



International Periodical Distributors Association

STRT System

Installation and User's Guide

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*Prepared by
Herman Consulting Group, Inc.*

Table of Contents

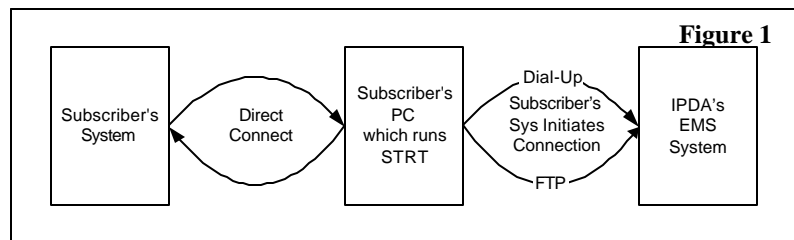
- Introduction.....1
- Installation Procedure2
- Directory Structure.....5
- Supported Transaction Families7
- Set-Up Procedure9
- Operating Procedure11
- Glossary12
- Requirements13

STRT – Send Transmit Receive Translate

Introduction

IPDA implemented the EMS in 1982 for the express purpose of allowing the magazine industry's trading partners, at that time national distributors and wholesalers, to electronically transmit voluminous transactions between their respective computers. The original transmission protocol was bi-Sync, which, years later, was usurped by Y-Modem batch Async and more recently with Bulletin Board Async Protocols. The original EMS format only allowed for 80 byte records, which was consistent with early transmission limits. This too has been upgraded to allow for proprietary "bit stripping" compression and/or the use of proprietary variable record formats. In all of the above cases, both the subscriber and the Application Service Provider (ASP) each needed to enhance their systems every time a new protocol or new data format was developed. This was in addition to the obvious need for the subscriber to upgrade their internal systems to be able to produce or use the transmitted data.

STRT was developed as a vehicle to isolate the subscriber from both the protocols and the data formats, leaving them only the need to integrate the data into their own applications. For data leaving the subscriber's systems, the subscriber need only place the files it wants to transmit to its trading partners in a specific STRT directory, in standard non compressed form, and STRT will compress it, create variable records and transmit it without any subscriber intervention. Likewise, for incoming data to the subscriber's systems, STRT will parse the incoming data and create a series of files and place them in a specific STRT directory, from which the subscriber can copy the files to its application programs. (See Figure 1)



STRT is a stand-alone system that will operate in the Windows 9x environment. Its formats and approaches are fully described in EMS Manual D201.

1 Installation Procedure

Please review all the following instructions carefully before you begin the installation process. The instructions are highly detailed, so we recommend that you check them off as you go along. This will ensure that you do not lose your place or miss any instructions. If you don't carefully review and follow the instructions exactly as written, it may make the installation more difficult.

- 1.1 Download the STRT auto-install program, strtVER.exe (VER dictates the version of STRT) from <http://www.godps.com/IPDA> . Make sure you are aware of the location that you save the program to.
- 1.2 Double-click on strtVER.exe to run the auto install program and follow each step.
- 1.3 Once the installation is complete click 'Finish'. Reboot the PC.
- 1.4 **If this is an Upgrade of STRT proceed to Step 1.10, otherwise proceed to Step 1.5.**
- 1.5 Please edit your Autoexec.bat by:
 - 1.5.1 Clicking on START
 - 1.5.2 Clicking on RUN
 - 1.5.3 Entering SYSEEDIT and Click on "OK"
 - 1.5.4 Entering a new line into Autoexec.Bat -- "SET TZ=xxxxxx" where xxxxxx is your time zone as outlined below.
 - 1.5.4.1 Eastern Daylight would be EST5EDT
 - 1.5.4.2 Central Daylight would be CST6CDT
 - 1.5.4.3 Mountain Daylight would be MST7MDT
 - 1.5.4.4 Pacific Daylight would be PST8PDT
 - 1.5.4.5 Pacific Standard would be PST8PST
- 1.5.5 **Optional** - You may specify a different input and output folder for files sent to or received from IPDA EMS. You may consider using this feature if the system processing your EMS files is not a Windows based system but has the facility to create a network file system that the PC running STRT can access. With this feature turned on, the data for IPDA EMS is moved (copied and deleted) from the remote STRT2EMS folder to the local STRT2EMS folder. Processing then proceeds as before until all your data is received from IPDA EMS, at which time the data from IPDA EMS is moved from the STRT EMS2STRT folder to the your remote EMS2STRT folder. You must ensure that you do not put any data not intended for IPDA EMS in your remote folders. It is your responsibility to make sure the remote folders are mapped correctly on the Windows based STRT system and that the STRT processes have permissions to read and write to these folders. To use this feature put the following lines in the STRTSYS.ini file under the [PATHS] section:

```
STRT2EMS=q:\myoutputfolder
EMS2STRT=s:\process\incoming\fromEMS
```

