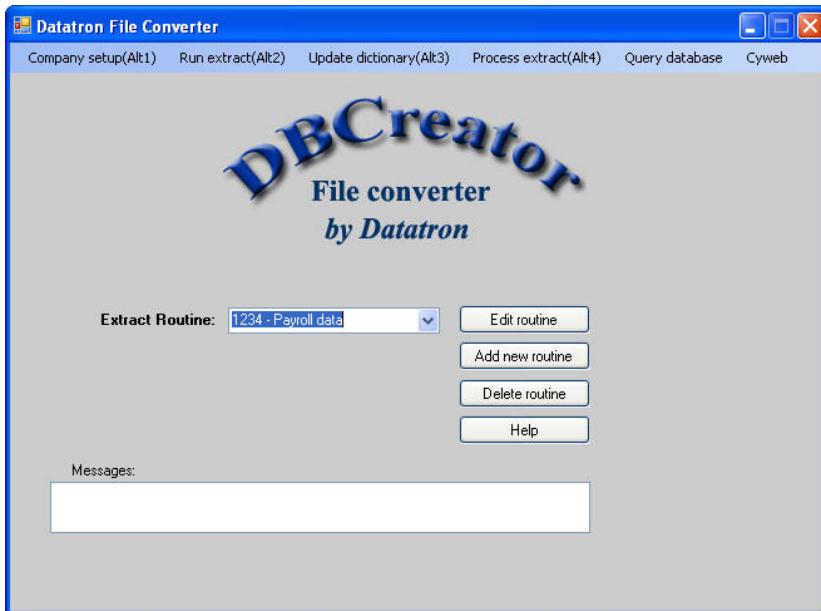


DBCreate enables Cyborg users to create an Access or SQL database from the Cyborg database FILE02. The user can optionally define which Cyborg data segments to extract to the database.

Multiple extract routines can be defined so that a unique database can be created for each user group. It is advisable to create an extract routine for just applying updates. For example, static data such as names and addresses, employee setup, etc. need not be extracted each week. However, data that changes each pay period such as earnings, taxes, and deduction amounts can be updated each pay period by creating an extract that extracts only HED amounts and tax amounts.

The Datatron DBCreate system can also be used to generate an Access or SQL database for the **Cyweb** web-based system. Cyweb allows users to access the Cyborg database through an intranet or internet system using a web browser. Changes can be made to the database and queries and reports can be created from the Access database created here.



Datatron DBCreate Getting Started 2

An unpopulated Access data base file named employee.mdb is provided with the installation of the system. It is recommended that this file be copied to another directory for backup if it is necessary to create different versions of an Access data base. This file has the Cyborg tables already predefined. When an extract routine is run it populates the tables with data from the Cyborg FILE01 and FILE02.

Setup

When running the DBCreate for the first time it is necessary to click on the Company Setup menu item to define company parameters and file parameters for the. The system stores the setup data in a file called '**setup.ext**'. This files is delivered with the system and will be updated with parameters defined by the user in the Company Setup dialog window.

Company setup data is added or updated by clicking on the Company setup menu item at the top of the window. Company setup data consists of two types of data - company information and file paths for Cyborg files FILE01 and FILE02.



Company static information

Company name: The company name will appear on the Login window and at the top of each Cyweb web page.

Company logo: Enter the path of the image file for the company logo. The logo will appear on any Cyweb webpages generated from the newly created database.

Email: Enter the email address for company contacts. The email address will appear on any Cyweb web pages generated from the newly created database.

Web address: Enter the company web address. The web address will appear on any Cyweb web pages generated from the newly created database.

SMTP server: Enter the company SMTP mail server such as mail.contactme@mycompany.com. This mail server will be used for corresponding with users accessing the Cyweb web pages containing data from the new database.

Cyborg file paths

FILE01: Enter the file path for the Cyborg file FILE01 in the Company Setup form. This file will be accessed during the extract routine processing run to obtain table information such as job titles, control descriptions, etc.

