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SNA Product Installation Guide

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This edition is a Major Revision and Replacement of SR20-4567 (VTAM/NCP Installation Guide). This guide includes samples for ACF/VTAM, ACF/NCP, ACF/TCAM, NOSP, and SNA application interfaces. This guide is also applicable to NCP users of VTAM, TCAM10, and EXTM.

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Preface

The samples contained in this publication are provided for the support of education and installation of SNA products. The job control and sample definitions must be adjusted for each system. The samples have not been submitted to a formal IBM test. The samples are not intended to be implemented as they are shown in this material. These samples are coded to a specific network configuration and terminal features and are not compatible with any other installation configuration or processing requirements.

CONTENTS

CHAPTER 1 : INTRODUCTION

The purpose of this guide is to provide information that may help in installing SNA products on either a DOS/VS or OS/VS operating system. This document provides samples which are coded to a specific network configuration and terminal hardware. The samples included in this document are included only as a guide and should be updated for a specific installation.

The samples in this guide will support the following products: IMS/VS, CICS/VS, TSO, JES2(MVS), RTAM(VS1), VTAM, ACF/VTAM, ACF/TCAM, TCAM 9, TCAM 10, NCP/VS (Rel. 5), ACF/NCP/VS, RES (VS1), VSPC, and NOSP. Unless otherwise directed by the specific product guides, these coding samples are recommended for initial system checkout. Every attempt has been made to provide coding samples that are compatible with all of the IBM programs that support SNA.

PRODUCTS SUPPORTED BY THIS DOCUMENT

Advanced Communications Function for the Network Control Program/Virtual Storage (ACF/NCP/VS)

Advanced Communications Function for the Telecommunications Access Method (ACF/TCAM)

Advanced Communications Function for the Virtual Telecommunications Access Method (ACF/VTAM)

Virtual Storage Access Method (VSAM)

Customer Information Control System/Virtual Storage (CICS/VS)

Information Management System/Virtual Storage (IMS/VS)

Virtual Storage Personal Computing (VSPC)

Network Operation Support Program (NOSP)

Disk Operating System/Virtual Stoage (DOS/VS)

Operating System/Virtual Storage 1 (OS/VS1)

  Remote Entry System (RES)

  Remote Terminal Access Method (RTAM)

Operating System/Virtual Storage 2 (OS/VS2)

   Multiple Virtual Storage (MVS)

   Single Virtual Storage (SVS)

   Time Sharing Option (TSO)

   Job Entry Subsystem 2 (JES2)

Telecommunications Access Method (TCAM)

Virtual Telecommunications Access Method (VTAM)

2741 Communications Terminal (2741)

2740 Communications Terminal (2740)

TWX Line Control Type (TWX)

3270 Information Display System (3270)

3600 Finance Communication System (3600)

3650 Retail Store System (3650)

3767 Communication Terminal (3767)

3770 Data Communication System (3770)

3790 Communication System (3790)

3704/3705 Network Control Program/Virtual Storage (NCP/VS)

CHAPTER 2 : DEVELOPMENT ENVIRONMENT

2.1 : HARDWARE CONFIGURATION

In the samples of this publication the following hardware was used:

The central processor is a System/370 Model 158. The DOS/VS system was defined with 8.0 megabytes of real storage and 2.0 megabytes of virtual. Two 3340 drives are defined for the DOS/VS testing and operation. Two 3330's are defined for the OS/VS1 system plus a DASD work pack. The OS/VS2 (MVS) system required two 3330 Model 1's, two 3330 Model 11's, and one 3340 disk drives. The MVS system was defined with 6 Megabytes of real storage. Two 3705's are defined for sample purposes. One has 112K of storage and Channel Adapter Type 2. The second 3705 is a Model 2 with 256K of storage and two Channel Adapter Type 4's. All IBM 3270 products were available, various models of the IBM 377X product family were tested, and a IBM 3790 was used on dial facilities.

2.2 : SOFTWARE RESOURCES

PROGRAMS INSTALLED

NCP/VS

Network Control Program/VS-OS/VS	(Program number 5744-BA2)
Network Control Program/VS-DOS/VS	(Program number 5747-AJ2)

ACF/NCP

NCP/SSP (Required for ACF/NCP)	(Program number 5747-CH1)
ACF/NCP SSP	(Program number 5735-XX3)
ACF/NCP PP	(Program number 5735-XX1)

DOS/VS

Disk Operating System/VS	(Program Number 5745-010)

OS/VS

OS/VS1 Release 6.0	(Program number 5741-VS1)
OS/VS2 Release 3.7	(Program number 5752-VS2)

VTAM

VTAM for DOS/VS	(Program Number 5745-010)
VTAM (MVS) SU 1	(Program number 5752-VS2)

TCAM/VS

TCAM 9 (MVS) SU 2	(Program number 5752-VS2)
TCAM 10 (MVS) SU 36	(Program number 5752-VS2)

ACF/TCAM V1

ACF/TCAM SCP SU59	(Program number 5735-RC1)
ACF/TCAM BASE SU59	(Program number 5735-RC1)
ACF/TCAM MSNF SU59	(Program number 5735-RC1)

ACF/VTAMR1

ACF/VTAM Release 1 (DOS/VS)	(Program Number 5747-RC3)
VTAM SCP for ACF/VTAM SU 40	
ACF/VTAM SU 35 for MVS	(Program number 5735-RC2)
ACF/VTAM Mutisystem Networking Facility	
(MSNF) SU 34 for MVS	(Program number 5735-RC2)

NOSP

Network Operation Support Program	
SU 45	(Program number 5735-XX2)

IMS/VS

IMS/VS V1 R1.4	(Program number 5740-XX2)
IMS/VS V1 R1.5	(Program number 5740-XX2)

CICS/VS

CICS/VS V1R3.0 (PTF 502)	(Program number 5740-XX1)

CHAPTER 3 : GENERAL INFORMATION

3.1 : ACCESS METHOD DEPENDENCIES

The following table provides access method dependencies for specific NCP generation macros.

Access Method	NCP PCCU Macro	Macro's BUILD Macro		HOST Macro		
		MAXSUBA	MAXBFRU	UNITSZ	BFRPAD	STATMOD
VTAM/DOS	ONLY	Default=15	REQUIRED	DEFAULT=88	=15	=NO/YES
VTAM/OS	ONLY	DEFAULT=15	REQUIRED	DEFAULT=84	=28	=YES
ACF/VTAM	ONLY	DEFAULT=15	REQUIRED	DEFAULT=64	=0	=YES
TCAM 10 and ACF/TCAM	NA	(INTRO MACRO)		UNITSZ= KEYLEN=>44 (INTRO Macro) 148 to 156(START)	MIN=17	=YES
EXTM	NA	DEFAULT=31 (ETMCFG Macro)	=10 (ETMCFG Macro)	DEFAULT=156 (ETMFCG Macro)	=2	=NO
NCP	NA	NO DEFAULTS		NO DEFAULT	=28	=NO

3.2 : DEVICE MAXDATA VALUES

The following table specifies the MAXDATA value (PU macro) for various SNA physical units operating on an SDLC link. The MAXDATA operand must not be defaulted.

DEVICE	VALUE = BYTES
IBM 3271/3275	261 - Maximum Value, Segmentation allowed.
IBM 3274/3276	265 - Maximum Value, Segmentation allowed.
IBM 3600	VARIABLE - Function of buffer size defined in CPGEN(3600).
IBM 3614	265 if not connected to 360X.
IBM 3650	265 - Required value, segmentation not allowed.
IBM 3767	261 - Required value, segmentation not allowed.
IBM 3774/3775	265 - Required value, segmentation not allowed.
IBM 3776/3777	265/521 - Required value, segmentation not allowed. Host application must support same value. The NCP can be generated with 521 and the actual value specified in the Bind for the application to LU session.
IBM 3790	265 - Required value, segmentation not allowed for 'Batch' sessions. Segmentation allowed for DSC LU's.

3.3 : DEVICE ERROR RECOVERY

The following table lists the reccommended values for the RETRIES operand in the NCP 'LINE' and 'PU' macros.

* RETRIES OPERAND

OPERAND

,RETRIES = (m,t,n)
where m = immediate retries,
t = pause between retries,
and n = retry cycles.

for SDLC, if REPLYTO = 1, M = 5, t = 10, n = 3,
then:

retry cycle = ((5 X 1) + 10) X 3) + (5 X 1) = 50 SECONDS

DEVICE	RECOVERY SEQUENCE REQUIREMENT
IBM 3600	- function of 3600 CPGEN, value should be less than 3600 generated time.
IBM 3650	- 50 to less than 60 seconds.
IBM 3767	- greater than 20 seconds.
IBM 3790	- adjust for link quality, 60 seconds as a start.
IBM 3770	" "
IBM 3270 (SDLC)	" "

3.4 : INSTALLATION SEQUENCE (VTAM)

This installation sequence is only a guide and many steps are omitted.

OBTAIN MANUALS.

Order all manuals necessary for the appropriate operating system.

ORDER PROGRAMS

All the programs should be obtained from PID.

SYSTEM INSTALLATION

Determine the hardware configuration required for the system. The system design has to be approached from multiple levels. At least look at it with the following approaches:

* PHYSICAL CONFIGURATION
  It is necessary to plan the hardware configuration in order to generate the NCP load module, the local 3277 definition for VTAM, and the I/O assignments for the system generation phase.

* OPERATING SYSTEM
  The operating system will only be concerned with the devices locally attached to the system. When generating the operating system, special consideration must be given for the VTAM parameters, including the size of the partitions for DOS and the VTAM workspace for OS/VS1.

The following steps should allow the user to bring up the system and allow operation at various check points.

1. SYSTEM DEFINITION
   Unless using OS/VS2, the default buffer parameters should not be used. The samples in this document can be used, providing the network is similar to the samples. Care should be taken in the specification of LFBUF(DOS/VS) and IOBUF(OS/VS) to insure that the values for UNITSZ and MAXBFRU defined in the NCP are used to calculate the buffer values. The quantity of LFBUF or IOBUF must exceed the requirement for MAXBFRU. The MAXSUBA value in the start definition should agree with the NCP value. All SUBAREA values should be checked to insure each major node has an

exclusive value.

2. START CONFIGURATION
   If local 3277's are available, the initial configuration should only include the local 3277's and the application definition node. After these two nodes are active, then the NCP portion of the system can be checked out. If VTAM indicates an error in the node definition, it may not be necessary to stop VTAM. If the node did not become active, the node definition can be updated, and varied active by the console operator. If the node was activated by VTAM, the node must be varied inactive. In addition, if the system is OS/VS, the node name must be deleted from the SYS1.VTAMOBJ data set. Otherwise, when the node is activated again, the old defintion will still be used even though the definition source was updated.

3. LOCAL 3270 DEFINITION
   For the first testing phase, the local definition should not include a LOGTAB or a LOGAPPL statement. All unavailable 3277's or 328x's should be defined with an ISTATUS=INACTIVE. Only one 3277 is required to check out that VTAM has initialized and that a VTAM user application works. before the 'LOGTAB' operand is added, an Interpret table must be assembled, link-edited and stored in SYS1.VTAMLIB, if OS/VS, or the core-image library, if DOS. The 'LOGAPPL' operand may be used, if the application name is 'NETSOL' or the application name is defined in the application definition. The application program need not be available.

GENERAL HINTS

NRZI defaults to yes on a SDLC line. Normally, NRZI can be used with most modems. IBM integrated modems and the IBM 3872 require NRZI=YES. When in doubt, specify NRZI=NO, and monitor MDR recordings for line errors and change if required. All SDLC PU types 1 and 2 will work without NRZI.

NETSOL can be used to check out most basic devices before trying them with an application program. It may easily be modified to provide special test messages. NETSOL can be run in its own region if appropriate JCL is generated.

Remote 3270's will not be polled unless they are logged on to an application program.

Dial ports will disconnect if not logged on to an application program before being used.

To help determine the error condition, the use of line trace on the failing line should be considered. Also, before varying the cluster active, start IO trace on the NCP and the cluster.

GENERAL OPERATING CONSIDERATIONS

Retain information should always be obtained for VTAM and NCP. There are problems described in Retain that can be bypassed by controlling operating procedures.

The 370X, if required, will always be loaded when activated by VTAM if ANS is not specified in the NCP 'BUILD' macro and the NCP was not deactivated normally. If using PEP, ANS must be specified if VTAM is not to load the 370X. If the 370X does not contain the desired NCP load module, VTAM will load the 370X with out operator intervention.

Use of the 'F TPRINT' command to print trace records during production should be avoided because 'TPRINT' will degrade the DOS/VS system. In fact, most DOS and VTAM operations appear to wait until the TPRINT operation is completed. It may be necessary to develop a print application program that operates in one of the other partitions, instead of having VTAM do this function.

If you give a command to activate a NCP that is already active, VTAM will try to activate all elements of the network defined to VTAM. This can cause a considerable slowdown as the NCP tries to activate terminals, clusters, etc., that may not be operational. It is recommended that you define to VTAM only those resources that are physically available.

An application programmer should expect one character messages from 3270's and test for 'CLEAR' and 'PF' keys.

When using the 3600, the 3600 must respond to the 'CLEAR' and the 'UNBIND' in order to terminate a session. An application program running under DOS VTAM may not be cancelled until a response is sent back to VTAM. Always specify the time-out value in the 3600 CPGEN as greater than the total retry time of the NCP.

CHAPTER 4 : VTAM SESSION PARAMETERS

The following table indicates when VTAM 'only' parameters are required. The examples throughout the guide indicate the use of these parameters. The MODETAB and USSTAB examples include support for most applications. The should be modified to support only the applications required by the user.

	VTAM II	ACF/VTAM	START STOP	3272 LOCAL	BSC 3270	OTHER BSC	SDLC
LOGTAB	YES	ONLY IF NETSOL	YES	NETSOL YES	VTAM II YES; ACF/VTAM NO IF PU = YES	YES	NO
USSTAB	YES	YES	NO	NO (Note 1)	ACF/VTAM IF PU = YES	NO	YES
MODETAB	SNA ONLY	YES	NO	ACF/VTAM YES	ACF/VTAM YES	NO	YES
DLOGMOD	NO	ACF/VTAM ONLY	NO	ACF/VTAM YES	ACF/VTAM YES	NO	YES
SSCPFM	YES	YES	NO	NO	YES	NO	YES
BNNSUP	YES	YES	NO	NO	NO	NO	3271 ONLY

VTAM SESSION CONTROL PARAMETERS

	SNA	IBM DEFAULT	USER SUPP	COMMENTS
LOGTAB	NO	NO	YES	REQUIRED FOR NON-SDLC LOGON VIA NETSOL.
USSTAB	YES	YES (LOGON APPLID)	YES	USSTAB OR FOR BOTH DOS/VS AND OS/VS LOGON (USSTAB PREFERRED).
MODETAB	YES	YES (3767)	YES ONE MODETAB PREFER.	REQUIRED IF APPLICATION DOES NOT SUPPLY BIND PARAMETERS. THE DEFAULTS ARE NOT USABLE.
DLOGMOD	YES	NO	YES	POINTS TO ENTRY IN INDICATED OR IBM SUPPLIED MODETAB.
SSCPFM	YES	YES	YES	VTAM SUPPLIED LEADING GRAPHICS: 1) FORMATTED, DEFAULT 3600, 3650, 3790; 2) UNFORMATED USSSCx 3274, 3276,3770; 3) 3271 BSC. USS 3270
BNNSUP	YES	YES	NO	REQUIRED FOR IBM 3271 Model 11/12

Note 1 - Yes for ACF/VTAM Version 2.

VTAM SESSION CONTROL PARAMETERS(CONT.)

4.1 : INTERPRET TABLE EXAMPLE

SAMPLE LOGON INTERPRET TABLE

The following interpret table can be used with all levels of VTAM. It is only used by NETSOL and need not be coded if NETSOL is not used. NETSOL is normally required for devices supported by applications using the 'BASIC' mode interface. An interpret table is not required for remote 3271 BSC controllers when interfacing to ACF/VTAM.

```
**************************************************************************
*    SOURCE FOR LOGON INTERPRET TABLE                                    *
**************************************************************************
LOGTAB   INTAB
         LOGCHAR APPLID=(APPLICID,VAPPL),SEQNCE='VAPPL'
         LOGCHAR APPLID=(APPLICID,VAPPL),SEQNCE='vappl'
         LOGCHAR APPLID=(APPLICID,CICS),SEQNCE='CICS'
         LOGCHAR APPLID=(APPLICID,CICS),SEQNCE='cics'
         LOGCHAR APPLID=(APPLICID,VTAMWHO),SEQNCE='WHO'
         LOGCHAR APPLID=(APPLICID,VTAMWHO),SEQNCE='who'
         LOGCHAR APPLID=(APPLICID,NOSP1),SEQNCE='NOSP' ACF/VTAM ONLY
         LOGCHAR APPLID=(APPLICID,NOSP1),SEQNCE='nosp' ACF/VTAM ONLY
         LOGCHAR APPLID=(APPLICID,TSO),SEQNCE='LOGON'  3277/MVS ONLY
         LOGCHAR APPLID=(APPLICID,TSO),SEQNCE='logon'  3277/MVS ONLY
         LOGCHAR APPLID=(APPLICID,ISTOLTEP),SEQNCE='TEST'
         LOGCHAR APPLID=(APPLICID,ISTOLTEP),SEQNCE='test'
         LOGCHAR APPLID=(APPLICID,IMS),SEQNCE='IMS'    OS/VS ONLY
         LOGCHAR APPLID=(APPLICID,IMS),SEQNCE='ims'    OS/VS ONLY
         LOGCHAR APPLID=(APPLICID,INQUIRY),SEQNCE='INQUIRY'
         LOGCHAR APPLID=(APPLICID,INQ),SEQNCE='INQ'
         ENDINTAB
         END
```

NOTES- The interpret table is required in order to allow non-SDLC and local 3270(NON-SNA) terminals to 'logon' to application programs via the Network Solicitor. The appropriate System Programmers Guide for VTAM or ACF/VTAM describes the generation and purpose of the interpret table.

4.2 : MODETAB EXAMPLES

SAMPLE MODETAB FOR IBM 3767

```
ALL3767 MODETAB
         MODEENT LOGMODE=INTERACT,FMPROF=X'03',TSPROF=X'03',          X
               PRIPROT=X'B1',SECPROT=X'A0',COMPROT=X'3040'
         MODEENT LOGMODE=IMSEXCP,FMPROF=X'03',TSPROF=X'03',           X
               PRIPROT=X'B1',SECPROT=X'90',COMPROT=X'3040'
         MODEENT LOGMODE=DEFFLIP,FMPROF=X'03',TSPROF=X'03',           X
               PRIPROT=X'F9',SECPROT=X'E8',COMPROT=X'3081'
         MODEENT LOGMODE=EXECFLIP,FMPROF=X'03',TSPROF=X'03',          X
               PRIPROT=X'F9',SECPROT=X'D8',COMPROT=X'3081'
         MODEENT LOGMODE=EXECCONT,FMPROF=X'03',TSPROF=X'03',          X
               PRIPROT=X'F9',SECPROT=X'D9',COMPROT=X'3041'
         MODEENT LOGMODE=BOB,FMPROF=X'03',TSPROF=X'03',               X
               PRIPROT=X'F9',SECPROT=X'D8',COMPROT=X'3080'
         MODEEND
         END
```

NOTES- Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3767 should also be referenced.

SAMPLE MODETAB FOR 3270 (3271 AND 3272 CONTROL UNITS).

```
**********************************************************************
* MODE TABLE FOR 3277 LOCAL (3272 Control Unit)
* MODE TABLE FOR 3277 REMOTE (3271 Control Unit Model 11/12)
* MODE TABLE FOR 3277 REMOTE (3271 Control Unit Model 1/2)
**********************************************************************
NOSPTAB  MODETAB
         MODEENT LOGMODE=DSILGMOD,                                    X
               FMPROF=X'02',TSPROF=X'02',PRIPROT=X'71',               X
               SECPROT=X'40',COMPROT=X'2000',RUSIZES=X'0000',         X
               PSERVIC=X'000000000000000000000200'
         MODEENT LOGMODE=S3270,                                       X
               FMPROF=X'02',TSPROF=X'02',PRIPROT=X'71',               X
               SECPROT=X'40',COMPROT=X'2000',RUSIZES=X'0000',         X
               PSERVIC=X'000000000000000000000200'
         MODEEND
         END
```

NOTES- This MODETAB is required if sessions are to be initiated by the application or the terminal contains a LOGAPPL parameter. This MODETAB is also required for ACF/VTAM. The DSILGMOD entry is required for ACF/NOSP.

SAMPLE MODETAB FOR 3770 SDLC

```
MODE3770 MODETAB
BAT13770 MODEENT LOGMODE=BAT13770,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B*
               1',SECPROT=X'B0',COMPROT=X'7080',RUSIZES=X'8585',       *
               PSERVIC=X'013100000000080000000000'
         MODEENT LOGMODE=BATCH,FMPROF=X'03',TSPROF=X'03',              X
               PRIPROT=X'A3',SECPROT=X'A1',COMPROT=X'7080',            X
               RUSIZES=X'8585'
         MODEENT LOGMODE=INTERACT,FMPROF=X'03',TSPROF=X'03',           X
               PRIPROT=X'B1',SECPROT=X'A0',COMPROT=X'3040'
         MODEENT LOGMODE=NOCOMP,FMPROF=X'03',TSPROF=X'03',             X
               PRIPROT=X'A1',SECPROT=X'A1',COMPROT=X'7080'
         MODEENT LOGMODE=COMP,FMPROF=X'03',TSPROF=X'03',               X
               PRIPROT=X'A3',SECPROT=X'A3',COMPROT=X'7080'
         MODEENT LOGMODE=ASCII,FMPROF=X'03',TSPROF=X'03',              X
               PRIPROT=X'A1',SECPROT=X'A1',COMPROT=X'7880'
         MODEENT LOGMODE=BUF512,FMPROF=X'03',TSPROF=X'03',             X
               PRIPROT=X'A3',SECPROT=X'A3',COMPROT=X'7080',            X
               RUSIZES=X'8686'
         MODEENT LOGMODE=BUF256,FMPROF=X'03',TSPROF=X'03',             X
               PRIPROT=X'A3',SECPROT=X'A3',COMPROT=X'7080',            X
               RUSIZES=X'8585'
         MODEENT LOGMODE=CMPACT,FMPROF=3,TSPROF=3,PRIPROT=X'A3',       X
               SECPROT=X'A1',COMPROT=X'7080',RUSIZES=X'8585',          X
               PSERVIC=X'01106000F100808000010040'
         MODEEND
         END
```

NOTES- Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3770 should also be referenced.

SAMPLE MODETAB FOR IBM 3790

```
**********************************************************************
* MODETAB FOR 3790
**********************************************************************
MODE3790 MODETAB
BAT13790 MODEENT LOGMODE=BAT13790,FMPROF=X'03',TSPROF=X'03',           X
               PRIPROT=X'00',SECPROT=X'00',COMPROT=X'0000'
INQ3790  MODEENT LOGMODE=INQUIRY,FMPROF=X'03',TSPROF=X'03',            X
               PRIPROT=X'B1',SECPROT=X'A0',COMPROT=X'3040'
* The following MODEENT is required for TSO via ACF/VTAM.
EMU3790  MODEENT LOGMODE=EMU3790,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1*
               ',SECPROT=X'B0',COMPROT=X'3080',RUSIZES=X'85C7',        *
               PSERVIC=X'020000000000000000000200'
RJE3790A MODEENT LOGMODE=RJE3790A,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'A*
               3',SECPROT=X'A1',COMPROT=X'7080',RUSIZES=X'8585',       *
               PSERVIC=X'01106000F100800000010040'
RJE3790B MODEENT LOGMODE=RJE3790B,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'A*
               3',SECPROT=X'A1',COMPROT=X'7080',RUSIZES=X'8585',       *
               PSERVIC=X'01102000F100800000010040'
BAT23790 MODEENT LOGMODE=BAT23790,FMPROF=X'03',TSPROF=X'04',PRIPROT=X'B*
               1',SECPROT=X'B0',COMPROT=X'7080',RUSIZES=X'8585',       *
               PSERVIC=X'013100000000000000000000'
BLK3790  MODEENT LOGMODE=BLK3790,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1*
               ',SECPROT=X'B0',COMPROT=X'3080',RUSIZES=X'8585',        *
               PSERVIC=X'010000000000000000000000'
SCS3790  MODEENT LOGMODE=SCS3790,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1*
               ',SECPROT=X'B0',COMPROT=X'3080',RUSIZES=X'8585',        *
               PSERVIC=X'010000000000000000000000'
DSILGMOD MODEENT LOGMODE=DSILGMOD,FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B*
               1',SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'85C7',       *
               PSERVIC=X'020000000000000000000200'
         MODEEND
         END
```

NOTES- Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3790 should also be referenced. The MODEENT 'EMU3790' is required to support the Data Stream Compatibility interface with TSO.

MODETAB INFORMATION FOR 3276 AND 3274

The mode tables for the 3274-1A, 3274-1C and 3276 are identical except for RU sizes and 3277 support. The RU sizes supported by the controllers are shown below:

controller	MAX RU size inbound to host	MAX RU size outbound from host
3276	2048	unlimited
3274-1C	1024	unlimited
3274-1A	1024	1536

One mode table for the displays attached to each controller type is included. This allows independent RU size selection based on the controllers capabilities. One mode table would suffice if inbound RU was limited to 1024 and outbound RU size was limited to 1536. Mode table entry names are the same in each table to allow the use of one USS table for all these terminals.

One mode table is included for all printers regardless of controller attachment. This was done for two reasons:

1. NOSP requires all mode table entry names to be DSILGMOD. This precludes having both the NOSP display and NOSP printer entries in the same table.
2. Since it was decided to use the same printer RU sizes with all controllers, the printer entries in each table would have been identical if they were included in each controller table.

For this installation it was decided to set pacing and vpacing values in the terminal definitions (NCP and VBUILD) to zero and override those values when desired by utilizing the mode table parameters PSNDPAC and SRCVPAC. Displays and DSC printers normally run with pacing set to zero. SCS printers, however, require a non-zero pacing count. Since a 3287 or 3289 printer can operate in either DSC or SCS mode it is not possible to have different pacing counts for the same printer if the pacing is determined by the terminal definition. In this installation, for example, a 3289 printer could be used with IMS/VS by specifying the mode table entry SCS4K. It could also be used in DSC mode by another application by specifying the mode table entry DSC4K.

There are some special considerations for printers operating in SCS mode. For 3287 printers the pacing count, RUSIZE and PSERVIC values depend on the buffer size in the printer. The 3287 printer has a 2K buffer as a standard feature and a 4K buffer as an optional feature. The mode table entry names in these examples indicate their respective printer buffer sizes. The 3289 printer has a 4K buffer as a standard

feature. In all cases a determination must be made regarding the pacing count and RU size to be used. Many factors may enter into the decision, but the most important performance objective is to achieve overlap of printing with data transmission. In these examples, the rationale used for the trade-off between pacing count and RU size was to set the pacing count to one and set the RU size to the highest value (up to 1024) that would still allow printing and transmission to overlap. The 1024 byte RU size specified for printers with a 4K buffer is not the absolute maximum. The actual maximum RU size depends on the controller type and model and can be determined by using the formulae described in the 3270 Component Description manual (GA27-2749) in the section "RU Lengths". It was considered more practical to use a common RUSIZE than to set individual maximum sizes. 1536 is actually the maximum common RU size that could have been used, but it appears that there is little, if any, performance advantage in using an RUSIZE greater than 1024. If an application program limits RU lengths to something less than 1024, it may be advantagous to use a pacing count greater than one. For an RU size of 256 a pacing count of 3 could be beneficial. Pacing counts greater than 3 would not generally be recommended unless the RU size is much smaller.

SAMPLE MODETAB FOR IBM 3274-1A (LOCAL ATTACHED)

```
**************************************************************************
* MODE TABLE FOR 3274-1A DISPLAYS
**************************************************************************
MT3274A  MODETAB
         MODEENT LOGMODE=T3278M2,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000185018507F00'
         MODEENT LOGMODE=T3278M3,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000185020507F00'
         MODEENT LOGMODE=T3278M4,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000185028507F00'
         MODEENT LOGMODE=T3278M1,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000C280C507F00'
         MODEENT LOGMODE=DSILGMOD,     MODEL 4                           X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000185028507F00'
         MODEENT LOGMODE=T3277M2,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000000000000200'
         MODEENT LOGMODE=T3277M1,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                  X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C7',            X
               PSERVIC=X'020000000000000000000100'
         MODEEND
         END
```

NOTES- Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3270 should also be referenced.

SAMPLE MODETAB FOR IBM 3274-1C (REMOTE)

```
**********************************************************************
* MODE TABLE FOR 3274-1C DISPLAYS
**********************************************************************
MT3274C  MODETAB
         MODEENT LOGMODE=T3278M2,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000185018507F00'
         MODEENT LOGMODE=T3278M3,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000185020507F00'
         MODEENT LOGMODE=T3278M4,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000018502B507F00'
         MODEENT LOGMODE=T3278M1,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'0200000000000C280C507F00'
         MODEENT LOGMODE=DSILGMOD,   MODEL 4                           X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'A0',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000018502B507F00'
         MODEENT LOGMODE=T3277M2,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000000000000200'
         MODEENT LOGMODE=T3277M1,                                      X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87F8',          X
               PSERVIC=X'020000000000000000000100'
         MODEEND
         END
```

NOTES- Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3270 should also be referenced.

SAMPLE MODETAB FOR IBM 3276 (REMOTE)

```
*********************************************************************
* MODE TABLE FOR 3276 DISPLAYS
*********************************************************************
MT3276   MODETAB
         MODEENT LOGMODE=T3278M2,                                    X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',              X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'88F8',        X
               PSERVIC=X'020000000000185018507F00'
         MODEENT LOGMODE=T3278M3,                                    X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',              X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'88F8',        X
               PSERVIC=X'020000000000185020507F00'
         MODEENT LOGMODE=T3278M4,                                    X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',              X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'88F8',        X
               PSERVIC=X'020000000000185028507F00'
         MODEENT LOGMODE=T3278M1,                                    X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',              X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'88F8',        X
               PSERVIC=X'020000000000C280C507F00'
         MODEENT LOGMODE=DSILGMOD,    MODEL 4                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',              X
               SECPROT=X'A0',COMPROT=X'3080',RUSIZES=X'87F8',        X
               PSERVIC=X'020000000000185028507F00'
         MODEEND
         END
```

NOTES- This MODETAB provides session parameters for the IBM 3276 for various types of sessions. Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3270 should also be referenced.

SAMPLE MODETAB FOR IBM 3287 AND 3289 PRINTERS

```
**********************************************************************
* MODE TABLE FOR 3287 & 3289 PRINTERS
**********************************************************************
MTNDSPTR MODETAB
         MODEENT LOGMODE=SCS,                                          X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'87C6',          X
               PSERVIC=X'01000000E100000000000000',                    X
               PSNDPAC=X'01',SRCVPAC=X'01'
         MODEENT LOGMODE=DSC4K,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'8787',          X
               PSERVIC=X'030000000000018502B507F00'
         MODEENT LOGMODE=DSC2K,                                        X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'8787',          X
               PSERVIC=X'0300000000000185018507F00'
         MODEENT LOGMODE=DSILGMOD,                                     X
               FMPROF=X'03',TSPROF=X'03',PRIPROT=X'B1',                X
               SECPROT=X'90',COMPROT=X'3080',RUSIZES=X'8787',          X
               PSERVIC=X'01000000E100000000000000',                    X
               PSNDPAC=X'01',SRCVPAC=X'01'
         MODEEND
         END
```

NOTES- This MODETAB provides session parameters for the IBM 3287 and 3289 printers for various types of sessions. Description and specification for MODETAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM. The component description manual for the 3270 should also be referenced.

4.3 : USSTAB EXAMPLES

USSTAB FOR 3271 SDLC OR BSC(ACF/VTAM ONLY).

```
**************************************************************************
* USSTAB FOR 3271 MOD. 11/12 (VTAM AND ACF/VTAM)                         *
* USSTAB FOR 3271 MOD. 1/2   (ACF/VTAM)                                  *
**************************************************************************
VUSS3270 USSTAB
LOG      USSCMD CMD=LOG,REP=LOGON,FORMAT=BAL
         USSPARM PARM=P1,REP=APPLID
         USSPARM PARM=P2,REP=LOGMODE
TSO      USSCMD CMD=TSO,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=TSO
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
         USSPARM PARM=P1,REP=DATA
NOSP     USSCMD CMD=NOSP,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=NOSP1
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=DSILGMOD
         USSPARM PARM=P1,REP=DATA
CICS14   USSCMD CMD=CICS14,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=CICS14
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
CICS    USSCMD CMD=CICS,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=CICS
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
TEST     USSCMD CMD=TEST,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=ISTOLTEP
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
CICS13   USSCMD CMD=CICS13,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=CICS13
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
IMS      USSCMD CMD=IMS,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=IMS
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
VSPC     USSCMD CMD=VSPC,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=VSPC
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
TCAM     USSCMD CMD=TCAM,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=TCAMTCAM
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
VTAMWHO  USSCMD CMD=WHO,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=VTAMWHO
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=S3270
LOGOFF   USSCMD CMD=LOGOFF,REP=LOGOFF,FORMAT=BAL
```

```
         USSPARM PARM=APPLID,REP=APPLID
         USSPARM PARM=TYPE,DEFAULT=COND
         USSPARM PARM=HOLD,DEFAULT=YES
*    THE FOLLOWING CODE IS POSITIONALLY DEPENDENT.....DO NOT CHANGE
*IF DOS/VS, A CHARACTER IS REQUIRED IN COLUMN 16 OF THE TEXT ON
* ALL THE STATEMENTS CONTAINING 71 BLANKS.
MESSAGES USSMSG MSG=1,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=2,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=3,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=4,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=5,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=6,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=7,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=0,TEXT='MAXIMUM MESSAGE                            X
                                                                       X
                                                                       X
                                                                       X
                                                    '
         USSMSG MSG=10,TEXT='MAXIMUM MESSAGE                           X
                                                                       X
```

```
                                                                    X
                                                                    X

PATCHBK  EQU   *
         ORG   ISTT0001+1    ORG BACK TO OVERLAY MESSAGE
MSG1S    EQU   *
         DC    X'11C260',X'1DE8'
         DC    C'INVALID COMMAND SYNTAX, ENTER:',X'11C3F0'
         DC    C'LOG applid logmode data  Or:'
         DC    X'11C6D21D60'
         DC    C'CICS14',X'11C7E3'
         DC    C'CICS13',X'11C8F3'
         DC    C'TSO tsoid/password',X'114AC3'
         DC    C'NOSP',X'114BD3'
         DC    C'TEST',X'114CE3'
         DC    C'WHO',X'114DF3'
         DC    C'VSPC ID=nnnnnn',X'114FC3'
         DC    C'IMS'
MSG1E    EQU   *
         ORG   ISTT0002+1    ORG BACK TO OVERLAY MESSAGE
MSG2S    EQU   *
         DC    X'11C260',X'1DE8'
         DC    C'% COMMAND NOT RECOGNIZED, ENTER:',X'11C3F0'
         DC    C'LOG applid logmode data  Or:'
         DC    X'11C6D21D60'
         DC    C'CICS14',X'11C7E3'
         DC    C'CICS13',X'11C8F3'
         DC    C'TSO tsoid/password',X'114AC3'
         DC    C'NOSP',X'114BD3'
         DC    C'TEST',X'114CE3'
         DC    C'WHO',X'114DF3'
         DC    C'VSPC ID=nnnnnn',X'114FC3'
         DC    C'IMS'
MSG2E    EQU   *
         ORG   ISTT0003+1    ORG BACK TO OVERLAY MESSAGE
MSG3S    EQU   *
         DC    X'11C260'          SKIP TO LINE 2
         DC    C'% PARAMETER NOT RECOGNIZED, ENTER:',X'11C3F0'
         DC    C'LOG applid logmode data  Or:'
         DC    X'11C6D21D60'
         DC    C'CICS14',X'11C7E3'
         DC    C'CICS13',X'11C8F3'
         DC    C'TSO tsoid/password',X'114AC3'
         DC    C'NOSP',X'114BD3'
         DC    C'TEST',X'114CE3'
         DC    C'WHO',X'114DF3'
         DC    C'VSPC ID=nnnnnn',X'114FC3'
         DC    C'IMS'
```

```
MSG3E    EQU   *
         ORG   ISTT0004+1    ORG BACK TO OVERLAY MESSAGE
MSG4S    EQU   *
         DC    X'11C260'
         DC    C'% PARAMETER INVALID, ENTER:',X'111C3F0'
         DC    C'LOG applid logmode data  Or:'
         DC    X'11C6D21D60'
         DC    C'CICS14',X'11C7E3'
         DC    C'CICS13',X'11C8F3'
         DC    C'TSO tsoid/password',X'114AC3'
         DC    C'NOSP',X'114BD3'
         DC    C'TEST',X'114CE3'
         DC    C'WHO',X'114DF3'
         DC    C'VSPC ID=nnnnnn'
         DC    X'114FC3'
         DC    C'IMS'
         DC    X'1150D2'
         DC    C'NOTE: The application may not be active'
MSG4E    EQU   *
         ORG   ISTT0005+1    ORG BACK TO OVERLAY MESSAGE
MSG5S    EQU   *
         DC    X'11C260'
         DC    C'UNSUPPORTED FUNCTION, ENTER:',X'11C3F0'
         DC    C'LOG applid logmode data  Or:'
         DC    X'11C6D21D60'
         DC    C'CICS14',X'11C7E3'
         DC    C'CICS13',X'11C8F3'
         DC    C'TSO tsoid/password',X'114AC3'
         DC    C'NOSP',X'114BD3'
         DC    C'TEST',X'114CE3'
         DC    C'WHO',X'114DF3'
         DC    C'VSPC ID=nnnnnn'
         DC    X'114FC3'
         DC    C'IMS'
MSG5E    EQU   *
         ORG   ISTT0006+1    ORG BACK TO OVERLAY MESSAGE
MSG6S    EQU   *
         DC    X'11C260'
         DC    C'SEQUENCE ERROR:'
         DC    X'11C6D21D60'
         DC    C'1. You are attempting to logoff from a terminal '
         DC    C'that is not in session'
         DC    X'114CE3'
         DC    C'2. You are attempting to logon from a terminal that '
         DC    C'is already in session'
         DC    X'114FC3'
MSG6E    EQU   *
         ORG   ISTT0007+1    ORG BACK TO OVERLAY MESSAGE
```

```
MSG7S    EQU   *
         DC    X'11C260'
         DC    C'SESSION NOT BOUND BECAUSE:'
         DC    X'11C6D21D60'
         DC    C'1. This terminal is already in session'
         DC    X'114CE3'
         DC    C'2. The host application rejected the logon request'
         DC    X'114FC2'
         DC    C'3. The terminal rejected the bind'
         DC    X'114FC3'
MSG7E    EQU   *
         ORG   ISTT0008+1    ORG BACK TO OVERLAY MESSAGE
MSG0S    EQU   *
         DC    X'11C260'
         DC    C'COMMAND COMPLETED OK'
MSG0E    EQU   *
         ORG   ISTT0009+1    ORG BACK TO OVERLAY MESSAGE
MSG10S   EQU   *
         DC    X'11C150'
         DC    C'          PALO ALTO SYSTEMS CENTER, ACF/VTAM SYSTEM'
         DC    X'11C3F2'
         DC    C'For logon command syntax, press enter'
MSG10E   EQU   *
         ORG   PATCHBK
* MAKE SURE EACH MESSAGE DOES NOT EXCEED 249 BYTES
MSG1L    EQU   (MSG1E-MSG1S)
MSG2L    EQU   (MSG2E-MSG2S)
MSG3L    EQU   (MSG3E-MSG3S)
MSG4L    EQU   (MSG4E-MSG4S)
MSG5L    EQU   (MSG5E-MSG5S)
MSG6L    EQU   (MSG6E-MSG6S)
MSG7L    EQU   (MSG7E-MSG7S)
MSG0L    EQU   (MSG0E-MSG0S)
MSG10L   EQU   (MSG10E-MSG10S)
END      USSEND
         END
```

NOTES- This USSTAB simplifies operator logon from the 3271 Model 11/12 under VTAM 2 and for 3271's with PU=YES under ACF/VTAM. Description and specification for USSTAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM.

USSTAB FOR 3767 SDLC

```
**************************************************************************
* USSTAB  FOR 3767                                                       *
**************************************************************************
ASUSSTAB  USSTAB
LOG       USSCMD CMD=LOG,REP=LOGON,FORMAT=BAL
          USSPARM PARM=P1,REP=APPLID
          USSPARM PARM=P2,REP=LOGMODE,
          USSPARM PARM=P3,REP=DATA
IMS       USSCMD CMD=IMS,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=IMS
          USSPARM PARM=LOGMODE,DEFAULT=INTERACT
          USSPARM PARM=ID,REP=DATA
CICS      USSCMD CMD=CICS,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=DBDCCICS
          USSPARM PARM=LOGMODE,DEFAULT=INTERACT
          USSPARM PARM=DATA
TSO       USSCMD CMD=TSO,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=TSO
          USSPARM PARM=LOGMODE,DEFAULT=INTERACT
          USSPARM PARM=DATA
VAPPL     USSCMD CMD=VAPPL,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=VAPPL
          USSPARM PARM=LOGMODE,DEFAULT=INTERACT
          USSPARM PARM=DATA
TEST      USSCMD CMD=TEST,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=ISTOLTEP
          USSPARM PARM=LOGMODE,DEFAULT=INTERACT
          USSPARM PARM=DATA
LOGOFF    USSCMD CMD=LOGOFF,FORMAT=BAL
          USSPARM PARM=APPLID
          USSPARM PARM=TYPE,DEFAULT=COND
          USSPARM PARM=HOLD,DEFAULT=YES
EOD       USSCMD CMD=EOD,REP=LOGOFF,FORMAT=BAL
          USSPARM PARM=APPLID
          USSPARM PARM=TYPE,DEFAULT=UNCOND
          USSPARM PARM=HOLD,DEFAULT=NO
          USSEND
          END
```

NOTES- This USSTAB simplifies operator logon from the 3767 SDLC unit. Description and specification for USSTAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM.

USSTAB FOR 3770 SDLC

```
ASUSST70 USSTAB
LOG      USSCMD CMD=LOG,REP=LOGON,FORMAT=BAL
         USSPARM PARM=P1,REP=APPLID
         USSPARM PARM=P2,REP=LOGMODE
         USSPARM PARM=P3,REP=DATA
SIGNON   USSCMD CMD=SIGNON,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,DEFAULT=JES2
         USSPARM PARM=LOGMODE,DEFAULT=BUF256
         USSPARM PARM=USER,REP=DATA
IMS      USSCMD CMD=IMS,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,DEFAULT=IMS
         USSPARM PARM=LOGMODE,DEFAULT=BATCH
TEST     USSCMD CMD=TEST,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,DEFAULT=ISTOLTEP
         USSPARM PARM=LOGMODE,DEFAULT=INTERACT
RMT1     USSCMD CMD=RMT1,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,DEFAULT=JES2
         USSPARM PARM=LOGMODE,DEFAULT=BUF512
         USSPARM PARM=DATA,DEFAULT=RMT1
POWER    USSCMD CMD=POWER,REP=LOGON,FORMAT=BAL
         USSPARM PARM=APPLID,DEFAULT=POWER
         USSPARM PARM=LOGMODE,DEFAULT=BATCH
         USSPARM PARM=DATA,DEFAULT=006
LOGOFF   USSCMD CMD=LOGOFF,FORMAT=BAL
         USSPARM PARM=APPLID
         USSPARM PARM=TYPE,DEFAULT=COND
         USSPARM PARM=HOLD,DEFAULT=YES
EOD      USSCMD CMD=EOD,REP=LOGOFF,FORMAT=BAL
         USSPARM PARM=APPLID
         USSPARM PARM=TYPE,DEFAULT=UNCOND
         USSPARM PARM=HOLD,DEFAULT=NO
SIGNOFF  USSCMD CMD=SIGNOFF,FORMAT=BAL
         USSPARM PARM=APPLID
         USSPARM PARM=TYPE,DEFAULT=COND
         USSPARM PARM=HOLD,DEFAULT=YES
         USSEND
         END
```

NOTES- This USSTAB simplifies operator logon from the 3770 SDLC unit. Description and specification for USSTAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM.

USSTAB FOR 3274/3276 SDLC

```
************************************************************************
*    SOURCE FOR USSTAB FOR SNA 3274/3276
************************************************************************
USST3270  USSTAB
LOG       USSCMD CMD=LOG,REP=LOGON,FORMAT=BAL
          USSPARM PARM=P1,REP=APPLID
          USSPARM PARM=P2,REP=LOGMODE,
          USSPARM PARM=P3,REP=DATA
IMS       USSCMD CMD=IMS,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=IMS
          USSPARM PARM=P1,REP=LOGMODE
IMS115    USSCMD CMD=IMS115,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=IMS115
          USSPARM PARM=P1,REP=LOGMODE
CICS14    USSCMD CMD=CICS14,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=CICS14
          USSPARM PARM=P1,REP=LOGMODE
CICS13    USSCMD CMD=CICS13,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=CICS13
          USSPARM PARM=P1,REP=LOGMODE
NOSP      USSCMD CMD=NOSP,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=NOSP1
          USSPARM PARM=LOGMODE,DEFAULT=DSILGMOD
TSO       USSCMD CMD=TSO,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=TSO
          USSPARM PARM=LOGMODE
          USSPARM PARM=P1,REP=DATA
LOGOFF    USSCMD CMD=LOGOFF,FORMAT=BAL
          USSPARM PARM=APPLID
          USSPARM PARM=TYPE,DEFAULT=UNCOND
          USSPARM PARM=HOLD,DEFAULT=YES
EOD       USSCMD CMD=EOD,REP=LOGOFF,FORMAT=BAL
          USSPARM PARM=APPLID
          USSPARM PARM=TYPE,DEFAULT=UNCOND
          USSPARM PARM=HOLD,DEFAULT=NO
VSPC      USSCMD CMD=VSPC,REP=LOGON,FORMAT=BAL
          USSPARM PARM=APPLID,DEFAULT=VSPC
          USSPARM PARM=LOGMODE
          USSPARM PARM=P1,REP=DATA
*    THE FOLLOWING CODE IS POSITIONALLY DEPENDENT.....DO NOT CHANGE
*
*IF DOS/VS, A CHARACTER IS REQUIRED IN COLUMN 16 OF THE TEXT ON
* ALL THE STATEMENTS CONTAINING 71 BLANKS.
MESSAGES USSMSG MSG=1,TEXT='MAXIMUM MESSAGE                          X
                                                                     X
```

```
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=2,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=3,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=4,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=5,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=6,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=7,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=0,TEXT='MAXIMUM MESSAGE                        X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
            USSMSG MSG=10,TEXT='MAXIMUM MESSAGE                       X
                                                                      X
                                                                      X
                                                                      X
                                                                    '
PATCHBK     EQU   *
            ORG   ISTT0001+1    ORG BACK TO OVERLAY MESSAGE
MSG1S       EQU   *
            DC    X'4015'           SKIP TO LINE 2
            DC    C'INVALID COMMAND SYNTAX, ENTER:',X'15'
```

```
         DC    X'4015'
         DC    C'LOG applid logmode data',X'15'
         DC    C'IMS',X'15'
         DC    C'CICS14',X'15'
         DC    C'CICS13',X'15'
         DC    C'TSO tsoid/password',X'15'
         DC    C'NOSP',X'15'
         DC    C'VSPC ID=nnnnnn'
MSG1E    EQU   *
         ORG   ISTT0002+1    ORG BACK TO OVERLAY MESSAGE
MSG2S    EQU   *
         DC    X'4015'           SKIP TO LINE 2
         DC    C'% COMMAND NOT RECOGNIZED, ENTER:',X'15'
         DC    X'4015'
         DC    C'LOG applid logmode data',X'15'
         DC    C'IMS',X'15'
         DC    C'CICS14',X'15'
         DC    C'CICS13',X'15'
         DC    C'TSO tsoid/password',X'15'
         DC    C'NOSP',X'15'
         DC    C'VSPC ID=nnnnnn'
MSG2E    EQU   *
         ORG   ISTT0003+1    ORG BACK TO OVERLAY MESSAGE
MSG3S    EQU   *
         DC    X'4015'           SKIP TO LINE 2
         DC    C'% PARAMETER NOT RECOGNIZED, ENTER:',X'15'
         DC    X'4015'
         DC    C'LOG applid logmode data',X'15'
         DC    C'IMS',X'15'
         DC    C'CICS14',X'15'
         DC    C'CICS13',X'15'
         DC    C'TSO tsoid/password',X'15'
         DC    C'NOSP',X'15'
         DC    C'VSPC ID=nnnnnn'
MSG3E    EQU   *
         ORG   ISTT0004+1    ORG BACK TO OVERLAY MESSAGE
MSG4S    EQU   *
         DC    X'4015'           SKIP TO LINE 2
         DC    C'% PARAMETER INVALID, ENTER:',X'15'
         DC    X'4015'
         DC    C'LOG applid logmode data',X'15'
         DC    C'IMS',X'15'
         DC    C'CICS14',X'15'
         DC    C'CICS13',X'15'
         DC    C'TSO tsoid/password',X'15'
         DC    C'NOSP',X'15'
         DC    C'VSPC ID=nnnnnn',X'15'
         DC    X'4015'
```

```
          DC    C'NOTE: The application may not be active'
MSG4E     EQU   *
          ORG   ISTT0005+1    ORG BACK TO OVERLAY MESSAGE
MSG5S     EQU   *
          DC    X'4015'           SKIP TO LINE 2
          DC    C'UNSUPPORTED FUNCTION, ENTER:',X'15'
          DC    X'4015'
          DC    C'LOG applid logmode data',X'15'
          DC    C'IMS',X'15'
          DC    C'CICS14',X'15'
          DC    C'CICS13',X'15'
          DC    C'TSO tsoid/password',X'15'
          DC    C'NOSP',X'15'
          DC    C'VSPC ID=nnnnnn'
MSG5E     EQU   *
          ORG   ISTT0006+1    ORG BACK TO OVERLAY MESSAGE
MSG6S     EQU   *
          DC    X'4015'           SKIP TO LINE 2
          DC    C'SEQUENCE ERROR:',X'15'
          DC    X'40154015'
          DC    C'1. You are attempting to logoff from a terminal '
          DC    C'that is not in session'
          DC    X'4015'
          DC    C'2. You are attempting to logon from a terminal that '
          DC    C'is already in session'
MSG6E     EQU   *
          ORG   ISTT0007+1    ORG BACK TO OVERLAY MESSAGE
MSG7S     EQU   *
          DC    X'40154015'           SKIP TO LINE 3
          DC    C'SESSION NOT BOUND BECAUSE:',X'15'
          DC    X'40154015'
          DC    C'1. This terminal is already in session',X'15'
          DC    X'4015'
          DC    C'2. The host application rejected the logon request'
          DC    X'154015'
          DC    C'3. The terminal rejected the bind',X'15'
MSG7E     EQU   *
          ORG   ISTT0008+1    ORG BACK TO OVERLAY MESSAGE
MSG0S     EQU   *
          DC    X'40154015'           SKIP TO LINE 3
          DC    C'COMMAND COMPLETED OK:'
          DC    X'4015401540154015'
          DC    C'If LOGON, press ALT/SYS REQ (TEST REQ/CLEAR for 3277)'
          DC    X'401540154015'
          DC    C'If LOGOFF, enter next command or press enter for '
          DC    C'logon command syntax'
MSG0E     EQU   *
          ORG   ISTT0009+1    ORG BACK TO OVERLAY MESSAGE
```

```
MSG10S   EQU   *
         DC    X'40154015'           SKIP TO LINE 3
         DC    C'          PALO ALTO SYSTEMS CENTER, ACF/VTAM SYSTEM'
         DC    X'4015401540154015'
         DC    C'For logon command syntax, press enter'
MSG10E   EQU   *
         ORG   PATCHBK
* MAKE SURE EACH MESSAGE DOES NOT EXCEED 249 BYTES
MSG1L    EQU   (MSG1E-MSG1S)
MSG2L    EQU   (MSG2E-MSG2S)
MSG3L    EQU   (MSG3E-MSG3S)
MSG4L    EQU   (MSG4E-MSG4S)
MSG5L    EQU   (MSG5E-MSG5S)
MSG6L    EQU   (MSG6E-MSG6S)
MSG7L    EQU   (MSG7E-MSG7S)
MSG0L    EQU   (MSG0E-MSG0S)
MSG10L   EQU   (MSG10E-MSG10S)
END      USSEND
         END
```

NOTES- This USSTAB simplifies operator logon from the 3274/3276 SDLC unit. Description and specification for USSTAB generation is found in the appropriate System Programmers Guide for VTAM and ACF/VTAM.