The drive and path (to the right of the equal sign) above can be anything you want, this is just an example. **The STRTSYS.ini file can be found in either the C:\Windows or C:\WINNT directory.**
- 1.6 During the auto install of STRT the following shortcuts are created on your desktop in a folder called IPDA.
 - 1.6.1 **Profile Maintenance STRT21** (Program to maintain the profiles.)

1.6.2 The following three shortcuts will be created based on the program STRT023.exe (Program to send and receive and parse mailbox data automatically.)

<i>Both Send & Receive</i>	Send AND Receive STRT023
<i>To only Receive data</i>	Receive ONLY STRT023
<i>To only Send data</i>	Send ONLY STRT023

* These same shortcuts can then be altered further to run in an 'Unattended' mode. This will allow STRT to run without the need for an operator to answer the Successful and Error diaglog boxes. The 'U' stands for unattended. To do this the 'Target' field for the shortcut must look as follows:

Send Only, Unattended:	...\STRT\PROGRAMS\STRT023.EXE R U
Receive Only, Unattended:	...\STRT\PROGRAMS\STRT023.EXE S U
Both, Unattended:	...\STRT\PROGRAMS\STRT023.EXE B U

1.6.3 **Re-Receive Re-Send STRT003** (Program to send and receive and parse mailbox data manually. This program will only be used to re-send or re-receive a mailbox)

1.6.4 **Display Logs Displayl** (Program to display the logs created by the system.)

1.7 **Optional** - STRT can be set to operate at specific scheduled times. If you want to use this feature, you can set up d:\xxx\STRT\Programs\STRT023.exe in the windows scheduler. The only parameter that must be changed is "Start in" should be d:\xxx\STRT\data. ***You MUST ensure that you do not schedule the execution of this program so close together that they over lap. That will cause problems.*** Recommend that you use STRT manually for the first several communications so as to ensure that it is operating correctly before setting up the scheduler. If STRT is going to be used on more than one PC for the same mailbox(es), then you must ensure that the schedule doesn't overlap between them as well. It would be advisable to use the 'Unattended' flag mentioned in Step 1.5.2 if the windows scheduler is used to run the STRT023.exe.

