



Castle Creative Services, LLC

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# DOWNLOADING OPTIONS

**Download Data** for TELLERGRAPH for Windows eliminate time consuming data collection and increase accuracy by retrieving transaction volumes and current teller staffing data from your on-line teller system. By reducing the time required in using TELLERGRAPH, new applications become possible. All branches may be continuously monitored, and over- or understaffing conditions spotted quickly. Reports generated through this option provide additional information regarding staff utilization, transaction mix, and comparative statistics for all branches on the system. With downloaded data, TELLERGRAPH accepts transaction volumes for up to 15 types of transactions, for up to 48 half-hour periods (24 periods using Option A) per day, and determines a daily average transaction time. This increases accuracy over systems that measure only the number of customers.

With this option, you may define up to 15 types of transactions (such as a DDA Split Deposit or Savings Withdrawal) and the time required to complete each. Different standards may be established for each service area. Also, standards may vary from branch to branch. If a particular branch does not have established standards, user defined default standards will be used, eliminating any need to set up each branch separately.

Once transaction standards are entered, TELLERGRAPH can analyze data supplied by, and downloaded from, the on-line teller system. Since each downloaded data file nominally contains information for a calendar month, the user need only specify the month to be examined. The system will report its progress while reading and converting the data file to a format that can be read by the rest of the TELLERGRAPH system. This process also computes a weighted average transaction time for each day (based on the actual transaction mix and the standard times already entered).

Two new reports exclusive to downloaded data allow managers to identify staffing problems and opportunities -- perhaps the need for an "express" teller window, or more staff to process night bags. Comparative statistics permit evaluation of transaction mix, current staffing and staff effectiveness between branches.

Mainframe data collection requirements vary from system to system, so the process of preparing the information for downloading rests with those who know your system best -- your own data processing department or service bureau. Castle Creative Services' technical assistance is readily available both before and after implementation to help get you going quickly and smoothly!

## DOWNLOADING INFORMATION

### File characteristics for download data file

The following information is provided for the benefit of the technical people who will build the download file from information collected by the on-line teller system. If that job is already done, you may skip to the next part of this chapter without missing anything vital to the use of this option.

The download file for use in this option should conform to the following standards. Each file should contain one month of transaction information for all branches of a participating affiliate. The file(s) should be transferred to an MS-DOS formatted diskette or hard disk within the TELLERGRAPH data subdirectory (usually the \TELL4WIN subdirectory).

We recommend that the transferred file be named **TRANSVOL.month**, where month is "JAN", "FEB", "MAR", "APR", "MAY", "JUN", "JUL", "AUG", "SEP", "OCT", "NOV" or "DEC". The "month" should denote the calendar month over which that file's data was collected. Notice that a data file may contain any amount of information -- one day to one year's worth, so that no particular cut-off date is assumed for a particular month's TRANSVOL file. This is the naming standard that we use in this manual, though the program can read a properly formatted data file, regardless of its file name.

For greatest flexibility, three different file format options are available. To avoid further confusion, we will refer to these as **Options A, B, and C**. **Any of these options may be appropriate - it is NOT necessary to implement all of them!**

### Option A

The ASCII text file will contain aggregate volumes for 15 types of transactions, and the actual number of tellers on line, in each of 24 half-hour intervals, beginning at 8:00 AM. If your institution or affiliate does not use all available transaction types, the unused combinations should be filled with zeros. This is generally the easiest option to implement and is compatible with versions of TELLERGRAPH prior to 2.80.

Each record will be 1164 bytes in length and will contain the information for a particular branch, work area (i.e., Lobby, Drive-up or Commercial), and date. Each record will be terminated with a carriage return (ASCII 13) and line feed (ASCII 10). These characters are counted as part of the record length.

