

The MVS 3.8j Tur(n)key 4- System -- Version 1.00 -- Update 06

Installation

1. It is strongly recommended to create a backup copy of the system. Although the update process has been thoroughly tested a backup copy comes in handy if an unforeseen error occurs.
2. [Update 01](#), [Update 02](#), [Update 03](#), [Update 04](#) and [Update 05](#) are prerequisites for [Update 06](#). Make sure [Update 01](#), [Update 02](#), [Update 03](#), [Update 04](#) and [Update 05](#) have been installed successfully before trying to install [Update 06](#).
3. Make sure that your tk4- folder does not contain a subfolder named update. If an update folder has been left over from the installation of a previous update (i.e. from [Update 04](#), as [Update 05](#) didn't create an update folder) either delete it or rename it.
4. Unzip archive tk4-_v1.00_update_06.zip into the tk4- folder. Allow your unzip utility to overwrite existing files and to merge into existing folders while unzipping the archive.

Note: This update changes scripts mvs, mvs.bat, start_herc and start_herc.bat in the tk4- folder, script ip1.rc in the tk4-/scripts folder and file tk4-.cnf in the tk4-/conf folder. If local changes have been applied to these files, please review the updated files carefully and merge the local changes back in if they are still necessary. However, when re-applying changes, it should be taken into consideration that the maintenance concept of TK4- provides dedicated locations for local modifications, allowing for almost every desirable customization to be done without needing to update any of these files.

5. a) Windows: Open folder tk4\update and click (or double click, depending on your settings) apply_update.bat.
b) Linux or OS X: Open a shell window, change directory to the tk4-/update folder and run ./apply_update.
6. You'll be prompted for the credentials of an administrative user (i.e. HERC01/CUL8TR), then the system will be IPLed, an update job will be executed and the system will be shut down.

Note 1: Although lots of informational message are displayed during the update process most of the time, there may be update steps that will not display any messages for a couple of minutes. This must not be misinterpreted as a stall of the update process. Please be patient during these pauses and refrain from manually interrupting the update process.

Note 2: TK4- [Update 06](#) introduces parameter controlled startup and shutdown automation, affecting both, BSPPILOT scripting controlling MVS operations and the outside scripting framework controlling Hercules operations. During the update run MVS is still using the "old" automation, while the outside scripting framework is on the new level already. This will lead to quite a few networking (VTAM and TCAM) related error messages during the update run. Those messages can safely be ignored.

7. Once the update process has finished check listing.txt in the update folder for errors. One of the following outcomes is expected:

```
10.36.54 JOB      1  IEF403I UPDATER - STARTED - TIME=10.36.54
10.36.55 JOB      1  IEFACTRT - Stepname Procstep Program Retcode
10.36.55 JOB      1  UPDATER  ALGLBCLN          IKJEFT01 RC= 0000
10.36.56 JOB      1  UPDATER  DELCAT           IEFBR14 RC= 0000
10.36.56 JOB      1  UPDATER  DELVOL           IEFBR14 RC= 0000
10.36.56 JOB      1  UPDATER  ALLOC            IEFBR14 RC= 0000
10.36.57 JOB      1  UPDATER  PILOTSVE          IKJEFT01 RC= 0020
10.36.57 JOB      1  UPDATER  SVEPILOT          IEBCOPY  RC= 0000
10.36.57 JOB      1  UPDATER  DELMVSTR          IEHPROGM RC= 0000
10.36.57 JOB      1  UPDATER  JES2SAVE          IKJEFT01 RC= 0020
10.36.57 JOB      1  UPDATER  SAVEJES2          IEBCOPY  RC= 0000
10.36.57 JOB      1  UPDATER  PROCSAVE          IKJEFT01 RC= 0020
10.36.57 JOB      1  UPDATER  SAVEPROC          IEBCOPY  RC= 0000
10.36.57 JOB      1  *IEC501A M 480,UPDATE,SL,6250 BPI,UPDATER,CREDITS
10.36.57 JOB      1  UPDATER  CREDITS           IEBCOPY  RC= 0000
10.36.58 JOB      1  UPDATER  CMDS              IEBCOPY  RC= 0000
10.36.58 JOB      1  UPDATER  REVIEW            IEBCOPY  RC= 0000
```

```

10.36.58 JOB      1  UPDATER      JCC                      IEBGENER  RC= 0000
10.36.59 JOB      1  UPDATER      WATFIV                   IEBGENER  RC= 0000
10.36.59 JOB      1  UPDATER      STRING                   IEBGENER  RC= 0000
10.36.59 JOB      1  UPDATER      ALGOLSRC                 IEBGENER  RC= 0000
10.36.59 JOB      1  UPDATER      ALGOL                    IEBGENER  RC= 0000
10.37.00 JOB      1  UPDATER      WATFIV1                  IEBGENER  RC= 0000
10.37.00 JOB      1  UPDATER      WATFIV2                  IEBGENER  RC= 0000
10.37.00 JOB      1  UPDATER      WATFIV3                  IEBGENER  RC= 0000
10.37.00 JOB      1  UPDATER      WATFIV4                  IEBGENER  RC= 0000
10.37.00 JOB      1  UPDATER      WATFIV5                  IEBGENER  RC= 0000
10.37.28 JOB      1  UPDATER      ELEMENTS                 IEBCOPY   RC= 0000
10.37.28 JOB      1  UPDATER      ZAPREV                   AMASPZAP  RC= 0000
10.37.29 JOB      1  IEF234E K 480,UPDATE,PVT,UPDATER
10.37.29 JOB      1  IEF404I UPDATER - ENDED - TIME=10.37.29