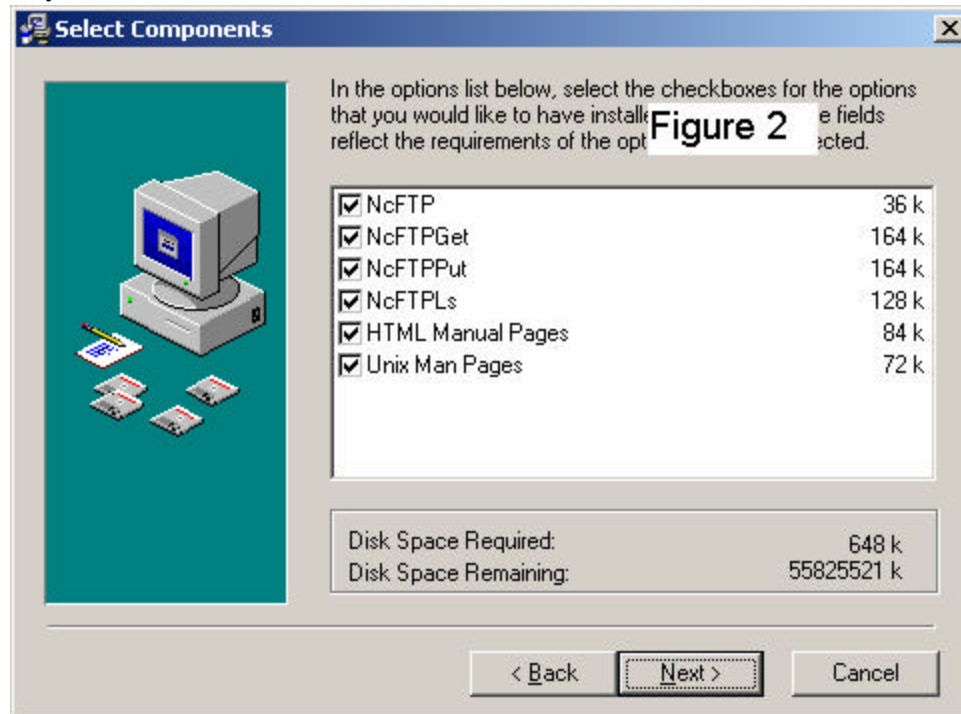
1.8 Execute the **Profile Maintenance STRT21** program and setup your mailbox profile/s. Please review Sections 3 and 4 before proceeding. When running STRT21 the following keys are used:

- **Enter** to move between fields
- **ESC** to exit the program (whatever was not already saved will be lost)
- **F1** to return to last screen without saving
- **F9** to save record and return to last screen

1.9 There is a file in the ...\STRT\Programs folder called Versio n.txt. This file contains the version of the STRT software on your system. You can look at it with the NOTEPAD program but please don't change the data in it. It can be vary helpful when trying to find a problem. This information is sent to IPDA EMS when you send or receive data.

1.10 **Install ncFTP**. This is done by double-clicking on the shortcut called 'Install ncFTP', which can be found on the desktop in the IPDA folder. (Note: If the shortcut is not available you can find the install package for ncFTPxxxxxxx.exe in the ...\STRT\Programs folder). During the install you will want to leave all the defaults and click 'Next' until you get to the screen titled 'Select Components'. At this point you will

want to make sure all of the components have a check mark (See Figure 2), by default they will not all have one.



- 1.11 Run **Profile Maintenance STRT21** by double-clicking on it in the IPDA folder on your desktop and update IPDA Nbr 9999's name to IPDAEMS.DYNDNS.ORG by following these directions:
 - 1.11.1 For **IPDA NBR** enter **9999** and then hit enter.
 - 1.11.2 Make sure the name is **IPDAEMS.DYNDNS.ORG**. If it is not change it at this time and hit enter. Nothing else will be changed at this time for this IPDA Nbr.
 - 1.11.3 Key **F9** to save your changes. Then key **F9** again to exit STRT21.

At this point installation of STRT and ncFTP is completed. You will want to continue on through Sections 2 – 5 to better understand how STRT works.

2 Directory Structure

2.1 Subscriber can place STRT on any disk at the disk prompt or any folder level (See Figure 2)

2.1.1 Examples:

2.1.1.1 **D:** will result in D:\STRT

2.1.1.2 **C:\IPDA** will result in C:\IPDA\STRT

2.1.1.3 **L:\Newsstand\Sales\Wholesalers** will result in L:\Newsstand\Sales\Wholesalers\STRT

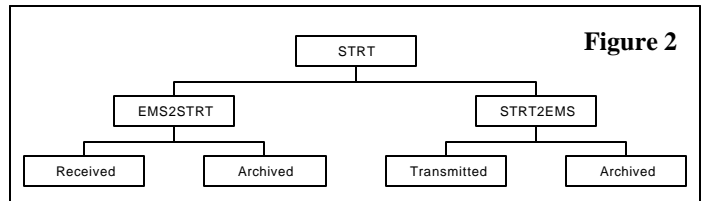


Figure 2

2.2 Folder Purpose for those folders with which the subscriber's application software need to interface.

2.2.1 \STRT\EMS2STRT

2.2.1.1 Holding area for files sent to you from your trading partners after they have been parsed and separated into data streams, awaiting processing by your organization.

