 22544, 22546
TH	22010, 22100, 22540, 22546
TI	22000, 22100, 22530
TV	22010, 22100, 22542, 22546
U1$	20100, 20110, 40240
U2$	20150, 20160, 20170, 20180, 22590, 22600, 22610, 22620, 40250
U3$	20070, 40250
YES	830
Z$(	20140, 22580, 40000, 40150, 40160, 40165, 40170, 40180, 40190, 40200, 40210, 40220, 40230, 40235, 40237
Z1$	20010, 40040
Z2$	20010, 40040
Z3$	20020, 40040
Z4$	20020, 40040
Z5$	20030, 40040
Z6$	20030, 40050
Z7$	20040, 40050
Z8$	20040, 40050

680507A

$A.PRLST - Variable Cross Reference (continued)

Variable	References
Z9$	20040, 40050
ZA$	20050, 40060
ZB$	20060, 40060
ZC$	20060, 40060
ZD$	20060, 40060
ZE$	20070, 40070
ZF$	20130, 22560, 40080

3-11 $A.PRLNK

3-11-1 $A.PRLNK Variable Description

Variable	Description
D%	Disk drive number
FC%	File Create Flag
FS	Field size
I	General index
IC$(	Array holds the type of Parameter File entries
II	General index
IL(	Array to hold the length of Parameter File entries
IM	Menu to return to
IP	Indicates return from program
IT$(	Array holds the name of Parameter File entries
LB!	Lower bound
N!	See common routines
N1$-N5$	Common program and file names
PN$	Program name
Q	See common routines
Q$	See common routines
QT	See common routines
R$	See common routines
RI	See common routines
RL$	See common routines
TE	Number of elements
UB!	Upper bound
VV$(	Array to hold System Parameter File entries
W	Width of CRT print
YES	See common routines

680507A

3-11-2 $A.PRLNK - Variable Cross Reference

Variable	References
#1	4020, 4030, 5010, 5040, 5050
BT	5700
D%	1110, 1140, 1160, 4010, 5010, 5030
FC%	4010, 5722, 5732, 5743, 5752
FS	95
I	5020, 5650, 5715, 5720, 5724, 5730, 5740, 5742, 5750, 5986, 5990
IC$(	5720, 5730, 5740, 5750, 5985, 5990
II	4020, 5010, 5040
IL(	5724, 5985, 5990
IM	100, 4030, 5050
IP	100, 4030, 5050
IT$(	5715, 5985, 5990
LB!	1110, 5742
N!	1110
N1$	4010, 5010, 5030
PN$	19900
Q	1100, 1120, 1150, 2010, 5700
Q$	1100, 1120, 1150, 2010, 4010, 4020, 4030, 5030, 5040, 5050, 5715
QT	1100, 1120, 1150, 2010, 5700
R$	5650, 5722, 5724, 5732, 5743, 5752, 5753, 5754
RI	5700, 5799
RL$	2010

Variable	References
TE	4020, 5010, 5020, 5040, 5980, 5985, 5986, 5990
UB!	1110, 5742
VV$(	4020, 5010, 5040, 5650, 5715, 5985, 5986
W	95
WIDTH	95
YES	1130, 1150

3-12 $A.PRSYS

3-12-1 $A.PRSYS Variable Description

Variable	Description
D%	Disk drive number
FC%	File Create Flag
FS	Field size
I	General index
IC$(	Array to hold the type of Parameter File entries
II	General index
IL(	Array to hold the length of Parameter File entries
IT$(	Array to hold the name of Parameter File entries
LB!	Lower bound
N!	See common routines
N$	Holds first entry in the System File
N1$-N5$	Common program and file names
PN$	Program title
Q	See common routines
Q$	See common routines
QT	See common routines
R$	See common routines
RI	See common routines
RL$	See common routines
TE	Number of elements
UB!	Upper bound
VV$(	Array to hold the System Parameter File entries
W	Width of CRT display
YES	See common routines

