

Customizing the DecisioNet System

Overview

Many features of the DecisioNet System can be customized to meet site-specific requirements. Feature availability depends on which software packages are installed. The features listed below can be used with the system default settings, or the settings can be modified.

The system defaults provide basic functionality for all features except Status Tag Manager which requires the set up of site-specific files.

- Information Messaging System Package
 - Label Data Manager
 - Promotional Message Verifier
 - External Data Interface (with AMS capabilities)
 - Automated Messaging System
- Price Redundancy Package
 - Price Verifier
 - Sale Price Verifier
- System Information Package
 - Log Monitor
 - Orphan Tag Report
 - Unattended EPL Backup
 - Failure Detection and Analysis
 - Status Tag Manager

Two additional sections, “Windows NT Automatic Services” and “UNIX Automatic Restart” follow the feature customization sections.

Default Directories

In a default DecisioNet installation, the home directory is `\ep1` for a Windows NT system and `/app1/ep1` for an NCR UNIX or SCO UNIX system. The location of files, scripts, applications, etc. in this appendix references the default directories. Reference the `ESCONFIGDIR` environment variable to identify the home directory for your system.

DecisioNet System Start and Stop Scripts

The following table identifies the start and stop scripts used with the DecisioNet System to control the installed applications, utilities, and functions.

On a default DecisioNet Windows NT system, these scripts are installed in the `\ep1\bin\scripts\` directory. On a default DecisioNet UNIX system these scripts are installed in the `/app1/ep1/bin/scripts/` directory.

The start (S#) scripts are executed in ascending order to start the DecisioNet System. The stop or kill (K#) scripts are executed in ascending order to stop the DecisioNet System.

Windows NT	UNIX	Function
S00logger.bat	S00logger	Start the Logger
S05tblmgr.bat	S05tblmgr	Start Table Manager
S10cbmgr.bat	S10cbmgr	Start CBS Manager
s15sched.bat	S15sched	Start Data Scheduler
S35bedchk.bat	S35bedchk	Start Bedcheck
S40ldmmgr.bat	S40ldmmgr	Start Label Data Manager
s45plurdr.bat	S45plurdr	Start PLU Reader
s50bridge.bat	S50bridge	Start PLU Bridge
S52stat.bat	S52stat	Start Status Tag Manager

Windows NT	UNIX	Function
s55extdi.bat	S55extdi	Start Extended Data Interface
S55fda.bat	S55fda	Start Failure Detection & Analysis
S60lm.bat	S60lm	Start Log Monitor
S90prchk.bat	S90prchk	Start Price Checker
S90prcvrf.bat	S90prcvrf	Start Price Verifier
S90sprcvrf.bat	S90sprcvrf	Start Sale Price Verifier
S90promovrf.bat	S90promovrf	Start Promotion Verifier
K05ldmmgr.bat	K05ldmmgr	Stop Label Data Manager
K07fda.bat	K07fda	Stop Failure Detection & Analysis
K10bedchk.bat	K10bedchk	Stop Bedcheck
k11extdi.bat	K11extdi	Stop Extended Data Interface
k12bridge.bat	K12bridge	Stop the PLU Bridge
k13plurdr.bat	K13plurdr	Stop PLU Reader
k15prchk.bat	K15prchk	Stop Price Checker
K20prcvrf.bat	K20prcvrf	Stop Price Verifier
K21sprcvrf.bat	K21sprcvrf	Stop Sale Price Verifier
K22promovrf.bat	K22promovrf	Stop Promotion Verifier
k25sched.bat	K25sched	Stop Data Scheduler
K27stat.bat	K27stat	Stop Status Tag Manager
K30cbasmgr.bat	K30cbasmgr	Stop CBS Manager
K35tblmgr.bat	K35tblmgr	Stop Table Manager
K45lm.bat	K45lm	Stop Log Monitor
K50logger.bat	K50logger	Stop the Logger

Label Data Manager

The Label Data Manager tracks changes to the selected EPL Table record fields (Label Data Maintenance Configuration screen - PLU Number, Price Level, Serial Number, Measure, Unit of Measure, and/or Package Size) and PLU file description field changes. It uses this information to create an ASCII, comma-separated, print files that can be used to print SmarTalker labels.

How the print process is implemented depends on the print application and the type of printer used at your store. This section describes the available configuration options and provides a sample ASCII, comma-separated print file.

Setting the Granularity and Records Number Options

These options are used when tracking changes to the PLU File description field. The EPL Information Messaging System Package must be installed to have this extended LDM functionality. To change these options from the system default settings, edit the Label Data Manager section of the basesw.cfg file. This file is in the /appl/epl/data directory on a default DecisioNet UNIX system and in the \epl\data directory on a default DecisioNet Windows NT system.

```
#####  
#LABEL DATA MANAGER  
#####  
#An integer value which designates the elapsed time (seconds) between  
#accesses of the PLU File to determine the descriptions which have changed  
# [0]  
"LDM_GRANULARITY",300  
  
#Designates the number of EPL records processed at one time when description  
#changes are checked. [100]  
"LDM_RECORDS_NUMBER",100
```

The first parameter is the time interval (in seconds) between the times LDM checks the PLU file for description field changes.

The second parameter specifies the maximum number of records LDM reads at one time when checking for description field changes. The larger this number the faster LDM performs the checks. However, LDM reads this number of records into memory, so more memory is required for larger values.

LDM Parameters in the Application Configuration File

The parameters set using the Label Data Manager configuration screen in EPL Administration are in the `esappl.cfg` file. The following list identifies the default parameters. Changes should only be made using the configuration screen.

```
"LDI_DBIT_FLAG", "ALL"  
"MAX_QKPRINT_FILES", 5  
"MAX_CHGPRINT_FILES", 5  
"MAX_ALLPRINT_FILES", 5  
"MAX_SELPRINT_FILES", 5  
"MAX_DATPRINT_FILES", 5
```

The following parameter is set when the EPL Information Messaging System Package is installed to tell the system the extended LDM functionality is present. This parameter should not be edited and changed.

```
LDM_INSTALLED, 1
```

The following parameters identify the names and locations of the start script and stop script files and whether the start and stop scripts are enabled for printing. In a DecisioNet Windows NT system, these files must be created to meet your system-specific printer requirements. In a DecisioNet UNIX system, default shell script files are provided and must be modified to meet your system-specific printer requirements. The enable options are set using the Label Data Maintenance screen in EPL Maintenance application. These parameters should only be changed through this screen

```
"LDI_START_SCRIPT", "C:\ep1\bin\prescript.bat"  
"LDI_STOP_SCRIPT", "C:\ep1\bin\postscript.bat"  
"LDI_START_ENABLED", 0  
"LDI_STOP_ENABLED", 0
```

Prescript and Postscript Files

The following two shell script files, `prescript.sh` and `postscript.sh`, are default entries in a DecisioNet UNIX system. They are both in the `/appl/epl/bin/` directory. These files can be modified for system-specific printing requirements.

