

**The Silver Xpress OPX and QWK Off-line Mail, Fax And Data Entry
System**

Version 5.00

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1. Introduction to Silver Xpress.

Welcome to the powerful off-line electronic mail system, the *Silver Xpress Off-line Mail System!*

Silver Xpress is a sophisticated electronic mail product designed for many of today's popular electronic bulletin board systems (BBS). In BBS terminology, Silver Xpress is an "off-line mail door" supporting the OPX and QWK mail packet formats.

If you are a veteran Xpress sysop, or sysop with mail door experience, you may skip this section and go directly to the installation section.

The Silver Xpress off-line mail door will allow you to set up a capability on your BBS guaranteed to make your BBS popular and efficient, while increasing the number of users on your BBS. With Silver Xpress your users will be able to download mail from their preferred mail forums and read the mail, Off-line, on their PC. By off-line, it meant that the user is not connected to your PC and is reading and creating mail using his own computer!

This off-line processing technology has revolutionized the BBS industry. Today, BBSs and users are more efficient, and users are saving lots of money by processing mail in an off-line fashion. Sysops save money in many ways as well. By using Silver Xpress, you reduce the need to acquire more computer lines. Users quickly log onto the BBS, use Silver Xpress to collect the new mail and quickly log off. This opens the lines for other users, and if you having a subscription system, that spells addition income! But more importantly, Silver Xpress will make your BBS popular. Today users demand off-line processing capabilities! By installing Silver Xpress, you are catering to the users' demands and, thereby, making your BBS that much more attractive.

There are many BBS packages in the world and there is a version of Silver Xpress, all working the same, for most popular BBS packages.

The suite of Silver Xpress Mail Doors directly supports the following bulletin boards:

- oAll versions of Opus CBCS
- oAll versions of QuickBBS
- oRBBS version 17.3, 17.4 including MABLE version
- oAll versions of Remote Access including V2.0x JAM support
- oAll versions of PCBoard including 15.00 Support
- oSuperBBS
- oRoboBoard 1.08
- oTAG 2.6
- oPROBoard 1.3x
- oMaximus 2.00x

And indirectly supports, with conversion tools, the following BBS packages:

- oFido version 11.0 12.x
- oMaximus 1.02
- oSearchLight (for FIDO interfacing)
- oWildCat (for FIDO interfacing)

As you can see, Silver Xpress is, by far, the only off-line mail door system supporting most bulletin boards, making it truly ***the universal mail door!***

Why Silver Xpress?

BBS usage has been growing at an incredible pace, and Silver Xpress was designed to address the growing needs of both system operators and users in their quest to viably handle electronic mail.

Reading and replying to bulletin board mail is time consuming for both the user and the BBS. If you find your users are reading a lot of mail and spending a great deal of time on-line replying to and entering new mail, Silver Xpress is a great utility to offer your users! Since its inception, Silver Xpress sysops and users have realized considerable reductions in their phone bills and on-line charges.

With Silver Xpress, your users can capture mail in an organized manner, for off-line reading and replying. Users do this with any BBS offering Silver Xpress in the same consistent manner. By offering Silver Xpress to your users, your BBS operations will be improved by increasing user turnaround time, and by enhancing the image of your BBS. If your BBS is subscription based, there is no doubt your users and your BBS operation will benefit by implementing Silver Xpress.

Silver Xpress operates by offering users the ability to select desirable mail conferences or forums for the purpose of scanning new mail. When Silver Xpress scans mail from the user's pre-selected message conferences, it will check for all new messages, and present a table summary of all new messages in each selected mail conference. The table summary will present not only all new messages, but will indicate if there are any direct messages or messages found using keywords pre-defined by the user. The user can determine how much mail he or she wants, or simply type "GO" to take all the new messages available.

This user "flexible" ability, to examine the amount of mail prior to packing, is one of the unique features of Silver Xpress. We call it the "Flex Select" Mail Bundling system! An Xpress first!

Silver Xpress packs the new mail into a compressed format for downloading to the user's PC. The new compressed file is called an Xpress mail packet and will have the extension OPX or QWK, depending on the mail format selected by the Xpress user.

Once the user downloads the Xpress mail packet to his PC, he can log off the BBS and use the powerful and interactive Silver Xpress Mail Reader to read and reply to mail.

Imagine the time savings offered to the user by providing the ability to read his mail on his own PC, thereby leaving an open line for other users.

Silver Xpress is a wonderful product and is guaranteed to give your BBS benefits never imagined before!

But Silver Xpress is not just a mail door!

Silver Xpress was the first off-line mail system truly dedicated to provided intelligent off-line client/server technology to bulletin board systems. Our dedication to customer support and needs allowed us to provide not just a mail door, but a true data gateway system! No other mail door in the market has the power of Silver Xpress.

Silver Xpress offers:

- oHigh Speed Internal Protocol,
- oRIP terminal graphical support,
- oFaxing capabilities,
- oOff-line data entry capabilities (Forms)
- oDoor and Reader menu customization capabilities,
- oMail event driven processes,
- oBuilt-in file scanner,
- oFile requesting and attaching capabilities,

And much more!

With Silver Xpress, you can customize your application for any of your "groupware" communication needs.

This documentation will discuss the installation and configuration for the Silver Xpress Mail System. It is the single source document for all models of Silver Xpress. A model is defined as a version of Silver Xpress for your particular BBS package.

Information pertaining to a particular bulletin board system is clearly defined and highlighted throughout the manual. All other topics of discussion are of a general nature.

2. Installation

The Silver Xpress Mail System has been packaged and compressed using the ZIP (version 2.04G) format. The ZIP files are verified, authenticated, and virus checked.

The INSTALL.EXE program is designed to unzip the files into their appropriate sub-directory. You must have PKUNZIP available on your system.

Silver Xpress is distributed under the file name SX500xx.ZIP.

where XX is the Xpress model number for your BBS.

<u>XPRESS MODEL</u>	<u>BBS TYPE</u>
F1	OPUS 1.03 and FIDO
F2	OPUS 1.1x+
F3	OPUS 1.7x+
M1	MAXIMUS
P1	PCBOARD
R1	RBBS
H1	QBBS, RA, SBBS, ROBO, PROBOARD, TAG

For example, if you are interested in installing the Silver Xpress Mail System for your PCBOARD BBS, you will need SX500P1.ZIP.

The H1 model is considered the generic HMS (Hudson Message Structure) model. HMS is a mail format used by many BBS packages following the technical details of the original HMS system called QBBS. Version 5.00 of HMS Xpress will directly support all packages currently in the market supporting HMS, including any other mail format an HMS package supports, such as PROBOARD, which supports HMS, SQUISH and FIDO mail formats or Remote Access 2.0x, which supports HMS and the new JAM mail format. If you have an HMS package not directly supported by Silver Xpress, it is quite possible to use the original QBBS 2.64 model to support the package.

The first thing you should do is unzip the SX500xx.ZIP file into a high density diskette to make a backup copy.

If you don't have a high density drive, skip the backup suggestion and proceed to unzip the package into a temporary directory.

Customers who have already received a diskette from Santronics Software do not need to make a backup.

2.1. Running Install

Run the Xpress INSTALL.EXE installation program.

The install program is designed to present, in a menu, the key reading material and the option to begin the install process.

When the "begin install option" is selected, INSTALL will search the hard disk for all possible hard drive partitions and display the drives with the minimum required disk space.

The minimum required space is 2 megabytes. Any hard drive partition below this amount will not be shown.

For example:

```
+-----+
| Drive C: 32 megabytes with 6 megabytes remaining |
| Drive F: 32 megabytes with 3 megabytes remaining |
| Drive G: 32 megabytes with 10 megabytes remaining |
+-----+
```

In the above example, notice how INSTALL did not show drive D and E. This is probably because drive D and E do not have the 2 megabytes disk space requirement. Two megabytes is a very conservative number. INSTALL will decompress the Xpress files to about 600K, but checking for 2 megabytes insures proper operations in production mode. Ideally, you should not be running a BBS with anything less.

NOTE: If you want to change this hard disk space requirement, modify the INSTALL.DAT file and change the keyword MINIMUM 2000. This amount is in kilobytes.

Select the drive on which to install Silver Xpress.

Next, INSTALL will ask for the source and target drives.

```
+-----+
| SOURCE DRIVE\DIRECTORY: A:\           |
| TARGET DRIVE\DIRECTORY: C:\XPRESS    |
|                                     |
|           Press F10 to Accept, ESCape to Abort           |
+-----+
```

The source path will default to the drive and directory the INSTALL.EXE is located. If the paths are OK, hit the F10 key.

**VERY IMPORTANT! DO NOT INSTALL XPRESS INTO YOUR BBS DIRECTORY!
DEFINE A DIRECTORY FOR XPRESS.**

INSTALL will now begin decompressing the *.ZIP files into their respective sub-directories below the target directory.

INSTALL will create the following sub-directories:

```
\XPRESS --- HELP
          --- MISC
          --- BULL
          --- DOCS
```

INSTALL will then run XPADM.EXE automatically.

NOTE: PCBOARD and RBBS sysops should see the discussion at the end of this section.

Consider XPADM.EXE as your partner. It is your Silver Xpress administration and configuration program. You will use this program to maintain Silver Xpress.

When XPADM starts to run, XPADM will always look for the XPMAIL.PRM control file. If it is missing, it will assume you are a first time configuration and run the "QUICK CONFIGURATION" option.

NOTE: If you ever feel like you want to start fresh, delete the XPMAIL.PRM and any *.RAW files and run XPADM again. It will initiate the QUICK CONFIGURATION option.

Except for RBBS Xpress (the R1 model), the QUICK configuration of XPADM will go directly to your BBS configuration files and read as much as it can to quickly setup up Silver Xpress. The RBBS version of Silver Xpress does not have this luxury. However, during the INSTALL process RBBS Xpress will run a utility called MAKEDEF.EXE to read the RBBS CONFMAIL.DEF file.

After XPADM gets as much as it can from the BBS, it will present questions for you to answer. Each BBS is different so some questions will not be necessary or asked. If XPADM can not get it from the BBS configuration files, you will be asked for the information. For some BBS's, it may only be 1 or 2 questions. For others, it may be 5 or 6 questions.

The key questions to understand (if asked by XPADM):

ENTER BOARD ID:

Silver Xpress scans and packs mail into a file called XXXXXXXX.OPX or XXXXXXXX.QWK where XXXXXXXX is your board ID. This board ID is used as an identifier for your BBS. If users use more than one BBS for Xpress Mail, this will help them distinguish mail packets. Normally, the board ID closely resembles the name of your BBS within 8 letters. For example, for Emerald City BBS, a board ID such as EMERALD would be a good choice.

NOTE: This BOARD ID is used for registration. Make sure it is unique for your BBS.

FIDONET ADDRESS:

DO YOU HAVE A FIDONET ADDRESS? [N]

If you belong to the FIDONET Network, and you have an address, answer Y. If you do not have an address, or do not belong to the FIDONET Network, answer N.

NOTE: The address, whether you have one or not, is required for registration. If you do not have one, make sure you indicate on your registration form you do not have a FIDONET address. If you do not have one, Xpress and our registration department will use 999:999/999 for registration purposes.

ENTER YOUR BBS TELEPHONE NUMBER:

Future Xpress communication products will make use of your telephone number. Provide one now so that users will be able to take advantage of this information for dialing purposes.

ENTER THE READER DIRECTORY:

This version of Xpress has a powerful script language. One default script, accessible from the main menu, will allow users to download the Silver Xpress Reader. In order for this to work, you must tell Silver Xpress the directory the default script is located.

WOULD YOU LIKE A MULTI-NODE SETUP FOR XPRESS [N]

If you answer yes to this question, Xpress will place the # characters in various file path definitions for Xpress, particularly the UPLOAD, DOWNLOAD and WORK directories.

The # character is used as a substitution character for the task number or node number.

If you answer YES to this question, you will need to use the -T# task switch when running XPMAIL (except for OPUS, PCBOARD, and RBBS). See the section on Multi-node or Multi-line setups.

After XPADM's QUICK CONFIGURATION, it will create all the files necessary for XPMAIL.EXE to run (XPMAIL.EXE is the main Xpress mail door).