FILE02: Enter the file path for the Cyborg file FILE02. This file will provide the input to the extracted data to be added to the new database.

SQL Server Name: Enter the name of the SQL Server that will contain the database of the extracted data. If you are extracting data only to an Access database this information is not required.

Browse button: Click on this button to browse the directory for a file. The selected file will be placed in the corresponding textbox, ie., the FILE01 path, FILE02 path.

Datatron DBCreate Define Extract Routine 4

To define a new extract routine, click on the **Add Routine** button. This will display the **Datatron Extract Routine Parameters** form.

Datatron Extract routine parameters

Messages: Enter new extract routine code

Extract routine: Description:

To add a segment, click on the Data segments arrow to display all segments. Click on the desired segment so that it is highlighted and then click the Add segment button.

Control 1-2:

Data type
 Payroll History

Data segments: Database file path:

Cyborg data segments to be extracted

	Segment	Occurrences
▶	Delete E - Employee basic data	1
*	<input type="text"/>	

Database name:

Data base type
 Access
 SQL
 Sequential

Cyborg file version
 Version 4.5
 Version 5.1

Datatron DBCreate Define Extract Routine 4**Perform the following steps to define an extract routine.**

1. Enter a 4 character routine code in the Extract routine box.
2. Enter a description of the routine.
3. If you wish to select records only for a particular company, enter the 6 character company code in the Control 1-2 box, else leave it blank.
4. Click on either the Payroll or History button to indicate the Data type to be extracted. Only select the History button if you want to select check history records.
5. Click the button that identifies the Data base type. It can be either an Access, SQL, or sequential database.
6. Enter the database file name in the Database file path if it is not correct. Click on the Browse button to find the appropriate file if it is not displayed in the box. If you selected an SQL database as the file type, this box need not be completed.
7. If you selected an SQL database, enter the database name recognized by the SQL server in the Database name box, else enter a descriptive name.
8. Click on the appropriate file type for the Cyborg file version, either 4.5 or 5.1.
9. Select the data segments that are to be extracted from the Cyborg database by clicking on the Data segments dropdown box and selecting the desired segment and then clicking the Add segment button. This will add the segment to the Segment datagrid shown below.

Datatron DBCreate Define Extract Routine 4

Datatron Extract routine parameters

Messages: You must specify a Database name

Extract routine: test Description: Test Extract Help

To add a segment, click on the Data segments arrow to display all segments. Click on the desired segment so that it is highlighted and then click the Add segment button.

Control 1-2:

Data type
 Payroll History

Data segments Database file path
 J1 - Taxes accumulated E:\dbcreate\employee.mdb

Cyborg data segments to be extracted

	Segment	Occurrences
<input type="button" value="Delete"/>	E - Employee basic data	1
<input type="button" value="Delete"/>	F - Name and Address	1
<input type="button" value="Delete"/>	G - Work Location	1
<input type="button" value="Delete"/>	H - Earnings/deductions setup	50
<input type="button" value="Delete"/>	HE - Earnings/deductions accumulated	50
<input type="button" value="Delete"/>	J - Tax setup	4
<input type="button" value="Delete"/>	J1 - Taxes accumulated	4
*	<input type="text"/>	

Database name
employee

Data base type
 Access
 SQL
 Sequential

Cyborg file version
 Version 4.5
 Version 5.1

Datatron DBCreate Define Extract Routine 4

Cyborg data segments to be extracted		
	Segment ▲	Occurrences
Delete	E - Employee basic data	0001
Delete	F - Name and Address	0001
Delete	G - Work Location	0001
Delete	H - Earnings/deductions setup	0050

10. Enter the number of occurrences of the segment to be extracted into the Occurrences column of the Segment datagrid for the segment.

11. Repeat the previous 2 steps for each segment to be extracted from the Cyborg database for this routine. It is advisable to create small groups of extract routines to populate the database. This allows shorter reruns of certain extracts, if necessary, rather than do a large rerun to repopulate only a few segments.

12. After selecting all of the desired segments, click the Finish button to save the extract routine and return to the main window.