REFERENCES

DOS/VS VTAM System Programmers Guide	GC27-6957
ACF/VTAM System Programmers Guide (DOS)	SC38-0268
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 VTAM System Programming Library:VTAM	GC28-0688
ACF/VTAM System Programmers Guide	SC38-0258

CHAPTER 5 : SAMPLE SYSTEM DEPENDENT JCL

5.1 : DOS/VS SAMPLES

The examples included in this section should assist in the installation of a DOS/VS system with local 3270's and a local attached 3705.

REFERENCES

DOS/VS VTAM System Programmers Guide	GC27-6957
DOS/VS System Management Guide	GC33-5371
DOS/VS System Control Statements	GC33-5376
DOS/VS System Generation	GC33-5377
DOS/VS System Utilities	GC33-5381
DOS/VS VTAM Reference Summary	GX27-0033
ACF/VTAM System Programmers Guide (DOS)	SC38-0268
ACF/VTAM Installation Guide (DOS)	SC38-0270
ACF/VTAM Reference Summary (DOS)	SX27-3022

DOS/VS SYSTEM DEFINITION(PARTIAL)

```
// JOB SUPVR (XXXXXXXXXXXXXX) ASSMB AND CATAL SIPOSUPV MOD2 10/2/78
// EXEC PROC=$$RESET
// OPTION ERRS,LIST,XREF,NODECK,NOEDECK,CATAL
// OPTION NOXREF
// EXEC ASSEMBLY,SIZE=40K
         PRINT   NOGEN
         SUPVR                                                          X
               ID=V,                $$A$SUPV                           X
               AP=YES,                                                 X
               ERRLOG=RDE,                                             X
               NPARTS=6,                                               X
               POWER=YES,           'P O W E R / V S'                  X
               PAGEIN=24,                                              X
               PHO=YES,             REQUIRED FOR POWER/VS              X
               TP=(BTAM,VTAM),                                         X
               VM=YES            VM LINKAGE ENHANCEMENTS
$CONFG   EQU   *
         CONFG                                                          X
               FP=YES,                                                 X
               MODEL=158
$STDJC   EQU   *
         STDJC                                                          X
               ACANCEL=NO,                                             X
               DECK=NO,                                                X
               DUMP=NO,                                                X
               LINES=60,                                               X
               SPARM=YES,                                              X
               XREF=NO
$FOPT    EQU   *
         FOPT                                                           X
               AB=YES,              REQUIRED FOR VTAM                  X
               ASYNOC=YES,                                             X
               DASDFP=(1,4),         (TO ALLOW SYSRES ON CHANNELS 1-4) X
               DOC=NO,                                                 X
               ECPREAL=YES,          REQUIRED FOR POWER/VS             X
               ERRQ=10,                                                X
               EVA=(10,10),                                            X
               FASTTR=YES,           FAST CCW TRANSLATE (R32 FEATURE)  X
               GETVIS=YES,          REQUIRED FOR VTAM                  X
               IDRA=YES,                                               X
               IT=YES,              REQUIRED FOR VTAM                  X
               JA=(12,12,12,12,12),                                    X
               JALIOCS=(64,64),                                        X
               OC=YES,              REQUIRED FOR VTAM                  X
               OLTEP=YES,                                              X
```

```
                PC=YES,             REQUIRED FOR VTAM                   X
                PCIL=YES,                                               X
                PD=YES,                                                 X
                PFIX=YES,            REQUIRED FOR POWER/VS AND VTAM     X
                PRTY=(BG,F5,F4,F3,F2,F1),   F1-VTAM F2-POWER            X

****  VTAM must have the highest priority

                PSLD=12,                                                X
                RELLDR=YES,          REQUIRED FOR POWER/VS AND VTAM     X
                RPS=YES,                                                X
                SLD=15,                                                 X
                SYSFIL=YES,         REQUIRED FOR VTAM                   X
                TOD=YES,            REQUIRED FOR VTAM                   X
                TRKHLD=12,                                              X
                USERID=SIPOSUP1MOD2VMLE,                                X
                VSAM=YES,           REQUIRED BY SSS                     X
                WAITM=YES,                                              X
                XECB=YES,            INTER-PARTITION COMMUNICATION (R32) X
                ZONE=(WEST,7,00)
$PIOCS    EQU   *
          PIOCS                                                         X
                BLKMPX=YES,                                             X
                BMPX=YES,                                               X
                DISK=(3330,3340,3350),                                  X
                TAPE=9
$VSTAB    EQU   *
          VSTAB                                                         X
                RSIZE=512K,                                             X
                VSIZE=7680K,    8 MEG VIRTUAL MACHINE                   X
                BUFSIZE=150,                                            X
                SVA=(570K,40K)
$ALLOC    EQU   *
          ALLOC                                                         X
                F1=2048K,           VTAM RUNNING AT THE HIGHEST PRTY    X
***  Usually 800K to 900k for average VTAM system ***
***  Usually 1500 to 2000k for large systems and if RESTART option.
                F2=512K,            POWER/VS SNA/RJE                    X
                F3=2048K,           CICS/VS + DL/1 + VSAM OR VTAM       X
                F4=1024K,           CICS/VS BUT NOT EVERYTHING          X
                F5=450K             PRODUCTION
*               BG=1024K      BG = VSIZE - (SVA + F1 + F2 + F3 + F4 + F5
$ALLOCR   EQU   *
          ALLOCR                                                        X
                BGR=80K,                                                X
                F4R=40K,                                                X
                F5R=80K,                                                X
                F3R=80K,                                                X
```

```
                F2R=56K,              POWER RSIZE                        X
                F1R=40K
***  Usually 36K to 40K for average VTAM system ****
*               (BGR + F1R + F2R + F3R + F4R + F5R + 20K + SUPERVISOR)
*               MUST BE NO GREATER THAN 'RSIZE'.
$IOTAB   EQU    *
         IOTAB                                                          X
               BGPGR=40,                                                X
               CHANQ=64,                                                X
               D3330=16,                                                X
               D3340=32,                                                X
               D3350=8,                                                 X
               D3420=8,                                                 X
               F1PGR=24,                                                X
               F2PGR=40,                                                X
               F3PGR=39,                                                X
               F4PGR=39,                                                X
               F5PGR=10,                                                X
               IODEV=110,                                               X
               JIB=200,                                                 X
               NRES=64              REQUIRED FOR VSAM II
$DVCGEN  EQU    *          'REAL' DEVICES
         DVCGEN CHUN=X'00C',DVCTYP=2540R   READER FOR DMS
         DVCGEN CHUN=X'01C',DVCTYP=2501    DUMMY READER FOR 'SPM II'
         DVCGEN CHUN=X'00D',DVCTYP=2540P   PUNCH FOR DMS
         DVCGEN CHUN=X'04D',DVCTYP=3525P
         DVCGEN CHUN=X'00E',DVCTYP=1403U
         DVCGEN CHUN=X'00B',DVCTYP=1403U
         DVCGEN CHUN=X'009',DVCTYP=1050A
         DVCGEN CHUN=X'030',DVCTYP=2703    2703/OR 370X IN EMULATION
         DVCGEN CHUN=X'031',DVCTYP=2703    2703/OR 370X IN EMULATION
         DVCGEN CHUN=X'060',DVCTYP=3791L   LOCAL 3274
         DVCGEN CHUN=X'070',DVCTYP=3705,MODE=X'01' 370X NATIVE MODE
         DVCGEN CHUN=X'080',DVCTYP=3705,MODE=X'02' 370X NATIVE MODE
         DVCGEN CHUN=X'040',DVCTYP=3277    LOCAL 3270 FOR MONITOR, CICS
         DVCGEN CHUN=X'041',DVCTYP=3277    LOCAL 3270 FOR APPLIC.
         DVCGEN CHUN=X'042',DVCTYP=3277,MODE=X'01' LOC. 3286 PRT
         DVCGEN CHUN=X'043',DVCTYP=3277    FOR CONSOLE SUPPORT
*
*
*    MULTIPLE PRINTERS FOR POWER/VS CONTROL
         DVCGEN CHUN=X'01E',DVCTYP=1403U
         DVCGEN CHUN=X'02E',DVCTYP=1403U
         DVCGEN CHUN=X'08E',DVCTYP=1403U
*
*
         DVCGEN CHUN=X'140',DVCTYP=3350
         DVCGEN CHUN=X'141',DVCTYP=3350
```

```
*
*
*
         DVCGEN CHUN=X'160',DVCTYP=3340
         DVCGEN CHUN=X'161',DVCTYP=3340
         DVCGEN CHUN=X'162',DVCTYP=3340
*
         DVCGEN CHUN=X'280',DVCTYP=3420T9
         DVCGEN CHUN=X'281',DVCTYP=3420T9
*
         DVCGEN CHUN=X'350',DVCTYP=3330
         DVCGEN CHUN=X'351',DVCTYP=3330
         DVCGEN CHUN=X'352',DVCTYP=3330
*
         DVCGEN CHUN=X'370',DVCTYP=3330B
         DVCGEN CHUN=X'371',DVCTYP=3330B
         DVCGEN CHUN=X'372',DVCTYP=3330B
*
$ASSGN   EQU   *
*    SYS
         ASSGN SYSLOG,X'009'
         ASSGN SYSREC,X'160'
         ASSGN SYSCAT,X'160'       VSAM MASTER CATALOG
         ASSGN SYSCAT,X'160',F4    VSAM MASTER CATALOG THESE  ASSGNS
         ASSGN SYSCAT,X'160',F5    VSAM MASTER CATALOG  SHOULD NOT BE
         ASSGN SYSCAT,X'160',F3    VSAM MASTER CATALOG   NEEDED, BUT
         ASSGN SYSCAT,X'160',F2    VSAM MASTER CATALOG   WERE FOUND TO
         ASSGN SYSCAT,X'160',F1    VSAM MASTER CATALOG   BE NECESSARY.
*    BG
         ASSGN SYSRDR,X'00C' BG
         ASSGN SYSIPT,X'00C' BG
         ASSGN SYSPCH,X'00D' BG
         ASSGN SYSLST,X'00E' BG
*
         ASSGN SYSLNK,X'161' BG
         ASSGN SYS001,X'161' BG
         ASSGN SYS002,X'161' BG
         ASSGN SYS003,X'161' BG
         ASSGN SYS004,X'161' BG
*    F5
         ASSGN SYSRDR,X'05C',F5
         ASSGN SYSIPT,X'05C',F5
         ASSGN SYSPCH,X'05D',F5
         ASSGN SYSLST,X'05E',F5
*    F4
         ASSGN SYSRDR,X'00C',F4
         ASSGN SYSIPT,X'00C',F4
         ASSGN SYSPCH,X'00D',F4
```

```
          ASSGN SYSLST,X'00E',F4
          ASSGN SYSLNK,X'161',F4
          ASSGN SYS001,X'161',F4
          ASSGN SYS002,X'161',F4
          ASSGN SYS003,X'161',F4
          ASSGN SYS004,X'161',F4
*    F3
          ASSGN SYSRDR,X'00C',F3
          ASSGN SYSIPT,X'00C',F3
          ASSGN SYSPCH,X'00D',F3
          ASSGN SYSLST,X'00E',F3
*    F2   POWER/VS PARTITION
          ASSGN SYSLST,X'00E',F2
          ASSGN SYS000,X'161',F2
          ASSGN SYS001,X'161',F2
          ASSGN SYS002,X'161',F2
*    F1   VTAM PARTITION
          ASSGN SYSLST,X'01E',F1
*
*
$SEND     EQU   *
          SEND
          ENTRY NUCEND              IDENTIFY ACTUAL END OF SUPERVISOR.
          SUPPARMS           LIST PARAMETERS, AHEAD OF PRINT GEN
          END
/*
// EXEC LNKEDT
/&
```

NOTE- Information for preparing the DOS/VS system is found in Chapter 2 of the DOS/VS VTAM System Programmer's Guide (GC27-6957), and the DOS/VS System Generation Guide (GC33-5377). If installing ACF/VTAM, the ACF/VTAM System Programmer's Guide (SC38-0268) and ACF/VTAM Installation Guide (SC38-0270) are required.

DOS/VS POWER DEFINITION

```
// JOB POWERASM
// EXEC PROC=$$RESET
// OPTION ERRS,LIST,XREF,NODECK,NOEDECK,CATAL
// EXEC ASSEMBLY,SIZE=128K
          TITLE 'POWER SNA - RELEASE 34'
          PRINT GEN
POWSNA    POWER DBLK=1966,                                          X
                TRACKGP=3,                                          X
                LTAB=(10,00,05,10,15,20,25,30,35,40,45,50,56),      X
                PRI=5,                                              X
                SUBLIB=P,                                           X
                ACCOUNT=YES,                                        X
                STDLINE=(10000,10000),                              X
                STDCARD=(500,500),                                  X
                JLOG=YES,                                           X
                JSEP=(2,0),                                         X
                RBS=(0,0),                                          X
                RDREXIT=YLZ1REX,                                    X
                PAUSE=NO,                                           X
                SPOOL=YES,                                          X
                SNA=(20,,POWER)
          EJECT
          PLINE ADDR=X'030',                                        X
                SWITCH=YES,                                         X
                TRNSP=YES
          PLINE ADDR=X'031',                                        X
                SWITCH=YES,                                         X
                TRNSP=YES
          EJECT
          PRMT  REMOTE=1,                                           X
                TYPE=3780,                                          X
                TRNSP=YES,                                          X
                TRACE=YES
          PRMT  REMOTE=2,                                           X
                TYPE=3780,                                          X
                SCE=YES,                                            X
                TRACE=YES
          PRMT  REMOTE=3,                                           X
                TYPE=2770,                                          X
                TRNSP=NO,                                           X
                SCE=YES,                                            X
                BE=YES,                                             X
                ABE=YES,                                            X
                TRACE=YES
          PRMT  REMOTE=4,                                           X
```

```
                TYPE=2770,                                              X
                TRNSP=YES,                                              X
                SCE=NO,                                                 X
                BE=YES,                                                 X
                ABE=YES,                                                X
                TRACE=YES
          EJECT
          PRMT  REMOTE=5,                                               X
                TYPE=LUT1,                                              X
                CONSOLE=NO,                                             X
                SESSLIM=1,                                              X
                LU=(P76ALU1)
          PRMT  REMOTE=6,                                               X
                TYPE=LUT1,                                              X
                CONSOLE=YES,                                            X
                LU=(P76ALU1,P76ALU2,P76ALU3,P76ALU4,P76ALU5,P76ALU6),   X
                SESSLIM=6
          PRMT  REMOTE=7,                                               X
                TYPE=LUT1,                                              X
                CONSOLE=YES,                                            X
                LU=(RJE01,RJE02,RJE03,RJE04,RJE05),                     X
                SESSLIM=5
          END
/*
// EXEC LNKEDT
/*
/&
```

DOS/VS VTAM OR ACF/VTAM NETWORK INSTALL JCL

```
// JOB CATAL VTAM NETWORK DEFINITION
// EXEC MAINT
         CATALS B.node name
         BKEND B.node name

Insert network definition deck here


         BKEND
/*
/&
```

NOTE- Chapter 3 of the DOS/VS VTAM System Programmer's Guide describes the filing of network definition decks. Sample network definitions for the NCP are described in Chapter 6. Chapter 7 contains a sample Switches SNA node definition and Chapter 8 contains sample local device definitions.

DOS/VS VTAM OR ACF/VTAM START PARAMETER DEFINITION EXAMPLE

```
         CATALS B.ATCSTR00
         BKEND B.ATCSTR00
**************************************************************************
*                                                                        *
*   MINIMUM VTAM SYSTEM --- NO NCP                                       *
*    THIS WILL NOT SUPPORT AN NCP UNLESS VTAM BUFFER VALUES ARE          *
*     ENTERED WHEN PROMPTED BY VTAM AT STARTUP.                          *
**************************************************************************
CONFIG=00,     PREDEFINED LIST OF MAJOR NODES (ATCCON00)                 X
MAXSUBA=15,          MAXIMUM NUMBER OF MAJOR NODES                       X
SSCPID=01      REQUIRED FOR VTAM-2 or ACF/VTAM
         BKEND
```

DOS/VS VTAM START DEFINITION (TEST - REPLACES INITIAL)

```
         CATALS B.ATCSTR01
         BKEND B.ATCSTR01
*************************************************************************
*   NOTE:  THE LFBUF (BSZ) PARAMETER MUST EQUAL THE UNITSZ VALUE        *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE          *
*          BUFFER POOL START PARAMETERS IS EITHER                       *
*          XXBUF=(BNO,BSZ,BTHZ) OR XXBUF=VBSZ AS INDICATED BELOW.       *
*************************************************************************
CONFIG=01,            PREDEFINED LIST OF MAJOR NODES (ATCCON01)        X
SSCPID=01,            VTAM IDENTIFIER REQUIRED FOR VTAM-2 (RELEASE 32) X
NETSOL=NO,            NETWORK SOLICITOR NOT TO BE STARTED              X
SUPP=NOSUP,           DO NOT SUPPRESS VTAM MESSAGES                    X
MAXSUBA=31,           MAXIMUM NUMBER OF MAJOR NODES                    X
PROMPT,               ALLOW NETWORK OPERATOR TO ENTER VTAM START DATA  X
APBUF=(23,,21),       ACTIVE & INACTIVE BUFFER POOL - PAGEABLE STORAGE X
LFBUF=(39,88,37),     LARGE FIXED STORAGE I/O BUFFER POOL              X
LPBUF=(20,,18),       LARGE PAGEABLE-STORAGE BUFFER POOL               X
NPBUF=(11,,9),        DEVICE CONNECTION BUFFER POOL, PAGEABLE          X
PPBUF=(8,88,6),       PAGEABLE DATA BUFFER POOL                        X
SFBUF=(1,,1),         SMALL FIXED STORAGE BUFFER POOL                  X
SPBUF=(46,,43),       SMALL PAGEABLE-STORAGE BUFFER POOL               X
WPBUF=(8,,6),         DEVICE CONNECTION BUFFER POOL - PAGEABLE         X
UECBUF=(20,,18),      SESSION AND SIMLOGON BFR POOL - PAGEABLE         X
VFBUF=6144,VPBUF=120000
         BKEND
```

NOTE- Defining and filing DOS VTAM start parameters is described in Chapter 4 of the DOS/VS VTAM System Programmer's Guide (GC27-6957).

ATCSTR00 is required by VTAM even if all defaults are taken. The system defaults will not support more than one active application program, including the Network Solicitor, and will not support an active NCP. ATCSTR01 specifies the values necessary to support a small NCP, application definitions, and local definitions. A VTAM virtual partition size should be about 900K and the ALLOCR size should be at least 36K.

DOS/VS ACF/VTAM START PARAMETER DEFINITION (TEST)

```
    CATALS B.ATCSTRAC
    BKEND  B.ATCSTRAC
*************************************************************************
*                                                                       *
*   ATCSTR00 IS REQUIRED OR THIS DEFINITION CAN REPLACE IT.             *
*                                                                       *
*   NOTE:  THE IOBUF (BUFSIZE) PARAMETER MUST EQUAL THE UNITSZ VALUE    *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE          *
*          BUFFER POOL START PARAMETERS IS EITHER                       *
*          XXBUF=(BASENO,BUFSIZE,SLOWPT,XPANNO,XPANPT)                  *
*          OR XXBUF=VBSZ AS INDICATED BELOW.                            *
*          XPANNO OF 1 WILL CAUSE ACF/VTAM TO ACQUIRE 1 PAGE OF         *
*          BUFFERS SINCE THEY ARE ALWAYS ACQUIRED IN PAGE               *
*          INCREMENTS.                                                  *
*************************************************************************
SSCPID=01,          VTAM IDENTIFIER REQUIRED FOR ACF/VTAM               X
CONFIG=AC,          PREDEFINED LIST OF MAJOR NODES (ATCCONAC)           X
HOSTSA=12,          HOST SUBAREA FOR THIS ACF/VTAM                      X
MAXSUBA=31,         MAXIMUM  NUMBER OF MAJOR NODES                      X
VTAMEAS=100,                                                            X
MAXAPPL=50,         MAXIMUM  NUMBER OF APPLICATION STATEMENTS           X
NETSOL=NO,          NETWORK SOLICITOR NOT TO BE STARTED                 X
PROMPT,             ALLOW VTAM OPERATOR TO ENTER VTAM START DATA        X
SUPP=NOSUP,         ALL ACF/VTAM MESSAGES TO BE PRINTED                 X
APBUF=(64,,0,1,5),     64- ACTIVE & INACTIVE BUF POOL - PAGEABLE STOR   X
LFBUF=(46,136,2,1,24), 136- LARGE FIXED STORAGE I/O BUFFER POOL         X
 Note - The difference between SLOWPT and XPANPT must be greater than
        the largest MAXBFRU defined in any NCP or Local definition.
LPBUF=(3,,0,2,1),      1131-  LARGE PAGEABLE - STORAGE BUFFER POOL       X
NPBUF=(14,,0,1,3),     288- DEVICE CONNECTION BUFFER POOL - PAGEABLE    X
PPBUF=(30,136,0,1,5),  136- PAGEABLE DATA BUFFER POOL                   X
SFBUF=(34,,0,1,5),     120- SMALL FIXED STORAGE BUFFER POOL             X
SPBUF=(26,,0,1,3),     156- SMALL PAGEABLE - STOR BUFFER POOL           X
UECBUF=(40,,4,1,10),   100- SESSION & SIMLOGON BFR POOL - PAGEABLE      X
WPBUF=(24,,0,1,3),     164- DEVICE CONNECTION BUF POOL - PAGEABLE       X
VFBUF=8000,VPBUF=180000
    BKEND
```

NOTE- The VTAM virtual partition size should be adjusted to 2048K, and the ALLOCR value should be 36K. These buffer values will support the initialization of a large NCP definition, a switched SNA node, local 3270's and NETSOL. The above values should be adjusted after the system has been checked out.

DOS/VS START DEFINITION WITH AUTO-START OF VTAM TRACES

```
         CATALS B.ATCSTR11
         BKEND B.ATCSTR11
*************************************************************************
*                                                                       *
*   AUTO LOAD OF NCP  WITH VTAM TRACES                                  *
*                                                                       *
*************************************************************************
CONFIG=11,     PREDEFINED LIST OF MAJOR NODES (ATCCON11)                 X
TRACE,TYPE=BUF,ID=NCPBS,                                                 X
TRACE,TYPE=BUF,ID=CL3790,                                                X
TRACE,TYPE=BUF,ID=SD3767,                                                X
TRACE,TYPE=BUF,ID=INBATCH1,                                              X
TRACE,TYPE=BUF,ID=INQDEM02,                                              X
TRACE,TYPE=BUF,ID=TR3767SD,                                              X
TRACE,TYPE=IO,ID=NCPBS,                                                  X
TRACE,TYPE=IO,ID=CL3790,                                                 X
TRACE,TYPE=IO,ID=SD3767,                                                 X
TRACE,TYPE=IO,ID=INBATCH1,                                               X
TRACE,TYPE=IO,ID=INQDEM02,                                               X
TRACE,TYPE=IO,ID=TR3767SD
         BKEND
```

NOTE- The above start list assumes the required buffer definitions are specified in ATCSTR00. If they are not, then all the start parameters in the normal start list should be included.

DOS/VS VTAM APPLICATION PARAMETER EXAMPLE

```
         CATALS B.APPCON01
         BKEND B.APPCON01
*****************************************************************************
*                                                                           *
* APPLICATION PROGRAM DEFINITION FOR VTAM                                   *
*    WHERE THE OPERANDS AVAILABLE ARE:                                      *
*            PRTCT=PASSWORD,        PASSWORD MUST ALSO BE DEFINED IN        *
*                                   APPLICATION PROGRAM 'ACB'.              *
*            BUFFACT=N|1,           MAXIMUM NUMBER OF VTAM PPBUF'S. IT      *
*                                   MAY NEED TO BE ADJUSTED FOR BATCH       *
*                                   INPUT.                                  *
*            AUTH=(ACQ|NOACQ,       ALLOWS APPLICATION PROGRAM TO USE       *
*                                   THE OPNDST MACRO WITH THE               *
*                                   ACQUIRE OPTION.                         *
*              BLOCK|NOBLOCK,       NOT USED WITH SDLC OR 3270.             *
*              PASS|NOPASS)         ALLOWS USE OF CLSDST MACRO              *
*                                   WITH THE PASS OPTION.                   *
*                                                                           *
*****************************************************************************
SAMP1    APPL   AUTH=(ACQ)
CICS     APPL   AUTH=(ACQ),BUFFACT=4
PROG1    APPL   AUTH=(ACQ)
INQALL   APPL   PRTCT=OKAYOKAY
INQ      APPL   AUTH=(ACQ)
BATCH    APPL   AUTH=(ACQ),BUFFACT=2
INQ3790  APPL   AUTH=(NOACQ)
TEST3    APPL   AUTH=(ACQ)
SYSSSS   APPL   AUTH=(ACQ)
         BKEND
```

NOTE- Chapter 3 of the DOS/VS VTAM System Programmer's Guide (GC27-6957) describes the definition and filing of the application programs.

DOS/VS ACF/VTAM APPLICATION PARAMETER EXAMPLE

```
         CATALS B.APPCONAC
         BKEND B.APPCONAC
APPCONAC VBUILD  TYPE=APPL
*************************************************************************
*                                                                       *
* APPLICATION PROGRAM DEFINITION FOR VTAM                               *
*    WHERE THE OPERANDS AVAILABLE ARE:                                  *
*            ACBNAME=ACBNAME,      MINOR NODE NAME. DEFAULTS TO NAME    *
*                                  ON APPL STATEMENT.                   *
*            PRTCT=PASSWORD,       PASSWORD MUST ALSO BE DEFINED IN     *
*                                  APPLICATION PROGRAM 'ACB'.           *
*            BUFFACT=N|1,          MAXIMUM NUMBER OF VTAM PPBUF'S. IT   *
*                                  APPLIES TO BASIC MODE ONLY.          *
*            VPACING=N,            MAXIMUM NUMBER OF NORMAL-FLOW        *
*                                  REQUESTS FROM LU.                    *
*            MODETAB=MODETAB NAME, NAME OF MODETAB TO BE USED BY THE    *
*                                  APPLICATION.                         *
*            DLOGMOD=DEFAULT LOG-  NAME OF LOGMODE ENTRY TO BE USED     *
*                    MODE ENTRY    IF NONE IS OTHERWISE PROVIDED.       *
*            EAS=N|404,            NUMBER OF CONCURRENT SESSIONS THIS   *
*                                  APPLICATION PROGRAM WILL HAVE WITH   *
*                                  ANY LOGICAL UNITS.                   *
*            AUTH=(ACQ|NOACQ,      ALLOWS APPLICATION PROGRAM TO USE    *
*                                  THE OPNDST MACRO WITH THE            *
*                                  ACQUIRE OPTION.                      *
*              PPO|SPO|NOPO,       DEFAULTS TO NOPO. SEE THE PROGRAM    *
*                                  OPERATOR GUIDE FOR ITS USE.          *
*              BLOCK|NOBLOCK,      BASIC MODE ONLY.                     *
*              VPACE|NVPACE,       DETERMINES IF APPLICATION IS TO BE   *
*                                  SUBJECT TO VPACING FOR LU. DEFAULTS  *
*                                  TO VPACING.                          *
*              PASS|NOPASS)        ALLOWS USE OF CLSDST MACRO           *
*                                  WITH THE PASS OPTION.                *
*                                                                       *
*************************************************************************
SAMP1    APPL   AUTH=(ACQ),DLOGMOD=S3270,EAS=2
CICS     APPL   AUTH=(ACQ),EAS=40
PROG1    APPL   AUTH=(ACQ),EAS=10
INQALL   APPL   PRTCT=OKAYOKAY,EAS=10
INQ      APPL   AUTH=(ACQ),EAS=10
BATCH    APPL   AUTH=(ACQ),EAS=1
INQ3790  APPL   AUTH=(NOACQ),MODETAB=MODE3790,EAS=4
TEST3    APPL   AUTH=(ACQ),EAS=1
SYSSSS   APPL   AUTH=(ACQ),DLOGMOD=BATCH,EAS=1
         BKEND
```

DOS/VS NETWORK CONFIGURATION DEFINITION

```
         CATALS B.ATCCON00
         BKEND B.ATCCON00
*************************************************************************
*   CONFIGURATION DEFINITION                                            *
*      NETWORK INCLUDES APPLICATION PROGRAM LIST ONLY                   *
*************************************************************************
APPCON01
         BKEND
         CATALS B.ATCCONAC
         BKEND B.ATCCONAC
*************************************************************************
*   CONFIGURATION DEFINITION                                            *
*      NETWORK INCLUDES APPLICATION PROGRAM LIST, AND                   *
*      LOCAL 3270 DEFINITION.                                           *
*************************************************************************
APPCONAC,LOCCONAC
         BKEND
         CATALS B.ATCCON03
         BKEND B.ATCCON03
*************************************************************************
*   CONFIGURATION DEFINITION                                            *
*      NETWORK INCLUDES APPLICATION PROGRAM LIST, NCPBS AND SWITCH01.   *
*************************************************************************
APPCON01,NCPBS,SWITCH01
         BKEND
         CATALS B.ATCCON11
         BKEND B.ATCCON11
*************************************************************************
*                                                                       *
*   CONFIGURATION DEFINITION                                            *
*      NETWORK INCLUDES APPLICATION PROGRAM LIST, LOCAL 3270,           *
*      NCPBS AND SWITCH02. THE BUFFER VALUES ARE PICKED UP FROM         *
*      ATCSTR00.                                                        *
*************************************************************************
APPCON01,NCPBS,LOCCON01,SWITCH02
         BKEND
```

NOTE- ATCCON00 is used when first bringing up VTAM with the initial start definition. It maybe used afterwards by specifing CONFIG=00,LIST=00 at VTAM startup time.

DOS/VS USSTAB INSTALLATION JCL

```
// JOB USSTAB
// OPTION CATAL
 PHASE name,*
// EXEC ASSEMBLY,REAL
Source Deck
/*
// EXEC LNKEDT
/*
/&
```

DOS/VS MODETAB INSTALLATION JCL

```
// JOB MODETAB
// OPTION CATAL
 PHASE name,*
// EXEC ASSEMBLY,REAL
Source Deck
/*
// EXEC LNKEDT
/*
/&
```

DOS/VS INTERPRET TABLE INSTALLATION JCL

```
// JOB ASSEMBLE
// OPTION CATAL
 PHASE name,*
// EXEC ASSEMBLY,REAL,SIZE=64K
Source Deck
/*
// EXEC LNKEDT
/&
```

DOS/VS EXAMPLE FOR LINKING 3704/5 LOAD UTILITY CSECTS TO VTAM

```
// JOB PUNCH NCP CSECT MODULES
// ASSGN SYS001,3330,VOL=RGW110,SHR
// DLBL IJSYSPR,'NCP PRL'
// EXEC CORGZ
   MERGE PRV,RES
    COPYR CXWMAXI1,CXWMAXI2,CXWMINI1,CXWMINI2
/*
/&
// JOB LINKEDIT NCP MODULES
// OPTION CATAL
   PHASE CXWMAXI1,*
   INCLUDE CXWMAXI1
   PHASE CXWMAXI2,*
   INCLUDE CXWMAXI2
   PHASE CXWMINI1,*
   INCLUDE CXWMINI1
   PHASE CXWMINI2,*
   INCLUDE CXWMINI2
// EXEC LNKEDT
/*
/&
```

NOTE- This step is required for DOS/VS VTAM. VTAM must have these modules link-edited in order to load the NCP.

DOS/VS EXAMPLE FOR INSTALLING 3704/5 INITIAL TESTS

```
// JOB CREATE 3704/5 INITIAL TEST FILE
// DLBL IJSYSPH,'INITTEST',300
// EXTENT SYSPCH,,,,7220,14
ASSGN SYSPCH,SYSRES
// EXEC CSERV
   PUNCH IFU3705D,IFU3705E
/*
/&
CLOSE SYSPCH,X'00D'
/&
```

NOTE- This step is required for DOS/VS VTAM. VTAM must have these modules in a direct access file.

DOS/VS VTAM START PROCEDURE

```
// JOB CATALP VTAM START PROCEDURE
// EXEC MAINT
     CATALP $INET,VM=0.0,EOP=/+
* START VTAM EXECUTION
// ASSGN SYS000,UA
// DLBL TRFILE,'VTRACE',0
// EXTENT SYS001,,,,7600,19
// ASSGN SYS001,SYSRES
// DLBL NCP45F,'NCP FOR SSS'
// EXTENT SYS008
// DLBL NCPSN2,'HAL NCP'
// EXTENT SYS008
// ASSGN SYS008,SYSRES
// DLBL DIAGFLE,'INITTEST'
// EXTENT SYS008,,,,7220,14
// ASSGN SYS008,SYSRES
// DLBL NCPDUMP,,0,DA
// EXTENT SYS007,,,,6880,12
// ASSGN SYS007,SYSRES
// OPTION NODUMP
// PAUSE ENTER  // EXEC ISTINCVT,SIZE=350K
/+  END OF PROCEDURE
/*
/&
```

NOTE- This procedure allows the operator to select either of two NCP load modules. The use of this procedure allows VTAM to be executed in 'F1' only. It also allows update of the procedure catalog while VTAM is being executed. The sample does include the file that holds the NCP initial test, therefore NCP initial test may be specified in the PCCU macro of the NCP definition.

DOS/VS ACF/VTAM START PROCEDURE (ONE NCP)

```
// JOB CATALP VTAM START PROCEDURE
// EXEC MAINT
     CATALP $1NET,VM=0.0,EOP=/+
* START VTAM EXECUTION
* MUST DEFINE A TRACE FILE
// ASSGN SYS000,UA
// DLBL TRFILE,'VTRACE',0
// EXTENT SYS001,,,,7896,48
// ASSGN SYS001,3340,VOL=DOS111,SHR
// DLBL NCPACFI,'HAL NCP'
// EXTENT SYS008,DOS111,1,0,2880,60
// ASSGN SYS008,3340,VOL=DOS111,SHR
// PAUSE ENTER  // EXEC ISTINCVT,SIZE=500K
/+  END OF PROCEDURE
/*
/&
```

NOTE- This procedure allows the operator to select either of two NCP load modules. The use of this procedure allows VTAM to be executed in 'F2' only. It also allows update of the procedure catalog while VTAM is being executed. The sample does include the file that holds the NCP initial test, therefore NCP initial test may be specified in the PCCU macro of the NCP definition.

DOS/VS NCP STAGE 1 GENERATION JCL

```
//  JOB  NCP STAGE1 GENERATION
// ASSGN SYSSLB,3330,VOL=RGW110,SHR
// DLBL IJSYSSL,'NCP PSL'
// OPTION DECK
// EXEC  IFZASM,SIZE=64K
*************************************************************************
*                                                                       *
*        SOURCE FOR NCP3 DOS                                            *
*                                                                       *
*************************************************************************
/*
/&
```

NOTE- This step will produce the cards necessary for the rest of the NCP generation. The output of this stage will have to be adjusted to point to the NCP macro library, if the NCP macros are put in a private library. The assemblies produced by the stage 1 job stream should be error free. The link-edit stage will have unresolved EXTRNS, but if all the assembly steps were correct, these can be ignored.

PLEASE NOTE

The stage 1 output should be closely examined. Defaults do not create MNOTES. All defaults should be checked for correct value.

DOS/VS EXAMPLE OF STAGE 2 NCP GENERATION JCL

```
//  JOB  SATLTCT
// ASSGN SYSSLB,3330,VOL=RGW110,SHR
// DLBL IJSYSSL,'NCP PSL'
//  OPTION  DECK,NOXREF
//  EXEC  IFZASM,SIZE=64K
 PUNCH '  CATALR  SATLTCT'
$SATLTCT CSECT
         CXTLTC SWTD=NO,OLTT=1
* PUT STATE ADDRESS TABLES ON 64 BYTE BOUNDARY
PADSAT   EQU   64+64*((*-$SATLTCT-1)/64)-(*-$SATLTCT)
         DS    (PADSAT)X
* STATE ADDRESS TABLES
* BSC EBCDIC
         RNSTAEBC BSCPTPT=0,BSCCNTL=1,MPTRB=0
* DUPLEX LINE CONTROL
         CXBDLST
         SPACE
         END
/*
/&
```

NOTE- This is an example of the job stream needed for the assembly of one of the NCP stages. There are approximatly 15 stages. Each of the stages will produce an object module that should be stored using the next example. The final step is a link-edit that will store the generated NCP load module in the system core-image library.

DOS/VS JCL TO STORE NCP OBJECT MODULES FROM STAGE 2

```
// JOB STORE NCP OBJECT MODULES
// ASSGN SYSRLB,3330,VOL=DOS111,SHR
// DLBL IJSYSRL,'NCP PRL'
// EXEC MAINT
************************************************************************
*                                                                      *
*       INSERT OBJECT FROM NCP ASSEMBLY HERE                           *
*       STEP STORES OBJECT IN FILE FOR LINK-EDIT STAGE                 *
*                                                                      *
************************************************************************
/*
/&
```

NOTE- This library is used by the link-edit stage. If a new NCP generation is required, a different library should be specified unless the old NCP is not to be updated.

DOS/VS SAMPLE FOR MOVING NCP LOAD MODULE

```
// JOB PUNCH NCPSSS
// DLBL IJSYSPH,'HAL NCP',300
// EXTENT SYSPCH,DOS111,1,0,2880,60
ASSGN SYSPCH,SYSRES
// EXEC CSERV
 PUNCH NCPSN2
/*
/&
CLOSE SYSPCH,X'00D'
/&
```

NOTE- This step is required for DOS/VS VTAM. VTAM expects to find the NCP load module in a library specified in the VTAM start procedure. If the NCP Generation is done on another DOS system, at least two modules must be punched for the new system,NCPXXX and NCPxxxr where NCPxxx is the NCP name specified in the newname parameter of the NCP build macro. NCPxxxR is the resource resolution table required by the access method (EXTM or VTAM). If block handlers were specified for Start/Stop or BSC devices, NCPxxxB should also be punched.

DOS/VS SAMPLE JCL TO DUMP A 3705 AND PRINT THE DUMP

```
// JOB DUMP DOS NCP
// ASSGN SYS007,X'0BF'
// DLBL NCPDUMP,'NCP3DUMP',,DA
// EXTENT SYS008,,,,6880,12
// ASSGN SYS008,SYSRES
// EXEC IFUREAD
  DUMP FROMADDR=200,FORMAT=Y,BUF=Y
/*
/&
```

NOTE- Options for this procedure are found in Chapter 8 of the NCP Generation Manual, GC30-3008. This example uses the same area defined in the VTAM start procedure.

DOS/VS SAMPLE JCL TO PRINT A 3705 DUMP TAKEN BY VTAM

```
// JOB PRINT DOS NCP
// DLBL  NCPDUMP,,0,DA
// EXTENT SYS007,,,,6880,12
// ASSGN SYS007,SYSRES
// EXEC IFUDUMP
 DUMP FROMADDR=200,FORMAT=Y,BUF=Y
/*
/&
```

NOTE- Options for this procedure are found in Chapter 8 of the NCP Generation manual, GC30-3008. This example operates on the dump area that is defined in the VTAM start procedure.

5.2 : OS/VS1 SAMPLES

REFERENCES

OS/VS1 Planning and Use Guide	GC24-5090
OS/VS1 System Generation Reference	GC26-3791
OS/VS1 Access Methods Services	GC26-3840
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS1 JCL Reference	GT28-0618
OS/VS VTAM Reference Summary	GX27-0034
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021

OS/VS1 SYSTEM GENERATION MACRO INSTRUCTIONS

The actual SYSGEN specifications are not included. VTAM and GTF should be included as part of the sysgen. The samples included are based on the availability of two 3330 drives, an additional scratch drive and a tape drive. The VTAM system specifications are consistant with the NCP samples in Chapter 7 of this manual.

```
*************************************************************************
*                                                                       *
* THIS IS A PORTION OF STAGE 1 SYSGEN FOR THE VS/1-R6.0                 *
*                                                                       *
*************************************************************************
 TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 0'
       CHANNEL ADDRESS=0,TYPE=MULTIPLEXOR
      IODEVICE ADDRESS=00A,UNIT=3505
      IODEVICE ADDRESS=00B,UNIT=3525,FEATURE=TWOLINE
      IODEVICE ADDRESS=00C,UNIT=2540R,MODEL=1
      IODEVICE ADDRESS=00D,UNIT=2540P,MODEL=1
      IODEVICE ADDRESS=00E,UNIT=3211
      IODEVICE ADDRESS=00F,UNIT=1403,MODEL=N1,FEATURE=UNVCHSET
      IODEVICE ADDRESS=(010,2),UNIT=3791L    (3790 LOCAL)
```

```
     IODEVICE ADDRESS=01F,UNIT=3215,MODEL=1
TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 0 (3270 LOCAL)'
     IODEVICE ADDRESS=(020,3),UNIT=3277,MODEL=2,                       *
              FEATURE=(EBKY3277,AUDALRM,MAGCDRD,NUMLOCK,SELPEN,DOCHAR)
     IODEVICE ADDRESS=023,UNIT=3286,MODEL=2,FEATURE=DOCHAR
     IODEVICE ADDRESS=(024,2),UNIT=3284,MODEL=2,FEATURE=DOCHAR
     IODEVICE ADDRESS=(026,14),UNIT=3277,MODEL=2,                      *
              FEATURE=(EBKY3277,AUDALRM,MAGCDRD,NUMLOCK,SELPEN,DOCHAR)
TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 0 (3705)'
     IODEVICE ADDRESS=05F,UNIT=3705,ADAPTER=CA1
     IODEVICE ADDRESS=0BF,UNIT=3705,ADAPTER=CA2
TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 1'
      CHANNEL ADDRESS=1,TYPE=SELECTOR
     IODEVICE ADDRESS=(130,4),UNIT=2314,IOREQUE=PRIORITY
     IODEVICE ADDRESS=(160,8),UNIT=3330,IOREQUE=PRIORITY
TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 2'
      CHANNEL ADDRESS=2,TYPE=BLKMPXR
     IODEVICE ADDRESS=(230,8),UNIT=2314,IOREQUE=PRIORITY
     IODEVICE ADDRESS=(260,8),UNIT=3330,IOREQUE=PRIORITY
TITLE 'VS1/REL6.0 - HARDWARE SPECIFICATION - CHANNEL 3'
      CHANNEL ADDRESS=3,TYPE=SELECTOR
     IODEVICE ADDRESS=(330,6),UNIT=2314,IOREQUE=PRIORITY
     IODEVICE ADDRESS=(360,8),UNIT=3330,IOREQUE=PRIORITY
     IODEVICE ADDRESS=(380,4),UNIT=3420,MODEL=3,                       *
              FEATURE=(9-TRACK,DUALDENS)
     IODEVICE ADDRESS=3BF,UNIT=3705,ADAPTER=CA2
TITLE 'VS1/REL6.0 - CONTROL PROGRAM SPECIFICATIONS'
     CTRLPROG ASCII=INCLUDE,           INCLUDE ASCII SUPPORT           *
              AUTO=(VMSTART,NOLIST),   AUTO START LIST                 *
              DYNINTR=(10,50,200,10000), DYNAMIC DISPATCH PARAMETERS   *
              DYNPART=(P3-P5),         PARTITIONS IN DYNAMIC DISPATCH  *
              FETCH=STD,               NO PCI FETCH (VM SYS)           *
              MAXIO=80,                GENERATE 80 12-STARS            *
              OPTIONS=(BLDL,NODDRSYS,NODEBCHK,RDE,RER,TRSVCTBL),       *
              OVERLAY=ADVANCED,        FULL-OVERLAY CHECKING           *
              RESIDNT=(ACSMETH,ERP,RENTCODE,TRSVC),          VTAM REQ*
              SECURTY=FPROT,           FETCH PROTECT PARTITIONS        *
              SYSQUE=16,               16K SQA INITIALLY               *
              TRACE=20,                20 ENTRY SYSTEM TRACE TABLE     *
              TZ=(W,5,0),              5 HOURS WEST OF GMT IS LOCAL    *
              VIRTUAL=4096,            4 MEG VIRTUAL MACHINE           *

VTAM REQUIRED

              VSAM=INCLUDE        VIRTUAL SEQ ACCESS METHOD  VTAM REQ

VTAM REQUIRED
```

```
 DATAMGT ACSMETH=(BTAM,ISAM,TCAM,VTAM),  ALL ADDITIONAL  VTAM REQ*
         IND=YES                    INCLUDE INDUSTRY SUB-SYSTEM
   EDITOR  SIZE=(200,40)
GRAPHICS GSP=EXCLUDE,PORRTNS=EXCLUDE   NO GRAPHICS
   JES   ALCUNIT=73608,       SPOOL ALLOCATION UNIT                *
         BUFSIZE=3952,        JES BUFFER SIZE (3952+144=4096)      *
         JOBLOG=YES,          LOG WTO AND WTORS                    *
         JOBQEXT=25,          JOBQ EXTENTION ENTRIES               *
         JOBQINT=200,         INITIAL RESIDENT ENTRIES             *
         JOBQNXT=10,          NUMBER OF EXTENTIONS                 *
         JOBQVOL=VS1R60,      VOL SER OF SYS1.JOBQUEUE             *
         JOUTLIM=0,           NO MAX TO OUTPUT LINES               *
         NUMBUFS=100,         NUMBER OF I/O BUFFERS IN POOL        *
         RDR=(R=2,Y=5,B=800,A=2,N=84),                             *
         SPOLCAP=80,          80 PERCENT SPOOL GIVES MESSAGE       *
         SPOLVOL=VS1R60,      VOL SER OF SYS1.SYSPOOL              *
         STEPWTP=60,          MAX WTP PER JOB STEP                 *
         SWDSLMT=80,          NUMBER OF RESERVED JOBQ BLOCKS       *
         WTLRCDS=2000,        MAX WTL HELD PER DATA SET            *
         WTR=(W=4,U=0,Z=6,B=2660)
   LOADER  SIZE=256
  MACLIB EXCLUDE=(GPS,OCR),   NOT NEEDED                           *
         INCLUDE=ISSP         INDUSTRY SYSTEM SUPPORT MACROS
   PAGE  DEV=3330,            PAGING DEVICE TYPE (FOR NON-VM USE) *
         SIZE=(CYL,35),       35 CYLINDERS OF AREA                 *
         VOLNO=VS1R60         VOLSER OF PAGING PACK
```

INCLUDE PARTITION FOR GTF

```
PARTITNS P0(C-*,S-128),     SYSTEM PARTITION-NEED 128K for VSAM *
         P1(C-*,S-64),      SYSTEM PARTITION                    *
         P2(C-F,S-256),     HI-PRIORITY USER PARTITION          *
         P3(C-A,S-320),     NORMAL USER PARTITION               *
         P4(C-B,S-320),     ....                                *
         P5(C-C,S-320),     ....                                *
         P6(C-N,S-768),     LARGE USER PARTITION                *
         P7(C-M,S-320),     LOW-PRIORITY USER PARTITION         *
         P8(C-*,S-0)        LOW-PRIORITY SYSTEM PARTITION
SCHEDULR ALTCONS=029,       ALTERNATE CONSOLE ADDRESS           *
         BCLMT=100,         100 SLOTS FOR BROADCAST             *
         CONSOLE=01F,       PRIMARY CONSOLE ADDRESS             *
         ESV=SMF,           I/O STATS TO SMF DATA SET           *
         EVA=(15,15),       TEMP READ/WRITE THRESHOLD           *
         HARDCPY=SYSLOG,    HARD COPY TO SYSPOOL DATA SET       *
         IOC=01F,           INTEGRATED OPERATOR CONSOLE         *
         JOBQLMT=400,       400 BLOCKS PER INIT                 *
         JOBQLST=20,        RESIDENT LIST ENTRIES               *
         JOBQTMT=100,       BLOCKS FOR CRITICAL SITUATION       *
```

```
               OPTIONS=(MCS,REMOTE,VM), FULL USEFUL OPTIONS          *
               REPLY=5,              NUMBER OF WTOR REPLY BUFFERS    *
               SMF=FULL,             FULL-BLOWN SMF                  *
               SYSWFMT=20,           QUEUE BLOCKS PER LOGICAL TRACK  *
               SYSWTMT=2200,         CRITICAL RDR, WTR REQUIREMENT   *
               VLMOUNT=AVR,          AUTO VOLUME RECOGNITION         *
               WTLCLSS=L,            SYSOUT=L FOR LOG                *
               WTOBFRS=60            NUMBER OF WTO BUFFERS
 TITLE 'VS1/REL6.0 - SECONDARY CONSOLE SPECIFICATION'
     SECONSLE AREA=(5,6,8),          LOGICAL SCREEN AREAS            *
               CONSOLE=020,          ADDRESS OF THIS CONSOLE         *
               PFK=12,               USE ALL 12 PF KEYS              *
```

VTAM REQUIRES SYSTEM CONSOLES TO HAVE ROUTCDE=ALL

```
               ROUTCDE=ALL,          ROUTE ALL MESSAGES              *
               VALDCMD=(1,2,3)       ALL COMMANDS ARE VALID
        SPACE 2
     SECONSLE AREA=(5,6,8),          LOGICAL SCREEN AREAS            *
               CONSOLE=021,          ADDRESS OF THIS CONSOLE         *
               PFK=12,               USE ALL 12 PF KEYS              *
               ROUTCDE=ALL,          ROUTE ALL MESSAGES              *
               VALDCMD=(1,2,3)       ALL COMMANDS ARE VALID
     SECONSLE AREA=(5,6,8),          LOGICAL SCREEN AREAS            *
               CONSOLE=022,          ADDRESS OF THIS CONSOLE         *
               PFK=12,               USE ALL 12 PF KEYS              *
               ROUTCDE=ALL,          ROUTE ALL MESSAGES              *
               VALDCMD=(1,2,3)       ALL COMMANDS ARE VALID
 TITLE 'VS1/REL6.0 - USER SVC SPECIFICATION'
     SVCTABLE SVC-255-D1-S0,         USER SVC - TYPE 1
 TITLE 'VS1/REL6.0 - PRINTER UNIVERSAL CHARACTER SET SPECIFICATION'
        UCS  DEFAULT=(H11,HN),IMAGE=ALL
 TITLE 'VS1/REL6.0 - GENERATE - STAGE 2 SYSGEN INPUT'
     GENERATE GENTYPE=ALL,             FULL SYSGEN                   *
               INDEX=SYS1,             INDEX SYSTEM DATASETS SYS1    *
               RESVOL=(VS1R60,3330)    SYSTEM RESIDENCE VOLUME
        END
```

NOTE- Information for preparing the OS/VS1 system for VTAM is found in OS/VS1 System Programming Library: VTAM (GC27-6996), and the OS/VS1 Sysgen Reference (GC26-3791)

OS/VS1 SYSTEM PARAMETER DEFINITIONS

```
./   ADD   NAME=IEAAPFPS,LEVEL=00,SOURCE=0,LIST=ALL
 IMS.RESLIB USRLB2,
 IMS.PGMLIB USRLB2,
 SYS1.VTAMLIB IPOR21,
 SYS1.NCPLIB USRLB2,
 SYS1.LINKLIB2 USRLB1,
 SYS2.LINKLIB USRLB1,
 SYS1.OLTLIB USRLB1,
 SYS1.CDSLIB USRLB1,
 LAST.ENTRY DUMMY

./   ADD   NAME=LNKLSTPS,LEVEL=00,SOURCE=0,LIST=ALL
              SYS1.LINKLIB,                                  XXXXXXXXX
              SYS1.LINKLIB2,   USER     UTILITIES          XXXXXXXXXX
              IMS.RESLIB,      IMS LIBRARY              XXXXXXXXXXXXXXXX
              SYS1.TCAMLIB,    TCAM PROGRAMS             XXXXXXXXXXXXXX
              NCP6.SSPLIB,     NCP6 UTILITIES            XXXXXXXXXXXXXX
              SYS2.LINKLIB     USER LINK LIB

./   ADD   NAME=VATLSTPS
USRLB1,1,0,3330-1  ,N      LIBRARY PACK
USRLB2,1,0,3330-1  ,N      LIBRARY PACK
DLIB01,1,2,3330    ,N      VS1 DLIB
VS1RES,1,2,3330    ,N      SYSRES
NCPLIB,1,0,3340    ,N      NCP6 LIBRARY
```

NOTE- Information for preparing the OS/VS1 system parameters is found in OS/VS1 Sysgen Reference (GC26-3791)

OS/VS1 START PARAMETER DEFINITION (VTAM AND ACF/VTAM)

```
./   ADD   NAME=ATCSTR00,LEVEL=00,SOURCE=0,LIST=ALL
**************************************************************************
*                                                                        *
*   MINIMUM STARTUP - SHOULD BE USED FOR OS/VS VTAM AND ACF/VTAM         *
*                                                                        *
**************************************************************************
TRACE,TYPE=SMS,ID=VTAMBUF,                                              X
MAXSUBA=31,                                                             X
SSCPID=01,                                                              X
NETSOL=NO
```

NOTE- The above start-up definition can be used to initialize VTAM. The default buffer values are unusable and should be changed before activating any nodes.