On this and the following pages, you will see the contents of this file laid out as they would

appear end-to-end in the data record:

**TRANSVOL.month - Option A**

| <b>Content</b>   | <b># of Characters</b> | <b>Example</b> |
|--|------------------------|----------------|
| Branch Number - Unique number from 1-999 for each physical branch location                                   | 3                      | 001            |
| Queue Number (example: 1 = Lobby, 2 = Drive-up, 3 = Commercial)  | 1                      | 1              |
| Transaction Date in YYMMDD format  | 6                      | 040820         |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 8:00 to 8:30 (on this date). (INTERVAL 1) | 3                      | 000            |
| # of occurrences of Transaction Type 2 (Comml. DDA Deposit) from 8:00 to 8:30.                               | 3                      | 000            |
| # of occurrences of Transaction Type 3 (Personal DDA Check Dep.) from 8:00 to 8:30.                          | 3                      | 000            |
| # of occurrences of Transaction Type 4 (Comml. DDA Deposit) from 8:00 to 8:30.                               | 3                      | 000            |
| # of occurrences of Transaction Type 5 (Personal DDA Split Dep.) from 8:00 to 8:30.                          | 3                      | 000            |
| # of occurrences of Transaction Type 6 (Comml. DDA Split Dep.) from 8:00 to 8:30.                            | 3                      | 000            |
| # of occurrences of Transaction Type 7 (Savings Deposit) from 8:00 to 8:30.                                  | 3                      | 000            |
| # of occurrences of Transaction Type 8 from 8:00 to 8:30.  | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 8:00 to 8:30.  | 3                      | 000            |
| # of occurrences of Transaction Type 10 from 8:00 to 8:30.   | 3                      | 000            |
| # of occurrences of Transaction Type 11 from 8:00 to 8:30.   | 3                      | 000            |
| # of occurrences of Transaction Type 12 from 8:00 to 8:30.   | 3                      | 000            |
| # of occurrences of Transaction Type 13 from 8:00 to 8:30.   | 3                      | 000            |

| <b>Content</b>  | <b># of Characters</b> | <b>Example</b> |
|---|------------------------|----------------|
| # of occurrences of Transaction Type 14 from 8:00 to 8:30.  | 3                      | 000            |
| # of occurrences of Transaction Type 15 from 8:00 to 8:30.  | 3                      | 000            |
| # of Tellers on duty from 8:00 to 8:30 on this date.  | 3                      | 000            |
| (Note that Branch 1 in our example doesn't open until 8:30, so there are no transactions and no tellers on duty during this interval. The first interval is ALWAYS 8:00 TO 8:30, regardless of when the branch opens) |                        |                |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 8:30 to 9:00. (INTERVAL 2)   | 3                      | 003            |
| # of occurrences of Transaction Type 2 from 8:30 to 9:00.   | 3                      | 005            |
| # of occurrences of Transaction Type 3 from 8:30 to 9:00.   | 3                      | 004            |
| # of occurrences of Transaction Type 4 from 8:30 to 9:00.   | 3                      | 008            |
| # of occurrences of Transaction Type 5 from 8:30 to 9:00.   | 3                      | 002            |
| # of occurrences of Transaction Type 6 from 8:30 to 9:00.   | 3                      | 010            |
| # of occurrences of Transaction Type 7 from 8:30 to 9:00.   | 3                      | 004            |
| # of occurrences of Transaction Type 8 from 8:30 to 9:00  | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 8:30 to 9:00.   | 3                      | 002            |
| .   |                        |                |
| .   |                        |                |
| .   |                        |                |
| # of occurrences of Transaction Type 15 from 8:30 to 9:00.  | 3                      | 001            |
| Actual # of Tellers on Duty between 8:30 and 9:00.  | 3                      | 003            |
| # of occurrences of Transaction Type 1 from 9:00 to 9:30 (INTERVAL 3)   | 3                      | 004            |
| .   |                        |                |
| .   |                        |                |
| .   |                        |                |
| .   |                        |                |

| Content   | # of Characters | Example       |
|---|-----------------|---------------|
| # of occurrences of Transaction Type 15 from 9:00 to 9:30.  | 3               | 002           |
| Actual # of Tellers on Duty between 9:00 and 9:30.  | 3               | 003           |
| .   |                 |               |
| .   |                 |               |
| .   |                 |               |
| # of occurrences of Transaction Type 15 from 19:30 to 20:00. (INTERVAL 24)  | 3               | 000           |
| Actual # of Tellers on Duty between 19:30 and 20:00. (7:30 PM and 8:00 PM) Since the branch closed at 16:30 (4:30 PM), all intervals since that time have 0 transactions and 0 tellers.         | 3               | 000           |
| CARRIAGE RETURN (ASCII 13)  | 1               | Not printable |
| LINE FEED (ASCII 10)  | 1               | Not Printable |
| TOTAL RECORD LENGTH   | 1164            |               |
| Our example shows the data for Branch 1 (001), Lobby queue (Queue 1) activity for August 20, 2004. This record (judging by the date) is probably part of the download file <b>TRANSVOLAUG</b> . |                 |               |