Running extract routines

To run an extract routine, click on the Run extract menu item at the top left of the window.



The system will display an MS-DOS box that executes the batch file 'extracto.bat'. This file contains the following instructions:

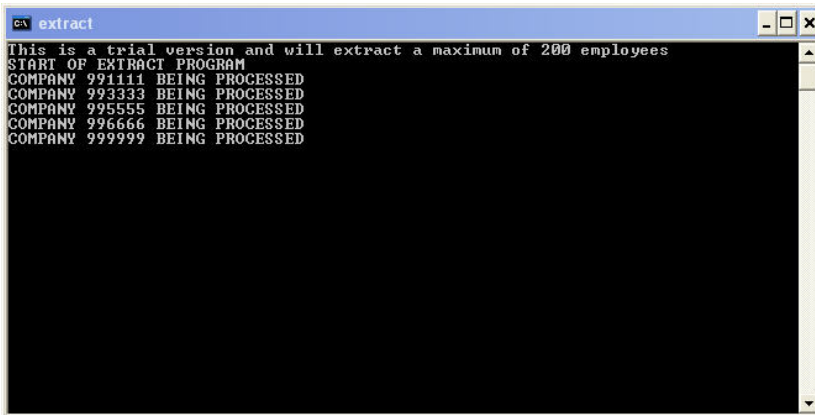
```
echo off
extract
sortex
echo off
```

The run procedure will process the Cyborg data base files to create a new Access data base. The first phase of the run is processed by a DOS batch procedure called **extracto.bat**. This file contains a run for two programs, extract.exe and sortex.exe.

Extract.exe program:

The extract.exe program will run first causing a DOS window to be displayed. It will first read a file called **gctrans.dat** that was created by the Datatron DBCreate program. This file contains the segments to be selected and the name of the FILE01 and FILE02. It will display the name(s) of the Control 1-2s that are being processed. When it is finished you must hit the enter key. The program will create an output file with the extension .TMP. The name of the file will be a derivation of the Access file name to be created. For example, if the Access file to be created is named Employee.mdb, then the output file will be named Employee.tmp.

When the extract.exe program is finished, a window will be displayed listing the message "Application terminated".



```
extract
This is a trial version and will extract a maximum of 200 employees
START OF EXTRACT PROGRAM
COMPANW 991111 BEING PROCESSED
COMPANW 993333 BEING PROCESSED
COMPANW 995555 BEING PROCESSED
COMPANW 996666 BEING PROCESSED
COMPANW 999999 BEING PROCESSED
```

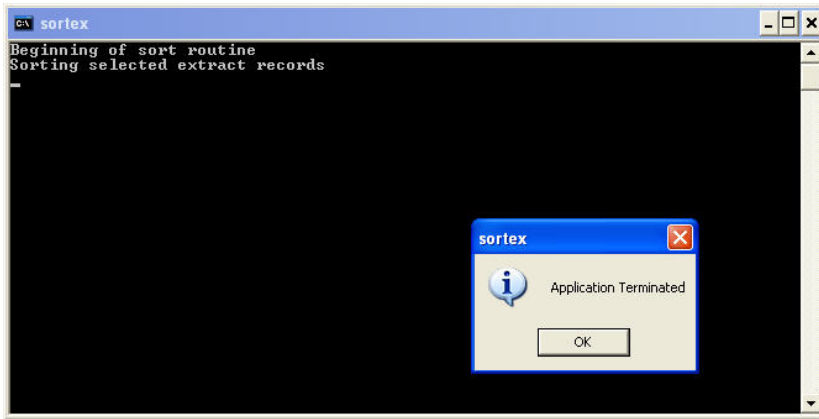
Click the Ok button.

Sortex.exe program:

The second DOS phase is executed by program sortex.exe which sorts the newly created extract records from the .tmp file created by extract.exe. The sorted output file name will be a derivation of the Access file data name to be created. For example, if the Access file to be created is named Employee.mdb, then the output file will be named Employee.dat.