OS/VS1 VTAM START PARAMETER DEFINITION (TEST)

```
./ ADD  NAME=ATCSTR01,LIST=ALL,SOURCE=0,LEVEL=00
************************************************************************
*                                                                      *
*    VTAM START PARAMETERS                                             *
*   NOTE:  THE IOBUF (BSZ) PARAMETER MUST EQUAL THE UNITSZ VALUE       *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE         *
*          BUFFER POOL START PARAMETERS IS EITHER                      *
*          XXBUF=(BNO,BSZ,BTHZ) AS INDICATED BELOW.                    *
*                                                                      *
************************************************************************
************************************************************************
CONFIG=01,             PREDEFINED LIST OF MAJOR NODES (ATCCON01)       X
SSCPID=01,             VTAM IDENTIFICATION                             X
TRACE,TYPE=SMS,ID=VTAMBUF,                                             X
NETSOL=NO,             NETWORK SOLICITOR IS NOT TO BE STARTED          X
MAXSUBA=15,            NUMBER OF MAJOR NODES, VALUE MUST ALSO BE IN NCP X
APBUF=(64,,58),        ACTIVE & INACTIVE BUFFER POOL - PAGEABLE STORAGE X
CRPLBUF=(120,,110),    RPL-COPY POOL IN PAGEABLE STORAGE               X
IOBUF=(71,152,50),     FIXED STORAGE MESSAGE POOL                      X
LFBUF=(33,,33),        LARGE FIXED STORAGE I/O BUFFER POOL             X
LPBUF=(100,,90),       LARGE PAGEABLE-STORAGE BUFFER POOL              X
NPBUF=(100,,90),       DEVICE CONNECTION BUFFER POOL, PAGEABLE         X
PPBUF=(130,152,120),   PAGEABLE DATA BUFFER POOL                       X
SFBUF=(40,,40),        SMALL FIXED STORAGE BUFFER POOL                 X
SPBUF=(12,,12),        SMALL PAGEABLE-STORAGE BUFFER POOL              X
UECBUF=(130,,120),     USER-EXIT CONTROL BLOCK (UECB) POOL             X
WPBUF=(130,,120)       DEVICE CONNECTION BUFFER POOL - PAGEABLE
./       ENDUP
/*
```

NOTE- Details for coding and filing start parameters are found in Chapter 7 of the OS/VS1 System Programmer's Guide(GC27-6996).

ATCSTR00 is required by VTAM even if all defaults are taken. The system defaults will not support more than one active application program, including the Network Solicitor, and will not support an active NCP. ATCSTR01 specifies the values necessary to support a small network consisting of an NCP with 6 Ports, 6 Start/Stop terminals, 4 local 3270's, 6 BSC terminals, 7 PU's, and 32 LU's.

OS/VS1 ACF/VTAM START PARAMETER DEFINITION (TEST)

```
./   ADD   NAME=ATCSTRAC,LEVEL=00,SOURCE=0,LIST=ALL
*************************************************************************
*                                                                       *
*   ATCSTR00 IS REQUIRED OR THIS DEFINITION CAN REPLACE IT.             *
*                                                                       *
*   NOTE:  THE IOBUF (BUFSIZE) PARAMETER MUST EQUAL THE UNITSZ VALUE    *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE          *
*          BUFFER POOL START PARAMETERS IS EITHER                       *
*          XXBUF=(BASENO,BUFSIZE,SLOWPT,XPANNO,XPANPT)                  *
*          OR XXBUF=VBSZ AS INDICATED BELOW.                            *
*          XPANNO OF 1 WILL CAUSE ACF/VTAM TO ACQUIRE 1 PAGE OF         *
*          BUFFERS SINCE THEY ARE ALWAYS ACQUIRED IN PAGE               *
*          INCREMENTS.                                                  *
*************************************************************************
TRACE,TYPE=SMS,ID=VTAMBUF,                                              X
TNSTAT,CNSL,TIME=10,                                                    X
MAXSUBA=31,                                                             X
NOPROMPT,                                                               X
CONFIG=AC,                                                              X
SSCPID=01,                                                              X
HOSTSA=13,                                                              X
MAXAPPL=40,                                                             X
VTAMEAS=150,                                                            X
NETSOL=NO,                                                              X
SFBUF=(60,,2,,01,3),    *** XPANNO OF 1 WILL CAUSE ACF/VTAM TO ACQUIRE  X
LFBUF=(37,,2,,01,3),        1 PAGE OF BUFFERS SINCE THEY ARE ALWAYS     X
LPBUF=(32,,1,,01,2),        ACQUIRED IN PAGE INCREMENTS ***             X
NPBUF=(23,,2,,01,3),                                                    X
CRPLBUF=(40,,2,,01,3),                                                  X
IOBUF=(60,152,4,,01,26),                                                X
 Note - The difference between SLOWPT and XPANPT must be greater than
        the largest MAXBFRU defined in any NCP or Local definition.
APBUF=(66,,2,,01,3),                                                    X
SPBUF=(66,,2,,01,3),                                                    X
UECBUF=(39,,2,,01,3),                                                   X
WPBUF=(27,,2,,01,3),                                                    X
PPBUF=(29,152,2,,01,3)
./       ENDUP
/*
//
```

NOTE- Details for coding and filing start parameters are found in the ACF/VTAM System Programmers Guide: VTAM (SC38-0258).

OS/VS1 VTAM APPLICATION DEFINITION EXAMPLE

```
./       ADD   NAME=APPCON01,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*********************************************************************
*                                                                   *
* APPLICATION PROGRAM DEFINITION FOR VTAM                           *
*    WHERE THE OPERANDS AVAILABLE ARE:                              *
*            PRTCT=PASSWORD,       PASSWORD MUST ALSO BE DEFINED IN  *
*                                  APPLICATION PROGRAM 'ACB'.       *
*            BUFFACT=N|1,          APPLIES ONLY TO BASIC NEWE.      *
*            AUTH=(ACQ|NOACQ,      ALLOWS APPLICATION PROGRAM TO USE *
*                                  THE OPNDST MACRO WITH THE        *
*                                  ACQUIRE OPTION.                  *
*              BLOCK|NOBLOCK,      NOT USED WITH SDLC OR 3270.      *
*              PASS|NOPASS,        ALLOWS USE OF CLSDST MACRO       *
*                                  WITH THE PASS OPTION.            *
*              TCAM)               ALLOWS PATH TO TCAM
*                                                                   *
*********************************************************************
SAMP1    APPL   AUTH=(ACQ)
DBDCCICS APPL   AUTH=(ACQ,BLOCK)
BATCH    APPL   AUTH=(ACQ)
VSPC     APPL   AUTH=(ACQ,NOBLOCK,NOPASS),PRTCT=ALVERTA
INQ3790  APPL   AUTH=(NOACQ)
INQALL   APPL   PRTCT=OKAYOKAY,AUTH=(ACQ)
HOSTPGM1 APPL   AUTH=(NOACQ)
INQ      APPL   AUTH=(ACQ,BLOCK)
TEST1    APPL   AUTH=(ACQ,PPO)
BASIC2   APPL   AUTH=(ACQ,PASS,SPO,BLOCK)
IEDQTCAM APPL   AUTH=(ACQ,TCAM,BLOCK),PRTCT=PASSWORD
TCAM     APPL   AUTH=(ACQ,TCAM,BLOCK),PRTCT=PASSITON
RTAM     APPL   AUTH=ACQ,BUFFACT=2
./       ENDUP
/*
```

NOTE- Defining application parameters is described in Chapter 5 (Defining Application Programs) of the OS/VS1 VTAM Systems Programmer's Guide(GC27-6996).

The following applies to VTAM II, not ACF/VTAM:

When a definition is changed in SYS1.VTAMLST, the member name must be deleted from the SYS1.VTAMOBJ data set, otherwise VTAM will not use the new version. This applies to all members of SYS1.VTAMLST except the start and configuration definitions.

OS/VS1 ACF/VTAM APPLICATION DEFINITION EXAMPLE

```
./       ADD   NAME=APPCONAC
*************************************************************************
*                                                                       *
* APPLICATION PROGRAM DEFINITION FOR VTAM                               *
*    WHERE THE OPERANDS AVAILABLE ARE:                                  *
*            ACBNAME=ACBNAME,      MINOR NODE NAME. DEFAULTS TO NAME    *
*                                  ON APPL STATEMENT.                   *
*            PRTCT=PASSWORD,       PASSWORD MUST ALSO BE DEFINED IN     *
*                                  APPLICATION PROGRAM 'ACB'.           *
*            BUFFACT=N|1,          MAXIMUM NUMBER OF VTAM PPBUF'S. IT   *
*                                  APPLIES TO BASIC MODE ONLY.          *
*            VPACING=N,            MAXIMUM NUMBER OF NORMAL-FLOW        *
*                                  REQUESTS FROM LU.                    *
*            MODETAB=MODETAB NAME, NAME OF MODETAB TO BE USED BY THE    *
*                                  APPLICATION.                         *
*            DLOGMOD=DEFAULT LOG-  NAME OF LOGMODE ENTRY TO BE USED     *
*                   MODE ENTRY     IF NONE IS OTHERWISE PROVIDED.       *
*            EAS=N|404,            NUMBER OF CONCURRENT SESSIONS THIS   *
*                                  APPLICATION PROGRAM WILL HAVE WITH   *
*                                  ANY LOGICAL UNITS.                   *
*            AUTH=(ACQ|NOACQ,      ALLOWS APPLICATION PROGRAM TO USE    *
*                                  THE OPNDST MACRO WITH THE            *
*                                  ACQUIRE OPTION.                      *
*              PPO|SPO|NOPO,       DEFAULTS TO NOPO. SEE THE PROGRAM    *
*                                  OPERATOR GUIDE FOR ITS USE.          *
*              BLOCK|NOBLOCK,      BASIC MODE ONLY.                     *
*              VPACE|NVPACE,       DETERMINES IF APPLICATION IS TO BE   *
*                                  SUBJECT TO VPACING FOR LU. DEFAULTS  *
*                                  TO VPACING.                          *
*              PASS|NOPASS)        ALLOWS USE OF CLSDST MACRO           *
*                                  WITH THE PASS OPTION.                *
*                                                                       *
*************************************************************************
SAMP1    APPL   AUTH=(ACQ),DLOGMOD=S3270,EAS=2
CICS     APPL   AUTH=(ACQ),EAS=40
PROG1    APPL   AUTH=(ACQ),EAS=10
INQALL   APPL   PRTCT=OKAYOKAY,EAS=10
RTAM     APPL   AUTH=(ACQ),EAS=10
BATCH    APPL   AUTH=(ACQ),EAS=1
INQ3790  APPL   AUTH=(NOACQ),MODETAB=MODE3790,EAS=4
TEST3    APPL   AUTH=(ACQ),EAS=1
SYSSSS   APPL   AUTH=(ACQ),DLOGMOD=BATCH,EAS=1
/*
```

NOTE- Defining and filing application parameters is described in Defining VTAM Application Programs of the ACF/VTAM Systems Programmers Guide: (SC38-0258).

OS/VS1 NCP DEFINITION EXAMPLE

```
./       ADD   NAME=NCPSN2,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*************************************************************************
*                                                                       *
*       SOURCE FOR NCP                                                  *

See NCP examples in Chapter 7.

*                                                                       *
*************************************************************************
./       ENDUP
/*
```

Notes- Chapter 4 of the OS/VTAM System Programmer's Guide and the NCP/VTAM generation guide are required. The host macro definition must be consistant with the VTAM start parameters.

The source from the NCP generation should be used here after removing the assembler control cards. When testing the NCP the first time, all the PU's should contain the VTAM parameter 'ISTATUS=INACTIVE'. After loading the NCP they should be varied 'active' individually. Later, when the PU and its resources are operational, this member can be updated to change the ISTATUS to 'ACTIVE'.

The following applies to VTAM II, not ACF/VTAM:

When a definition is changed in SYS1.VTAMLST, the member name must be deleted from the SYS1.VTAMOBJ data set, otherwise VTAM will not use the new version. This applies to all members of SYS1.VTAMLST except the start and configuration definitions.

OS/VS1 CONFIGURATION DEFINITION

```
./       ADD   NAME=ATCCON00,LEVEL=00,SOURCE=0,LIST=ALL
**************************************************************************
*                                                                        *
*   START-UP CONFIGURATION, APPLICATION CONFIGURATION ONLY               *
*                                                                        *
**************************************************************************
APPCON01
./       ADD   NAME=ATCCON01,LEVEL=00,SOURCE=0,LIST=ALL
**************************************************************************
*                                                                        *
*   START-UP CONFIGURATION, LOCAL 3270, AND NCP                          *
*                                                                        *
**************************************************************************
APPCON01,LOCCON01
./       ENDUP
/*
//
```

NOTE- To allow the operator to activate the NCP, ATCCON00 should be specified. To autoload the NCP, ATCCON01 should be specified.

OS/VS1 USSTAB INSTALLATION JCL

```
//USSTAB JOB 'USSTAB ASSEMBLY',CLASS=C
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *
Source Deck
//LKED.SYSLMOD  DD  DSN=SYS1.VTAMLIB(Name),DISP=SHR
/*
```

OS/VS1 MODETAB ASSEMBLY

```
//MODETAB JOB 'MODETAB ASSEMBLY',MSGLEVEL=1,CLASS=C
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *
Source Deck
//LKED.SYSLMOD  DD  DSN=SYS1.VTAMLIB(Modetab Name),DISP=SHR
/*
```

OS/VS1 INTERPRET TABLE INSTALLATION JCL

```
//LOGASM JOB 'LOGTAB ASSEMBLY'
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *
Source Deck
//LKED.SYSLMOD  DD  DSN=SYS1.VTAMLIB(Name),DISP=SHR
/*
```

NOTE- The interpret table is required in order to allow non-SDLC terminals to 'logon' to application programs via the Network Solicitor. Chapter 9 of the OS/VS1 VTAM System Programmers Guide describes the generation of the interpret table.

OS/VS1 EXAMPLE OF START PROCEDURE (VTAM OR ACF/VTAM)

```
//PROCUP JOB 123,'UPDATE PROCS',REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./      ADD LIST=ALL,NAME=NET,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//NET    EXEC  PGM=ISTINA01
//VTAMLIB DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST DD   DSN=SYS1.VTAMLST,DISP=SHR
//VTAMOBJ DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//INITEST DD   DSN=SYS1.LINKLIB,DISP=SHR
//NCPLOAD  DD  DSN=SYS1.NCPLOAD,DISP=SHR
//NCPDUMP  DD  DSN=NCPDUMP,DISP=MOD
//OLTCDSDD DD  DSN=OLTLIB,DISP=SHR
//SYMSYM   DD  DSN=SYMSYM,DISP=SHR
./      ADD LIST=ALL,NAME=NETSSC,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//NET    EXEC  PGM=ISTINA01
//STEPCAT DD DSN=USRVCAT,DISP=SHR
//VTAMLIB DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST DD   DSN=SYS1.VTAMLST,DISP=SHR
//VTAMOBJ DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//INITEST DD   DSN=SYS1.LINKLIB,DISP=SHR
//LRNCKPT DD  DSN=LRNCKPT,DISP=MOD
//NCP001 DD DSN=NCP001,DISP=MOD
//LOC001 DD DSN=LOC001,DISP=MOD
//SWT001 DD DSN=SWT001,DISP=MOD
//NCPLOAD   DD  DSN=SYS1.NCPLOAD,DISP=SHR
//NCPDUMP  DD  DSN=NCPDUMP,DISP=MOD
./   ENDUP
//
```

NOTE- The DD cards for data sets OLTLIB and CDSLIB should be omitted unless the Customer Engineer has prepared these data sets. The system can be installed without these data sets but they must be installed if TOLTEP is to be used.

OS/VS1 RTAM GENERATION SAMPLE

```
         LINE  LINEID=1,LDESCR=(1,1),   BSC,FDX,TRANSPARENCY          X
               AUTOLOG=YES
         LINE  LINEID=2,LDESCR=(1,0),   BSC,FDX,NO TRANSPARENCY       X
               AUTOLOG=YES
         LINE  LINEID=3,LDESCR=(0,1),   BSC,HDX,TRANSPARENCY          X
               AUTOLOG=YES
         LINE  LINEID=4,LDESCR=(0,0),   BSC,HDX,NO TRANSPARENCY       X
               AUTOLOG=YES
*  2770 COMPRESS/NO TRANSPARENCY  512 BYTE BUFFER
         TERMINAL TDESCR=(3,0,3,6),LNUM=1,COMPRES=YES,                X
               BUFXSIZ=512,TERMID=1
*
*  2770 COMPRESS/NO TRANSPARENCY  256 BYTE BUFFER
         TERMINAL TDESCR=(3,0,3,6),COMPRES=YES,                       X
               TERMID=2
*  3780 COMPRESS/NO TRANSPARENCY
         TERMINAL TDESCR=(3,7,3,1),COMPRES=YES,PCHS=0,TERMID=3
*
*  3780 COMPRESS/NO TRANSPARENCY/3781 CARD PUNCH
         TERMINAL TDESCR=(3,7,3,3),COMPRES=YES,TERMID=4
*
*  3780 NO COMPRESS/TRANSPARENCY/3781 CARD PUNCH
         TERMINAL TDESCR=(3,7,3,7),COMPRES=NO,TERMID=5
*
* 3770 SNA------CONSOLE PRINTER ONLY
         TERMINAL TDESCR=(3,8,5,1),VBUF=3
         TERMINAL TDESCR=(3,8,5,1),VBUF=6
         TERMINAL TDESCR=(3,8,5,1),VBUF=9
         TERMINAL TDESCR=(3,8,5,1),VBUF=20
         TERMINAL TDESCR=(3,8,5,1),VBUF=45
* 3770 SNA------CONSOLE PRINTER + LINE PRINTER
         TERMINAL TDESCR=(3,8,5,3),VBUF=3
         TERMINAL TDESCR=(3,8,5,3),VBUF=6
         TERMINAL TDESCR=(3,8,5,3),VBUF=9
         TERMINAL TDESCR=(3,8,5,3),VBUF=20
         TERMINAL TDESCR=(3,8,5,3),VBUF=45
* 3790 SNA --CONSOLE, RDR, 2 PTRS, 1 WTR (DISK)
         TERMINAL TDESCR=(3,8,5,2),RDRS=1,PTRS=3,PCHS=0,              X
               PLGN=0,COMPRES=YES,BUFXSIZ=256,CNMSGNO=5,VBUF=9,       X
               NODE=(RJE1F,RJE2F,RJE3F,RJE4F),SESSLIM=4,CPACTBL=NO
         RTAM  INTPR=YES,TPBFSIZ=512,MXINTBR=1024,PORTS=3,            X
               SNACOMP=YES,                                           X
               TPBUF=19,TPREAD=6,TPPRINT=8,TPPUNCH=4,                 X
               WAITIME=1,MSGFCTR=10,CPACT=YES
               END
```

OS/VS1 JCL FOR GTF PROCEDURE AND PARAMETERS FOR VTAM TRACE TO TAPE

```
//ADDGTF   JOB MSGLEVEL=1,REGION=100K,CLASS=A
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./ ADD  NAME=GTFTAPE,LIST=ALL
./ NUMBER NEW1=10,INCR=10
//GTFTAPE PROC   A=GTF2
//IEFPROC EXEC PGM=HHLGTF,
//             PARM='MODE=EXT,DEBUG=NO,TIME=YES'
//IEFRDER DD    UNIT=2400-3,VOL=SER=GTFXXX,LABEL=(,NL),
//         DCB=(BLKSIZE=3500,RECFM=U),DISP=SHR
//SYSPRINT DD  SYSOUT=A,SPACE=(TRK,(1,1))
//SYSLIB DD    DSN=SYS1.PARMLIB(&A),DISP=SHR
./ ENDUP
/*
//PARMDEF   JOB MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PARMLIB,DISP=SHR
//SYSIN  DD    DATA
./ ADD NAME=GTF2,LIST=ALL
TRACE=RNIO,USR
./ ENDUP
/*
```

NOTE- Information on this service aid may be found in the OS/VS1 Services Aid SRL GC28-0665.

OS/VS1 JCL FOR PRINTING VTAM TRACE RECORDS

```
//ADDPRT   JOB MSGLEVEL=1,REGION=100K,CLASS=A
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./ ADD   NAME=GTFTPRT,LIST=ALL
./ NUMBER NEW1=10,INCR=10
//VPRDMP  PROC  A=GTFP2,ASREGN=128K
//*  USE TO DUMP VTAM TRACE FILES
//DMP  EXEC PGM=HMDPRDMP,REGION=&ASREGN
//PRINTER DD SYSOUT=A
//TAPE DD DSN=SYS1.TRACE,UNIT=2400-3,LABEL=(,NL),DISP=SHR,
//          VOL=SER=GTFXXX
//SYSUT1 DD DSN=&&WORK,SPACE=(CYL,(3,1)),UNIT=SYSDA
//SYSPRINT DD  SYSOUT=A,SPACE=(TRK,(1,1))
//SYSIN  DD    DSN=SYS1.PARMLIB(&A),DISP=SHR
./ ENDUP
/*
//PARMUP   JOB MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PARMLIB,DISP=SHR
//SYSIN  DD    DATA
./  ADD NAME=GTFP2,LIST=ALL
 EDIT DDNAME=TAPE,RNIO,USR=CL01,USR=CL02,USR=TPIO,USR=LINE
 END
./ ENDUP
/*
```

NOTE- Information on this service aid may be found in the OS/VS1 Services Aid SRL GC28-0665.

5.3 : OS/SVS (OS/VS2 R1.7) SAMPLES.

REFERENCES

OS/VS2 Sysgen Reference	GC26-3792
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 SVS VTAM Component Release Guide	GC27-0053
OS/VS2 JCL Reference	GT28-0618
OS/VS2 System Programming Library: Service Aids	GT28-0663
OS/VS VTAM Reference Summary	GX27-0034
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021

OS/SVS SYSTEM GENERATION MACRO INSTRUCTIONS

The actual SYSGEN specifications are not included.The VTAM system definitions for OS/VS2 R1.7 are almost the same as OS/VS1 R6.

****

IODEVICE MACRO INSTRUCTIONS REQUIRED FOR VTAM IF USED.

```
      IODEVICE ADDRESS=(010,2),UNIT=3791L    (3790 LOCAL)

      IODEVICE ADDRESS=(020,3),UNIT=3277,MODEL=2,                        *
               FEATURE=(EBKY3277,AUDALRM,MAGCDRD,NUMLOCK,SELPEN,DOCHAR)
      IODEVICE ADDRESS=023,UNIT=3286,MODEL=2,FEATURE=DOCHAR
      IODEVICE ADDRESS=(024,2),UNIT=3284,MODEL=2,FEATURE=DOCHAR

      IODEVICE ADDRESS=05F,UNIT=3705,ADAPTER=CA1
      IODEVICE ADDRESS=0BF,UNIT=3705,ADAPTER=CA2
```

DATAMGT MACRO INSTRUCTION ADDITION.

```
       DATAMGT ACSMETH=(VTAM,TCAM),    REQUIRED FOR VTAM AND/OR TCAM   X
               IND=YES               INCLUDE INDUSTRY SUB-SYSTEM
```

DATASET MACRO SPECIFICATION CHANGES

```
       DATASET VTAMLIB,VOL=(SSVS70,3330),SPACE=(CYL,(5,1,5)
       DATASET INDMAC,VOL=(SSVS70,3330)
```

NOTE- Information for preparing the OS/SVS system for VTAM is found in OS/VS2 SVS VTAM System Programmer's Guide (GC27-0049), and the OS/VS2 SVS VTAM Component Release Guide (GC27-0053).

ACF/VTAM PARAMETER DEFINITIONS

For ACF/VTAM definitions, please refer to the ACF/VTAM definitions in the OS/VS1 section.

OS/SVS START PARAMETER DEFINITION EXAMPLE

```
./   ADD   NAME=ATCSTR00,LEVEL=00,SOURCE=0,LIST=ALL
*************************************************************************
*                                                                       *
*   MINIMUM VTAM SYSTEM --- NO NCP                                      *
*                                                                       *
*************************************************************************
CONFIG=00,     PREDEFINED LIST OF MAJOR NODES (ATCCON00)                 X
SSCPID=01      VTAM IDENTIFICATION
./ ADD  NAME=ATCSTR01,LIST=ALL,SOURCE=0,LEVEL=00
*************************************************************************
*                                                                       *
*    VTAM START PARAMETERS                                              *
*   NOTE:  THE IOBUF (BSZ) PARAMETER MUST EQUAL THE UNITSZ VALUE        *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE          *
*          BUFFER POOL START PARAMETERS IS EITHER                       *
*          XXBUF=(BNO,BSZ,BTHZ) OR XXBUF=VBSZ AS INDICATED BELOW.       *
*                                                                       *
*************************************************************************
CONFIG=01,          PREDEFINED LIST OF MAJOR NODES (ATCCON01)           X
NETSOL=NO,          NETWORK SOLICITOR IS NOT TO BE STARTED              X
MAXSUBA=15,         NUMBER OF MAJOR NODES, VALUE MUST ALSO BE IN NCP    X
IOBUF=(71,152,50),  FIXED STORAGE MESSAGE POOL                          X
PPBUF=(76,152,72),  PAGEABLE DATA BUFFER POOL                           X
TRACE,TYPE=SMS,ID=VTAMBUF
./       ENDUP
/*
```

NOTE- Details for coding and filing start parameters are found in Chapter 5 of the OS/VS2 SVS VTAM System Programmer's Guide (GC27-0049).

ATCSTR00 is required by VTAM even if all defaults are taken. The system defaults for IOBUF AND PPBUF should not be used. ATCSTR01 will support a small NCP and can be used for initial system checkout.

OS/SVS VTAM APPLICATION DEFINITION EXAMPLE

```
./       ADD   NAME=APPCON01,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*************************************************************************
*                                                                       *
* APPLICATION PROGRAM DEFINITION FOR VTAM                               *
*    WHERE THE OPERANDS AVAILABLE ARE:                                  *
*            PRTCT=PASSWORD,        PASSWORD MUST ALSO BE DEFINED IN    *
*                                   APPLICATION PROGRAM 'ACB'.          *
*            BUFFACT=N|1,           MAXIMUN PPBUF QUEUE FOR APPLICATION*
*            AUTH=(ACQ|NOACQ,       ALLOWS APPLICATION PROGRAM TO USE   *
*                                   THE OPNDST MACRO WITH THE           *
*                                   ACQUIRE OPTION.                     *
*              BLOCK|NOBLOCK,       NOT USED WITH SDLC OR 3270.         *
*              PASS|NOPASS)         ALLOWS USE OF CLSDST MACRO          *
*                                   WITH THE PASS OPTION.               *
*                                                                       *
*************************************************************************
SAMP1    APPL   AUTH=(ACQ)
DBDCCICS APPL    AUTH=(ACQ)
BATCH    APPL    AUTH=(ACQ)
INQ3790  APPL    AUTH=(NOACQ)
INQALL   APPL    PRTCT=OKAYOKAY,AUTH=(ACQ)
EMESG    APPL    PRTCT=VTAMMESG,AUTH=(ACQ,BLOCK)
INQ      APPL    AUTH=(ACQ,BLOCK)
TEST1    APPL    AUTH=(ACQ,PPO)
BASIC2   APPL    AUTH=(ACQ,PASS,SPO,BLOCK)
SYSSSS   APPL    AUTH=(ACQ)
./       ENDUP
/*
```

NOTE- Defining and filing application parameters is described in Chapter 3 of the OS/VS2 SVS VTAM Systems Programmer's Guide.

OS/SVS NCP DEFINITION EXAMPLE

```
./       ADD   NAME=NCPSN2,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*************************************************************************
*                                                                       *
*       SOURCE FOR NCP                                                  *

See NCP examples in Chapter 7.

*                                                                       *
*************************************************************************
./       ENDUP
/*
```

NOTE- Chapter 2 of the SVS VTAM System Programmer's Guide and the NCP/VTAM generation guide are required. The host macro definition must be consistant with the VTAM start parameters.

The source from the NCP generation should be used here after removing the assembler control cards. When testing the NCP the first time, all the PU's should contain the VTAM parameter 'ISTATUS=INACTIVE'. After loading the NCP they should be varied 'active' individually. After a PU and its resources are operational, this member can be updated to change the ISTATUS to 'ACTIVE'.

The following applies to VTAM II, not ACF/VTAM:

When a definition is changed in SYS1.VTAMLST, the member name must be deleted from the SYS1.VTAMOBJ data set, otherwise VTAM will not use the new version. This applies to all members of the SYS1.VTAMLST except the start definition.

OS/SVS CONFIGURATION DEFINITION

```
./       ADD   NAME=ATCCON00,LEVEL=00,SOURCE=0,LIST=ALL
************************************************************************
*                                                                      *
*   START-UP CONFIGURATION, APPLICATION CONFIGURATION ONLY             *
*                                                                      *
************************************************************************
APPCON01
./       ADD   NAME=ATCCON01,LEVEL=00,SOURCE=0,LIST=ALL
************************************************************************
*                                                                      *
*   START-UP CONFIGURATION, LOCAL 3270, AND NCP                        *
*                                                                      *
************************************************************************
APPCON01,LOCCON01,NCPSN2
./       ENDUP
/*
//
```

NOTE- To allow the operator to activate the NCP, ATCCON00 should be specified. To autoload the NCP, ATCCON01 should be specified.

OS/SVS SAMPLE INSTALLATION JCL FOR USSTAB

```
//USSTAB JOB 'USSTAB ASSEMBLY',CLASS=C
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *

Add source here:
//LKED.SYSLMOD  DD  DSN=SYS1.VTAMLIB(usstab),DISP=SHR
/*
```

NOTE- The System Programmers Guide for the applicable level of VTAM or ACF/VTAM should be referenced.

OS/SVS SAMPLE JCL FOR INTERPRET TABLE INSTALLATION

```
//LOGASM JOB '               ',MSGLEVEL=1,REGION=200K
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *

Add source here:

//LKED.SYSLMOD  DD  DSN=SYS1.VTAMLIB(table),DISP=SHR
/*
```

NOTE- The interpret table is required in order to allow non-SDLC terminals to 'logon' to application programs via the Network Solicitor. Chapter 9 of the OS/SVS VTAM System Programmers Guide describes the generation of the interpret table.

OS/SVS EXAMPLE OF START PROCEDURE

```
./      ADD LIST=ALL,NAME=NET,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//* ADD REGION SIZE IF TO BE RUN IN A REGION
//NET    EXEC  PGM=ISTINS01
//VTAMLIB  DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST  DD   DSN=SYS1.VTAMLST,DISP=SHR
//VTAMOBJ  DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//INITEST  DD   DSN=SYS1.LINKLIB,DISP=SHR
//NCPLOAD  DD   DSN=SYS1.NCPLOAD,DISP=SHR
//NCPDUMP  DD   DSN=NCPDUMP,DISP=MOD
//OLTCDSDD DD   DSN=OLTLIB,DISP=SHR
//SYMSYM   DD   DSN=SYMSYM,DISP=SHR
./      ADD LIST=ALL,NAME=NETSSC,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//NET    EXEC  PGM=ISTINS01
//STEPCAT   DD   DSN=USRVCAT,DISP=SHR
//VTAMLIB   DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST   DD   DSN=SYS1.VTAMLST,DISP=SHR
//VTAMOBJ   DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//INITEST   DD   DSN=SYS1.LINKLIB,DISP=SHR
//LRNCKPT   DD   DSN=LRNCKPT,DISP=MOD
//NCP001    DD   DSN=NCP001,DISP=MOD
//LOC001    DD   DSN=LOC001,DISP=MOD
//SWT001    DD   DSN=SWT001,DISP=MOD
//NCPLOAD   DD   DSN=SYS1.NCPLOAD,DISP=SHR
//NCPDUMP   DD   DSN=NCPDUMP,DISP=MOD
./   ENDUP
//
```

NOTE- The DD cards for data sets OLTLIB and CDSLIB should be omitted unless the Customer Engineer has prepared these data sets. The system can be installed without these data sets but they must be installed before TOLTEP can be used.

OS/SVS JCL FOR GTF PROCEDURE AND PARAMETERS FOR VTAM TRACE TO TAPE

```
./ ADD  NAME=GTFTAPE,LIST=ALL
./ NUMBER NEW1=10,INCR=10
//GTFTAPE PROC   A=GTF2
//IEFPROC EXEC PGM=AHLGTF,REGION=64K,
//             PARM='MODE=EXT,DEBUG=NO,TIME=YES'
//IEFRDER DD    UNIT=2400-3,VOL=SER=GTFXXX,LABEL=(,NL),
//         DCB=(BLKSIZE=3500,RECFM=U),DISP=SHR
//SYSPRINT DD  SYSOUT=A,SPACE=(TRK,(1,1))
//SYSLIB DD    DSN=SYS1.PARMLIB(&A),DISP=SHR
./ ENDUP
/*
//PARMDEF   JOB MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PARMLIB,DISP=SHR
//SYSIN  DD    DATA
./ ADD NAME=GTF2,LIST=ALL
TRACE=RNIO,USR
./ ENDUP
/*
```

NOTE- Information on this service aid may be found in the OS/VS Services Aid SRL GC28-0633.

OS/SVS JCL FOR PRINTING VTAM TRACE RECORDS

```
./ ADD   NAME=GTFTPRT,LIST=ALL
./ NUMBER NEW1=10,INCR=10
//VPRDMP  PROC  A=GTFP2,ASREGN=128K
//*  USE TO DUMP VTAM TRACE FILES
//DMP  EXEC PGM=AMDPRDMP,REGION=&ASREGN
//PRINTER DD SYSOUT=A
//TAPE DD DSN=SYS1.TRACE,UNIT=2400-3,LABEL=(,NL),DISP=SHR,
//          VOL=SER=GTFXXX
//SYSUT1 DD DSN=&&WORK,SPACE=(CYL,(3,1)),UNIT=SYSDA
//SYSPRINT DD  SYSOUT=A,SPACE=(TRK,(1,1))
//SYSIN  DD    DSN=SYS1.PARMLIB(&A),DISP=SHR
./ ENDUP
/*
//PARMUP   JOB MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=NEW
//SYSPRINT DD  SYSOUT=A
//SYSUT2 DD    DSNAME=SYS1.PARMLIB,DISP=SHR
//SYSIN  DD    DATA
./  ADD NAME=GTFP2,LIST=ALL
 EDIT DDNAME=TAPE,RNIO,USR=CL01,USR=CL02,USR=TPIO,USR=LINE
 END
./ ENDUP
/*
```

NOTE- Information on this service aid may be found in the OS/VS Services Aid SRL GC28-0633.

5.4 : OS/MVS SAMPLES.

REFERENCES

OS/VS2 Sysgen Reference	GC26-3792
OS/VS2 MVS Utilities	GC26-3902
OS/VS2 System Programming Library: Service Aids	GC28-0674
OS/VS2 System Programming Library: Initialization and Tuning Guide	GC28-0681
OS/VS2 VTAM System Programming Library:VTAM	GC28-0688
OS/VS2 JCL	GC28-0692
Operator's Library: OS/VS2 Reference(JES2)	GC38-0210
OS/VS VTAM Reference Summary	GX27-0034
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269

OS/MVS SYSTEM GENERATION MACRO INSTRUCTIONS

The actual SYSGEN specifications are not included. VTAM must be included as part of the sysgen.

```
*************************************************************************
* THIS IS A PORTION OF THE STAGE 1 SYSGEN LISTING FOR THE VS/2-R3.7   *
*************************************************************************
*        MULTIPLEXER CHANNEL IO DEVICES (PARTIAL)                       *
*************************************************************************
         IODEVICE UNIT=3215,                          3158 KB CONSOLE   X
               ADDRESS=009
I3705    IODEVICE UNIT=3705,                                            X
               ADAPTER=CA1,                                             X
               ADDRESS=019
         IODEVICE UNIT=3215,                                            X
               ADDRESS=01F
```

```
*   CHANNEL 1 IO DEVICES                                                *
**********************************************************************
PRT3800  IODEVICE UNIT=3800,ADDRESS=(110),FEATURE=CGS2   158,168(610)
         IODEVICE UNIT=2305,                                           X
               MODEL=2,                                                X
               ADDRESS=1D0
*   CHANNEL 2 IO DEVICES                                               *
**********************************************************************
DSK220   IODEVICE UNIT=3330,MODEL=11,ADDRESS=(220,4),OPTCHAN=9,        *
               FEATURE=ALTCTRL
*   CHANNEL 3 IO DEVICES                                               *
**********************************************************************
DSK348   IODEVICE  UNIT=3330,MODEL=1,                                  X
               OPTCHAN=8,FEATURE=ALTCTRL,                              X
               ADDRESS=(348,8)
*   CHANNEL 4 IO DEVICES                                               *
**********************************************************************
I37052   IODEVICE UNIT=3705,ADAPTER=CA1,  3705-I, CA4,                 X
               ADDRESS=418
E37052   IODEVICE UNIT=3705,ADAPTER=CA1,  3705-E, CA4,                 X
               ADDRESS=41A                       FUTURE
C37052   IODEVICE UNIT=3705,ADAPTER=CA2,  3705-C, CA2,                 X
               ADDRESS=41C                         FUTURE
J3705    IODEVICE UNIT=3705,ADAPTER=CA1,  3705-J, CA4,                 X
               ADDRESS=498
         IODEVICE UNIT=3277,MODEL=2,                                   X
               ADDRESS=(4A0,32),                                       X
               FEATURE=(DOCHAR,                                        X
               SELPEN,EBKY3277,KB78KEY,NUMLOCK,AUDALRM)
         IODEVICE UNIT=3277,MODEL=2,                                   X
               ADDRESS=(4C0,32),                                       X
               FEATURE=(DOCHAR,                                        X
               SELPEN,EBKY3277,KB78KEY,NUMLOCK,AUDALRM)
         IODEVICE UNIT=3791L,ADDRESS=4E0                  3274
*     CHANNEL 5 IO DEVICES                                            *
**********************************************************************
DSK530   IODEVICE  UNIT=2314,                                          X
               ADDRESS=(530,8)
T5808    IODEVICE UNIT=3420,MODEL=8,ADDRESS=(580,6),                   *
               FEATURE=(OPT1600,SHARABLE),OFFLINE=YES
********     SYSTEM CONSOLES
**********************************************************************
CONM     CONSOLE MCONS=01F,ALTCONS=01A,       MASTER CONSOLE UNDER VM  X
               ROUTCDE=ALL,       NO DEFAULT                           X
               OLDWTOR=1,         OLDWTOR=ALL                          X
               IOC=YES            DEFAULT=NO
CON1     CONSOLE SECONS=01A,ALTCONS=009,       3158 CONSOLE             X
               AREA=10,                                                X
```

```
               PFK=12              NO DEFAULT
CON4      CONSOLE SECONS=4A0,VALDCMD=(1,2,3), 158 SEC CONS 3270          X
               ROUTCDE=ALL,                                               X
               AREA=10,ALTCONS=4A1,PFK=12
****** 'MVS/REL3 - CONTROL PROGRAM SPECIFICATION'
CTRL      CTRLPROG  OPTIONS=(DEVSTAT,RDE,RER,BLDL,CRH),SQA=9,REAL=256,   H
               TZ=(W,8),ASCII=INCLUDE,STORAGE=16777216,                   X
               CSA=3000,VRREGN=512,PAGNUM=(9,9),                          X
               ACRCODE=YES,APFLIB=(SYS1.VTAMLIB,MVSRES,SYS1.VTAMOBJ,      +
               MVSRES)
SCHEDULR SCHEDULR  BCLMT=100,PRISUB=JES2,                                 X
               SUBSYS=(JES3,ECSS,ECST,JES0,JESP,JESQ,JESR,JES,JEST,       X
               JES4,JES5,JES6,JES7,JES8,JES9),                            +
               HARDCPY=(SYSLOG,ALL,CMDS),                                 X
               DEVPREF=(3330-1,3330,2305-2,2305-1,3350,3340,2314,2400)
*   JES3 GENNED IN FOR SECONDARY SUBSYSTEM SUPPORT
          JES     CNS=((009,3215)),LOCLJES=NO
CHKPT    CKPTREST ELIGBLE=(20,100,101,102,103,110,120,140,160,4092)
          EJECT
DATAMAN   DATAMGT   ACSMETH=(BTAM,TCAM,ISAM,GAM,VTAM),                     X
               GRAPHCS=(PORRTNS,GSP),                                     X
               TABLE=ALL,UCSDFLT=ALL,IND=YES
TSO       TSO       LOGTIME=20000
EDIT      EDIT      DSTYPE=SYSTEST,BLOCK=800,FORMAT=FIXED,FIXED=(80-80),X
               CONVERT=CAPSONLY
***** DATASET SPECIFICATIONS                          **************
SPACE     DATASET   BRODCAST,SPACE=(CYL,(1))
          DATASET   CMDLIB,SPACE=(CYL,(3,1,112))
          DATASET   TELCMLIB,SPACE=(CYL,(2,1,84))
          DATASET   VTAMLIB,SPACE=(CYL,(2,1,56))
          AFFINITY  AFF-AFFPGM00-0,AFF-AFFPGM01-0,AFF-AFFPGM02-0,        X
               AFF-AFFPGM03-0,                                            X
               AFF-AFFPGM04-0,                                            X
               AFF-AFFPGM05-0,                                            X
               AFF-AFFPGM06-1,                                            X
               AFF-AFFPGM07-1,                                            X
               AFF-AFFPGM08-1,                                            X
               AFF-AFFPGM09-1,                                            X
               AFF-AFFPGM10-1
```

NOTE- Information for preparing the OS/MVS system for VTAM is found in OS/MVS System Programming Library: VTAM (GC28-0688), and the OS/MVS System Generation Reference (GC26-3792)

OS/MVS SYSTEM PARAMETER DEFINITIONS

```
./   ADD   NAME=IEASYS00,LEVEL=00,SOURCE=0,LIST=ALL
APF=PS,                      AUTHORIZATION LIST
APG=07,                      AUTOMATIC PRIORITY GROUP IS 7      DEFAULT
BLDLF=00,                    FIX IEABLD00 TABLE
CMD=00,                      SET TOD PROMPT,SDUMP,TRACE ON      DEFAULT
CSA=3644,                    CONSIDER SETTING TO LIMIT USER REG TO 8 MEG
DUMP=DASD,                   PLACE SVC DUMPS ON DASD DEVICES    DEFAULT
FIX=00,                      FIX MODULES SPECIFIED IN BASE AND TSO LIST
HARDCPY=(SYSLOG,             HARDCOPY LOG IS SYSTEM LOG(SYSLOG)
         ALL,                RECORD ALL WTO/WTOR WITH ROUTE CODES
         CMDS),              RECORD ALL COMMANDS AND RESPONSES
IPS=00,                      SELECT IEAIPS00 INSTALL PERF SPECS FOR SRM
LNK=PS,                      SPECIFY LNKLST00 AS LINK LIST
LOGCLS=A,                    WILL NOT BE PRINTED BY DEFAULT
LOGLMT=999999,               MUST BE 6 DIGITS, MAX WTL MESSAGES QUEUED
MAXUSER=36,                  (SYS TASKS + INITS + TSOUSERS) < 36
PAGNUM=(3,2),                ALLOW ADDITION OF 3 PAGE D/S & 2 SWAP D/S
OPI=YES,                     ALLOW OPERATOR OVERRIDE TO IEASYS00
OPT=00,                      SPECIFY IEAOPT00 (SRM TUNING PARMETERS)
PAGE=(PAGE.IPOJ2101,         PLPA PAGE DATA SET
      PAGE.IPOJ2102,         COMMON PAGE DATA SET
      PAGE.IPOJ2103,L),      USER(LOCAL) PAGE DATA SET
REAL=128,                    ALLOWS 2 64K JOBS OR 1 128K JOB TO RUN V=R
RSU=0,                       NO RECONFIG STORAGE UNITS          DEFAULT
SMF=00,                      SELECT SMFPRM00, SMF PARMETERS     DEFAULT
SQA=5,                       SIZE=(3+3)*64K=384K VIRTUAL STORAGE
VAL=PS,                      SELECT VATLST00                    DEFAULT
VRREGN=128,                  DEFAULT REAL-STORAGE REGION SIZE   DEFAULT
WTOBFRS=250,CVIO,                 SET NUMBER OF WTO BUFFERS
WTORPLY=10                   SET NUMBER OF WTOR BUFFERS
/* THIS COMPLETES THE SYSP LIST
/*
/* NOTE 1: NOTE THAT SCAN OF THE SYSP PARAMETERS ENDS
/*         AT FIRST PARAMETER WITHOUT A COMMA.
/*         WHEN MODIFYING ANY PARAMETER EXCEPT THE LAST SPECIFIED,
/*         INCLUDE THE COMMA.
/*
/* NOTE 2: PAGE PARAMETER SPECIFIED AT IPL TIME MERGES WITH IEASYSXX
/*         SEE INIT AND TUNING GUIDE GC28-0755-0 -
/*                  IEASYS00 SOURCE OF PAGE PARAMETER
/*
/* NOTE 3: THE FOLLOWING PARAMETERS HAVE BEEN OMITTED BY CHOICE
CLPA                         RE-CREATION OF PLPA IS OPERATOR CHOICE
CVIO                         DO NOT DELETE VIO D/S - CLPA IMPLIES CVIO
DUPLEX=                      NO DUPLEX D/S - OPTIONAL WITH SU 7
```

```
MLPA=                          NO MLPA PARAMETERS
NUCMAP
PURGE                          DO NOT DEMOUNT MSS VOLUMES
SWAP=                          NO SWAP DATASET SPECIFIED
SYSP=00                        SPECIFIED BY OPERATOR AT IPL FOR THIS SYSP
                               NOT A VALID PARMETER FOR IEASYSXX
/*                             THIS IS THE END OF IEASYS00


./   ADD   NAME=IEAFIX00,LEVEL=00,SOURCE=0,LIST=ALL
SYS1.LPALIB  IEAVAR00,         /* 6816 RCT INIT/TERM     */
             IEWFBOSV,         /* 6384 PROGRAM FETCH     */
             IEWMSEPT,         /*  FETCH ALIAS SEE ABOVE */
             IGC0001F,         /* 5072 PURGE(SVC16)      */
             IGC0001G,         /*  368 RESTORE(SVC17     */
             IGC0003C,         /* 2656 IO HALT           */
             IGC0004F,         /* 3000 TTIMER            */
             IGC0004G,         /* 3000 STIMER            */
             ISTAPC61,         /* ACF/VTAM               */
             ISTAPC62,         /* ACF/VTAM               */
             ISTAPC63,         /* ACF/VTAM               */
             ISTAPC64,         /* ACF/VTAM               */
             ISTAPC66,         /* ACF/VTAM               */
             ISTAPC67,         /* ACF/VTAM               */
             ISTAPC83,         /* ACF/VTAM               */
             ISTAPC64,         /* ACF/VTAM               */
             ISTRACCA,         /* ACF/VTAM               */
             ISTRACIO,         /* ACF/VTAM               */
             ISTRACTB,         /* ACF/VTAM               */
             ISTRAMTR,         /* ACF/VTAM               */
             ICHRRCDE,         /* RACF REL. 3            */
             ICHRFC00,         /* RACF REL. 3            */
             ICHRGL00,         /* RACF REL. 3            */
             ICHRGL01,         /* RACF REL. 3            */
             ICHRGL03          /* RACF REL. 3            */


./   ADD   NAME=IEAAPFPS,LEVEL=00,SOURCE=0,LIST=ALL
 IMS.RESLIB USRLB2,
 IMS.PGMLIB USRLB2,
 SYS1.VTAMLIB IPOR21,
 SYS1.NCPLIB USRLB2,
 SYS1.LINKLIB2 USRLB1,
 SYS2.LINKLIB USRLB1,
 SYS1.OLTLIB USRLB1,
 SYS1.CDSLIB USRLB1,
 LAST.ENTRY DUMMY
```

```
./   ADD   NAME=LNKLSTPS,LEVEL=00,SOURCE=0,LIST=ALL
 SYS1.LINKLIB,SYS1.TSOLIB,      TSO PROGRAM PRODUCTS            XXXXXXXXX
              SYS1.CMDLIB,      TSO COMMAND LIB               XXXXXXXXXXXXX
              SYS1.LINKLIB2,    USER     UTILITIES              XXXXXXXXXX
              IMS.RESLIB,       IMS LIBRARY                 XXXXXXXXXXXXXXXXX
              SYS1.TCAMLIB,     TCAM PROGRAMS                XXXXXXXXXXXXXXX
              NCP6.SSPLIB,      NCP6 UTILITIES               XXXXXXXXXXXXXXX
              SYS2.LINKLIB,     USER LINK LIB                XXXXXXXXXXXXXXX
              SYS1.PPLINK,      P. P. LOAD LIB               XXXXXXXXXXXXXX
              SYS1.COBLIB,      COBOL LIBRARY                XXXXXXXXXXXXXXX
              SSS4.LINKLIB,     PVS AND SSS PROGRAMS            XXXXXXXXX
              IPO21.LINKLIB     IPO PROGRAMS                XXXXXXXXXXXXXXXX

./   ADD   NAME=VATLSTPS
USRLB1,1,0,3330-1  ,N      LIBRARY PACK
USRLB2,1,0,3330-1  ,N      LIBRARY PACK
DLIB21,1,2,3330    ,N      MVS DLIB FOR IPO21
IPOR21,1,2,3330    ,N      IPO REL. 2.1 SYSRES
IPOJ21,1,2,3330    ,N      IPO REL. 2.1 CATALOG SPOOL PAGING
NCPLIB,1,0,3340    ,N      NCP6 LIBRARY

./   ADD   NAME=TSOKEYPS
USERMAX=30,                                                          X
RECONLIM=10,                                                         X
BUFRSIZE=512,                                                        X
SCRSIZE=1920    USED FOR 3277'S ONLY
```

NOTE- Information for preparing the OS/MVS system parameters is found in OS/MVS Sysgen Reference (GC26-3792)

OS/MVS JES2 PARAMETER DEFINITIONS(VTAM OR ACF/VTAM)

```
./   ADD   NAME=SNAPARM
*-------------------------------------------------------------------*
*                            JES2PARM                               *
*-------------------------------------------------------------------*
*  SU 25 JES 4.1                                                    *
*********************************************************************
*********************************************************************
*                                                                   *
*  RJE RELATED PARAMETERS                                           *
*                                                                   *
LOGON1 APPLID=JES2     APPL ID TO VTAM                            *
&NUMLNES=9             MAX NUMBER OF RJE LINES INCLUDING SNA LINES  *
&NUMRJE=110            MAX NUMBER OF RJE DEFINITIONS ALLOWED       *
&NUMTPBF=20            NUMBER OF TP BUFFERS GENERATED FOR RJES     *
&TPBFSIZ=800           TP BUFFER SIZE                              *
&MAXSESS=25            MAX NUMBER OF VTAM SESSIONS=LINES AT 5 LU EAC*
&WAITIME=15            15 SECONDS FOR RMT CMD(FROM 1 DEFAULT)      *
COMPACT=40,15,A,C,D,E,H,I,L,N,O,R,S,T,U,40,0,                HRS15*  C
        B,F,G,J,K,M,P,Q,V,W,X,Y,Z,1,2,3                      HRS16*
COMPACT=41,16,0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F                HRS16*
&NUMTPBF=8              NUMBER OF BUFFERS GENERATED FOR RJE       *
&TPIDCT=66              NUMBER OF LINES ON HEADER PAGE REMOTE PRINTR*
LINE1  UNIT=SNA                                                   *
LINE2  UNIT=SNA                                                   *
LINE3  UNIT=SNA                                                   *
LINE4  UNIT=SNA                                                   *
LINE5  UNIT=SNA                                                   *
LINE6  UNIT=SNA                                                   *
********** RMT1 IS A 3777
RMT1   LUTYPE1,BUFSIZE=512,COMP,CMPCT,NUMPR=1,                    *
       NUMRD=1,SETUPMSG                                           *
R1.PR1 PRWIDTH=132,FCBLOAD                                        *
R1.RD1 PUDEST=1,PULCL                                             *
********** RMT2 IS A 3777
RMT2   LUTYPE1,BUFSIZE=512,COMP,CMPCT,NUMPR=1,LUNAME=LU3777R,     *
       NUMRD=1,SETUPMSG                                           *
R2.PR1 PRWIDTH=132,FCBLOAD                                        *
R2.RD1 PUDEST=1,PULCL                                             *
********* RMT90 is a 3790
RMT90  LUTYPE1,BUFSIZE=256,COMP,CMPCT,CONSOLE,NUMPR=3,               C
       SETUPHDR
R90.PR1 DRAIN,PRWIDTH=120
R90.PR2 DRAIN,CLASS=X
R90.PR3 PRWIDTH=132
*++++++ RMT95 = ID ASSIGNED TO 3776
```

```
RMT95 LUTYPE1,BUFSIZE=256,COMP,NUMPR=1,                              C
      SETUPMSG
R95.PR1 PRWIDTH=132,FCBLOAD
*
*
*  - RMT LINE DEFAULTS - CODEA,LOWSPEED,IFACEA,ADISCON,EBCDIC,HDUPLEX
*
*  - RMT NUM DEFAULTS - BLOCKED,NOMRF,NOTRANSP,HARDWARE,NOTABS,NUMPR=1,
*                       NUMRD=1,NUMPU=0,VARIABLE,NOBUFEX,NOABUFEX,
*                       NOCOMP,NOCON,DISCINTV=0,PASSWORD=,LINE=
*
*  - RMT PRT DEFAULTS - OPERATOR,CLASS=AJ,START,NOFCBLOD,SEP,SUSPEND,
*                       PRWIDTH=120,FORMS=STD.,UCS=,FCB=
*
*  - RMT PUN DEFAULTS - OPERATOR,CLASS=BK,START,SEP,SUSPEND,FORMS=STD.
*
*  - RMT RDR DEFAULTS - CLASS=A,MSGCLASS=A,START,NOHOLD,PRDEST=,
*                       PRIOLIM=15,PRIOINC=,PUDEST=
*
```

OS/VS START PARAMETER DEFINITION (VTAM AND ACF/VTAM)

```
./   ADD   NAME=ATCSTR00,LEVEL=00,SOURCE=0,LIST=ALL
*************************************************************************
*                                                                       *
*   MINIMUM STARTUP - SHOULD BE USED FOR OS/VS VTAM AND ACF/VTAM        *
*                                                                       *
*************************************************************************
TRACE,TYPE=SMS,ID=VTAMBUF,                                             X
MAXSUBA=31,                                                            X
SSCPID=01,                                                             X
NETSOL=NO
```

OS/MVS VTAM START PARAMETER DEFINITION (TEST)

```
./   ADD   NAME=ATCSTRPS,LEVEL=00,SOURCE=0,LIST=ALL
**********************************************************************
*                                                                    *
*   ATCSTR00 IS REQUIRED                                             *
*                                                                    *
*    VTAM START PARAMETERS --- DEFAULT VALUES                        *
*   NOTE:  THE IOBUF (BSZ) PARAMETER MUST EQUAL THE UNITSZ VALUE     *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE       *
*          BUFFER POOL START PARAMETERS IS EITHER                    *
*          XXBUF=(BNO,BSZ,BTHZ) AS INDICATED BELOW.                  *
*                                                                    *
**********************************************************************
MAXSUBA=31,                                                          X
NOPROMPT,                                                            X
CONFIG=PS,                                                           X
SSCPID=01,                                                           X
NETSOL=NO,                                                           X
SFBUF=(271,,271),                                                    X
LFBUF=(40,,32),                                                      X
LPBUF=(52,,32),                                                      X
NPBUF=(153,,145),                                                    X
CRPLBUF=(171,,162),                                                  X
IOBUF=(102,156,80),                                                  X
APBUF=(154,,146),                                                    X
SPBUF=(15,,15),                                                      X
UECBUF=(269,,256),                                                   X
WPBUF=(132,,132),                                                    X
PPBUF=(135,156,128)
./       ENDUP
/*
//
```

NOTE- Details for coding and filing start parameters are found in the OS/MVS System Programming Library: VTAM (GC28-0688).