If all is successful, you are ready to run XPMAIL.EXE.

PCBOARD AND RBBS SYSOPS OR ANYONE USING THE P1 or R1 MODELS

Silver Xpress for PCBOARD and RBBS uses an ASCII file called XPAREAS.CTL for defining mail conferences, and an ASCII file, called XPFIDO.CTL, for defining FidoNet *.MSG message areas. This makes for a very powerful system, which allows you to define two mail formats for

Silver Xpress.

XPADM for PCBOARD will only understand PCBOARD mail areas when it does its QUICK CONFIGURATION. It will read the PCBOARD.DAT and the C NAMES files. So if you are not concerned about FIDONET areas, you may stop right here and ignore the rest of this section.

For RBBS, XPADM will not read any RBBS configuration files at all. We apologize for this, but RBBS has a history of changing its configuration file formats overnight and, thus, we cannot reliably create a super duper install and quick configuration system.

Running INSTALL will not automatically run XPADM.EXE for RBBS like it will for the others. It will stop and allow you the opportunity to first run a program called MAKEDEF which is designed to read the RBBS CONFMAIL.DEF file in the RBBS system directory. MAKEDEF will create the XPAREAS.CTL and XPFIDO.CTL.

Once you have the XPAREAS.CTL file, you can use XPADM to maintain the file from then on.

To define FidoNet mail areas, XPADM will look for the XPFIDO.CTL file. It is equivalent in structure to the XPAREAS.CTL, however, it is used to keep FidoNet mail areas separate from normal BBS mail areas.

The best way to initially create XPFIDO.CTL is by using XPADM's MAIL CONFERENCE DEFINITION option. Once you have defined XPAREAS.CTL, run XPADM and select the MAIL CONFERENCE DEFINITION option. A list of areas will be shown. At this point, hit the Insert key, and XPADM will append a new area using FIDO as the default mail area type.

3. Testing XPMAIL.EXE the first time.

You may test Silver Xpress immediately by typing XPMAIL -J.

The -Jxxx switch is a LOCAL MODE switch only. It will grab record xxxx (default 0 or 1 for TAG and RoboBoard) from the BBS user file and use it to start Xpress. By doing this, you get your name as the first name into the Xpress User File.

NOTE: PCBOARD SYSOPS CANNOT TEST FROM DOS. YOU MUST RUN PCBOARD FIRST AND CALL XPRESS FROM THERE. In general, PCBOARD Xpress cannot be run locally outside of the BBS unless a USERS.SYS and PCBOARD.SYS are present.

RBBS SYSOPS CANNOT TEST FROM DOS UNLESS YOU HAVE A DORINFOx.DEF created for your SYSOP NAME. If you want to create a DORINFOx.DEF, run RBBS and shell to DOS, and then log off. In the RBBS directory, you should see your personal DORINFOx.DEF file where X is the node number (default is 1).

If you wish to test a multi-node setup, use the -T# switch as well, where # is the task or node number.

4. Silver Xpress Security System

In the past, Silver Xpress had a security concept where the Xpress user could be designated as a special user called the "Xpress Sysop". The Xpress Sysop had the extra menus and options for sysop related operations. This is no longer used in Silver Xpress.

Since version 4.00, Xpress now relies on a security value system for the menu system. This is an Xpress security value between 0 to 64K. This security has no relationship with the BBS security system. If you are a new sysop installing Silver Xpress, you might see some old references to the phrase "Xpress Sysop" lingering around. Ignore it.

In Version 5.00, all menus and menu action commands have security values. Like a BBS, you can assign an Xpress user a security value in relationship to the Xpress menu security values. This gives you complete control and flexibility over what the Xpress user can do in Silver Xpress. The security for all menu options are defined in the file XPMENU.CTL.

After you have installed Silver Xpress, and tested out the system as yourself, the sysop, you should immediately use XPADM and edit the USER record belonging to you and change the security value. We recommend you give yourself a high Xpress security value of 32000. By doing this, you will have complete access to all the Xpress menus and options. See the section on the Xpress Menu System if you wish to customize the menus and security values.

Keep in mind, Xpress is a very powerful package. It can be abused if you are not careful with your customization efforts.

5. Setting up the BBS to call XPMAIL

The Silver Xpress Mail System's main program is called XPMAIL.EXE. You should call this program using a batch file.

NOTE: Current Xpress Sysops should not use their old XPRESS.BAT without first studying the changes. See the full list of command line switches in Appendix C.

The basic Xpress batch file is:

```
cd \xpress
XPMAIL %1 %2 %3 %4 %5 %6 %7 %8 %9
cd \bbs
```

PCBOARD uses a different arrangement for a batch file. It normally looks like this:

```
@echo off
CD \XPRESS
SET XPA=%PCBDOOR%
XPMAIL
SET XPA=
%PCBDRIVE%
CD %PCBDIR%
BOARD
```

NOTE: As of this writing, only PCBOARD 14.5 and Maximus 2.00 can be made to work with the Xpress XPA environment string used.

For each BBS model, a sample XPRESS.BAT (XPRESS for PCBOARD) is provided.

Usually, the batch file is called from the BBS subdirectory. The first step is to copy the batch file to your BBS directory, and modify it to change directories to the Xpress directory and back to the BBS directory. For PCBOARD, this is taken care of by using PCBoard's environmental strings.

XPMAIL.EXE requires no switches to run in most cases. For some BBS packages, you will need a few, particularly if you are running a multi-line operation. Xpress was designed so that you can pass most of the information it will need from the BBS itself.

In an ideal Xpress setup, you don't need any switches, except for OPUS 1.03, Maximus 2.00 and TAG, because most of the information is taken from the door interface files or set up during the quick installation.

MINIMUM REQUIRED TO CALL XPMAIL.EXE

OPUS 1.03	XPMAIL	-P<comport>
OPUS 1.10	XPMAIL	
OPUS 1.7x	XPMAIL	
MAX 2.00	XPMAIL	-P<comport>
RBBS	XPMAIL	-B if MAIN MSG FILE undefined
PCBOARD	XPMAIL	
REMOTE ACCESS	XPMAIL	
QBBS	XPMAIL	
TAG	XPMAIL	-B%7
PROBoard	XPMAIL	
SuperBBS	XPMAIL	
ROBO-BBS	XPMAIL	

That's it! In an ideal setup, your BBS should be able to pass all the information Xpress needs to get started from the BBS.

What is ideal?

Ideal is where Xpress can be set up with one configuration file to fit a single line or a multiple line BBS without having multiple setups or batch files all over the place.

In each BBS model (except PCBOARD), a file called BBSTOOLS.ZIP is available, and contains sample files for your system for calling Xpress, using a menu when possible.

For each BBS Model, BBSTOOLS.ZIP contains the following:

```

OPUS 1.03  SXMENU.OEC SXWHAT.OEC
OPUS 1.10  SXMENU.OEC SXWHAT.OEC
OPUS 1.7x  SXMENU.OEC SXWHAT.OEC SXMENU.CTL SXHELP.OEC
MAX 2.00  SXMENU.MEC SXWHAT.MEC SXMENU.CTL SXHELP.MEC
          SXMHDR.MEC
RBBS      none required
PCBOARD  none required (built-in)
RA        SXMENU.MNU (NOTE: There is a RA.ZIP and RA2.ZIP
          which has a SXMENU.MNU)
QBBS      SXMENU.MNU
SUPERBBS  SXMENU.MNU
TAG        TAG.ZIP
ROBO-BBS  ROBO.ZIP
PROBOARD  SXMENU.MNU

```

These files will give your BBS the ability to perform Xpress automatic operations, pass proper switches from the BBS to XPRESS.BAT, as well as give a professional menu feel to your BBS.

We could not provide a menu for TAG because Tag Menus are in one big file, and providing one would overwrite your current menu system for non-Xpress related sessions. However, an explanation is given in TAG.ZIP.

For ROBO-BBS, we provided a complete graphical menu system for Silver Xpress. It includes RoboBoard bitmaps and icon files for your Silver Xpress setup. The ROBO.ZIP has Tony Mace's complete setup description.

In summary, each BBS sysop should perform the following:

OPUS 1.03/1.10

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct.
2. Copy the SXMENU.OEC to your OPUS MISC \directory. Compile it.
3. Copy the SXWHAT.OEC to your OPUS MISC \directory. Compile it.
4. Set up your bulletin menu or OPUS main menu to display the compiled SXMENU.BBS.

OPUS 1.73

Method 1: Using OEC files

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct.
2. Copy the SXMENU.OEC to your OPUS MISC \directory. Compile it.
3. Copy the SXWHAT.OEC to your OPUS MISC \directory. Compile it.
4. Set up your bulletin menu or OPUS main menu to display the compiled SXMENU.BBS.

Method 2 : Using Custom Menus

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct.
2. Insert the following to the MAIN MENU in your MENUS.CTL.
3. Insert the following as a CUSTOM menu in your MENUS.CTL.

MAX 2.00

Method 1 : Using MEC Files

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory

switching is correct.

2. Copy the SXMENU.MEC to your OPUS MISC \directory. Compile it.
3. Copy the SXHELP.MEC to your OPUS MISC \directory. Compile it.
4. Copy the SXWHAT.MEC to your OPUS MISC \directory. Compile it.
5. Set up your bulletin menu or OPUS main menu to display the compiled SXMENU.BBS.

Method 2 : Using Custom Menus

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct.
2. Insert the following to the MAIN MENU in your MENUS.CTL.
3. Place the following at the bottom of your MENUS.CTL file.

HMS - RA, QBBS, SUPERBBS, PROBOARD

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct.
2. Copy the SXMENU.MNU file to your BBS menus directory.
If you are running Remote Access, make sure you have the proper SXMENU.MNU. See RA.ZIP for RA 1.1x and RA2.ZIP for RA 2.0x. These files are in BBSTOOLS.ZIP
3. Modify your menu system to use SXMENU.MNU with a GOSUB Type command.

HMS - RoboBoard

1. Copy the XPRESS.BAT to the BBS directory. Edit it and make sure the directory switching is correct. Also, add the following switch to it.

XPMail /RLR

/RLR will tell Xpress to create a special file for Tony Mace's last read utility. Unfortunately, ROBO was not quite ready for mail doors. Consequently, this last read utility is required to maintain pointers correctly with Silver Xpress. The last read utility should be inserted in your LOGOFF section of your RUN BBS batch file.

2. Copy the ROBO Xpress menu and icon files into your BBS menus directory.
3. Modify your menu system to use Xpress ROBO graphic sub-menu.

HMS - TAG

1. Read the XP4TAG.DOC file and follow the instructions for installing Xpress.

PCBOARD

1. Edit the file XPRESS and make sure it is prepared with the proper drives and directories. Insert the CD drive for Xpress, if Xpress is installed on a different drive than PCBOARD.
2. If you edit the DOORS.LST manually, add the following line:

```
XPRESS,,10,-1,0,C:\XPRESS\,0,N
```

If you are using PCBSETUP, edit DOORS.LST, and add the XPRESS door option. Make sure USER.SYS is set to Y to be created.

RBBS

1. Copy the XPRESS.BAT file to your RBBS directory. Edit the file XPRESS.BAT and make sure it is prepared with the proper drives and directories.
2. Add the following line to the RBBS DOORS.DEF file:

```
"XPRESS",O,,D,"XPRESS.BAT [BAUD] [PORT#] [NODE]",N,,60
```

Notice the order of the [BAUD] [PORT#] and [NODE] parameters. The XPRESS.BAT provided is expecting this order of parameters. If you change the above line, make sure to make the proper changes to XPRESS.BAT.

6. Multi-Node/Multi-Line Operations

For multiple lines or installations where one line is in operation, and you are using a second node for local usage, use the TASK switch (-T and -N are the same).

The ideal Xpress setup for multiple lines is to use the -T switch.

```
@ECHO OFF  
CD \XPRESS  
XPMAIL -T%1 -P%2  
CD \BBS
```

Where %1 could be the node or task number for your system, and %2 could be the port number, depending on how your BBS passes such information.