When the sort is completed, a window will be displayed listing the message

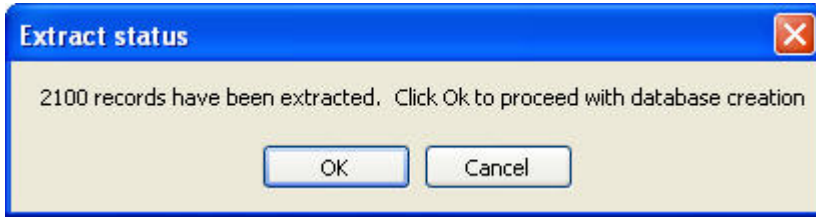
"Application terminated".



Click the Ok button.

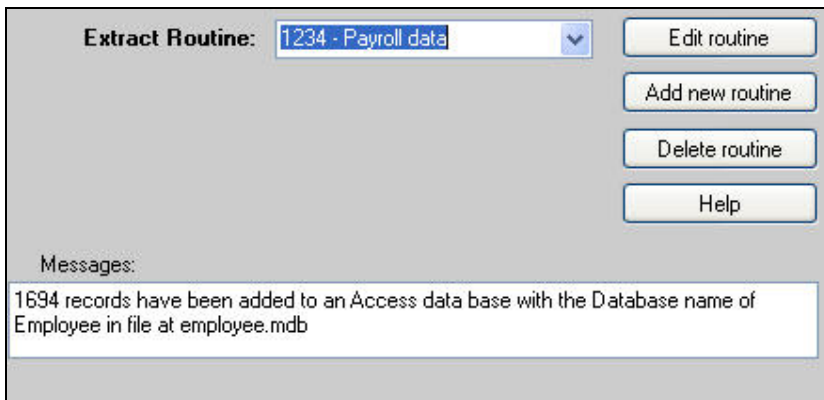
Datatron DBCreate **Run Extract 5**

Finally, a window displaying the number of records extracted from the Cyborg database will be displayed.



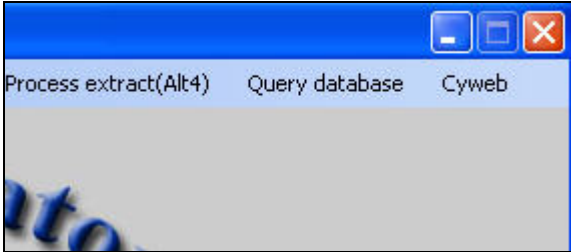
To continue the extract phase, click the OK button. To cancel the extract phase, click the Cancel button. If the Ok button is clicked, the system will start to convert the extracted records from a sequential file into the appropriate database file. A progress bar will be displayed above the help box on the main window to show the status of the conversion. Normally, it will take about 5 minutes to convert a file of 3000 employees. Files with more or less employee will have corresponding longer or shorter run times.

When the progress bar is full, the extract phase is completed and you should be able to review the data in the newly updated Access or SQL database.