2.2.1.2 You are responsible for erasing these files after sending to your applications.

2.2.1.3 Copies of these files are archived as outlined in Section 2.2.3 below.

2.2.1.4 Naming Convention – concatenation of the following:

2.2.1.4.1 Subscriber's Mailbox Number (eg: 1234)

2.2.1.4.2 Date (eg: 20000829 is 8/29/2000 – your system date)

2.2.1.4.3 Time (eg: 1423 is 2:23PM – your system time)

2.2.1.4.4 Transaction Family (eg: 180)

2.2.1.4.5 Example: "1234_20000829_1423.180"

2.2.2 \STRT\EMS2STRT\RECEIVED

2.2.2.1 Holding area for the actual file, untouched, as sent to your system by EMS.

2.2.2.2 This area can would only be used if STRT abends before completing the incoming process. DPS Customer Support can provide assistance on restarting the process if this file exists.

2.2.2.3 Under normal conditions, this directory should be empty.

2.2.3 \STRT\EMS2STRT\ARCHIVED

- 2.2.3.1 Archive area for data streams after the incoming file(s) have been parsed and separated. These are duplicates of the files as outlined in Section 2.2.1 above.
- 2.2.3.2 Naming Convention – concatenation of the following:
 - 2.2.3.2.1 Date (eg: 20000829 is 8/29/2000 – your system date)
 - 2.2.3.2.2 Time (eg: 1423 is 2:23PM – your system time)
 - 2.2.3.2.3 MBOX with Subscriber’s Mailbox Number (eg: MBOX1234)
 - 2.2.3.2.4 Sequence Number – incremented by 1 for each receipt
-- continuously runs from 000 to 999
 - 2.2.3.2.5 Extension is always “EMS”
 - 2.2.3.2.6 Example: “20000829_1423_MBOX1234_076.EMS”

2.2.4 \STRT\STRT2EMS

- 2.2.4.1 Holding area for files awaiting consolidation and transmission to EMS.
- 2.2.4.2 Subscriber may name the file with any name it chooses:
 - 2.2.4.2.1 Examples:
 - 2.2.4.2.1.1 “UCT Data To Be Sent.dat”
 - 2.2.4.2.1.2 “Data.uct”
 - 2.2.4.2.1.3 “This is UCT Data”
 - 2.2.4.2.1.4 “Data.For my Account”
 - 2.2.4.3 STRT will erase these files after they have been consolidated.
 - 2.2.4.4 STRT will archive these files as outlined in Section 2.2.5 below.

2.2.5 \STRT\STRT2EMS\ARCHIVED

- 2.2.5.1 Archive area for the files that you placed in the outgoing area as outlined in Section 2.2.4 above. These remain exactly as you stored them, they have not been modified in any way. They can be used for auditing and/or retransmissions as required.
- 2.2.5.2 Naming Convention – concatenation of the following:
 - 2.2.5.2.1 Date (eg: 20000829 is 8/29/2000 – your system date)
 - 2.2.5.2.2 Time (eg: 1423 is 2:23PM – your system time)
 - 2.2.5.2.3 The file name as you stored it in Section 2.2.4 above.
 - 2.2.5.2.4 Example: “20000829_1423_Data.For my Account”

2.2.6 \STRT\STRT2EMS\TRANSMITTED

- 2.2.6.1 Archive area for the outgoing files, as outlined in Section 2.2.4 above, to EMS after they have been consolidated and processed. They can be used for retransmissions if required.
- 2.2.6.2 Naming Convention – concatenation of the following:
 - 2.2.6.2.1 IPDD with Subscriber’s Mailbox Number (eg: IPDD1234)
 - 2.2.6.2.2 Sequence Number – incremented by 1 for each receipt
-- continuously runs from 000 to 999
 - 2.2.6.2.3 Date (eg: 20000829 is 8/29/2000 – your system date)
 - 2.2.6.2.4 Time (eg: 1423 is 2:23PM – your system time)
 - 2.2.6.2.5 Extension is always “EMS”
 - 2.2.6.2.6 Example: “IPDD1234_076_20000829_1423.EMS”