## Option B

This option provides for more time intervals and less wasted space. These seemingly contradictory goals are met by structuring the data file around the exact information required, including number of transaction types, number of time intervals, daily starting time, and other information. Under Option B, the length of each record is determined by the amount of data desired. The records can be as short as 28 characters or as long as 2316 characters, but **all records must be the same length**. This file format allows us to specify the number of transaction types (1-15), the number of time intervals (1-48, though files created for TG/DOS are limited to 29 intervals), the first time interval, whether or not actual staff information is included, and even permits a more compact numeric format within the data file. We inform TELLERGRAPH that Option B is being used, in addition to how to interpret the data file, by means of a *record header*. The record header is always the first record in the file. It is the same length as the other records, but only the first 28 characters are used. In ASCII format, the header contains:

| Contents  | # of Characters | Example          |
|---|-----------------|------------------|
| TELLERGRAPH Data Flag   | 16              | TELLERGRAPH DATA |
| # of Half-hour Intervals  | 2               | 20               |
| # of Transaction Types  | 2               | 13               |
| First interval in data file.  | 2               | 15               |
| The number of half-hour periods since midnight. 8:00 am is 16, 8:30 am would be 17, and so on                   |                 |                  |
| Actual staff flag - "Y" if actual staff is in file.   | 1               | Y                |
| ASCII flag - "Y" if numeric data is in ASCII format, otherwise numbers are assumed to be packed integer values. | 1               | Y                |
| Record length in bytes  | 4               | 0852             |

Each record will be the same length - listed in the 25th through 28th positions of the first record. The record length is calculated as follows. Note that your record length will probably be different.

|  |             |
|--|-------------|
| Branch, date & queue (fixed value)   | 10          |
| #of Transaction Types  | 13          |
| If Actual Staff="Y", add one   | <u>1</u>    |
| Total Transaction+Staff  | 14          |
| Multiply by # of Intervals   | <u>x 20</u> |
| Product  | 280         |
| Multiply product by 3 if using ASCII values, by 2 if using packed integer format | <u>x 3</u>  |
|  | 840         |
| Number of filler characters per record.  | <u>2</u>    |
| <b>TOTAL RECORD LENGTH</b>   | <b>852</b>  |

The second and all following records contain the information for a particular branch, work area (i.e., Lobby, Drive-up or Commercial), and date. Each record may be terminated with a carriage return (ASCII 13) and line feed (ASCII 10), or with other filler characters. These characters are counted as part of the record length.

On this and the following pages, you will see the contents of the data record laid out as they



would appear end-to-end in the TRANSVOL data file.

**TRANSVOL.month - Option B**

| <b>Content</b>   | <b># of Characters</b> | <b>Example</b> |
|--|------------------------|----------------|
| Branch Number - Unique number from 1-999 for each physical branch location                                   | 3                      | 002            |
| Queue Number (example: 1 = Lobby, 2 = Drive-up, 3 = Commercial)  | 1                      | 4              |
| Transaction Date in YYMMDD format  | 6                      | 040820         |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 7:30 to 8:00 (on this date). (INTERVAL 1) | 3                      | 000            |
| # of occurrences of Transaction Type 2 (Comml. DDA Deposit) from 7:30 to 8:00.                               | 3                      | 000            |
| # of occurrences of Transaction Type 3 (Personal DDA Check Dep.) from 7:30 to 8:00.                          | 3                      | 000            |
| # of occurrences of Transaction Type 4 (Comml. DDA Deposit) from 7:30 to 8:00.                               | 3                      | 000            |
| # of occurrences of Transaction Type 5 (Personal DDA Split Dep.) from 7:30 to 8:00.                          | 3                      | 000            |
| # of occurrences of Transaction Type 6 (Comml. DDA Split Dep.) from 7:30 to 8:00.                            | 3                      | 000            |
| # of occurrences of Transaction Type 7 (Savings Deposit) from 7:30 to 8:00.                                  | 3                      | 000            |
| # of occurrences of Transaction Type 8 from 7:30 to 8:00.  | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 7:30 to 8:00.  | 3                      | 000            |
| # of occurrences of Transaction Type 10 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 11 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 12 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 13 from 7:30 to 8:00.   | 3                      | 000            |