`prescript.sh`

```
#!/usr/bin/ksh
echo "Pre-Processing Script"
```

`postscript.sh`

```
#!/usr/bin/ksh
#NOTE: This script now supports synchronous USER input/output control - 4/18/96.
echo "Post-Processing Script"
echo "The file is $1"
echo "The field is $2"
# This will cause the $1 input file to be sorted on label TYPE.
sortbyfield.sh $1 5 sorted.out n
```

Label Data Manager - Print File layout

The information in the sample print files below is based on the following data.

Field	Symbol	Type	Size
Item Number	PLU	alphanumeric	13
Price Level	LVL	numeric	2
Location	LOC	numeric	12
Serial Number	SN	alphanumeric	8
EPL Type	TYPE	numeric	2
Measure	MEAS	numeric	4
Unit of Measure	UMEAS	alphanumeric	<=15
Package Size	PKGSIZE	alphanumeric	8
Description	DESC	alphanumeric	<=30

Field	Symbol	Type	Size
Case Size	CASE	alphanumeric	8
Brand	BRAND	alphanumeric	5

Note: The header identifies the LDM print type, date, time, and number of records in the file.

```
[ALLPRINT 97/02/11 18:00:22 00000003 ]
PLU,0000000001111,LVL,00,LOC,Isle#1,SN,00054321,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item
1111,CASE,024,BRAND,Brand x
PLU,0000000002222,LVL,00,LOC,Isle#2,SN,00054322,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item
2222,CASE,024,BRAND,Brand y
PLU,0000000003333,LVL,00,LOC,Row#22,SN,00054323,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item
3333,CASE,024,BRAND,Brand z
```

```
[QWKPRINT 97/02/13 14:37:12 00000004 ]
PLU,0000000001111,LVL,00,LOC,Isle#1,SN,00054321,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item 1111,CASE,024,BRAND,
Brand x
PLU,0000000002222,LVL,00,LOC,Isle#2,SN,00054322,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item
2222,CASE,024,BRAND,Brand y
PLU,0000000003333,LVL,00,LOC,Row#22,SN,00054323,TYPE,01,MEAS,0
001,UMEAS,0001,PKGSIZE,1,DESC,Test Item 3333,CASE,024,BRAND,
Brand z
PLU,0000000004444,LVL,00,LOC,Isle
4,SN,00054324,TYPE,01,MEAS,0001,UMEAS,0001,PKGSIZE,1,DESC,Test
Item 4444,CASE,024,BRAND, Brand w
```

Promotional Message Verifier

When the optional EPL Information Messaging System package is installed, the Promotional Message Verifier starts with the other EPL applications. The Promotional Message Verifier ensures that the SmarTalkers accurately display promotions by comparing the promotion information in the EPL Item table against the promotion information in the PLU table. In a default system, a comparison is made every 60 minutes. To change the timing, edit the start scripts and change the `espromovrf` options to meet your requirements.

Changing the Promotional Message Verifier Time Interval

The default time is 60 minutes in the `S90promovrf.bat` file in the Windows NT `\ep\bin\scripts` directory. Edit the batch file and set the time frame to the desired length.

```
@echo off
echo Starting Promotional Message Verifier
if "%1" == "startservice" goto startservice
start /min ..\espromovrf -r 60
goto finish
:startservice
..\startsrv svpromovrf
:finish
```

The default time is 60 minutes in the `S90promovrf` script in the UNIX `/ep/bin/scripts` directory. Edit the batch file and set the time frame to the desired length.

```
echo Starting Promotional Message Verifier
espromovrf -r 60 > $ESCONFIGDIR/ espromovrf.out 2>&1 &
```


The syntax and options for `espromovrf` are as follows:

Syntax

```
espromovrf [-fv?] [-s<seconds>] [-r<minutes>]
```

where:

- ? Displays release information and available options
- v Verbose mode: displays messages to standard output
- f Forces promotion updates to all tags regardless of mismatch status
- s<x> Sets rate of promotion verification in seconds
- r<x> Sets rate of promotion verification in minutes

Examples:

- Start promotion verifications every 30 seconds

```
espromovrf -s30
```
- Start promotion verifications every 30 minutes

```
espromovrf -r30
```

External Data Interface (with AMS)

When the optional EPL Information Messaging System package is installed, the External Data Interface starts with the other EPL applications. The External Data Interface audits price changes from the scheduler and ensures that the SmarTalkers accurately display promotions by comparing the promotion information in the EPL Item table against the promotion information defined by the IDX (item type) in the AMS configuration file (default file name = AMSCFG.TXT) and user data provided by the PLU reader. The esextdi process also looks for EDIMOD files to process and applies the PROMO data contained in these files to the appropriate SmarTalkers by PLU number, price level, and location.

In a default system, EDIMOD files are looked for every five minutes (-s300). To change the timing, edit the start scripts and change the esextdi sleep time option (-s<seconds>) to meet your requirements.

Changing the External Data Interface Time Interval

The default time is 300 seconds (5 minutes) in the S55extdi.bat file in the Windows NT \ep\bin\scripts directory. Edit the batch file using the -s option to set the time frame to the desired length.

```
@echo off
echo Starting EPL External Data Interface Application
if "%1" == "startservice" goto startservice

start /min ..\esextdi
goto finish

:startservice
..\startsrv svextdi

:finish
```

The default time is 300 seconds (5 minutes) in the S55extdi script in the UNIX /ep/bin/scripts directory. Edit the batch file using the -s option to set the time frame to the desired length.

```
echo Starting EPL External Data Interface
esextdi > $ESCONFIGDIR/ esextdi.out 2>&1 &
```

The syntax and options for `esextdi` are as follows:

Syntax

```
esextdi [-?v] [-d<directory>] [-f<file name>] [-k]
[-i<messageIDX>] [-s<seconds>] [-n<retry count>]
```

where:

-?	Displays release information and available options
-v	Verbose mode: displays messages to standard output
-d<x>	Directory to read EDIMOD files from
-f<x>	Name of message configuration file (default = AMSCFG.TXT)
-i<x>	Message IDX: promo index used for PLU item changes (default = all message IDXs automatic from PLU reader)
-k	Disables promo updates for price changes
-s<x>	Sets sleep time in seconds
-n<x>	Sets number of retries performed when updating an EPL

Examples:

- Use a message IDX other than the default index

```
esextdi -i200
```

Note: EDI will only update PROMO info for PLU's of the item type 200, using the IDX 200 data defined in the AMSCFG.TXT file.

- Disable promo updates for price changes

```
esextdi -k
```

Note: EDI will only not audit price change messages from the scheduler.