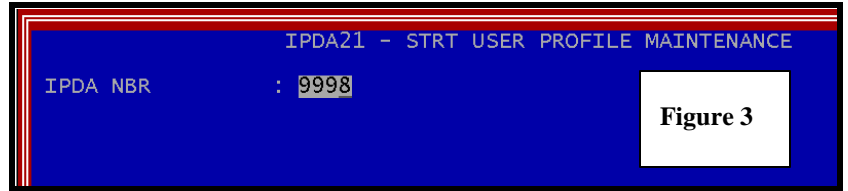
3 Supported Transaction Families

3.1	Message		
3.1.1	010	General Message Record	Standard Transaction
3.2	Statement		
3.2.1	020	Statement Header	Standard Transaction
3.2.2	021	Statement Aging Balances	Standard Transaction
3.2.3	022	Statement Transaction Detail	Standard Transaction
3.3	Magazine Adjustment		
3.3.1	030	Magazine Adjustment Header	Standard Transaction
3.3.2	032	Magazine Sales Adjustment Detail	Standard Transaction
3.3.3	033	Magazine Sales Adjustment Comment	Standard Transaction
3.3.4	034	Magazine Non-Sales Adjustment Detail	Standard Transaction
3.3.5	035	Magazine Non-Sales Adjust Detail Description	Standard Transaction
3.4	Magazine Allotment		
3.4.1	050	Magazine Allotment Header	Standard Transaction
3.4.2	051	Magazine Allotment First Distribution Detail	Standard Transaction
3.4.3	052	Magazine Allotment Redistribution Detail	Standard Transaction
3.4.4	054	Magazine Allotment Detail Extended	Standard Transaction
3.4.5	055	Magazine Allotment Comment Free From	Standard Transaction
3.4.6	056	Magazine Allotment Dist Correction Detail	Standard Transaction
3.4.7	057	Magazine Allotment Dist Correction 1st Extend	Standard Transaction
3.4.8	058	Magazine Allotment Dist Correction 2nd Extend	Standard Transaction
3.4.9	059	Magazine Allotment General Correction	Standard Transaction
3.5	UCT – UPC Code – Cover price – Title		
3.5.1	060	Magazine UCT Header (N/D to EMS)	Standard Transaction
3.5.2	061	Magazine UCT Data (N/D to EMS)	Standard Transaction
3.5.3	063	Rejected UCT Header (EMS to N/D)	Standard Transaction
3.5.4	064	Rejected UCT Data (EMS to N/D)	Standard Transaction
3.5.5	065	Magazine UCT Header (EMS to Wholesaler)	Standard Transaction
3.5.6	066	Magazine UCT Data (EMS to Wholesaler)	Standard Transaction
3.6	Magazine Invoice		
3.6.1	070	Magazine Invoice Header	Standard Transaction
3.6.2	071	Magazine Invoice Detail (Single Entry Format)	Standard Transaction
3.6.3	072	Magazine Invoice Detail (Ship To / Bill To)	Standard Transaction
3.6.4	075	Magazine Invoice Comment	Standard Transaction
3.6.5	078	Magazine Invoice Detail (Compressed Multiple Entry Format {6})	Convertible Transaction
3.6.6	079	Mag Invoice Detail (Ship To/Bill To) (Compressed Multiple Entry Format {5})	Convertible Transaction
3.7	Magazine Credit Memo		
3.7.1	080	Magazine Credit Memo Header	Standard Transaction
3.7.2	081	Magazine Credit Memo Detail (Single Entry Format)	Standard Transaction
3.7.3	085	Magazine Credit Memo Comment	Standard Transaction
3.7.4	088	Magazine Credit Memo Detail (Compressed Multiple Entry Format {6})	Convertible Transaction
3.8	Bindery		
3.8.1	090	Non Standardized Bindery Header	Standard Transaction
3.8.2	091	Non Standardized Bindery Detail	Standard Transaction