| <b>Content</b>   | <b># of Characters</b> | <b>Example</b> |
|--|------------------------|----------------|
| (Note that, unlike Option A, our first interval is not limited to the 8:00 - 8:30 period. TELLERGRAPH can accept any hour or half-hour point as the starting time, though the workday cannot wrap past midnight at any time. Like Option A, the first interval must be the same for all branches, regardless of the time that the branches actually open.) |                        |                |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 8:00 to 8:30. (INTERVAL 2)  | 3                      | 003            |
| # of occurrences of Transaction Type 2 from 8:00 to 8:30.  | 3                      | 005            |
| # of occurrences of Transaction Type 3 from 8:00 to 8:30.  | 3                      | 004            |
| # of occurrences of Transaction Type 4 from 8:00 to 8:30.  | 3                      | 008            |
| # of occurrences of Transaction Type 5 from 8:00 to 8:30.  | 3                      | 002            |
| # of occurrences of Transaction Type 6 from 8:00 to 8:30.  | 3                      | 010            |
| # of occurrences of Transaction Type 7 from 8:00 to 8:30.  | 3                      | 004            |
| # of occurrences of Transaction Type 8 from 8:00 to 8:30   | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 8:00 to 8:30.  | 3                      | 002            |
| .  |                        |                |
| .  |                        |                |
| .  |                        |                |
| # of occurrences of Transaction Type 13 from 8:00 to 8:30.   | 3                      | 001            |
| Actual # of Tellers on Duty between 8:00 and 8:30.   | 3                      | 003            |
| If actual staff was not being collected, the field immediately above would not be part of the data file.   |                        |                |
| # of occurrences of Transaction Type 1 from 8:30 to 9:00 (INTERVAL 3)  | 3                      | 004            |
| .  |                        |                |
| .  |                        |                |
| .  |                        |                |
| # of occurrences of Transaction Type 13 from 8:30 to 9:00.   | 3                      | 002            |

| <b>Content</b>   | <b># of Characters</b> | <b>Example</b> |
|--|------------------------|----------------|
| Actual # of Tellers on Duty between 8:30 and 9:00.   | 3                      | 003            |
| .  | .                      | .              |
| .  | .                      | .              |
| .  | .                      | .              |
| # of occurrences of Transaction Type 13 from 17:00 to 17:30. (INTERVAL 20)   | 3                      | 000            |
| Actual # of Tellers on Duty between 17:00 and 17:30. (5:00 PM and 5:30 PM) Since the branch closed at 16:30 (4:30 PM), all intervals since that time have 0 transactions and 0 tellers.          | 3                      | 000            |
| CARRIAGE RETURN (ASCII 13)   | 1                      | Not Printable  |
| LINE FEED (ASCII 10)   | 1                      | Not Printable  |
| TOTAL RECORD LENGTH  | 852                    |                |
| Our example shows the data for Branch 2 (002), Lobby queue (Queue 1) activity for August 20, 2004. This record (judging by the date) is probably part of the download file <b>TRANSVOL.AUG</b> . |                        |                |

## Option C

This option provides all of the advantages of Option B, plus support for 5 digit branch numbers, and teller-specific transaction counts. As with Option B, the length of each record is determined by the amount of data desired. The records can be as short as 28 characters or as long as 2327 characters, but **all records must be the same length**. This file format allows us to specify the number of transaction types (1-15), the number of time intervals (1-48), whether or not teller-specific data is used, the first time interval, whether or not actual staff information is included, and even permits a more compact numeric format within the data file. We inform TG/Win that Option C is being used, in addition to how to interpret the data file, by means of a *record header*. The record header is always the first record in the file. It is the same length as the other records, but only the first 29 characters are used. In ASCII format, the header contains:

| Contents  | # of Characters | Example          |
|---|-----------------|------------------|
| TELLERGRAPH Option C Data Flag  | 16              | TELLERGRAPH OPTC |
| # of Half-hour Intervals  | 2               | 20               |
| # of Transaction Types  | 2               | 13               |
| First interval in data file. The number of half-hour periods since midnight. 8:00 am is 16, 8:30 am would be 17, and so on. | 2               | 15               |
| Actual staff flag - "Y" if actual staff is in file.   | 1               | Y                |
| ASCII flag - "Y" if numeric data is in ASCII format, otherwise numbers are assumed to be packed integer values.             | 1               | Y                |
| Record length in bytes  | 4               | 0852             |
| Length of teller ID Number (0-9)  | 1               | 9                |

Each record will be the same length - listed in the 25th through 28th positions of the first record. The record length is calculated as follows. Note that your record length will probably be different.

|  |             |
|--|-------------|
| Branch, date & queue (fixed value)   | 12          |
| Length of teller ID number (as used above)                                       | 9           |
| #of Transaction Types  | 13          |
| If Actual Staff="Y", add one   | <u>1</u>    |
| Total Transaction+Staff  | 14          |
| Multiply by # of Intervals   | <u>x 20</u> |
| Product  | 280         |
| Multiply product by 3 if using ASCII values, by 2 if using packed integer format | <u>x 3</u>  |
|  | 840         |
| Number of filler characters per record.  | <u>2</u>    |
| <b>TOTAL RECORD LENGTH</b>   | <b>863</b>  |

The second and all following records contain the information for a particular branch, work area (i.e., Lobby, Drive-up or Commercial), and date. Each record may be terminated with a carriage return (ASCII 13) and line feed (ASCII 10), or with other filler characters. These characters are counted as part of the record length.

On this and the following pages, you will see the contents of the data record laid out as they would appear end-to-end in the TRANSVOL data file.

**TRANSVOL.month - Option C**

| <b>Content</b>   | <b># of Characters</b> | <b>Example</b> |
|--|------------------------|----------------|
| Branch Number - Unique number from 1-31000 for each physical branch location                                 | 5                      | 00002          |
| Queue Number (example: 1 = Lobby, 2 = Drive-up, 3 = Commercial)  | 1                      | 4              |
| Transaction Date in YYMMDD format  | 6                      | 040820         |
| Teller Number (optional - length as defined in header record.)   | max. 9                 | 510594399      |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 7:30 to 8:00 (on this date). (INTERVAL 1) | 3                      | 000            |
| # of occurrences of Transaction Type 2 (Comml. DDA Deposit) from 7:30 to 8:00.                               | 3                      | 000            |
| # of occurrences of Transaction Type 3 (Personal DDA Check Dep.) from 7:30 to 8:00.                          | 3                      | 000            |
| # of occurrences of Transaction Type 4 (Comml. DDA Deposit) from 7:30 to 8:00.                               | 3                      | 000            |
| # of occurrences of Transaction Type 5 (Personal DDA Split Dep.) from 7:30 to 8:00.                          | 3                      | 000            |
| # of occurrences of Transaction Type 6 (Comml. DDA Split Dep.) from 7:30 to 8:00.                            | 3                      | 000            |
| # of occurrences of Transaction Type 7 (Savings Deposit) from 7:30 to 8:00.                                  | 3                      | 000            |
| # of occurrences of Transaction Type 8 from 7:30 to 8:00.  | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 7:30 to 8:00.  | 3                      | 000            |
| # of occurrences of Transaction Type 10 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 11 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 12 from 7:30 to 8:00.   | 3                      | 000            |
| # of occurrences of Transaction Type 13 from 7:30 to 8:00.   | 3                      | 000            |