OS/MVS ACF/VTAM START PARAMETER DEFINITION (TEST)

```
./   ADD   NAME=ATCSTRAC,LEVEL=00,SOURCE=0,LIST=ALL
*****************************************************************************
*   ATCSTR00 IS REQUIRED OR THIS DEFINITION CAN REPLACE IT.                 *
*   NOTE:  THE IOBUF (BUFSIZE) PARAMETER MUST EQUAL THE UNITSZ VALUE        *
*          IN THE NCP HOST MACRO DEFINITION. THE FORMAT OF THE              *
*          BUFFER POOL START PARAMETERS IS EITHER                           *
*          XXBUF=(BASENO,BUFSIZE,SLOWPT,XPANNO,XPANPT)                      *
*          OR XXBUF=VBSZ AS INDICATED BELOW.                                *
*          XPANNO OF 1 WILL CAUSE ACF/VTAM TO ACQUIRE 1 PAGE OF             *
*          BUFFERS SINCE THEY ARE ALWAYS ACQUIRED IN PAGE                   *
*          INCREMENTS.                                                      *
*****************************************************************************
TRACE,TYPE=SMS,ID=VTAMBUF,                                                  X
TNSTAT,CNSL,TIME=10,                                                        X
MAXSUBA=31,NOPROMPT,CONFIG=AC,SSCPID=01,                                    X
HOSTSA=13,                                                                  X
MAXAPPL=50,                                                                 X
VTAMEAS=150,                                                                X
NETSOL=NO,                                                                  X
SFBUF=(60,,2,,01,3),    *** XPANNO OF 1 WILL CAUSE ACF/VTAM TO ACQUIRE      X
LFBUF=(37,,2,,01,3),        1 PAGE OF BUFFERS SINCE THEY ARE ALWAYS         X
LPBUF=(32,,1,,01,2),        ACQUIRED IN PAGE INCREMENTS ***                 X
NPBUF=(23,,2,,01,3),                                                        X
CRPLBUF=(40,,2,,01,3),                                                      X
IOBUF=(60,152,4,,01,26),
 NOTE - The difference between SLOWPT and XPANPT must be greater than
        the largest MAXBFRU defined in any NCP or Local definition.
APBUF=(66,,2,,01,3),                                                        X
SPBUF=(66,,2,,01,3,                                                         X

NOTE: For Networks with greater than 100 BSC 3277's,
      expansion of SPBUF is not recommended. BASENO must be larger
      that the number of BASIC sessions if no expansion.
or SPBUF=(100,,10),                                                         X
UECBUF=(39,,2,,01,3),                                                       X
WPBUF=(27,,2,,01,3),                                                        X
PPBUF=(29,152,2,,01,3)
./       ENDUP
```

NOTE- Details for coding and filing start parameters are found in the ACF/VTAM System Programmers Guide: VTAM (SC38-0258).

OS/MVS VTAM APPLICATION DEFINITION EXAMPLE

```
./       ADD   NAME=APPCON01,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*************************************************************************
*                                                                       *
* APPLICATION PROGRAM DEFINITION FOR VTAM                               *
*    WHERE THE OPERANDS AVAILABLE ARE:                                  *
*            PRTCT=PASSWORD,        PASSWORD MUST ALSO BE DEFINED IN    *
*                                   APPLICATION PROGRAM 'ACB'.          *
*            BUFFACT=N|1,           APPLIES ONLY TO BASIC NEWE.         *
*            AUTH=(ACQ|NOACQ,       ALLOWS APPLICATION PROGRAM TO USE   *
*                                   THE OPNDST MACRO WITH THE           *
*                                   ACQUIRE OPTION.                     *
*              BLOCK|NOBLOCK,       NOT USED WITH SDLC OR 3270.         *
*              PASS|NOPASS,         ALLOWS USE OF CLSDST MACRO          *
*                                   WITH THE PASS OPTION.               *
*              TCAM)                ALLOWS PATH TO TCAM
*                                                                       *
*************************************************************************
SAMP1     APPL   AUTH=(ACQ)
DBDCCICS  APPL   AUTH=(ACQ)
BATCH     APPL   AUTH=(ACQ)
INQ3790   APPL   AUTH=(NOACQ)
INQALL    APPL   PRTCT=OKAYOKAY,AUTH=(ACQ)
HOSTPGM1  APPL   AUTH=(NOACQ)
INQ       APPL   AUTH=(ACQ,BLOCK)
TEST1     APPL   AUTH=(ACQ,PPO)
BASIC2    APPL   AUTH=(ACQ,PASS,SPO,BLOCK)
IEDQTCAM  APPL   AUTH=(ACQ,TCAM,BLOCK),PRTCT=PASSWORD
TCAM      APPL   AUTH=(ACQ,TCAM,BLOCK),PRTCT=PASSITON
SYSSSS    APPL   AUTH=(ACQ)
./       ENDUP
/*
```

NOTE- Defining and filing application parameters is described in Defining VTAM Application Programs of the OS/MVS Systems Programming Library: VTAM(GC28-0688).

OS/MVS ACF/VTAM APPLICATION DEFINITION EXAMPLE

```
./       ADD   NAME=APPCONAC
************************************************************************
*                                                                      *
* APPLICATION PROGRAM DEFINITION FOR VTAM                              *
*    WHERE THE OPERANDS AVAILABLE ARE:                                 *
*            PRTCT=PASSWORD,       PASSWORD MUST ALSO BE DEFINED IN    *
*                                  APPLICATION PROGRAM 'ACB'.          *
*            BUFFACT=N|1,          APPLIES ONLY TO BASIC SESSIONS.     *
*            AUTH=(ACQ|NOACQ,      ALLOWS APPLICATION PROGRAM TO USE   *
*                                  THE OPNDST MACRO WITH THE           *
*                                  ACQUIRE OPTION.                     *
*              BLOCK|NOBLOCK,      NOT USED WITH SDLC OR 3270.         *
*              PASS|NOPASS,        ALLOWS USE OF CLSDST MACRO          *
*                                  WITH THE PASS OPTION.               *
*              TCAM)               ALLOWS PATH TO TCAM
*                                                                      *
************************************************************************
IMS      APPL AUTH=ACQ
VAPPL    APPL AUTH=(ACQ,PPO)
SYSSSS   APPL AUTH=ACQ
BTS3770  APPL AUTH=ACQ
DSPRINT  APPL AUTH=ACQ
IKJACCNT APPL AUTH=ACQ
JES2     APPL AUTH=ACQ
VTAMWHO  APPL
./       ADD   NAME=TSOAPAC,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
TSO      APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=10
TSO00001 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00002 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00003 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00004 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00005 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00006 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00007 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00008 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00009 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
TSO00010 APPL  AUTH=(NOBLOCK,PASS,NOPO,TSO,NVPACE),EAS=1
./       ENDUP
/*
```

NOTE- Defining and filing application parameters is described in Defining VTAM Application Programs of the ACF/VTAM Systems Programmers Guide: (SC38-0258).

OS/MVS NCP DEFINITION EXAMPLE

```
./       ADD   NAME=NCPRAL,LEVEL=00,SOURCE=0,LIST=ALL
./       NUMBER NEW1=10,INCR=10
*************************************************************************
*                                                                       *
*       SOURCE FOR NCP4.1 OS/MVS VTAM                                   *
*                                                                       *
*************************************************************************
./       ENDUP
/*
```

NOTE- The OS/MVS System Programming Library: VTAM and the NCP/VTAM generation guide are required. The HOST macro definition must be consistant with the VTAM start parameters.

The source from the NCP generation should be used here after removing the assembler control cards. When testing the NCP the first time, all the PU's should contain the VTAM parameter 'ISTATUS=INACTIVE'. After loading the NCP they should be varied 'active' individually. After a PU and it's resources are operational, the member can be updated to change the ISTATUS to 'ACTIVE'.

OS/MVS VTAM CONFIGURATION DEFINITION

```
./       ADD   NAME=ATCCON00,LEVEL=00,SOURCE=0,LIST=ALL
**************************************************************************
*                                                                        *
*   START-UP CONFIGURATION, NO NCP                                       *
*                                                                        *
**************************************************************************
APPCON01,LOCCON01
./       ADD   LIST=ALL,SSI=20001103,NAME=ATCCONPS
APPCON01,LOCCON01,NCPRAL
./       ENDUP
/*
//
```

NOTE- If 00 is activated, it will be necessary to vary the NCP 'active' via the operator. To autoload the NCP, LIST=RA should be specified at VTAM start time.

OS/MVS ACF/VTAM CONFIGURATION DEFINITION

```
./       ADD   NAME=ATCCON00,LEVEL=00,SOURCE=0,LIST=ALL
**************************************************************************
*                                                                        *
*   START-UP CONFIGURATION, NO NCP                                       *
*                                                                        *
**************************************************************************
LOC3272,TSOAPAC
./       ADD   NAME=ATCCONAC
LOC3272,SWITCHAC,NCPACF,APPCONAC,TSOAPAC
./       ENDUP
/*
//
```

OS/MVS EXAMPLE OF LOGON TABLE GENERATION

```
//LOGASM JOB 'LOGTAB ASSEMBLY',MSGLEVEL=1,REGION=200K
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *
 Source deck
//LKED.SYSLMOD  DD  DSN=SYS1.LPALIB(Table Name),DISP=SHR
```

NOTE- The interpret table is required in order to allow non-SDLC terminals to 'logon' to application programs via the Network Solicitor. Terminal-Initiated Logons in OS/MVS System Programmers Library: VTAM describes the generation of the interpret table.

OS/MVS MODETAB ASSEMBLY

```
//MODETAB JOB 'MODETAB ASSEMBLY',MSGLEVEL=1,CLASS=C
//STEP1 EXEC ASMFCL
//ASM.SYSPUNCH DD  DUMMY
//ASM.SYSIN DD *
Source Deck
//LKED.SYSLMOD  DD  DSN=SYS1.LPALIB(Modetab Name),DISP=SHR
/*
/*
```

NOTE- This modetab is a subset of the IBM supplied Logon Mode Table. Adding it this way simplifies operator logon from the 3270 SDLC unit. Terminal-Initiated Logons in OS/MVS System Programmers Library: VTAM Chapter 4 describes Logon Mode Tables. If the terminal is to be acquired by an application, this modetab is required.

OS/MVS EXAMPLE OF START PROCEDURE

START PROCEDURE FOR VTAM2

```
./      ADD LIST=ALL,NAME=NET,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//NET    EXEC  PGM=ISTINM01,REGION=500K
//VTAMLIB  DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST  DD   DSN=SYS1.VTAMLST,DISP=NEW
//VTAMOBJ  DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//INITEST  DD   DSN=SYS1.LINKLIB,DISP=SHR
//OLTCDSDD DD   DSN=OLTLIB,DISP=SHR
//SYSMSYM  DD   DSN=CDSLIB,DISP=SHR
//NCPLOAD  DD   DSN=SYS1.NCPLOAD,DISP=SHR
//NCPDUMP  DD   DSN=NCPDUMP,DISP=NEW
//SYSABEND DD   SYSOUT=A
./   ENDUP
.sp 2
.uc Start Procedure for ACF/VTAM
.sp 2
./      ADD LIST=ALL,NAME=NET,LEVEL=01,SOURCE=0
./   NUMBER  NEW1=10,INCR=10
//NET     EXEC  PGM=ISTINM01,REGION=1536K,DPRTY=(15,15),PERFORM=8
//VTAMLIB  DD   DSN=SYS1.VTAMLIB,DISP=SHR
//VTAMLST  DD   DSN=VTAM.LIST.SOURCE,DISP=SHR
//NCPLIB   DD   DSN=SYS2.NCPLIB,DISP=SHR
//VTAMOBJ  DD   DSN=SYS1.VTAMOBJ,DISP=SHR
//NCPDUMP  DD   DSN=SYS1.NCPDUMP,DISP=SHR
//OLTCDSDD DD   DSN=SYS1.OLTLIB,DISP=SHR
//SYMSYM   DD   DSN=SYS1.CDSLIB,DISP=SHR
//SYSUDUMP DD   SYSOUT=A                Used when Z NET,CANCEL executed.
//INITEST  DD   DSN=NCP6.SSPLIB,DISP=SHR
./   ENDUP
//
```

NOTE- The DD cards for data sets OLTLIB and CDSLIB should be omitted unless the Customer Engineer has prepared these data sets. The system can be installed without these data sets but they must be installed before TOLTEP can be used.

5.5 : OS/VS SAMPLES (COMMON CODE)

The samples contained here are for either a VS1 or VS2 System.

REFERENCES

IBM 3704 And 3705 Communications Controllers Network Control Program/VS Generation And Utilities Guide And Reference Manual (for OS/VS And DOS/VS VTAM Users)	GC30-3008
IBM 3705 Advanced Communications Function for Network Control Program/VS Generation And Utilities Guide And Reference Manual	SC30-3116
OS/VS1 Service Aids	GC28-0665
OS/VS1 Access Methods Services	GC26-3840
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS1 JCL Reference	GT28-0618
OS/VS VTAM Reference Summary	GX27-0034
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 MVS Utilities	GC26-3902
OS/VS2 System Programming Library: Service Aids	GC28-0674
OS/VS2 JCL	GC28-0692
OS/VS TCAM System Programmer's Guide	GC30-2051
OS/VS TCAM Installation and Migration Guide	GC30-3039
OS/VS TCAM Program Reference Summary	GY30-1024
ACF/TCAM System Programmer's Guide	SC30-3117
ACF/TCAM Installation and Migration Guide	SC30-3121
ACF/TCAM Program Reference Summary	LY30-3037

VTAM FILE ALLOCATION SAMPLE FOR OS/VS1

```
//ALLOC JOB   MSGLEVEL=(1,1)
//ALLOC  EXEC  PGM=IEFBR14
//*   THIS STEP WILL ALLOCATE THE NECESSARY VTAM DATA SETS.
//DD1 DD UNIT=SYSDA,VOL=SER=SNA001,DISP=(,CATLG),SPACE=(CYL,(5,1,10)),
//   DCB=(LRECL=80,RECFM=FB,BLKSIZE=800),DSN=SYS1.VTAMLST
//DD2 DD UNIT=SYSDA,VOL=SER=SNA001,DISP=(,CATLG),SPACE=(CYL,(2,1,10)),
//   DCB=(LRECL=3152,RECFM=F,BLKSIZE=3152),DSN=SYS1.VTAMOBJ
//DD3 DD UNIT=SYSDA,VOL=SER=SNA001,DISP=(,CATLG),SPACE=(CYL,(1)),
//   DSN=NCPDUMP
```

VSAM DATA SET ALLOCATION FOR VTAM

```
//VSAMCAT JOB CLASS=A
// EXEC PGM=IDCAMS
//TARGTVOL DD DISP=OLD,VOL=SER=SNA001,UNIT=3330,DISP=OLD
//SYSPRINT DD SYSOUT=A
//SYSIN DD *
 DEFINE UCAT(NAME(USRVCAT) FILE(TARGTVOL) VOL(SNA001) CYL(2,1) -
       TO(99999))
/*
//VSAMALC JOB CLASS=a
//JOBCAT DD DISP=OLD,DSN=USRVCAT
//   EXEC PGM=IDCAmS
//FSPACE1 DD DISP=OLD,UNIT=3330,VOL=SER=SNA001
//SYSPRINT DD SYSOUT=A
//SYSIN DD *
 DEFINE SPACE(FILE(FSPACE1) VOL(SNA001) CYL (50,5))
 DEFINE CLUSTER  (NAME(LRNCKPT) -
                  VOL(SNA001) -
                  KEYS(2,0) -
                    TRACKS(2) -
                  RECSZ(10,10) -
                  SHR(4,4) -
                  FREESPACE(1))
 DEFINE CLUSTER  (NAME(NCP001) -
                  KEYS(4,0) -
                  VOL(SNA001) -
                  TRACKS(2) -
                  FSPC(1) -
                  SHR(4,4) -
```

```
                RECSZ(24,24))
 DEFINE CLUSTER  (NAME(LOC001) -
                KEYS(4,0) -
                VOL(SNA001) -
                TRACKS(2) -
                FSPC(1) -
                SHR(4,4) -
                RECSZ(24,24))
 DEFINE CLUSTER  (NAME(SWT001) -
                KEYS(4,0) -
                VOL(SNA001) -
                TRACKS(2) -
                FSPC(1) -
                SHR(4,4) -
                RECSZ(24,24))
/*
```

NOTES- Apendix G of the OS/VS1 VTAM System Programmer's Guide should be referenced. (VTAM Level 2 only).

NCP FILE ALLOCATION AND INSTALLATION SAMPLE FOR OS/VS (2314)

The following sample is for NCP/VS Release 5.0.

```
//ALLOC JOB   MSGLEVEL=(1,1)
//ALLOC  EXEC  PGM=IEFBR14
//*   THIS STEP WILL ALLOCATE THE NECESSARY NCP DATA SETS.
//DD1 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(37,4,11)),
//    DSN=SYS1.GEN3705,DCB=(LRECL=80,RECFM=FB,BLKSIZE=3520)
//DD2 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(64,5,36)),
//    DSN=SYS1.MAC3705,DCB=(LRECL=80,RECFM=FB,BLKSIZE=3520)
//DD3 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(8,2,30)),
//   DCB=(LRECL=80,RECFM=FB,BLKSIZE=400),DSN=SYS1.OBJ3705
//DD4 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(2,1,10)),
//   DCB=(LRECL=80,RECFM=FB,BLKSIZE=400),DSN=SYS1.NCPOBJ
//DD5 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(5,2,10)),
//   DSN=SYS1.NCPLOAD1
//STA    EXEC  PGM=IEHMOVE
//*   THIS STEP WILL COPY THE DATA FROM THE TAPE TO THE DISK
//SYSPRINT DD  SYSOUT=A
//SYSUT1  DD  UNIT=2314,SPACE=(CYL,(5,5))
//TAPEIN DD    UNIT=2400,VOL=SER=DISTTP,LABEL=(,NL),
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=800),DISP=(OLD,PASS)
//DISKOUT DD   UNIT=2314,VOL=SER=NCPR50,DISP=OLD
//SYSIN  DD    *
SSP      COPY  PDS=SYS1.SSPLIB,FROM=2400=(DISTTP,1),                  X
               TO=2314=NCPR50,FROMDD=TAPEIN
NCPMAC1  COPY  PDS=SYS1.GEN3705,FROM=2400=(DISTTP,2),                X
               FROMDD=TAPEIN,TO=2314=NCPR50
NCPMAC2  COPY  PDS=SYS1.MAC3705,FROM=2400=(DISTTP,3),                X
               FROMDD=TAPEIN,TO=2314=NCPR50
NCPOBJ   COPY  PDS=SYS1.OBJ3705,FROM=2400=(DISTTP,4),                X
               FROMDD=TAPEIN,TO=2314=NCPR50
/*
```

NOTES- This job stream allocates space for the data sets required for an NCP installation and generation. The PDS SYS1.SSPLIB must be copied to the SYS1.LINKLIB as noted in the next sample. The storage requirements may vary between release levels of NCP/VS. The Program Directories shipped with the NCP tape should always be consulted.

NCP INSTALLATION CONTINUED, UPDATE LINKLIST

```
./   ADD   NAME=LNKLSTxx
               SYS1.LINKLIB,    SYSTEM LINKLIB                  XXXXXXXXX
               SYS1.LINKLIB2,   USER     UTILITIES            XXXXXXXXXXX
               IMS.RESLIB,      IMS LIBRARY           XXXXXXXXXXXXXXXXXX
               SYS1.SSPLIB      NCP UTILITIES
```

NOTES- This stage is necessary. VTAM expects to find the 370x loader in the SYS1.LINKLIB and VTAM will be unable to load the 3705 if it can not find the loader. NCP utilities may be placed in SYS1.LINKLIB.

NCP JOB CONTROL FOR STAGE 1 - OS/VS

```
//SCRNCP4 JOB MSGLEVEL=(1,1)
//       EXEC  PGM=IEHPROGM
//SYSPRINT DD  SYSOUT=A
//DD3    DD    UNIT=2314,VOL=SER=NCPR50,DISP=OLD
//SYSIN DD *
   SCRATCH DSNAME=NCPSTG1,VOL=2314=NCPR50,PURGE
/*
//STAGE1 EXEC PGM=CWAX00,REGION=320K
//SYSLIB DD DSN=SYS1.GEN3705,DISP=SHR
//OBJ1 DD UNIT=2314,VOL=SER=NCPR50,DISP=(,CATLG),SPACE=(CYL,(2,1,10)),
//    DCB=(LRECL=80,RECFM=FB,BLKSIZE=400),DSN=SYS1.NCPOBJ1
//SYSUT1 DD    UNIT=SYSDA,SPACE=(1700,(800,800)),DCB=(OPTCD=C)
//SYSUT2 DD    UNIT=SYSDA,SPACE=(1700,(800,800)),DCB=(OPTCD=C)
//SYSUT3 DD    UNIT=SYSDA,SPACE=(1700,(800,800)),DCB=(OPTCD=C)
//SYSPRINT DD  SYSOUT=A
//SYSPUNCH DD  DSN=NCPSTG1,VOL=SER=NCPR50,DISP=(,KEEP),
//   UNIT=2314,SPACE=(CYL,(2,1)),DCB=(LRECL=80,RECFM=FB,BLKSIZE=800)
//SYSIN DD *
//SYSIN DD *
*********************************************************************
*                                                                   *
*       SOURCE FOR NCP3 OS VTAM                                     *
*                                                                   *
*********************************************************************
/*
//
```

NOTES- The JCL sample punches the Stage 1 ouput to a sequential data set. This sample allows Stage 2 to be started by reading from the file. The listing from Stage 1 must be examined for defaults and MNOTES. The punched output from this stage should allow an error free NCP generation. There may be unresolved EXTRNs in the link edit stage. The letter to users, that comes with the NCP installation materials, lists these unresolved EXTRNs. Normally these unresolved items can be ignored. Unlike DOS/VS, there are no additional steps after the link edit stage. The NCP load is ready to be used as soon as the last step is completed.

OS/VS NCP LOAD SAMPLE

```
//LOAD   JOB   MSGLEVEL=(1,1)
//*  THIS ROUTINE LOADS THE LOCAL 3705
//       EXEC  PGM=IFLOADRN
//SYSPRINT DD  SYSOUT=A
//SYSUT1  DD DSN=NCP.NCPSN2,DISP=SHR
//* NEXT STATEMENT SPECIFIES INITIAL TEST LIBRARY
//SYSUT3 DD    DSN=SYS1.LINKLIB,DISP=SHR
//CUNAME DD    UNIT=0BF
//SYSIN  DD    *
         LOAD LOADMOD=NCPSN2,3705=CUNAME,DIAG=Y8
/*
//
```

NOTES- Options for this routine are covered in Chapter 7 of the NCP Generation manual, GC30-3008. This routine maybe used to check the NCP with initial test, prior to loading the 370x using VTAM. If the NCP is defined with 'Automatic Network Shutdown', the NCP will go back to the load state after the 'TIMEOUT' value specified in the NCP 'HOST' parameter has expired.

SAMPLE JCL TO DUMP AND PRINT NCP ON OS/VS

```
//DUMP   JOB   MSGLEVEL=(1,1)
//*  THIS ROUTINE DUMPS AND PRINTS THE LOCAL 3705 STORAGE CONTENTS
//       EXEC  PGM=IFLREAD
//SYSPRINT DD  SYSOUT=A
//* SYSUT1 SPECIFIES THE 3705 ADDRESS
//SYSUT1  DD   UNIT=0BF
//* SYSUT2 SPECIFIES THE TEMORARY DASD WORK DATA SET
//SYSUT2 DD    UNIT=SYSDA,DISP=NEW,                                    X
//             SPACE=(512,(513),,CONTIG),DCB=(DSORG=DA)
//SYSIN  DD    *
         DUMP FROMADDR=200,BUF=Y,FORMAT=Y
/*
//
```

NOTES- Options for this procedure are covered in Chapter 8 of the NCP Generation Manual, GC30-3008.

SAMPLE JCL FOR STARTING AND STOPPING VTAM TRACE

```
//PROCUP JOB 'UPDATE PROCLIB',MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=MOD
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./  ADD  NAME=GOTRACE,LIST=ALL
//TRACE PROC
// MODIFY NET,TRACE,TYPE=IO,ID=NCPSN2
// MODIFY NET,TRACE,TYPE=BUF,ID=NCPSN2
// MODIFY NET,TRACE,TYPE=IO,ID=CL3790
// MODIFY NET,TRACE,TYPE=BUF,ID=CL3790
// MODIFY NET,TRACE,TYPE=IO,ID=INBATCH1
// MODIFY NET,TRACE,TYPE=BUF,ID=INBATCH1
// MODIFY NET,TRACE,TYPE=IO,ID=INQDEM02
// MODIFY NET,TRACE,TYPE=BUF,ID=INQDEM02
// VARY NET,ACT,ID=CL3790
//STEP1 EXEC PGM=IEFBR14
//* OPERATOR COMMANDS TO SET UP FOR TRACE
./ ADD NAME=NOTRACE,LIST=ALL
//NOTRACE PROC
// MODIFY NET,NOTRACE,TYPE=IO,ID=NCPSN2
// MODIFY NET,NOTRACE,TYPE=BUF,ID=NCPSN2
// MODIFY NET,NOTRACE,TYPE=IO,ID=CL3790
// MODIFY NET,NOTRACE,TYPE=BUF,ID=CL3790
// MODIFY NET,NOTRACE,TYPE=IO,ID=INBATCH1
// MODIFY NET,NOTRACE,TYPE=BUF,ID=INBATCH1
// MODIFY NET,NOTRACE,TYPE=IO,ID=INQDEM02
// MODIFY NET,NOTRACE,TYPE=BUF,ID=INQDEM02
//* OPERATOR COMMANDS TO STOP VTAM TRACE
//STEP1 EXEC PGM=IEFBR14
./ ENDUP
/*
```

NOTES- This procedure allows an operator to execute a list of operator commands. It reduces operator error and insures that trace is started or stopped on specified nodes. The same operation can be accomplished by entering the commands through the card reader.

SAMPLE JCL FOR PRINTING TCAM TRACE RECORDS

```
//PROCUP JOB 'UPDATE PROCLIB',MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=MOD
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./  ADD  NAME=TRACES,LIST=ALL
//PIU     EXEC PGM=IEDQXB,PARM='PIUT'
//SYSUT1   DD  DSN=TCAM.COMWRITE,DISP=OLD
//SYSPRINT DD  SYSOUT=R,SPACE=(CYL,(5,1))
//BUFF    EXEC PGM=IEDQXB,PARM='BUFF'
//SYSUT1   DD  DSN=TCAM.COMWRITE,DISP=OLD
//SYSPRINT DD  SYSOUT=R,SPACE=(CYL,(5,1))
//LINE    EXEC PGM=IEDQXB,PARM='LINT,LIN3'
//SYSUT1   DD  DSN=TCAM.COMWRITE,DISP=OLD
//SYSPRINT DD  SYSOUT=R,SPACE=(CYL,(5,1))
//IOTR    EXEC PGM=IEDQXB,PARM='IOTR'
//SYSUT1   DD  DSN=TCAM.COMWRITE,DISP=OLD
//SYSPRINT DD  SYSOUT=R,SPACE=(CYL,(5,1))
//STCB    EXEC PGM=IEDQXB,PARM='STCB'
//SYSUT1   DD  DSN=TCAM.COMWRITE,DISP=OLD
//SYSPRINT DD  SYSOUT=R,SPACE=(CYL,(5,1))
./ ENDUP
/*
```

SAMPLE JCL FOR RUNNING TCAM

```
//PROCUP JOB 'UPDATE PROCLIB',MSGLEVEL=1,REGION=100K
//       EXEC  PGM=IEBUPDTE,PARM=MOD
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSUT2 DD    DSNAME=SYS1.PROCLIB,DISP=SHR
//SYSIN  DD    DATA
./ ADD NAME=TCAM,LIST=ALL
//SCRQ    EXEC PGM=IEFBR14
//REQUEUE  DD  DSN=TCAM.REQUEUE,DISP=(OLD,DELETE)
//FORMATQ EXEC PGM=IEDQXA
//IEDQDATA DD  DSN=TCAM.REQUEUE,DISP=(,CATLG),DCB=KEYLEN=156,
//             VOL=SER=SCLIB1,UNIT=3330-1,SPACE=(CYL,(5,5),,CONTIG)
//ACFTCAM EXEC PGM=IEDQTCAM,TIME=1440,DPRTY=(11,10),REGION=600K
//STEPLIB  DD  DSN=SYS2.NCPLIB,DISP=SHR
//REQUEUE  DD  DSN=TCAM.REQUEUE,DISP=SHR
//COMWRITE DD  DSN=TCAM.COMWRITE,DISP=SHR
//NCPDUMP  DD  DSN=TCAM.NCPDUMP,DISP=SHR
//DDIPL    DD  DSN=SYS2.NCPLIB,DISP=SHR
//NCP      DD  UNIT=019,DCB=IPLTXID=NCPACFI
//DD3270L  DD  UNIT=4C8
//         DD  UNIT=4C9
//QOPCTLI  DD  QNAME=AOPCTLI
//QOPCTLO  DD  QNAME=AOPCTLO
//QOPCTLP  DD  QNAME=AOPCTLP
//QSOFO    DD  QNAME=ASOFO
//Q3270I   DD  QNAME=A3270I
//Q3270O   DD  QNAME=A3270O
//QDLQI    DD  QNAME=DLQ
//QDLQO    DD  SYSOUT=R
//SYSUDUMP DD  SYSOUT=A,SPACE=(CYL,(5,1))
./ ENDUP
/*
```

CHAPTER 6 : ACF/TCAM SAMPLE

This section contains a sample MCP for ACF/TCAM and the USS table defintions for the devices supported in the MCP.

REFERENCES

TCAM Migration To NCP and SNA Featuring IBM 3790	GG22-9100
ACF/TCAM General Information	GC30-2050
ACF/TCAM Concepts and Planning	GC30-3049
ACF/TCAM System Programmer's Guide	SC30-3117
ACF/TCAM Macro Reference Guide	SC30-3118
ACF/TCAM Application Programmer's Guide	SC30-3119
ACF/TCAM Installation and Migration Guide	SC30-3121
ACF/TCAM MSNF Program Reference Summary Supplement	LD21-0003
ACF/TCAM Program Reference Summary	LY30-3037

ACF/TCAM SAMPLE MCP

```
 TITLE '                                  TCAM SAMPLE MCP'
*************************************************************************
*                            *                                          *
* ACF/TCAM SYSTEM OPERATION  *                                          *
*                            *                                          *
******************************                                          *
*                                                                       *
*                                                                       *
* TO START TCAM ENTER:       S TCAM                                     *
*                                                                       *
* TO ACTIVATE AND USE LOCAL 3270'S ENTER:                               *
*    FROM THE OS CONSOLE: V 4C8,ONTP                                    *
*                                                                       *
* TO STOP TCAM:                                                         *
*    1) FROM THE CONSOLE ENTER:      C TCAM(,DUMP)                      *
*    OR                                                                 *
*    2) FROM A LOGGED ON 3270 ENTER: CLOSE                              *
*                                THEN: // Z TP,QUICK                    *
*                                                                       *
* TO PRINT THE TRACES ENTER:         S TRACES                           *
*                                                                       *
* TO PRINT THE MESSAGE QUEUE ENTER:  S PRTQ                             *
*                                                                       *
*************************************************************************

*************************************************************************
*                                                                       *
* TO INITIATE A SESSION THE FOLLOWING COMMANDS MAY BE USED - ENTER:     *
*                                                                       *
* INITS          (FOR TCAM SESSIONS)                                    *
* TCAM           (FOR TCAM SESSIONS)                                    *
* LOGON (TSOID/PASSWORD) (FOR TSO)                                      *
* TSO   (TSOID/PASSWORD) (FOR TSO)                                      *
* IMS            (FOR VTAM SESSIONS)                                    *
* CICS           (FOR VTAM SESSIONS)                                    *
*                                                                       *
* TO TERMINATE A SESSION THE FOLLOWING COMMANDS MAY BE USED - ENTER:    *
*                                                                       *
* TERMS          (FOR TCAM SESSIONS)                                    *
* LOGOFF         (FOR TSO)                                              *
* TERMI          (FOR VTAM SESSIONS)                                    *
* TERMC          (FOR VTAM SESSIONS)                                    *
*                                                                       *
* ALL FORMATS ARE VALID IN UPPER OR LOWER CASE.                         *
*                                                                       *
```

```
* MODIFICATIONS TO THE SSCPMH (SEE FURTHER DISCUSSIONS THERE) WILL    *
* ENABLE THESE COMMANDS TO BE INTERPERTED FOR THE CORRECT LU AND      *
* BIND PARAMETERS. NOTE THAT THE REGULAR INITS AND TERMS FORMATS      *
* MAY STILL BE USED TO OVERRIDE THE DEFAULTS.                         *
*                                                                     *
***********************************************************************
*                                                                     *
* MESSAGE DEFINITION:                                                 *
*                                                                     *
* TYPE  FORMAT                    MEANING                             *
* ____  ______                    _______                             *
*                                                                     *
*   I   I XXXXXX                  INQUIRY                             *
*                                                                     *
*   M   M DEST / (DATA)           MESSAGE SWITCH                      *
*                                                                     *
*   O   // (CMD)                  OPERATOR CONTROL                    *
*                                                                     *
*   X   X   (CMD)                 EXTENDED OPERATOR CONTROL           *
*                                                                     *
*   N   NDS X  (X IS MODEL NO)    NDS TEST MESSAGE FOR ALL MODELS     *
*                                                                     *
*   S   /TCAMXXXX                 SOF OPERATOR COMMANDS               *
*                                 (OUTPUT GOES TO SDLC76P7)           *
*                                                                     *
***********************************************************************

***********************************************************************
*              *  ACF/TCAM: PROGID=IEDQTCAM  ACF/NCP: NEWNAME=NCPACFI *
* SYSTEM AS OF *            UNITSZ=156                 UNITSZ=156     *
*   01/05/79   *           MAXSUBA=31                 MAXSUBA=31      *
*              *           SUBAREA=14                 SUBAREA=21      *
****************                                      MAXBFRU=20      *
*                                                                     *
*                                                                     *
*TYPE  GROUP    LINE   CLUSTER(PU)   TERM(LU)          MESSAGE TYPES  *
*----  -----    ----   -----------   --------          -------------  *
*                                                                     *
* NCP SDLCGV1 SDLCI29                                                 *
*                      PU3270V       LU3270V0          I,M,O,X,S      *
*                                    LU3270V1                         *
*                                       TO                            *
*                                    LU3270V7          I,M,O,X,S      *
*                                                                     *
*             SDLCI22                                                 *
*                      SDLC3274      SDLCPA01          I,M,O,X,N,S    *
*                                       TO                            *
*                                    SDLCPA08                         *
```

```
*                                                                     *
*            SDLCI23                                                  *
*                     SDLC3276      SDLC76P1          I,M,O,X,N,S    *
*                                      TO                             *
*                                   SDLC76P8                          *
*                                                                     *
*            BSCI25                                                   *
*                     BSC3270       BSC32700          I,M,O,X,N,S    *
*                                      TO             I,M,O,X,N,S    *
*                                   BSC32707                          *
*                                                                     *
*.....................................................................*
*                                                                     *
* OTHER TCAM LU'S: IEDQTCAM (DEFAULT MHS3270)                         *
*                  MHS3270  (3270 BSC,SDLC & LOCAL)    I,M,O,X,S      *
*                  NDSMH    (3270 NDS)                 I,M,O,X,N,S    *
*                  TSOMH                                             *
*                                                                     *
***********************************************************************

TCAM     CSECT
         EXTRN IEDN25       REQUIRED FOR USER EBCF TRANS TABLE
         INTRO ABEFMT=(PCB,SIB,PLCB,OPT),APDUMP=NO,APWAS=4024,          X
               AUTHA=YES,BFRRTN=LO,BRACKET=YES,BTRACE=030,CDRVT=40,     X
               CIB=10,CKREQS=0,COMWRTE=YES,CONTROL=//,CPB=30,           X
               CPINTVL=1800,CPRCDS=2,CROSSRF=0,DISK=YES,DLQ=DLQ,        X
               DTRACE=(500,POST),ENVIRON=MIXED,                         X
               FEATURE=(,,,,MIXD3705,MIXDSNA,NETWORK),                 X
               INTVAL=0,LINETYP=BOTH,LNUNITS=300,MAXSUBA=31,MSMAX=70,   X
               MSMIN=1,MSUNITS=150,OLTEST=0,PASSWRD=0,PLCBNO=15,        X
               PRIMARY=SYSCON,PROGID=IEDQTCAM,RESTART=0,ROUTE=NO,       X
               SIBCNT=80,STARTUP=C,SUBAREA=14,THRESH=(255,1,1,1),       X
               TOPMSG=YES,TRACE=(50,ON),TTRACE=200,UNITSZ=156,          X
               USEREG=0,VM=YES
         LTR   15,15
         BZ    AOK                  BRANCH IF NO ERROR
         ABEND 4095,DUMP
***********************************************************************
         DC    C'ACF/TCAM SNA MCP COMPILED'
         DC    C' &SYSDATE &SYSTIME'
***********************************************************************
AOK      OPEN  (REQUEUE,(INOUT))    OPEN MESSAGE QUEUES DATA SET
         LTR   R15,R15              TEST OPEN RETURN CODE
         BNZ   BADOPEN              IF OPEN FAILED, BRANCH
         OPEN  (LOC3270,(INOUT,IDLE)) OPEN LOCAL 3270 DCB
         LTR   R15,R15              TEST OPEN RETURN CODE
         BNZ   BADOPEN              IF OPEN FAILED, BRANCH
```

```
          OPEN  (NCPDCB,(INOUT))    OPEN 3705 NCP
          LTR   R15,R15             TEST OPEN RETURN CODE
          BNZ   BADOPEN             IF OPEN FAILED, BRANCH
          ATTACH EP=APPL3270
          ATTACH EP=OPCTL
          ATTACH EP=APPLMDR
          WTO   'TCAM IS UP .........................'
          READY GMMSG=GDMRNG        READY WITH GOOD MORNING ROUTINE
          CLOSE NCPDCB              CLOSE 3705
          CLOSE LOC3270             CLOSE LOCAL 3270
          CLOSE REQUEUE             CLOSE MESSAGE QUEUES DATA SET
          L     13,4(13)            RESTORE SAVE AREA POINTER
          RETURN (14,12),RC=0       RETURN TO CALLER
BADOPEN   ABEND 4094,DUMP           AN OPEN MACRO WAS UNSUCCESSFUL
**********************************************************************
*         THIS GOOD MORNING ROUTINE GETS CONTROL AT STARTUP.         *
*         IT IS EXECUTED ONCE FOR EACH TERMINAL IN THE TERMINAL      *
*         TABLE. THE TERMMODE OPTION FIELD IS CHECKED FOR A X'10'.   *
*         IF A X'10' IS FOUND A GOOD MORNING MESSAGE IS GENERATED.   *
**********************************************************************
          USING *,R15
GDMRNG    STM   R0,R14,SAVE         SAVE REGISTERS AND ESTABLISH
          LA    R13,SAVE            ADDRESSABILITY
          BALR  R6,0
          USING *,R6
          L     R4,4(R1)
          TM    10(R4),X'10'        TERMMODE SPECIFY GM MSG ?
          BNO   NOGMMSG             NO, BRANCH
          LA    R15,GDMSG           REG 15 IS ADDR OF GM MSG
RETOS     LM    R0,R14,0(R13)       RESTORE REGISTERS
          BR    R14                 RETURN TO OS
NOGMMSG   SR    R15,R15             CLEAR REG 15
          B     RETOS
GDMSG     DC    AL1(18)
          DC    C'TCAM IS AVAILABLE'
          DROP  R6
SAVE      DC    15F'0'
**********************************************************************
PCBDLQ    PCB   MH=MHDLQAP,BUFSIZE=1024,BUFIN=2,BUFOUT=2
PCBOPCTL  PCB   MH=MHOPCTL,BUFSIZE=256,BUFIN=2,BUFOUT=2
PCB3270   PCB   MH=MH3270AP,BUFSIZE=256,BUFIN=10,BUFOUT=10
REQUEUE   DCB   DSORG=TQ,MACRF=(G,P),DDNAME=REQUEUE,OPTCD=R
NCPDCB    DCB   DSORG=TR,MACRF=(G,P),DDNAME=NCP
DUMPDCB   DCB   DSORG=PS,MACRF=(WP),DDNAME=NCPDUMP,BLKSIZE=512,RECFM=F, X
                LRECL=512
LOC3270   DCB   DSORG=TX,MACRF=(G,P),DDNAME=DD3270L,MH=MHS3270,CPRI=S,  X
                PCI=(N,N),BUFIN=1,BUFOUT=2,BUFMAX=2,BUFSIZE=2028,       X
                SCT=EBCD,TRANS=IEDN25,INVLIST=(LLST1,,,LLST2)
```

```
*********************************************************************
R0       EQU   0
R1       EQU   1
R2       EQU   2
R3       EQU   3
R4       EQU   4
R5       EQU   5
R6       EQU   6
R7       EQU   7
R8       EQU   8
R9       EQU   9
R10      EQU   10
R13      EQU   13
R14      EQU   14
R15      EQU   15
 TITLE '                                TERMINAL TABLE'
*********************************************************************
*          TERMINAL TABLE                                           *
*                                                                   *
* TERMTYPE X'80' 3270 TERMINAL                                      *
*          X'40' 2770/3770 TERMINAL                                 *
*          X'20' 2741/3767 TERMINAL                                 *
*          X'10' NDS 3270 TERMINAL                                  *
*          X'08' S/S, BSC LINE CONTROL EP MODE                      *
*          X'04' S/S, BSC LINE CONTROL NCP MODE                     *
*          X'02' LOCAL SUPPORT                                      *
*          X'01' SDLC LINE CONTROL                                  *
*                                                                   *
* TERMMODE X'80' BATCH                                              *
*          X'40' INQUIRY                                            *
*          X'20' MESSAGE SWITCH                                     *
*          X'10' GOOD MORNING MESSAGES REQUIRED                     *
*          X'08' NO IDLES NEEDED                                    *
*          X'04' SCREEN DEVICE                                      *
*          X'02' IDLES NEEDED                                       *
*          X'01' PRINTER                                            *
*********************************************************************
         TTABLE MAXLEN=8,LAST=BSC32707
TERMNAME OPTION CL8          1   TERMINAL NAME FIELD
PATHSW   OPTION XL1          2   OPTION FIELD FOR PATH SWITCH
TERMTYPE OPTION XL1          3   TERMINAL TYPE & LINE CONTROL
TERMMODE OPTION XL1          4   TERMINAL AND APPL CHARACTERISTICS
ERRCT    OPTION XL1          5   TRANS ERROR COUNTER (IEDVOFF)
IEDLMODE OPTION CL8          6   BIND NAME FOR HOST INITIATED SESSION
PRNT3270 OPTION CL8          7   NAME OF 328X FOR 3277 TO PRINT
IEDLUNAM OPTION CL8          8   DMH FOR HOST INITIATED SESSION
IEDQFSCR OPTION XL1          9   TSO FULL SCREEN SUPPORT
*********************************************************************
```

```
ERRQ     TPROCESS PCB=PCB3270,QUEUES=DR
DLQ      TPROCESS PCB=PCBDLQ,QUEUES=DR,ALTDEST=DLQ
DLQO     TPROCESS PCB=PCBDLQ
AOPCTLI  TPROCESS PCB=PCBOPCTL,QUEUES=DR,LU=YES
AOPCTLO  TPROCESS PCB=PCBOPCTL,QUEUES=DR
AOPCTLP  TPROCESS PCB=PCBOPCTL,ALTDEST=AOPCTLO,SECTERM=YES
ASOFO    TPROCESS PCB=PCBOPCTL,ALTDEST=SDLC76P7,SECTERM=YES
A3270I   TPROCESS PCB=PCB3270,QUEUES=DR,ALTDEST=A3270I
A3270O   TPROCESS PCB=PCB3270
APPLS    TLIST TYPE=D,LIST=(A3270I,AOPCTLI,DLQ)
```

ACF/TCAM 3270 LOCAL TERMINALS

```
**************************************************************************
*        3270 LOCAL TERMINALS                4C8,4C9                     *
**************************************************************************
L3277A   TERMINAL TERM=327L,DCB=LOC3270,RLN=1,QBY=T,QUEUES=MRT,         X
               ALTDEST=L3277A,SECTERM=YES,UTERM=NO,                      X
               SCRSIZE=(24,80),FEATURE=(NOBREAK,NOATTN),                 X
               OPDATA=(L3277A,0,82,74,0,,LU3270V1,,0)
L3277B   TERMINAL TERM=327L,DCB=LOC3270,RLN=2,QBY=T,QUEUES=MRT,         X
               ALTDEST=L3277B,SECTERM=YES,UTERM=NO,                      X
               SCRSIZE=(24,80),FEATURE=(NOBREAK,NOATTN),                 X
               OPDATA=(L3277B,0,82,74,0,,LU3270V1,,0)
**************************************************************************
*        TERMINAL ENTRIES FOR 3705 NCP AND SSCP                          *
**************************************************************************
NCP      TERMINAL TERM=LNCP,DCB=NCPDCB,DUMPDCB=DUMPDCB,ACTIVE=NO
SSCP     TERMINAL TERM=SSCP
```