3-12-2 $A.PRSYS - Variable Cross Reference

Variable	References
#1	4010, 4020, 5010, 5030, 5040
BT	5700
D%	1110, 1140, 1160, 4010, 5010, 5030
FC%	4010, 5722, 5732, 5743, 5752
FS	95
I	5020, 5650, 5715, 5720, 5724, 5730, 5740, 5750, 5986, 5990
IC$(	5720, 5730, 5740, 5750, 5985, 5990
II	4020, 5010, 5040
IL(	5724, 5985, 5990
IT$(	5715, 5985, 5990
LB!	1110
N!	1110
N$	5010
N2$	4010, 5010, 5030
PN$	19900
Q	1100, 1120, 1150, 2010, 5700
Q$	1100, 1120, 1150, 2010, 4010, 4020, 5030, 5040, 5715
QT	1100, 1120, 1150, 2010, 5700
R$	5650, 5722, 5724, 5732, 5743, 5752, 5753, 5754
RI	5700, 5799
RL$	2010
TE	4010, 4020, 5010, 5020, 5030, 5040, 5980, 5985, 5986, 5990

$A.PRSYS - Variable Cross Reference (continued)

Variable	References
UB!	1110
VV$(	4020, 5010, 5040, 5650, 5715, 5985, 5986
W	95
WIDTH	95
YES	1130, 1150

3-13 $A.PRCRE

3-13-1 $A.PRCRE Variable Description

Variable	Description
D%	Used to store drive number
DA$	Creation date
DI%	Disk drive number
FI%	File number
FS	Field size
LB!	Lower bound
N!	See common routines
N1$-N5$	Common program and file names
NAM$	ISAM data file names
NB%	Number of buffers
NF%	Number of files
PN$	Program title
Q	See common routines
Q$	See common routines
QT	See common routines
UB!	Upper bound
VD$	System date
YES	See common routines

3-13-2 $A.PRCRE - Variable Cross Reference

Variable	References
D%	1110, 1140, 1160, 6015, 6020
DA$	6020
DI%	6020
FI%	6028
LB!	1110
N!	1110
NAM$	6030, 6040, 6050
NB%	6025
NF%	6025
PN$	19900
Q	1100, 1120, 1150
Q$	1100, 1120, 1150, 6016
QT	1100, 1120, 1150
UB!	1110
VD$	6020
YES	1130, 1150, 6017

3-14 $A.PRTAX

3-14-1 $A.PRTAX Variable Description

Variable	Description
B1$	128 byte string
BL	Used in user defined function
CD	Set to state number
D#	See common routines
DK%	Main data disk drive
FA$	String set to response returned from input to tax table
FNB(	Function to read a bit
FNC(	Function to clear a bit
FNDI$(	See common routines
FNID#(	See common routines
FNS(	Function to set a bit
FNSD!(	See common routines
FS	See common routines
GR	Locates state or local code record
I	General index
I$	Input variable
IZ	Used to list out all states and their tax tables
LA%	Flag to indicate that all states are being listed
LB!	See common routines
LC	Line counter
LP	Report To Printer Flag
N!	See common routines
N1$-N5$	Common program and file names
NL$	String set to blanks
NX	Position in tax table
PB	Positions in tax table
PN$	Program title
Q	See common routines
Q$	See common routines
QM$	Prompt 'ENTER NEW VALUE OR HIT RETURN TO RETAIN CURRENT VALUE'
QS	See common routines
QT	See common routines
R	See common routines
R$	See common routines
RI	See common routines
RL$	See common routines
S$	Holds prompt messages
S1$	Prompt variable