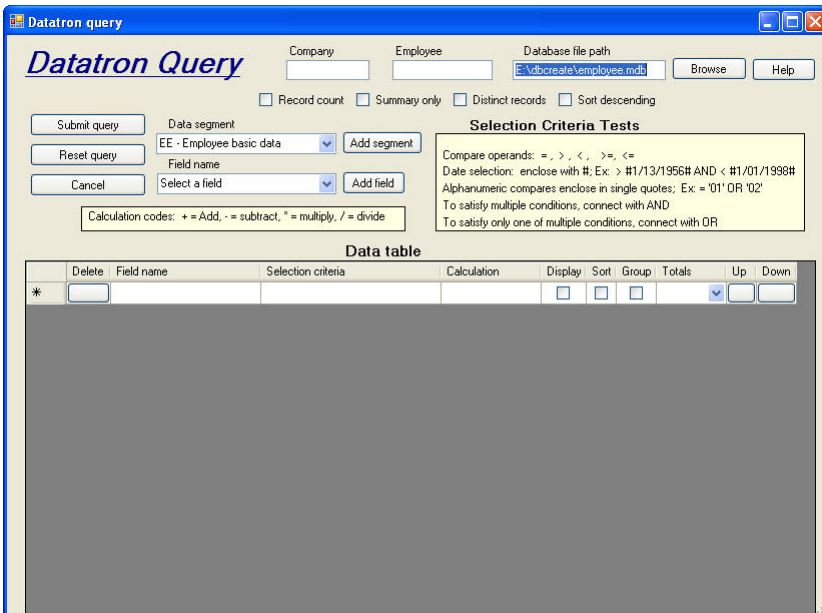


Data Queries

The Datatron Query system allows users to quickly view data from an Access or SQL data base. Data from different tables can be combined with selection criteria to produce a customized page. In addition, new fields can be computed and totaled. To create a new query or request an existing query, click on the **Query database** menu item at the top of the window.



For new queries the dialog window shown below will appear.



Query Steps

1. Specify the database to be accessed by clicking on the database file path. To locate a new database file, click on the **Browse** button and select the database from the directory listing.
2. Select the desired table from the data segment drop down box. When a new table is selected, the field name dropdown box is updated from elements of the newly selected table.

The screenshot shows a form with two sections. The first section is labeled 'Data segment' and contains a dropdown menu with 'arnings/deductions accumulated' selected, and an 'Add segment' button. The second section is labeled 'Field name' and contains a dropdown menu with 'Select a field' selected, and an 'Add field' button.

3. Select each field to be either displayed or used in the selection by clicking on the field name drop down box. After finding the desired field, click on the **Add field** button to add the field to the Data Table.

The screenshot shows the full query builder interface. It includes buttons for 'Submit query', 'Reset query', and 'Cancel'. The 'Data segment' dropdown is set to 'EE - Employee basic data' with an 'Add segment' button. The 'Field name' dropdown is set to 'Select a field' with an 'Add field' button. Below these is a text box for 'Calculation codes: + = Add, - = subtract, * = multiply, / = divide'. The 'Data table' section is a table with columns 'Delete', 'Field name', and 'Selection criteria'. The first row has a 'Delete' button, 'ADDRESS.Name', and an empty 'Selection criteria' cell. A second row is partially visible with a '*' in the 'Delete' column.

Delete	Field name	Selection criteria
Delete	ADDRESS.Name	
*		

4. After selecting the desired fields into the Data Table, complete the elements in the Data Table by entering data in any of the following columns:

Selection Criteria: If this field is to be tested for selecting data, complete the column with the selection data. The selection parameters that can be used are as follows:

Data table					
Delete	Field name	Selection criteria	Calculation	Display	Sort
Delete	ADDRESS.Name			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delete	ADDRESS.City_St			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Delete	EE.BirthDate			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Delete	EARNDED.YTD_\$			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Delete	EARNDED.HED	=001'		<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>

Field is equal to a value: Enter an equal sign (=) followed by the value to be tested for such as = '1' OR '2'. Test values for non numeric data must be enclosed in single quotes. Numeric field values must **not** be enclosed in quotes.

Field is greater than a value: Enter a greater than sign (>) followed by the value to be tested for such as > 0.

Data is less than a value: Enter a less than sign (<) followed by the value to be tested for such as < 'M'

Data is not equal to a value: Enter a hyphen sign followed by the (!=) sign followed by the value to be tested for such as != 'IL'.

Data is greater than or equal to: Enter a greater than sign followed by the equal sign (>=) followed by the value to be tested for such as >= 100.

Datatron DBCreate **Data Queries 6**

Data is less than or equal to: Enter a less than sign followed by the equal sign (<=) followed by the value to be tested for such as <= **100**.

Calculation: A calculation can be applied to a numeric field to create a new field for display. The calculation consists of an arithmetic operand followed by the data or field to be used in the calculation. Below are the permissible calculation operands.

Add data: Add data to the field using the plus (+) sign such as + 100 or add another field to this field such as + **YTD_\$**.