In some cases, like OPUS 1.7x, the -P switch is completely ignored.

For PCBOARD 14.5, the PCBNODE environmental string is checked. If it exists, it will be used as the task or node number. This is equivalent (and redundant for PCBOARD Xpress) to use:

```
XPMAIL -T%PCBNODE%
```

Each BBS has its own way to pass the task number to XPMAIL.EXE. Study the files in BBSTOOLS.ZIP to see the ideal way to set up and use a multi-line Xpress. PCBOARD and RBBS sysops do not have a BBSTOOLS.ZIP file, so they do not need to do this.

Within XPADM's SETUP NODAL FILES/DIRECTORIES menu option, use the # (pound) character for task number substitution on the files and directories declared in that section.

When XPMAIL starts up, it will look for those specific files and directories. This ideal situation allows for a single XPMAIL.PRM setup, where there is no need for the -C option.

However, if you have a need to define different multi-line setups, where Xpress configuration options will be different for each node, use the -C switch to define the name of the configuration file, and allow one for each setup and node. For Example:

```
XPADM -Cxpmail1  
XPADM -Cxpmail2  
XPADM -Cxpmail3
```

This is usually the case if you opt to install separate copies of

Xpress in a multi-node setup, or you find some of the common Xpress information is not so common after all in the XPADM program for your particular multi-line setup or LAN topology.

If you do use the -C switch, change your XPRESS.BAT file to use the -C as well.

For Example:

```
@ECHO OFF  
CD \XPRESS  
XPMAIL -T%1 -CXPMAIL %1 -P%2  
CD \BBS
```

where %1 is the task number and %2 is the port number.

It would also be a good idea to create a batch file for XPADM to work with each node.

For example:

XPNODE.BAT - Batch file to run XPADM for each node.

```
@ECHO OFF  
IF %1. == . GOTO HELP  
XPADM -CXPMAIL %1 %2 %3 %4 %4 %5  
GOTO END  
:HELP  
ECHO SYNTAX: XPNODE node#  
:END
```

This makes it easy to type:

```
XPNODE 1
```

or

```
XPNODE 2
```

when you wish to edit a particular node configuration.

7. Packers and Tossers - Post Mail Operations

If you do not belong to a FIDONET network, skip this section.

PCBOARD systems can also skip this section even if you are in a PCBOARD related network like RIME or RelayNet. PCBOARD and RBBS Sysops using FIDONET (*.MSG) message areas should read this section. The following discussion is FIDONET related only.

Bulletin Board Systems belonging to "echo" mail networks such as FIDONET must use programs which "package" and "toss" new messages to and from the BBS message files. These programs are called MAIL Packers & Tossers.

Silver Xpress itself has nothing to do with them. However, most BBS systems, which work well in a mail network, can usually toggle a flag of some sort to trigger the MAIL PACKERS AND TOSSERS when mail is created on-line. Since Silver Xpress allows for the creation of mail off-line, Silver Xpress needs to trigger the same flag, so that there is a smooth integration and interface with the MAIL TOSSERS and PACKERS.

MAIL TOSSING

Normally, when a BBS collects mail from its BOSS mail hub, it uses a mail tosser to toss the newly received mail into the mail sections.

If you use such a system and you are using FIDO-based system, you must set up your MAIL TOSSER to use the "NEW STYLE OPUS DATES". You may see this referred to as "USE OPUS DATES" in your mail tosser configuration files.

This is very important to avoid the small possibility of users seeing "BUG DATES" in the older Silver Xpress Readers.

If you see "BUG DATES" with the reader, add the /FBD switch to the XPMAIL.EXE command line. This should clear up any bug dates you may have, however, it does add a small overhead in mail bundling time.

NOTE: The BUG DATES issue is a very old dilemma in FIDONET. If you're an old Mail Tossers, you will need the -FBD switch.

MAIL PACKING

Normally, when a user enters a new message directly into the BBS message files, using the BBS on-line, the BBS will automatically know when new mail is available. When the user logs off, a post mail operation begins to "Pack" the mail for network mail distribution.

Since Silver Xpress is an off-line mail system, mail is created off-line, away from direct control of the BBS. When mail is uploaded to the Xpress Door, Silver Xpress must somehow "trigger" or "tell" the BBS there is NEW mail to be processed. This is only true for NET MAIL and

ECHO MAIL conferences.

How Xpress tells the BBS new mail is available depends on your BBS:

OPUS 1.7x, MAX 2.00, QuickBBS, Remote Access

Because of off-line readers like Silver Xpress, these bulletin board systems have evolved and include direct methods for Silver Xpress to tell the BBS new mail is available. Nothing has to be done by you.

OPUS 1.03/OPUS 1.1x or PCBOARD/RBBS

There is no direct method to tell these bulletin board systems new mail (uploaded and tossed by XPMAIL) is available. In this case, turn on the "USE XPRESS SEMAPHORES" option under the Xpress Miscellaneous Options in XPADM.

This option will tell XPMAIL to create "Flag Files" called file semaphores, which can be checked for existence by other programs. File semaphores are created during the following XPMAIL events:

<u>Event</u>	<u>File Semaphore</u>
GOODBYE	\$GOODBYE.SEM
NORMAL EXIT	\$EXIT.SEM
NETMAIL	\$NET.SEM
ECHO MAIL	\$ECHO.SEM
LOCAL	\$LOCAL.SEM
NET+ECHO	\$ECHONET.SEM

For POST MAIL operations, you will want to check the existence of the \$NET.SEM, \$ECHO.SEM, or the \$ECHONET.SEM files.

Normally, you will check for these flag files during the post logoff logic in your "RUNBBS.BAT" batch file.

For example;

```

----RUNBBS.BAT----

OPUS %1 %2 %3
IF ERRORLEVEL 5 GOTO LOGOFF
.
.
:LOGOFF
IF EXIST \XPRESS\ECHO.SEM GOTO PACKUP
IF EXIST \XPRESS\NET.SEM GOTO PACKUP
IF EXIST \XPRESS\ECHONET.SEM GOTO PACKUP

```

```
GOTO END
:PACKUP
DEL \XPRESS\*.SEM > NUL
OMMM PACK
```

For RBBS and PCBOARD, the logic is very similar. Your RBBS.BAT or BOARD.BAT should have some check for the file semaphores to perform a Mail Scan and Pack operation.

There is one other way to check to see if XPMAIL has tossed the mail into the BBS mail system. Check for the existence of the ECHOTOSS.LOG file. If you told Xpress you have echo areas, Xpress will add or append the ECHO TAG LINE defined for this area into the ECHOTOSS.LOG. If this file exists, you can use this file as a "file semaphore" to perform a mail scan and pack. For example;

```
OPUS %1 %2 %3
IF ERRORLEVEL 5 GOTO LOGOFF
.
.
:LOGOFF
IF EXIST ECHOTOSS.LOG GOTO PACKUP
GOTO END
:PACKUP
OMMM PACK
GOTO RESTART
```

This allows you to turn off the XPRESS SEMAPHORE system, and still have a simple method to pack mail.

If you are using a bare bone OPUS 1.7x system, you can use the new OPUS command line switch -s to perform an immediate mail scan. Your batch file may look like this for a bare bone OPUS 1.7x setup:

```
:LOGOFF
IF EXIST ECHOTOSS.LOG GOTO PACKUP
GOTO END
:PACKUP
OPUS -s
GOTO RESTART
```

8. Configuration

XPADM is your main administration program for Silver Xpress. Use it to edit user information and to set up configuration information.

XPADM will always reload its data files. It will check for the mail XPMAIL.PRM (unless you change the name with the -C option). If this file is missing, XPADM will perform a new quick configuration.

If you use XPADM to edit Xpress user information, there is no need to save and recompile when you quit XPADM.

If you edit any information in the REGISTRATION or the CONFIGURATION section, you must save and recompile. XPADM will recreate the XPMAIL.PRM, XPFILES.* and XPAREAS.* files.

This section will not cover every option in XPADM. XPADM has an extensive HELP system. Hit F1 when there is a question about an option.

This section will cover only the main topics deemed important which require extra discussion or clarification outside of the extensive interactive help system. Most other configuration topics have their own sections, especially in the area of Xpress Services.

Registration:

Silver Xpress Registration for a BBS requires three items of information:

SYSOP NAME
FIDONET ADDRESS
OPX BOARD ID

The Sysop Name should be the name of the person who owns and runs the BBS. Is it also the name of the person who will register the Silver Xpress Reader for his own personal usage on the BBS? It is not the name "SYSOP" or some alias name.

The FIDONET ADDRESS is your netmail address for the BBS. If you do not have one, enter the netmail address 9:999/999.

The OPX BOARD ID is an 8 letter file name to be used for Silver Xpress mail packets. XPMAIL will automatically add the extension OPX to this file name. Usually the board ID is made up from your BBS name. It should be a unique name. For example, Emerald City BBS, might use EMERALD as their Silver Xpress Board ID.

When you register Silver Xpress, please provide all three pieces of information for each node. You will receive a serial number and a registration code. Your serial number will be proudly displayed when you start the mail door.

8.1. Defining or changing Protocols

The Silver Xpress Mail Door has an incredible high speed internal protocol system. There is no need to use a 3rd party product. All XMODEM, YMODEM and ZMODEM protocols are supported.

Silver Xpress stores a list of protocols it uses in a file called XPPROT.CTL. All internal protocols are defined in this file.

Use the Xpress Administrator (XPADM.EXE) or a text editor in DOS, to edit the XPPROT.CTL file.

By default, XPPROT.CTL, has X, Y, Z modem file transfer protocols defined as internal protocols. After installation is complete, there should be 3 PROTOCOL files:

XPPROT.CTL active protocol file XPMAIL.EXE will read

XPPROT.XMT backup file using XMT as the file transfer system

XPPROT.DSZ protocol file using DSZ as the file transfer system

If you plan on using the DSZ file transfer program, copy the file XPPROT.DSZ over the main XPROTO.CTL. If you want to use GSZ instead, edit all references to DSZ to GSZ in the appropriate file. However, as incredible as it may seem, the internal file transfer protocols in Xpress, is much more optimal than DSZ.

Below is an example of how an external protocol is defined.

```
Protocol Z-Modem (DSZ)
Basic Name ZMODEM
HotKey Z
Download !DSZ port %p speed %lb hand both est 0 %b sz -m %f
Download !DSZ port %p speed %lb hand both est 0 %b rz -m -y %f
Batch Yes
TwoWay No
End Protocol
```

Everything after the word PROTOCOL, on the first line of the definition, will be displayed to callers to describe the protocol. You then define a letter (HotKey) the user will use for selecting the protocol. Make sure there are no duplicate hot keys.

Next come the Download and Upload commands. These are the commands used to download and upload mail (and files).

You must indicate if the protocol accepts BATCH file transfer (this is currently ignored), and

whether the protocol is a two way (bi-directional) protocol like HSLINK or BIMODEM.

The download and upload commands take substitution parameters passed by XPMAIL.

%p - comm port
%lb - Lock Baud Rate
%b - user connect rate
%f - full path name of file
%ud - upload directory
%dd - download directory

The %ud and %dd variables are normally used for bi-directional file transfers with programs such as HSLINK or BIMODEM.

Bi-directional file transfers only make sense in Silver Xpress when the user is downloading mail and wishes to upload mail at the same time and NOT visa versa.

If the TwoWay option is enabled for the protocol, Silver Xpress will check the upload directory after a download of mail is finished. If reply packets are found in the upload directory, it will begin to toss the new mail immediately.

Here is an example bi-directional protocol using HSLINK:

```
Protocol HS-LINK (bi-directional)
BasicName HS-LINK
HotKey H
Download $HSLINK -B%lb -E%b -P%p %f -U%ud
Download $HSLINK -B%lb -E%b -P%p -U%ud
Batch NO
TwoWay Yes
End Protocol
```

8.2. Defining or changing Archivers

Silver Xpress stores a list of archivers it uses to compress and expand mail in a file called XPARCH.CTL.

Use the Xpress Administrator (XPADM.EXE), or with a text editor in DOS, to edit the XPARCH.CTL file.