SA#(	Dimensioned area
SC$	See common routines
SM#(	Dimensioned area
SR	Locates state or local record
TO$(	Percent over minimum in tax table
TA#	Value of amount in tax table
TA$(	Amount in tax table
TB	Table for single
TC	State or local code
TF	Location in tax table (married)
TF$(	Array to hold a value from first record of Tax File
TI$	ID number
TM#	Minimum of range in tax table
TM$(	Array to hold minimum of range in tax table
TN$	String name
TR$	String response returned from input into tax table
TV	Maximum table value
TX#(	Holds values in Tax File
TX$(	Holds values in Tax File (14 records)
TX%(	Flags used in Tax File
U1$	Format string
U2$	Format string
UB!	See common routines
VD$	See common routines
YES	See common routines
Z1$-Z5$	Headings for tax table

680507A

3-14-2 $A.PRTAX - Variable Cross Reference

```
Variable  References
------------------------------------------------------------
#1        405, 465, 700, 770, 810, 830,
          870, 970, 1050, 1080, 1110, 2050, 2060,
          2080, 2180, 2190, 2290, 2310, 14020, 14540,
          18110, 40025, 40030, 40040, 40050, 40060, 40110

B1$       18110, 40025

BL        40180, 40190, 40200

CD        14020, 16010

D#        600, 620, 640, 17010

D$        40050, 40060, 40110

DK%       40020

FA$       16080, 16090, 16120, 16140, 16160, 16250,
          16290, 16320, 16330, 16360, 17200, 17220, 17225

FNB(      14050, 40180

FNC(      14530, 40200

FNDI$(    600, 620, 640, 10040, 10045, 12040,
          12060, 14520

FNID#(    590, 600, 610, 620, 630, 640,
          10047, 12030, 12050, 14040

FNS(      14530, 40190

FNSD!(    530

GR        14010, 14020, 14540

I         10030, 10040, 10045, 10047, 10060, 12010,
          12030, 12040, 12050, 12060, 12070, 12080, 14040,
          14043, 14050, 14520, 14530, 18110, 40100, 40110

I$        2000

IZ        2260, 2265, 2270, 2320

LA%       2130
```

Variable	References
LB!	580, 660, 680, 900, 2150, 12005, 17100
LC	2005, 2050, 2090, 2105, 2167, 2170, 2185, 2190, 2195, 2200, 2276, 2280, 2295, 2300, 2305, 2310, 16020, 16030, 16060, 16140, 16180, 16200, 16240, 16280, 16310, 16350, 16380, 17000, 17100, 17210, 21020
LP	550, 580, 600, 620, 640, 660, 680, 2005, 2030, 2090, 2160, 2166, 2180, 2250, 2320, 16020, 16030, 16060, 17000, 17100, 17210, 19910
N!	580, 660, 680, 2160, 2270, 14010, 14020
NL$	14040, 40170
NX	16080, 16090, 16110, 16120, 16140, 16160, 16190, 16200, 16210, 16220, 16230, 16250, 16260, 16270, 16290, 16300, 16320, 16330, 16340, 16360, 16370, 17000, 17010, 17100, 17110, 17200, 17220, 17230
PB	2166, 2167, 2275, 2276
PN$	19950
Q	420, 460, 520, 720, 900, 950, 1010, 2010, 2110, 2150, 12005, 16000, 19960
Q$	410, 460, 520, 720, 890, 950, 1010, 2010, 2100, 2150, 12005, 16000, 18010, 19960
QM$	520, 790, 850, 1070, 1100, 16000, 40160
QS	530, 680, 720, 12005, 12090, 16000, 16060, 16380, 17000, 17020, 17100, 17120, 17200, 17240
QT	410, 540, 570, 590, 610, 630, 650, 670, 720, 2100, 2150, 12030, 12050, 12070, 12090, 16025, 16050, 17000, 17020, 17100, 17120, 17210, 17240