| <b>Content</b>  | <b># of Characters</b> | <b>Example</b> |
|---|------------------------|----------------|
| (Note that, unlike Option A, our first interval is not limited to the 8:00 - 8:30 period. TELLERGRAPH can accept any hour or half-hour point as the starting time, though the workday cannot wrap past midnight at any time. Like both of the preceding options, the first interval must be the same for all branches, regardless of the time that the branches actually open.) |                        |                |
| # of occurrences of Transaction Type 1 (Personal DDA Deposit) from 8:00 to 8:30. (INTERVAL 2)   | 3                      | 003            |
| # of occurrences of Transaction Type 2 from 8:00 to 8:30.   | 3                      | 005            |
| # of occurrences of Transaction Type 3 from 8:00 to 8:30.   | 3                      | 004            |
| # of occurrences of Transaction Type 4 from 8:00 to 8:30.   | 3                      | 008            |
| # of occurrences of Transaction Type 5 from 8:00 to 8:30.   | 3                      | 002            |
| # of occurrences of Transaction Type 6 from 8:00 to 8:30.   | 3                      | 010            |
| # of occurrences of Transaction Type 7 from 8:00 to 8:30.   | 3                      | 004            |
| # of occurrences of Transaction Type 8 from 8:00 to 8:30  | 3                      | 000            |
| # of occurrences of Transaction Type 9 from 8:00 to 8:30.   | 3                      | 002            |
| .   |                        |                |
| .   |                        |                |
| .   |                        |                |
| # of occurrences of Transaction Type 13 from 8:00 to 8:30.  | 3                      | 001            |
| Actual # of Tellers on Duty between 8:00 and 8:30.  | 3                      | 003            |
| If actual staff was not being collected, the field immediately above would not be part of the data file.  |                        |                |
| # of occurrences of Transaction Type 1 from 8:30 to 9:00 (INTERVAL 3)   | 3                      | 004            |
| .   |                        |                |
| .   |                        |                |
| .   |                        |                |
| # of occurrences of Transaction Type 13 from 8:30 to 9:00.  | 3                      | 002            |

| Content  | # of Characters | Example       |
|--|-----------------|---------------|
| Actual # of Tellers on Duty between 8:30 and 9:00.   | 3               | 003           |
| .  |                 |               |
| .  |                 |               |
| .  |                 |               |
| # of occurrences of Transaction Type 13 from 17:00 to 17:30. (INTERVAL 20)   | 3               | 000           |
| Actual # of Tellers on Duty between 17:00 and 17:30. (5:00 PM and 5:30 PM) Since the branch closed at 16:30 (4:30 PM), all intervals since that time have 0 transactions and 0 tellers.          | 3               | 000           |
| CARRIAGE RETURN (ASCII 13)   | 1               | Not Printable |
| LINE FEED (ASCII 10)   | 1               | Not Printable |
| TOTAL RECORD LENGTH  | 863             |               |
| Our example shows the data for Branch 2 (002), Lobby queue (Queue 1) activity for August 20, 2004. This record (judging by the date) is probably part of the download file <b>TRANSVOL.AUG</b> . |                 |               |

## Caveats and Limitations

- a. The transaction type descriptions within TELLERGRAPH **must agree** with the order of the transactions that are downloaded. Transaction descriptions should not be changed once data collection begins in earnest, since this would invalidate any information already converted by the program. The default transaction types built into TELLERGRAPH are:
1. Personal DDA Cash Deposit
  2. Commercial DDA Cash Deposit
  3. Personal DDA Check Deposit
  4. Commercial DDA Check Deposit
  5. Personal DDA Split Deposit
  6. Commercial DDA Split Deposit
  7. Savings Deposit
  8. Miscellaneous Credit
  9. On Us Items Cashed
  10. Foreign Items Cashed
  11. Other Cash Out
  12. Payments
  13. Balance Inquiries
  14. Other
  15. (Blank)

b. TELLERGRAPH has the following capacity:

1. Maximum 24 hours of daily branch activity (12 hour limit if using Download Option A, 14½ hour limit if using Option B compatible with TG/DOS)
2. Maximum of 999 transactions / type / interval
3. Maximum of 4 queue types per location
4. Maximum of 15 transaction types
5. Maximum time per transaction = 20 minutes
6. Maximum of 999 branches for Options A and B, 31,000 with Option C.
7. Maximum Recommended Staffing Level is 20 tellers per service area.

c. Millennium friendly. While the download file is limited to 6 characters for the date field, it **does support** dates beyond 1999. Currently, when the "year" portion of the date field is between "00" and "50", inclusive, the program assumes the year is in the 21st century (20xx and not 19xx). This feature uses the date ambiguity resolution features of Windows, and advances the transition point automatically as the current date changes.