Subtract data: Subtract data from the field using the minus sign(-) such as - 100 or subtract another field from this field such as - **YTD_\$**.

Multiply data: Divide data into the field using the forward slash sign(/) such as / 1.5 or divide another field into this field such as / **curr_hrs**.

Subtract data: Subtract data from the field using the asterik sign(*) such as * 1.2 or multiply another field by this field such as * **HOURLY-RATE**

Display box: When a field is added to the Data Table it is automatically set to be displayed. If the field is to be used for selection testing only, click the Display box so as to uncheck the display and the field will **not** be shown on the displayed results.

Sort box: Click the Sort box if it is desired to sort the fields in a certain order, else the displayed results will be displayed in the order of the control keys of the file. For the Cyborg database this will list items in order by employee number. If multiple fields are checked to be sorted, the sort priority will be set with the first field having the highest priority. To change the sort priority, click on the **Up or Down arrows** to the right of the fields in order to change its sort priority.

Group box: The Group box is used to group totals by field. If it is desired to accumulate totals by a certain field group, it is necessary to click the Group box for each field prior to the field that is being totaled. Fields that are not to be displayed, however, need not have their Group box checked.

Totals: The Totals dropdown box is used to specify an accumulator routine for numeric fields. The accumulators that can be selected are: Average, Totals, Maximum value, Minimum value.

Up button: Click the Up button to move a field up in the listing order of the data fields. If the field is selected to be sorted, this will move the field up in the sorting priority.

Down button: Click the Down button to move a field down the listing order of the data fields. If the field is selected to be sorted, this will move the field down the sorting priority.

- Click on the **Submit Query** button to display the results of the completed query parameters. A new window will appear that displays the query results. The SQL commands that generated the query will appear at the top of the window. You can change or add to the SQL command and resubmit the query, if desired.

query programs
query code

SQL command

```
SELECT ADDRESS.Name, ADDRESS.City_St, EARNDDED.Employee, EE.BirthDate, EARNDDED
WHERE ADDRESS.Employee = EARNDDED.Employee AND ADDRESS.Employee = EE.Empl
AND (EARNDDED.YTD_$ ) AND (EARNDDED.HED =001') ORDER BY ADDRESS.Name
```

	Name	City_St	Employee	BirthDate	YTD_\$
▶	ADAMS, RICH...	CHICAGO, IL ...	1117	2/1/1939	3533.33
	ALSON, GEOFF...	CHICAGO, IL ...	3003	2/1/1939	1333.33
	ANDERSON, DA...	NAPERVILLE, IL...	1616	7/17/1948	2918.75
	ANDREWS, HE...	GLEN ELLYN, IL...	2013	4/20/1959	400.00
	AUSTIN, STEVE...	CHICAGO, IL ...	1234	7/15/1939	705.47
	AYERS, CHEST...	MELROSE PAR...	1755	12/2/1946	2174.50
	BALDWIN, ALIC...	PEARL RIVER, ...	1043	9/8/1950	2104.00
	BARKER, MART...	BELLWOOD, IL ...	1184	9/11/1946	2600.00
	BARNES, JOHN...	OAKLAND, NJ ...	2002	6/30/1945	8463.94
	BARTHOLOW III...	GLENVIEW, IL ...	1113	2/16/1938	3000.00
	BISHOP, MARIA ...	CHICAGO, IL ...	3021	9/12/1933	829.96
	BLOOM, ALEXA...	GLENVIEW, IL ...	3001	2/16/1938	1583.33
	BROWN, WILLI...	NEWARK, NJ ...	2005	8/24/1935	603.65
	CACH, ROBERT ...	PEARL RIVER, ...	1258	7/3/1948	631.25
	CARLILE, WILLI...	CICERO, IL ...	3013	8/16/1958	825.00
	CHOU, LO ...	OAKBROOK, IL ...	3020	6/25/1953	726.00
	CMEYLA, JANE ...	CHICAGO, IL ...	2003	1/3/1959	513.08
	COLLINS, ANNA...	VILLA PARK, IL ...	1616	2/1/1939	2918.75

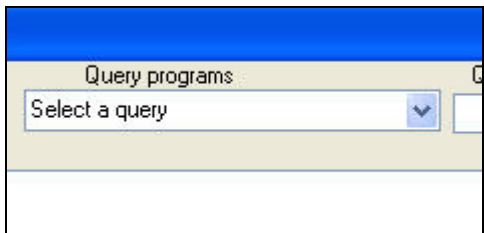
Datatron DBCreate **Data Queries 6**

You can sort the query results in a different order by clicking on the column heading of the data to be sorted.