Variable	References
R	12010
R$	425, 550, 560, 580, 600, 620, 640, 660, 680, 900, 12030, 12040, 12050, 12060, 12070, 12080, 16030, 16040, 16060, 16070, 17010, 17110, 17220, 17225, 17230
RI	520, 720, 12005, 12090, 16000, 16380
RL$	430, 435, 440, 2120, 2130, 2140
S$	16080, 16090, 16110, 16120, 16140, 16160, 16190, 16200, 16220, 16230, 16240, 16260, 16270, 16280, 16300, 16310, 16330, 16340, 16350, 16370, 17000, 17100, 17200
S1$	16170, 16180, 16200
SA#(	40010
SC$	760, 820, 880, 2265
SM#(	40010
SR	14010, 14030, 14040, 14045, 14500, 14510, 14520, 14540
STRING$(	18110
T0$(	10060, 12070, 12080, 40010, 40110
TA#	10047, 10060
TA$(	10045, 10047, 12050, 12060, 40010, 40110
TB	1030, 1050, 1080, 1110, 2180, 2190, 2290, 2310, 14030, 14510
TC	2165, 2270, 14030, 14500, 16010, 16020
TF	14045, 14530, 14540, 40180, 40190, 40200
TF$(	405, 470, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 695, 970, 40010, 40030

$A.PRTAX - Variable Cross Reference (continued)

Variable	References
TI$	14030, 14500, 16050, 16060, 16070
TM#	10047, 10050
TM$(	10040, 10047, 12030, 12040, 40010, 40110
TN$	1060, 1090, 2190, 2200, 2300, 2310, 14030, 14500, 16025, 16030, 16040
TR$	16080, 16090, 16120, 16140, 16160, 16250, 16290, 16320, 16330, 16360, 17200, 17220, 17225, 17230
TV	470, 690, 970, 1030
TX#(	14040, 14043, 14520, 16110, 16190, 16210, 16220, 16230, 17000, 17010, 17100, 17110, 40010
TX$(	14030, 14040, 14045, 14500, 14510, 14520, 14540, 40010, 40040, 40050, 40060
TX%(	940, 2166, 2180, 2275, 2290, 14050, 14530, 16085, 16100, 16130, 16170, 16190, 16210, 16220, 16230, 16345, 17200, 17220, 17230, 40010
U1$	10050, 10060, 12030, 12050, 40170
U2$	10060, 12070, 40170
UB!	580, 660, 680, 900, 2150, 12005, 17100
VD$	530
X	40200
YES	470, 740, 960, 1020, 2020, 18020
Z1$	10000, 12000, 40125
Z2$	10000, 12000, 40130
Z3$	10000, 12000, 40140
Z4$	520, 16000, 40150

3-14-2 $A.PRTAX - Variable Cross Reference (continued)

Variable   References

Z5$ 2170, 2280, 40000

3-15 $A.PRGLI

3-15-1 $A.PRGLI Variable Description

Variable	Description
CR%	Create Flag
DK%	Main data disk drive
FS	See common routines
GA$(	Holds current or new account number
GC$(	Description
I	General index
N1$-N5$	Common File and program names
NA$	"N/A"
PN$	Program title
Q	See common routines
Q$	See common routines
QS	See common routines
QT	See common routines
R	See common routines
R$	See common routines
RI	See common routines
RL	See common routines
RL$	See common routines
SC$	Clear screen code
YES	See common routines
Z6$-Z8$	Account descriptors

3-15-2 $A.PRGLI - Variable Cross Reference

Variable   References

#2   2010, 2020, 40140, 40170

CR%   532, 40085

DK%   2000, 40100

GA$(1000, 1060, 1090, 2010, 2020, 40030,
           40080, 40140, 40170

GC$(1000, 1020, 1040, 1045, 2020, 40030,
           40060, 40070, 40170

I   570, 1000, 1010, 1020, 1040, 1045,
           1060, 1090, 2010, 2020, 40060, 40070, 40080,
           40120, 40140, 40150, 40170