Automated Messaging System

When the optional EPL Information Messaging System package is installed, the Automated Messaging Program (esams) is available to automatically build any number of EDIMOD files that contain information based on user supplied parameters. These EDIMOD files can then be processed by the External Data Interface which applies the PROMO data contained in the EDIMOD files to the SmarTalkers. These user parameters include AMS configuration files, message IDX, user files (list of PLUs), and apply date.

Running the Automated Messaging Program

Create all AMS configuration and user files to be processed. The contents of these files must be based on specific customer requirements. The AMS program can then be run to create EDIMOD files for processing by the External Data Interface (EDI) at the appropriate time, by placing them in the EPL data directory or the directory specified by the `-d` option when the EDI was started. The AMS program can then run using the appropriate parameters to create the proper EDIMOD files for updating SmarTalker PROMO data.

The syntax and options for `esams` are as follows:

Syntax

```
esams [-?v] [-f<config file>] [-p<user file>] [-i<messageIDX>]
[-t<time>]
```

where:

- `-?` Displays release information and available options
- `-v` Verbose mode: displays messages to standard output
- `-f<x>` Name of message configuration file
(default = AMSCFG.TXT)
- `-p<x>` Process all items in user file
(default = all in EPL table)
- `-i<x>` Message IDX: specific promo index for items

(default = determine indexes automatically)

(999 = OVERRIDE all other indexes)

(911 = match on LOCATION in EPL table)

-t<x>

Date and time (YYYYMMDDHHMM) to apply promo data to EPLs

(default = apply promo data immediately)

Examples:

- Use a configuration file other than the default file

```
esams -fAMSCFGNEW.TXT
```

- Process only selected items in user file

```
esams -pBOGOPLUS.TXT
```

- Use a message IDX other than the default index

```
esams -f999
```

- Date and time for EDI to apply promotion data

```
esams -t199906132400
```

Note: Each example will create a separate EDIMOD.999 file. Where 999 is a number from 1 to (DEFAULT_MAX_MOD_FILES-1) defined dynamically by esams. [#DEFINE DEFAULT_MAX_MOD_FILES 1000].

Price Verifier

When the optional EPL Price Redundancy package is installed, the Price Verifier starts with the other EPL applications. The Price Verifier ensures that the SmarTalkers accurately display prices by comparing the price information in the EPL Item table against the price information in the PLU table. In a default system, a comparison is made every 60 minutes. To change the timing, edit the start scripts and change the `esprcvrf` options to meet your requirements.

Changing the Price Verifier Time Interval

The default time is 60 minutes in the `S90prcvrf.bat` file in the Windows NT `\ep1\bin\scripts` directory. Edit the batch file and set the time frame to the desired length.

```
@echo off
echo Starting Price Verifier
if "%1" == "startservice" goto startservice
start /min ..\esprcvrf -r60 -m10000
goto finish
:startservice
..\startsrv svprcvrf
:finish
```

The default time is 60 minutes in the `S90prcvrf` script in the UNIX `/ep1/bin/scripts` directory. Edit the batch file and set the time frame to the desired length.

```
echo Starting Price Verifier
esprcvrf -r60 > $ESCONFIGDIR/esprcvrf.out 2>&1 &
```

The syntax and options for `esprcvrf` are as follows:

Syntax

```
esprcvrf [-vfdip?] [-m<max price>] [-r<minutes>] [-s<seconds>]
```

where:

-?	Displays release information and available options
-v	Verbose mode: displays messages to standard output (similar to -d)
-i	Enables IPC tracing: prints out debugging information from the IPC layer
-d	Enables debug tracing: prints miscellaneous debugging information to the standard output
-f	Forces price updates to all tags regardless of mismatch status
-p	Permits the Data Scheduler to purge send requests upon completion. Normally, a request is kept in the spool file after it has completed. When this option is set, the ES_NONPURGE flag is be used in the es_post_senddata function call.
-m<x>	Sets maximum price in cents that the price verifier will verify
-r<x>	Sets rate of price verification in minutes
-s<x>	Sets rate of price verification in seconds

Note: The -d, -i, and -v options are intended for debugging purposes only and should not be used in a live store environment.

Examples:

- Start price verifications every 30 minutes
`esprcvf -r30`
- Start price verifications every 30 seconds
`esprcvrf -s30`

Sale Price Verifier

When the optional EPL Price Redundancy package is installed, the Sale Price Verifier starts with the other EPL applications. The Sale Price Verifier ensures that the SmarTalkers accurately display sale prices by comparing sale price information in the EPL Item table against sale price information in the PLU table. In a default system, a comparison is made every 60 minutes. To change the timing, edit the start scripts and change the `essprcvrf` options to meet your requirements.

Changing the Sale Price Verifier Time Interval

The default time is 60 minutes in the `S90sprcvrf.bat` file in the Windows NT `\epi\bin\scripts` directory. Edit the batch file and set the time frame to the desired length.

```
@echo off
echo Starting Sale Price Verifier
if "%1" == "startservice" goto startservice
start /min ..\essprcvrf -r60
goto finish
:startservice
..\startsrv svsprcvrf
:finish
```

The default time is 60 minutes in the `S90sprcvrf` script in the UNIX `/epi/bin/scripts` directory. Edit the batch file and set the time frame to the desired length.

```
echo Starting Sale Price Verifier
essprcvrf -r60 > $ESCONFIGDIR/essprcvrf.out 2>&1 &
```


The syntax and options for `essprcvrf` are as follows:

Syntax

```
essprcvrf [-vdifp?] [-r<minutes>] [-s<seconds>]
```

where:

-?	Displays release information and available options
-v	Verbose mode: displays messages to standard output (similar to -d)
-f	Forces sale price updates to all tags regardless of mismatch status
-i	Enables IPC tracing: prints out debugging information from the IPC layer
-d	Enables debug tracing: prints miscellaneous debugging information to the standard output
-p	Permits Data Scheduler to purge send requests upon completion. Normally, a request is kept in the spool file after it has completed. When this option is set, the ES_NONPURGE flag is be used in the <code>es_post_senddata</code> function call.
-r<x>	Sets rate of sale price verification in minutes
-s<x>	Sets rate of sale price verification in seconds

Note: The -d, -i, and -v options are intended for debugging purposes only and should not be used in a live store environment.