The structure of each definition is defined below:

```
Archiver Phil Katz's PKZIP 2.04G
HotKey Z
Extension ZIP
```

```
Ident 0,504b0304
Add   PKZIP -m %f %s
Extract PKUNZIP -o %f
View  PKZIP -v %f
Delete PKZIP -d %f
EstCRatio 38
End Archiver
```

The header and footer (Archiver & End Archiver statements) are required for each archiver definition.

The HotKey is used as the selection character when XPMAIL presents the list of archivers to the user. Make sure there are no duplicate hot keys.

The extension is not used and not required at this time.

The Add, Extract, View, & Delete lines are the commands XPMAIL will use to compress, expand, view and delete files respectively. Currently, the view and delete options are not used for any process in Xpress.

The commands can take the following substitution parameters:

```
%f      full path name to the OPX (or REP) file.
%s      source of files to compress.
```

The Ident is the offset location and set of bytes used to uniquely identify a compressed file format. The Ident must be a unique identifier for each archiver.

The Ident allows XPMAIL to check uploaded reply files, and automatically detects the compression format in which the reply file is. If it detects the Ident in the file at the specified offset, it will use the corresponding EXPAND command to decompress REP file.

This process is called "Archiver Detection" and it eliminates mismatches; problems with what the user selected for compression and what compression format was actually used by the reader.

If you add a new compression utility, and do not know the Ident for the utility, contact Santronics Software or post a message in the XPRESS_SYSOP support conference. We will assist you in identifying a proper Ident for the new utility.

The EstCRatio is a percentage factor used by XPMAIL during a mail download to approximate the size of the OPX mail packets. The default, 38(38% compression), was found to be a very good conservative number.

Note: PKZIP 2.04 Customers. As you know, there has been confusion in the market place over the old versus new PKZIP compression system. In Xpress, we make an attempt to identify both the new and the old and new ZIP systems. If you look at the

XPARCH.CTL definition file, you will see two ZIP definitions; one for the old and one for the new. This will allow the user to decide which compression system to use. However, Xpress uses PKZIP and PKUNZIP as the new 2.04 and OPKZIP and OPKUNZIP as the old 1.10 system. Please keep this in mind.

Note: In the Xpress language file, XPLANG.CTL, if the statement #73 is commented out (or blank), XPMAIL will not show the approximate OPX file size to the user. Commenting this line is not recommended because it really is a good piece of information for the user to have, but if you prefer not to use this approximation, you can shut it off by putting a comment character in front of statement #73.

9. Maintenance

Santronics Software has done as much as possible at this time to make life easier with regard to maintaining Silver Xpress.

The most critical maintenance aspect of Silver Xpress and your BBS is making sure Silver Xpress is up to date with the configuration information on your BBS, such as mail areas and, more importantly, security.

When you use XPADM, it creates the following Xpress System Files:

XPMAIL.PRM

Basic information about your Xpress setup, BBS directories, etc.

XPAREAS.DAT, XPAREAS.RAW (XPAREAS.CTL, XPFIDO.CTL)

XPAREAS.DAT is compiled mail conference information used by XPMAIL.EXE. XPAREAS.RAW is a local copy used by XPADM.EXE. PCBOARD and RBBS do not have the RAW file, so they use the XPAREAS.CTL and XPFIDO.CTL files.

XPFILES.DAT, XPFILES.RAW

XPFILES.DAT is compiled file area information for XPMAIL.EXE. XPFILES.RAW is a local copy for XPADM.

If the XPMAIL.PRM is missing, and you run XPADM, Xpress will automatically perform a new Quick Configuration.

Except for RBBS Xpress, if any of the RAW files are missing, XPADM will attempt to reread the BBS mail (or file) area system files and recompile new RAW files.

For PCBOARD, if you delete the XPAREAS.CTL file, or it is missing, XPADM will reread the C NAMES file.

If you change your BBS configuration, you must always update the Xpress data files by using XPADM. Otherwise, you risk the chance of having mail area mismatches and security related issues.

9.1. Running XPADM Update Operations

To update the Xpress system files, use the XPADM -U switch to automatically tell Xpress to reread the BBS system files and recompile the Xpress system files.

For example:

XPADM -U

If you run a relative, dynamic mail area system (always adding and deleting areas), you may put this command in one of your BBS batch files, and run it nightly just to make sure Xpress is up to par with the BBS.

But if you make occasional, minor changes, like adding, deleting or moving a new message area, manually running XPADM -U would be all that is required.

For RBBS, you will have to manually edit (with XPADM or a text editor) the XPAREAS.CTL or XPFIDO.CTL file to match your BBS mail areas and recompile.

For PCBOARD, you have two choices:

1. You can delete XPAREAS.CTL and recompile, or
2. You can manually edit XPAREAS.CTL and recompile.

When you perform an automatic update to Silver Xpress, you will probably lose all **override** information you have done in the XPADM Mail Area Definition section. This is probably the only admitted weakness in Silver Xpress. This will change. The main issue is direct BBS interface with BBS and Xpress system files, versus Xpress's "added value" of providing the opportunity to define "extra" information for the mail conferences. There is also the software engineering dilemma, "Single Source Development" versus "Multiple Source File Development". You will understand this better if you're developing and supporting 14 different models of Silver Xpress and, at the same time, reaching the goal of providing a consistent software design. This is why there is only 1 door documentation and not 14. Can you imagine trying to write and maintain 14 different manuals, one for each BBS?

PCBOARD and RBBS sysops have the luxury of the ASCII text file in XPAREAS.CTL and XPFIDO.CTL. These sysops can retain the Xpress extra mail conference information by manually editing these files (or by using XPADM). You can expect future versions of XPMAIL and XPADM to follow the ASCII control file concept for all models of Silver Xpress.

10. Advanced Xpress Services

This section is intended for System Integrators who wish to migrate or develop an advanced professional application with Silver Xpress.

There are 6 kinds of services Silver Xpress can offer to users.

- o Optional Bulletins.
- o Xpress Node List.
- o Off-line Reader Services.
- o Uploaded Mail Service.
- o Xpress Master Service.
- o Off-line Forms.

10.1. Optional Bulletins

The Silver Xpress Reader 3.0x has the ability to display optional bulletins or screen displays to the user off-line.

If the file called BULLETIN.LST exists in the XPRESS directory, XPMAIL will look for the bulletin files declared in this file, and pass them to the user during a download session.

Optional Bulletins are passed to the user if, and only if, he has not yet seen them. The criteria to pass them or not is based on the user's last usage date of Xpress, and the date of the bulletin file.

The format for the BULLETIN.LST file is as follows:

```
[option] filename_1 description_1
[option] filename_2 description_2
.
.
```

The option can consist of the following commands:

```
QWK:    Send file if the user is using QWK mode
OPX:    Send file if the user is using OPX mode
>sec:   Send file if the user security is greater than sec
<sec:   Send file if the user security is less than sec
=sec:   Send file if the user security is equal to sec
UNREG: Send file if the user is NOT registered
REG:    Send file if the user is registered
```

If the file path portion of the bulletin filename is not provided, Xpress will look in the bulletin (default is BULL) directory first to see if the file exists. Please note, the user security mentioned above is the Xpress User Security, not a BBS related security.

You may edit the BULLETIN.LST file using an ASCII editor or use the Xpress Administration program, XPADM, to edit this file.

Example:

```
c:\bbs\fidonews.024      FidoNews newsletter
c:\bbs\xphelp.txt       How to user Silver Xpress
c:\bbs\products.txt     New Product Listings for Month
>200:c:\xpress\BULL\NEWS.200  Special User Group News
QWK:C:\XPRESS\BULL\QWK.TXT   Using QWK with Silver Xpress
UNREG: C:\bbs\register.txt  How to register Silver Xpress
```

In the above example, the first three files will be sent to the user if the file date is less than the user's last Xpress usage date. The last file will only be passed if he is an unregistered user and follows the date criteria as well.

There are two methods by which to force bulletins to be sent to the user:

1. change the file date using a "touch" program.
2. Pass the file as a reader bulletin instead of an optional bulletin.

10.2. Xpress Node List

If you offer FIDONET net mail support for your users, you can help reduce incorrect net mail addresses by allowing your users to download a reduced node list called the Xpress Node List.

The Xpress Node List is a set of special index files for fast validation of net mail addresses.

Currently, only the node list compiler called XLAXNODE can create these files. At this time, we do not have our own Xpress Node List compiler.

To compile the Xpress Node List, set the XLAXNODE control items in the XLAXNODE Control file:

```
XPRESS1
XPRESS2
```

Set the NODE LIST Path in XPADM to the directory where you keep your node list files.

XPADM will be set to the directory defined in your BBS Control File, so you will probably not need to change it, but check just to be sure.

If you allow your users to have access to NETMAIL, you can set the users to receive the Xpress node list in the EDIT USER, SYSOP FLAGS section of XPADM.

These files will only be passed to them when they download mail. Only new compilations of the node list will be passed.

The off-line reader will store it on the users defined NODELIST directory, so that netmail entry is easy.

If you wish to allow all users with access to netmail to receive the NODELIST, you can use the Edit User, Set Global flags option or set it as a default user definition.

10.3. Off-line Reader Services

Off-line Reader Services offer the ability to define new menu options at the reader.

The Silver Xpress Mail Reader has the menu option "Remote Services". When selected, the reader will display the list of services available on your system.

You can think of services as extended applications offered by your BBS. The service applications you can create are unlimited.

Some example applications which can be created are:

1. Off-line questionnaires for order entry or product purchasing, BBS registration, Surveys, etc.
2. File Viewers.
3. Fax services.

The applications are only limited by your imagination.

To create an off-line reader service, edit the SERVICES.XP file using a DOS text editor, or use the XPRESS SERVICES option in XPADM.

This file defines the new remote service options the user will see when he selects the REMOTE SERVICE option in the reader. If no services are defined, the reader will not display any services.

SERVICES.XP uses the following format:

[option] description | command

The option can be one of the following commands:

QWK: Send service if user is in QWK mode

OPX: Send service if user is in OPX mode
<sec: Send service if user security is less than sec
>sec: Send service if user security is greater than sec
=sec: Send service if user security is equal to sec
UNREG: Send service if user is NOT registered
REG: Send service if user is registered

If no option is provided, the service application is sent to the user with each download.

example:

```

UNREG: Purchase Silver Xpress. |*FORM SXORDER.FRM
Company X Purchase Order    |*FORM COMPANYX.FRM
Special Access Questionnaire |*FORM ACCESS.FRM
Send Mail To Sysop          |*NEW 1 /TO=SYSOP
OPX: Send Internet Mail     |*FORM INTERNET.FRM
Fax Mail to Sales Office    |*NEW 1 /TO=SALES /S=412-645-3486
FidoNews                    |*VIEW FIDONEWS.TXT
  
```

The * commands are special reader commands. The following are the current * Commands available:

***EDIT <filename>**

Edit or view the filename passed. VERSION 3.02 Reader Only.

***FORM <form filename>**

Silver Xpress offers you the ability to have the user process order entry forms off-line. The output of the data entry can then be directed to a special conference, or sent to the EDI directory for later processing.

The *FORM command will process the form for data entry. The section on Xpress Forms System will show you how to create the form files. You need to define form files and pass them to the user automatically using the forms system.

***VIEW <filename>**

Similar to *EDIT, you do not have any editing capabilities using this option. *VIEW is excellent for viewing new letters. VERSION 3.02 Only.

***NEW <area#> [/TO=] [/S=] [/I=] [/A=]**

*NEW allows you to create a new message in area#. The optional parameters are:

/T= Name of recipient (fills in the ToWhom Field).

/S= Subject Line (For FaXXpress, the subject line is the fax phone number).

/I= Import File Name. This File will become the message.

/A= Netmail Address.

*NEW is a great feature for creating canned messages for your customized service.

VERSION 3.02 reader Only.

*READ <area#>

The *READ command will read message area #.

VERSION 3.02 Reader Only.

*DOS <command>

This command will execute the command at the remote user's PC.

NOTE:Santronics Software will not be responsible for any malicious usage of this command. This command is available for customizing the application to process special programs that you provide to users.