```

-- OF --

```

10.44.12 JOB      2  IEF403I UPDATER - STARTED - TIME=10.44.12
10.44.13 JOB      2  IEFACRTT - Stepname Procstep Program Retcode
10.44.13 JOB      2  UPDATER      ALGLBCLN                 IKJEFT01  RC= 0000
10.44.14 JOB      2  UPDATER      DELCAT                   IEFBR14   RC= 0000
10.44.14 JOB      2  UPDATER      DELVOL                   IEFBR14   RC= 0000
10.44.15 JOB      2  UPDATER      ALLOC                    IEFBR14   RC= 0000
10.44.15 JOB      2  UPDATER      PILOTSVE                 IKJEFT01  RC= 0000
10.44.15 JOB      2  UPDATER      SVEPILOT                 IEBCOPY   *FLUSH*
10.44.15 JOB      2  UPDATER      DELMVSTR                 IEHPROGM  *FLUSH*
10.44.15 JOB      2  UPDATER      JES2SAVE                 IKJEFT01  RC= 0000
10.44.15 JOB      2  UPDATER      SAVEJES2                 IEBCOPY   *FLUSH*
10.44.15 JOB      2  UPDATER      PROCSAVE                 IKJEFT01  RC= 0000
10.44.15 JOB      2  UPDATER      SAVEPROC                 IEBCOPY   *FLUSH*
10.44.15 JOB      2  *IEC501A M 480,UPDATE,SL,6250 BPI,UPDATER,CREDITS
10.44.15 JOB      2  UPDATER      CREDITS                  IEBGENER  RC= 0000
10.44.16 JOB      2  UPDATER      CMDS                     IEBGENER  RC= 0000
10.44.16 JOB      2  UPDATER      REVIEW                   IEBGENER  RC= 0000
10.44.16 JOB      2  UPDATER      JCC                      IEBGENER  RC= 0000
10.44.17 JOB      2  UPDATER      WATFIV                   IEBGENER  RC= 0000
10.44.17 JOB      2  UPDATER      STRING                   IEBGENER  RC= 0000
10.44.17 JOB      2  UPDATER      ALGOLSRC                 IEBGENER  RC= 0000
10.44.18 JOB      2  UPDATER      ALGOL                    IEBGENER  RC= 0000
10.44.18 JOB      2  UPDATER      WATFIV1                  IEBGENER  RC= 0000
10.44.18 JOB      2  UPDATER      WATFIV2                  IEBGENER  RC= 0000
10.44.18 JOB      2  UPDATER      WATFIV3                  IEBGENER  RC= 0000
10.44.19 JOB      2  UPDATER      WATFIV4                  IEBGENER  RC= 0000
10.44.19 JOB      2  UPDATER      WATFIV5                  IEBGENER  RC= 0000
10.44.48 JOB      2  UPDATER      ELEMENTS                 IEBCOPY   RC= 0000
10.44.48 JOB      2  UPDATER      ZAPREV                   AMASPZAP  RC= 0000
10.44.48 JOB      2  IEF234E K 480,UPDATE,PVT,UPDATER
10.44.48 JOB      2  IEF404I UPDATER - ENDED - TIME=10.44.48

```

IPL the system and verify that your regularly used functionality still works as expected. If it does not, revert to your backup copy and report the problems to the author.