Examples:

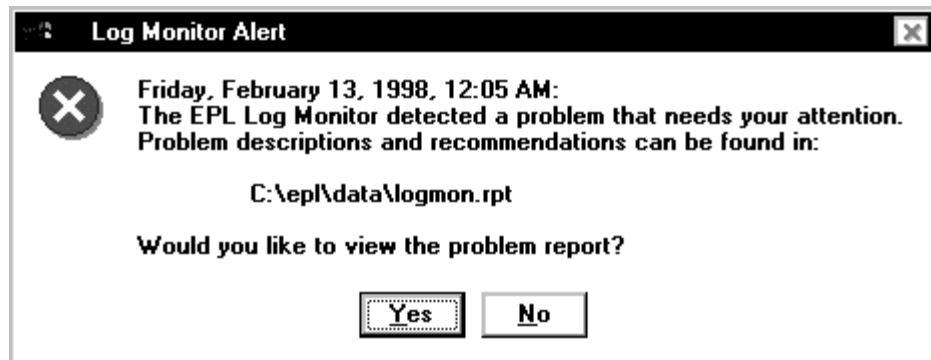
- Start sales price verifications every 30 minutes

```
essprcvf -r30
```
- Start sales price verifications every 30 seconds

```
essprcvrf -s30
```

Log Monitor

The Log Monitor is designed to continuously monitor the DecisioNet error logs, and alert a user to error conditions that require DecisioNet System maintenance. How often the Log Monitor checks the System Error Log is configurable by changing the default time option of 30 minutes in the logmon script. Log Monitor software can be configured to issue alerts for specific error conditions and specify corrective actions to eliminate the problem. Additional tasks may also be specified to be performed when an alert occurs. These actions are specified in the basesw.cfg file. The Log Monitor uses an audible signal and displays a dialog box on the DecisioNet controller to issue the alert, and requires acknowledgement of the alert. A problem report is generated by the Log Monitor, and is saved in plain ASCII text format to the EPL data directory. An option is provided in the alert dialog box to immediately view the problem report or you can use an editor to view it at a later time from the DOS or UNIX prompt.



Log Monitor Report

The Log Monitor report file (logmon.rpt) is written to the directory pointed to by the ESCONFIGDIR environment variable. Logmon.rpt is overwritten each time a new alert is generated. However, a history of Log Monitor reports may be saved if the Log Monitor is invoked with the *-h* option. (Each report is archived with a filename of logmon.rpt.xxx, where xxx is a number from 001 to 999.) The problem

report consists of three sections: a summary section, a recommendations section, and a detail section. The summary section contains information about the severity of the errors that have occurred, and indicates the urgency with which the user must act to correct the problem. The summary section should also contain support contact information. The recommendations section contains information that helps the user to correct the problem that has been reported, and the detail section contains the date, time, source ID, PID, category code, and description of pertinent error log records. An example problem report follows:

```

=====
                          Log Monitor Problem Report
=====
Note: Review EPL Logs and user guide for complete information on the following
errors

                          Summary
-----
EPL Price Verifier logged errors that are causing serious EPL system problems.
Immediate investigation of these problems is recommended. Call NCR field
personnel for assistance.

EPL Failure Detection and Analysis logged errors that are causing serious EPL
system problems. Immediate investigation of these problems is recommended.
Call NCR field personnel for assistance.

EPL Failure Detection and Anaysis logged warnings that may lead to EPL system
problems later. Investigation of these problems is recommended. Call NCR
field personnel for assistance.

                          Recommendations
-----
Connection status down error message indicates that the CBS Manager does not
know that the CBS is configured. Stop and restart the CBS Manager to correct
this problem.

Communication link not established error message indicates that the CBS is not
responding. Check CBS power and cables. Replace the CBS if the problem
persists.

RF power off error message indicates a problem with the CBS's RF board. If
problem persists, replace the CBS.

RS-485 cable error message indicates a cable integrity problem. Ensure that
there are no cable breaks and that the cable is properly attached.

```

Unconfigured CBS detect good communication link error message indicates that a CBS was improperly configured or the BASESW.CFG file was modified incorrectly. Stop and restart the CBS Manager to correct the problem.

Power supply error message may indicate that a power supply is turned off or that a power cable integrity problem exists. The error may also occur when too many CBSs are attached to the power supply.

Receive antenna A off error message identifies a problem with receive antenna A or CBS receive antenna A port. The error may also occur when receive antenna A is improperly configured using ESADMIN.

Unconfigured receive antenna B error message indicates a hardware configuration problem. Use the ESADMIN base config menu option to configure antenna B.

Noise level threshold error message indicates a CBS Manager thresholding problem. Ambient noise in the environment is causing EPL communication problems. Call your NCR Field Engineer immediately.

Signal level threshold error message indicates a CBS Manager thresholding problem. Ambient noise in the environment is causing EPL communication problems. Call your NCR Field Engineer immediately.

Detail

Date	Time	Source	Description
02/16/98	15:03:37	ESPRCVRF	Function call es_open_plu called from open_prvcvf failed. rc = -1108(Unable to establish IPC connection.)
02/16/98	15:16:16	ESFDA	Connection status is down for CBS 3
02/16/98	15:17:26	ESFDA	Comm link is not established for CBS 3
02/16/98	15:17:42	ESFDA	RF power is off for CBS 2
02/16/98	15:21:44	ESFDA	RS-485 cable fault detected at CBS 3
02/16/98	15:21:45	ESFDA	RF power is off for CBS 2
02/16/98	15:32:05	ESFDA	Master CBS link is down
02/16/98	15:38:02	ESFDA	EPL communication is closed
02/16/98	15:43:25	ESFDA	Unconfigured CBS 2 detected good comm link
02/16/98	15:48:43	ESFDA	Unable to open configuration file
02/16/98	16:08:31	ESFDA	Power supply B failure detected
02/16/98	16:18:54	ESFDA	Receive antenna A failure for CBS 0
02/16/98	16:18:54	ESFDA	Unconfigured receive antenna B for CBS 0
02/16/98	16:24:56	ESFDA	Noise level threshold for CBS 0 is too high (65)
02/16/98	16:24:56	ESFDA	Signal level threshold for CBS 0 is too high (67)
02/16/98	16:36:08	ESFDA	EPL battery low error (quantity: 2 of 3)
02/16/98	16:37:08	ESFDA	EPL hardware error (quantity: 2 of 3)
02/16/98	16:38:08	ESFDA	EPL does not respond to existence bedcheck (quantity: 2 of 3)

Log Monitor basesw.cfg File Options

The following Log Monitor options are configurable in the Log Monitor section of basesw.cfg file.

Log Monitor Editor

```
#Configure the Log Monitor to use the following editor
#"LOGMON_EDITOR", "editor"
```

The LOGMON_EDITOR parameter identifies the editor used by Log Monitor. The editor specified must permit an argument that identifies the file the user wishes to view. The Log Monitor initiates the editor as follows:

```
editor <filename>
```

User-defined Actions

```
#User defined actions go here
"LOGMON_ALERTACTION1", "echo SW DOWN > c:\ep1\data\STATMOD.001"
"LOGMON_ACKACTION1", "echo SW OK > c:\ep1\data\STATMOD.001"
```

The LOGMON_ALERTACTION X parameter defines an action that is performed when an alert occurs. The *action* may be an executable file, batch file, or shell script; but can not display messages on the CRT. The *action* may be to send a message or file to the host processor, log an error, or perform some meaningful action in response to the alert.