VERSION 3.02 Reader Only

SPECIAL NOTE:

Please note: Due to a bug in the 3.00 and 3.01 reader, most commands are not understood except for *FORM in the readers "REMOTE SERVICE" option. All others commands will be processed as DOS commands. Customers who wish to provide off-line services, other than the *FORM option to 3.00 and 3.01 reader users, can do so using a modified reader pull down menu.

The above commands can be executed within the 3.00 or 3.01 readers using modified pull down menus for the user. See the reader documentation on the Silver Xpress Dynamic Menu System for a full list of * commands and how to send a customized reader pull down menu to the user.

Silver Xpress has the power to create any type of customized application.

As an example service application, we provided the Silver Xpress off-line order entry forms (SXORDER.*):

SXFORM.FRM Form Definition File

SXFORM.WIN	Form Outline (SCRNEDIT.EXE required)
SXFORM.PL	Prolog File

SXFORM.WIN is similar to a BSV (binary save) file, but we used our simple screen designer called SCRNEDIT.EXE, which allows the creation of a window rather than a full screen outline.

Your users will get these forms if they have not registered the Silver Xpress Reader.

To turn off this application, remove the off-line reader service *FORM SXORDER.FRM using XPADM and remove the SXORDER.* forms from the XFORMS.DAT file.

10.4. Xpress Master Services

Xpress Master Services are special messages to the user "XPRESS MASTER".

When an Xpress user creates a message to XPRESS MASTER, depending on the subject line (the master service command), you can have an external program executed on your PC. This allows you to create "MAIL DRIVEN EVENTS".

There are two built-in Xpress Master Service commands:

XAM	Create an answering machine message.
XPRESS CONFIG	Perform an off-line configuration.

All others master service commands will be checked against a list defined in the file XMASTER.DAT.

If this file is not available in the Xpress directory, Xpress Master Services are disabled except for the two built-in master commands.

The format for the XMASTER.DAT is:

```
<MASTER TAG> | program [%f] [%u] [%s]
```

%f Xpress Formatted Uploaded Message.

%u User Name in Caps.

%s Subject line.

i.e.,

```
DATABASE |YOURDB.EXE %s
```

TODAY LOG	TODAYLOG.BAT
FAX MAIL	MYFAX.EXE /psubject %f
PROCESS EDI	PROEDI.EXE %f %u

There is no limit to the number of Master services you can define.

All Xpress Formatted uploaded messages are in the Xpress FIDO-like mail format. There are slight differences for Xpress purposes. To get the exact format of an Xpress uploaded FIDO mail format, contact us. We will be glad to give it to you.

The best method to gaining full usage of a master service is to have your master service create a private mail response in the name of the user who sent the master service command. This would be great for a database inquiry system, where the response is the output of the database inquiry, or in an order entry application, where the response can be a validation or confirmation.

Example Applications:

1. The DATABASE example above will call the YOURDB.EXE program. The subject can be database keywords. The YOURDB.EXE program will search your database for the keywords and produce a ASCII text report. In order to make the report automatically available for the user to download, the YOURDB program will create a Xpress FIDO message. Xpress will pick up after the YOURDB.EXE is finished executing and toss the message. The user can proceed to download, and his report will be available.
2. The PROCESS EDI master service is coupled with an off-line forms application. The PROEDI.FRM file is set up to create a FIDO message with the TOWHOM Field set up at XPRESS MASTER, and the SUBJECT field setup as PROCESS EDI. When the form is processed off-line, the output will be saved as a FIDO message. When the user uploads his reply packet, XPMail will process the master service, PROCESS EDI, and execute the program PROEDI.EXE, passing to it the file name. PROEDI.EXE is designed to read a FIDO message and process the body of the text as EDI order data. PROEDI is also designed to create a response message to the person in the FROMWHOM field.

All Master Service Messages created by the user are killed (not tossed) once the message has been serviced.

10.5. Upload Mail Services

UPLOADED MAIL SERVICES is somewhat similar in concept to master services, but is triggered by area number (or applied to all areas).

It is a very powerful system, and there is no limit in the Work Flow Application on the ways you may wish to use Silver Xpress. To create an uploaded mail service, use the XPADM program.

An example uploaded mail service is the default service provided by Xpress "SILVER XPRESS FaXXpress SYSTEM".

You can install a Fax Service for your users using the SXFAX.EXE program. SXFAX is designed for CAS-BASED Fax cards only, and it is a "Lite" version of our commercial version FAX XPRESS system.

The lite version does not do any accounting. All it does is FAX.

10.6. Sample Fax Application

To install FaXXpress Lite, create an Uploaded Mail Service Call option and install the following FaXXpress information:

Service Log Tag	: FAXX
Active Service	: YES
Apply to all Areas	: NO
When to Apply Service	: AFTER TOSS
Mail Area Number	: 99
ASCII Convert	: NO
Add Header	: YES
Erase Xpress Message	: NO
Strip Kludge for text	: YES
Text Storage Directory	: C:\FAXQ
DOS command to Issue	: !C:\XPRESS\SXFAX.EXE %f C:\FAXQ
Processing Message	: FAX REQUEST!
Success Message	: FAX HAS BEEN QUEUED FOR SENDING!
Error Message	: FAX ERROR. REPORT TO SYSOP!

The Mail Area Number is important. It must exist.

Xpress will create the TEXT Storage Directory if it does not exist.

Note: The BBS area must exist and it should be designated as a FAX area for OUTBOUND faxes only. You should make it PRIVATE ONLY so that people will not see other fax messages.

SXFAX.EXE will take the fax request and immediately fax it. No log.

For FaXXpress, you must run the XPMAIL program using the -XF switch. In this example, the call to XPMAIL should include -XF99 where 99 is the fax area number. This tells the READER which mail area is a fax area. The reader will change the prompt SUBJECT: to FAX NUMBER:

10.7. Xpress Forms System

Silver Xpress implements a powerful forms processing facility.

It is the only mail system in the BBS World to offer this new and exciting capability.

Forms Processing can be called Data Entry. Silver Xpress Forms Processing is the ability to ask users a series of questions or prompts in a pop-up window. All the forms in the configuration section are data entry windows. Silver Xpress now offers the ability to create forms for a specific application.

Normally, forms processing is defined by the BBS, where forms will be passed to the users to fill out and send back, XPMAIL.EXE.

You might have a need to offer products on your professional BBS system, and you may wish to allow users to order products off-line, or you may find a BBS wishing to ask a series of questions for a survey. You might be a company with a sales force and wish to provide a mail, fax, and order entry system to your sales people. The applications are endless.

Here are a set of applications defined by customers of Silver Xpress:

- o Off-line Order Entry Forms
- o Off-line Database Inquiry
- o Off-line Customer Surveys
- o Off-line UUCP Mailing
- o Off-line MHS Electronic Mail

Users of Silver Xpress may define their own forms for their own applications. However, users are limited with the types of forms output your BBS will accept. Generally, users can only create or define a form for creating a message for the BBS. A perfect example is to create a message form to send a canned message on a regular basis.

If you are using Silver Xpress with the Xpress MHS system, or you are using Xpress within a GROUP environment, the applications for Xpress Forms grow. For instance, you may want to create a "Conference Room Scheduling" form when using the Xpress MHS in a LAN environment.

If you are a professional Systems Integrator, and wish to investigate the possibilities Silver Xpress Forms may have for your organization, or simply need assistance, call Santronics Software. We will be glad to assist you with this new, powerful capability. We have a complete Xpress Forms documentation and testing utility available called FORMTOOL.ZIP. It is available to registered sysops of Silver Xpress.

10.8. Sample Order Entry Xpress Forms Application

Silver Xpress is the only system in the BBS market capable of processing forms or data entry screens off-line. With this new store and forward electronic order entry system, you can create off-line store and forward solutions for your professional organization.

As an example, the a SXORDER.* files are provided. To make this work, edit the file SXORDER.FRM and edit the keyword AREA to point to your netmail area.

Here is how this works:

1. The SXORDER.* files are forms created by Santronics. They are real order entry forms.
2. When users download mail, these forms are sent over with the packet if the user is not registered with the reader.
3. If the user wishes to purchase the Silver Xpress reader using this form, he can simply fill it out and upload the reply packet back to the XPRESS system on the BBS.
4. The Xpress door will create a netmail message with the order information in the body of the message to Santronics at FIDONET 1:135/382. This means you must be on the FIDONET network.
5. When Santronics receives the order, it will be processed immediately and a verification of the order will be sent back to your BBS. This process takes about 5-10 minutes.
6. It is your responsibility to post the verification as a private message to the user. This is done either by giving your users netmail privileges, or by you forwarding the netmail message.

This is a REAL working example of an electronic order entry system, the first of its kind for the BBS market.

We call it the Silver Xpress EDI system which is short for Electronic Data Interchange system.

In the commercial industry, EDI is often referred to as the X.12 protocol. If you are a professional organization with electronic order entry needs, the Silver Xpress off-line forms system and automatic work flow solution is a very cost effective system to provide an EDI system within your organization. If your company requires consultation to set up an EDI system, please don't hesitate to call us.

10.9. Xpress Vacation Saver

Silver Xpress has a built-in feature to run the XPMAIL program automatically to pack up

user packets, and save them in the user's mailbox directory for later pickups. This process is called Vacation Saver because it was designed for users who go on vacation, but wish to have the BBS save mail for them before the BBS renumbering process would delete mail.

To set up vacation saver:

First, determine that you have enough disk space for saving user packets. You may decide that it should not be a general option but one on request only. If you decide to turn off the vacation saver, you should delete the menu option from XPMENU.CTL.

Set up a BBS event for the best time to run the vacation saver event. This event time should be prior to your renumbering process.

The event should call the following commands in your BBS batch file:

```
:EVENT
  CD \XPRESS
  XPVAC -DF -NLW -VS
  CALL XVS
  GOTO RESTART
```

XPVAC is a utility to read the Xpress user database file, and check for users who have turned on the vacation saver option. XPVAC will create the batch file XVS.BAT with XPMAIL commands for each user. XPMAIL will use the -J switch, which means PCBOARD and RBBS cannot utilize this feature at this time.

Once XVS is executed, it will create mail packets for each user requesting vacation mail, and store it in their personal mailbox.

The user will have the ultimate responsibility for picking up the mail. When the user returns from vacation, he can start a download, and Xpress will tell him he has vacation mail. The user can also use the "Check Vacation Mail" option to see if any mail packets are available.

Once the user downloads the vacation mail, it is deleted from his mailbox.

You should modify the XPVSAVER.VCC file if you intend to provide VACATION SAVER service to your users. Tell them when your events occur and when to pick up the mail.

11. Changing the Xpress Menus and Display Files

Silver Xpress now has a powerful and dynamic menu system to better suit your customization needs for off-line mail applications. The menu system has security values, making it possible to set up the Xpress menus for individual users based on Xpress user security.

Keep in mind the security values used for the menus in Xpress are completely independent of the BBS user security system.

Silver Xpress offers sysops the ability to customize menus on the door side and on the reader side.

Silver Xpress also supports RIP (Remote Imaging Protocol) terminal packages. Xpress has built-in RIP menu commands which eliminates the need for you to spend lots of time designing RIP scenes or menus. See the separate document on Xpress RIP Graphics (XPRIP.DOC) for more information on RIP graphics in Silver Xpress.

11.1. Changing the default Xpress Door menus

The Xpress mail door menus are defined in the XPMENU.CTL control file stored in your Xpress directory.

If you make any changes to the control file, recompile it by using the XPCOMP.EXE program provided. This program will compile the XPMENU.CTL and XPLANG.CTL (language file) and create the a XPMENU.PRM and XPLANG.PRM. This allows Xpress to load and read the menu and language files faster.

In the past, Santronics Software resisted providing menu customization because users might have to learn multiple menus from different Silver Xpress installations. This is especially true for script users who would have to change their communication scripts for each customized Xpress setup.

However, we think we have achieved a compromise between allowing Silver Xpress to grow and the need to keep a consistent dialog for users. This is done using Xpress Menu Action Codes (XMAC). Xpress Menu Actions codes and the Xpress Macro system which allow users, utilizing telecommunication scripts or interactive video text telecommunication programs, to keep a dialog with XPMAIL.