Note: The TK4- startup and shutdown automation enhancements included with [Update 06](#) affect SYS1.PARMLIB members STARTMVS, SHUTDOWN, SHUTFAST, SHUTNOW, SYS1.JES2PARM member JES2PARM and SYS1.PROCLIB member JES2. Any local changes that might have been applied to these members will be overridden: After application of Update 06 the system will come up in the original TK4- configuration. However, the above named members are saved by the update procedure to allow for easy re-integration of local changes. See notes in sections “Creating the Automated Operator (BSPPILOT) Scripts” and “Creating MVS Configuration Members” for information on how to do this.

8. Folder tk4-/update is not needed to operate the system, once the update has been installed successfully. It is recommended to remove it to avoid interference with future updates.

Fixes

DISASM Procedure Added to SYS2.PROCLIB

While DISASM was installed on TK4- from the beginning, the DISASM procedure was missing, leading to the impression that DISASM is not available. The DISASM procedure has been added to SYS2.PROCLIB now.

GCCCG Procedure Added to SYS2.PROCLIB

When GCC 3.2.3 was introduced by [Update 02](#), inclusion of a GCCCG procedure was forgotten. A GCCCG procedure has been added to SYS2.PROCLIB now.

New or Changed Function

Enhanced Parameterization

The following environment variables have been introduced:

Variable	Default	Description
REP101A	default (x86) specific (ARM)	Body part of file names used for: - Hercules configuration file defining startup related devices - Hercules script to reply to message IEA101A
CMD101A	unset (x86) 02 (ARM)	Suffix part of file names used for: - Hercules configuration file defining startup related devices - Hercules script to reply to message IEA101A
CNF101A	conf	Path relative to the tk4- folder specifying the location of the Hercules configuration file defining startup related devices
SCR101A	scripts	Path relative to the tk4- folder specifying the location of the Hercules script to reply to message IEA101A

These variables control the enhanced startup and shutdown automation, which allows multiple configurations and startup/shutdown sequences to coexist for selection at TK4-startup time. Section “User Defined Specific Startup and Shutdown Sequences and Configurations” describes in detail how to specify these variables.

For information on how to permanently set environment variables for use with TK4- see README_MVS_TK4-_v1.00_update_01.pdf in the tk4-/doc folder.

With the above default settings the TK4- MVS 3.8j system will, in unattended mode, come up using the full original configuration on all x86 based host platforms (32-bit or 64-bit Intel or AMD), while it will come up using a minimal configuration (JES2, VTAM, TSO, BSPPILOT and local none SNA 3270 terminals only) on all ARM based host platforms.

RFE/REVIEW 45.3

RFE/REVIEW release 44.1 has been replaced with release 45.3. Thanks to Greg Price for maintaining and continuously improving RFE/REVIEW and thus bringing capabilities similar to those of ISPF/PDF to MVS 3.8j!

DYNAMNBR=64

Requested by Mike Noel: Procedure TSOLOGON in SYS1.PROCLIB was changed to use DYNAMNBR=64 instead of DYNAMNBR=20. If your system had any changes to TSOLOGON, please merge them back in from SYS1.PROCLIB.PREUPD06(TSOLOGON).

GCC370 alias for GCC

Requested by Mike Noel: GCC370 has been added as an alias for GCC in SYS2.LINKLIB.

Single Threaded Job Class C

Requested by Mike Noel: Job class C defined and assigned to Initiator 6 only.

LIST (PRINTON) Command Added

A LIST (list dataset contents) TSO command has been added as an alias to the PRINTON command. Thanks to Gerhard Postpischil for making PRINTON available!

DDASD, LIFE, LISTVOL, WORM and DUPTIME Commands Added

MVS 3.8j compatible versions of these gems have been added. Thanks to Greg Price for making them available!

STRING Macro Updated

STRING version 101 for Assembler F has been updated to support the (%TIME, LENGTH) syntax introduced by STRING version 518 for Assembler H and High Level Assembler. Thanks to Gilbert Saint-Flour (rip) for making STRING available!

OS ALGOL F 2.0 Replaced by ALGOL F Level 2.1 ICR

The Independent Component Release ALGOL F Level 2.1 provides major enhancements over the original OS/360 ALGOL F component. Thanks to Tom Armstrong for developing and maintaining the independent component release and making it available to the general public!