The LOGMON_ACKACTION X parameter defines an action that is performed after a user acknowledges an alert. The *action* may be to send a message or file to the host processor, log an error, or perform some meaningful action in response to the acknowledgement.

Changing the Log Monitor Time Interval

The default time is 30 minutes in the `S601m.bat` file in the Windows NT `\epl\bin\scripts` directory. Edit the batch file and set the time frame to the desired length by changing the `-m` option.

```
@echo off
echo Starting Log Monitor
if "%1" == "startservice" goto startservice
start /min ..\eslogmon -m30 -h10
goto finish
:startservice
..\startsrv svlogmon
:finish
```

The default time is 30 minutes in the `S601m` script in the UNIX `/epl/bin/scripts` directory. Edit the batch file and set the time frame to the desired length by changing the `-c` option.

```
echo Starting Log Monitor
eslogmon -m30 -h10 > $ESCONFIGDIR/eslogmon.out 2>&1 &
```

The syntax and options for `eslogmon` are as follows:

Syntax

```
eslogmon [-?vn] [-h <integer>] [-m <minutes>] [-s <seconds>]
[-f <pagewidth>]
```

where:

- ? Displays release information and available options
- v Verbose mode: displays messages to standard output
- n No-alert mode: user-defined actions only
- a Disable audible alarm
- h<x> Maintains history of Log Monitor reports <1 - 100>
- m<x> Sets continuous mode interval time in minutes
<0 - 360>
- s<x> Sets continuous mode interval time in seconds
<0 - 360>
- f Specifies page width for Log Monitor report

Examples:

- Execute at 30-minute intervals and run in verbose mode.
`eslogmon -m30 -v`
- Execute at 60-minute intervals and maintain history of 10 reports.
`eslogmon -m60 -h10`
- Execute only once.
`eslogmon`

An alert may be generated if the Log Monitor is started as a service on Windows NT; however, the service must be configured as interactive. DecisioNet applications are set to start as manual services at install time. To configure the Log Monitor service as interactive, select the *startup* button on the Windows NT *services* dialog box, and click on the *allow service to interact with desktop* option. If the Log Monitor service is not configured as interactive, the service only performs user-defined actions. If no user is logged in on the Windows NT controller, the dialog box can not be displayed. Therefore, only an audible alarm is generated by the Log Monitor. When a user logs in, the dialog box is displayed, requiring the user to acknowledge the alert. Since the Windows NT dialog box is system modal, the dialog box remains in the foreground until the user acknowledges the alert.

An alert may be generated if the Log Monitor is started as a background process on UNIX. A user may ignore the alert by switching to another virtual terminal, but another alert is generated at the next iteration of the Log Monitor.

Report information may be viewed immediately if the user selects “yes” from the Log Monitor Alert dialog box. Report information is displayed using the editor that has been configured in the `basesw.cfg` file. The report consists of information about problems that occurred up to the date and time that the alert was acknowledged. The following iteration of the Log Monitor only detects problems that occur following the user acknowledgment. If the Log Monitor is restarted, problems that occurred prior to the user acknowledgment will not be reported.

Log Monitor Configuration File

The Log Monitor configuration file, `logmon.cfg`, is stored in the Windows NT `\ep1\data` directory and in the UNIX `/appl/epl/data` directory in a default system. The default file is shown in Appendix C. This file contains user-defined recommendations, and identifies which errors cause an alert to be generated. Two sections of data may appear in the `logmon.cfg` file: an alert criteria section and a corrective action message section.

The configuration file format is as follows:

Alert Criteria section:

```
[SOURCE]
SEVERITY, "alert criteria message text"
SEVERITY, "alert criteria message text"
...
```

Corrective Action section:

```
ERRNUM, "corrective action message text"
...
```

`SOURCE` is the name of any process that logs error messages to the EPL System Error log, and `SEVERITY` is any one of the following: `SUCCESS`, `INFORMATION`, `WARNING`, or `ERROR`.

For each error logged in the EPL System Error log, the source and severity are looked up in the alert criteria section of the `logmon.cfg` file. If a match exists, Log Monitor generates an alert for that error.

`ERRNUM` is the error number associated with the corrective action message that follows. If an alert has been generated for a process name and severity that matches the criteria in section 1, the Log Monitor looks for a corrective action message that matches the Error Number associated with the process severity error in section 2. The corresponding corrective action message is added to the report.

Orphan Tag Report

In a Windows NT environment, this report is initiated from the EPL Applications Program Group. In either UNIX environment, the report must be initiated from the command line. The Orphan Tag Report provides information about SmarTalkers that have become disassociated from their PLU items. This can be the result of the following situation:

- Removing a PLU from the PLU table and not removing or purging the associated SmarTalker tag from the EPL table.

The actual report has two sections. The first section lists the number of orphaned tags and the number of orphaned tags de-assigned. The second section lists number of de-assigned tags and number of de-assigned tags purged. Additional information in the first section includes the orphaned tag's serial number, location, PLU number, and associated pricing and promotional display data. The second section identifies the de-assigned tag's serial number and location.

The two sections in the default report result from DecisioNet using the `esorphan` script R1 and R2 options in the `orphanrpt.bat` file when the Orphan Tag Report is initiated on a Windows NT system. Modify the batch file meet your system requirements

In a UNIX environment run the `esorphan` program from a command line with the desired options. The `esorphan` syntax and options are as follows:

Syntax

```
esorphan [-vrp?] [-R<1:2>] [-m<message>]
```

where:

- ? Displays release information and available options
- v Verbose mode: displays messages to standard output
- r Disassociates orphaned EPL from PLU number in the EPL table (this option is mutually exclusive with '-purge')
- p Deletes each EPL record that is not associated with a

- PLU number (this option is mutually exclusive with '-remove')
- R1 Displays current orphan EPL report
- R2 Displays current de-assigned EPL report
- m<message> Sends a promotional message to the EPL. The format of <message> is *reg1/reg2/reg3* where *regX* is the text that should be displayed in promotional register X. If there are any spaces in any of the messages, then enclose the entire message in quotations ("").