Each menu option in XPMAIL.CTL has a unique XMAC. (Xpress Menu Action Code). If the user types in a XMAC value, the option will be activated regardless of which menu is currently being displayed. XMAC is discussed in more detail at this end of this section. In addition, you can combine multiple XMACs into one command called an Xpress Macro.

The control file XPMENU.CTL defines the visual interface for the menus remote users will see.

XPMAIL will read this file directly. No compiler is necessary.

You can define up to 20 different menus. Each menu begins with the keyword MENU and terminates with keyword ENDMENU.

For each menu, there are menu items (MENUITEM). A menu item is the menu option the user will see if he is given access.

The entire menu system is structured around XMAC and XSEC (Xpress security values). The following table shows the current XMAC and XSEC values. To change the security of each XMAC, edit the XPMENU.CTL file and recompile with XPCOMP.EXE.

MENUITEM NAME	XMA C	XSEC	DESCRIPTION
_USRLIST	101	0	Show Xpress User List
_RUSRLIST	102	0	Show registered Xpress users on BBS
_LOG	103	0	Show Xpress Log for Current Node
_SHELL	104	40000	Call XPSHELL.BAT file
_DNLDFILE <fn>	105	200	Download File
_UPLDFILE <fn>	106	0	Upload File
_DNLDMAIL	107	0	Scan and download mail packet
_UPLDMAIL	108	0	Upload Reply packet
_USERLOG	109	0	Show user personal log
_SELECT	110	0	Select Mail Conferences
_XFERTYPE	111	0	Select protocol method

_ARCHTYPE	112	0	Select compression method
_BULLETINS	113	0	Toggle Bulletin Status
_KEYWORDS	114	0	Define or edit Keywords
_OWNMAIL	115	0	Receive Own Mail Status
_GRPMAIL	116	0	Receive Group Mail Status
_LASTDATE	117	0	Change Last Usage Date
_RESTORELF	118	0	Reset Entry Last Pointers
_COLOR	119	0	Set Ansi Mode
_HOTKEY	120	0	Use Menu Hotkeys
_IBMCHAR	121	0	Use IBM Characters
_NOVICE	122	0	Set Novice Menus

_VETERAN	123	0	Set Veteran (expert) menus
_GXPRESS	124	0	Set Gold Xpress menus
_RPASSWORD	125	0	Define reader password
_DPASSWORD	126	0	Define DoorPass Password
_VACSAVER	127	0	Toggle Vacation Saver
_FILESCAN	128	0	Toggle File Scan Status
_FILEDATE	129	0	Change File Scan Date
_DELXAM	130	0	Delete user *.XAM file
_QUIT	131	0	Quit Silver Xpress
_HELP	132	0	Display Help at Menu
_RETURN	133	0	Return to Previous Menu

_GOODBYE	134	0	Hangup and Quit Xpress
_TOPMENU	135	0	Go to top menu
_NORIP	136	0	Skip Rip Graphics
_AUTOSTART	137	0	Automatically Start Xpress
_SYSPARM	144	0	Show System Parameters
_CHAT	145	0	Activate Chat Mode
_DISPLAY <fn>	146	0	Display File
_VACPAC	147	0	Check for Vacation Mail
_DISPVER	148	0	Display VERSION.XPV file
_DNLDUPD	149	0	Start GX Update System
_SAVEINFO	150	0	Save user configuration
_AVATAR	151	0	Set avatar graphics

_TTYMODE	151	0	Set TTY mode
_PKTOPX	153	0	Select OPX packet format
_PKTQWK	154	0	Select QWK packet format
_QWKSTRIPK	156	0	Strip kludge lines for QWK
_QWKCAPHDR	157	0	Capitalize message headers
_QWKNDX	158	0	Send QWK *.NDX files
_SENDXFILES	159	0	Send Xpress QWK/X files
_SELAREAS	160	0	Send selected areas only
_PKTCOUNT	161	0	Use packet counter system.
_CHANGELR	162	0	Change last read pointers
_GOSUB <menu>	165	0	Jump to new menu

_USEFLEXASST	166	0	Toggle Flex Assistant
_SHOWMAILONLY	167	0	Show areas w/ mail only
_QWKWRAP	168	0	Use wordwrapping for QWK
_TOSSDUMP	169	0	Dump Tossed mail
_XNLIST1	170	0	Send Xpress Nodelist 1
_XNLIST2	171	0	Send Xpress Nodelist 2
_MACRO <macro>	173	0	Issue macro command
_MACROLIST	174	0	List available macros
_RIPON	175	0	Turn on RIP Graphics
_RIPOFF	176	0	Turn off RIP Graphics
_RULESEARCH	177	0	NOT IMPLEMENTED YET

_SRCHTEXT	178	0	Toggle Msg Body Search
_REPRECEIPT	179	0	Toggle Upload REP receipt
_JUNK	-1	0	Do Nothing

See the XPMENU.CTL file which came with the package. Notice the security values place on some of the menu items. The more sensitive menu items are grouped together under the SYSTEM INFORMATION menu. The default SYSTEM INFORMATION menu will allow the user to call some of the less sensitive menu options such as "VIEW CURRENT USER LIST". Other like DOWNLOAD FILE have a high default value. You can change this value to match your recommended the 32K security value for the sysop of the system.

Each menu definition has the following format:

```

MENU <MENU NAME> [security]
  HELP           [file name]
  RIPTITLE       [title used for built-in RIP menus]
  VTITLE        <color> [string]
  NTITLE        <color> [string]
  ITEMCOLOR     <hcolor> <ncolor>
  MENUITEM     <security> <XMAC [data]> [string]
  RIP           <string>
  RETURNKEY    <hotkey>
  VETERAN      <hcolor> <ncolor> [string]
  GXPROMPT     <string>
  PROMPT       <hcolor> <ncolor> <pcolor> [string]
ENDMENU

```

All color fields can be literal or color value. The color literals understood by XPMAIL are:

COLOR LITERAL	COLOR VALUE
BLACK	0

BLUE	1
GREEN	2
CYAN	3
RED	4
MAGENTA	5
BROWN	6
GRAY	7
DARKGRAY	8
LBLUE	9
LGREEN	10
LCYAN	11

LRED	12
LMAGENTA	13
YELLOW	14
WHITE	15

If you wish to define a color with a color background, calculate the color value with the following formula:

COLOR VALUE = (background color X 16)+foreground color

i.e., to display a white on blue color, use a color value of 31.

MENU <MENU NAME> [security]

This statement begins a MENU group. The XMAC menu name must be one of the 9 possible menus. If the XMAC menu name is `_SYSOP_` only the Xpress Sysop will have access to this menu.

HELP <file name>

This is the name of help file displayed to the user for the current active menu.

It is also the name of an optional ansi-based menu file; filename.ANS for ANSI mode and filename.TXT for non-ANSI mode.

If you define an ansi menu, Xpress will still interpret the menu items for hotkeys etc., but will instead display the menu file.

RIPTITLE <rip menu title>

During RIP mode, Xpress will use this string as the menu title.

See the separate document on Xpress RIP Graphics (XPRIP.DOC) for more information on RIP graphics in Silver Xpress.

NTITLE <color> [string]

This is the title shown to the user when the user's current menu mode is "NOVICE".

During NOVICE menu, Xpress will display the full menu details.

VTITLE <color> [string]

This is the title shown to the user when the user's current menu mode is "VETERAN".

In this mode, Xpress will display little details about the menu which show only the available hotkeys. XPMail displays the veteran menu using the format:

```
line 1  veteran title
line 2  veteran hot keys
line 3  user prompt
```

ITEMCOLOR <hcolor> <ncolor>

This command defines the color used for each menu item.

HCOLOR

Color of the highlighted portion of the string in menuitem. The highlighted portion of the string is the part surrounded by carets (^).

NCOLOR

Color for the normal part of the string.

MENUITEM <security> <XMAC [data]> <string>

Each MENUITEM has the following:

SECURITY

This is the security value required by the user to get access to this menu option.

XMAC (XPRESS MENU ACTION CODE)

This is one of the XMAC codes shown in the XMAC table. You may have a MENU ITEM with nothing else following it. This will produce a blank line, which is useful for separating options. You may also define a _JUNK XMAC with a string defined. The string will be displayed, however, there is no hotkey associated with this option. This is

useful for displaying menu line separators.

Some XMAC codes expect data immediately preceding the XMAC.

The following XMACs require data:

```
_DISPLAY <filename>  
_DNLDFILE <filename or ? for prompt>  
_UPLDFILE <filename or ? for prompt>  
_MACRO <macro command>
```

The string portion of the menuitem is the actual statement shown to the user in the menu.

To define a selection character (hot key) for this menu item, the selection character must be surrounded by carets.

If you precede the string option with a QUOTE, no leading spaces will be removed.

If you end the line with a semi-colon, no carriage return and linefeed will be issued. This is good for creating 2 column menus.

If the string option has any of the following % parameters, a substitution will be performed:

%sa - total # of selected areas
%tm - file transfer protocol
%cm - compression method
%gb - general bulletins on or off
%kw - total keywords
%ro - receive own mail on or off
%rg - receive group mail on or off
%ld - last usage date
%ag - Color Graphics (Ansi) on or off
%hk - Menu Hot Keys on or off
%ic - IBM Characters on or off
%nm - Novice Menu Mode on or off
%xm - Veteran Menu Mode on or off
%gx - Gold Xpress Menu Mode on or off
%vs - Vacation saver on or off
%fs - file scan on or off
%fd - file scan date
%pt - mail packet type
%sk - strip kludges line in mail
%ch - capitalize header in QWK mail
%sn - Send NDX files in QWK mail
%sx - Send QWK/X files
%so - Send selected areas only
%hr - HMS (QBBS/RA) last read value
%pc - Use packet counter
%fa - Use Flex Assistant
%mo - Show area with mail only
%ww - Perform word wrapping for QWK messages

RIP [string]

During RIP mode, Xpress will use this string for the menu option. It is optional. If not defined, Xpress will use the menu string for RIP menus. By defining one, you can change the length. Something it is too long for the Xpress RIP menus.

See the separate document on Xpress RIP Graphics (XPRIP.DOC) for more information on RIP graphics in Silver Xpress.

RETURNKEY [hotkey]

Normally, XPMAIL will accept a carriage return from the user to return to the previous menu. It will generally use the hotkey from the last MENUITEM defined in the menu group. Since the last menu item may not be a normal option, the RETURNKEY statement is used to define the key which will be used when the carriage return is hit.

VETERAN [hcolor] [ncolor] [string]

This is the line of keys shown during veteran mode.

The hili color is the color of the portion of the string surrounded by carets (^). The normal color is the color of the remaining part of the string.

Xpress will make one substitution with this statement. If it sees the word %keys, the current hotkeys available for the current menu are substituted.

GXPROMPT [string]

This is the string shown to the user when he selects GOLD XPRESS menus.

PROMPT [hcolor] [ncolor] [pcolor] [string]

This is the prompt shown to users after the menu is displayed.

The hili color is the color of the portion of the string surrounded by carets (^). The normal color is the color of the remaining part of the string, and the prompt color is color of the keys the user types.

Only two substitutions can be made; %tr, which is the time remaining in minutes, and %fn, which is the user's first name.

ENDMENU

This statement ends a menu group.

See XPMENU.CTL for working examples.

11.2. Changing the Silver Xpress Reader Menu.

The Silver Xpress Reader has the ability to load different menus the user will see and use to operate the reader.

When the reader opens a mail packet, if a menu file named BOARDID.LIB, where BOARDID is the name of your mail packets, is found, it will be loaded as the user's menu for the reader. If a BOARDID.LIB menu file is not found, the reader will use the default SXMENU.LIB file as a menu.

To customize the reader menu on the user's side, define a reader menu file with the name BOARDID.LIB, where BOARDID is the board ID you defined in the registration section.

To pass your unique reader menu file BOARDID.LIB to your users, store it in your Xpress Directory.

The Xpress mail door will pass this new menu file to the user during a download. The reader will use this menu when it opens up the mail packets downloaded from your system. The user

will not have the option to disable your menu customization unless the user deletes the menu from the mail packet.