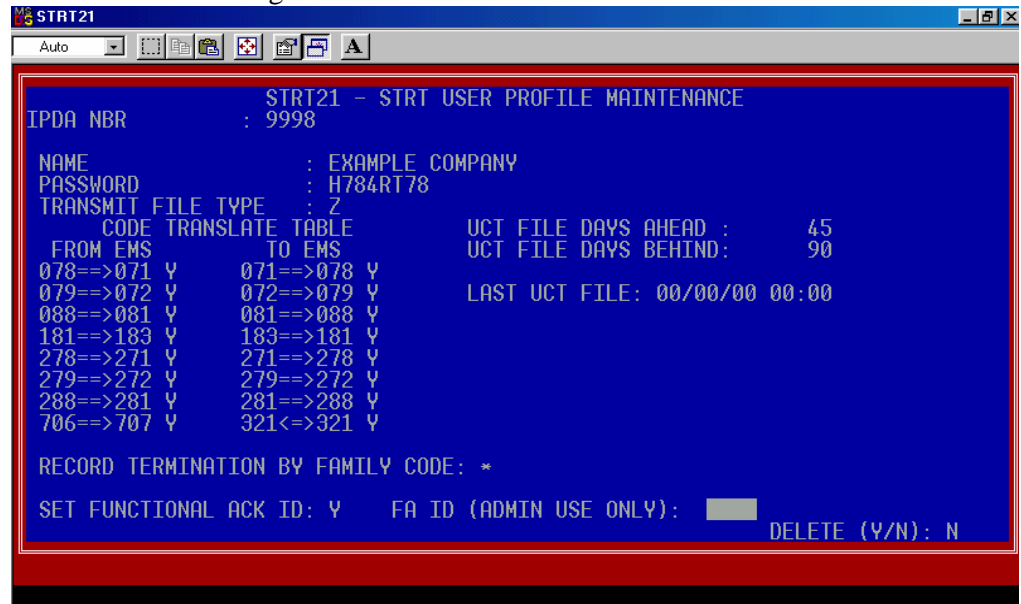
3.9	Magazine Affidavit		
3.9.1	180	Magazine Affidavit Header	Standard Transaction
3.9.2	181	Magazine Affidavit Detail (Multiple Entry Format {4})	Standard Transaction
3.9.3	183	Magazine Affidavit Detail (Single Entry Format – for use with STRT)	Must Convert Transaction
3.10	Book Adjustment		
3.10.1	230	Book Adjustment Header	Standard Transaction
3.10.2	232	Book Sales Adjustment Detail	Standard Transaction
3.10.3	233	Book Sales Adjustment Title & Reference Info	Standard Transaction
3.10.4	234	Book Sales Adjustment Comment	Standard Transaction
3.10.5	235	Book Non-Sales Adjustment Detail	Standard Transaction
3.10.6	236	Book Non-Sales Adjustment Detail Description	Standard Transaction
3.11	Book Invoice		
3.11.1	270	Book Invoice Header	Standard Transaction
3.11.2	271	Book Invoice Detail (Single Entry Format)	Standard Transaction
3.11.3	272	Book Invoice Detail (Ship To / Bill To)	Standard Transaction
3.11.4	274	Book Invoice Alternate Reference	Standard Transaction
3.11.5	275	Book Invoice Comment	Standard Transaction
3.11.6	278	Book Invoice Detail (Compressed Multiple Entry Format {4})	Convertible Transaction
3.11.7	279	Book Inv Detail (Ship To / Bill To) (Compressed Multiple Entry Format {4})	Convertible Transaction
3.12	Book Credit Memo		
3.12.1	280	Book Credit Memo Header	Standard Transaction
3.12.2	281	Book Credit Memo Detail (Single Entry Format)	Standard Transaction
3.12.3	285	Book Credit Memo Comment	Standard Transaction
3.12.4	288	Book Credit Memo Detail (Compressed Multiple Entry Format {4})	Convertible Transaction
3.13	Functional Acknowledgements		
3.13.1	710	Functional Acknowledgements Header	Standard Transaction
3.13.2	712	Functional Acknowledgement to EMS	Standard Transaction
3.13.3	713	Functional Acknowledgement to Recipient	Standard Transaction