Examples:

- Display the currently orphaned EPL report.
`esorphan -R1`
- Display the currently orphaned EPL report and de-assign all orphaned tags from their associated PLU#.
`esorphan -remove -R1`
- Display the currently orphaned EPL report, send a promotional message of all blanks to every orphaned EPL, and remove from EPL table.
`esorphan -remove -m" " -R1`
- Display the currently orphaned EPL report and delete from EPL table all de-assigned EPLs.
`esorphan -purge -R1`

In a Windows NT system, modify the orphanrpt.bat file in the \ep\bin directory.

```
@echo off
rem
rem This batch file creates an orphan report
rem
esorphan -R1 -R2 > %TEMP%\orphan.rpt
"%SystemDrive%\Program Files\Windows NT\Accessories\wordpad" %TEMP%\orphan.rpt
del %TEMP%\orphan.rpt
```

Unattended EPL Backup

This feature can be implemented to automatically backup the EPL file and the EPL Table to its pre-EPL file format at a specified interval. To accomplish this, an AT job must be set up on a Windows NT system and a CRON job must be set up on a UNIX system. Refer to your Windows NT or UNIX system documentation for information about setting up AT and CRON jobs. This backup can be performed manually on a DecisioNet Windows NT system from either the EPL Applications Programs group or from a DOS prompt. On a DecisioNet UNIX system EPL Backup can be run manually from the UNIX prompt.

There are two files associated with the Unattended EPL Backup feature that can be customized. One file contains the list of files to be backed up. A default list of files is included during installation. Refer to Appendix C to see the default list. The second file is a post script that executes to move the files from the EPL backup directory to the site-specific backup location. Backup files are first placed in the `\ep1\data\backup\ directory on a DecisioNet Windows NT system and in the /appl/ep1/data/backup/<date> directory on a DecisioNet UNIX system. To prevent loss of data records, these files should be copied to a removable device or second hard disk which can be performed by the second configurable file postep1backup. Whether you are performing the backup automatically from an AT or CRON job, or manually as described above, the postep1backup files should be modified to identify the removable device.`

Starting EPL Backup at a DOS or UNIX Prompt

The utility to start EPL Backup is `ep1backup`. The only option is the number of days to save backups in the EPL backup directory. If existing backups exist, files older than the specified number are deleted from the backup directory. For example, if `ep1backup 3` is used and the date is February 7, 1998; then all backup files before February 4, 1998 are deleted.

Backup File List

This file (eplbackup.ini) is located in the following directories:

Windows NT	\epl\data\
NCR UNIX and SCO UNIX	/appl/epl/data/

Edit this file to add any new files associated with your environment.

Backup File Location for Windows NT

When you start EPL File Backup from the EPL Applications Programs group in Windows NT or use eplbackup at a DOS prompt, the postepbackup.cmd program is executed to determine where to copy the backed up files after eplbackup places the backup files in the \epl\data\backup\mmddyyyy directory.

In a Windows NT system, modify the postepbackup.cmd file in the \epl\bin\ directory to identify where to copy the backed up files.

```
@echo off
REM
REM This is a template for what this script does
REM This script accepts a single argument which identifies the directory
REM where all the backup files have been placed.
REM
REM The command below copies all the backup files to the a: drive
REM copy %1\*. * a:
REM
REM
```

Backup File Location for UNIX

When you use eplbackup to start EPL File Backup at a UNIX prompt, the posteplbackup script is executed to determine where to copy the backed up files after eplbackup places the backup files in the /appl/epl/data/backup/mmddyyyy directory.

In a UNIX system, modify the posteplbackup script file in the /appl/epl/bin/ to identify where to copy the backed up files.

```
!/bin/ksh
#
# This scripts accepts a single argument which identifies the directory
# where all the data files have been backed up to.
#
# The command below makes a cpio copy of the backup files to tape. In this #
example, it is assumed that the tape device is /dev/rmt/c0t3d0s0. Before #
copying the files to the tape drive, the file are compressed.
#
# Compress $1/*
# Find $1 -print |cpio -ocvB >/dev/rmt/c0t3d0s0
#
#
exit 0
```

Failure Detection and Analysis

The Failure Detection and Analysis (FDA) software can be used as a background service to report on the condition of DecisioNet System hardware. FDA is one of the applications on the optional EPL System Information Package.

When the FDA is installed, it starts along with the other EPL applications, runs continuously, and logs errors as they occur. Reports are sent to the console and placed in the EPL System Error Log. In a Windows NT system, FDA also logs error conditions to the Windows NT Event Log. Included with these entries are probable cause and recommended action information.

Changing the Failure Detection and Analysis Time Interval

The default time is 30 minutes in the `S55fda.bat` file in the Windows NT `\ep1\bin\scripts` directory. Edit the batch file and set the time frame to the desired length.

```
@echo off
echo Starting Failure Detection/Analysis
if "%1" == "startservice" goto startservice
start /min ..\esfda -m30
goto finish
:startservice
..\startsrv svfda
:finish
```

The default time is 30 minutes in the `S55fda` script in the UNIX `/ep1/bin/scripts` directory. Edit the batch file and set the time frame to the desired length.

```
echo Starting Failure Detection/Analysis
esfda -m30 > $ESCONFIGDIR/ esfda.out 2>&1 &
```

The syntax and options for `esfda` are as follows:

Syntax

```
esfda [-?v][-m minutes][-s seconds] [-r] [-x] [-y]
[-f filepath]
```

where:

-?	Displays release information and available options
-v	Verbose mode: displays messages to standard output
-m<x>	Continuous mode interval time <0 - 360 minutes>
-s<x>	Continuous mode interval time <0 - 360 seconds>
-r	Reports on both hardware and software
-x	Reports on hardware only
-y	Reports on software only
-f<x>	Saves report in file specified

Examples:

- Start hardware and/or software check every 30 minutes

```
esfda -m30
```

- Start hardware and/or software check every 30 seconds

```
esfda -s30
```

Status Tag Manager

The DecisioNet Status Tag Manager is designed to report the status of the DecisioNet System or any other retail store system by displaying system status information on a group of SmarTalker tags. Status tags may be placed strategically within the retail establishment so that key personnel are aware when system maintenance is necessary. Status tags must be within communication range of the DecisioNet System.

The Status Tag Manager also permits paging functions to be accomplished within the store environment.

Up to one hundred SmarTalkers may be configured to display system status information, but must not be allocated in the EPL Table. An application may register a system problem with the Status Tag Manager by writing status information to a plain ASCII text file (defined in `status.cfg`). The Status Tag Manager responds by updating the appropriate status tags. When the Status Tag Manager is used with the Log Monitor, alerts may be sent to store personnel when such a problem occurs.

The Status Tag Manager supports three modes of operation: immediate, scheduled, and auto. Each status tag must be configured to operate in one of these modes.

Immediate Mode (I):

A status tag displays messages upon demand. No scheduling or automatic resetting of the status tag is performed. The SmarTalker's button may be used to reset the status tag to the prior state.

Scheduled Mode (S):

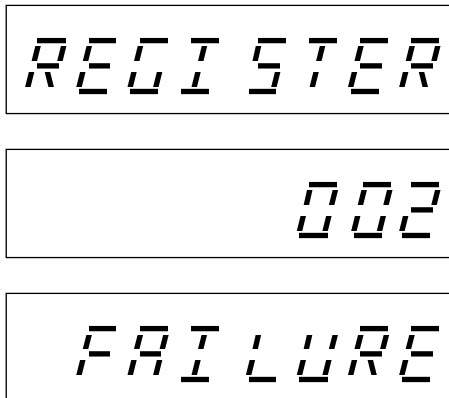
A status tag displays messages upon demand. The SmarTalker displays the message for a configurable period of time and then displays a default message when the specified time expires. *The default message is not sent to the status tag until the time expires.* The SmarTalker's button may be pressed to reset the status tag to the default message.