To change the Silver Xpress Reader menu you will need the utility called SXDYMENU.EXE (Silver Xpress Dynamic Menu Editor). Begin by getting a copy of the default reader menu SXMENU.LIB, rename it BOARDID.LIB and edit it using the SXDYMENU.EXE utility.

This Xpress feature gives you the ability to customize your applications with Silver Xpress. You may want to create some special menu options which process an Xpress form, or run an external program or create a special message to the sysop. Silver Xpress gives you the power to customize your BBS as a unique store and forward, groupware application.

For example:

Company X has a professional BBS.

Company X is offering extra off-line services and features using Silver Xpress. To customize the application, a customized reader menu library was created.

The company has a Silver Xpress board ID of COMPANYYX, so the name of the reader menu library created is COMPANYYX.LIB. This is stored in the Xpress directory.

When users scan and download mail, the COMPANYYX.LIB file is packed up in the mail packet, COMPANYYX.OPX. When the user opens up the COMPANYYX.OPX file using the Silver Xpress Reader, the reader will use the COMPANYYX.LIB menu library for its menu.

11.3. Xpress Video Control: Misc and Help Files

The Xpress miscellaneous and help files are located in the MISC and HELP sub-directories, respectively.

Xpress uses a powerful embedded video control language called the Xpress Video Control language (XPV) to intelligently display information to the user. If you are familiar to the OPUS OECC language or the MECC language for Maximus, you will see the VCC files are quite similar.

There is many advantages to using a embedded control language like XPV. First, it eliminates the need to have separate files for each terminal type, ANSI or TEXT. Second, Xpress offers many commands to perform other actions, such as creating menus to download files (DLRDR.VCC) or the Xpress Assistant system (ASSIST.VCC) which illustrates how you can put an entire new menu subsystem into Xpress. You can even go as far as calling external programs.

The *.VCC files in the help directory are the source files for the help *.HLP files.

The *.VCC files in the MISC directory are the source files for the MISC *.XPV files.

If you would like to change the files, edit the appropriate VCC file, and compile it using the utility VCC.EXE. For the help files, use the provided batch file called MAKEHLP.BAT. MAKEHLP.BAT will call the Xpress VCC compiler, VCC.EXE, with the proper switches.

The following are the VCC tokens understood by the VCC.EXE compiler:

VCC Tokens:

[cls]	Clear the screen.
[readln]	prompt user for string input.
[string]	return the string from the [readln] token.
[menu]	menu prompt. i.e., [menu]XYZ accepts X Y Z keys.
[if]	performs check on last menu character hit.
[onexit]	sets the file to display when current ends.
[exit]	exit the current file.
[jump]	jump to [label].
[show]	displays a new file as a subroutine.
[display]	displays a new file. Last one lost.
[pause]	prompt user for Press any key to continue.
[dos]	executes the command which follows the token.
[goto]	goto the [label].
[ansi_toggle]	toggle ansi state.
[ansi_on]	set ansi on.
[ansi_off]	set ansi off.
[hot_toggle]	toggle hot key state.
[more_on]	set more on.
[more_off]	set more off.
[more]	prompts user for more Yes or No.
[archiver]	select the archiver for mail packets.
[protocol]	select file transfer system.
[selectarea]	present the area selection session.
[dnloadmail]	begin scanning of mail.
[uploadmail]	begin uploading of reply mail files.
[download]	download file which follows the token.
[if_dl_error]	conditional check for download process.
[if_rip]	conditional check for RIP mode

Color Token Table for VCC files

The color tokens for VCC use literal statements with a format such as [LtGreen] or [WhiteOnBlue] where the first color is the foreground and the second color is the background. To define a color, use the foreground and background colors defined below, and put the word ON between them:

ForeGround	Background
Black	Black
Blue	Blue
Green	Green
Cyan	Cyan
Red	Red
Magenta	Magenta
Yellow	Yellow
White	White
LtGray	
Brown	
DkGray	

LtBlue
LtGreen
LtCyan
LtRed
LtMagenta

Modifying the Miscellaneous Display Files

The miscellaneous files found in the MISC\ directory are in a format called XPV or Xpress Video Codes. The following is the list of default display files shown to the user during various points of Xpress.

INIT	initialization screen at startup
WELCOME	welcome screen at startup
NEWS	news screen at startup
NEWUSER	new user screen at startup.
DLRDR	starts the Download Reader session.
EXPLAIN	starts the Explain Xpress session.
ASSIST	starts the Xpress Assistant session.
VERSION	display Xpress version information.
XPVSAVER	shown when user enabled VACATION SAVER.
NOVAC	displayed when no vacation mail is available
BADXPV	User using old version of Reader.
GOLDXP	shown when user enables GX menus.
GOODBYE	shown when hanging up from XPMAIL.
EXIT	shown when exiting from XPMAIL.

To compile a VCC file, use the VCC.EXE compiler. i.e.,

VCC XPVSAVER

The logic XPMAIL will use to display these files is as follows:

ANSI and TEXT MODE

Xpress will look the XPV (or HLP) files in the MISC or HELP directory. If the file does not exist, local console error message and continue with the normal flow of operation. The user will not see the error message.

GOLD XPRESS MODE

Xpress will look for a GX file in the MISC directory. If the file does not exist, the XPV file will be shown.

APPENDIX A: LIMITATIONS

Silver Xpress Mail System Limitations

NUMBER OF XPRESS USERS	: 65536 (0-65535)
NUMBER OF CONFERENCES	: 32768 (0-32767)
NUMBER OF CONFERENCES USER CAN SELECT	: 32768 (0-32767)
NUMBER OF MAXIMUM LAN XPRESS NODES	: Unlimited
NUMBER OF OPTIONAL BULLETINS (1)	: Unlimited
NUMBER OF AUTO DISPLAY BULLETINS	: 10
NUMBER OF ARCHIVERS	: 20
NUMBER OF TRANSFER PROTOCOLS	: 20
NUMBER OF UPLOADED MAIL SERVICES	: 10
NUMBER OF REMOTE USER SERVICES (1)	: Unlimited
MAXIMUM NUMBER OF FILE DOWNLOADS	: 10
MAXIMUM NUMBER OF FILE UPLOADS	: 10
NUMBER OF KEYWORDS AVAILABLE PER USER	: Unlimited
MAXIMUM # OF MESSAGES TO BE SCANNED	: 65536
MEMORY REQUIRED FOR MESSAGE LIST	: 201 bytes per message
MAXIMUM MESSAGES IN A MESSAGE LIST (2)	: 1741 PER CONFERENCE
NUMBER OF TICKER TAPE AD Lines	: 10 (700 bytes)
DISK SPACE REQUIREMENTS (DOOR)	: 700K (5M OPERATIONAL)
DISK SPACE REQUIREMENTS (READER)	: 400K (1.2M OPERATIONAL)
RAM SPACE REQUIREMENTS (DOOR)	: 256K (420K OPERATIONAL)
RAM SPACE REQUIREMENTS (READER)	: 270K (420K OPERATIONAL)

NOTES:

1. Limited only by available memory on your PC.
2. Silver Xpress can load any mail size. The program is only limited by available memory; i.e., 350K is the average memory remaining after Silver Xpress is loaded, therefore, 350,000 divided by 201 yields the amount of messages per conference which can be viewed. This is about 1741 messages per conference. A future version will make this unlimited using a virtual system.

APPENDIX B: EXEC SWAPPING

Silver Xpress now uses swapping technology to execute large external programs. With EXEC SWAPPING, as it is called in Xpress, Xpress will leave only 5K in memory, and return the rest to DOS to execute the external program.

In XPMAIL.EXE, Xpress calls 3rd party utilities at the following points:

1. Download/Upload of OPX/REP files.
2. Compression/Expansion of OPX/REP files.
3. Xpress Service Calls.

If you run out of memory, Exec Swapping will fix the problem for you. Now, you can set up swapping 3 ways:

1. Use the -ES switch with XPMAIL.
2. Set the EXEC SWAP options in XPRESS SYSTEM OPTIONS in XPADM.
3. Use the \$ or # prefix for all process commands defined in XPPROT.CTL and XPARCH.CTL. By using the special \$ or # prefix, you can set up exec swapping for individual programs. Some programs require more memory than others. The \$ must be used for EXE and COM programs, and the # is used to call batch files.

APPENDIX C: OPTIONAL SWITCHES

The following is the complete list of switches available for XPMAIL and XPADM.

XPMAIL Generic switches

These switches are not case sensitive, except for how the comm port switch is used under Maximus.

-C<file>	Use compiled control parameter file.
-LB<#>	Lock PORT baud rate for file transfer protocols.
-B<#>	User connect baud rate for download time calculation.
-K	Force local /keyboard mode.
-L	Force local /keyboard mode.
-F	Enable fossil communications
-FSD	Disable fossil when shelling to DOS.
/STX	Software transmit flow control
/SRX	Software receive flow control
/DSR	Require DSR for Hardware transmit flow control
/DTR	Use DTR for Hardware receive flow control
/CTS	Require CTS for Hardware transmit flow control
/RTS	Use RTS for Hardware receive flow control
-NT	Do not enforce download time limit.
-NCM<str>	New user configuration macro.
-SP	Sneak preview switch (sysops only).
-LS	Enable Snoop (override configuration).
-X	Makes current user a temporary Xpress sysop.
-S	Check if user is a real sysop of the system.

- A# Force time limit (Defaults to 30).
- NLW Disables local console windowing system.
- NH Disables modem hang up when goodbye is available.
- VS Enables Vacation Saver Event. In Local Mode, no download will take place and the file will be placed in the user's bin. The user bin is created off the EXTRA directory. This should only be used DURING YOUR EVENTS! Sysops can use this as well for their own personal use.
- NFS Turns off file scanner for the session.
- SCD Skips file areas marked as CD areas.
- V or ? Shows version number and compile date.
- Mfilename Define an alternate menu control file.
- NMB Allows creation of Xpress Packets even if no mail is available. User will get a minimum number of files. The reader will only allow mail creation because there is nothing to read.
- XMfilename Loads a different Xpress menu control file.
- /Kchars stuffs the keyboard buffer at startup with chars
- Jxxxxxx User record number or user name. LOCAL MODE ONLY. PCBOARD can not use this switch. This -J switch is useful for the vacation saver option and for the sysop local mode usage. If xxxxxx is a number, it is the record number read from the BBS user database file. If it is the user's name, XPMail will search for the user. Examples: load user record #3 from BBS user database: XPMail -J3 says find Hector's record in the BBS user database which is equivalent to XPMail -J"Hector Santos"
- P<#> (Upper P) Port (1 based port)
- p<#> (small p) Port (0 based port. Only For Maximus). Maximus can pass -P or -p. If you use the Maximus macro %L (recommended), this will expand to using -p -b or -k in local mode.
- For Maximus, -p is zero based. For OPUS 1.1x, and OPUS 1.7x, the PORT switch is ignored. The port value is read from the LASTUSER file.
- For PCBOARD, the PORT switch is ignored. The port value is read from the PCBOARD.SYS file.

For RBBS, the PORT switch is ignored. The port value is read from the DORINFOx.DEF file.

For RA/QBBS, PORT switch is not Required except as an override from the default.

In local mode, the port defaults to COM1. A zero passed will force local mode.

Xpress Exec Swapping (For low memory situations)

- ES Use exec swapping logic.
- ESE Use exec swapping logic, and use expanded memory, if available.
- ESX Use exec swapping logic, and use extended memory, if available.
See XPS "Xpress Swap Path" environment string below.

Xpress Automatic Download/Upload Switches

- DA Automatic Download, get ALL mail.
- DP Automatic Download, get personal mail only.
- DPA Automatic Download, get personal first, if 0 then ALL.
- U Automatic Upload.
- DF Use the user's flex select command for bundling.
- OW<path> Override Work Path for session.
- OD<path> Override Download Path for session.
- OU<path> Override Upload Path for session.

Maintenance Switches

- DEBUG Display area security information as understood by XPMAIL.
- SE Show Events during initialization (DEBUG). F1 Model only.

