



AutoBat V3.2

Installation And Use

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Description

AutoBat is a GAL interpreter and executor. It is an optional add-on utility product for AutoMan V3.2. AutoBat runs as a batch program, while AutoMan V3.2 is running on the system.

AutoBat interprets and executes GAL scripts and passes commands to AutoMan. You must be familiar with writing GAL V3.2 command list scripts to use AutoBat.

AutoBat will interpret and execute any script that can be run as a command list.

AutoBat can be used to issue console commands, query the status of jobs and tasks and initiate cross systems communications.

Depending on the functionality required, GAL scripts can range from single console commands all the way to full programs containing complex logic.

This program is fully supported. To request support, make suggestions for upgrades or obtain usage information contact Exspans at info@exspans.com.

Installation

The installation is provided as a load library in a compressed zip folder. The folder, **autobat_V32.zip** contains the following:

autobat.V32.load The AutoBat load library. This must be installed.

Extract the file from the .zip archive on a PC and transfer the library to the host using a file transfer program. The libraries must be transferred as a binary file with a record size of 80 bytes and a block size of 3120.

RECEIVE the file using the TSO RECEIVE command. The RECEIVE command will give you the option of changing the library name. You can change the name by entering `DA(NEW.LIBRARY.NAME)`. If you do not change the name the library will be installed as `hlq.AUTOBAT.V32.LOAD`.

Do not APF authorize `hlq.AUTOBAT.V32.LOAD`. Do not place this program in any APF authorized library. This is a batch program intended for applications use and must not be authorized.

Create a job run JCL procedure to execute AUTOBAT from the load library.

Create GAL V3.2 scripts as input to the program.

JCL to run AutoBat

```
//jobname JOB
//*
//* RUN THE AUTOMAN BATCH PROGRAM
//*
//          EXEC PGM=AUTOBAT
//STEPLIB  DD DSN=hlq.AUTOBAT.V32.LOAD,DISP=SHR
//SYSPRINT DD SYSOUT=A
//SYSIN    DD *
```

text of script to execute

*/**

DD statements:

STEPLIB Identifies the application load library from which the program is to be loaded
 SYSPRINT Identifies the output dataset to which the interpreter and error listings are
 written.
 SYSIN Identifies the dataset containing the GAL script to interpret and execute.

AutoMan Setup

- AutoMan must be running with any STAGE 0 or STAGE 1 process selected.

Or any of the following processes must be selected.

- OPCMD
- JESCMD
- SYSOUT
- JOBS

If none of these conditions is true AutoBat will not connect to AutoMan.

Executed scripts

This program will execute any GAL V3.2 script that is compatible with an AutoMan V3.2 Command List. The only commands that may not be performed are those that are specific to a particular environment, such as message or command processing.

These exceptions include:

- SET COLOR and SET ATTRIBUTE which alter the appearance of a message when it is displayed on a console.
- ALTER, which alters the contents of a console message, output print line or console command.
- Any command that selects or changes a SSID or CONFIG.*

Check the General Automation Language Guide for AutoMan V3.2 for the validity of any given command or structure in this context. Any command that is labeled “Command List” may be used in this program (except as noted above).

Command List scripts may not contain subroutines.

There is no specific limitation on the size or contents of any given script, only that it follows the conventions of General Automation Language.

Variables

Variables, defined by the VAR command, or implicitly declared by usage in statements, are private. They are known only to the instance of AutoBat that is executing. This is an exception to all other GAL usages where variables are public and known to other instances of GAL programs.

Queues, resources and Command Lists

When a queue or resource is requested the resource is owned and controlled by AutoMan, not the AutoBat program. If a command list is run from an AutoBat script, it is run from the currently defined AutoMan command list library, under control of AutoMan.

**this may change if there is demand for the functionality.*

Program execution

Commands such as WTO and WTOR, which do not require any publicly known resources are executed in the context of the batch job. Commands that require publicly known resources, programs, command lists or facilities execute in the context of AutoMan.

Example:

```
//SYSIN      DD *
  VAR REPL LEN 3
:LABL1
  IF STC(MYTASK) INACTIVE DO
    WTO 'MYTASK INACTIVE. DO YOU WANT TO START IT?',REPL
    IF REPL EQ 'Y' DO
      CMD(S MYTASK)
    END
  ELSE DO
    IF REPL NE 'N' DO
      GOTO LABL1
    END
  END
END
/*
```

This example checks to see if an STC is running, and if not, asks the operator if it should be started. If the operator answers “Y” a command is issued to start it. If the operator answers “N”, the program ends. For any other response the check is performed again.

The command highlighted in blue is performed in the context of this job and shows on the console as originating from this job and with an indicator that the program that issued the command is not APF authorized. The command highlighted in red is performed in the context of AutoMan on behalf of the job.

Likewise a RUN command which runs an AutoMan command list, will be performed in the context of AutoMan, not this job, because AutoMan has access to the command lists library.

Using the EMAIL command

If the “to”, “from” and “cc” fields are not used, the default values, set up when AutoMan was started, are used. See the EMAILTO, EMAILCC and EMAILFROM startup parameters in the **AutoMan V3.2 Installation and Use** guide. If these fields are specified as variables, they must be local variables, defined and initialized in the AutoBat script. If the default values are used and they are variables, the values defined inside AutoMan are used.