ACF/TCAM CDRM DEFINITION

```
**************************************************************************
*        VTAM GROUP,CDRM  AND CDRM RESOURCES                             *
**************************************************************************
VTAM     GROUP MH=HOSTMH,BUFSIZE=256,BUFOUT=5,BUFMAX=10
MVSVMVT  TERMINAL TERM=CDRM,GROUP=VTAM,RLN=1,NETADDR=(13,1),ACTIVE=YES
IMS      TERMINAL TERM=LUNT,GROUP=VTAM,RLN=1,QBY=T,QUEUES=DR,LUCAP=PRI,X
               TCMSESN=LUTERM,OPDATA=(IMS)
CICS14   TERMINAL TERM=LUNT,GROUP=VTAM,RLN=1,QBY=T,QUEUES=DR,LUCAP=PRI,X
               TCMSESN=LUTERM,OPDATA=(CICS14)
```

```
ACF/TCAM 3270 MODEL 12

*************************************************************************
*        GROUP                                                          *
*************************************************************************
GSNA     GROUP MH=MHS3270,TRANS=EBCF,BUFMAX=7,OPACING=5,BUFSIZE=2028
*************************************************************************
*        LINE 1                                                         *
*************************************************************************
SDLCI29  TERMINAL TERM=LINE,GROUP=GSNA,RLN=1,ACTIVE=YES
*************************************************************************
*        3270 LEASED LINE SDLC                                          *
*************************************************************************
PU3270V  TERMINAL TERM=PUNT
LU3270V0 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=1,QBY=T,QUEUES=MRT,USS=3270,X
               ALTDEST=LU3270V0,SECTERM=YES,                            X
               SCRSIZE=(24,80),FEATURE=(NOBREAK,NOATTN),                X
               OPDATA=(LU3270V0,0,81,64,0,BI3270NB,LU3270V1,MHS3270,0)
LU3270V1 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=1,QBY=T,QUEUES=DR,USS=3270, X
               ALTDEST=LU3270V1,                                        X
               OPDATA=(LU3270V1,0,81,61,0,BI3270NB,,MHS3270)

*****
  Code deleted.
*****

LU3270V7 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=1,QBY=T,QUEUES=MRT,USS=3270,X
               ALTDEST=LU3270V7,SECTERM=YES,                            X
               SCRSIZE=(24,80),FEATURE=(NOBREAK,NOATTN),                X
               OPDATA=(LU3270V7,0,81,64,0,BI3270NB,LU3270V1,MHS3270,0)



ACF/TCAM 3274 LEASED LINE

*************************************************************************
*        LINE 2                                                         *
*************************************************************************
SDLCI22  TERMINAL TERM=LINE,GROUP=GSNA,RLN=2,ACTIVE=YES
*************************************************************************
*        3274 LEASED LINE SDLC                                          *
*************************************************************************
SDLC3274 TERMINAL TERM=PUNT
SDLCPA01 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=2,QBY=T,QUEUES=MRT,USS=SCS, X
               ALTDEST=SDLCPA01,SECTERM=YES,BUFSIZE=3588,               X
               SCRSIZE=(24,80,43,80),FEATURE=(NOBREAK,NOATTN),          X
               OPDATA=(SDLCPA01,0,11,64,0,NDS3278,SDLCPA07,NDSMH,0)
```

```
*****
  Code deleted.
*****

SDLCPA08 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=2,QBY=T,QUEUES=DR,USS=SCS,  X
               ALTDEST=SDLCPA08,                                      X
               OPDATA=(SDLCPA08,0,11,61,0,NDS8789,,NDSMH)



ACF/TCAM 3276 LEASED LINE

*************************************************************************
*        LINE 3                                                         *
*************************************************************************
SDLCI23  TERMINAL TERM=LINE,GROUP=GSNA,RLN=3,ACTIVE=YES
*************************************************************************
*        3276 LEASED LINE SDLC                                          *
*************************************************************************
SDLC3276 TERMINAL TERM=PUNT,ACTIVE=YES
SDLC76P1 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=3,QBY=T,QUEUES=MRT,USS=SCS, X
               ALTDEST=SDLC76P1,SECTERM=YES,                          X
               SCRSIZE=(24,80,24,80),FEATURE=(NOBREAK,NOATTN),        X
               OPDATA=(SDLC76P1,0,11,64,0,NDS3278,SDLC76P7,NDSMH,0)

*****
  Code deleted.
*****

SDLC76P8 TERMINAL TERM=LUNT,GROUP=GSNA,RLN=3,QBY=T,QUEUES=DR,USS=SCS,  X
               ALTDEST=SDLC76P8,                                      X
               OPDATA=(SDLC76P8,0,11,61,0,NDS8789,,NDSMH)



ACF/TCAM BSC 3270

*************************************************************************
*        GROUP                                                          *
*************************************************************************
GBSC     GROUP MH=MHS3270,TRANS=EBCF,BUFSIZE=2028,PCI=(,N)
*************************************************************************
*        LINE 1                                                         *
*************************************************************************
BSCI25   TERMINAL TERM=LINE,GROUP=GBSC,RLN=1,ACTIVE=NO
```

```
*************************************************************************
*        3271 LEASED LINE BSC                                           *
*************************************************************************
BSC3270  TERMINAL TERM=327C,GROUP=GBSC,RLN=1,QBY=T
BSC32700 TERMINAL TERM=327R,GROUP=GBSC,RLN=1,QBY=T,QUEUES=DRT,         X
               ALTDEST=BSC32700,SECTERM=YES,                           X
               SCRSIZE=(24,80),FEATURE=(NOBREAK,NOATTN),               X
               OPDATA=(BSC32700,0,84,74,0,,BSC32706,,0)

*****
  Code deleted.
*****

BSC32707 TERMINAL TERM=327R,GROUP=GBSC,RLN=1,QBY=T,QUEUES=DR,          X
               ALTDEST=BSC32707,OPDATA=(BSC32707,0,84,71,0)
*************************************************************************
*        3270 LOCAL INVITATION LIST                                     *
*************************************************************************
LLST1    INVLIST  ORDER=(L3277A+06)     LOCAL 3270 INVITATION LIST.
LLST2    INVLIST  ORDER=(L3277B+06)     ONE REQUIRED PER LOCAL DEVICE
*           MUST BE DEFINED IN THE SAME SEQUENCE AS THE TERMINAL MACROS
*************************************************************************
         TSINPUT
 TITLE '                                SSCP MESSAGE HANDLER'
*************************************************************************
*                                                                       *
*        MESSAGE HANDLER FOR SYSTEM SERVICES CONTROL POINT              *
*                                                                       *
*************************************************************************
*        IEDMHGEN SSCP=YES,TOTE=NO
IEDSCPMH STARTMH MH=SSCP
IEDDCT1  EQU   X'01'                  DISPLACEMENT FOR DCTBYTE1
IEDPREFG EQU   X'03'                  DISPLACEMENT FOR PRF1FLG1
IEDFDDCT EQU   X'05'                  DISPLACEMENT FOR DCTBYTE5
IEDTRMB0 EQU   X'0A'                  DISPLACEMENT FOR TRMBYTE0
IEDCINDX EQU   X'10'                  DISPLACEMENT FOR TRMCHIN
IEDSRCE  EQU   X'10'                  DISPLACEMENT FOR PRFSRCE
IEDDEST  EQU   X'28'                  DISPLACEMENT FOR PRFDEST
IEDSTAT2 EQU   X'47'                  DISPLACEMENT FOR LCBRSP
IEDFSTCH EQU   X'100'                 DISPLACEMENT FOR AVTCSTCS
IEDMKLEN EQU   X'3E8'                 DISPLACEMENT FOR AVTDCTLN
IEDLRSP  EQU   X'01'                  EQUATE FOR LCBRESP
IEDTRMSN EQU   X'02'                  EQUATE FOR TRMSNA
IED3270R EQU   X'04'                  EQUATE FOR DCT3270
IEDCNVTD EQU   X'08'                  EQUATE FOR PRF1USS
IEDRHFMT EQU   X'08'                  EQUATE FOR FORMATTED INDICATOR
IEDPFLCB EQU   X'0C'                  EQUATE FOR PRFLCB
IEDF3270 EQU   X'40'                  EQUATE FOR DCTL3270
```

```
          INHDR
          L     6,IEDADBUF              GET BUFFER ADDRESS
          SLR   1,1                     CLEAR REGISTER
          ICM   1,3,IEDSRCE(6)          GET SOURCE TERMINAL'S TNT
          L     15,IEDRNMPT             GET ADDRESS OF TNT ROUTINE
          BALR  14,15                   CONVERT TNT TO TTE
          LR    8,1                     SAVE SOURCE TERMINAL'S TTE ADDR
          LH    11,IEDMKLEN(13)         GET LENGTH FOR DCT MASK
          SLR   2,2                     CLEAR REGISTER
          IC    2,IEDCINDX(8)           GET DEVICE CHAR TABLE INDEX
          BCTR  2,0                     SUB 1 FROM DEVICE CHAR INDEX
          MR    10,2                    MULT DCT MASK LENGTH BY INDEX
          AL    11,IEDFSTCH(13)         ADD ADDRESS FOR FIRST ENTRY
          LR    7,1                     GET TTE ADDRESS
          SL    7,IEDTTPFL              BACK UP TO START OF NEG PREFIX
          TM    IEDTRMB0(7),IEDTRMSN    IS SOUREC A FID1 DEVICE
          BNZ   IEDFID1                 YES
          TM    IEDDCT1(11),IED3270R    IS SOURCE A REMOTE 3270
          BZ    IEDNR327                NO
          MSGEDIT ((R,,SCAN,(5))),BLANK=NO  REMOVE CU DEV AID CUR CUR
          MSGEDIT ((RA,,X'11',(2)))     REMOVE SBA ADDR ADDR
          B     IEDTRYFT                FORMAT 3270 FID0 INPUT
IEDNR327  MSGEDIT ((RA,,X'15'))
          MSGEDIT ((RA,,X'3C'))
          MSGEDIT ((RA,,X'1E'),(RA,,X'1F')) REMOVE IRS IUS
          B     IEDTRYFT                FORMAT FID0 INPUT
IEDFID1   TM    IEDFDDCT(11),IEDF3270   IS THIS 3270 DATA STREAM ?
          BZ    IEDN3270                NO
          MSGEDIT ((RA,,X'01',(3)),(RA,,X'11',(2)),(RA,,X'7D',(2))),    X
                BLANK=NO     (SOH % / STX),(SBA ADDR ADDR),(AID CUR CUR)
          B     IEDCKFMT                SEE IF FORMATTED
IEDN3270  MSGEDIT ((RA,,X'15'))         REMOVE NL
IEDCKFMT  IEDRH RHIND=(+FMH)
          LTR   15,15                   RU FORMATTED ?
          BZ    IEDSCPFD                YES
*********************************************************************** PASC
          CODE  IEDN25                  OP CTL AND TRANSLATE            PASC
*********************************************************************** PASC
          SETSCAN C'IEDTOTE/',BLANK=NO
          LTR   15,15                   IS THIS A TOTE COMMAND
          BNZ   IEDTRYFT                NO
          FORWARD TASK=TOTE
          L     6,IEDADBUF              GET BUFFER ADDRESS
          MVI   0(6),X'1C'              SET PRFKEY FOR TOTE
          B     IEDNDPRC                BRANCH TO END PROCESSING
IEDTRYFT  EQU   *
*********************************************************************** PASC
* THIS CHANGE TESTS FOR A USS TYPE OF DEVICE AND FORMATS THE             PASC
```

```
*  MESSAGES ACCORDING TO A USS TABLE FOR THAT TYPE OF DEVICE.       PASC
*                                                                   PASC
*  EACH USS TABLE HAS STANDARD DEFAULTS THUS ELIMINATING THE        PASC
*  REQUIREMENT TO KEY THESE IN AT SESSION INITIATION OR             PASC
*  TERMINATION TIME BUT STILL ALLOWING USERS TO OVERRIDE THE        PASC
*  DEFAULTS IF REQUIRED.                                            PASC
*                                                                   PASC
*  IN ORDER TO LOGON TO TSO USING: LOGON TSOID/PASSWORD             PASC
*  EACH USS TABLE HAS THE USER DATA FIELD DEFINED (LENGTH 14).      PASC
*                                                                   PASC
*  THESE CHANGES ARE DEPENDENT ON USING THE TERMTYPE OPTION FIELD   PASC
*  FOR EVERY TERMINAL AS DEFINED BELOW:                             PASC
*                                                                   PASC
*  TERMTYPE OPTION XL1   X'80' 3270 TERMINAL                        PASC
*                        X'40' 3770 TERMINAL                        PASC
*                        X'20' 3767 TERMINAL                        PASC
*                        X'10' NDS 3270 TERMINAL                    PASC
*******************************************************************PASC
         LOCOPT TERMTYPE,(5)           IS OPTION FIELD PRESENT     PASC
         LTR   15,15                   TEST RETURN                 PASC
         BNZ   SSCPFMT                 NO - EXIT                   PASC
         TM    0(5),X'80'              3270                        PASC
         BO    SSCP3270                YES                         PASC
         TM    0(5),X'20'              3767                        PASC
         BO    SSCP3767                YES                         PASC
         TM    0(5),X'40'              3770                        PASC
         BO    SSCP3770                YES                         PASC
         TM    0(5),X'10'              NDS 3270                    PASC
         BO    SSCPNDS                 YES                         PASC
         B     SSCPFMT                 NONE OF THESE - EXIT        PASC
SSCP3270 EQU   *                                                   PASC
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=USS3270             PASC
         B     IEDSCPFD                                            PASC
SSCP3767 EQU   *                                                   PASC
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=USS3767             PASC
         B     IEDSCPFD                                            PASC
SSCP3770 EQU   *                                                   PASC
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=USS3770             PASC
         B     IEDSCPFD                                            PASC
SSCPNDS  EQU   *                                                   PASC
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=USSNDS              PASC
         B     IEDSCPFD                                            PASC
SSCPFMT  EQU   *                                                   PASC
*******************************************************************PASC
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=IEDUSSTB
IEDSCPFD EQU   *
         L     6,IEDADBUF              GET BUFFER ADDRESS
         L     4,IEDPFLCB(6)           GET PLCB ADDRESS
```

```
         NI    IEDSTAT2(4),X'FF'-IEDLRSP SO NO RESPONSE IS SENT
         FORWARD TASK=SSCP
IEDNDPRC INEND
         OUTHDR
         L     2,IEDADBUF              GET BUFFER ADDRESS
         S     2,IEDNGPRF              BACK UP TO NEGATIVE PREFIX
         TM    IEDPREFG(2),IEDCNVTD    NEED TO BE CONVERTED
         BZ    IEDNFMT                 NO
         IEDFMT IN=IEDAREA1,OUT=IEDAREA2,TABLE=IEDFSSTB
         B     IEDOUTPC                BRANCH TO OUTEND PROCESSING
IEDNFMT  L     6,IEDADBUF              GET BUFFER ADDRESS
         SLR   1,1                     CLEAR REGISTER
         ICM   1,3,IEDDEST(6)          GET DEST'S TERMINAL'S TNT
         L     15,IEDRNMPT             GET ADDRESS OF TNT ROUNTINE
         BALR  14,15                   CONVERT TNT TO TTE
         LR    8,1                     SAVE DESTINATION'S TTE ADDR
         LH    11,IEDMKLEN(13)         GET LENGTH FOR DCT MASK
         SLR   2,2                     CLEAR REGISTER
         IC    2,IEDCINDX(8)           GET DEVICE CHAR TABLE INDEX
         BCTR  2,0                     TAKE 1 FROM DEV CHAR INDEX
         MR    10,2                    MUTPLY DCT MASK LEN * INDEX
         AL    11,IEDFSTCH(13)         ADDRESS FOR FIRST ENTRY
         S     6,IEDNGPRF              GET NEGATIVE PREFIX
         TM    0(6),IEDRHFMT           RU FORMATTED ?
         BO    IEDOUTPC                YES
         TM    IEDFDDCT(11),IEDF3270   IS THIS 3270 DATA STREAM?
         BZ    IEDCKFD0                CK FOR NL INSERTION
         TM    IEDPREFG(6),IEDCNVTD    CONVERTED DATA ?
         BO    IEDOUTPC                YES - EXIT
         MSGEDIT ((I,XL2'F1C3',,))
         B     IEDOUTPC                EXIT
IEDCKFD0 TM    IEDTRMB0(8),IEDTRMSN    FID1?
         BZ    IEDOUTPC                NO
         MSGEDIT ((I,X'15',,))         INSERT NL AT START OF BUFFER
         MSGEDIT ((I,X'15',0,)),LAST=YES INSERT NL AT END OF MSG
IEDOUTPC OUTEND
         DS    0F
IEDTTPFL DC    F'18'                   LENGTH OF TERM.  NEGATIVE PREFIX
IEDNGPRF DC    F'8'                    LENGTH OF BUFFER NEGATIVE PREFIX
IEDAREA1 DC    XL6'010000000000'       AREA FOR IEDFMT MACRO
         DC    XL256'00'
IEDAREA2 DC    XL6'010000000000'       AREA FOR IEDFMT MACRO
         DC    XL256'00'
 TITLE '                               APPLICATION MESSAGE HANDLERS'
*********************************************************************
*        MESSAGE HANDLER FOR OPERATOR CONTROL PROGRAM               *
*********************************************************************
MHOPCTL  STARTMH
```

```
          INHDR
          IEDOPCTL
          FORWARD  DEST=PUT
          INEND
          OUTEND
*************************************************************************
*        MESSAGE HANDLER FOR 3270 INQUIRY APPLICATION PROGRAM           *
*************************************************************************
MH3270AP STARTMH
          INHDR
          FORWARD  DEST=PUT
          INEND
          OUTEND
*************************************************************************
*    MESSAGE HANDLER FOR ALL MESSAGES SENT TO THE DEAD LETTER QUEUE     *
*************************************************************************
MHDLQAP   STARTMH
          INHDR
          FORWARD DEST=PUT
          INEND
          OUTEND
*************************************************************************
*        CROSS DOMAIN MH                                                *
*************************************************************************
HOSTMH    STARTMH BEXIT=(BINDXHH),DFC=NONE
          INHDR
          INEND
          OUTEND
 TITLE '                                  3270 BSC,SDLC AND LOCAL MH'
*************************************************************************
*              3 2 7 0   M E S S A G E   H A N D L E R                  *
*                                                                       *
*        THIS MH SUPPORTS 3270 LOCAL,BSC AND SDLC.                      *
*                                                                       *
*        INPUT DATA WILL APPEAR AS FOLLOWS:                             *
*        A. C D A C C S B B                                             *
*           U V I U U B U U (USER TEXT)                                 *
*             C D R R A F F                                             *
*                                                                       *
*        B.  4 SNA SENSE BYTES                                          *
*                                                                       *
*        CU AND DVC ARE PRESENT FOR BSC ONLY.                           *
*        SBA, BUF AND BUF ARE PRESENT WITH FORMATTED SCREENS ONLY.      *
*************************************************************************
MHS3270   STARTMH DFC=FULL,LU=YES,ALTMH=TSOMH
          INHDR
          PATH    X'00',PATHSW      RESET PATHSW TO IDENTIFY ERRORS
*         LOCATE THE ERRCT OPTION FIELD. IF IT IS EQUAL TO ZERO THEN IT
```

```
*         MUST BE RESET TO ONE TO PREVENT IEDVOFF FROM SUBTRACTING TO
*         MINUS ON GOOD TRANS. SEE INMSG AND OUTMSG.
          LOCOPT  ERRCT,(7)          REG 7 IS ADDR OF ERRCT OPTION
          LTR     R15,R15            GOOD RETURN CODE ?
          BNZ     S32LOPT            NO, FORGET IT, BRANCH
          CLI     0(R7),X'00'        TEST ERRCT EQUAL ZERO
          BNE     S32LOPT            BRANCH NOT EQUAL ZERO
          MVI     0(R7),X'01'        SET TO ONE TO PREVENT MINUS ON VOFF
S32LOPT   LOCOPT  TERMTYPE,(4)       REG 4 IS ADDR OF TERMTYPE OPTION
          LTR     R15,R15            GOOD RETURN CODE ?
          BZ      S32MODE            YES, GO LOCATE TERMMODE OPTION
S32PATH1  PATH    X'01',PATHSW       SET OPTION NOT FOUND PATHSW
          B       S32FMSG
S32MODE   LOCOPT  TERMMODE,(5)       REG 5 IS ADDR OF TERMMODE OPTION
          LTR     R15,R15            GOOD RETURN CODE ?
          BZ      S32TYPE            GO CHECK TERMTYPE
          PATH    X'01',PATHSW       SET OPTION NOT FOUND PATHSW
          B       S32FMSG
S32TYPE   SETSCAN 0                  SET SCAN POINTER
          LTR     R15,R15            TEST RC FOR -4 (ZERO LENGTH BUFFER)
          BM      S32FMSG            DO NOT PROCESS ZERO LENGTH BUFFERS
          LR      R3,R15             SAVE ADDR OF DATA-1 FROM SETSCAN
          CLC     1(3,R3),STATUS     IS IT STATUS MSG
          BE      S32STAT            YES
          TM      0(R4),X'81'        3270 SDLC
          BO      S32RH              YES
          TM      0(R4),X'82'        3270 LOCAL
          BO      S32CLR             YES
          MSGEDIT ((R,,,(2))),BLANK=NO
          TM      0(R4),X'84'        3270 BSC
          BO      S32CLR             YES
          PATH    X'04',PATHSW       TERMTYPE ERROR
          B       S32FMSG
S32RH     IEDRH   RHIND=(+EXR)       TEST FOR SENSE INCLUDED MSG
          CLM     R15,1,=X'08'       TEST RETURN CODE
          BNE     S32SENSE           YES EXR, BRANCH
S32CLR    CLI     1(R3),X'6D'        CLEAR KEY ?
          BNE     S32RPA1            NO, GO TEST FOR PA1
          TERRSET                    FOR CLEAR MSGGEN - DO NOT FORWARD
          B       S32IMG10
S32RPA1   CLI     1(R3),X'6C'        PA1 KEY ?
          BE      S32PRINT           YES, GO TO PRINT ROUTINE
          CLI     1(R3),X'7D'        ENTER KEY ?
          BNE     S32UKWN            NO, GO TO UNKNOWN INPUT
          CLI     4(R3),X'11'        IS 4TH BYTE AN SBA (FORMATTED)
          BNE     S32DEL3            NO, UNFORMATTED BRANCH
          MSGEDIT ((R,,,(6))),BLANK=NO  DEL AID 2(CUR) SBA 2(BUF)
          B       S32CODE            ONLY DATA LEFT, GO PROCESS
```

```
S32DEL3  MSGEDIT ((R,,,(3))),BLANK=NO  DELETE AID 2(CUR)
*************************************************************************
*        DATA STREAM IS NOW USER DATA ONLY.                             *
*************************************************************************
S32CODE  CODE
         LOGON
*************************************************************************
*        PROCESS EXTENDED OPERATOR CONTROL COMMANDS                     *
*************************************************************************
         CLI     1(3),C'/'
         BNE     S32MTYP
         TERRSET
         B       S32MFWD
S32MTYP  MSGTYPE X
S32MFWD  FORWARD DEST=C'AOPCTLI'
         B       S32IMG10
*************************************************************************
*        PROCESS MESSAGE SWITCH    M DEST / USER MESSAGE                *
*************************************************************************
         MSGTYPE M
         FORWARD DEST=**,EOA=/
         TERRSET
         B       S32IMG10
*************************************************************************
*        PROCESS INQUIRY MESSAGE   I 999999                             *
*************************************************************************
         MSGTYPE I
         B       S32FWD
*************************************************************************
*        PROCESS CLOSE MSG TO CLOSE APPLICATIONS                        *
*************************************************************************
         MSGTYPE CLOSE
         TERRSET
         FORWARD DEST=C'APPLS'
         B       S32IMG10
*************************************************************************
*        PROCESS OTHER MESSAGES                                         *
*************************************************************************
         MSGTYPE ,                UNIDENTIFIED MESSAGE
S32UKWN  PATH    X'10',PATHSW     SET UNKNOWN INPUT PATHSW
         B       S32FMSG
*************************************************************************
*        THIS ROUTINE WILL PROCESS PA1 REQUEST TO PRINT THE LAST        *
*        MESSAGE SENT TO A DISPLAY. TO ALLOW THIS FUNCTION, THE         *
*        PRNT3270 OPTION FIELD MUST BE DEFINED FOR THE 3277 GIVING      *
*        THE NAME OF THE 328X PRINTER TO RECEIVE THE MESSAGE.           *
*        A SPECIAL PRINT REQUEST MESSAGE WILL BE BUILT AND SENT TO      *
*        THE 3270 APPLICATION. THE MESSAGE WILL CONTAIN THE NAME OF     *
```

```
*        THE PRINTER AND THE SEQUENCE NUMBER OF THE LAST OUTPUT      *
*        MESSAGE SENT TO THE DISPLAY. THE APPLICATION WILL RETRIEVE  *
*        THAT MESSAGE USING POINT AND GET MACROS AND BUILD A PRINT   *
*        MESSAGE.                                                    *
*****************************************************************
S32PRINT LOCOPT  PRNT3270,(6)      REG 6 ADDR OF PRINTER NAME OPTION
         LTR     R15,R15           GOOD RETURN CODE ?
         BZ      S32PR01           YES, GO TO BUILD PRINT MESSAGE
         PATH    X'20',PATHSW      SET PRINTER OPTION NOT FOUND PATHSW
         B       S32FMSG
S32PR01  MVC     S32MHPRT,0(R6)    MOVE PRINTER NAME TO MHPUT AREA
         L       R6,IEDADBUF       REG 6 IS ADDRESS OF CURRENT BUFFER
         LH      R1,16(0,R6)       LOAD TNT OFFSET INTO REG 1
*        IEDRNMPT IS AVT FIELD CONTAINING ADDRESS FOR ROUTINE IN
*        TERMINAL TABLE THAT CONVERTS TNT OFFSET TO TTE ADDRESS.
*        THIS ROUTINE EXPECTS TNT OFFSET IN LOWER TWO BYTES OF REG 1
         L       R15,IEDRNMPT      REG 15 IS ADDR OF TNT CONV ROUTINE
         BALR    R14,R15           CONVERT TNT OFFSET TO TTE ADDRESS
         LH      R6,6(0,R1)        REG 1 PLUS 6 IS OUTPUT SEQ NUM
         SH      R6,=H'1'          SEQ NUM ALWAYS NEXT NUM TO BE USED
         STH     R6,S32SEQWK       STORE SEQ NUM
         MVC     S32MHSEQ,S32SEQWK PUT SEQ NUM IN MESSAGE
         MHPUT   WORK=S32MHWRK     PUT NEW PRINT REQUEST MSG IN BUFFER
         LTR     R15,R15           GOOD RETURN CODE ?
         BZ      S32SETER          YES, GO TO FORWARD MESSAGE
         PATH    X'80',PATHSW      SET BAD MHPUT PATHSW
         B       S32FMSG
*****************************************************************
*       SENSE INCLUDED MESSAGES FOR 3270S CONTAIN 4 SENSE BYTES     *
*       PRECEDING THE USER DATA. THE FIRST 2 BYTES ARE SNA SENSE    *
*       INFORMATION THAT IS MAPPED INTO THE MER BITS. THE 3RD AND   *
*       4TH BYTES ARE 'USER BYTES' AND FOR SDLC 3270S CONTAIN       *
*       INFORMATION SIMILAR TO THE BSC 3270 SOH % R STATUS          *
*       MESSAGES. WHEN BYTES 3 AND 4 ARE NONZERO THE UNDEFINED ERROR*
*       BIT 31 IS SET IN THE MER. THIS IS EQUIVALENT TO BIT 15 THE  *
*       STATUS MESSAGE BIT FOR BSC DEVICES. THIS MH WILL CANCEL A   *
*       MESSAGE IF ANY SNA BITS ARE PRESENT, BUT IF ONLY 3270 SENSE *
*       INFORMATION IS PRESENT, IT WILL NOT BE ANALYZED OR CANCELED.*
*****************************************************************
S32SETER TERRSET                   SET USER BIT FOR CLEAR MSGGEN
S32FWD   FORWARD DEST=C'A3270I'
         B       S32IMG10
S32STAT  CLC     6(2,R3),DVCAVAIL  IS USER SENSE DEVICE AVAILABLE ?
         BNE     S32FMSG           NO, BRANCH
         B       S32RLS
S32SENSE CLC     3(2,R3),SDVCAVL   IS USER SENSE DEVICE AVAILABLE ?
         BNE     S32FMSG           NO, BRANCH
S32RLS   IEDRELS                   RELEASE QUEUE, DEVICE IS AVAIL
```

```
*        IT IS POSSIBLE TO HAVE SNA SENSE BYTES WITH A ZERO LENGTH
*        BUFFER. SINCE IT WILL BE AN ERROR AND WILL BE IN THE MER
*        BITS, NO EXAMINATION WILL BE DONE HERE.
S32FMSG  FORWARD DEST=C'DLQ'       THIS MESSAGE IS TO BE CANCELED
*                                  A FORWARD IS REQ'D IF ERRORMSG USED
*************************************************************************
*        INMESSAGE SUBGROUPS ARE EXECUTED AFTER THE ENTIRE              *
*        MESSAGE HAS BEEN RECEIVED AND THE MESSAGE ERROR                *
*        BITS ARE SET. ONLY ONE SUBGROUP WILL EXECUTE AND               *
*        IT WILL BE THE FIRST ONE WHOSE PATH IS SATISIFIED.             *
*************************************************************************
S32IMG10 INMSG    PATH=(PATHSW,X'01')   OPTION FIELD NOT DEFINED
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=S32MSG04,HEADER=NO
         IEDHALT  ,                     BREAK SESSION
         INMSG    PATH=(PATHSW,X'04')   TERMTYPE NOT 3270 SDLC
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=S32MSG05,HEADER=NO
         IEDHALT  ,                     BREAK SESSION
         INMSG    PATH=(PATHSW,X'10')   UNKNOWN INPUT AID OR MSG TYPE
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=S32MSG06,HEADER=NO
         INMSG    PATH=(PATHSW,X'20')   PRNT3270 NOT DEFINED NO PRINT
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=S32MSG07,HEADER=NO
         INMSG    PATH=(PATHSW,X'80')   MHPUT FAILED
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=S32MSG08,HEADER=NO
         INMSG    PATH=(TERMTYPE,X'02') 3270 LOCAL
         CANCELMG X'430EC7F7FF'
         MSGGEN   X'0000080000',S32RSETL
         INMSG    ,                     WHATS LEFT SHOULD BE 3270 SDLC
         CANCELMG X'430EC6F7FF'   NOTE: BIT 31 UNDEF ERR NOT CANCELED
         MSGGEN  X'0000080000',S32RSETN  RESET 3277 NCP IF USER BIT
*        THE NEXT THREE IEDVOFF MACROS ARE TO COUNT TRANS ERRORS AND
*        IF 10 ERRORS ARE FOUND BEFORE GOOD TRANS RESET THE COUNTER TO
*        ZERO, THEN POLLING WILL BE STOPPED FOR THAT TERMINAL FOR ONE
*        MINUTE. THE SYSTEM CONSOLE WILL RECEIVE A TERMINAL STOPPED
*        MESSAGE.
*        TO PREVENT ERRCT FROM GOING NEGATIVE BECAUSE OF SUBTRACTING
*        ON GOOD MESSAGES, CODE IN INHDR AND OUTHDR RESETS ERRCT TO
*        ONE WHEN IT REACHES ZERO.
         IEDVOFF  X'010445F7FF',COUNT=(ERRCT,GT,9),INTVL=60
*                          ADD TO COUNTER IF ERROR. IF COUNTER EQUAL OR
*                          GREATER 8, STOP POLLING FOR 1 MINUTE, CLEAR
*                          COUNTER, NOTIFY SYSTEM CONSOLE.
         IEDVOFF  ,COUNT=(ERRCT,EQ,250),UPDATE=SUB   EVERY MESSAGE
         IEDVOFF  X'010445F7FF',COUNT=(ERRCT,EQ,250) BAD MSG ONLY
```

```
          ERRORMSG X'010405F7FF',DATA=S32MSG01,HEADER=NO
          ERRORMSG X'0200820000',DATA=S32MSG02,HEADER=NO
          ERRORMSG X'4002400000',DATA=S32MSG03,HEADER=NO
          ERRORMSG X'FF7FF7FF00',DATA=S32XX,DEST=C'ERRQ',EXIT=ERMSGXIT
          INEND
          OUTHDR
          PATH    X'00',PATHSW      RESET PATHSW TO IDENTIFY ERRORS
*         LOCATE THE ERRCT OPTION FIELD. IF IT IS EQUAL TO ZERO, THEN
*         RESET TO ONE TO PREVENT IEDVOFF FROM SUBTRACTING TO MINUS
*         FOR GOOD TRANS. SEE INMSG AND OUTMSG.
          LOCOPT  ERRCT,(7)         REG 7 IS ADDR OF ERRCT OP
          LTR     R15,R15           GOOD RETURN CODE ?
          BNZ     S32SCANA          NO, IGNORE IT, BRANCH
          CLI     0(R7),X'00'       TEST ERRCT EQUAL ZERO
          BNE     S32SCANA          BRANCH NOT EQUAL TO ONE
          MVI     0(R7),X'01'       SET TO ONE TO PREVENT MINUS ON VOFF
S32SCANA  SETSCAN 0                 SET SCAN POINTER
          LTR     R15,R15           TEST FOR ZERO LENGTH BUFFER
          BM      S32OMG10          RC -4 IS ZERO BUFFER DO NOT PROCESS
          LR      R3,R15            SAVE ADDR OF DATA-1 FROM SETSCAN
          LOCOPT  TERMTYPE,(4)      REG 4 IS ADDR OF TERMTYPE OPTION
          LTR     R15,R15           GOOD RETURN CODE ?
          BZ      S32OMODE          YES, GO LOCATE TERMMODE OPTION
          PATH    X'01',PATHSW      SET OPTION NOT FOUND PATHSW
          B       S32OMG10          OUTHDR COMPLETE, GO CHECK MER BITS
S32OMODE  LOCOPT  TERMMODE,(5)      REG 5 IS ADDR OF TERMMODE OPTION
          LTR     R15,R15           GOOD RETURN CODE ?
          BZ      S32ESC            YES
          PATH    X'01',PATHSW      SET OPTION NOT FOUND PATHSW
          B       S32OMG10          OUTHDR COMPLETE, GO CHECK MER BITS
S32ESC    CLI     1(R3),X'27'       IS IT FORMATTED?
          BE      S32RESC           YES - DO NOT FORMAT
          MSGEDIT ((I,X'27',SCAN))
          MSGEDIT ((I,X'F17B1140401D4013',SCAN))
S32RESC   TM      0(R4),X'82'       IS IT LOCAL?
          BNE     S32DESC           NO
          SCREEN  WEA,RETRV=YES     SCREEN REQD FOR LOCALS
          MSGEDIT ((R,,,(2)))       REMOVE ESC AND CMD
          B       S32DEOT
S32DESC   TM      0(R4),X'84'       IS IT BSC?
          BO      S32DEOT           YES
          MSGEDIT ((RA,,XL1'27'))   REMOVE ESC FOR DATA STREAM
S32DEOT   MSGEDIT ((RA,,XL1'37'))   REMOVE ANY EOTS (IED MSGS USUALLY)
*         IF THE USER WANTS TO EXAMINE THE SNA SENSE BYTES PRIOR TO
*         OUTMSG, THE CODE SHOULD BE INSERTED HERE.
*****************************************************************
*         OUTMESSAGE SUBGROUPS ARE EXECUTED AFTER THE COMPLETE      *
*         MESSAGE HAS BEEN SENT. ONLY ONE SUBGROUP WILL EXECUTE     *
```

```
*        AND IT WILL BE THE FIRST ONE WHOSE PATH IS SATISIFIED.      *
*****************************************************************
S32OMG10 OUTMSG   PATH=(PATHSW,X'01')  OPTION FIELD NOT DEFINED
         HOLD     ,                    HOLD AND NOTIFY TCAM PRINTER
         ERRORMSG ,DATA=S32MSG04,DEST=C'LU3270V1',HEADER=NO
         OUTMSG   PATH=(ERRCT,X'F8')   ERRCT 8 OR MORE
         HOLD     ,                    HOLD FOR UNRECOVERABLE ERROR
         IEDVOFF  ,COUNT=(ERRCT,GE,0)  CLEAR ERRCT
         OUTMSG
         HOLD     X'000003F7FF',INTVL=15      RESEND AFTER 15 SEC
*        THE NEXT THREE IEDVOFF MACROS ARE TO COUNT TRANS ERRORS AND
*        THE NUMBER OF TEMPORARY HOLDS (HOLD WITH INTERVAL).
*        WHEN THE ERRCT IS 8, THEN A DIFFERENT OUTMSG WILL EXECUTE
*        WHICH WILL ISSUE A PERMANENT HOLD. IEDVOFF IS ONLY BEING
*        USED FOR ITS COUNTER CAPABILITY.
*        TO PREVENT ERRCT FROM GOING NEGATIVE BECAUSE OF SUBTRACTING
*        ON GOOD MESSAGES, CODE IN INHDR AND OUTHDR RESETS ERRCT TO
*        ONE WHEN IT REACHES ZERO.
         IEDVOFF  X'000003F7FF',COUNT=(ERRCT,EQ,250)  ADD IF ERROR
         IEDVOFF  ,COUNT=(ERRCT,EQ,250),UPDATE=SUB    EVERY MSG
         IEDVOFF  X'000003F7FF',COUNT=(ERRCT,EQ,250)  BAD MSGS ONLY
         ERRORMSG X'FF7FF7FF00',DATA=S32XX,DEST=C'ERRQ',EXIT=ERMSGXIT
         OUTEND
*****************************************************************
*        ERROR MESSAGES USED BY ERRORMSG MACRO AND WORK AREAS       *
*****************************************************************
S32XX    DC       AL1(25)
         DC       C'ERROR= XXXXXXXX
S32MSG01 DC       AL1(35)                MESSAGE LENGTH
         DC       C'S32-01 TRANSMISSION ERROR, RE-ENTER'
S32MSG02 DC       AL1(42)                MESSAGE LENGTH
         DC       C'S32-02 SYSTEM UNDER STRESS, RE-ENTER LATER'
S32MSG03 DC       AL1(34)                MESSAGE LENGTH
         DC       C'S32-03 DESTINATION ERROR, RE-ENTER'
S32MSG04 DC       AL1(25)                MESSAGE LENGTH
         DC       C'S32-04 OPTION FIELD ERROR'
S32MSG05 DC       AL1(38)                MESSAGE LENGTH
         DC       C'S32-05 TERMTYPE NOT 3270 SDLC OR LOCAL'
S32MSG06 DC       AL1(30)                MESSAGE LENGTH
         DC       C'S32-06 UNKNOWN INPUT, RE-ENTER'
S32MSG07 DC       AL1(42)                MESSAGE LENGTH
         DC       C'S32-07 PRINT NOT DEFINED FOR THIS TERMINAL'
S32MSG08 DC       AL1(31)                MESSAGE LENGTH
         DC       C'S32-08 MHPUT FAILED, CANT PRINT'
S32RSETN DC       AL1(08)                 SDLC 3277 CLEAR SCREEN
         DC       X'F5C31140401D4013'
S32RSETL DC       AL1(10)                 LOCAL 3277 CLEAR SCREEN
         DC       X'C31140401D4013124040'
```

```
*****************************************************************
*        WORK AREA TO BUILD PRINT REQUEST MESSAGE WHEN PA1 RECEIVED  *
*****************************************************************
S32MHWRK DS      0CL21                  MHPUT WORKAREA
         DC      X'0000'                RESERVED
         DC      X'000F'                USER DATA LENGTHOF 15
         DC      X'0000'                RESERVED
         DC      C'PRINT'               MESSAGE TYPE FOR APP
S32MHPRT DC      CL8' '                 PRINTER NAME
S32MHSEQ DC      CL2' '                 SEQ NUMBER OF MSG TO BE PRINTED
*****************************************************************
*                OTHER CONSTANTS AND WORKAREAS                  *
*****************************************************************
STATUS   DC      X'6CD902'              STATUS MESSAGE % R STX
DVCAVAIL DC      X'C240'                BSC SENSE FOR DEVICE AVAILABLE
SDVCAVL  DC      X'0200'                SDLC SENSE FOR DEVICE AVAILABLE
S32SEQWK DC      H'0'                   SEQ NUMBER WORK AREA
         LTORG
 TITLE '                              NDS MESSAGE HANDLER'
*****************************************************************
*          NDS MESSAGE HANDLER                                  *
*                                                               *
*        WILL HANDLE BRACKETS AND CHANGE OF DIRECTION           *
*        USING HALF DUPLEX FLIP-FLOP PROTOCOL                   *
*                                                               *
*        INPUT DATA WILL APPEAR AS FOLLOWS:                     *
*        A.  A C C S B B                                        *
*            I U U B U U (USER TEXT)                            *
*            D R R A F F                                        *
*                                                               *
*        B. (4 BYTES SNA SENSE)(DATA OR DFC COMMAND)            *
*                                                               *
*        SBA, BUF AND BUF ARE PRESENT WITH FORMATTED SCREENS ONLY.  *
*****************************************************************
NDSMH    STARTMH DFC=FULL,LU=YES,BEXIT=NDSBXIT
         INHDR
         PATH    X'00',PATHSW          RESET PATHSW
         SETSCAN 0                     TEST FOR ZERO LENGTH BUFFER
         LTR     R15,R15              TEST RC FOR -4 (ZERO LENGTH BUFFER)
         BM      NDSZERO               DO NOT PROCESS ZERO LENGTH BUFFERS
         LR      R3,R15                SAVE ADDR OF DATA-1 FROM SETSCAN
         IEDRH   RHIND=(+DFC)          GET RH
         CLM     R15,1,=X'08'          DFC COMMAND
         BE      NDNOTDFC              BRANCH IF NO
         IEDRH   RHIND=(+EXR)          GET RH
         CLM     R15,1,=X'08'          EXCEPTION REQUEST
         BE      NDNOEXR1              BRANCH IF NO
*              ADD SENSE ERROR TEST IF REQUIRED
```

```
          SETSCAN 4                    SKIP 4 SENSE BYTES TO COMMAND
NDNOEXR1  MSGTYPE X'83'                CANCEL COMMAND?
          PATH    X'01',PATHSW         SET PATH FOR CANCEL
          B       NDSIBF10
          MSGTYPE X'04'                LUSTAT COMMAND
          IEDRELS                      START OUTPUT
          B       NDSIBF10
          MSGTYPE X'C1'                SHUTDOWN COMPLETE COMMAND
          HOLD                         STOP OUTPUT
          B       NDSIBF10
          MSGTYPE ,                    ALL OTHER DFC
          B       NDSIBF10             NO PROCESSING TO DO
NDNOTDFC  CLI     1(R3),X'6D'          CLEAR KEY ?
          BNE     NDSENTR              NO, GO TEST FOR ENTER
          TERRSET                      FOR CLEAR MSGGEN - DO NOT FORWARD
          B       NDSIBF10
NDSENTR   CLI     1(R3),X'7D'          ENTER KEY ?
          BNE     NDSUKWN              NO, GO TO UNKNOWN INPUT
          CLI     4(R3),X'11'          IS 4TH BYTE AN SBA (FORMATTED)
          BNE     NDSDEL3              NO, UNFORMATTED BRANCH
          MSGEDIT ((R,,,(6))),BLANK=NO DEL AID 2(CUR) SBA 2(BUF)
          B       NDSCODE              ONLY DATA LEFT, GO PROCESS
NDSDEL3   MSGEDIT ((R,,,(3))),BLANK=NO DELETE AID 2(CUR)
*************************************************************************
*         DATA STREAM IS NOW USER DATA ONLY.                            *
*************************************************************************
NDSCODE   INHDR                        THIS INHDR RESETS MSGTYPE
          CODE
*************************************************************************
*         PROCESS EXTENDED OPERATOR CONTROL COMMANDS                    *
*************************************************************************
          CLI     1(3),C'/'
          BNE     NDSMTYP
          TERRSET
          B       NDSMFWD
NDSMTYP   MSGTYPE X
NDSMFWD   FORWARD DEST=C'AOPCTLI'
          B       NDSIMG10
*************************************************************************
*         PROCESS MESSAGE SWITCH    M DEST / USER MESSAGE               *
*************************************************************************
          MSGTYPE M
          FORWARD DEST=**,EOA=/
          TERRSET
          B       NDSIBF10
*************************************************************************
*         PROCESS INQUIRY MESSAGE   I 999999                            *
*************************************************************************
```

```
         MSGTYPE I
         FORWARD DEST=C'A3270I'
         B       NDSIBF10
*****************************************************************************
*        PROCESS NDS MESSAGE                                                *
*****************************************************************************
         MSGTYPE NDS
         FORWARD DEST=C'A3270I'
         B       NDSIBF10
*****************************************************************************
*        PROCESS CLOSE MSG TO CLOSE APPLICATIONS                            *
*****************************************************************************
         MSGTYPE CLOSE
         TERRSET
         FORWARD DEST=C'APPLS'
         B       NDSIBF10
*****************************************************************************
*        PROCESS OTHER MSGS                                                 *
*****************************************************************************
         MSGTYPE ,                      UNIDENTIFIED MESSAGE
NDSUKWN  PATH    X'10',PATHSW           SET UNKNOWN INPUT PATHSW
         B       NDSFMSG
NDSZERO  IEDRELS                        RELEASE QUEUE ON ERROR TO AVOID
*                                       MULTIPLE TIME DELAY ELEMENTS FOR
*                                       THIS QUEUE.
NDSFMSG  FORWARD DEST=C'DLQ'            THIS MESSAGE IS TO BE CANCELED
*                                      A FORWARD IS REQ'D IF ERRORMSG USED
NDSIBF10 INBUF
         IEDRH   RHIND=(+CHNGDIR)       CK FOR CHG DIR
         CLM     R15,1,=X'08'
         BE      NDSIMG10               NO
         IEDRELS                        RELEASE QUEUE
NDSIMG10 INMSG    PATH=(PATHSW,X'01') CANCEL RECEIVED
         CANCELMG ,                     CANCEL THE MSG
         INMSG    PATH=(PATHSW,X'10') UNKNOWN INPUT AID OR MSG TYPE
         CANCELMG ,                     CANCEL THE MSG
         ERRORMSG ,DATA=NDSMSG04,HEADER=NO
         INMSG    ,                     WHATS LEFT SHOULD BE 3270 SDLC
         CANCELMG X'430EC6F7FF'   NOTE: BIT 31 UNDEF ERR NOT CANCELED
         MSGGEN   X'0000080000',NDSRSETN,RH=X'0380E0'
         ERRORMSG X'010405F7FF',DATA=NDSMSG01,HEADER=NO
         ERRORMSG X'0200820000',DATA=NDSMSG02,HEADER=NO
         ERRORMSG X'4002400000',DATA=NDSMSG03,HEADER=NO
         ERRORMSG X'FF7FF7FF00',DATA=NDXX,DEST=C'ERRQ',EXIT=ERMSGXIT
         INEND
         OUTHDR                        BEGIN OUT HEADER PROCESSING
         PATH    X'00',PATHSW          RESET PATHSW TO IDENTIFY ERRORS
         SETSCAN 0                     TEST FOR DATA IN BUFFER
```

```
            LTR     R15,R15             ZERO LENGTH BUFFER
            BP      NDNOZERO            BRANCH IF NO
            IEDSENSE AREA=NDSENSE       GET THE SNA SENSE
            LTR     R15,R15             TEST RETURN CODE
            BNZ     NDSOMG10            NO SENSE AVAILABLE
*           ADD SNA SENSE ERROR TEST IF REQUIRED
            B       NDSOMG10            BRANCH
NDNOZERO    LR      R3,R15              SAVE ADDR OF DATA-1 FROM SETSCAN
            IEDRH RHIND=(*BB,*EB)       TCAM CONTROLS BRACKETS
            LOCOPT  TERMMODE,(5)        REG 5 IS ADDR OF TERMMODE OPTION
            TM      0(5),X'01'          PRINTER ?
            BO      NDSPRTR             YES
            MSGEDIT ((I,X'F1F31140401D4013',SCAN))
NDSDESC     MSGEDIT ((RA,,XL1'27'))     REMOVE ESC
            MSGEDIT ((RA,,XL1'37'))     REMOVE ANY EOTS (IED MSGS USUALLY)
            MSGEDIT  ((RA,X'15',X'35',1))
            B       NDSOMG10
NDSPRTR     MSGEDIT ((I,X'15',,))       INSERT NL AT START OF PRINTER MSGS
            B       NDSDESC
NDSOMG10    OUTMSG
            HOLD    X'0004000013',RELEASE
            HOLD    X'0000006000',INTVL=10 RETRY AFTER WAIT
            HOLD    X'0000010600',INTVL=03 HOLD ON NON RECOV ERRORS
            ERRORMSG X'FF7FF7FF00',DATA=NDXX,DEST=C'ERRQ',EXIT=ERMSGXIT
            OUTEND
NDXX        DC      AL1(25)
            DC      C'ERROR= XXXXXXXX
NDSMSG01    DC      AL1(42)                 MESSAGE LENGTH
            DC      C'N32-01 TRANSMISSION ERROR, PLEASE RE-ENTER'
NDSMSG02    DC      AL1(49)                 MESSAGE LENGTH
            DC      C'N32-02 SYSTEM UNDER STRESS, PLEASE RE-ENTER LATER'
NDSMSG03    DC      AL1(34)                 MESSAGE LENGTH
            DC      C'N32-03 DESTINATION ERROR, RE-ENTER'
NDSMSG04    DC      AL1(30)                 MESSAGE LENGTH
            DC      C'N32-04 UNKNOWN INPUT, RE-ENTER'
NDSRSETN    DC      AL1(08)                  SDLC 3277 CLEAR SCREEN
            DC      X'F5C31140401D4013'
NDSENSE     DC      XL4'00000000'            SNA SENSE
            LTORG
 TITLE '                                  TSO MESSAGE HANDLER'
TSOMH       STARTMH TSOMH=YES,STOP=YES,CONV=YES,LC=IN,DFC=FULL,LU=YES,    X
                  ALTMH=MHS3270,BEXIT=NDSBXIT
            INHDR
            CODE
            LOGON
            IEDHALT CHARS=C'LOGOFF',FLUSH=YES
            IEDHALT CHARS=X'939687968686',FLUSH=YES
            INBUF
```

```
         CUTOFF 3800
         CARRIAGE
         SPFSCRN
         SIMATTN
         INMSG
         ATTEN
         HANGUP
 MSGGEN X'1000000000',C'IKJ54011I TSO IS NOT ACTIVE'
 MSGGEN X'8000000000',C'IKJ54012A ENTER LOGON -'
 MSGGEN X'4000000000',C'IKJ54013I LOGON FAILED, INVALID COMMAND'
 MSGGEN X'2000000000',C'IKJ54014I TERMINAL IS NOT USABLE WITH TSO'
 MSGGEN X'0000200000',C'IKJ54015I TSO MSGS CANNOT REACH THIS TERMINAL'
 MSGGEN X'0800000000',C'IKJ54016I MAXIMUM USERS LOGGED ON, TRY LATER'
 MSGGEN X'0000004000',C'IKJ54017A TERMINAL ERROR, REENTER INPUT'
 MSGGEN X'0100000000',C'IKJ54018A MESSAGE TOO LONG, REENTER INPUT'
 MSGGEN X'0200000000',C'IKJ54020A MESSAGE LOST, REENTER INPUT'
 MSGGEN X'0000800000',X'06145AC915'
 MSGGEN X'0000400000',X'06145AC415'
 MSGGEN X'0000120000',X'06145A15'
 MSGGEN 0,X'FF'
         INEND
         OUTHDR
         IEDRH RHIND=(*BB)
         OUTBUF
         SPFMCHK
         CODE
         OUTMSG
         ATTEN
         HANGUP
 MSGGEN X'0000800000',X'06145AC915'
 MSGGEN X'0000120000',X'06145A15'
 MSGGEN X'0000200000',C'IKJ54015I TSO MSGS CANNOT REACH THIS TERMINAL'
 MSGGEN 0,X'FF'
         OUTEND
         LTORG
 TITLE '                                  ERRORMSG EXIT ROUTINE'
*R1 HAS ADDR OF HEADER BUFFER
*R5 HAS ADDR OF ERRORMSG TEXT
*
* THIS ROUTINE WILL SEND A MESSAGE TO THE ERRQ THAT CONTAINS
* THE CONTENTS OF THE MER IN TRANSLATED FORMAT
         USING *,15
ERMSGXIT LR    4,1                    PUT ADDR OF BUFFER IN 4
         L     4,12(4)                GET PLCB ADDR
         L     4,92(4)                GET SCB ADDR
         LA    4,16(4)                LOAD ADDR OF MER
         LA    5,7(5)                 POINT TO 1ST POS TO PUT MER
         BAL   6,CNVT                 CONVERT BYTE 1
```

```
          BAL   6,CNVT                  CONVERT BYTE 2
          BAL   6,CNVT                  CONVERT BYTE 3
          BAL   6,CNVT                  CONVERT BYTE 4
          BR    14                      RETURN
CNVT      SR    7,7                     CLEAR R1
          IC    7,0(4)                  INSERT CHAR TO TRANSLATE
          LA    2,15                    INSERT X'0F'
          NR    2,7                     PUT RIGHT 4 BITS IN REG 2
          SRL   7,4                     SHIFT LEFT 4 BITS TO LOW ORDER
          STC   7,0(5)                  STORE IN ERROR MSG
          STC   2,1(5)                  STORE IN ERROR MSG
          TR    0(1,5),HEXTRAN          TRANSLATE HEX DIGIT
          TR    1(1,5),HEXTRAN          TRANSLATE HEX DIGIT
          LA    4,1(4)                  BUMP POINTER BY 1
          LA    5,2(5)                  BUMP POINTER BY 2
          BR    6                       RETURN
HEXTRAN   DC    C'0123456789ABCDEF'     HEX TRANSLATE TABLE
          LTORG
 TITLE '                                BIND EXITS'
BINDXHH   CSECT
          USING *,15
          NI    5(4),256-X'20'  NO BRACKETS
          NI    6(4),256-X'C0'  SET FDX
          LA    15,2            RESOLVE CONTENTION
          BR    14              RETURN
          DROP  15
NDSBXIT   CSECT
          USING *,15
          STM   0,15,SVE
          LR    12,15
          USING NDSBXIT,12
          DROP  15
          IEDLSCR               MOVE TTE SCREEN SIZE TO BIND
          LM    0,14,SVE
          BR    14
SVE       DS    16F
          LTORG
```

ACF/TCAM BIND PARAMETERS

```
 TITLE '                                BIND IMAGE TABLES'
          IEDBTAB CBI=(BI3767,EMU3790,BTCH3790,BI3770A,BI3270NB)
NDS3278   IEDBENT COMPROT=XL2'3080',PRIPROT=X'B1',SECPROT=X'90',        X
                TSPROF=X'03',FMPROF=X'03',TSUSAGE=XL6'000087F80000',    X
                FMTYPE=X'01',                                           X
```

```
              LUPROF=X'02',PRESERC=XL11'00000000000185018507F00'
NDS8789   IEDBENT COMPROT=XL2'3080',PRIPROT=X'B1',SECPROT=X'90',        X
              TSPROF=X'03',FMPROF=X'03',TSUSAGE=XL6'000087C60000',     X
              FMTYPE=X'01',                                            X
              LUPROF=X'01',PRESERC=XL11'000000E100000000000000'
          ENTRY IEDTSOB0
IEDTSOB0  IEDBENT COMPROT=XL2'2000',PRIPROT=X'21',SECPROT=X'40',       X
              TSPROF=X'02',FMPROF=X'02',TSUSAGE=XL6'010000000100',     X
              LUPROF=X'00',PRESERC=XL11'00',FMTYPE=X'01',              X
              LOGON=C'   LOGON ',USRDATA=C'               '
          ENTRY IEDTSOB1
IEDTSOB1  IEDBENT COMPROT=XL2'3040',PRIPROT=X'A1',SECPROT=X'90',       X
              TSPROF=X'03',FMPROF=X'03',TSUSAGE=XL6'010085850100',     X
              LUPROF=X'01',PRESERC=XL11'00',FMTYPE=X'01',              X
              LOGON=C'   LOGON ',USRDATA=C'               '
          ENTRY IEDTSOB2
IEDTSOB2  IEDBENT COMPROT=XL2'3080',PRIPROT=X'B1',SECPROT=X'B0',       X
              TSPROF=X'03',FMPROF=X'03',TSUSAGE=XL6'000085850000',     X
              LUPROF=X'02',FMTYPE=X'01',                               X
              PRESERC=XL11'00000000000185018507E00',                   X
              LOGON=C'   LOGON ',USRDATA=C'               '
          ENTRY IEDTSOB8
IEDTSOB8  IEDBENT COMPROT=XL2'3080',PRIPROT=X'B1',SECPROT=X'90',       X
              TSPROF=X'03',FMPROF=X'03',TSUSAGE=XL6'000087F80000',     X
              LUPROF=X'02',PRESERC=XL11'00000000000185018507F00',      X
              FMTYPE=X'01',                                            X
              LOGON=C'   LOGON ',USRDATA=C'
          IEDBEND TSO=NO,TOTE=NO
```

ACF/TCAM USS TABLES

```
          PRINT NOGEN
USS3270   IEDUTAB  GEN=NO
          IEDUVERB INITS,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'MHS3270'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'BI3270NB'
          IEDUVERB TCAM,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'MHS3270'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'BI3270NB'
          IEDUVERB LOGON,CMD=INITS,UDATLEN=14
          IEDUPARM INUDATA
          IEDUVAL
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'TSOMH'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'IEDTSOB0'
          IEDUVERB TSO,CMD=INITS,UDATLEN=14
          IEDUPARM INUDATA
          IEDUVAL
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'TSOMH'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'IEDTSOB0'
          IEDUVERB IMS,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'IMS'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'BI3270NB'
          IEDUVERB CICS,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'CICS'
```

```
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'BI3270NB'
          IEDUVERB TERMS,CMD=TERMS
          IEDUPARM TMLU
          IEDUVAL
          IEDUVAL  ,C'MHS3270'
          IEDUVERB LOGOFF,CMD=TERMS
          IEDUPARM TMLU
          IEDUVAL
          IEDUVAL  ,C'TSOMH'
          IEDUVERB TERMI,CMD=TERMS
          IEDUPARM TMLU
          IEDUVAL
          IEDUVAL  ,C'IMS'
          IEDUVERB TERMC,CMD=TERMS
          IEDUPARM TMLU
          IEDUVAL
          IEDUVAL  ,C'CICS'
          IEDUEND
          END
*
*
*
          PRINT NOGEN
USSNDS    IEDUTAB  GEN=NO
          IEDUVERB INITS,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'NDSMH'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'NDS3278'
          IEDUVERB TCAM,CMD=INITS
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'NDSMH'
          IEDUPARM INMODE
          IEDUVAL
          IEDUVAL  ,C'NDS3278'
          IEDUVERB LOGON,CMD=INITS,UDATLEN=14
          IEDUPARM INUDATA
          IEDUVAL
          IEDUPARM INLU
          IEDUVAL
          IEDUVAL  ,C'TSOMH'
          IEDUPARM INMODE
          IEDUVAL
```

```
            IEDUVAL  ,C'IEDTSOB8'
            IEDUVERB TSO,CMD=INITS,UDATLEN=14
            IEDUPARM INUDATA
            IEDUVAL
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL  ,C'TSOMH'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL  ,C'IEDTSOB8'
            IEDUVERB IMS,CMD=INITS
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL  ,C'IMS'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL  ,C'NDS3278'
            IEDUVERB CICS,CMD=INITS
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL  ,C'CICS'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL  ,C'NDS3278'
            IEDUVERB TERMS,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL  ,C'NDSMH'
            IEDUVERB LOGOFF,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL  ,C'TSOMH'
            IEDUVERB TERMI,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL  ,C'IMS'
            IEDUVERB TERMC,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL  ,C'CICS'
            IEDUEND
            END
    *
    *
    *
            PRINT NOGEN
    USS3767 IEDUTAB  GEN=NO
            IEDUVERB INITS,CMD=INITS
```

```
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'MH3767'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'BI3767'
IEDUVERB TCAM,CMD=INITS
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'MH3767'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'BI3767'
IEDUVERB LOGON,CMD=INITS,UDATLEN=14
IEDUPARM INUDATA
IEDUVAL
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'TSOMH'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'IEDTSOB1'
IEDUVERB TSO,CMD=INITS,UDATLEN=14
IEDUPARM INUDATA
IEDUVAL
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'TSOMH'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'IEDTSOB1'
IEDUVERB IMS,CMD=INITS
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'IMS'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'BI3767'
IEDUVERB CICS,CMD=INITS
IEDUPARM INLU
IEDUVAL
IEDUVAL  ,C'CICS'
IEDUPARM INMODE
IEDUVAL
IEDUVAL  ,C'BI3767'
IEDUVERB TERMS,CMD=TERMS
IEDUPARM TMLU
IEDUVAL
```

```
            IEDUVAL   ,C'MH3767'
            IEDUVERB LOGOFF,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL   ,C'TSOMH'
            IEDUVERB TERMI,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL   ,C'IMS'
            IEDUVERB TERMC,CMD=TERMS
            IEDUPARM TMLU
            IEDUVAL
            IEDUVAL   ,C'CICS'
            IEDUEND
            END
*
*
*
            PRINT NOGEN
USS3770     IEDUTAB  GEN=NO
            IEDUVERB INITS,CMD=INITS
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL   ,C'SNAMH'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL   ,C'BI3770A'
            IEDUVERB TCAM,CMD=INITS
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL   ,C'SNAMH'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL   ,C'BI3770A'
            IEDUVERB LOGON,CMD=INITS,UDATLEN=14
            IEDUPARM INUDATA
            IEDUVAL
            IEDUPARM INLU
            IEDUVAL
            IEDUVAL   ,C'TSOMH'
            IEDUPARM INMODE
            IEDUVAL
            IEDUVAL   ,C'IEDTSOB1'
            IEDUVERB TSO,CMD=INITS,UDATLEN=14
            IEDUPARM INUDATA
            IEDUVAL
            IEDUPARM INLU
            IEDUVAL
```

```
IEDUVAL   ,C'TSOMH'
IEDUPARM INMODE
IEDUVAL
IEDUVAL   ,C'IEDTSOB1'
IEDUVERB IMS,CMD=INITS
IEDUPARM INLU
IEDUVAL
IEDUVAL   ,C'IMS'
IEDUPARM INMODE
IEDUVAL
IEDUVAL   ,C'BI3770A'
IEDUVERB CICS,CMD=INITS
IEDUPARM INLU
IEDUVAL
IEDUVAL   ,C'CICS'
IEDUPARM INMODE
IEDUVAL
IEDUVAL   ,C'BI3770A'
IEDUVERB TERMS,CMD=TERMS
IEDUPARM TMLU
IEDUVAL
IEDUVAL   ,C'SNAMH'
IEDUVERB LOGOFF,CMD=TERMS
IEDUPARM TMLU
IEDUVAL
IEDUVAL   ,C'TSOMH'
IEDUVERB TERMI,CMD=TERMS
IEDUPARM TMLU
IEDUVAL
IEDUVAL   ,C'IMS'
IEDUVERB TERMC,CMD=TERMS
IEDUPARM TMLU
IEDUVAL
IEDUVAL   ,C'CICS'
IEDUEND
END
```

CHAPTER 7 : SAMPLE NCP SOURCE

Two NCP samples are included. The first NCP source is designed to operate on an IBM 3704. The larger NCP illustrates various mixes of device types. All supported line disciplines are illustrated and are based on actual experience and industry recommendations. The DOS/VS or the OS/VS JCL for the assembly of these NCP's are contained in the appropriate section of this guide.