Auto Mode (A):

A status tag displays messages upon demand. The SmarTalker displays the message for a configurable period of time and then displays a default message when the specified time expires. *The default message is sent to the status tag before the time expires, and it retains this information even when the DecisioNet System is turned off.* In the case of reporting the status of the DecisioNet System, the Status Tag Manager updates the status tags even if the DecisioNet System suffers catastrophic problems such as a complete power failure. The SmarTalker's button has no effect.

Displaying Status Information

The Status Tag Manager displays alphanumeric information on one or more SmarTalkers. An application may configure the Status Tag Manager to display messages on multiple SmarTalkers by allocating more than one SmarTalker in the status.cfg file. For example, a back office application may notify the manager of a point of sale terminal failure by displaying a message on multiple SmarTalkers as shown in the following illustration.



Status Tag Configuration File Parameters

The Status Tag Manager configuration file, `status.cfg`, is in the following directories on a default system. Refer to Appendix C for a listing of the default `status.cfg` file.

Windows NT	<code>\ep1\data\</code>
NCR UNIX and SCO UNIX	<code>/appl/ep1/data/</code>

This file identifies which SmarTalkers are used to display system status information, identifies the filenames of the status files, mode of operation, and defines default system status messages and timeout periods. The configuration file format is as follows:

```
[System name or alias]
MODE, "I | S | A"
FILENAME, "fully qualified pathname"
EPLID, "eplid1 eplid2 ..."
DEFAULT_MSG, "message"
DEFAULT_UPMSG, "message"
DEFAULT_DOWNMSG, "message"
IDLETIME, interval time in minutes

[System name or alias]
...
```

The following table defines each parameter or keyword in the status configuration file:

Parameter (Keyword)	Description
System name or alias	This must be a unique string of characters to identify the system that the Status Tag Manager is representing. "EPL SYSTEM" must be used to identify the EPL system status tags. EPL system status tags always operate in mode A, and are automatically updated to reflect the status of the EPL system.
MODE	I - immediate mode S - scheduled mode A - auto mode

Parameter (Keyword)	Description
	(Refer to the “Status Tag Manager” introduction section for details.)
FILENAME	The name of the application’s Status file. Each application must specify its own Status file filename in the status.cfg file. FILENAME is case sensitive in UNIX . If FILENAME is not specified, a default file, STATMOD.XXX (where XXX = status file name), must be used to update the status tag. If you do not want to change the status tag’s contents, do not specify a FILENAME.
EPLID	The EPLID keyword identifies the SmarTalkers that the Status Tag Manager uses to display status information for the specified <i>System name or alias</i> . These SmarTalkers must not be referenced in the EPL Table. If no EPL IDs are specified in the status.cfg file, the Status Tag Manager does nothing.
DEFAULT_MSG	If you want a status tag to always displays the same information regardless of the target system’s status, use the DEFAULT_MSG keyword to identify the default message text. If the DEFAULT_MSG keyword is used, the DEFAULT_UPMSG and DEFAULT_DOWNMSG keywords are ignored for that <i>System name or alias</i> .
DEFAULT_DOWNMSG	A Status file normally contains status information to display on the status tags. However, if the Status file is present but empty, or if it contains invalid message data, a default message is displayed. The

Parameter (Keyword)	Description
	DEFAULT_DOWNMSG keyword specifies the default message to display when the target system is in an error state. If the DEFAULT_DOWNMSG keyword is not specified, the Status Tag Manager uses "SYS DOWN" as the default error message. DEFAULT_DOWNMSG must be 8 alphanumeric characters or less.
DEFAULT_UPMSG	A status tag is initialized with DEFAULT_UPMSG text. Status tag initialization only occurs when the Status Tag Manager starts up. If the DEFAULT_UPMSG is not specified in the status.cfg file, the Status Tag Manager uses "SYS UP" as the default message.
IDLETIME	This keyword is used for Modes S and A, and defines the period of time that the status tag displays a message before updating the tag with DEFAULT_DOWNMSG information. The minimum value for IDLETIME is 60 seconds.

Sample Status file:

The following status.cfg file requires an application to generate REGSTAT.001, REGSTAT.002, and REGSTAT.003 files to properly display point of sale register status information on the status tags. The EPL system status tags display "EPL SYSTEM DOWN" if the EPL system goes down. The PAGER tags, 129e8 and 10b9a5, display status information from the REGSTAT.004 file until their buttons are pressed, at which time they display a "NO MSG" message.

Since REGSTAT.001 and REGSTAT.002 messages are always the same, it is not necessary for the application to generate these files. Status tags display REGSTAT.003 contents unless the specified IDLETIME expires before REGSTAT.003 contents are refreshed. Refreshing the contents of REGSTAT.003 restarts the timer. If the IDLETIME expires before REGSTAT.003 is refreshed, the status tags display "POS SYSTEM DOWN".

```
[EPLMSG1]
MODE, I
EPLID,14e26
DEFAULT_MSG, "EPL"

[EPLMSG2]
MODE, I
EPLID,10b98c
DEFAULT_MSG, "SYSTEM"

[EPL SYSTEM]
MODE, A
EPLID,10ba2b
DEFAULT_UPMSG, "STABLE"
DEFAULT_DOWNMSG, "DOWN"
IDLETIME, 600

[POSMMSG1]
MODE, I
FILENAME, "c:\ep1\data\regstat.001"
EPLID,1b324
DEFAULT_MSG, "POS"

[POSMMSG2]
MODE, I
FILENAME, "c:\ep1\data\regstat.002"
EPLID,10ba77
DEFAULT_MSG, "SYSTEM"

[POSMMSG3]
MODE, S
FILENAME, "c:\ep1\data\regstat.003"
EPLID,1a12e
DEFAULT_UPMSG, "STABLE"
DEFAULT_DOWNMSG, "DOWN"
IDLETIME, 300

[PAGER]
MODE, I
FILENAME, "c:\ep1\data\regstat.004"
EPLID, "129e8 10b9a5"
```

DEFAULT_MSG, "NO MSG"

Starting the Status Tag Manager

The Start Status Tag Manager batch file (S52stat.bat) is in Windows NT \epl\bin\scripts directory.

```
@echo off
echo Starting Status Tag Manager
if "%1" == "startservice" goto startservice
start /min ..\esstat
goto finish
:startservice
..\startsrv svstat
:finish
```

The Start Status Tag Manager script file (S52stat) is in the UNIX /appl/epl/bin directory.

```
echo Starting Status Tag Manager
esstat > $ESCONFIGDIR/esstat.out 2>&1 &
```

Creating a Status File

To display information on an EPL, an application creates status files that contain the desired alphanumeric information. The filename for each status file is configured in the status.cfg file. Refer to “EPL Status Tag Manager Configuration File” in Appendix C for additional information.