NA$ 1010, 40040

PN$ 19950

Q   520, 531, 1000, 19960

Q$ 520, 531, 1000, 19960

QS   1000, 1060, 1090

QT   575, 1000, 1060

R   1000

R$ 532, 533, 1020, 1030, 1040, 1045,
           1060, 1070, 1075, 1080, 1090

RI   1000, 1090

RL   1000, 1060, 1070

RL$ 1030

SC$ 535

YES   530

Z6$ 560, 40000

Z7$ 560, 40010

680507A

3-15-2 $A.PRGLI - Variable Cross Reference (continued)

Variable   References

Z8$ 560, 40020

3-16-1   Payroll Common 46000-49999 Variable Description

Variable	Description
A#(	Array to hold numeric data in the PR Detail Files
A$(	Array to hold alphanumeric data in all PR Master Files
B$	128 bytes of spaces used to set up the ISAM buffer
B1$-B3$	Holds data in Detail Files to set up ISAM buffer (currently not used)
BC$	Holds data in PR Detail 2 File to set up the ISAM buffer
BUF$	Buffer for an ISAM file
DI%	Disk drive number (set to DK%)
DK%	Main data disk drive
ER%	Error indicator
F	General index
FF%	Flag indicating first time through the file
FI%	File number
FK	Conditional Flag (currently not used)
FNDI$(	Function to pack double precision number into four byte string
FNID#(	Function to unpack four byte string created by FNDI$
FO$	Currently not used
FO%	File Open Flag
FS%	Flag to retreive a single record
I	General index
L1%-L3%	Length of fields in PR Master
NA$	File name used for ISAM
NB%	Number of buffers used in ISAM
NF%	Number of files used in ISAM
S1%-S3%	Start byte of field size in PR Master Files

3-16-2 PR46000 - Variable Cross Reference

```
Variable  References
-----------------------------------------------------------------
A#(       46110, 46210, 47550, 47590

A$(       46010, 46220, 47500, 47510, 47540, 47580,
          47600, 48570, 48580

B$        47500, 47510, 47540, 47550, 47580, 47590,
          47600

B1$       47500, 48580

B2$       47540

B3$       47580

BC$       47500, 47540, 47580, 48580

BUF$      46010, 46110, 46210, 46220, 47500, 47510,
          47540, 47550, 47580, 47600

DI%       48100

DK%       48100

ER%       46005

F         46010, 46110, 46210, 48510, 48530, 48550

FF%       47000, 47060, 47510, 47550

FI%       48100

FILE%     46000, 46100, 46200, 46500, 47000, 47030,
          47060, 47500, 47540, 47580, 48050, 48110, 48120,
          49000, 49500

FK        47500, 47540, 47580

FNDI$(    47550, 47590

FNID#(    46110, 46210

FO$       48580

FO%       48120, 49000

FS%       46020
```