REFERENCES

IBM 3704 And 3705 Communications Controllers Network Control Program/VS Generation And Utilities Guide And Reference Manual (for OS/VS And DOS/VS VTAM Users)	GC30-3008
Teleprocessing Preinstallation Guide For IBM 3704 And 3705 Communication Controllers	GC30-3020
IBM 3705 Advanced Communications Function for Network Control Program/VS Generation And Utilities Guide And Reference Manual	SC30-3116
DOS/VS VTAM System Programmers Guide	GC27-6957
ACF/VTAM System Programmers Guide (DOS)	SC38-0268
ACF/VTAM Installation Guide (DOS)	SC38-0270
ACF/VTAM Reference Summary (DOS)	SX27-3022
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS VTAM Reference Summary	GX27-0034
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 VTAM System Programming Library:VTAM	GC28-0688
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269

ACF/VTAM Reference Summary	SX27-3021
OS/VS TCAM Concepts and Applications	GC30-2049
OS/VS TCAM System Programmer's Guide	GC30-2051
OS/VS TCAM Macro Reference Guide	GC30-2052
OS/VS TCAM Application Programmer's Guide	GC30-3036
OS/VS TCAM Installation and Migration Guide	GC30-3039
OS/VS TCAM Program Reference Summary	GY30-1024
TCAM Migration To NCP and SNA Featuring IBM 3790	GG22-9100
ACF/TCAM General Information	GC30-2050
ACF/TCAM Concepts and Planning	GC30-3049
ACF/TCAM System Programmer's Guide	SC30-3117
ACF/TCAM Macro Reference Guide	SC30-3118
ACF/TCAM Application Programmer's Guide	SC30-3119
ACF/TCAM Installation and Migration Guide	SC30-3121
ACF/TCAM MSNF Program Reference Summary Supplement	LD21-0003
ACF/TCAM Program Reference Summary	LY30-3037

7.1 : SAMPLE NCP FOR 3704

```
*************************************************************************
*       NCP 5 ONLY, NOT SUPPORTED BY ACF/NCP/VS                         *
*       SOURCE FOR NCP GENERATION (ALL VTAM LEVELS AND TCAM 10)         *
*       SUPPORTS BATCH AND INQUIRY FOR SDLC PHYSICAL UNITS              *
*       THIS GENERATION IS FOR IBM 3704                                 *
*************************************************************************


*************************************************************************
*                                                                       *
*       PCCU SPECIFICATIONS - OS/VS   (VTAM ONLY)                       *
*                                                                       *
*************************************************************************

NCPSTART PCCU  CUADDR=07F,          3704 CONTROL UNIT ADDRESS           X
               AUTODMP=NO,          PROMPT BEFORE DUMPING NCP           X
               AUTOIPL=YES,         AUTOIPL AND RESTART                 X
               DUMPDS=NCPDUMP,      AUTODUMP REQUESTED                  X
               INITEST=YES          NCP INITIALIZATION TEST


*************************************************************************
*                                                                       *
*        PCCU SPECIFICATIONS FOR DOS/VS  (VTAM ONLY)                    *
*                                                                       *
*************************************************************************

NCPSTART PCCU  CUADDR=07F,          3704 CONTROL UNIT ADDRESS           X
               AUTODMP=NO,          PROMPT WHEN NCP FAILS               X
               AUTOIPL=YES,          NO AUTOIPL AND RESTART             X
               DUMPDS=SYS007,       DS FOR DUMP OPTION                  X
               INITEST=NO,          NO INITIAL TEST                     X
               NCPLUB=SYS008        LOAD MODULE NAME
```

SAMPLE NCP FOR 3704

```
*************************************************************************
*                                                                       *
*        BUILD MACRO SPECIFICATIONS FOR OS                              *
*                                                                       *
*                                                                       *
*************************************************************************

NCPBUILD BUILD MAXSUBA=3,          MUST BE SAME AS IN VTAM STR DEF     X
               LOADLIB=NCPLOAD,    LIBRARY FOR NCP LOAD MODULE         X
               OBJLIB=NCPBAT,      LIBRARY FOR ASSEMBLER OUTPUTS       X
               LESIZE=320,         REGION SIZE FOR LINK-EDIT           X
               TYPSYS=OS,          OS USED FOR STAGE 2                 X
               QUALIFY=SYS1,       1ST LEVEL QUALIFIER                 X
               UNIT=SYSDA,         DATA SET FOR ASSEMBLY               X
               MEMSIZE=64,         3704 STORAGE SIZE IS  64K BYTES     X
               TYPGEN=NCP,         NCP ONLY                            X
               ABEND=YES,          ABEND FACILITY INCLUDED             X
               ANS=YES,            AUTOMATIC NETWORK SHUTDOWN (DEFAULT)X
               ASMXREF=NO,         NO ASSEMBLER CROSS-REFERENCE        X
               BFRS=64,            NCP BUFFER SIZE                     X
               CHANTYP=TYPE1,      PRIMARY CHANNEL ADAPTER             X
               ERASE=NO,           DO NOT ERASE BUFFERS (DEFAULT)      X
               ENABLTO=2.2,        LEASED LINE ONLY (DEFAULT)          X
               JOBCARD=MULTI,      JOBCARDS PROVIDED BY NCP GEN        X
               MODEL=3704,                                             X
               NEWNAME=NCPBAT,     NAME OF THIS LOAD MODULE            X
               OLT=YES,            ONLINE TEST AVAILABLE(DEFAULT)      X
               SLODOWN=12,         SLOWDOWN WHEN 12% OF BUFFERS AVAIL  X
               SUBAREA=3,          SUBAREA ADDRESS = 3                 X
               TRACE=(YES,10)      10 ADDRESS-TRACE ENTRIES(DEFAULT)
```

```
*************************************************************************
*                                                                       *
*        BUILD MACRO SPECIFICATIONS DOS                                 *
*                                                                       *
*************************************************************************

NCPBUILD BUILD MAXSUBA=3,          MUST BE SAME AS IN VTAM STR DEF     X
               TYPSYS=DOS,         DOS USED FOR STAGE 2                X
               MEMSIZE=64,         3704 STORAGE SIZE IS  64K BYTES     X
               TYPGEN=NCP,         NCP ONLY                            X
               ABEND=YES,          ABEND FACILITY INCLUDED             X
               ANS=YES,            AUTOMATIC NETWORK SHUTDOWN(DEFAULT) X
               ASMXREF=NO,         NO ASSEMBLER CROSS-REFERENCE(DEFAULTX
               BFRS=64,            NCP BUFFER SIZE                     X
               CHANTYP=TYPE1,      PRIMARY CHANNEL ADAPTER             X
               ERASE=NO,           DO NOT ERASE BUFFERS (DEFAULT)      X
               ENABLTO=2.2,        LEASED LINE ONLY(DEFAULT)           X
               JOBCARD=MULTI,      JOBCARDS PROVIDED BY NCP GEN        X
               MODEL=3704,                                             X
               NEWNAME=NCPBAT,     NAME OF THIS LOAD MODULE            X
               OLT=YES,            ONLINE TEST AVAILABLE (DEFAULT)     X
               SLODOWN=12,         SLOWDOWN WHEN 12% OF BUFFERS AVAIL  X
               SUBAREA=3,          SUBAREA ADDRESS = 3                 X
               TRACE=(YES,10)      10 ADDRESS-TRACE ENTRIES(DEFAULT)

*************************************************************************
*                                                                       *
*        SYSCNTRL OPTIONS FOR VTAM OR TCAM                              *
*                                                                       *
*        NOTE THAT OPERATOR CONTROLS ARE NOT INCLUDED.                  *
*                                                                       *
*************************************************************************
NCPSYSC SYSCNTRL OPTIONS=(MODE,                                         X
               RCNTRL,RCOND,RECMD,RIMM,ENDCALL,                         X
               BHSASSC)
```

```
*************************************************************************
*       HOST MACRO SPECIFICATIONS OS VTAM                               *
*       UNITSZ TIMES MAXBFRU MINUS BFRPAD EQUALS MAX MESSAGE SIZE       *
*       FOR INBOUND MESSAGES                                            *
*************************************************************************

NCPHOST  HOST  INBFRS=5,           INITIAL 3704 ALLOCATION              X
               MAXBFRU=4,          VTAM BUFFER UNIT ALLOCATION          X
               UNITSZ=84,                                               X
               BFRPAD=28,          VTAM(OS=28, DOS=15, ACF=0), EXTM=2   X
               DELAY=.2,           .2 SECOND ATTENTION DELAY            X
               STATMOD=YES,        YES VTAM, NO FOR EXTM                X
               TIMEOUT=(120.0)     AUTO SHUT DOWN IF NO RESP IN 120SEC

*************************************************************************
*       HOST MACRO SPECIFICATIONS DOS/VS                                *
*       DOS VTAM REQUIRES BFRPAD=15                                     *
*                                                                       *
*************************************************************************

NCPHOST  HOST  INBFRS=5,           INITIAL 3704 ALLOCATION              X
               MAXBFRU=6,          VTAM BUFFER UNIT ALLOCATION          X
               UNITSZ=88,          VTAM BUFFER SIZE MUST BE MULT OF 8   X
               BFRPAD=15,          DOS VTAM 15, EXTM=2                  X
               DELAY=.5,           .5 SECOND ATTENTION DELAY            X
               STATMOD=YES,        YES FOR DOS VTAM, NO FOR EXTM        X
               TIMEOUT=(120.0)     AUTO SHUT DOWN IF NO RESP IN 120SEC

*************************************************************************
*       CSB MACRO SPECIFICATIONS                                        *
*                                                                       *
*************************************************************************

NCPCSB   CSB   SPEED=(134),          BUS MACH CLOCK                     X
               MOD=0,              SCANNER ADDRESS 000 TO 01F           X
               TYPE=TYPE1          TYPE 1 COMM SCANNER (DEFAULT
```

```
*************************************************************************
*                                                                       *
*        SPECIFICATIONS FOR SDLC LEASED LINES                           *
*        GROUP MACRO SPECIFICATIONS                                     *
*                                                                       *
*************************************************************************

SDLCGP1   GROUP LNCTL=SDLC,          SYNCHRONOUS DATA LINK             X
              DIAL=NO,              REQUIRED FOR LEASED LINE          X
              REPLYTO=1.0,          USE DEFAULT                       X
              TYPE=NCP              NCP ONLY


*************************************************************************
*                                                                       *
*        LINE MACRO SPECIFICATION - FULL-DUPLEX, LEASED                 *
*        MAY BE USED FOR 3790, 3600, OR 3650                            *
*                                                                       *
*        NOTE: LINE SPEED MAY BE RAISED TO 2400 FOR                     *
*              ALL PHYSICAL UNITS AND TO 4800 FOR 3600 AND 3650         *
*              WITHOUT DOING A NEW GEN OF NCP.                          *
*              RETRIES VALUE FOR LINE SHOULD BE GREATER THAN 30         *
*              SECONDS AND LESS THAN ONE MINUTE FOR 3650.               *
*                                                                       *
*                                                                       *
*************************************************************************

SDLC1     LINE  ADDRESS=(000),      TRANSMIT AND RECEIVE ADDRESS      X
              DUPLEX=HALF,          REQUIRED FOR SWITCHED BACKUP      X

   OR

SDLC1     LINE  ADDRESS=(000,001),  TRANSMIT AND RECEIVE ADDRESSES    X
              DUPLEX=FULL,          MODEM IS STRAPPED FOR FULL DUPLEX X
              SPEED=1200,           SPEED MAY BE HIGHER(SEE NOTES)    X
              NRZI=YES,             SPECIFY YES ONLY IF REQUIRED      X
              NEWSYNC=NO,           CHECK MODEM REQUIREMENTS          X
              CLOCKNG=EXT,          MODEM PROVIDES CLOCKING           X
              POLLED=YES,                                             X
              RETRIES=(5,10,4)      5 RETRIES PER RECOVERY SEQUENCE
```

```
*************************************************************************
*                                                                       *
*          SERVICE ORDER FOR SDLC LINK                                  *
*                                                                       *
*************************************************************************
         SERVICE ORDER=(CL3790)


*************************************************************************
*                                                                       *
*        PU MACRO SPECIFICATION FOR 3790 LINK                           *
*                                                                       *
*************************************************************************


CL3790   PU    ADDR=C1,            PU ADDRESS = A (EBCDIC)             X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA              X
               PUTYPE=2,                                               X
               PACING=(1,1),       MAX FOR 3790                        X
               VPACING=(2,1),      TWICE PACING VALUE                  X
               PASSLIM=7,          EQUAL TO MAXOUT                     X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
               ISTATUS=INACTIVE    ACTIVATE VIA OPERATOR


*************************************************************************
*                                                                       *
*        LOGICAL UNIT SPECIFICATIONS                                    *
*                                                                       *
*************************************************************************


INBATCH2 LU    LOCADDR=1,          IN REQ'D FOR 1ST LU                 X
               ISTATUS=ACTIVE
INQDEM12 LU    LOCADDR=2,                                              X
               ISTATUS=ACTIVE
INQDEM13 LU    LOCADDR=3,                                              X
               ISTATUS=ACTIVE
INQDEM14 LU    LOCADDR=4
```

```
*************************************************************************
*                                                                       *
*         SERVICE ORDER FOR 3600'S FOR SSS TRANSFER ONLY AND FOR        *
*         OPERATIONAL USE.                                              *
*                                                                       *
*************************************************************************
         SERVICE ORDER=(CL3600,C36SS)

*************************************************************************
*                                                                       *
*        PU MACRO SPECIFICATION FOR 3600 LINK                           *
*                                                                       *
*************************************************************************

CL3600   PU    ADDR=C1,            PU ADDRESS = A (EBCDIC)             X
               PUTYPE=2,                                               X
               MAXDATA=80,         MATCH BUFFER VALUE IN 3601          X
               MAXOUT=3,           MAX PATH INFO UNITS BEFORE RES      X
               PASSLIM=1,                                              X
               PACING=(0),         BEST FOR INQUIRY RESPONSE           X
               VPACING=(0),        CHANGE IF NCP SLOWDOWN              X
               ISTATUS=INACTIVE    ACTIVATE VIA OPERATOR
*************************************************************************
*                                                                       *
*        LOGICAL UNIT SPECIFICATIONS                                    *
*                                                                       *
*************************************************************************
FALUA1   LU    LOCADDR=1,ISTATUS=INACTIVE                              X
FALUA2   LU    LOCADDR=2,                                              X
               ISTATUS=ACTIVE
FALUA3   LU    LOCADDR=3,                                              X
               ISTATUS=ACTIVE
FALUA4   LU    LOCADDR=4,                                              X
               ISTATUS=ACTIVE
```

```
*************************************************************************
*                                                                       *
*        PU MACRO SPECIFICATION FOR 3600 FOR SSS                        *
*                                                                       *

*************************************************************************
CL36SS   PU    ADDR=C1,            PU ADDRESS = A (EBCDIC)             X
               PUTYPE=2,                                               X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA              X
               MAXOUT=3,           MAX PATH INFO UNITS BEFORE RES      X
               PASSLIM=1,                                              X
               ISTATUS=INACTIVE    ACTIVATE VIA OPERATOR
*************************************************************************
*                                                                       *
*        LOGICAL UNIT SPECIFICATIONS                                    *
*                                                                       *
*************************************************************************
FALUA1SS LU    LOCADDR=1,          FA REQ'D FOR 1ST LU                 X
               PACING=(3,1),                                           X
               VPACING=(4,1),      IF NO SLOWDOWN, INCREASE VPACING    X
               ISTATUS=ACTIVE
```

```
*************************************************************************
*                                                                       *
*          SERVICE ORDER FOR SDLC 3650 (FULL DUPLEX)                    *
*                                                                       *
*************************************************************************
         SERVICE ORDER=(STORE1)


*************************************************************************
*                                                                       *
*         PU MACRO SPECIFICATION FOR 3650                               *
*                                                                       *
*************************************************************************


STORE1   PU     ADDR=C4,            PU ADDRESS = D (EBCDIC)             X
                CUTYPE=SDLC1,                                           X
                MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
                MAXDATA=265,        6 BYTE TH, 3 BYTE RH, 256 BYTE RU   X
                PASSLIM=5,          LIMIT IS 5 PIUS PER INDUSTRY SPEC   X
                ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR               X
                PACING=(1,1),                                           X
                VPACING=(3,1)
*************************************************************************
*                                                                       *
*         LOGICAL UNIT SPECIFICATIONS                                   *
*                                                                       *
*************************************************************************
QESTORE1 LU     LOCADDR=1,              REQ'D FOR 1ST LU                X
                PACING=(7,1),           IMPROVES LOADING 3651           X
                VPACING=(4,1),          DECREASE IF SLOWDOWN WITH SSS   X
                ISTATUS=ACTIVE
QECREDIT LU     LOCADDR=2,                                              X
                PACING=(0),                                             X
                VPACING=(0)
QE365311 LU     LOCADDR=3
QE365312 LU     LOCADDR=4
QE365313 LU     LOCADDR=5
QE365314 LU     LOCADDR=6
QE365315 LU     LOCADDR=7
QE327511 LU     LOCADDR=8
QE327512 LU     LOCADDR=9,PACING=(2,1)
QE327513 LU     LOCADDR=10,PACING=(2,1)
QE327514 LU     LOCADDR=11,PACING=(2,1)
QE327515 LU     LOCADDR=12,PACING=(2,1)
QEINT1   LU     LOCADDR=13,PACING=(2,1)
QEINT2   LU     LOCADDR=14
```

```
*************************************************************************
*                                                                       *
*         GENEND DELIMITER                                              *
*                                                                       *
*************************************************************************
         GENEND
          END
/*
```

7.2 : SAMPLE NCP FOR 3705 (MULTI-PURPOSE)

```
*************************************************************************
*       SOURCE FOR NCP 5.0 OR ACF/NCP/VS                                *
*       SUPPORTS BASIC, SDLC AND REMOTE 370X                            *
*************************************************************************
```

PCCU SPECIFICATIONS - OS/VS (VTAM)

```
*************************************************************************

NCPSTART PCCU  CUADDR=0BF,          3705 CONTROL UNIT ADDRESS           X
               AUTODMP=NO,          PROMPT BEFORE DUMPING NCP           X
               AUTOSYN=NO,          PROMPT OPERATOR IF NCP LOADED       X
               MAXDATA=3000,        ALLOW FOR 3270 BSC                  X
               CONFGDS=NCP001,      VTAM 2 ONLY                         X
               AUTOIPL=YES,         AUTOIPL AND RESTART                 X
               DUMPDS=NCPDUMP,      AUTODUMP REQUESTED                  X
               INITEST=YES          NCP INITIALIZATION TEST
```

PCCU SPECIFICATIONS FOR DOS/VS(VTAM)

```
*************************************************************************

NCPSTART PCCU  CUADDR=0BF,          3705 CONTROL UNIT ADDRESS           X
               AUTODMP=NO,          PROMPT WHEN NCP FAILS               X
               AUTOSYN=YES,         NO PROMPT IF ALREADY LOADED         X
               MAXDATA=3000,        ALLOW FOR 3270 BSC                  X
               AUTOIPL=YES,         AUTOIPL AND RESTART                 X
               DUMPDS=SYS007,       DS FOR DUMP OPTION                  X
               INITEST=NO,          NO INITIAL TEST                     X
               NCPLUB=SYS008        LOAD MODULE NAME
```

NOTE: MAXDATA must be less than MAXBFRU X UNITSZ - BFRPAD. It must be be greater than the largest PIU passed through the NCP.

PCCU SPECIFICATIONS FOR ACF/VTAM OS/VS

```
*       PCCU SPECIFICATIONS - ACF/VTAM  OS/VS                          *
*****************************************************************************

NCPACF   PCCU  CUADDR=418,          3705 CONTROL UNIT ADDRESS           X
               MAXDATA=3000,        MAX OUTBOUND PIU                    X
               AUTOSYN=YES,         NO PROMPT IF ALREADY LOADED         X
               AUTODMP=NO,          PROMPT BEFORE DUMPING NCP           X
               AUTOIPL=YES,         AUTOIPL AND RESTART NOT AUTO        X
               DUMPDS=NCPDUMP,      AUTODUMP REQUESTED                  X
               SUBAREA=13,          SAME AS HOST MACRO                  X
               INITEST=NO           NCP INITIALIZATION TEST
```

PCCU SPECIFICATIONS FOR ACF/VTAM DOS/VS

```
*       PCCU SPECIFICATIONS - ACF/VTAM  DOS/VS
*****************************************************************************

NCPACF   PCCU  CUADDR=070,          3705 CONTROL UNIT ADDRESS           X
               AUTODMP=NO,          PROMPT WHEN NCP FAILS               X
               MAXDATA=3000,        ALLOW FOR 3270 BSC                  X
               AUTOIPL=YES,         AUTOIPL AND RESTART                 X
               DUMPDS=SYS007,       DS FOR DUMP OPTION                  X
               INITEST=NO,          NO INITIAL TEST                     X
               AUTOSYN=YES,         NO PROMPT IF ALREADY LOADED         X
               SUBAREA=12,          SAME AS HOST MACRO                  X
               NCPLUB=SYS008        LOAD MODULE NAME
```

NOTE: MAXDATA must be less than MAXBFRU X UNITSZ - BFRPAD. It must be be greater than the largest PIU passed through the NCP. If using IBM 3278 Model 4, MAXDATA should be 4000.

BUILD MACRO SPECIFICATIONS FOR OS/VS

```
**********************************************************************

NCPBUILD BUILD MAXSUBA=15,          MUST BE SAME AS IN VTAM STR DEF     X
               LOADLIB=NCPLOAD,     LIBRARY FOR NCP LOAD MODULE         X
               OBJLIB=NCPOBJ,       LIBRARY FOR ASSEMBLER OUTPUTS       X
               LESIZE=320,          REGION SIZE FOR LINK-EDIT           X
               TYPSYS=OS,           OS USED FOR STAGE 2                 X
               QUALIFY=SYS1,        1ST LEVEL QUALIFIER                 X
               UNIT=SYSDA,          DATA SET FOR ASSEMBLY               X
               MEMSIZE=112,         3705 STORAGE SIZE IS 112K BYTES     X
               TYPGEN=NCP-LR,       NCP WITH REMOTE SUPPORT             X
               ABEND=YES,           ABEND FACILITY INCLUDED             X
               ANS=YES,             AUTOMATIC NETWORK SHUTDOWN          X
NOTE: Should be yes for PEP generation.
               ASMXREF=NO,          NO ASSEMBLER CROSS-REFERENCE        X
               BFRS=64,             NCP BUFFER SIZE                     X
NOTE: Note channel type
               CHANTYP=TYPE2,       PRIMARY CHANNEL ADAPTER             X
               CSMHDR=27F5C711C3F0405C40C8C4D9405C, 3270 CRITSIT HEADERX
               CSMHDRC=40E3C5E7E3405C5C, 3270 CRITST HEADER EXTRA TEXT X
               CSMSG=C3D9C9E3E2C9E35A40E385819440F040, CRITSIT MESG    X
               CSMSGC=6040C1D5E240828587A4954B, CRITST MESG EXTRA TEXT X
               CUID=,               NO SWITCHED BSC ID SEQUENCE DEVICES X
               ERASE=NO,            DO NOT ERASE BUFFERS                X
               ENABLTO=,            NO SWITCHWD BACK_UP SUPPORT         X
               ITEXTTO=60,          TEXT TIME OUT PROVIDED BY BUILD MACRX
               JOBCARD=MULTI,       JOBCARDS PROVIDED BY NCP GEN        X
               MODEL=3705,                                              X
               MTARTO=30,                                               X
               MTARTRY=10,                                              X
               NEWNAME=NCPSDL,      NAME OF THIS LOAD MODULE            X
               PNLTEST=YES,         PANEL TEST INCLUDED                 X
               OLT=YES,             ONLINE TEST AVAILABLE               X
               SLODOWN=12,          SLOWDOWN WHEN 12% OF BUFFERS AVAIL  X
               SUBAREA=3,           SUBAREA ADDRESS = 3                 X
               TIME=,               NO TIME ON STAGE 2 EXEC CARDS       X
               TRACE=(YES,64),      64 ADDRESS-TRACE ENTRIES            X
               UT1=SYSUT1,          PREALLOCATED WORK SPACE             X
               UT2=SYSUT2,          PREALLOCATED WORK SPACE             X
               UT3=SYSUT3,          PREALLOCATED WORK SPACE             X
               XBREAK=4,            4 BREAK CHARS. FOR 300 BPS          X
               XITB=NO              NO ITB SUPPORTED BSC UNITS
```

SAMPLE NCP FOR 3705

BUILD MACRO SPECIFICATIONS DOS/VS

```
*************************************************************************

NCPBUILD BUILD MAXSUBA=15,          MUST BE SAME AS IN VTAM STR DEF     X
               TYPSYS=DOS,          DOS USED FOR STAGE 2                X
               MEMSIZE=112,         3705 STORAGE SIZE IS 112K BYTES     X
               TYPGEN=NCP-LR,       NCP WITH REMOTE SUPPORT             X
               ABEND=YES,           ABEND FACILITY INCLUDED             X
               ANS=YES,             AUTOMATIC NETWORK SHUTDOWN          X
NOTE: Should be yes for PEP generation.
               ASMXREF=NO,          NO ASSEMBLER CROSS-REFERENCE        X
               BFRS=64,             NCP BUFFER SIZE                     X
NOTE: Note channel type
               CA=TYPE2,            NEW FOR NCP5                        X
               CHANTYP=TYPE2,       PRIMARY CHANNEL ADAPTER             X
               CSMHDR=27F5C711C3F0405C40C8C4D9405C, 3270 CRITSIT HEADERX
               CSMHDRC=40E3C5E7E3405C5C, 3270 CRITST HEADER EXTRA TEXT X
               CSMSG=C3D9C9E3E2C9E35A40E385819440F040, CRITSIT MESG    X
               CSMSGC=6040C1D5E240828587A4954B, CRITST MESG EXTRA TEXT X
               CUID=,               NO SWITCHED BSC ID SEQUENCE DEVICES X
               ERASE=NO,            DO NOT ERASE BUFFERS                X
               ENABLTO=,            NO MANUAL SWITCHED BACKUP           X
               ITEXTTO=60,          TEXT TIME OUT PROVIDED BY BUILD MACRX
               JOBCARD=MULTI,       JOBCARDS PROVIDED BY NCP GEN        X
               MODEL=3705,                                              X
               MTARTO=30,                                               X
               MTARTRY=10,                                              X
               NEWNAME=NCP500,      NAME OF THIS LOAD MODULE            X
               PNLTEST=YES,         PANEL TEST INCLUDED                 X
               OLT=YES,             ONLINE TEST AVAILABLE               X
               SLODOWN=12,          SLOWDOWN WHEN 12% OF BUFFERS AVAIL  X
               SUBAREA=3,           SUBAREA ADDRESS = 3                 X
               TIME=,               NO TIME ON STAGE 2 EXEC CARDS       X
               TRACE=(YES,64),      64 ADDRESS-TRACE ENTRIES            X
               XBREAK=4,            4 BREAK CHARS FOR 300 BPS           X
               XITB=NO              NO ITB SUPPORTED BSC UNITS
```

BUILD MACRO SPECIFICATIONS FOR OS/VS (TWO CHANNELS)

```
*                                                                     *
*        BUILD MACRO SPECIFICATIONS - TWO TYPE 4 CHANNELS             *
*                                                                     *
***********************************************************************
HONEDEV  BUILD TYPGEN=NCP,                                           X
               MAXSUBA=31,                                           X
               PARTIAL=NO,                                           X
               MAXSSCP=2,          BOTH HOSTS ACTIVE                 X
               MEMSIZE=256,                                          X
               MODEL=3705-2,                                         X
               NEWNAME=NCPACFI,                                      X
               CA=(TYPE4,TYPE4-0),                                   X
               NCPCA=(ACTIVE,ACTIVE),                                X
               LTRACE=2,                                             X
               TYPSYS=OS,                                            X
               LESIZE=200,                                           X
               QUALIFY=NCP6,                                         X
               LOADLIB=NCPLIB,                                       X
               OBJLIB=NCPACFI,                                       X
               ABEND=YES,          ABEND FACILITY INCLUDED           X
               ANS=YES,            AUTOMATIC NETWORK SHUTDOWN        X
NOTE: Should be yes for PEP generation.
               ASMXREF=NO,         NO ASSEMBLER CROSS-REFERENCE      X
               BFRS=64,            NCP BUFFER SIZE                   X
               CSMHDR=27F5C711C3F0405C40C8C4D9405C, 3270 CRITSIT HEADERX
               CSMHDRC=40E3C5E7E3405C5C, 3270 CRITST HEADER EXTRA TEXT X
               CSMSG=C3D9C9E3E2C9E35A40E385819440F040, CRITSIT MESG  X
               CSMSGC=6040C1D5E240828587A4954B, CRITST MESG EXTRA TEXT X
               ERASE=NO,           DO NOT ERASE BUFFERS              X
               JOBCARD=MULTI,      JOBCARDS PROVIDED BY NCP GEN      X
               OLT=YES,            ONLINE TEST AVAILABLE             X
               SLODOWN=12,         SLOWDOWN WHEN 12% OF BUFFERS AVAIL X
               SUBAREA=21,                                           X
               TIME=,              NO TIME ON STAGE 2 EXEC CARDS     X
               TRACE=(YES,64),     64 ADDRESS-TRACE ENTRIES          X
               UNIT=VIO,           DATA SET FOR ASSEMBLY AND LINK EDIT X
               XITB=NO             NO ITB SUPPORTED BSC UNITS
```

SYSCNTRL OPTIONS FOR VTAM AND TCAM

```
*************************************************************************
NCPSYSC SYSCNTRL OPTIONS=(MODE,                                          X
               RCNTRL,RCOND,RECMD,RIMM,ENDCALL,SSPAUSE,                  X
               BHSASSC,NAKLIM,SESSION,XMTLMT)
```

NOTE: If the NCP does not contain Start/Stop or BSC devices, SYSCNTRL options will not be included in the ACF/NCP generation even if included in the source deck.

HOST MACRO SPECIFICATIONS OS/VS (VTAM)

```
*     OS/VS VTAM REQUIRES BFRPAD=28, STATMOD=YES, SUBAREA = 1         *
*************************************************************************

NCPHOST  HOST  INBFRS=4,          INITIAL 3705 ALLOCATION              X
               MAXBFRU=20,        VTAM BUFFER UNIT ALLOCATION          X
               UNITSZ=152,        OS VTAM BUFFER SIZE                  X
               BFRPAD=28,         OS VTAM 28, DOS VTAM 15,ETM 2        X
               DELAY=.1,          .1 SECOND ATTENTION DELAY -OS        X
               STATMOD=YES,       YES OS AND DOS VTAM, NO EXTM         X
               TIMEOUT=(120.0)    AUTO SHUT DOWN IF NO RESP IN 120SEC
```

HOST MACRO SPECIFICATIONS DOS/VS (VTAM)

```
*       DOS VTAM REQUIRES BFRPAD=15, STATMOD=YES, SUBAREA = 1         *
*************************************************************************

NCPHOST  HOST  INBFRS=4,          INITIAL 3705 ALLOCATION              X
               MAXBFRU=20,        VTAM BUFFER UNIT ALLOCATION          X
               UNITSZ=88,         VTAM BUFFER SIZE MUST BE MULT OF 8   X
               BFRPAD=15,         OS VTAM 28, DOS VTAM 15              X
               DELAY=.1,          .1 SECOND ATTENTION DELAY            X
               STATMOD=YES,        NO FOR EXTM                         X
               TIMEOUT=(120.0)    AUTO SHUT DOWN IF NO RESP IN 120SEC
```

NOTE: UNITSZ times MAXBFRU minus BFRPAD equals MAX message size for HOST inbound messages.

HOST MACRO SPECIFICATIONS ACF/TCAM OR TCAM 10

```
*************************************************************************
*                                                                       *
*       HOST MACRO SPECIFICATIONS OS ACF/TCAM OR TCAM 10                *
*                                                                       *
*************************************************************************
NCPHOST3 HOST  INBFRS=8,           INITIAL 3705 ALLOCATION             X
               MAXBFRU=20,         TCAM BUFFER UNIT ALLOCATION         X
               SUBAREA=14,                                             X
               UNITSZ=156,         MUST MATCH MCP UNITSZ               X
               BFRPAD=17,                                              X
               DELAY=.1,           .1 SECOND ATTENTION DELAY           X
               STATMOD=YES,                                            X
               TIMEOUT=(180)      AUTO SHUT DOWN IF NO RESP IN 180SEC
```

HOST MACRO SPECIFICATIONS ACF/VTAM

```
*************************************************************************
*                                                                       *
*       HOST MACRO SPECIFICATIONS OS ACF/VTAM                           *
*                                                                       *
*************************************************************************
NCPHOST4 HOST  INBFRS=8,           INITIAL 3705 ALLOCATION             X
               MAXBFRU=20,         VTAM BUFFER UNIT ALLOCATION         X
               SUBAREA=13,                                             X
               UNITSZ=152,                                             X
               BFRPAD=0,                                               X
               DELAY=.1,           .1 SECOND ATTENTION DELAY -OS       X
               STATMOD=YES,                                            X
               TIMEOUT=(180)      AUTO SHUT DOWN IF NO RESP IN 180SEC


*************************************************************************
*                                                                       *
*       HOST MACRO SPECIFICATIONS DOS ACF/VTAM                          *
*                                                                       *
*************************************************************************
NCPHOST4 HOST  INBFRS=8,           INITIAL 3705 ALLOCATION             X
               MAXBFRU=20,         VTAM BUFFER UNIT ALLOCATION         X
               SUBAREA=12,                                             X
               UNITSZ=136,                                             X
```

```
                BFRPAD=0,                                              X
                DELAY=.1,           .1 SECOND ATTENTION DELAY -OS      X
                STATMOD=YES,                                           X
                TIMEOUT=(180)      AUTO SHUT DOWN IF NO RESP IN 180SEC


PATH MACRO SPECIFICATIONS ACF

NCPPATH4 PATH   ADJSUB=14,                                             X
                DESTSUB=9



CSB MACRO SPECIFICATIONS

*************************************************************************

NCPCSB   CSB    SPEED=(134,300,1200),  BUS MACH CLOCKS                 X
                MOD=0,                 SCANNER ADDRESS 020 TO 05F      X
                TYPE=TYPE2             TYPE 2 COMM SCANNER


LUPOOL MACRO SPECIFICATION

*          (MUST BE SPECIFIED BEFORE FIRST GROUP MACRO)*
*************************************************************************

POOL1    LUPOOL  NUMBER=120        ALLOW FOR LARGE POOL
```

MTA SUPPORT

```
*   MTALCST MACROS  - MULTIPLE TERMINAL ACCESS                          *
**********************************************************************
C2741COR MTALCST GROUP=G2741,CLOCKNG=INT,CODE=COR,                     X
               LCTYPE=2741,SPEED=134


*  MTALIST MACRO                                                       *
**********************************************************************
MTALIST1 MTALIST LCTYPE=(2741)


* MTATABL MACROS                                                       *
**********************************************************************
T3767COR MTATABL LCST=(C2741COR),LCTYPE=2741,CODE=COR


*  MTA GROUP                                                           *
**********************************************************************
MTAGROUP GROUP CRETRY=6,DIAL=YES,LNCTL=SS,                             X
               TYPE=NCP


* START-STOP LINE SPECIFICATIONS                                       *
**********************************************************************
LNMTA LINE ADDRESS=025,SPEED=134,MTALIST=MTALIST1,POLLED=NO,           X
               DUPLEX=FULL,CALL=IN,RETRIES=(2,1,2),TRANSFR=2,          X
               MONITOR=YES,DIRECTN=INOUT,                              X
               LOGAPPL=NETSOL,LOGTAB=TABLE01

MTA      TERMINAL TERM=MTA,CTERM=YES,ATTN=ENABLED,                     X
               FEATURE=(ATTN,BREAK,TOSUPPR),CRDLAY=YES

VMTA     VTERM LCST=C2741COR,BUFLIM=2
```

Note- This sample will work with VSPC and TSO through TCAM9/VTAM.

```
     2740 MULTI-DROP LINE

     ************************************************************************

     EURGRP   GROUP CDATA=NO,CRETRY=5,DIRECTN=INOUT,ENDTRNS=EOT,            X
                    CLOCKNG=EXT,DUPLEX=HALF,LNCTL=SS,SPEED=1200,TYPE=NCP,   X
                    LOGAPPL=NETSOL,LOGTAB=TABLE01

     EURLINE  LINE  ADDRESS=026,CODE=EBCD,SERVLIM=1,POLLED=YES,             X
                    RETRIES=(8,6,2),CUTOFF=1,SESSION=2,CRITSIT=YES,         X
                    SERVPRI=OLD,TERM=2740-2,XMITLIM=1,FEATURE=(CHECK),      X

     *** This POLIMIT will reduce system overhead but increase response time.

                    POLIMIT=(20,QUEUE)

              SERVICE ORDER=(LON,BON)

     LON      TERMINAL ADDR=C1,POLL=C1

     BON      TERMINAL ADDR=C2,POLL=C2
```

3767 SWITCHED LINE AT 300 BAUD START/STOP

```
**********************************************************************

G3767    GROUP CRETRY=6,           RETRY 6 TIMES                      X
               DIAL=YES,           SWITCHED LINE                      X
               CRDLAY=YES,         REQUIRED                           X
               CRRATE=5,           REQUIRED FOR 300 BPS               X
               LINESIZ=130,                                           X
               MONITOR=YES,                                           X
               REPLYTO=NONE,       NO REPLY TIME OUT                  X
               TEXTTO=NONE,        NO TEXT TIME OUT                   X
               LNCTL=SS            START STOP LINE TYPE

L3767    LINE  ADDRESS=027,        LINE ADDRESS                       X
               SPEED=300,          LINE SPEED 300 BPS                 X
               CALL=IN,            CALL IN ONLY                       X
               DIRECTN=INOUT,                                         X
               TYPE=NCP,           NCP ONLY                           X
               CLOCKNG=INT,        INTERNAL CLOCKING                  X
               CODE=EBCD,          EBCD CODE CONVERSION               X
               DUPLEX=FULL         MODEM STRAPPING IS FULL DUPLEX

T3767    TERMINAL TERM=2741,       3767 DEFINED AS 2741               X
               UTERM=T3767A,       LOGICAL TERMINAL NAME              X
               ATTN=ENABLED,       ENABLE ATTENTION FUNCTION          X
               LOGAPPL=NETSOL,                                        X
               LOGTAB=TABLE01,                                        X
               FEATURE=(ATTN,BREAK,TOSUPPR),                          X
               CTERM=YES           LOGICAL CONNECTION
```

Note- This sample will work with VSPC and TSO through TCAM9/VTAM.

2741 SWITCHED LINE AT 134 BAUD START/STOP

```
**********************************************************************

G2741    GROUP CRETRY=6,            RETRY 6 TIMES                    X
               CRDLAY=YES,                                           X
               DIAL=YES,            SWITCHED LINE                    X
               MONITOR=YES,                                          X
               REPLYTO=NONE,                                         X
               TEXTTO=NONE,                                          X
               LNCTL=SS             START STOP LINE TYPE

L2741    LINE  ADDRESS=028,         LINE ADDRESS                     X
               SPEED=134,           LINE SPEED 134 BPS               X
               TYPE=NCP,                                             X
               MONITOR=YES,                                          X
               DIRECTN=INOUT,                                        X
               CALL=IN,             CALL IN ONLY                     X
               CLOCKNG=INT,         INTERNAL CLOCKING                X
               CODE=COR2,           COR2 CODE CONVERSION             X
               DUPLEX=FULL          MODEM STRAPPING IS FULL DUPLEX

T2741    TERMINAL TERM=2741,        2741 DEFINED AS 2741             X
               UTERM=T2741A,        LOGICAL TERMINAL NAME            X
               ATTN=ENABLED,        ENABLE ATTENTION FUNCTION        X
               LOGAPPL=NETSOL,                                       X
               LOGTAB=TABLE01,                                       X
               FEATURE=(ATTN,BREAK,TOSUPPR),                         X
               CTERM=YES            LOGICAL CONNECTION
```

Note- This sample will work with VSPC and TSO through TCAM9/VTAM.

SWITCHED TWX GROUP

```
*************************************************************************
*************************************************************************
*************************************************************************
*                                                                       *
*    TTY SWITCHED LINE  AT 300 BAUD START/STOP MODE                     *
*                                                                       *
*************************************************************************
*************************************************************************
*************************************************************************
GTTY     GROUP CRETRY=6,            RETRY 6 TIMES                     X
               DIAL=YES,            SWITCHED LINE                     X
               REPLYTO=NONE,        NO REPLY TIME OUT                 X
               TEXTTO=NONE,         NO TEXT TIME OUT                  X
               LNCTL=SS             START STOP LINE TYPE
LTTY     LINE  ADDRESS=029,         LINE ADDRESS                      X
               MONITOR=YES,         TEST FOR BREAK                    X
               TYPE=NCP,            NCP ONLY                          X
               CRDLAY=YES,                                            X
               DIRECTN=INOUT,                                         X
               CRRATE=10,                                             X
               LINESIZ=80,                                            X
               CODE=DIC3,                                             X
               CUTOFF=1,            STOP RUNAWAY TTY                  X
               SPEED=300,           LINE SPEED 300 BPS                X
               CALL=IN,             CALL IN ONLY                      X
               CLOCKNG=INT,         INTERNAL CLOCKING                 X
               DUPLEX=FULL          MODEM STRAPPING IS FULL DUPLEX
TTY1     TERMINAL TERM=TWX,         TTY  DEFINED AS TWX               X
               UTERM=TTY1A,         LOGICAL TERMINAL NAME             X
               ATTN=ENABLED,        ENABLE ATTENTION FUNCTION         X
               FEATURE=(ATTN,BREAK,TOSUPPR),                          X
               LOGAPPL=NETSOL,                                        X
               LOGTAB=TABLE01,                                        X
               CTERM=YES            LOGICAL CONNECTION
```

Note- This sample will work with VSPC and TSO through TCAM9/VTAM.

SWITCHED BSC LINE GROUP

```
*************************************************************************

SWBSCLG  GROUP DIAL=YES,           SWICHED BSC                          X
               LNCTL=BSC,          BSC LINE CONTROL                     X
               TYPE=NCP,           FOR USE BY NCP ONLY                  X
               WACKCNT=15,         WACK COUNT OF 15                     X
               LOGAPPL=NETSOL,                                          X
               WAKDLAY=2.2,        WACK DELAY OF 2.2 SEC                X
               SYNDLAY=1,          SYNC INTERVAL RATE                   X
               REPLYTO=3           REPLY TIME OUT = 3 SECONDS
*************************************************************************
*                                                                       *
*       LINE SPEC FOR DIAL-IN BSC TERMINALS                             *
*                                                                       *
*************************************************************************
SWBSCLA LINE   ADDRESS=045,        LINE ADDRESS ON 3705                 X
               CLOCKNG=EXT,        EXTERNAL MODEM CLOCKING              X
               TRANSFR=5,          PASS IT ON IF LARGER THAN 5          X
               SPEED=1200,         LINE SPEED                           X
               CODE=EBCDIC,        EBCDIC ONLY                          X
               DUPLEX=HALF,        MODEM STRAPPING IS HALF DUPLEX       X
               CALL=IN,            INCOMING  CALLS ONLY                 X
               INTPRI=1,           INTERRUPT PRIORITY IS 1              X
               NEWSYNC=NO,         3705 WILL NOT PROVIDE NEW SYNC       X
               CUTOFF=10,          ALLOW FOR FULL RECEIPT OF MESSAGE    X
               RETRIES=(4,1,6)     4 RETRY EVERY 1 SEC FOR 6 TIMES
*************************************************************************
*                                                                       *
*        TERMINAL MACROS                                                *
*                                                                       *
*************************************************************************
T3780    TERMINAL TERM=3780,       3770 DEFINED AS 2770                 X
               CTERM=YES,                                               X
               UTERM=T3780A        CONTROLLING STATION
```

PT. TO PT. BSC LINES

```
*************************************************************************
*                                                                       *
*        GROUP SPECIFICATION FOR LEASED POINT TO POINT LINE             *
*                                                                       *
*************************************************************************

GRPPTPT GROUP  DIAL=NO,            NON-SWITCHED LINES                  X
               LNCTL=BSC,          BSC LINE CONTROL                    X
               TRANSFR=5,          LIMIT NUMBER OF RECEIVE BUFFERS     X
               CUTOFF=10,          LIMIT NUMBER OF SUBBLOCKS           X
               TYPE=NCP,           FOR USE BY NCP ONLY                 X
               REPLYTO=3           REPLY TIME OUT

*************************************************************************
*                                                                       *
*       LINE SPEC FOR PT TO PT BSC LINK SYSTEM/7                        *
*       LINE CODED TO SUPPORT SDLC/BSC PATH FUNCTION                    *
*                                                                       *
*************************************************************************

LINE48  LINE   ADDRESS=048,        LINE ADDRESS ON 3705                X
               CLOCKNG=EXT,        EXTERNAL MODEM CLOCKING             X
               SPEED=2400,         LINE SPEED                          X
               CODE=EBCDIC,        EBCDIC ONLY                         X
               DUPLEX=HALF,        MODEM STRAPPING IS HALF DUPLEX      X
               YIELD=NO,           NCP DOES NOT YIELD IN CONTENTION    X
               TERM=SYS3

*************************************************************************
*                                                                       *
*        TERMINAL MACRO SYSTEM/7                                        *
*                                                                       *
*************************************************************************

SYSTEM7  TERMINAL BHEXEC=PT3,                                          X
                  BHSET=BHSET,                                         X
                  EXEC=YES,                                            X
                  CONV=YES,                                            X
                  PT3EXEC=YES,                                         X
                  CRITSIT=YES,                                         X
                  TERM=SYS3
```

NOTE- This line will interface with the SDLC/BSC Path function.

```
*************************************************************************
*                                                                       *
*       LINE SPEC FOR PT TO PT BSC LINK SYSTEM/3                        *
*       MAYBE USED AS STATION FOR PREVIOUS LINE                         *
*                                                                       *
*************************************************************************

LINE49  LINE   ADDRESS=049,        LINE ADDRESS ON 3705                 X
               CLOCKNG=EXT,        EXTERNAL MODEM CLOCKING              X
               SPEED=2400,         LINE SPEED                           X
               CODE=EBCDIC,        EBCDIC ONLY                          X
               DUPLEX=HALF,        MODEM STRAPPING IS HALF DUPLEX       X
               YIELD=YES,          NCP DOES YIELDS TO CONTENTION        X
               TERM=SYS3

*************************************************************************
*                                                                       *
*        TERMINAL MACRO SYSTEM/3                                        *
*                                                                       *
*************************************************************************

SYSTEM3  TERMINAL TERM=SYS3,                                            X
               CONV=YES
```

Note- This line may be used as a driver for line on the preceeding page.