QBBS/RA

- QOLD Use old QBBS 2.04/RA 0.04 exitinfo files.

-QTF Use old QBBS time remaining calculation.

OPUS/MAX/RA/QBBS

-NC Skip Adjust netmail cost. (NO COSTING!)

-NU Disable writing to USER.BBS or USER.DAT file during local mode usage.

MAX

-RSE Report any Squish Scanning errors.

FIDO SYSTEMS: (TAG/OPUS/MAX and RBBS/PCBoard with FIDO areas)

-KB Kill Bad FIDO messages. (can't read. i.e., ZERO size).

/FBD Fix Bug Dates in FIDO messages during scan.

/FOD Use old style fido dates.

-LRFxxx Use Sysop LASTREAD file for lastread pointers.

TAG BBS, which supports FIDO areas, must use this switch to pass the TAG user record number.

-YMS Tells Xpress not to RETAIN the file time stamp when updating a message for the receive bit. Some programs such as YMS require an updated file stamp.

MULTI-LINE (NETWORK) VERSIONS ONLY

-NS Do not force detection of SHARE.COM/EXE (NOVELL ONLY)

-T# Pass task # to Xpress Configuration Files only. The task number will substitute the # character in the NODAL information statements.

Fax Xpress

-XF# Define which mail area # is used for faxing mail.

Environment Variables:

TZ	Time Zone for your system, optional (not used).
XPA	Xpress Auto Command String, optional.
XPS	Swap Path For Exec swapping, optional.
PCBDIR	For PCBOARD 14.5 only.
PCBNODE	For PCBOARD 14.5 only.

XPADM Generic switches

-C<path>	Xpress control file.
-A	Update conferences only. Skip BBS configuration.
-U	Complete Xpress Update and complete report.
-S	Update security access of each area.
-T	Update titles of each area.
-VM<memK>	Optional memory requirement for memory files. The only time you may need this switch is if you have a lot of message areas (1000 or more).

APPENDIX D: USING THE DEBUG SWITCH

The XPMAIL -debug switch was instituted for one reason: To check if Xpress is reading and interpreting your areas, security values, and the user's last read pointers.

This switch is really an internal switch used during the design of XPRESS, and should not be used during normal operations.

However, if you are having doubts about security and wish to make certain users mail area security is not breached, this debug information will be most useful. Make a printout, and analyze the output against the expected security of your mail areas. If you see a problem, contact Santronics Software.

The first thing you should be sure of is that XPADM is correctly reading and compiling the BBS system files for your setup. If you cannot get passed XPADM, XPMAIL will not operate. A successful XPADM compilation is usually the precursor to a proper Xpress setup.

When having mail area security problems, one of the last things to try is to delete the *.PRM and *.RAW files and start XPADM again. If your mail area security problem still persists, call Santronics Software.

The following information will help you interpret the -debug output information displayed after the XPMAIL initialization:

US: User Security value. For FIDO-based systems, this is a hex number equivalent to the internal value used for FIDO-based systems. For PCBOARD, and RBBS Xpress which allow Fido areas, the number will be displayed in decimal format. The HEX table below corresponds to the literal interpretation used by OPUS (thus Maximus) internally in these programs.

Opus 1.03

<u>Security</u>	<u>Hex</u>	<u>Dec</u>
TWIT	FE	-1
DISGRACE	00	0
NORMAL	02	2
PRIVIL	04	4
EXTRA	06	6
ASSTSYSOP	08	8
SYSOP	0A	10
HIDDEN	0B	11

Opus 1.10, Opus 1.71, Max 1.02

<u>Security</u>	<u>Hex</u>	<u>Dec</u>
TWIT	10	16
DISGRACE	30	48
LIMITED	40	64
NORMAL	50	80
WORTHY	60	96
PRIVIL	70	112
FAVORED	80	128
EXTRA	90	144
CLERK	A0	160
ASSTSYSOP	B0	176
SYSOP	D0	192
HIDDEN	E0	208

- AS: This is the minimum security value required for the user to gain access in this area. The format follows the same logic as in US.
- AA: This is the area attribute. This value is always displayed in a HEX format. It follows the FIDO-based interpretation for conference attributes:
- SY: This is a boolean value for determining whether the user is considered a "SYSOP" or "MODERATOR" for this area. As a sysop of the area, the user will be able to read PRIVATE mail.
- PV: This is a boolean value for determining whether the user will be able to use the unique Xpress feature "Message Preview". Message Previewing will allow the user to download the message without TAGGING the message as being already read.
- LR: This is the current last read message counter for the user for the particular area. Normally, this value will be zero, as the new XPMail version 5.00 will do a dynamic retrieval of the last read pointer, when it begins to scan for mail. In the past, XPMail would read all the last read pointers when it initialized itself. This is no longer true.
- AC: This is a boolean value and final determination of whether the user will be allowed access to the area. Normally, the US and AS values are enough to gain access. By gaining access, we mean the user will be allowed to SELECT the area.

Depending on the BBS type, it does not necessarily mean the user will be allowed to READ or ENTER mail. Generally, if the user has access, he will be able to READ mail. A good rule of thumb is if this value is YES, the user will have SELECT ability and READ ability. (Note: With PCBOARD and RBBS Xpress, you can further control the reading of mail with the READ_PUB and READ_PRI keywords. OPUS, MAX, QBBS and RA do not yet have this control).

APPENDIX E: ERROR CODES

These are the error codes produced by Silver Xpress

- 2 - File not found.
- 3 - Path not found.
- 4 - Too many open files. Increase FILES= in config.sys.
- 5 - File access denied.
- 8 - Out of memory.
- 15 - Invalid Drive.
- 100 - EOF of file reached.
- 103 - File not opened.
- 105 - File not open for output.
- 159 - Out of paper.
- 161 - File sharing violation. Share not loaded?

- 162 - Hardware problem. Share not loaded?
- 163 - File sharing violation. Share not loaded?
- 200 - Divide by Zero. Bad user baud rate passed?
- 201 - Out of range. Variable is out of its value range.
- 204 - Pointer problem.
- 208 - Overlay problem.
- 209 - Problem loading overlay. Try again. Get new EXE copy.

APPENDIX F: MAIL DOOR PRODUCT COMPARISON

The following table reveals the features of three mail products in the mail door market. It shows features which are directly supported, not using conversion utilities.

Feature Support	SilverXpress	QMAIL	BlueWave
OPX SUPPORT	YES	NO	NO
QWK SUPPORT	YES	YES	NO
OPUS 1.03	YES	NO	NO
OPUS 1.10	YES	NO	NO
OPUS 1.7x	YES	NO	YES
FIDO	YES	NO	NO
RBBS	YES	NO	NO
MAX 1.02	YES	NO	NO
MAX 2.00	YES	NO	YES
QBBS	YES	NO	YES

REMOTE ACCESS	YES	NO	YES
SUPER BBS	YES	NO	NO
PROBOARD	YES	NO	NO
ROBO-BBS	YES	NO	NO
TAG	YES	NO	NO
PCBOARD	YES	YES	NO
Bundling Commands	YES	NO	YES
File Requesting	YES	NO	YES
File Uploading	YES	NO	NO
Fascimile Interface	YES	NO	NO
Forms Data Entry System	YES	NO	NO

Off-line Service System	YES	NO	NO
File Transfer System	YES	NO	NO
Optional Bulletins	YES	YES	NO
File Scanner	YES	YES	YES
Programmable script language	YES	NO	NO
Door Menu Customization	YES	NO	NO
Reader Menu Customization	YES	NO	NO
Door Menu Macro System	YES	No	No
Language File	YES	YES	NO
Mail Driven Events	YES	NO	NO
MHS Support	YES	NO	NO
Password System	YES	NO	YES

Vacation Saver	YES	NO	NO
Auto Download/Upload System	YES	YES	YES
BBS command line Interface	YES	YES	No
Internal Protocols	YES	No	No
Batch File Transfer	YES	No	No
GoodBye Option	YES	YES	YES
Interactive Help System	YES	NO	NO
Answering Machine System	YES	NO	NO
Group Mail System	YES	YES	NO
Support YMS	YES	NO	NO
Speech Friendly Configuration	YES	NO	NO

Complete User Editor	YES	NO	NO
Complete Default User Setup	YES	NO	NO
SYSOP Controlled Areas	YES	NO	NO
Compression Estimates	YES	NO	NO
Pointer Resets By Number	YES	YES	YES
Pointer Resets By Date	YES	NO	YES
Keywords and Filters	YES	NO	YES
Unlimited Keywords/Filters	YES	NO	No
Search Body of Messages	YES	NO	No
Seen-by Stripping	YES	NO	YES
Complete offline Configuration	YES	SEMI	YES
QWK Network Sysop Support	YES	YES	NO

FidoNet Support	YES	NO	YES
Support for 48,000 Areas	YES	NO	NO
Reply file Receipt File	YES	NO	NO

APPENDIX G: SECURITY AND SYSOP ACCESS

Silver Xpress security access is very tightly coupled with those of the BBS for mail and file areas.

There are 2 main security issues with which Xpress is concerned:

1. User access to secured mail areas and private mail.
2. User access to the Xpress menus.

For Xpress menus, Xpress has user securities and menu securities. The Xpress security value system is completely independent of the BBS security system. The Xpress user security system is used to determine access to the Xpress menus and menu items.

The following logic is used to determine the special user access in MAIL Areas only.

Under normal conditions, Xpress will follow the BBS security system 100%, to gain access into the BBS mail areas and file system.

However, Xpress has some conditions which give it power over other systems for special user access, such as giving a user moderator status into an area. Not all BBS systems have this feature, but Xpress gives you this power.

The purpose of the moderator or AREA SYSOP security status is to determine who can and cannot read private mail or toss mail into a read-only area.

If the BBS already has moderator logic, Silver Xpress will follow it 100%. If the BBS does not have this logic, Silver Xpress will use the following logic:

The default and normal behavior for picking up private mail is that the user must have the access to read other people's private mail. If not, the mail is skipped. The user will always have his own direct and private mail.

If a user is designated as an AREA SYSOP (sometimes called the AREA MODERATOR) he has full access to all mail in that particular mail area. Depending on the Xpress model, you can assign individual users as moderators of that area.

The user designated as the TRUE SYSOP has access to ALL mail in all AREAS.

To become a TRUE SYSOP, the following must happen:

TRUE SYSOP for Silver Xpress

OPUS 1.03

BBS tells Xpress user is a BBS SYSOP.

OPUS 1.1x	BBS tells Xpress user is a BBS SYSOP.
OPUS 1.70	BBS tells Xpress user is a BBS SYSOP or ASSISTANT SYSOP.
MAX 2.0x	BBS tells Xpress user is a BBS Sysop.
RBBS	BBS tells Xpress user is a BBS SYSOP.
PCBOARD	BBS tells Xpress user is a BBS SYSOP.
RA/QBBS	User name matches sysop name.

If the -S is used or the XPADM option USE TRUE SYSOP OPTION is enabled, the only way the user can become the true sysop is if he is the real sysop of the system; the person whose name appears as the sysop or assistant sysop in the BBS INFORMATION section of XPADM.

In general, the -S switch will prevent BBS sysops from reading other people's private mail except for RBBS, PCBOARD, OPUS 1.7x and QBBS/RA which already have a private mail option.

To complete the security logic, so that the non-true sysop user can gain access to private mail between two other people, or to toss mail into a read-only mail area, he must be an AREA SYSOP. This is outlined below:

AREA SYSOP for Silver Xpress

OPUS	1.03	Must be a TRUE sysop.
OPUS	1.10	Must be a TRUE Sysop.
OPUS	1.70	BBS passes Area Peek Private Security to Xpress.
MAX 2.0xx		Must be a TRUE SYSOP.
RBBS		XPAREAS.CTL passes Private Mail Security to Xpress and the user is defined as the MODERATOR.
PCBOARD		XPAREAS.CTL passes Private Mail Security to Xpress and the user is defined as the MODERATOR.
RA/QBBS		BBS passes Conference Sysop security value.

As you can see, Silver Xpress will match the security levels of the BBS to give you the security flexibility you need.

APPENDIX H: Acknowledgements

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