EMAIL commands are dispatched asynchronously and the program could end before the emails are actually sent. When there is more than one email command in a single script they are sent one after the other, not all at the same time.

```
//SYSIN DD *
  VAR &JNM LEN 8
  VAR &EMAIL LEN 32
  VAR &TEXT LEN 80
*
  LET &EMAIL = 'DUMMY.COM'
  LET &JNM = 'SYS0AXXX'
  LET &TEXT = 'Put this text in line 2'
*
  EMAIL
    CC COPYRECIPIENT@&EMAIL
    FROM SOURCE@&EMAIL
    SUBJECT 'Notification of &JNM by RUNBAT'
    'MESSAGE LINE 1 &JNM TO &EMAIL'
    'MESSAGE LINE 2 &TEXT'
*
  EMAIL
    SUBJECT 'Subject only. No Text'
/*
```


Using the SPOOL command

SPOOL commands are executed asynchronously and the program could end before the spooling operation has completed. If a script contains more than one spooling operation they are executed asynchronously with each other and proceed independently of each other, when the destination is a data file. If the destination is an email, the operations are synchronous with each other and one must complete before the next one proceeds.

```
//SYSIN DD *
VAR &JID LEN 8
VAR &JNM LEN 8
VAR &DDN LEN 8
VAR &DST LEN 8
VAR &FRM LEN 8
VAR &DSN LEN 44
VAR &EMAIL LEN 32
*
LET &EMAIL = 'DUMMY.COM'
LET &JID = ''
LET &MEM = ''
LET &JID = ''
LET &DDN = ''
LET &DST = ''
LET &FRM = ''
*
LET &JNM = 'JOB*'
LET &DSN = 'TEST.AAAA.JOB'
SPOOL JOB(&JNM) JID(&JID)
    DDNAME(&DDN) CLASS(*) DEST(&DST) FORMS(&FRM) STATUS(ALL)
    DISP(DELETE)
    WAIT=10
    TO DSN(&DSN)

LET &JNM = 'JOB*'
LET &DSN = 'TEST.AAAA.JOB'
SPOOL JOB(&JNM) JID(&JID)
    DDNAME(&DDN) CLASS(*) DEST(&DST) FORMS(&FRM) STATUS(ALL)
    DISP(DELETE)
    WAIT=10
    TO DSN(&DSN)
*
LET &JNM = 'SYSB*'
SPOOL JOB(&JNM) JID(&JID) CLASS(A)
    EMAIL SUBJECT '&JNM'
*
LET &JNM = 'SYSC*'
SPOOL JOB(&JNM) JID(&JID) CLASS(A)
    DISP(KEEP)
    WAIT=10
    EMAIL
    CC COPYRECIPIENT@&EMAIL
    FROM SOURCE@&EMAIL
    SUBJECT 'Jobname &JNM'
/*
```

In this example there are four spool operations. The two shown in **blue** write output to datasets. These operate asynchronously and simultaneously with each other. Therefore the output dataset name must not be the same. If it is an error will be reported by AutoMan. The operations shown in **red** and **green** spool output to email, and operate asynchronously and simultaneously with respect to the operations shown in **blue**, but serially with respect to each other.

Using the PARSE command

The command set supported by AutoBat are those supported for Command lists, so the only format of PARSE that may be used here is:

PARSE [UPPER] VAR *sourcevariable* INTO *destvar1 destvar2. . .destvarn*

In the context of this program the PARSE command parses private variables into private variables. This means that all the variables referenced in this command must have been declared explicitly by a `VAR name LEN n` command, or implicitly by usage in this program.

Order of text replacement

Text is extracted from the source variable from left to right, and the variables to receive the extracted text are selected from left to right, as defined in the GAL language guide.

Care must be taken in the naming and order of variable definitions to avoid text replacement errors in variable replacement commands such as WTO. If any part of the text is the same as a variable name, it will be replaced in order. For instance:

```
//SYSIN      DD *
  VAR &A      LEN 8
  VAR &B      LEN 8
  VAR &C      LEN 8
  VAR &D      LEN 8
  VAR &E      LEN 8
  VAR &ETXT   LEN 36
*
  LET &ETXT = 'this is some dummy stuff to parse'
*
  PARSE UPPER VAR &ETXT INTO &A &B &C &D &E
  WTO '&ETXT'
  WTO '&A &B &C &D &E'
/*
```

The WTO command is a variable replacement command. The text to be displayed is scanned from left to right for variables, and if found they are replaced before the command is executed. The two WTO statements will produce

```
+STUFFTXT
+THIS IS SOME DUMMY STUFF
```

because &E is defined as a variable into which the word STUFF was placed by the PARSE command, and it is replaced in the first WTO by normal text replacement. This situation can be avoided by giving variables longer names, or changing the order of definition (see **Order of replacement variable selection** in General Automation Language Guide)

RECEIVE Command

The RECEIVE command, which waits for a transmission from a SYSPLEX partner may not be issued by this program. If there is a valid reason to start a RECEIVE process by batch command, place the command in a Command List and use the batch program to RUN the command list.

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