3270 BSC SPECIFICATIONS

```
*        GROUP SPECIFICATION FOR REMOTE 3270'S                          *
*********************************************************************

BSC3270 GROUP  DIAL=NO,           NON-SWITCHED LINES                    X
               CRETRY=7,          TIME OUT WILL TAKE ABOUT 63 SECONDS   X
               LNCTL=BSC,         BSC LINE CONTROL                      X

*** TRANSFR times the BFRS value in the BUILD macro should be a value
    greater than 256 but not exceed 400.

               TRANSFR=5,         LIMIT NUMBER OF RECEIVE BUFFERS       X

*** CUTOFF=1 is required for 3270 BSC cluster control units.

               CUTOFF=1,          LIMIT NUMBER OF SUBBLOCKS             X
               TYPE=NCP,          FOR USE BY NCP ONLY                   X

*** XMITLIM=1 is required for BSC 3270 Clusters.

               XMITLIM=1,         TRANSMISSION LIMIT                    X
               WACKCNT=15,        WACK COUNT OF 15                      X
               WAKDLAY=2.2,       WACK DELAY OF 2.2 SEC                 X
               SYNDLAY=1,         SYNC INTERVAL RATE                    X
               REPLYTO=3          REPLY TIME OUT
```

```
*        LINE SPEC FOR 3271                                                  *
*************************************************************************
SSCBSC  LINE    ADDRESS=044,        LINE ADDRESS ON 3705                    X
                ISTATUS=INACTIVE,   ACF/VTAM USE ONLY                       X
                CLOCKNG=EXT,        EXTERNAL MODEM CLOCKING                 X
                SPEED=4800,         LINE SPEED                              X
                CODE=EBCDIC,        EBCDIC 3270'S ONLY                      X
                DUPLEX=FULL,        DUPLEX FACILITY IS USED                 X

*** NEWSYNC=NO is required for IBM 3274/3276 if DUPLEX=FULL is coded.

                NEWSYNC=YES,        3705 WILL PROVIDE NEW SYNC              X
                INTPRI=1,           INTERRUPT PRIORITY IS 1                 X

*** POLIMIT=(1,QUEUE) is recommended for best performance.

                POLIMIT=(1,QUEUE),                                          X
                POLLED=YES,         POLLED DEVICE                           X
                NEGPOLP=.1,         NEGATIVE POLL PAUSE                     X
                PAUSE=1,            DELAY BETWEEN SERVICE CYCLES            X
                RETRIES=(7,4,3),                                            X
                SERVPRI=OLD,        PRIORITY TO OLD SESSIONS                X

*** The SESSION=N  should be equal to the number of clusters and
    terminals on the link.

                SESSION=8,          SPECIFY 1 FOR EACH CLUSTER              X
                                    AND TERMINAL

*** The following parameter is for ACF/VTAM only.

                PU=YES              ACF/VTAM ONLY

*** The following parameter may be used with VTAM or ACF/VTAM
     but can not be used with PU=YES.

                LOGAPPL=NETSOL

*** LOGTAB= is required when the terminals are allocated to NETSOL.

                LOGTAB=TABLE01      LOGON TABLE FOR NETSOL
```

```
*        SERVICE ORDER MACRO SPECIFICATIONS                              *
*************************************************************************

*** Each cluster and terminal must be contained in the SERVICE macro.

SSCSOR SERVICE ORDER=(SSC3270,SSCT1,SSCT2,SSCT3,                         X
               SSCT4,SSCT5,SSC3275,SSCT6)




*        CLUSTER MACRO FOR 3270 VTAM2, ACF/VTAM BASIC, OR ACF/TCAM
*************************************************************************
SSC3270  CLUSTER CUTYPE=3271,      3271 DEFINED                          X
               FEATUR2=(MODEL2,ANKEY,PFK), 3277 FEATURES                 X
               CRITSIT=YES,        SEND CLOSE-DOWN MESSAGE               X
               GPOLL=40407F7F      GENERAL POLL ADDRESS




*        CLUSTER MACRO FOR 3270  ACF/VTAM (PU=YES)                       *
*************************************************************************
SSC3270  CLUSTER CUTYPE=3271,      3271 DEFINED                          X
               CRITSIT=YES,        SEND CLOSE-DOWN MESSAGE               X
               GPOLL=40407F7F,     GENERAL POLL ADDRESS                  X

*** The following parameters are ACF/VTAM only.

               DLOGMOD=S3270,      MODE    FOR BSC3270                   X
               USSTAB=VUSS3270,                                          X
               MODETAB=NOSPTAB     MODETAB FOR BSC3270
```

```
*        TERMINAL MACROS
*************************************************************************
SSCT1    TERMINAL TERM=3277,        3277 DISPLAY STATION                X
               FEATUR2=(MODEL2,ANKEY,PFK), 3277 FEATURES                X
*** ACF/VTAM requires FEATUR2= to be on terminal macro.
               ISTATUS=ACTIVE,      WILL ACTIVATE WITH CLUSTER          X
               ADDR=60604040,       SELECTION ADDRESS FOR T1            X
               POLL=40404040        POLL ADDRESS OF TERM T1
SSCT2    TERMINAL TERM=3277,        3277 DISPLAY STATION                X
               FEATUR2=(MODEL2,ANKEY,PFK), 3277 FEATURES                X
               ISTATUS=ACTIVE,      WILL ACTIVATE WITH CLUSTER          X
               ADDR=6060C1C1,       SELECTION ADDRESS FOR T2            X
               POLL=4040C1C1        POLL ADDRESS FOR T2
SSCT3    TERMINAL TERM=3277,        3277 DISPLAY STATION                X
               FEATUR2=(MODEL2,ANKEY,PFK), 3277 FEATURES                X
               ISTATUS=ACTIVE,      WILL ACTIVATE WITH CLUSTER          X
               ADDR=6060C2C2,       SELECTION ADDRESS FOR T3            X
               POLL=4040C2C2        POLL ADDRESS FOR T3
SSCT4    TERMINAL TERM=3277,        3277 DISPLAY TERMINAL               X
               FEATUR2=(MODEL2,ANKEY,PFK), 3277 FEATURES                X
               ISTATUS=ACTIVE,      WILL ACTIVATE WITH CLUSTER          X
               ADDR=6060C3C3,       SELECTION ADDRESS FOR T4            X
               POLL=4040C3C3        POLL ADDRESS FOR T4
SSCT5    TERMINAL TERM=3286,        3286 PRINTER                        X

*** DIRECTN=OUT is required by VTAM.

               DIRECTN=OUT,         REQUIRED FOR VTAM                   X
               ISTATUS=ACTIVE,      WILL ACTIVATE WITH CLUSTER          X
               ADDR=6060C4C4,       SELECTION ADDRESS FOR T5            X
               BFRDLAY=13,          ALLOW 13 SECONDS TIME DELAY         X
               POLL=4040C4C4        SELECTION ADDRESS FOR T5
```

**** Terminal addresses must be sequential. No address may be skipped and no device should be attached to the 3271 controller that is not defined in the NCP generation.

CLUSTER MACRO FOR 3275

```
**************************************************************************
SSC3275  CLUSTER CUTYPE=3275,      3275 DEFINED                          X
               FEATUR2=(MODEL2,ANKEY,PFK,PRINTR),     3275 FEATURES     X
               CRITSIT=YES,        SEND CLOSE-DOWN MESSAGE              X
               GPOLL=C1C17F7F,     GENERAL POLL ADDRESS                 X
               ISTATUS=INACTIVE,   DO NOT ACTIVATE



**************************************************************************
*         TERMINAL MACROS
*
SSCT6    TERMINAL TERM=3275,       3275 DISPLAY STATION                  X
               ISTATUS=ACTIVE,     WILL ACTIVATE WITH CLUSTER           X
               BFRDLAY=13,         REQUIRED IF 3275 HAS PRINTER         X
               ADDR=61614040,      SELECTION ADDRESS FOR T6             X
               POLL=C1C14040       POLL ADDRESS OF TERM T6
```

```
     GROUP SPECIFICATIONS FOR SDLC LEASED LINES

     ***************************************************************************

     SDLCGP1   GROUP LNCTL=SDLC,          SYNCHRONOUS DATA LINK              X
                     DIAL=NO,            REQUIRED FOR LEASED LINE           X
                     REPLYTO=1.0,        USE DEFAULT                        X
                     TYPE=NCP            NCP ONLY


     LINE MACRO SPECIFICATION - HALF-DUPLEX, LEASED

     *        MAY BE USED FOR 3790, 3600, 3650, 3770, 3270 AND 3767        *
     ***************************************************************************

     *** The following line will also work as a manual switched backup
         line if the ENABLTO parameter on the BUILD macro is increased
         from the default to at least 60.

     SDLC1     LINE  ADDRESS=(022),      TRANSMIT AND RECEIVE ADDRESS       X
                     DUPLEX=HALF,        MODEM IS STRAPPED FOR HALF DUPLEX  X
                     SPEED=1200,         LINE SPEED TO BE 1200 OR HIGHER    X
                     NRZI=NO,                                               X
                     NEWSYNC=NO,                                            X
                     CLOCKNG=EXT,        MODEM PROVIDES CLOCKING            X
                     POLLED=YES,                                            X
                     RETRIES=(5)         5 RETRIES PER RECOVERY SEQUENCE


     LINE MACRO SPECIFICATION - HALF-DUPLEX, LEASED, INTERNAL CLOCK

     *        MAY BE USED FOR 3790, 3600, 3650, 3770, 3270 AND 3767        *
     ***************************************************************************
     SDLC1A    LINE  ADDRESS=(024),      TRANSMIT AND RECEIVE ADDRESS       X
                     DUPLEX=FULL,                                           X
                     SPEED=1200,         CSB TIMER IS 1200                  X
                     NRZI=YES,           REQUIRED FOR INTERNAL CLOCKING     X
                     NEWSYNC=NO,                                            X
                     CLOCKNG=INT,        INTERNAL CLOCKING                  X
                     POLLED=YES,                                            X
                     RETRIES=(5)         5 RETRIES PER RECOVERY SEQUENCE
```

SDLC LINE MACRO SPECIFICATION FULL DUPLEX LINK

```
*****************************************************************************
SDLC2    LINE  ADDRESS=(020,021),  TRANSMIT AND RECEIVE ADDRESSES      X
               DUPLEX=FULL,        MODEM STRAPPING IS FULL-DUPLEX      X
               SPEED=2400,         LINE SPEED IS 2400 BPS              X
               NEWSYNC=NO,         CHECK IF MODEM REQUIRES IT          X
               CLOCKNG=EXT,        MODEM PROVIDES CLOCKING             X
               NRZI=NO,            DEPENDS ON MODEM                    X
               POLLED=YES,                                             X
               RETRIES=(5)         5 RETRIES PER RECOVERY SEQUENCE
```

SDLC DUPLEX LINE SPECIFICATION (SINGLE PORT)

```
*****************************************************************************
SDLC3    LINE  ADDRESS=(046),      TRANSMIT AND RECEIVE ADDRESS        X
               DUPLEX=FULL,        MODEM STRAPPING IS FULL DUPLEX      X
               SPEED=2400,         SPEED IS 2400BPS                    X
               CLOCKNG=EXT,        MODEM PROVIDES CLOCKING             X
               POLLED=YES,                                             X
               RETRIES=(5)         5 RETRIES PER RECOVERY SEQUENCE
```

SERVICE MACRO FOR SDLC LINK

```
*   EACH PU MUST BE IN SERVICE ORDER LIST                               *
*                                                                       *
*************************************************************************
         SERVICE ORDER=(PU3790Y,CL3600,STORE1,PU3770R,HD3767,CL3270D)
```

3790 PU MACRO SPECIFICATION

```
**********************************************************************

PU3790Y  PU    ADDR=C1,                                              X
               PUTYPE=2,                                             X
               ISTATUS=INACTIVE,                                     X
               MODETAB=MODE3790,                                     X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RESPONSE X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA            X

*** MAXDATA = 265 is required for 3790

               PASSLIM=7,                                            X
               RETRIES=(,1,4)      4 RETRIES, 1 SECOND BETWEEN
```

3790 LOGICAL UNIT SPECIFICATIONS

```
**********************************************************************
INBATCHY LU    LOCADDR=1,PACING=(2,2),VPACING=(4,2),ISTATUS=ACTIVE
BT3790Y1 LU    LOCADDR=2,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
BT3790Y2 LU    LOCADDR=3,PACING=(7,7),VPACING=(10,7),ISTATUS=ACTIVE
CM3790Y1 LU    LOCADDR=4,PACING=(0),VPACING=(0),ISTATUS=ACTIVE
CM3790Y2 LU    LOCADDR=5,PACING=(0),VPACING=(0),ISTATUS=ACTIVE
RJE1Y    LU    LOCADDR=8,PACING=(3,3),VPACING=(4,3),ISTATUS=ACTIVE
RJE2Y    LU    LOCADDR=9,PACING=(3,1),VPACING=(4,2),ISTATUS=ACTIVE
RJE3Y    LU    LOCADDR=10,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
RJE4Y    LU    LOCADDR=11,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
INQ1Y    LU    LOCADDR=12,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
INQ2Y    LU    LOCADDR=13,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
INQ3Y    LU    LOCADDR=14,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
INQ4Y    LU    LOCADDR=15,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
INQ5Y    LU    LOCADDR=16,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
BP3790Y1 LU    LOCADDR=17,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
BP3790Y2 LU    LOCADDR=18,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
UP3790Y1 LU    LOCADDR=19,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
UP3790Y2 LU    LOCADDR=20,PACING=(1,1),VPACING=(2,1),ISTATUS=ACTIVE
```

NOTE - If ACF/VTAM, all pacing parameters will be changed to (m,1). After generating the NCP witH the above definitions, change the source to VTAM to indicate a pacing of (m,1).

```
3600 CLUSTER MACRO SPECIFICATION

*************************************************************************

CL3600   PU    ADDR=C1,            pu      ADDRESS = A (EBCDIC)        X
               PUTYPE=2,                                               X

*** The MAXDATA value should be 9 greater then the buffer value
defined in the 3600 CPGEN. The retries operand for the SDLC link
should be less than the Time-Out value specified in the CPGEN.

               MAXDATA=265,        MAXIMUM AMOUNT OF DATA              X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
               PASSLIM=7,                                              X
               ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR               X
               RETRIES=(,4,2),     SHOULD BE LESS THAN 20 SECONDS      X
               PACING=(0),
               VPACING=(0)


  3600 LOGICAL UNIT SPECIFICATIONS

*************************************************************************
FALUA1SS LU    LOCADDR=1,          FA REQ'D FOR 1ST LU                 X
               PACING=(3,1),                                           X
               VPACING=(6,1),                                          X
               ISTATUS=INACTIVE
FALUA2   LU    LOCADDR=2,                                              X
               ISTATUS=ACTIVE
FALUA3   LU    LOCADDR=3,                                              X
               ISTATUS=ACTIVE
FALUA4   LU    LOCADDR=4,                                              X
               ISTATUS=ACTIVE
```

```
     3650 CLUSTER MACRO SPECIFICATION

     ********************************************************************

     STORE1   PU    ADDR=C4,            PU ADDRESS = D (EBCDIC)            X
                    PUTYPE=2,                                              X
                    MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES     X

     *** MAXDATA = 265 is required for 3650

                    MAXDATA=265,        6 BYTE TH, 3 BYTE RH, 256 BYTE RU  X
                    PASSLIM=7,                                             X
                    ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR              X
                    RETRIES=(,10,3),    SHOULD BE LESS THAN 60 SECONDS     X
                    PACING=(1,1),                                          X
                    VPACING=(2,1)


       3650 LOGICAL UNIT SPECIFICATIONS

     ********************************************************************
     QESTORE1 LU    LOCADDR=1,             REQ'D FOR 1ST LU               X
                    PACING=(7,1),          IMPROVES LOADING 3651          X
                    VPACING=(7,6),                                        X
                    BATCH=YES,                                            X
                    ISTATUS=ACTIVE
     QECREDIT LU    LOCADDR=2,MODETAB=CRMODTB,DATASW=SYSTEM7
     QE365311 LU    LOCADDR=3
     QE365312 LU    LOCADDR=4
     QE365313 LU    LOCADDR=5
     QE365314 LU    LOCADDR=6
     QE365315 LU    LOCADDR=7
     QE327511 LU    LOCADDR=8
     QE327512 LU    LOCADDR=9,PACING=(2,1),VPACING=(3,1)
     QE327513 LU    LOCADDR=10,PACING=(2,1),VPACING=(3,1)
     QE327514 LU    LOCADDR=11,PACING=(2,1),VPACING=(3,1)
     QE327515 LU    LOCADDR=12,PACING=(2,1),VPACING=(3,1)
     QEINT1   LU    LOCADDR=13,PACING=(2,1)
     QEINT2   LU    LOCADDR=14
```

```
3777 PU  SPECIFICATION

*************************************************************************

PU3777R  PU    ADDR=C2,                                                  X
               ISTATUS=ACTIVE,                                           X
               PACING=(1,1),                                             X
               MODETAB=RJEMODE,                                          X
               VPACING=(2,1),                                            X
               MAXDATA=521,        MAXIMUM AMOUNT OF DATA                X

*** MAXDATA = 265 or 521 may be specified for 3777.

               MAXOUT=1,           MAX PATH INFO UNITS BEFORE RES        X
               PASSLIM=1,                                                X
               PUTYPE=2            DEFINE AS PU


  3770 LU SPECIFICATION

*       IBM 3777-1 REQUIRES ONE LU                                       *
*************************************************************************
LU3777R  LU    LOCADDR=1,                                                X
               ISTATUS=ACTIVE,                                           X
               SSCPFM=USSSCS,      REQUIRED FOR 3770                     X
               USSTAB=ASUSST70,    USSTAB FOR 3770                       X
               BATCH=YES           BATCH DEVICE
```

3770 PU SPECIFICATION (MLU)

```
*************************************************************************

*************************************************************************
*                                                                       *
*            PU  SPECIFICATION FOR  IBM 3770 PROGRAMABLE                *
*                                                                       *
*************************************************************************
PU70P    PU    ADDR=C1,            PU ADDRESS = A (EBCDIC)              X
               PACING=(1,1),                                            X
               ISTATUS=ACTIVE,                                          X
               VPACING=(2,1),                                           X
               MAXDATA=265,        MAXIMUM AMOUNT OF DAT^               X
               MAXOUT=1,           MAX PATH INFO UNITS BEFORE RES       X
               PASSLIM=1,                                               X
               PUTYPE=2            DEFINE AS PU
```

3770 LU SPECIFICATION (MLU)

```
*************************************************************************
P70LU1   LU    LOCADDR=1,                                               X
               MODETAB=MODE3770,   REQUIRED FOR 3770 SLU1               X
               SSCPFM=USSSCS,      REQUIRED FOR 3770                    X
               USSTAB=ASUSST70,    USSTAB FOR 3770                      X
               ISTATUS=ACTIVE,                                          X
               BATCH=YES           BATCH DEVICE
*************************************************************************
P70LU2   LU    LOCADDR=2,                                               X
               SSCPFM=USSSCS,      REQUIRED FOR 3770                    X
               USSTAB=ASUSST70,    USSTAB FOR 3770                      X
               ISTATUS=INACTIVE,                                        X
               BATCH=YES           BATCH DEVICE
P70LU3   LU    LOCADDR=3,                                               X
               SSCPFM=USSSCS,      REQUIRED FOR 3770                    X
               USSTAB=ASUSST70,    USSTAB FOR 3770                      X
               ISTATUS=INACTIVE,                                        X
               BATCH=YES           BATCH DEVICE
```

3271 SDLC PU SPECIFICATION

```
*************************************************************************
CL3270D  PU    ADDR=C5,            CONTROLLER ADDRESS= E  (EBCDIC)     X
               PUTYPE=1,           REMOTE NCP                          X
               BNNSUP=3270,        REQUIRED FOR 3270'S                 X
               SSCPFM=USS3270,                                         X
               MODETAB=S3270,      REQUIRED IF LU IS TO BE ACQUIRED    X

*** MAXDATA = 261 is required for 3270

               MAXDATA=261,        MAXIMUM AMOUNT OF DATA              X
               ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR               X
               PASSLIM=12,         MAXIMUM OUTBOUND PIU                X
               MAXOUT=7,           MAX PATH INFO UNITS                 X
               USSTAB=ASUSST70,    LOGON USSTAB                        X
               RETRIES=(,10,4),    4 RETRIES, 10 SECONDS BETWEEN       X
               PACING=(1,1)
```

3271 LU SPECIFICATION

```
*************************************************************************
CL3270D0 LU    LOCADDR=0,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D1 LU    LOCADDR=1,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D2 LU    LOCADDR=2,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D3 LU    LOCADDR=3,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D4 LU    LOCADDR=4,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D5 LU    LOCADDR=5,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D6 LU    LOCADDR=6,ISTATUS=ACTIVE,USSTAB=VUSS3270
CL3270D7 LU    LOCADDR=7,ISTATUS=ACTIVE       NO USSTAB FOR PRINTER
```

3274 SDLC PU SPECIFICATION

```
*************************************************************************
SDLC3274 PU    ADDR=C1,                                                  X
               PUTYPE=2,                                                 X
               ISTATUS=ACTIVE,                                           X
               MODETAB=MT3274C,                                          X
               SSCPFM=USSSCS,                                            X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RESPONSE X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA                X
               PASSLIM=7,                                                X
               PACING=0,           FOR DISPLAYS AND DSC PRINTERS         X
               VPACING=0,          FOR DISPLAYS AND DSC PRINTERS         X
               DISCNT=(NO),                                              X
               RETRIES=(,1,4)      4 RETRIES, 1 SECOND BETWEEN


*************************************************************************
*                                                                       *
*        LOGICAL UNIT SPECIFICATIONS                                    *
*                                                                       *
*************************************************************************
SDLCPA01 LU    LOCADDR=2,USSTAB=USST3270,DLOGMOD=T3278M4
SDLCPA02 LU    LOCADDR=3,USSTAB=USST3270,DLOGMOD=T3278M4
SDLCPA03 LU    LOCADDR=4,USSTAB=USST3270,DLOGMOD=T3278M3
SDLCPA04 LU    LOCADDR=5,USSTAB=USST3270,DLOGMOD=T3278M3
SDLCPA05 LU    LOCADDR=6,USSTAB=USST3270,DLOGMOD=T3278M2
SDLCPA06 LU    LOCADDR=7,USSTAB=USST3270,DLOGMOD=T3278M4
SDLCPA07 LU    LOCADDR=8,DLOGMOD=DSC4K,MODETAB=MTNDSPTR
SDLCPA08 LU    LOCADDR=9,DLOGMOD=SCS,MODETAB=MTNDSPTR
SDLCPB01 LU    LOCADDR=10,USSTAB=USST3270,DLOGMOD=T3277M2
SDLCPB02 LU    LOCADDR=11,USSTAB=USST3270,DLOGMOD=T3277M2
SDLCPB03 LU    LOCADDR=12,USSTAB=USST3270,DLOGMOD=T3277M2
SDLCPB04 LU    LOCADDR=13,USSTAB=USST3270,DLOGMOD=T3277M2
```

NOTE - USSTAB should be specified at LU level to eliminate sending
USS Message 10 to printers.

```
*************************************************************************
*                                                                       *
*        PU MACRO SPECIFICATION FOR 3276                                *
*                                                                       *
*************************************************************************
SDLC3276 PU    ADDR=C2,                                                 X
               PUTYPE=2,                                                X
               ISTATUS=INACTIVE,                                        X
               MODETAB=MT3276,                                          X
               SSCPFM=USSSCS,                                           X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RESPONSE X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA               X
               PASSLIM=7,                                               X
               PACING=0,           FOR DISPLAYS                         X
               VPACING=0,          FOR DISPLAYS                         X
               DISCNT=(NO),                                             X
               RETRIES=(,1,4)      4 RETRIES, 1 SECOND BETWEEN


*************************************************************************
*                                                                       *
*        LOGICAL UNIT SPECIFICATIONS                                    *
*                                                                       *
*************************************************************************
SDLC76P1 LU    LOCADDR=2,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P2 LU    LOCADDR=3,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P3 LU    LOCADDR=4,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P4 LU    LOCADDR=5,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P5 LU    LOCADDR=6,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P6 LU    LOCADDR=7,USSTAB=USST3270,DLOGMOD=T3278M2
SDLC76P7 LU    LOCADDR=8,DLOGMOD=DSC4K,MODETAB=MTNDSPTR
SDLC76P8 LU    LOCADDR=9,DLOGMOD=SCS,MODETAB=MTNDSPTR

NOTE - USSTAB should be specified at LU level to eliminate sending
       USS Message 10 to printers.
```

3767 PU SPECIFICATION

```
*************************************************************************
HD3767   PU    ADDR=C2,            PU ADDRESS = B (EBECDIC)            X
               PUTYPE=1,           TERMINAL NODEX                      X

*** MAXDATA = 261 is required for 3767

               MAXDATA=261,        MAXIMUM AMOUNT OF DATA              X
               MAXOUT=1,           MAX PATH INFO UNITS BEFORE RES      X
               PACING=(1,1)
```

3767 LU SPECIFICATION

```
*       IBM 3767 REQUIRES ONE LU                                       *
*************************************************************************
TR3767HD LU    LOCADDR=0,                                              X
               ISTATUS=ACTIVE,                                         X
               USSTAB=ASUSSTAB,                                        X
               SSCPFM=USSSCS,                                          X
               MODETAB=ALL3767     OPTIONAL, DEPENDING UPON APPLICATION
```

SDLC DIAL GROUP SPECIFICATIONS

```
*************************************************************************
SDLCGP2   GROUP LNCTL=SDLC,          SYNCHRONOUS DATA LINK              X
              DIAL=YES,             REQUIRED FOR DIAL LINE             X
              TYPE=NCP              NCP ONLY
```

SDLC LINE MACRO SPECIFICATION - HALF-DUPLEX, SWITCHED

```
*       MAY BE USED FOR 3790, 3650, 3770, AND 3767                     *
*************************************************************************
SDLC4     LINE  ADDRESS=(023),      TRANSMIT AND RECEIVE ADDRESS       X
                CALL=INOUT,         REQUIRED BY VTAM FOR IN/OUT        X
                DUPLEX=HALF,        MODEM IS STRAPPED FOR HALF DUPLEX  X
                SPEED=1200,         3601 TO OPERATE AT 1200 BPS        X
                NRZI=NO,            UNITS NOT SPECIFIED WITH NRZI      X
                CLOCKNG=EXT,        MODEM PROVIDES CLOCKING            X
                POLLED=YES,                                            X
                RETRIES=(5,10,3),   5 RETRIES PER RECOVERY SEQUENCE    X
                VPACING=(2,1)       SEND 2 FOR 1
*************************************************************************
*                                                                       *
*      NO SERVICE ORDER FOR SDLC SWITCHED LINE                          *
*                                                                       *
*************************************************************************
```

PU MACRO SPECIFICATION FOR SWITCHED LINK

```
*************************************************************************
PU1       PU    PUTYPE=(1,2),       SUPPORT TYPE 1 AND 2 PU'S          X
                MAXLU=60            MAXIMUM NUMBER OF LU'S FOR LINE
```

*** MAXLU = must be greater than total LU's on PU.

SPECIFICATIONS FOR REMOTE NCP

```
*        GROUP MACRO SPECIFICATIONS                                    *
*********************************************************************
SDLCGP3   GROUP LNCTL=SDLC,          SYNCHRONOUS DATA LINK             X
               DIAL=NO,              REQUIRED FOR LEASED LINE          X
               TYPE=NCP              NCP ONLY
*********************************************************************
*                                                                     *
* FULL DUPLEX SDLC LINE SPECIFICATIONS FOR REMOTE NCP INTERFACE       *
*                                                                     *
*********************************************************************
REMLN     LINE  ADDRESS=(040,041),  TRANSMIT AND RECEIVE ADDRESSES    X
               NEWSYNC=NO,          DO NOT USE WITH REMOTE NCP        X
               DUPLEX=FULL,         MODEM STRAPPING IS FULL DUPLEX    X
               SPEED=2400,          SPEED IS 2400BPS                  X
               CLOCKNG=EXT,         MODEM PROVIDES CLOCKING           X
               POLLED=YES,                                            X
               RETRIES=(7)          7 RETRIES PER RECOVERY SEQUENCE
*********************************************************************
*                                                                     *
* SERVICE ORDER FOR DUPLEX LINK                                       *
*                                                                     *
*********************************************************************
         SERVICE ORDER=NCPVR        ONLY ONE REMOTE CONTROLLER
*********************************************************************
*   PU4 (INNODE) SPECIFICATION FOR REMOTE NCP                         *
*                                                                     *
*********************************************************************
NCPVR     PU    ADDR=C1,             CONTROLLER ADDRESS= A  (EBCDIC)   X
               PUTYPE=4,            REMOTE NCP                        X
               MAXOUT=7,            MAX PATH INFO UNITS BEFORE RESTORE X
               RETRIES=(,10,5),     5 RETRIES, 10 SECONDS BETWEEN     X
               SUBAREA=5,           REMOTE SUBAREA ADDRESS=5          X
               DATMODE=FULL         FULL DUPLEX DATA TRANSFER
```

```
BLOCK HANDLER DEFINITIONS


*************************************************************************
*       BLOCK HANDLER DEFINITIONS FOR SDLC/BSC PATH FUNCTION            *
*                                                                       *



STARTBH  STARTBH BHEXEC=PT3
SPAFPT3  SPAFPT3
ENDBH    ENDBH
         SPACE 2
BHSET    BHSET EXEC=YES,PT3=STARTBH


GENEND DELIMITER


*************************************************************************
        GENEND
         END
/*
```

CHAPTER 8 : SWITCHED SNA DEFINITIONS

REFERENCES

DOS/VS VTAM System Programmers Guide	GC27-6957
DOS/VS VTAM Reference Summary	GX27-0033
ACF/VTAM System Programmers Guide (DOS)	SC38-0268
ACF/VTAM Installation Guide (DOS)	SC38-0270
ACF/VTAM Reference Summary (DOS)	SX27-3022
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS VTAM Reference Summary	GX27-0034
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 VTAM System Programming Library:VTAM	GC28-0688
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021

VBUILD MACRO SPECIFICATIONS - SWITCHED

```
*                                                                      *
************************************************************************
************************************************************************
************************************************************************
SWITCH01 VBUILD TYPE=SWNET,        SWITCHED NET                        X
               SUBAREA=4,          SUBAREA ADDRESS = 4                 X
               CONFGDS=SWT001,     RESTART FILE                        X
               MAXNO=4,            4  DIALNO                           X
               MAXGRP=1            1 PATH GROUP
```

IBM 3790 SWITCHED DEFINITION

```
************************************************************************
CL3790A  PU    ADDR=C1,          CLUSTER ADDRESS = I (EBCDIC)          X
               PUTYPE=2,                                               X
               IDBLK=006,          IDENTIFICATION BLOCK                X
               IDNUM=03791,        IDENTIFICATION NUMBER               X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA              X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
               MAXPATH=1,          DIAL-IN ONLY                        X
               PASSLIM=7,          EQUAL TO MAXOUT                     X
               PACING=(1,1),                                           X
               VPACING=(2,1),                                          X
               ISTATUS=ACTIVE,                                         X
               MODETAB=MODE3790,                                       X
               IRETRY=YES
************************************************************************
*                                                                      *
*        PATH STATEMENT                                                *
*                                                                      *
************************************************************************
PATH01   PATH  GID=1,                                                  X
               GRPNM=SDLCGV2,      NCP SWITCHED LINE GROUP             X
               PID=1,              ID FOR THIS PATH                    X
               USE=YES,                                                X
               DIALNO=3464
************************************************************************
*                                                                      *
*        LOGICAL UNIT SPECIFICATIONS                                   *
```

```
*                                                                       *
*************************************************************************
INBATCH1 LU    LOCADDR=1,ISTATUS=ACTIVE,BATCH=YES
INQ02    LU    LOCADDR=2,ISTATUS=ACTIVE
INQ03    LU    LOCADDR=3,ISTATUS=ACTIVE
INQ04    LU    LOCADDR=4,ISTATUS=ACTIVE
INQ05    LU    LOCADDR=5,ISTATUS=ACTIVE
BT379011 LU    LOCADDR=20,ISTATUS=ACTIVE
BT379012 LU    LOCADDR=21,ISTATUS=ACTIVE
RJE01    LU    LOCADDR=25,ISTATUS=ACTIVE
RJE02    LU    LOCADDR=26,ISTATUS=ACTIVE
RJE03    LU    LOCADDR=27,ISTATUS=ACTIVE
RJE04    LU    LOCADDR=28,ISTATUS=ACTIVE
RJE05    LU    LOCADDR=29,ISTATUS=ACTIVE
CM379011 LU    LOCADDR=30,ISTATUS=ACTIVE
CM379012 LU    LOCADDR=31,ISTATUS=ACTIVE
CM379013 LU    LOCADDR=32,ISTATUS=ACTIVE
CM379014 LU    LOCADDR=33,ISTATUS=ACTIVE
BP379011 LU    LOCADDR=35,ISTATUS=ACTIVE
BP379012 LU    LOCADDR=36,ISTATUS=ACTIVE
BP379013 LU    LOCADDR=37,ISTATUS=ACTIVE
UP379011 LU    LOCADDR=40,ISTATUS=ACTIVE
UP379013 LU    LOCADDR=42,ISTATUS=ACTIVE
UP379014 LU    LOCADDR=43,ISTATUS=ACTIVE
UP379015 LU    LOCADDR=44,ISTATUS=ACTIVE
UP379016 LU    LOCADDR=45,ISTATUS=ACTIVE
UP379017 LU    LOCADDR=46,ISTATUS=ACTIVE
UP379018 LU    LOCADDR=47,ISTATUS=ACTIVE
UP379019 LU    LOCADDR=48,ISTATUS=ACTIVE
UP379021 LU    LOCADDR=50,ISTATUS=ACTIVE
UP379022 LU    LOCADDR=51,ISTATUS=ACTIVE
UP379023 LU    LOCADDR=52,ISTATUS=ACTIVE
UP379024 LU    LOCADDR=53,ISTATUS=ACTIVE
UP379025 LU    LOCADDR=54,ISTATUS=ACTIVE
UP379026 LU    LOCADDR=55,ISTATUS=ACTIVE
UP379027 LU    LOCADDR=56,ISTATUS=ACTIVE
UP379028 LU    LOCADDR=57,ISTATUS=ACTIVE
UP379029 LU    LOCADDR=58,ISTATUS=ACTIVE


IBM 3650 SWITCHED DEFINITION


*        PU STATEMENT FOR 3650                                        *
*************************************************************************
STORS1   PU    ADDR=C4,            CLUSTER ADDRESS = D (EBCDIC)       X
               PUTYPE=2,                                              X
```

```
                MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
                MAXDATA=265,        6 BYTE TH, 3 BYTE RH, 256 BYTE RU  X
                PASSLIM=5,          PER INDUSTRY SPECS                 X
                PACING=(1,1),                                          X
                MAXPATH=0,          NO DIAL OUT PATH
                MODETAB=ISTINCLM,   LOGMODE=IBM3650                    X
                IDBLK=005,          IDENTIFICATION BLOCK(WRONG ?)      X
                IDNUM=03651,        IDENTIFICATION NUMBER              X
                ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR              X
                VPACING=(2,1),                                         X
                IRETRY=YES

*       PATH STATEMENT                                                 *
*****************************************************************************
PATH02  PATH    GID=1,                                                 X
                GRPNM=SDLCGP2,      NCP SWITCHED LINE GROUP(NCPRAL)    X
                PID=4,              ID FOR THIS PATH                   X
                USE=YES,                                               X
                DIALNO=3650
*       LOGICAL UNIT SPECIFICATIONS                                    *
*****************************************************************************
QESTORS1 LU     LOCADDR=1,              REQ'D FOR 1ST LU               X
                PACING=(7,1),           IMPROVES LOADING 3651          X
                VPACING=(7,6),                                         X
                ISTATUS=ACTIVE
```

NOTE:
The rest of the LU's are for backup only. The system operator must activate each one as needed.

```
QECREDST LU     LOCADDR=2,                                             X
                PACING=(0),                                            X
                VPACING=(0)
QE3653S1 LU     LOCADDR=3
QE3653S2 LU     LOCADDR=4
QE3653S3 LU     LOCADDR=5
QE3653S4 LU     LOCADDR=6
QE3653S5 LU     LOCADDR=7
QE3275S1 LU     LOCADDR=8
QE3275S2 LU     LOCADDR=9,PACING=(2,1)
QE3275S3 LU     LOCADDR=10,PACING=(2,1)
```

IBM 3770 SWITCHED DEFINITION

```
*************************************************************************
*                                                                       *
*            PU  SPECIFICATION FOR  IBM 3770                            *
*                                                                       *
*************************************************************************
CL3770   PU    ADDR=C3,            PU ADDRESS = C (EBCDIC)             X
               PUTYPE=2,           DEFINE AS TYPE 2 PU                 X
               MODETAB=RJEMODE,                                        X
               IDBLK=004,          IDENTIFICATION BLOCK                X
               IDNUM=03770,        IDENTIFICATION NUMBER               X
               MAXDATA=265,        MAXIMUM AMOUNT OF DATA              X
               MAXPATH=2,          2 PATHS                             X
               MAXOUT=7,           MAX PATH INFO UNITS BEFORE RES      X
               PASSLIM=7,          EQUAL TO MAXOUT                     X
               ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR               X
               PACING=(1,1),                                           X
               VPACING=(2,1),                                          X
               IRETRY=YES
*                                                                       *
*  1ST   PATH STATEMENT                                                 *
*                                                                       *
*************************************************************************
PATH03   PATH  GID=1,                                                   X
               GRPNM=SDLCGP2,      NCP SWITCHED LINE GROUP(NCPRAL)     X
               PID=2,              ID FOR THIS PU                      X
               DIALNO=84422215
*                                                                       *
*  2ND   PATH STATEMENT                                                 *
*                                                                       *
*************************************************************************
PATH03B  PATH  GID=1,                                                   X
               GRPNM=SDLCGP2,      NCP SWITCHED LINE GROUP(NCPRAL)     X
               PID=3,              ID FOR THIS PU                      X
               DIALNO=19197552215
*                                                                       *
*       IBM 3770 REQUIRES ONE LU                                        *
*                                                                       *
*************************************************************************
CL3770SU LU    LOCADDR=1,                                               X
               BATCH=YES           BATCH DEVICE
```

IBM 3767 SWITCHED DEFINITION

```
*************************************************************************
*************************************************************************
*************************************************************************
*                                                                       *
*        PU SPECIFICATION FOR  IBM 3767                                 *
*                                                                       *
*************************************************************************
*************************************************************************
*************************************************************************
SD3767   PU    ADDR=C2,            PU ADDRESS = B (EBECDIC)            X
               PUTYPE=1,           TERMINAL NODEX                      X
               MAXDATA=261,        MAXIMUM AMOUNT OF DATA              X
               IDBLK=007,          IDENTIFICATION BLOCK                X
               IDNUM=00000,        IDENTIFICATION NUMBER               X
               MAXOUT=1,           MAX PATH INFO UNITS BEFORE RES      X
               MAXPATH=0,          DIAL-IN ONLY                        X
               PASSLIM=1,          EQUAL TO MAXOUT                     X
               ISTATUS=INACTIVE,   ACTIVATE VIA OPERATOR               X
               PACING=(1,1),                                           X
               VPACING=(2,1),                                          X
               IRETRY=YES
*************************************************************************
*                                                                       *
*     NO PATH STATEMENT IBM3767 DIAL-IN ONLY                            *
*                                                                       *
*************************************************************************
*************************************************************************
*                                                                       *
*       IBM 3767 REQUIRES ONE LU                                        *
*                                                                       *
*************************************************************************
TR3767SD LU    LOCADDR=0,                                               X
               ISTATUS=ACTIVE,                                          X
               SSCPFM=USSSCS,                                           X
               MODETAB=ALL3767
*************************************************************************
```

Notes- The VTAM System Programmer's Guide describes the definition of Switched SNA major nodes.

CHAPTER 9 : LOCAL DEVICE DEFINITIONS

REFERENCES

DOS/VS VTAM System Programmers Guide	GC27-6957
DOS/VS VTAM Reference Summary	GX27-0033
ACF/VTAM System Programmers Guide (DOS)	SC38-0268
ACF/VTAM Installation Guide (DOS)	SC38-0270
ACF/VTAM Reference Summary (DOS)	SX27-3022
OS/VS1 VTAM System Programmer's Guide	GC27-6996
OS/VS VTAM Reference Summary	GX27-0034
OS/VS2 SVS VTAM System Programmer's Guide	GC27-0049
OS/VS2 VTAM System Programming Library:VTAM	GC28-0688
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021

VBUILD MACRO SPECIFICATIONS - LOCAL 3274-1A

```
LHA3274A VBUILD SUBAREA=7,TYPE=LOCAL



IBM 3274-1A PU  DEFINITION

LHA3274  PU    BUFLIM=10,                                              X
               CUADDR=4F0,  *** NOTE: Defined to OS as local 3791 ***  X
               DISCNT=NO,                                              X
               ISTATUS=INACTIVE,                                       X
               USSTAB=USST3270,                                        X
               MAXBFRU=15,                                             X
               MODETAB=MT3274A,                                        X
               PUTYPE=2,                                               X
               SSCPFM=USSSCS,              *** NOTE: USSSCS ***        X
               VPACING=0
```

IBM 3274-1A LU DEFINITION

```
LHAPA01  LU    LOCADDR=2,ISTATUS=ACTIVE     *** NOTE: LOCADDR=2 ***
LHAPA02  LU    LOCADDR=3,ISTATUS=ACTIVE
LHAPA03  LU    LOCADDR=4,ISTATUS=ACTIVE
LHAPA04  LU    LOCADDR=5,ISTATUS=ACTIVE
LHAPA05  LU    LOCADDR=6,ISTATUS=ACTIVE
LHAPA06  LU    LOCADDR=7,ISTATUS=ACTIVE
LHAPA07  LU    LOCADDR=8,ISTATUS=ACTIVE
LHAPA08  LU    LOCADDR=9,ISTATUS=ACTIVE
LHAPB01  LU    LOCADDR=10,ISTATUS=ACTIVE
LHAPB02  LU    LOCADDR=11,ISTATUS=ACTIVE
LHAPB03  LU    LOCADDR=12,ISTATUS=ACTIVE
LHAPB04  LU    LOCADDR=13,ISTATUS=ACTIVE
```

Notes- The VTAM System Programmer's Guide describes the definition of Local SNA major nodes.

LOCAL(3270) TERMINAL DEFINITION (VTAM)

```
*************************************************************************
*                                                                       *
*  LOCAL 3270 TERMINAL DEFINITION                                       *
*                                                                       *
*************************************************************************
LOC11  LBUILD  SUBAREA=5   SHOULD BE BETWEEN 2 AND VALUE OF MAXSUBA
*************************************************************************
*                                                                       *
*  LOCAL OPERAND OPTIONS ARE AS FOLLOWS:                                *
*            CUADDR=ADDRESS,       CHANNEL ADDRESS                    *
*            TERM=3277|3284|3286,  TERMINAL TYPE                      *
*            BUFLIM=N|2,           READ AHEAD BUFFERS                 *
*            FEATURE2=(MODEL1|MODEL2,   MODEL NUMBER                  *
*              ANKEY|NOANKEY,      ALPHANUMERIC KEYBOARD              *
*              DEKEY|NODEKEY,      DATA-ENTRY KEYBOARD                *
*              PFK|NOPFK,          PROGRAM FUNCTION KEYS              *
*              SELPEN|NOSELPEN),   SELECTOR PEN                       *
*            ISTATUS=ACTIVE|INACTIVE, INITIAL VTAM STATUS             *
*            LOGAPPL=NAME,         NAME OF APPLICATION PROGRAM IF     *
*                                  AUTO LOG ON WHEN TERMINAL          *
*                                  IS MADE ACTIVE BY VTAM.            *
*            LOGTAB=NAME           NAME OF LOGON TABLE                *
*                                                                       *
*************************************************************************
LOC20    LOCAL CUADDR=020,TERM=3277,FEATUR2=(MODEL2,ANKEY,PFK),        X
               LOGTAB=TABLE01,LOGAPPL=NETSOL
LOC21    LOCAL CUADDR=021,TERM=3277,FEATUR2=(MODEL2,ANKEY),            X
               ISTATUS=INACTIVE
LOC23    LOCAL CUADDR=023,TERM=3277,FEATUR2=(MODEL2,ANKEY)
LOC24    LOCAL CUADDR=024,TERM=3286
```

NOTES- Chapter 3 of the VTAM System Programmer's Guide describes the definition and filing of local terminals. This example will allow cause VTAM to 'LOG' LOC20 on to the 'NETSOL' when 'NETSOL' is started.

LOCAL SNA(3790) DEFINITION(VTAM)

```
*************************************************************************
*                                                                       *
*  LOCAL 3790 TERMINAL DEFINITION                                       *
*                                                                       *
*************************************************************************
LOCAL    VBUILD TYPE=LOCAL,       LOCAL MAJOR NODE                    = X
              SUBAREA=7           SUBAREA ADDRESS                    ++
LC3790   PU     ISTATUS=INACTIVE, ACTIVATE VIA OPERATOR          $$  ++ X
              MAXBFRU=14,         NO. OF BUFFERS NEEDED FOR READ     ++ X
              CUADDR=010,         3790 ADDRESS                          X
              DISCNT=NO           HOLD CONN AFTER END OF LU SESS     ++
INCL3790 LU     LOCADDR=1,        IN REQ'D FOR 1ST LU FOR SSS     $$  = X
              ISTATUS=ACTIVE,     ACTIVATE WITH PU                   ++ X
              VPACING=(1,1)       AVOID BUFFER FLOODING 3790          +
PGM3     LU     LOCADDR=2,        INTERACT LU USED FOR APPL       $$  = X
              ISTATUS=ACTIVE,     ACTIVATE WITH PU                   ++ X
              BUFLIM=4,                                                X
              VPACING=(1,1)       AVOID BUFFER FLOODING 3790          +
```

NOTES- Chapter 3 of the DOS/VS VTAM System Programmer's Guide describes the definition and filing of local SNA terminals. Local terminals do not have to be on the same control unit to be defined in a local major node. If the local terminals do not exist, it is better not to put them in the VTAM definition as VTAM tables are created for each defined terminal.

ACF/VTAM LOCAL 3277 TERMINAL DEFINITION

```
*************************************************************************
*                                                                       *
*  LOCAL 3270 TERMINAL DEFINITION                                       *
*                                                                       *
*************************************************************************
       LBUILD  SUBAREA=8
*************************************************************************
*                                                                       *
*  LOCAL OPERAND OPTIONS ARE AS FOLLOWS:                                *
*            CUADDR=ADDRESS,       CHANNEL ADDRESS                    *
*            TERM=3277|3284|3286,  TERMINAL TYPE                      *
*            BUFLIM=N|2,           READ AHEAD BUFFERS,                *
*            FEATURE2=(MODEL1|MODEL2,   MODEL NUMBER                  *
*              ANKEY|NOANKEY,      ALPHANIMERIC KEYBOARD              *
*              DEKEY|NODEKEY,      DATA-ENTRY KEYBOARD                *
*              PFK|NOPFK,          PROGRAM FUNCTION KEYS              *
*              SELPEN|NOSELPEN),   SELECTOR PEN                       *
*            ISTATUS=ACTIVE|INACTIVE, INITIAL VTAM STATUS             *
*            LOGAPPL=NAME,         NAME OF APPLICATION PROGRAM IF     *
*                                  AUTO LOG ON WHEN TERMINAL          *
*                                  IS MADE ACTIVE BY VTAM.            *
*            DLOGMODE=S3270,       DEFAULT MODETAB ENTRY              *
*            LOGTAB=NAME           NAME OF LOGON TABLE                *
*                                                                       *
*************************************************************************
LU4C0 LOCAL CUADDR=4C0,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
LU4C1 LOCAL CUADDR=4C1,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
LU4C2 LOCAL CUADDR=4C2,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
LU4C3 LOCAL CUADDR=4C3,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
LU4C4 LOCAL CUADDR=4C4,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
LU4C5 LOCAL CUADDR=4C5,TERM=3277,DLOGMOD=S3270,                        X
              FEATUR2=(MODEL2,ANKEY,PFK),ISTATUS=ACTIVE,               X
              LOGAPPL=NETSOL,LOGTAB=TABLE01
```

CHAPTER 10 : MSNF NETWORK DEFINITIONS

The following definitions are samples used to define a Multidomain operation that allows communication between ACF/VTAM on an MVS system with either ACF/TCAM on a MVS system or ACF/VTAM on a DOS system. The cross domain path between the domains is via a multi-tailed 3705. The sample ACF/TCAM MCP in Chapter 6 contains the MSNF definitions for ACF/VTAM from the ACF/TCAM end.

Each VTAM node in the network which wants to become an owner of a certain NCP must provide that VTAM node with access to the NCP generation Stage I input source. (Access method sends an Activate Physical to NCP to become an owner) The Resource Resolution Table (RRT) produced by Stage II of the NCP generation must also be provides to the host access method node (VTAM and TCAM). The NCP load modules must be provided to any host access method which will load the 3705. Installation planning should consider how these files will be provided to the necessary locations. This is especially important when host CPU's are in multiple geographic locations.

REFERENCES

ACF/VTAM System Programmers Guide (DOS)	SC38-0268
ACF/VTAM Installation Guide (DOS)	SC38-0270
ACF/VTAM Reference Summary (DOS)	SX27-3022
ACF/VTAM System Programmers Guide	SC38-0258
ACF/VTAM Network Operating Procedures	SC38-0259
ACF/VTAM Installation Guide	SC38-0269
ACF/VTAM Reference Summary	SX27-3021
ACF/TCAM General Information	GC30-2050
ACF/TCAM Concepts and Planning	GC30-3049
ACF/TCAM System Programmer's Guide	SC30-3117
ACF/TCAM Macro Reference Guide	SC30-3118
ACF/TCAM Application Programmer's Guide	SC30-3119
ACF/TCAM Installation and Migration Guide	SC30-3121
ACF/TCAM Operator's Guide	SC30-3123
ACF/TCAM MSNF Program Reference Summary Supplement	LD21-0003
ACF/TCAM Program Reference Summary	LY30-3037

10.1 : NETWORK DEFINITIONS (AUTO-STARTED)

VTAM STARTUP CONFIGURATION DEFINITION

```
IMSAPAC,TSOAPAC,CICSAPAC,JESAPAC,NOSP,DSXAPPL,                          X
SWITCHAC,LOC3272,NCPACFI,LHA3274A,                                      X
CDRPATH,CDRMLIST,CAPLSDOS,CAPLSTCM
```

The following ACF/VTAM defintions are started at start-up time.

VBUILD MACRO SPECIFICATIONS - CDRM: CDRMLIST (MVS SYSTEM)

```
CDRMLIST VBUILD TYPE=CDRM
MVSVTAM  CDRM  SUBAREA=18,ELEMENT=1,ISTATUS=INACTIVE
MVSVMVT  CDRM  SUBAREA=13,ELEMENT=1,ISTATUS=ACTIVE,VPACING=2
MVSVMTC  CDRM  SUBAREA=14,ELEMENT=0,ISTATUS=ACTIVE,VPACING=2
VS1VTAM  CDRM  SUBAREA=11,ELEMENT=1,ISTATUS=INACTIVE
DOSVTAM  CDRM  SUBAREA=12,ELEMENT=1,ISTATUS=ACTIVE,VPACING=2
```

VBUILD MACRO SPECIFICATIONS - CDR PATHS: CDRPATH (MVS SYSTEM)

```
MVSVMTC  PATH  ADJSUB=21,DESTSUB=(14)
MVSVTAM  PATH  ADJSUB=22,DESTSUB=(18)
VS1VTAM  PATH  ADJSUB=22,DESTSUB=(11)
DOSVTAM  PATH  ADJSUB=21,DESTSUB=(12)
```

VBUILD MACRO SPECIFICATIONS - CDRSC: CAPLSDOS (DOS APPLICATION)

```
CAPLSDOS VBUILD TYPE=CDRSC
POWER    CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
CICSA    CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
CICSB    CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
```

```
NOSPD    CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD000 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD001 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD002 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD003 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD004 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD005 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
```

VBUILD MACRO SPECIFICATIONS - CDRSC: CAPLSTCM (TCAM APPLICATIONS)

```
CAPLSTCM VBUILD TYPE=CDRSC
NDSMH    CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
MHS3270  CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
TSOMH    CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
```

10.2 : NETWORK DEFINITIONS (ACTIVATED AS REQUIRED)

The following definitions are activated as required.