4 Set-Up Procedure

- 4.1.1 When you execute **Profile MaintenanceS TRT21** you



- will be placed on the "IPDA NBR" screen shown in Figure 3
- 4.1.2 Upon entering your IPDA EMS mailbox number (in this example the mailbox number is 9998) and pressing enter and you will be placed on your "Profile" screen shown in the figure below.



- 4.1.3 Here you will first enter you agency name and password.

- 4.1.4 Understanding this screen:

4.1.4.1 Navigation:

- 4.1.4.1.1 ESC - Exits program without saving any of the changed parameters on the screen.
- 4.1.4.1.2 F9 – Saves the changes and places you back on the "Select ID screen if you are on the main screen. It will also save changes on the 'Record Termination By Family Code'.
- 4.1.4.1.3 F1 – Resets the values on the "Profile" screen to their pre-changed values and moves you back one field.
- 4.1.4.1.4 F4 - Accesses the 'Record Termination By Family Code' screen by keing it at the '*'.
- 4.1.4.1.5 F5 - Page down the 'Record Termination By Family Code' screen.
- 4.1.4.1.6 F6 - Page up the 'Record Termination By Family Code'
- 4.1.4.2 "ZIP Transmit File" – no longer accessible.
- 4.1.4.3 Code Translate Table (From EMS and To EMS) Settings
- 4.1.4.3.1 All values should be "Y" unless dealing with certain legacy conditions, which should be discussed with IPDA/DPS before making any changes.
- 4.1.4.3.2 To Values can be set "N" for other IPDA Mailbox numbers should the receiving facility not be using STRT or require

specific formats. Review with IPDA/DPS before using this feature.

4.1.4.4 'Record Termination By Family Code' Settings

4.1.4.4.1 To access these values key F4 at the '*'. Then use F5 and F6 to page down and up the screen respectively. Key F9 to save the changes.

4.1.4.4.2 The value placed in into these fields depends upon how your own systems plan to use the data.

4.1.4.4.3 A record is defined as either a Standard Record (Section 6.2) or a Variable Record (Section 6.3).

4.1.4.4.3.1 "C" will separate successive records with "Carriage Control and a Line Feed" Characters.

4.1.4.4.3.2 "L" will separate successive records with a "Line Feed" Character.

4.1.4.4.3.3 "R" will separate successive records with an EBCIDIC record Separator

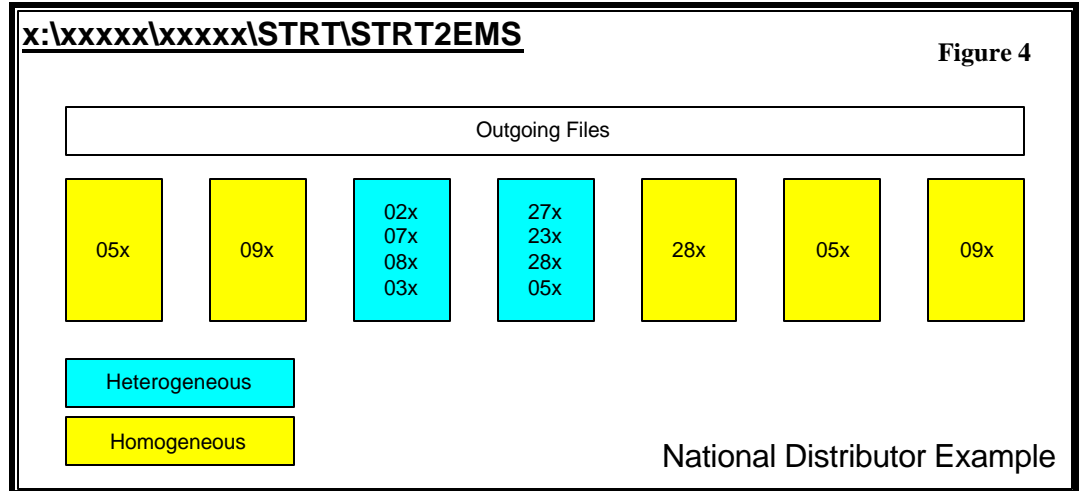
4.1.4.4.3.4 "N" will not use any record separators, all the data will be a single data stream.