Variable References

I   47510, 47550, 47590, 48050, 48570, 49000,
           49500

L1%(46010, 47500, 47510, 48500, 48510, 48570

L2%(46110, 47540, 47550, 48500, 48520, 48530

L3%(46210, 46220, 47580, 47600, 48500, 48540,
           48550, 48560, 48580

NA$ 48100

NAM$ 48110, 48120

NB%   48000

NF%   48000

S1%(46010, 47500, 47510, 48500, 48510

S2%(46110, 47540, 47550, 48500, 48520, 48530

S3%(46210, 46220, 47580, 47590, 47600, 48500,
           48540, 48550, 48560

3-17-1 Common Routine 50000-59999 Variable Description

Variable	Description
BE$	Terminal Bell
CH	Input character
D!	Valid date
D#	Dummy variable used to define functions
DA	Input date (day)
DG	Flag for numeric input check
DK%	Main data disk drive
DP	Flag for decimal point input
E$	End
ER%	Error indication if non-zero
FNDI$(	Function to pack a double precision number into a four byte string
FNDS$(	Function to unpack an integer into a date format
FNID#(	Function to unpack a four byte string into a double precision number
FNSD!(	Function to arrange a date into YYMMDD format
FS	Field size
HB$	Used to print Help Message
HF%	Help File number
HJ	Number of records in Help File
HK	Temporary variable for binary search
HL	Used to determine how to break Help Message into sentences
HN$(	Fielded variables for help number
HN(	Array for help number
HP	Index used in the binary search for Help number
HS(	Starting record number
HS$(	Fielded variable for HS(
I	General index
I$	Dummy variable to define functions
II	General index
IM	Menu code to return to
IP	Program Flag to run
JJ	General index
LB!	Lower bound
LC	Line count
LP	Printer Copy Flag
MO	Date input (month)
N!	Returned value from numeric input routine
N#	Used for rounding in the string pack function

N$	Input value for the SYS File
N1$-N5$	Common File and program names
P$	Used to pack Journal File key (key + four byte increment)
P1	Length of key to be packed
P2	Even number function of P1
P2$	Used to build the packed string value
P3	General index
P3$	Used to check the leftmost character
P4	Used to pack the Journal File key
P5	Used to pack the Journal File key
PN$	Program title
Q	Query prompt message number
Q$	Query prompt message string
QT	Query tab space count
R$	String input after the prompt
RI	Linefeed input specifier
RL	Length of string input
RL$	Holds the significant characters in R$
S$	Dummy variable used to define functions
SC$	Screen clear codes
T$	HS, HP converted to a string
UB!	Upper bound
V$(	Array to hold the system elements
VC$	System company name
VD$	System date
VO$	Key value
VS$	System name
VT$	Disk type
W	Terminal width
YES	Flag returned from YES/NO input routine
YR	Date input (year)

680507A

Variable	References
#1	50002, 50004, 50020
#HF%	59120, 59210, 59230, 59240
BE$	50000, 50200, 50300
BELL$	54000, 54100, 54200, 54300, 54530
CH	51240, 51250, 51260, 51270, 51660, 51670, 51680, 51690
D!	50175
D#	50160, 51655, 51710
DA	51400, 51424, 51426, 51430, 51440
DG	51200, 51250, 51280, 51600, 51670, 51700
DK%	50002, 50004
DP	51200, 51260, 51600, 51680
E$	51200
ER%	54050, 54100
FNDI$(	50160
FNDS$(	50175
FNID#(	50165
FNSD!(	50170
FS	51010
HB$	59120, 59210
HF%	59200
HJ	59000, 59080, 59090, 59110, 59120, 59240, 59250
HK	59000, 59080, 59100, 59120, 59150, 59230, 59240, 59250

Variable	References
HL	59130, 59140
HN$	59250
HN$(	59200, 59230, 59250
HN(	59090, 59100, 59200, 59250
HP	59080, 59090, 59100, 59110, 59240, 59250
HS	59110, 59120
HS$	59250
HS$(	59200, 59230, 59250
HS(	59000, 59110, 59200, 59250
I	50020, 54530
I$	50165
II	51030
IM	50002
IP	50002
JJ	51240, 51270, 51280, 51640, 51660, 51690, 51700
LB!	51290
LC	50920
LP	50900
MO	51400, 51422, 51430, 51440
N!	51200, 51290
N#	50160, 50165
N$	50004, 50020
N1$	50000

680507A

Variable   References

N2$ 50004

N3$ 50210

N4$ 50310

N5$ 59200

P$ 50002, 55000, 55040, 55100, 55120

P1   55000, 55008, 55010, 55040, 55100, 55110,
           55120

P1$ 55000, 55005, 55008, 55010, 55020, 55100,
           55110

P2   55010, 55020, 55040, 55110

P2$ 55000, 55030, 55040, 55100, 55110, 55120

P3   55020, 55110

P3$ 55005

P4   55020, 55030

P5   55020, 55030

PN$ 50910

Q   51070, 59080, 59090, 59100

Q$ 51000, 51800

QT   51000

R$ 51010, 51015, 51020, 51030, 51200, 51220,
           51230, 51240, 51290, 51400, 51420, 51422, 51424,
           51426, 51430, 51620, 51640, 51650, 51655, 51660,
           51710

