

EASY/EXIT

Easy/Exit

DTS Software's Easy/Exit allows installations to replace their existing z/OS, DFHSM, and ABARS exits that are written in assembler with a CLIST like language. There is a great deal of functionality built into exits that installations do not fully utilize due to the difficulty of coding, testing and maintaining assembler language exits.

OS Exits

Easy/Exit can replace or enhance your existing accounting, job card validation, and wait time exceeded exits with an easy to learn CLIST like language. Are there things you would like to do in one of the z/OS exits like IEFUJV but the difficulty of changing and testing the exit has delayed implementation? Have you lost production jobs that abended with a 322 because the CPU time had expired. The IEFUTL exit can be used to extend important jobs. With Easy/Exit, you could implement 322 recovery in a few minutes, saving your important production jobs and writing out a message to the user and/or a log so you can change the JOB card to reflect the correct CPU time.

Easy/Exit supports JES 2 including support for all of the z/OS Rel.1.7 exit changes. Installations can change JCL and JECL statements before submission, override SYSOUT characteristics, override output limits and avoid 722 abends for critical jobs.

DFHSM Exits

Many installations have never implemented a single DFHSM exit but those exits can be very useful. For example, all RECALLs are executed in the order of arrival. This means a recall for a production job could sit in the queue behind lots of recalls for lower priority work. Do you run your batch jobs in the order they arrive or do you assign a priority? With Easy/Exit, you could implement the ARCRPEXT (Recall Priority) exit and allow your high priority work to go to the head of the queue. If you are planning to implement the Common Recall Queue feature added in z/OS 1.2, recall priority is even more important. Recalls

z/OS Exits

Abend Prevention

IEFUTL - S322/S522 CPU, WAIT timeout policies
IEFUSO - S722 lines exceeded policies
IEFUSI - Virtual Storage, Dataspace, Hiperspace standards

Job and Step Management

IEFACTRT - job/step end messaging, statistics, activity triggering
IEFUJI/IEFUJP - job initiation start/purge standards enforcement
IEFUJV - job validation examine/alter JCL

Contention Management

IEF_ALLOC_OFFLN - policies for offline volumes /alloc recovery
IEF_SPEC_WAIT - waiting for specific hardcoded device/volume
IEF_VOLUME_ENQ - waiting for volumes to become available
IEF_VOLUME_MNT - volume mount required

JES 2

Exit 4 - JCL and JECL Control Statements
Exit 9 - Output Limit Exceeded
Exit 20/50 - End of Input
Exit 40 - Modify SYSOUT Characteristics

DFHSM Exits

Dataset Migration, Backup, and Recovery

ARCSAEXT - dataset space management or backup
ARCADEXT - non-SMS dataset deletion or expiration
ARCMDEXT - SMS and non-SMS dataset migration from primary
ARCRPEXT - dataset delete/recover/recall priority

Volume Operations

ARCBDEXT - volume backup
ARCMVEXT - volume space management
ARCMMEXT - ML1-to-ML2 migration DFSMSHsm Requests
ARCTDEXT - set tape expiration date
ARCINEXT/ARCSDEXT - DFSMSHsm startup/shutdown
ARCTEEXT - ejected library tapes for recall/recover/restore/recycle

ABARS Exits

ABACKUP Exits

ARCBEEEXT - dataset I/O and enqueue errors during ABACKUP
ARCEDEXT - set ABACKUP output file expiration dates
ARCM2EXT - select/exclude ML2 datasets from ABACKUP

ARECOVER Exits

ARCCREXT - dataset naming conflicts
ARCSKEXT - skip selected datasets during ARECOVER

from the test LPAR could flood the production LPARs and severely impact your production schedule.

The ARCADEXT exit is used to control deletion of non-SMS managed data sets. Your installation could use this exit to add SMS like features to non-SMS data sets. It could also be used to ensure SYS1.* data sets are not deleted by mistake.

The management class is assigned when the data set is created before the actual usage and size is determined. When it is time to migrate the data set from primary space, this information is available to the ARCMDEXT exit. Installations can extend the primary space residency for small data sets while sending large data sets directly to ML2. Wouldn't it make more sense to keep 100 5 cylinder data sets on primary DASD than one 500 cylinder data set that could be sent directly to tape?

ABARS Exits

ABARS is another area where few installations have taken advantage of powerful exit facilities that are available.

The ARCBEEEXT (Backup Error) exit allows the installation to skip data sets that are not available. By default, the ABARS backup is aborted if there are any missing or enqueued data sets.

The ARCSKEXT (Recover Skip) exit, allows the installation to skip data sets during a ARECOVER. This could be used to restore a subset of data sets in an aggregate. By default, ABARS does not allow a single data set to be restored, only the entire aggregate.

Installation

Easy/Exit installs in less than 30 minutes from a CD, tape or web download. It does not require SMP/E or an IPL. Easy/Exit does not make any permanent changes to OS/390 or z/OS load libraries. If the product is shut-down, all interfaces are dynamically removed.

Advantages

Assembler language exits are harder to code, test and maintain. Easy/Exit routines are written in a CLIST like language and includes a trace facility. Exits can be inserted and removed with a console command, not an IPL.

IEFUTL Example: Installation wants to allow production jobs one 10 minute extension for jobs running on the production LPAR (SYSB).

```
IF &JOBNAME = PROD*
  &JOBTYPE = JOB
  &JOB_CPU_EXT EQ 1
  &ENV = (JOB_CPU,STEP_CPU)
  &SYSID = SYSB
THEN SET &ADD_TIME = 600
      ISSUE WRITEMSG(WRNMSG)
ELSE ISSUE WRITEMSG(ERRMSG)
```

```
DEFMSG WRNMSG
'WARNING: JOB &JOBNAME CPU TIME WAS EXTENDED'+
' BY 10 MINUTES' USER(STGADM)
DEFMSG ERRMSG
'WARNING: JOB &JOBNAME CPU TIME WAS EXTENDED'+
' BY 10 MINUTES BUT STILL FAILED' USER(STGADM)
```

ARCRCPEXT Example: Installation wants to assign different priorities to RECALLs

```
/* PRODUCTION RECALLS HAVE ABSOLUTE PRIORITY */
IF &QUAL2 = PROD*
  &ENVS = RECALL
THEN SET &PRIORITY = 100

/* HIGH PRIORITY FOR SYSPROG RECALLS */
IF &ENVS = RECALL
  &REQUEST_SOURCE = TSO
  &USERID = STGADM*
THEN SET &PRIORITY = 75

/* LOW PRIORITY FOR DAYTIME TAPE RECALLS */
IF &ENVS = RECALL
  &DATA_SOURCE = TAPE
  &CURTIME GT 09:00:00
  &CURTIME LT 17:00:00
  &CURDAY NE (SATURDAY,SUNDAY)
THEN SET &PRIORITY = 20
```



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