4.1.4.5 "Set Functional Acknowledgement ID" should be set to "Y" unless advised otherwise by IPDA/DPS.

5 Operating Procedure

5.1 Transmitting Data to EMS

5.1.1 The subscriber places all transaction family files, either homogeneous or heterogeneous, in their STRT2EMS directory.



5.2 Receiving Data from EMS

5.2.1 The recipient's transactions will be placed into their EMS2STRT directory using the following file naming convention:

5.2.1.1 EEEE_YYYYMMDD_HHMM.FFF where:

5.2.1.1.1 EEEE is the user's EMS mailbox number

5.2.1.1.2 YYYYMMDD is the date the file was received

5.2.1.1.3 HHMM is the time the file was received

5.2.1.1.4 FFF is the family code for all its transactions.

5.2.2 The recipient is responsible for identifying which file is to be used by which of their systems as well as ensuring that they don't skip any file or reuse any file unintentionally.

6 Glossary

- 6.1 **Compression** – A proprietary bit-stripping or table-driven method to place 2 numbers into a single byte thereby providing for more data per record.
- 6.2 **Standard Record** – Always 80 bytes
- 6.3 **Variable Record** – A proprietary method that allows the record type to determine the overall record length. The key to the record length is embedded with in record itself.
- 6.4 **Standard Transaction** – A transmittable transaction whose format only uses standard ASCII or EBCIDIC characters and contains only a single occurrence per record (eg: 071)
- 6.5 **Convertible Transaction** – A transmittable transaction whose components have either been compressed according to EMS' proprietary compression algorithm (eg: 078) or has the facility to contain more than one occurrence per record (eg: 181)
- 6.6 **Must Convert Transaction** – A non-transmittable transaction format provided to a subscriber to facilitate ease of programming by using a standard ASCII or EBCIDIC character set and having only a single occurrence per record. These records will not be permitted to be transmitted, they must be converted to a transmittable transaction format (eg: 183 to/from 181)
- 6.7 **Homogeneous** – File contains only a single family of records (eg: 07x invoices)
- 6.8 **Heterogeneous** – File contains multiple families of records, either placed serially (eg: all 02x, followed by all 07x, followed by all 08x, and followed by all 03x) or interwoven (eg: a single account's 02x, 07x, 08x, 03x, followed by the next account's 02x, 07x, 08x, 03x, etc), or any combination of the above as long as each family is preceded by its family header and follows the sequencing rules for that family as defined in EMS Manual D201.

7 Requirements

- 7.1 Pentium 200 or greater
- 7.2 Windows NT/2000/XP
- 7.3 64mb RAM
- 7.4 56kb Modem and/or an broadband Internet connection
- 7.5 Free Hard Disk Space - Based on Transaction Volume (assuming monthly offloading of Archived Files)
 - 7.5.1 Small (100,000 records/month¹) – 250mb
 - 7.5.2 Mid-Range (250,000 records/month¹) – 500mb
 - 7.5.3 Large (750,000 records/month¹) – 1gb
- 7.6 ncFTP version 3.1.9 or more recent.
- 7.7 Strong Recommendation for all but the smallest EMS subscribers – place STRT on a dedicated PC to minimize Windows instability from affecting production.

8 Technical Support

- 8.1 IPDA
Matt Herman
212-876-0007
212-876-8025 fax
mdherman@IPDA.org
- 8.2 DPS
Customer Service
727-532-9481
727-532-9723 fax
ipda_ems@GoDPS.com

¹ Records per month are the sum of all records sent to EMS and all records received from EMS for all the mailboxes that use the specific PC on which this STRT software operates