After reviewing the query results, you can click on the Cancel button to return to the Display Query window for modification of the query or for creating a new query.

Displaying Predefined Queries

An empty datagrid is displayed when first requesting an existing query. To request a particular query, click on the **Query programs** dropdown box and select the desired query. Then click on the Submit button to display the query results.



The SQL command that created the query is displayed above the query results. The SQL command can be modified and resubmitted to view a different result by clicking the **Submit** button.

Saving queries

A query program can be saved by clicking on the **Save query** button. It is necessary to enter a query code and query title at the top of the window. The query program will be saved in a file that has the naming convention of "REP" + query code + ".sql" and will be saved in the current directory. The new query will appear in the Query programs dropdown box in future queries.

Datatron DBCreate **Data Queries 6**

Printing queries

The query results can be printed by clicking the **Print** button. It is necessary to enter a query code and query title if none has been entered.

Changing queries

Queries can be changed dynamically by changing the SQL code and resubmitting the query. By saving each query with a different code and title it is easy to create several similar queries having different selection criteria.

Other Controls

Company: Enter the 6 character identifier for a company if you wish to select data by company.

Employee: Enter an employee number if you wish to select data for an employee.

View entire segment button: Clicking on the Entire segment button will add all of the fields for the selected segment into the Data Table. This is a shortcut method for quickly browsing the contents of a particular segment or data table

Reset parameters button: Click this button to reset the Data Table to spaces enabling a new query to be built from scratch.

Delete button: Click this button to an entry from the Data Table.

Cancel button: Click the Cancel button to return to the main window.

System files description

Setup.ext: This sequential file contains the company and file information defined in the Company setup window. Each time the Company window is updated, the information is written to this file and is used to populate the information on the Company window.

Gctrans.dat: This file is generated by the system whenever an extract routine is executed and is processed by the extract.exe file when extracting records from FILE02. The file will contain data defining the Cyborg file paths to use and the data segments to be extracted.

Extract routine files: The parameters that define a particular extract routine is stored on a sequential extract file and will have the naming convention of 'EXTxxxx.EXT' where xxxx is the extract routine value.

extracto.bat: This is an MS-DOS batch file that is executed whenever an extract routine is processed. It will execute the program **extract.exe** to extract records from the Cyborg database and the program sortex.exe to sort the extracted records. The output is written to a sequential file with the naming convention xxxx.dat where xxxx is the name of the database name entered in the extract routine definition window.

extractc.bat: This is an MS-DOS batch file that is executed whenever an extract routine that extracts **check history** records is processed. It will execute the program **extract1.exe** to extract check records from the Cyborg database and the program sortex.exe to sort the extracted records. The output is written to a sequential file with the naming convention xxxx.dat where xxxx is the name of the database name entered in the extract routine definition window.

Datatron DBCreate **System Files 7**

Segfile.txt: This sequential file contains a definition of each Cyborg field and is processed during the extract processing phase.

Segfile.exe: This program is called when clicking on the Update dictionary menu item and will create the file segfile.txt which contains field definitions from FILE01.

Query files: Query programs are saved in a file named as "REP" + query code + ".sql". The query programs are displayed in the dropdown box of the Datatron Query Results form and can be selected and used to generate a query display.

Post processing recommendations:

1. After the data base has been created, it is recommended that the Access system be activated and the new Access data base file be opened.
2. Select the Tools – Database Utilities – Compact and Repair Database option. This will significantly reduce the size of the just completed data base.