JCC Compiler and Library Version 1.50.00 Installed

JCC is an ANSI compliant C Compiler developed by Jason Winter. JCC is not freeware, but Jason agreed to publish it with TK4-. Please review HELP member JCC and implicitly agree to and comply with Jason's User Agreement when using this excellent compiler. Thanks to Jason Winter for providing JCC!

Waterloo FORTRAN IV (WATFIV) System V1L5 Installed

WATFIV, or WATERloo FORTRAN IV, developed at the University of Waterloo, Canada is an implementation of the FORTRAN computer programming language. It has been installed from the excellent compiler collection website maintained by Jay Moseley. Thanks to Jay Moseley for his ongoing effort maintaining these compilers and making them available to the general public!

Sample Prime Number Programs added to SYS2.JCLLIB

In an effort to compare the capabilities of the installed compilers the well-known Sieve of Eratosthenes algorithm to find all prime numbers up to a given limit has been implemented in nearly all languages available on TK4-: Algol, Assembler, COBOL, FORTRAN, C, PL/1, Pascal and Simula. These programs can be found ready to run in SYS2.JCLLIB; see member \$\$\$INDEX for details.

Host Platform Support

Support for Debian Wheezy armel (Linux kernel 3.2 and higher) running on systems with ARMv5T compatible processors (Lego EV3, et. al.) has been added.

Together with the ARMv6 support introduced in [Update 05](#) this new support allows TK4- to run on basically all current ARM based Linux systems: Systems providing the hardware floating point ABI will select the ARMv6 Hercules binaries, while all other systems will select the ARMv5T ones. Of course it might be possible to achieve better performance when using binaries targeted to the exact processor given in a particular system. It is, however, out of scope for the general TK4- distribution to provide those specific Hercules builds, given the wide variety of ARM processors available.

Up to [Update 04](#) TK4- did not support ARM based Linux systems. In the TK4- User's Manual as well as in update documentations there a few procedures lined out which differentiate between Windows, Linux and OS X based TK4- installations only. With the new ARM support the procedures as described for Linux apply to all ARM based Linux systems (Raspbian, armel, etc.) too.

Given that TK4- didn't support ARMv5 (soft float) based Linux systems *before* [Update 06](#), a TK4- system on an ARMv5 device typically will be *new* (as opposed to being an existing one). To install a new TK4- system on an ARMv5 device it is strongly recommended to directly start with the "Current TK4- System", which has all updates applied already. Doing so avoids the chicken and egg problem of needing to run TK4- on a not yet supported host to apply the updates. It is, however, possible to apply [Update 06](#) to an existing ARMv6 (hard float) based Linux system.

Parameter Controlled Startup and Shutdown Automation

The automated startup and shutdown sequence used to bring up TK4- in unattended mode and to shut it down once the shutdown command was issued from an authorized TSO user or from the console (via `s shutdown`) has been enhanced to allow multiple sequences and device configurations to coexist. Those sequences and corresponding device configurations can be selected using a set of new environment variables or `tk4- .parm` file entries at TK4- start time. If no “specific sequence” is selected (i.e. if none of the new environment variables are specified), a “default sequence” is used.

This new feature comes pre-configured as follows:

- The “default sequence” is identical to the startup/shutdown sequence and device configuration that came with TK4- originally.
- A sample “specific sequence” configures and brings up local non SNA 3270 terminals, VTAM, TSO, BSPPILOT and 4 RJE lines only. This is considered the minimal configuration for TK4-. It is selected if a specific sequence was requested without further specifying which one to choose. In that sense it is the “default specific sequence”.

Note: Users running TK4- in **manual** mode (using `start_herc[.bat]` instead of `mvs[.bat]`) must manually enter the reply to message IEA101A SPECIFY SYSTEM PARAMETERS FOR RELEASE 03.8 .VS2, as it is expected by the startup and shutdown sequence selected through the environment variables. Failure to do so (for example by simply pressing ENTER in response to IEA101A) will result in MVS 3.8j conducting the default startup sequence, regardless of the device configuration selected.

That means for the two pre-configured configurations:

- When using the default sequence and configuration IEA101A can as usual be answered by pressing ENTER.
- When using the default specific (minimal) sequence and configuration IEA101A must be answered by entering `R 00,CMD=02` and pressing ENTER.