The status files must be in plain ASCII text and have no more than eight alphanumeric characters. If more than eight characters are specified, only the first eight characters are displayed on the EPL.

Escape sequences are used to display the symbols in the following table. Use a caret, left bracket, and equal “^ [=” to specify the ESC character, followed by the value, and terminated with a capital D. Multiple values may be included in the same escape sequence, separated by a semi-colon.

For example: ^=1;4;5D specifies bar, triangle, and square symbols.

Symbol	Description	Value
	Vertical bar	1
/	Slash at right/bottom side	2
/	Slash at left/top side	3
▲	Triangle (or up arrow)	4
■	Square	5
¢	Cents	C
↓	Down arrow	D
€	Euro	E
▬	Horizontal bar	H
←	Left arrow	L

The following status files are the same files used in the sample status.cfg file described in the “Sample Status File” section. When the back office application is notified that POS system Register 2 has failed, it writes the following data to the REGSTAT.001, REGSTAT.002, and REGSTAT.003 status files. The Status Tag Manager updates the status tags as shown in illustration in the “Displaying Status Information” section.

REGSTAT.001 file contents:

```
REGISTER
<EOF>
```

REGSTAT.002 file contents:

```
002
<EOF>
```

REGSTAT.003 file contents:

```
FAILURE
<EOF>
```


Windows NT Automatic Services

All DecisioNet non-user interface applications can be started as services, either manually or automatically, as described in the section “Configuring Windows NT Services” in Chapter 8. When started manually at a DOS prompt or within the Windows NT Control Panel Services dialog, command line options may be specified. The available options are described in previous sections of this appendix.

For an application to start as an automatic service with non default options, it must have an entry in the basesw.cfg file. If an application does not have an entry in the basesw.cfg file, it will start with the default options. The following syntax is used:

`“SV<APPNAME>_CMDLINE”, “-option1 - option2”`

The following applications require entries in the basesw.cfg file. Each application’s default sleep time (the time an application waits between each execution of the application process) is also shown.

```
"SVFDA_CMDLINE", "-m30"
"SVLOGMON_CMDLINE", "-m30 -h10"
"SVBRIDGE_CMDLINE", "-s60"
"SVPRCVRF_CMDLINE", "-r60"
"SVSPRCVRF_CMDLINE", "-r60"
"SVPROMOVRF_CMDLINE", "-r60"
"SVEXTDI_CMDLINE", "-s300"
```

The following applications are discussed in Chapter 8 and do not require an entry in the basesw.cfg file.

- EPL Bedcheck
- EPL Logger
- EPL Bridge
- EPL Standalone PLU Reader
- EPL Status Tag Manager
- EPL Label Data Manager

The following table lists the applications and options that are typically used as automatic services. To view the complete list of options for a specific application, enter `es<APPNAME> -?` at the DOS or UNIX command line.

Application	Application Name	Options	Description
Failure Detection and Analysis	FDA	-m<x>	Sleep time in minutes
		-s<x>	Sleep time in seconds
Log Monitor	LOGMON	-f<x>	Specify Log Monitor report page width
		-h<x>	Maintain history of Log Monitor reports
		-m<x>	Sleep time in minutes
		-s<x>	Sleep time in seconds
EPL Bridge	BRIDGE	-n<x>	Number of retries to be performed when updating a tag
		-d<x>	Directory where PLUMOD files are read
		-s<x>	Sleep time in seconds
Price Verifier	PRCVRF	-f	Force price changes to all tags
		-p	Spooled price changes are purged by data scheduler
		-m<x>	Set maximum price in cents that the price verifier will verify
		-r<x>	Sleep time in minutes
		-s<x>	Sleep time in seconds
Sale Price Verifier	SPRCVRF	-f	Force sale prices to all tags
		-p	Spooled price changes are purged by data scheduler
		-r<x>	Sleep time in minutes
		-s<x>	Sleep time in seconds
Promotional Message Verifier	PROMOVRF	-f	Force promo updates to all tags
		-r<x>	Sleep time in minutes

Application	Application Name	Options	Description
		-s<x>	Sleep time in seconds
External Data Interface	EXTDI	-d<x>	Directory where EDIMOD files are read
		-f<x>	Filename = name of message configuration file (default = AMSCFG.TXT)
		-i<x>	MessageIDX (promo index) used for PLU price changes (default = all messageIDXs automatic from PLU reader)
		-k	Disable promo updates for price changes
		-s<x>	Sleep time in seconds
		-n<x>	Number of retries to be performed when updating the tag
CBS Manager	CBSMGR	-a	ACKs will be simulated from EPLs
		-b	ACK will be simulated from even numbered EPLs
		-B	Permit broadcasting of all commands
		-c	CBS communication will be simulated
		-s	Open in SNW Master mode
		-x	Bedcheck simulation mode
		-z	Do not generate master clock

UNIX Automatic Restart

The DecisioNet System in the UNIX environment has a script file located in the /appl/epl/bin/ directory that runs every 30 minutes via CRON and starts the following EPL applications that may have been stopped.

- Logger
- CBS Manager
- EPL Scheduler
- Table Manager

Edit this file to add or delete EPL applications for your system-specific requirements.

```
#####
#
# File:          eplcron.sh
#
# Copyright:    Copyright (c) NCR Corp., 1996
#
# Author:       ncr_cmh
#
#####
# Change History:
#  DATE      PERSON  MODIFICATION
#  ----      -
#
#####
epldir=`pkgparam eplbaseap BASDIR`
epluser=`pkgparam eplbaseap EPL_USER`
pid=`ps -e | awk ' $4 == "eslogger" { print $1 }'`
if [ -z "$pid" ]
then
    su - $epluser -c "cd $epldir/bin;umask 007;scripts/S00logger &"
fi
pid=`ps -e | awk ' $4 == "escbsmgr" { print $1 }'`
if [ -z "$pid" ]
then
    su - $epluser -c "cd $epldir/bin;umask 007;scripts/S10cbsmgr &"
fi
pid=`ps -e | awk ' $4 == "essched" { print $1 }'`
if [ -z "$pid" ]
then
```

```
                su - $epluser -c "cd $epldir/bin;umask 007;scripts/S15sched &"
fi
pid=`ps -e | awk ' $4 == "estblmgr" { print $1 }'`
if [ -z "$pid" ]
then
                su - $epluser -c "cd $epldir/bin;umask 007;scripts/S05tblmgr &"
fi
```