RI   51010

RL   51015, 51030

RL$ 51015, 51020, 51426, 51805, 51810

Variable   References

S$ 50170

SC$ 50055, 50900, 52000

STRING$(55008, 55040, 55120

T$ 59110, 59120, 59130, 59140, 59230

UB!   51290

V$(50020, 50050

VC$ 50050, 50905

VD$ 50002, 50910

VO$ 52010

VS$ 50050, 50905

VT$ 50050

W   50050, 50905, 50910

WIDTH   50050

YES   51805

YR   51400, 51430, 51440

680507A

APPENDIX A

FLOPPY DISK TO HARD DISK CONVERSION

The following procedure converts accounting packages from a floppy disk operating system to a hard disk operating system on the PCC 2000. A hard disk drive has up to four platters as in the D3462 hard disk drive which has three fixed platters and one removable platter. A unit consists of up to three platters. In a D3462 disk drive, three fixed platters are in one unit and one removable platter is another unit. The two storage systems are compared below.

Floppy Disk Operating System	Hard Disk Operating System
The maximum non-volatile storage on two floppy disk drives is 1M byte.	The maximum non-volatile storage on two floppy disk drives and four hard disk drives is 81M bytes.
The operating system occupies 33.8K RAM bytes, leaving 30.2K RAM bytes for user programs.	An operating system, with two floppy disk and two hard disk drives, occupies 35.3K RAM bytes, leaving 29.41K RAM bytes for user programs.*
Each floppy drive requires 568 RAM bytes at system initialization.	Each drive requires 617 RAM bytes at system initialization.

*The maximum hard disk system, consisting of two floppy disk drives and four hard disk drives, occupies 36.5K RAM bytes.

Convert a floppy disk operating system to a hard disk operating system using the following steps.

1. Copy the original distribution diskettes before using them.

2. Initialize and format the hard disk units using the utilities floppy diskette. Refer to the PCC 2000 Utility Program Specification under INIT.

3. Load the Hard Disk Operating System from the floppy diskette in drive 0. Configure the system for the hardware available and save the system image on the diskette in drive 0.

4. Start the system, insert the source diskette for the accounting system in disk drive number one, and mount all units. Individually, load each source diskette program and save it on the unit designated for the accounting system. This tedious operation will be improved using the BACKUP program that is being developed for the utility diskette.

5. Transfer all random files using the source diskette program $U.COPYR. Transfer all sequential files using the source diskette program $U.COPYS.

6. Modify all programs for the new system unit. Check the main menu program thoroughly and modify all its drive specification statements. Modify all other programs using a merge file since these programs have similar modifications.

7. Correct the data file drive number using the linkage program $A.XXLNK. Correct the disk type using the system parameter program $A.XXSYS.

8. Correct the ISAM routine line number 60610 to "IFVT$="H"THENOD(O)=39062 ELSEIFVT$="F"THENOD(O)=3476"

9. Test the system thoroughly with a large data base if it is available.

The size of the hard disk operating system may cause an error 7 (out of memory) or an error 14 (out of string space). Run the tests above on any memory or string space sensitive programs. If error 7 occurs, modify the DIMENSION statement with a smaller number. If error 14 occurs, modify the CLEAR statement with a larger number; and if necessary, modify the DIMENSION statement with a smaller number.

10. The "UTILITY" routines FORMAT, COPYH, and DCOPY are not on the diskettes distributed with the PCC 2000 applications software, so the hard disk utilities diskette must be used to initialize, format, and copy the hard disks. Refer to the PCC 2000 UTILITY PROGRAM SPECIFICATION document for the detailed description of the utility programs.