If none of the new environment variables are specified at TK4- startup

- the “default sequence” and configuration is used on all x86 based Hercules hosts.
- the “default specific sequence” and minimal configuration is used on all ARM based Hercules hosts.

For Linux, OS X or Windows users of Intel based systems the new feature is fully transparent: As long as the startup/shutdown sequence was never changed, there will be no notable change after installation of [Update 06](#).

Users of ARM based systems, however, will note that after installation of [Update 06](#) the minimal instead of the default configuration will be started. This is by design, as low end ARM systems (LEGO EV3, etc.) don't have enough processing power to bring up and run the full TK4- system.

This behavior can be changed easily:

- If on an x86 based Hercules host the minimal instead of the default configuration is desired, set environment variable `REP101A` to the value `specific` (i.e. `export REP101A=specific` on Linux, or `set REP101A=specific` on Windows) before starting TK4- or enter the respective command into your `tk4- /local_conf/tk4- .parm` file.

- If on an ARM based Hercules host the default instead of the minimal configuration is desired, set environment variable REP101A to the value default (i.e. export REP101A=default) before starting TK4- or enter the export command into your tk4- /local_conf/tk4- .parm file.

It should be noted that changes made to the original TK4- startup/shutdown sequence will *not* be taken over by [Update 06](#), neither into the new “default sequence” nor into the new “specific default sequence”. This is by design, as those two sequences are not meant to be user modifiable.

Instead of trying to modify one of the default sequences, changes should be implemented in a user defined “specific sequence”, as detailed in the following paragraphs. Unless specific startup or shutdown sequences or configurations not covered by either the default or the minimal configuration are needed, it is not necessary to read the remainder of this chapter.

User Defined Specific Startup and Shutdown Sequences and Configurations

A user defined sequence always consists of

- a Hercules configuration file located in folder tk4- /local_conf and named tk4- _specificxx.cnf, defining devices to be added to the minimal TK4- configuration
- a Hercules script located in folder tk4- /local_scripts and named SCR101A_specificxx issuing the reply to MVS message IEA101A, which usually will be R 00,CMD=xx
- various MVS configuration members, including startup/shutdown scripts executed by the automated operator (BSPPILLOT), indirectly triggered from PARMLIB member COMMNDxx after JES2 startup

While xx generally can be any two characters allowable as a suffix to form a PARMLIB member name of COMMNDxx, the following should be observed:

- User defined sequences should use numeric values from 50 to 99.
- Numeric values from 00 to 49 are reserved for TK4- internal use.
- Currently the following values are assigned:
 - 00: TK4- default configuration (default sequence)
 - 01: JES2 warm start only, no automated operator
 - 02: TK4- minimal configuration (default specific sequence)

To select a user defined specific sequence for TK4- startup the following environment variables must be set (explicitly or via tk4- /local_conf/tk4- .parm):

- REP101A=specific
- CMD101A=xx
- CNF101A=local_conf
- SCR101A=local_scripts

Creating the Hercules Configuration File

The Hercules configuration file tk4- _specificxx.cnf in folder tk4- /local_conf defines all devices directly related to the specific startup/shutdown sequence. While other unrelated devices may of course be defined in this file too, this is not recommended. Depending on the envisioned configuration it can make sense to

- either copy tk4- /conf/tk4- _default.cnf (the full configuration) and remove the devices that are not needed
- or copy tk4- /conf/ tk4- _specific02.cnf (the minimal configuration) and add any devices that are needed in addition

Note: If you are reintegrating a pre [Update 06](#) startup/shutdown sequence, file tk4-/local_conf/tk4-_specificxx.cnf is the place where all device configuration changes related to that sequence should go. In particular, if tk4-/conf/tk4-.cnf was changed to create the desired device configuration, those changes should be moved into this new configuration file.

Creating the Hercules Script

The Hercules script SCR101A_specificxx in folder tk4-/local_scripts defines the reply to MVS nucleus initialization program message IEA101A SPECIFY SYSTEM PARAMETERS FOR RELEASE 03.8 .VS2, which usually will be R 00,CMD=xx. The easiest way to create this script is by copying tk4-/scripts/SCR101A_specific02 and replacing the value 02 in the last line with xx. Add any further parameters needed for your startup to that line, separated by commas.

Creating the Automated Operator (BSPPILOT) Scripts

The core startup and shutdown sequence consists of four automated operator scripts, located in SYS1.PARMLIB:

- The startup script, named STARTMVS prior to [Update 06](#): This script issues all commands necessary to bring the system to the desired operating state. It also initializes the shutdown sequence matching this startup, which will then be used for the next system shutdown.
- The shutdown script, named SHUTDOWN prior to [Update 06](#): This script performs a “slow” shutdown of the system.
- The fast shutdown script, named SHUTFAST prior to [Update 06](#): This script performs a “fast” shutdown of the system.
- The immediate shutdown script, named SHUTNOW prior to [Update 06](#): This script performs an immediate shutdown of the system.

The member names of these scripts can be chosen arbitrarily, but they must not collide with anything already present in SYS1.PARMLIB, in particular the pre [Update 06](#) hardcoded names STARTMVS, SHUTDOWN, SHUTFAST and SHUTNOW must not be used.

It is recommended to use an easy to memorize naming convention to avoid unwanted mixing up of different startup/shutdown sequences or interference with other SYS1.PARMLIB members.

Members STARTMIN, SDMIN, SDMINFST, SDMINNOW (default specific sequence) or STARTSTD, SDSTD, SDSTDFST, SDSTDNOW (default sequence) may serve as examples to create the new startup/shutdown sequence.

Note: If you are reintegrating a pre [Update 06](#) startup/shutdown sequence, these four scripts are the place where the contents of the pre [Update 06](#) scripts should go: Simply copy your old scripts to the new ones and add a line similar to the following at the end of the startup script

```
CMD S INISDMIN
```

Replace the name INISDMIN above by an arbitrary name not yet existing in your PROCLIB concatenation, which will then become the procedure to initialize the shutdown sequence matching this startup sequence. For your convenience the [Update 06](#) installation job saved your old scripts in SYS1.PARMLIB.PILOT.PREUPD06.

Creating MVS Configuration Members

Once the automated operator scripts are in place, a few configuration steps are needed to make them usable:

- Copy SYS1.PARMLIB member COMMND02 to COMMNDxx and change STARTMIN in the last name to an arbitrary member name not yet existing in SYS1.JES2PARM. It is recommended to use the member name of the startup automated operator script here.
- Copy SYS1.JES2PARM member STARTMIN to the member previously defined in COMMNDxx and change STARTMIN in the
\$TA,I=30,'\$VS,' 'F BSPPILOT,SCRIPT=STARTMIN' ' '
command to the member name of your startup automated operator script.

Note 1: Prior to [Update 06](#) the \$TA command was the last line of SYS1.JES2PARM(JES2PARM). This line has been separated from JES2PARM to allow fanning out different startup sequences. Installation of [Update 06](#) puts the original TK4- JES2PARM (minus the \$TA command) in place and saves your current JES2PARM in SYS1.JES2PARM.PREUPD06. If your system had changes to the original TK4- JES2PARM, copy your JES2PARM from SYS1.JES2PARM.PREUPD06 back into SYS1.JES2PARM, remove the \$TA command found at the end of the member and reintegrate job class C from lines 177, 198 and 199 of the [Update 06](#) version.

Note 2: To parameterize the startup sequence fan out, [Update 06](#) installs an updated version of the original TK4- JES2 procedure in SYS1.PROCLIB and saves your current JES2 procedure to SYS1.PROCLIB.PREUPD06. If your system had changes to the original TK4- JES2 procedure you need to reintegrate them from the saved copy back into SYS1.PROCLIB.

- Copy SYS2.PROCLIB member INISDMIN to the member you named in the START command at the end of your startup script and change SDMIN on the //SYSTSIN DD statement to a member name not yet being present in SYS2.SYSINLIB.
- Copy SYS2.SYSINLIB member SDMIN to the member named on the above //SYSTSIN DD statement and edit this member:
 - Change SDMIN to the name of your shutdown script
 - Change SDMINFST to the name of your fast shutdown script
 - Change SDMINNOW to the name of your immediate shutdown script

The newly created specific startup/shutdown sequence is now ready for use.

Related Configuration Steps

Depending on what is to be achieved with a specific configuration, some related configuration steps may be necessary, the most common ones being changes to the VTAM or TCAM configuration.

- Changes to the VTAM configuration generally should be applied using a different VTAM startup nodelist (ATCCONxx). An example on how to do this can be found in the STARTMIN startup script.
- The TK4- User's Manual has a chapter on TCAM generation which should be consulted if TCAM configuration changes become necessary.