VBUILD MACRO SPECIFICATIONS - CDRSC: C3270DOS (DOS OWNED 3270)

```
C3270DOS VBUILD TYPE=CDRSC
LU3270V0 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V1 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V2 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V3 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V4 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V5 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V6 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
LU3270V7 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
```

VBUILD MACRO SPECIFICATIONS - CDRSC: C3270TCM (TCAM OWNED 3270)

```
C3270TCM VBUILD TYPE=CDRSC
LU3270V0 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
```

```
LU3270V1 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V2 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V3 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V4 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V5 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V6 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
LU3270V7 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
```

VBUILD MACRO SPECIFICATIONS - CDRSC: C3274DOS (DOS OWNED 3274)

```
C3274DOS VBUILD TYPE=CDRSC
SDLCPA01 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA02 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA03 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA04 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA05 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA06 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA07 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
SDLCPA08 CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
```

VBUILD MACRO SPECIFICATIONS - CDRSC: C3274TCM (TCAM OWNED 3274)

```
C3274TCM VBUILD TYPE=CDRSC
SDLCPA01 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA02 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA03 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA04 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA05 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA06 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA07 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
SDLCPA08 CDRSC CDRM=MVSVMTC,ISTATUS=ACTIVE
```

CHAPTER 11 : NOSP INSTALLATION

NOSP INSTALLATION PRE-PLANNING

The following procedures should be done prior to the actual coding of the Network Operation Support Program (NOSP) definition statements.

1. Pictorially define the entire network as defined by the ACF/VTAM and ACF/NCP programs. This definition should initially be done assuming that there will be only one NOSP operator who will have all and complete authorization for the control of the network. However, since in most uses of NOSP there will be multiple NOSP operators each of whom will control different and sometimes overlapping parts of the network, the initial definition should be designed for the future and actual operation. In other words, plan for at least one operator that can control the entire network, and additional operators that have limited spans of control.

   Terminals that may be NOSP operator stations must be defined ahead of time. Likewise, NOSP hardcopy terminals must be predefined. Part of the network definition must be to determine which LU's will be used as operator stations and hardcopy printers and what their various spans of control will be.

   The people involved in the definition of the control of the network should include ACF/VTAM systems programmers as well as Operations personnel. This will insure that the operational aspects are thorough as well as practical. After all, it will be the Operations staff who will be using the product.

2. After the pictorial definition is complete, coding of the initial and single NOSP operator concept should take into consideration the future spans which will be assigned to other NOSP operators. By using this coding approach you will avoid having to recode the NOSP definition for the final configuration.

3. NOSP only requires the "SPAN" parameter if specific profiles are used. If you intend to have all global operators then omit the "SPAN" parameter. CAUTION: If you intend to run NOSP in a multidomain environment then omit the "SPAN" parameter. (See the example for coding RRD statements.)

If specific profiles are used then NOSP requires that the 'SPAN' parameter be coded in the ACF/VTAM definition program, it would be judicious to plan for the inclusion of NOSP as early as possible. ACF/NCP and NCP/VS (5.0) will both ignore this parameter, thus it can be coded even before NOSP is installed. The only thing that might cause a recoding of the 'spanname' is that the network control definition is not complete at the time of the network definition. But since this is a VTAM parameter, it takes effect at VTAM initialization and can be easily changed. CAUTION: Always place spanname in parenthesis. eg SPAN=(spanname).

4. The various NOSP definitions are stored as several individual members in the NOSP data sets as opposed to, say, VTAM which has a single member for the definition of the network which is running at the time. Thus in order to ease your definition of the NOSP members, define one span of control at a time (as shown by your pictorial configuration).

5. To ease and confine the extent of the NOSP testing, bring up a single NOSP definition which controls the entire network. This test will check that the NOSP program and commands are working. As mentioned previously you will probably want to keep at least one operator in your final defintion that has this global authority.

6. The next level of testing should be to define another NOSP operator in this single NOSP environment. This is done by adding another set of OPERATOR and PROFILE definitions to the NOSP definition. Keep the original (and completely authorized) operator definition intact. You will always want to have one operator who has the authority to control all of the network. After this definition is complete, then bring up and test all of the commands and extents of this operator's control in the network.

   Continue doing this step as many times as there are NOSP operators to be defined in this NOSP definition. However, be sure to do this for only one operator at a time to assure that the testing is complete and controllable.

7. After the complete single NOSP definition is completely tested and is operational the way desired, and if there is to be more than one domain in the network, then start the NOSP definition for the next domain. Again, you want to step through the NOSP definition and testing one step at a time.

8. When two (or more) NOSP domain definitions are complete and working individually as desired, then test them together. Again, if there are other domains to be included, bring them on one at a time.

NOSP DOCUMENTATION

NOSP General Information	GC38-0251
NOSP Program Product Specifications	GC38-0277
NOSP Program Information and Maintenance Manual	SC38-0278
NOSP Operator's Manual	SC38-0281
NOSP Logic	LY27-8026

NOSP INSTALLATION STEPS

1. Install NOSP distribution tape and apply necessary PTF's.

2. Code and file NOSP definition statements. These statements may be filed as members in the ACF/VTAM definition library (SYS1.VTAMLST), or may be put into any partitioned data set.The following members are defined and filed:

MEMBER	CONTENTS
a. DSIOPF	OPERATOR and PROFILEN statements to define all operators, their passwords, and point to their profiles.(See example 1).
b. User defined proflie name	PROFILE, ISPAN, SPAN, DOMAINS, and AUTH statements to define the operator's span of control. (See example 2).
c. DSISPN	SPANLIST which associates spans and major nodes. Defer this member until you need operators with specific profiles. Be sure to specify all defined profile names as valid for the master terminal operator or Systems Programmer. NOSP may be checked out with one operator by logging on with different profiles. OPERATOR PROFILEN prof1,prof2,....(prof1 is the default)
d. DSIDMN	NOSPID, POS, HARDCOPY, RRD, CDMNSESS, MAXSPAN, MAXABEND, and MAXLOGON which specify system information for NOSP as a whole, rather than a particular operator. (See example 3). MAXABEND should be a low number 2 or 3. This

number determines when NOSP will place a device in ERROR status. If a device is NOT in error status, (ie. MAXABEND has not been reached) then the MOVE command will not work. MAXLOGON should be about 2 or 3. When this number is reached because of incorrect information on the logon screen, NOSP issues CLSDST RELEASE.

e. DSICMD — CMDMDL and PARMSYN which define all valid commands, including standard VTAM commands, that may be entered from a NOSP terminal. These statements may point to command lists or command processors. (See example 4).

f. User command list name(s) — Command list(s). (See example 5).

3. Create NOSP start procedure using a dataset for disk logging of all messages if desired. (See example 6).

4. Code, assemble, and linkedit any desired command processors and/or user exits. Defer this step until you are sure you need them. Once an exit is there it cannot be disabled.

5. Add NOSP APPL statements to current APPL major node or create a new major node and include it in the configuration list (ATCCONxx). (See example 7).

6. Modify logon mode tables. NOSP requires a mode table ENTRY of DSILGMOD for its bind. Therefore, each terminal type that uses NOSP must have a separate logon mode table with a DSILGMOD entry in it. (See example 8).

7. Update USS tables and logon intrepet tables as necessary for NOSP logon. (See examples 9 and 10).

8. Create procedure for printing a hard copy of NOSP's disk log. (See example 11).

NOSP OPERATIONAL CONSIDERATIONS

1. VTAM messages will no longer go to the system console, they will go to the NOSP operator and the hard copy log. System operators will no longer be aware of many network problems, for example, line and modem problems. This, of course, is the intention of NOSP but it will require some operational changes that must be planned for. In addition it will require good communication between the system operators and the NOSP operators.

2. PFK's can be used for standard commands but cannot be used to point to a CLIST since a member name beginning with a numeric is not allowed by the Operating System. This may be handled by an exit routine (DSIEX01) which converts PFK input to something that begins with an alpha character, eg. convert 1 to P1, 2 to P2, etc. Then the member that DSICCP reads and executes will be P1, P2, etc.

3. Since NOSP operator terminals and hardcopy log must be predefined to NOSP by their LU name, some consideration should be given to a backup plan. If a NOSP terminal is unavailable for some reason (terminal problem, line problem, etc.) it would be ideal to have a backup terminal already defined. In this case the operator could move to the backup terminal, sign on and resume operation. In the case of a hardcopy log, the START and STOP commands may be used to change to a backup printer.

4. It is probably advisable to have at least one local NOSP operator station. In the case that the NCP becomes unavailable, it will be valuable to have a local operator who will be notified and take any recovery action necessary.

5. To terminate NOSP, any NOSP operator or the system operator can request a CLOSE. If a CLOSE IMMED is requested, NOSP abends and is terminated immediately. If entered without IMMED (the usual method of termination), each terminal will be sent a message that termination has been requested. Before termination occurs, all operators must logoff. The hardcopy terminal will be automatically logged off when the last operator using it logs off.

6. You MUST code FEATUR2=(MODEL2) on ALL 3270 definitions. Default is model 1 and NOSP does not support this terminal type. (The ACF/VTAM Systems Programmer's Guide left out the defaults.)

7. For NOSP in multiple domains you must have a BIND image and CDRSC definitions.

   a. Here is the logmode entry for NOSP-to-NOSP sessions. Either same domain or X-domain.

```
NOSPXDOM MODETAB
DSILGMOD MODEENT LOGMODE=DSILGMOD,FMPROF=X'03',TSPROF=X'03',          *
               PRIPROT=X'20',SECPROT=X'20',COMPROT=X'4000',           *
               PSERVIC=X'000000000000000000000000',RUSIZES=X'86A3'
         MODEEND
         END
```

b. Here is the CDRSC definition if NOSPD were cross-domain to NOSP1

```
 ./ ADD NAME=NOSP2MJX
CDNOSP2 VBUILD TYPE=CDRSC
NOSPD      CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD000   CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD001   CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD002   CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD003   CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
NOSPD004   CDRSC CDRM=DOSVTAM,ISTATUS=ACTIVE
```

8. For an operator with a specific profile to go cross domain you MUST code DOMAINS statement(s) in the PROFILE.

9. Do not use span of control initially. BE VERY CAREFUL about attempting to use span of control along with RRD statements in a multidomain environment. If you are planning to install NOSP in a single domain first then go to multiple domains DO NOT USE SPECIFIC profiles and RRD statements at all. You must CLEARLY understand the NOSP tables before undertaking such an environment.

SPECIAL NOSP INSTALLATION CONSIDERATIONS

Five things must be done in order to implement SPECIFIC profiles and span of control.

1. You must code MAXSPAN in the DSIDMN member otherwise NOSP will not read the DSISPN member. This number should be a multiple of 8 and MUST be greater than or equal to the number of unique span names. If you don't do this NOSP will not initialize.

2. You must code ISPAN and/or SPAN statements in the PROFILE.

3. You must code AUTH CTL=SPECIFIC or let it default.

4. You must place SPANLIST statements in member DSISPN which point to the VTAM major node name. Failure to find a major node in VTAMLST will terminate NOSP initialization.

5. You must code SPAN= on EVERY resource in EVERY node which you want to be placed under control of an operator using a specific profile. NOTE: These five steps will cause the ART to be built in memory. It is sorted alphabetically after the names are read from VTAMLST. Duplicate names are merged into a single entry. If you leave off SPAN= from any node name (LINE, PU, or LU) then NOSP will not place the name in the ART. If a name is not in the ART then an operator using a specific profile can NEVER reference the resource.

NOSP INSTALLATION EXAMPLES

```
*************************************************************************
** These examples define a single domain environment with two NOSP
** operators, both with global authority, and a hardcopy log.
*************************************************************************

*************************************************************************
1. DSIOPF Example
*************************************************************************
 ./ ADD NAME=DSIOPF
 OPER1    OPERATOR PASSWORD=AAA
          PROFILEN PROF1
 OPER2    OPERATOR PASSWORD=BBB
          PROFILEN PROF1
          END

*************************************************************************
2. PROF1- Example of profile pointed to by PROFILEN of DSIOPF
*************************************************************************
 ./ ADD NAME=PROF1
 PROF1    PROFILE HCL=LU3270V0
          AUTH CTL=GLOBAL,MSGRECVR=YES
          END

*************************************************************************
3. DSIDMN Example
*************************************************************************
 ./ ADD NAME=DSIDMN
 D1       NOSPID DOMAINID=NOSP1
          POS    LU4C3,SDLCPA01,LU3270V3,LHAPA03,LU4D7
          HARDCOPY LU3270V0
 NOSPD    RRD   DUMMY   (Defines NOSPD to NOSP1 for global Operators)
          MAXABEND 3
          MAXLOGON 3
          END

4. DSICMD Example:
   This member includes all standard NOSP and VTAM commands.
   It also has four user defined command lists. A clist definition
   must have MOD=DSICCP coded. Whenever a clist name is found the
   module DSICCP is invoked. This module processes all clists.

   NOTE: Be sure to code ALL immediate commands as shown.

 ./ ADD NAME=DSICMD
*************************************************************************
*        IMMEDIATE COMMANDS                                             *
```

```
*************************************************************************
AUTO      CMDMDL MOD=DSIAWP,TYPE=I
AUTOWRAP  CMDMDL MOD=DSIAWP,TYPE=I
CANCEL    CMDMDL MOD=DSICAP,TYPE=I
CLOSE     CMDMDL MOD=DSICLP,TYPE=I
GO        CMDMDL MOD=DSIGOP,TYPE=I
RESET     CMDMDL MOD=DSIRSP,TYPE=I
CLEAR     CMDMDL MOD=DSICKP,TYPE=B
*     The above command name allows the word "CLEAR" to appear in
*     command lists to force a clear screen when desired.
*************************************************************************
*      These three special symbols must be defined or the
*      associated key will not work at all!!!
'         CMDMDL MOD=DSINDP,TYPE=I,CTL=S  ENTER KEY W/ODATA (X'7D') QUOTE
_         CMDMDL MOD=DSICKP,TYPE=I,CTL=S  CLEAR KEY (X'6D') UNDERSCORE
>         CMDMDL MOD=DSINDP,TYPE=I,CTL=S  PA2   KEY W/ODATA (X'7D') QUOTE
*************************************************************************
*         REGULAR COMMANDS                                              *
*************************************************************************
AGAIN     CMDMDL MOD=DSIAGAIN
* SHORT FORM OF LIST COMMAND
L         CMDMDL MOD=DSISHP
          PARMSYN CLIST,CL
          PARMSYN PROFILE,PR
          PARMSYN SPAN,SP
          PARMSYN STATUS,ST
          PARMSYN TASKS,TAS
          PARMSYN SPANS,SPA
          PARMSYN PROFILES,PRO
LIST      CMDMDL MOD=DSISHP
          PARMSYN CLIST,CL
          PARMSYN PROFILE,PR
          PARMSYN SPAN,SP
          PARMSYN STATUS,ST
          PARMSYN TASKS,TAS
          PARMSYN SPANS,SPA
          PARMSYN PROFILES,PRO
LOG       CMDMDL MOD=DSIENP
LOGOFF    CMDMDL MOD=DSIENP
MOVE      CMDMDL MOD=DSISWP
MSG       CMDMDL MOD=DSIMGP
PAUSE     CMDMDL MOD=DSIPSP
ROUTE     CMDMDL MOD=DSIRTP
RO        CMDMDL MOD=DSIRTP
START     CMDMDL MOD=DSISRP
          PARMSYN HCL,HC
          PARMSYN DOMAIN,DO
          PARMSYN TERM,TE
```

```
          PARMSYN SPAN,SP
          PARMSYN RESOURCE,RE
* SHORT FORM OF START COMMAND
S         CMDMDL MOD=DSISRP
          PARMSYN HCL,HC
          PARMSYN DOMAIN,DO
          PARMSYN TERM,TE
          PARMSYN SPAN,SP
          PARMSYN RESOURCE,RE
STOP      CMDMDL MOD=DSISTP
          PARMSYN HCL,HC
          PARMSYN DOMAIN,DO
          PARMSYN TERM,TE
          PARMSYN SPAN,SP
          PARMSYN RESOURCE,RE
* SHORT FORM OF STOP COMMAND
P         CMDMDL MOD=DSISTP
          PARMSYN HCL,HC
          PARMSYN DOMAIN,DO
          PARMSYN TERM,TE
          PARMSYN SPAN,SP
          PARMSYN RESOURCE,RE
*************************************************************************
*         VTAM COMMANDS                                                 *
*************************************************************************
D         CMDMDL MOD=DSIVTP
DISPLAY   CMDMDL MOD=DSIVTP
F         CMDMDL MOD=DSIVTP
MODIFY    CMDMDL MOD=DSIVTP
R         CMDMDL MOD=DSIREP
REPLY     CMDMDL MOD=DSIREP
V         CMDMDL MOD=DSIVTP
VARY      CMDMDL MOD=DSIVTP
*************************************************************************
*  YOUR COMMAND LIST NAMES GO HERE
*  THE MODULE NAME MUST BE DSICCP
* NAME    CMDMDL MOD=DSICCP
*************************************************************************
ACT       CMDMDL MOD=DSICCP
INACT     CMDMDL MOD=DSICCP
TRACE     CMDMDL MOD=DSICCP
NOTRACE   CMDMDL MOD=DSICCP
          END
```

5. Command Lists

***CLIST to vary active: ACT

```
 ./ ADD NAME=ACT
 VARY NET,ACT,ID=&1
*********************************************************************

 ***CLIST to vary inactive: INACT

 ./ ADD NAME=INACT
 VARY NET,INACT,ID=&1,&2

*********************************************************************

 ***CLIST to start io and buffer trace: TRACE

 ./ ADD NAME=TRACE
 F NET,TRACE,ID=&1,TYPE=IO
 F NET,TRACE,ID=&1,TYPE=BUF

*********************************************************************

 ***CLIST to stop io and buffer trace: NOTRACE

 ./ ADD NAME=NOTRACE
 F NET,NOTRACE,ID=&1,TYPE=IO
 F NET,NOTRACE,ID=&1,TYPE=BUF

*********************************************************************

6. NOSP start procedure

*********************************************************************
   ***The first step of the procedure is to delete the NOSP disk log
   ***since it will be used again.  The NOSP program is linked under
   ***the name DSIMNT.  All the NOSP definition members are filed in
   ***a PDS named NOSP.CMND.LIST.
*********************************************************************
//NOSP JOB
//ACFNOS1 EXEC PGM=IEFBR14,REGION=512K
//DD1 DD DSN=NOSPLOG,DISP=(OLD,DELETE,DELETE),VOL=SER=nnnnnn,
// UNIT=3340
//STEP2 EXEC PGM=DSIMNT,TIME=1440,REGION=1024K
//SYSPRINT DD  SYSOUT=A
//SYSUDUMP DD  SYSOUT=A
//DSICLD   DD DSN=NOSP.CMND.LIST,DISP=SHR
//DSIPARM  DD DSN=NOSP.CMND.LIST,DISP=SHR
//DSIVTAM  DD DSN=SYS1.VTAMLST,DISP=SHR
//DSIPRF   DD DSN=NOSP.CMND.LIST,DISP=SHR
//DSILOG   DD DSN=NOSPLOG,VOL=SER=nnnnnn,SPACE=(CYL,(2,1)),
```

```
// DCB=(LRECL=344,BLKSIZE=900,RECFM=VB,DSORG=PS),UNIT=3340,
// DISP=(NEW,KEEP)
```

The PRINTLOG should be a step that prints the log or dumps it to tape. COND=EVEN should be coded, else if you forget to run the printlog then you will lose the data.

7. NOSP APPL statements

```
*************************************************************************
   NOSP1 and NOSP1PPT are activated when NOSP is started.  In addition,
   a subtask will be activated at startup for each hardcopy log
   specified in the HCL parameter of the PROFILE statement.  The other
   subtasks will become active as operators sign on.  This definition
   allows five operators and/or hardcopy logs to be active concurrently.
*************************************************************************
H1APPLS  VBUILD TYPE=APPL
NOSP1    APPL AUTH=(ACQ,PASS,NVPACE),PRTCT=NOSP1,EAS=1
NOSP1PPT APPL AUTH=(PPO),EAS=1
NOSP1000 APPL AUTH=(SPO,ACQ,NVPACE),EAS=2
NOSP1001 APPL AUTH=(SPO,ACQ,NVPACE),EAS=2
NOSP1002 APPL AUTH=(SPO,ACQ,NVPACE),EAS=2
NOSP1003 APPL AUTH=(SPO,ACQ,NVPACE),EAS=2
NOSP1004 APPL AUTH=(SPO,ACQ,NVPACE),EAS=2
```

Note: EAS should be greater than or equal to the number of domains.

8. Logon Mode Table entry

```
*************************************************************************
* MODE TABLE FOR 3277 LOCAL OR REMOTE MOD 1/2 AND 11/12 FOR NOSP
*************************************************************************
NOSPTAB  MODETAB
         MODEENT LOGMODE=DSILGMOD,                                      X
               FMPROF=X'02',TSPROF=X'02',PRIPROT=X'71',                 X
               SECPROT=X'40',COMPROT=X'2000',RUSIZES=X'0000',           X
               PSERVIC=X'000000000000000000000200'
         MODEEND
         END
```

9. USS Table

```
*************************************************************************
   *** This USS table entry allows the operator to sign on to NOSP by
       keying in NOSP.  NOSP1 is the name on the first APPL statement.
*************************************************************************
NOSP     USSCMD CMD=NOSP,REP=LOGON,FORMAT=BAL
```

```
         USSPARM PARM=APPLID,REP=APPLID,DEFAULT=NOSP1
         USSPARM PARM=LOGMODE,REP=LOGMODE,DEFAULT=DSILGMOD
         USSPARM PARM=P1,REP=DATA
```

10. Logon Intrepet Table

```
*************************************************************************
  *** Make sure to put in both upper and lower case entry since NETSOL
      does not translate.
*************************************************************************
LOGTAB   INTAB
         *
         *
         LOGCHAR APPLID=(APPLICID,NOSP1),SEQNCE='NOSP'
         LOGCHAR APPLID=(APPLICID,NOSP1),SEQNCE='nosp'
         *
         *
         ENDINTAB
         END
```

11. Procedure for printing disk log

```
*************************************************************************
//NOSPRT EXEC PGM=DSIPRT
//DSILOG DD DSN=NOSPLOG,VOL=SER=nnnnnn,UNIT=3340,
// DCB=(LRECL=344,BLKSIZE=900,RECFM=VB,DSORG=PS),DISP=(OLD,KEEP)
//DSIINP DD DUMMY,DCB=(BLKSIZE=80)
//DSILST DD SYSOUT=A,DCB=(BLKSIZE=133)
//SYSPRINT DD  SYSOUT=A
```

NOSP FLOW

This is a very brief overview of some NOSP processing logic.
It is related to the above examples of a single domain system.
This logic flow does not include all exit processing, does not include much of the communication with the system operator, does not include the handling of unsolicited messages from VTAM, nor does it include error processing. It is intended to help show how the various dataset members, CLISTS, user exits, and command processors are used during NOSP execution.
AN * beside a member or dataset name means they may be user defined.

****

	INPUT USED	ACTIVITY
1. Start-up	Start-up proc	NOSP is started.
		The member DSICMD is read into main storage at init. time. All exits must be placed in the LINKLIB in the form DSIEXnn (nn=01 thru 14). These are loaded at init. time.
	(See example 6)	
	APPL statements (See example 7)	Activate NOSP1.
		Activate NOSP1PPT.
	Profile statement (See example 2)	Activate 1 subtask for each hardcopy log (HCL) specified.
		Leave outstanding message for system operator to enter valid NOSP system operator command.
		Wait for logons (assuming no automatic logons).
2. Logon	USSTAB, MODETAB, LOG. INTREP. TABLE (See ex. 8-9-10)	Operator enters logon for NOSP.
		Nosp displays logon screen.
		Operator keys id and password.
	DSIOPF member of	NOSP validates id and password.

	NOSP.CMND.LIST* (See example 1)	
	APPL statements (See example 6)	NOSP opens ACB for this operator subtask (need APPL statement which will be activated).
	PROF1* member of NOSP.CMND.LIST*	Acquire hardcopy log (HCL) for this operator if specified, or if already acquired on behalf of another operator, then begin sending traffic to the Hardcopy Task. Display message to operator, send message to hardcopy log and disk log.
3. Command Execution		Operator enters command.
	DSIEX01 member of LINKLIB*	Execute user exit if present. Validate command syntax.
	DSICMD member of NOSP.CMND.LIST*	Search for entry with label = the verb (eg. VARY). Send message to operator that command was accepted, log request and NOSP response on hardcopy log and disk log. (Execute DSIEX02 and DSIEX04, if they exist). If NOSP cannot find the command name in the System Command Table or if the name points to MOD=DSICCP and the CLIST is NOT on disk the same error message is produced.
	DSIVTP, DSISRP, DSICCP, etc. members of LINKLIB*	Execute code in member that is specified in MOD parameter of DSICMD entry. This may be a NOSP supplied member or a user written command processor.
4. Command Lists		This logic is used only when the MOD specified was DSICCP, which

		must be the MOD for all command lists.
	ACT*, TRACE*, etc. members of NOSP.CMND.LIST*	DSICCP searches for 'member' with same name as this user-defined command verb (eg. ACT, TRACE).
		Command list is executed in sequence.
5. VTAM COMMANDS		This logic is used only when the command is a standard VTAM command. When a VTAM command is entered then DSIVTP is the command processor which is invoked. If an operator is using a SPECIFIC profile than the SPAN is checked by this module.
	DSIEX05 member of LINKLIB*	Execute user written exit, if there.
		Send command to VTAM for execution and wait for response (SENDCMD and RECVCMD of VTAM'S programmed operator facility-POF).
	DSIEX06 member of LINKLIB*	Execute user written exit, if there.
6. Command Output	DSIEX02 member of LINKLIB*	Execute user written exit, if there.
		If you delete a message in DSIEX02 then it will not be logged on the disk or HARDCOPY.
		Send response to command to operator.
	DSIEX04 member of LINKLIB*	Execute user written exit if there.
		Log response on hardcopy log.
		Log response on disk log.
		Return to Command Execution (#3).
7. Logoff		Operator enters LOGOFF.

	DSIEX14 member of LINKLIB*	Execute user written exit, if there.
		Close ACB, subtask becomes inactive, terminate session with hardcopy log and deactivate its subtask if no other operators are using it.
		Send message to operator, log on hardcopy and disk.
8. Terminating NOSP		NOSP or System operator enters CLOSE.
		If CLOSE IMMED was entered, all subtasks will be deactivated without messages and NOSP will be ABENDED.
		If just CLOSE was entered, a message is sent to each active operator and the system console. No more logons are accepted.
		When the last operator has logged off, all ACB's will be closed and NOSP will be ended normally.

CHAPTER 12 : SNA APPLICATION INTERFACES

This section contains sample generation or system definitions for some of the common SNA application programs.

CICS/VS R1.4 TERMINAL CONTROL TABLE (DFHTCT)

```
*************************************************************************
****                                                                 ****
***      TCT FOR MVS A ISC SYSTEM                                    ***
****                                                                 ****
*************************************************************************
         DFHTCT TYPE=INITIAL,ACCMETH=(NONVTAM,VTAM),APPLID=CICSMA,     X
               RAMAX=256,RAMIN=0,RATIMES=8,RAPOOL=2,RESP=FME,SUFFIX=MA,X
               GMTEXT='YOU ARE CONNECTED TO MVS CICS A'


* * * * * * * * * * * * * * * * * * * * * * *
* * * * ENTRIES FOR BSC3770 (AS 2770) * * * *
* * * * * * * * * * * * * * * * * * * * * * *
         DFHTCT TYPE=SDSCI,DEVICE=2770,DSCNAME=P2770,BSCODE=EBCDIC
PLST770  DFTRMLST AUTOWLST,(C1C1F02D,37373737)
OLST770  DFTRMLST OPENLST,(81811112D)
         DFHTCT TYPE=LINE,ACCMETH=BTAM,TRMTYPE=2770,DSCNAME=P2770,     *
               BTAMRLN=1,TCTUAL=20,INAREAL=517,                        *
               FEATURE=(AUTOPOLL),LISTADR=(PLST770,WRAP),GENPOLL=YES,  *
               CLASS=(HARDCOPY,BISYNC,CONV)
PC74     DFHTCT TYPE=TERMINAL,TRMPRTY=100,TRMTYPE=2770,TRMIDNT=PC74,   *
               TIOAL=517,TRMSTAT=TRANSCEIVE,TCTUAL=20,LASTTRM=LINE,    *
               BUFFER=256,TRMADDR=OLST770

*************************************************************************
*****   THE FOLLOWING ENTRIES ARE FOR VTAM TERMINALS ONLY        ******
*************************************************************************
*
*************************************
*           ISC LINKS               *
*************************************
*
MVSB     DFHTCT TYPE=ISLINK,ACCMETH=VTAM,SYSIDNT=MVSB,NETNAME=CICSMB,  X
               TRMIDNT=MVSB,SESTYPE=SEND,CHNASSY=YES,                  X
               RUSIZE=512,BUFFER=512,TIOAL=512,TRMSTAT=TRANSCEIVE
*
DOSB     DFHTCT TYPE=ISLINK,ACCMETH=VTAM,SYSIDNT=DOSB,NETNAME=CICSDB,  X
               TRMIDNT=DOSB,SESTYPE=SEND,CHNASSY=YES,                  X
               RUSIZE=512,BUFFER=512,TIOAL=512,TRMSTAT=TRANSCEIVE
```

CICS LOCAL 3272

```
*****************************************
*            LOCAL 3272                 *
*****************************************

LOC0     DFHTCT TYPE=TERMINAL,TRMIDNT=LOC0,TRMTYPE=3277,TRMMODL=2,     X
               ACCMETH=VTAM,TIOAL=1500,TRMSTAT=TRANSCEIVE,             X
               NETNAME=LU4C0,RELREQ=(YES,YES),TCTUAL=20,               X
               BMSFEAT=NOROUTEALL,FEATURE=(DCKYBD),GMMSG=YES
```

CICS REMOTE 3271

```
*****************************************
*            REMOTE 3271                *
*****************************************

LUV0     DFHTCT TYPE=TERMINAL,TRMIDNT=LUV0,TRMTYPE=3277,TRMMODL=2,     X
               ACCMETH=VTAM,TIOAL=1500,NETNAME=LU3270V0,GMMSG=YES,     X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),TCTUAL=20,          X
               FEATURE=(DCKYBD,SELCTPEN)
```

CICS LOCAL 3274

```
**************************************
*           LOCAL 3274-1A            *
**************************************

LA01     DFHTCT TYPE=TERMINAL,TRMIDNT=LA01,TRMTYPE=LUTYPE2,TRMMODL=1,  X
               ACCMETH=VTAM,TIOAL=(1024,4096),NETNAME=LHAPA01,         X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN),GMMSG=YES,    X
               RUSIZE=1024,BRACKET=YES,PGESIZE=(12,40),BUFFER=1536,    X
               PRINTTO=LA07,ALTPRT=LA08,PGESTAT=PAGE,CHNASSY=YES,      X
               ALTPGE=(12,80),DEFSCRN=(12,40),ALTSCRN=(12,80)
LA02     DFHTCT TYPE=TERMINAL,TRMIDNT=LA02,TRMTYPE=LUTYPE2,TRMMODL=2,  X
               ACCMETH=VTAM,TIOAL=(1024,4096),NETNAME=LHAPA02,         X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN),GMMSG=YES,    X
               RUSIZE=1024,BRACKET=YES,PGESIZE=(24,80),BUFFER=1536,    X
               PRINTTO=LA07,ALTPRT=LA08,PGESTAT=PAGE,CHNASSY=YES,      X
               ALTPGE=(43,80),DEFSCRN=(24,80),ALTSCRN=(43,80)
LA07     DFHTCT TYPE=TERMINAL,TRMIDNT=LA07,TRMTYPE=LUTYPE3,TRMMODL=2,  X
               ACCMETH=VTAM,NETNAME=LHAPA07,BUFFER=1536,               X
               TRMSTAT=TRANSCEIVE
LA08     DFHTCT TYPE=TERMINAL,TRMIDNT=LA08,TRMTYPE=SCSPRT,TRMMODL=2,   X
               ACCMETH=VTAM,NETNAME=LHAPA08,BUFFER=1536,               X
               TRMSTAT=TRANSCEIVE,HF=YES,VF=YES
LB01     DFHTCT TYPE=TERMINAL,TRMIDNT=LB01,TRMTYPE=LUTYPE2,TRMMODL=2,  X
               ACCMETH=VTAM,TIOAL=(1024,4096),NETNAME=LHAPB01,         X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN),GMMSG=YES,    X
               RUSIZE=1024,BRACKET=YES,PGESIZE=(24,80),BUFFER=1536,    X
               PGESTAT=PAGE,CHNASSY=YES
```

CICS REMOTE 3274

```
**************************************
*           REMOTE 3274-1C           *
**************************************

PA01     DFHTCT TYPE=TERMINAL,TRMIDNT=PA01,TRMTYPE=LUTYPE2,TRMMODL=2,  X
               ACCMETH=VTAM,TIOAL=(1024,4096),NETNAME=SDLCPA01,        X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN,PTRADAPT),     X
               BUFFER=0,RUSIZE=1024,BRACKET=YES,PGESIZE=(24,80),       X
               ALTPGE=(43,80),DEFSCRN=(24,80),ALTSCRN=(43,80),         X
               PGESTAT=PAGE,CHNASSY=YES,GMMSG=YES
PA07     DFHTCT TYPE=TERMINAL,TRMIDNT=PA07,TRMTYPE=LUTYPE3,TRMMODL=2,  X
               ACCMETH=VTAM,NETNAME=SDLCPA07,BUFFER=0,                 X
               TRMSTAT=TRANSCEIVE
PA08     DFHTCT TYPE=TERMINAL,TRMIDNT=PA08,TRMTYPE=SCSPRT,TRMMODL=2,   X
               ACCMETH=VTAM,NETNAME=SDLCPA08,BUFFER=1024,              X
               TRMSTAT=TRANSCEIVE,HF=YES,VF=YES
PB01     DFHTCT TYPE=TERMINAL,TRMIDNT=PB01,TRMTYPE=LUTYPE2,TRMMODL=2,  X
               ACCMETH=VTAM,TIOAL=(1024,4096),NETNAME=SDLCPB01,        X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN).GMMSG=YES,    X
               BUFFER=0,RUSIZE=1024,BRACKET=YES,PGESIZE=(24,80),       X
               PGESTAT=PAGE,CHNASSY=YES
**************************************
*           REMOTE 3276
**************************************
*
P761     DFHTCT TYPE=TERMINAL,TRMIDNT=P761,TRMTYPE=LUTYPE2,TRMMODL=2,  X
               ACCMETH=VTAM,TIOAL=(2048,4096),NETNAME=SDLC76P1,        X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),CONNECT=NO,         X
               FEATURE=(DCKYBD,SELCTPEN,AUDALARM,UCTRAN,PTRADAPT),     X
               BUFFER=0,RUSIZE=2048,BRACKET=YES,PGESIZE=(24,80),       X
               ALTPGE=(24,80),DEFSCRN=(24,80),ALTSCRN=(24,80),         X
               PGESTAT=PAGE,CHNASSY=YES,GMMSG=YES
P767     DFHTCT TYPE=TERMINAL,TRMIDNT=P767,TRMTYPE=LUTYPE3,TRMMODL=2,  X
               ACCMETH=VTAM,NETNAME=SDLC76P7,BUFFER=0,                 X
               TRMSTAT=TRANSCEIVE
P768     DFHTCT TYPE=TERMINAL,TRMIDNT=P768,TRMTYPE=SCSPRT,TRMMODL=2,   X
               ACCMETH=VTAM,NETNAME=SDLC76P8,BUFFER=1024,              X
               TRMSTAT=TRANSCEIVE,HF=YES,VF=YES
```

CICS REMOTE 3767

```
*************************************************************************
*                        REMOTE 3767                                    *
*************************************************************************

LU67V    DFHTCT TYPE=TERMINAL,TRMIDNT=LU67V,TRMTYPE=3767,              X
               ACCMETH=VTAM,TIOAL=(256,768),NETNAME=TR3767V,           X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),PGESTAT=PAGE,       X
               PGESIZE=(12,80),BUFFER=256,BRACKET=YES,CHNASSY=YES
```

CICS REMOTE 3774

```
**************************************************************************
*                       REMOTE 3774                                      *
**************************************************************************

LU71     DFHTCT TYPE=TERMINAL,TRMIDNT=LU71,TRMTYPE=BCHLU,                X
               ACCMETH=VTAM,TIOAL=(256,1024),RUSIZE=256,                 X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),PGESTAT=PAGE,         X
               PGESIZE=(12,80),BUFFER=256,BRACKET=YES,CHNASSY=YES,       X
               NETNAME=P70LU1
LU72     DFHTCT TYPE=TERMINAL,TRMIDNT=LU72,TRMTYPE=LUTYPE2,              X
               ACCMETH=VTAM,TIOAL=(256,2048),RUSIZE=256,                 X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),PGESTAT=PAGE,         X
               PGESIZE=(12,80),BUFFER=256,BRACKET=YES,CHNASSY=YES,       X
               NETNAME=P70LU2,GMMSG=YES
LU73     DFHTCT TYPE=TERMINAL,TRMIDNT=LU73,TRMTYPE=3790,                 X
               ACCMETH=VTAM,TIOAL=(256,1024),RUSIZE=256,                 X
               TRMSTAT=TRANSCEIVE,RELREQ=(YES,YES),PGESTAT=PAGE,         X
               PGESIZE=(12,80),BUFFER=256,BRACKET=YES,CHNASSY=YES,       X
               LASTTRM=VTAM,SESTYPE=USERPROG,NETNAME=P70LU3
         DFHTCT TYPE=FINAL
         END   DFHTCTBA
```

IMS/VS NUCLEUS GENERATION

```
          TITLE 'IMS/VS 1.1.5 FIELD TEST LEVEL ** IMS5 **'

        IMSCTRL SYSTEM=(VS/2,ALL,3.7),                                  *
                MAXIO=(50,20),                                          *
                MAXREGN=(5,256K),                                       *
                MAXCLAS=10,                                             *
                IMSID=IMS5,

*****************************************************************************

          COMM  RECANY=(6,3842),                                        *
                APPLID=IMS,                                             *
                SECCNT=3,                                               *
                OPTIONS=(NOPSWD,                                        *
                TERMINAL,                                               *
                PAGING,                                                 *
                TIMESTAMP,                                              *
                4096,                                                   *
                FMTMAST,                                                *
                NOUSEMSG,                                               *
                NOMSTEX,                                                *
                NOMSPEX,                                                *
                NOCIPH,                                                 *
                VTAMAUTH,                                               *
                BLKREQD)

*****************************************************************************

          IMSCTF SVCNO=(236,237,238),                                   *
                APNDG=(Z5),                                             *
                CPLOG=9000,                                             *
                CORE=(16,200,4,2),                                      *
                LOG=(SNGL,MONITOR),                                     *
                DYLOG=(3330,2048,4)


*****************************************************************************

          SPAREA CORE=(3,4096),DASD=(15,6144)

*****************************************************************************

          BUFPOOLS PSB=12000,                                           *
                PSBW=12000,                                             *
                DMB=12000,                                              *
```

```
               DBASE=20000,                                            *
               GENERAL=20000,                                          *
               FORMAT=10000,                                           *
               COMM=30000,                                             *
               FRE=50

*****************************************************************************

         MSGQUEUE DSETS=(3330,3330,3330),                              *
               RECLNG=(192,2304),                                      *
               BUFFERS=(50,2304),                                      *
               SHUTDWN=10

         TITLE 'DATABASE DEFINITIONS'

*****************************************************************************
*****    DATABASES FOR DATA DICTIONARY                              *****
*****************************************************************************

         DATABASE DBD=DDSPDTE
         DATABASE DBD=DDSPSEG
         DATABASE DBD=DDSPDBS
         DATABASE DBD=DDSPPCB
         DATABASE DBD=DDSPSYS

*****************************************************************************
*****    DATABASES FOR IMS SAMPLE PROGRAM                           *****
*****************************************************************************

         DATABASE DBD=DI21PART
         TITLE 'TRANSACTION DEFINITIONS'

*****************************************************************************
*****    DATABASES FOR IMS ADF AND HOTLINE SYSTEM                   *****
*****************************************************************************

         DATABASE DBD=MFDPAR01
         DATABASE DBD=MFDPSP01
         DATABASE DBD=MFDPMS01
         DATABASE DBD=HOTLDATA
         DATABASE INDEX,DBD=HOTLINDX

*****************************************************************************
*****    PSB'S AND TRANSACTIONS FOR DATA DICTIONARY                 *****
*****************************************************************************

         APPLCTN  PSB=DBDIMSOV,PGMTYPE=(TP,OVLY)
            TRANSACT CODE=DBDIMSOV,SPA=(2816,CORE,FIXED),MODE=SNGL
```

```
          APPLCTN  PSB=DBDIMSD,PGMTYPE=(TP,OVLY)
             TRANSACT CODE=DBDIMSD,SPA=(2816,CORE,FIXED),MODE=SNGL
          APPLCTN  PSB=DBDIMSP,PGMTYPE=(TP,OVLY)
             TRANSACT CODE=DBDIMSP,SPA=(712,CORE,FIXED),MODE=SNGL
          APPLCTN  PSB=DBDIMSR,PGMTYPE=(TP,OVLY)
             TRANSACT CODE=DBDIMSR,SPA=(432,CORE,FIXED),MODE=SNGL
          APPLCTN  PSB=DBDIMSU,PGMTYPE=(TP,OVLY)
             TRANSACT CODE=DBDIMSU,SPA=(432,CORE,FIXED),MODE=SNGL
          APPLCTN PSB=DBDIMSB,PGMTYPE=BATCH

*************************************************************************
*****    PSB'S AND TRANSACTIONS FOR IMS/VS SAMPLE PROBLEM         *****
*************************************************************************

          APPLCTN  RESIDENT,PSB=DFSSAM02,                              *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=PART,                                          *
                PRTY=(7,10,2),                                         *
                INQUIRY=YES,                                           *
                MODE=SNGL

          APPLCTN  RESIDENT,PSB=DMSPART,  FOR DMS/3770                 *
                PGMTYPE=(TP,,1)            COPY OF DFSSAM02
          TRANSACT CODE=PARTDMS,             MODIFIED FOR USE WITH     *
                PRTY=(7,10,2),                 A DMS/3770 FP           *
                SPA=(300,CORE)

          APPLCTN  RESIDENT,PSB=DFSSAM03,                              *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=DSPINV,                                        *
                PRTY=(7,10,2),                                         *
                INQUIRY=YES,                                           *
                MODE=SNGL

          APPLCTN  RESIDENT,PSB=DFSSAM04,                              *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=ADDPART,                                       *
                PRTY=(7,10,2),                                         *
                INQUIRY=NO,                                            *
                MODE=SNGL
          TRANSACT CODE=ADDINV,                                        *
                PRTY=(7,10,2),                                         *
                INQUIRY=NO,                                            *
                MODE=SNGL
          TRANSACT CODE=DLETPART,                                      *
                PRTY=(7,10,2),                                         *
                INQUIRY=NO,                                            *
                MODE=SNGL
```

```
          TRANSACT CODE=DLETINV,                                        *
                PRTY=(7,10,2),                                          *
                INQUIRY=NO,                                             *
                MODE=SNGL

          APPLCTN  RESIDENT,PSB=DFSSAM05,                               *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=CLOSE,                                          *
                PRTY=(7,10,2),                                          *
                INQUIRY=NO,                                             *
                MODE=SNGL

          APPLCTN  RESIDENT,PSB=DFSSAM06,                               *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=DISBURSE,                                       *
                PRTY=(7,10,2),                                          *
                INQUIRY=NO,                                             *
                MODE=SNGL
          SPACE 3
          APPLCTN  RESIDENT,PSB=DFSSAM07,                               *
                PGMTYPE=(TP,,1)
          TRANSACT CODE=DSPALLI,                                        *
                PRTY=(7,10,2),                                          *
                INQUIRY=YES,                                            *
                MODE=SNGL

*****************************************************************************
          TRANSACTIONS FOR NDS PRINTER SUPPORT
*****************************************************************************
          APPLCTN  PSB=FORMSET,PGMTYPE=TP
          TRANSACT CODE=FORMSET,MODE=SNGL
          APPLCTN  PSB=APAK,PGMTYPE=TP
          TRANSACT CODE=APAK,MODE=SNGL
*****************************************************************************
          SPACE 3
          TITLE 'TERMINAL DEFINITIONS'
*****************************************************************************
*****     TERMINAL DEFINITIONS                                        *****
*****                                                                 *****
*****     LOCAL READER, PUNCH, PRINTER, SPOOL                         *****
*****************************************************************************

PRINTER   LINEGRP  DDNAME=PRINTER,                                      *
                UNITYPE=PRINTER
          LINE   ADDR=00F
          TERMINAL
          NAME   PRINTER
```

```
READER   LINEGRP  DDNAME=READER,                                        *
               UNITYPE=READER
         LINE  ADDR=01C
         TERMINAL LTERM=PRINTER

PUNCH    LINEGRP  DDNAME=PUNCH,                                        *
               UNITYPE=PUNCH
         LINE  ADDR=01D
         TERMINAL
         NAME  SPOOL2           -FOR DATA DICTIONARY

SPOOL    LINEGRP  DDNAME=(SPL1,SPL2,SPL3),                            *
               UNITYPE=SPOOL
         LINE  BUFSIZE=1420
         TERMINAL FEAT=AUTOSCH
         NAME  SPOOL1           -FOR DATA DICTIONARY

*************************************************************************
** BTAM 3770/2770 TERMINAL DEFINITION                              *****
*************************************************************************

         LINEGRP  DDNAME=BSC3770P,UNITYPE=2770,CODE=EBCDIC

         LINE  ADDR=074,FEAT=BUFEXP

         TERMINAL  ADDR=C1,COMPT=(PTR,CARD,PTR),FEAT=(1,BUFEXP)

         NAME  PTR3770,COMPT=1
         NAME  PCH3770,COMPT=2
         NAME  DSK3770,COMPT=3
```

```
IMS REMOTE 3770

         TYPE  UNITYPE=SLUTYPE1

*************************************************************************
**  3770 PROGRAMMABLE DEFINITIONS FOR BATCH LU (1)                  *****
*************************************************************************

P70LU1   TERMINAL NAME=P70LU1,              NAME CHANGE FOR ABOVE LU   *
               COMPT1=CONSOLE,                                         *
               COMPT2=(TRANSDS1,MFS-SCS2),                             *
               COMPT3=(PRINTDS1,MFS-SCS1),                             *
               COMPT4=USERDS1
         NAME  P70CON
         NAME  P70TRAN,ICOMPT=2
         NAME  P70INTR,COMPT=3
         NAME  P70USER,ICOMPT=4
         NAME  P70USER1,COMPT=4
         NAME  P70USER2,COMPT=4

C70LU1   TERMINAL NAME=C70LU1,            SAME LU AS P70LU1 BUT         *
               COMPT1=CONSOLE,             BECAUSE OF 4 COMP LIMIT IN   *
               COMPT2=(READER1,MFS-SCS2),  IMS, NEED THIS FOR CARD      *
               COMPT3=(PUNCH1,MFS-SCS2),      SUPPORT                   *
               COMPT4=USERDS1
         NAME  C70CON
         NAME  C70RDR,ICOMPT=2
         NAME  C70PUN,COMPT=3
         NAME  C70USER,ICOMPT=4
         NAME  C70USER1,COMPT=4
         NAME  C70USER2,COMPT=4
```

IMS LOCAL 3274

```
*************************************************************************
**              3274-1A SNA CHANNEL ATTACHED PRINTERS               *****
*************************************************************************

LHAPA07 TERMINAL NAME=LHAPA07,                                          *
                COMPT1=(CONSOLE,BASIC-SCS1),                            *
                MODETBL=SCS,                                            *
                OUTBUF=768
          NAME  LHAPA07

LHAPA08 TERMINAL NAME=LHAPA08,                                          *
                COMPT1=(CONSOLE,MFS-SCS1),                              *
                OUTBUF=768
          NAME  LHAPA08
```

IMS REMOTE 3274 PRINTERS

```
*************************************************************************
**              3274-1C SDLC ATTACHED PRINTERS                      *****
*************************************************************************

SDLCPA07 TERMINAL NAME=SDLCPA07,                                        *
                COMPT1=(CONSOLE,BASIC-SCS1),                            *
                MODETBL=SCS,                                            *
                OUTBUF=768
          NAME  SDLCPA07

SDLCPA08 TERMINAL NAME=SDLCPA08,                                        *
                COMPT1=(CONSOLE,MFS-SCS1),                              *
                OUTBUF=768
          NAME  SDLCPA08
```

IMS REMOTE 3276 PRINTER

```
**********************************************************************
**              3276 SDLC ATTACHED PRINTERS                       *****
**********************************************************************
          SPACE 4
SDLC76P7  TERMINAL NAME=SDLC76P7,                                     *
                COMPT1=(CONSOLE,BASIC-SCS1),                          *
                MODETBL=SCS,                                          *
                OUTBUF=768
          NAME  SDLC76P7

SDLC76P8  TERMINAL NAME=SDLC76P8,                                     *
                COMPT1=(CONSOLE,MFS-SCS1),                            *
                OUTBUF=768
          NAME  SDLC76P8
```

IMS REMOTE 3790 PRINTERS

```
**********************************************************************
** NODE=BP379011  LTERM=BP11        3790 BULK PRINT 1              *****
**********************************************************************

BP379011  TERMINAL NAME=BP379011,                                     *
                COMPT1=(PRINTER1,MFS-SCS1),                           *
                MODETBL=BLK3790
          NAME  BP11
**********************************************************************
** NODE=BP379012  LTERM=BP12        3790 BULK PRINT 2              *****
**********************************************************************

BP379012  TERMINAL NAME=BP379012,                                     *
                COMPT1=(PRINTER1,BASIC-SCS1),                         *
                MODETBL=BLK3790
          NAME  BP12
```

IMS REMOTE 3790 TYPE 2 BATCH

```
**********************************************************************
*****                              3790 TYPE 2 BATCH              *****
**********************************************************************
```

```
     BT379011 TERMINAL NAME=BT379011,                                    *
                    COMPT1=(PRINTER1,MFS-SCS1),                          *
                    COMPT2=(PRINTDS1,MFS-SCS1),                          *
                    COMPT3=(TRANSDS1,MFS-SCS2),                          *
                    SEGSIZE=256,                                         *
                    OUTBUF=256,                                          *
                    MODETBL=BAT23790,                                    *
                    OPTIONS=(NORESP,OPNDST,NBSELM,NODISCON)
              NAME  BT11MSG,COMPT=1
              NAME  BT11PDS,COMPT=2
              NAME  BT11TDS,ICOMPT=3

     BT379012 TERMINAL NAME=BT379012,                                    *
                    COMPT1=(PRINTER1,MFS-SCS1),                          *
                    COMPT2=(PRINTDS1,MFS-SCS1),                          *
                    COMPT3=(TRANSDS1,MFS-SCS2),                          *
                    SEGSIZE=256,                                         *
                    OUTBUF=256,                                          *
                    MODETBL=BAT23790,                                    *
                    OPTIONS=(NORESP,OPNDST,NBSELM,DISCON)
              NAME  BT12MSG,COMPT=1
              NAME  BT12PDS,COMPT=2
              NAME  BT12TDS,ICOMPT=3




     IMS SLUTYPE2 DISPLAYS

               TYPE UNITYPE=SLUTYPE2

     ************************************************************************
     *****              3274-1A SNA CHANNEL ATTACHED DISPLAYS           *****
     ************************************************************************

     LHAPA01 TERMINAL NAME=LHAPA01,                3278-1                 *
                    TYPE=3270-A1,SIZE=(12,80),                           *
                    FEAT=IGNORE,                                         *
                    OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),               *
                    OUTBUF=1536
              NAME  LHAPA01

     LHAPA02 TERMINAL NAME=LHAPA02,                3278-4                 *
                    TYPE=3270-A4,SIZE=(43,80),                           *
                    FEAT=IGNORE,                                         *
                    OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),               *
                    OUTBUF=1536
```

```
         NAME  LHAPA02
         SPACE 4
LHAPA03 TERMINAL NAME=LHAPA03,              3278-3                    *
               TYPE=3270-A3,SIZE=(32,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=1536
         NAME  LHAPA03

LHAPB01 TERMINAL NAME=LHAPB01,              3277-2                    *
               TYPE=3270-A2,SIZE=(24,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=1536
         NAME  LHAPB01

*************************************************************************
*****             3274-1C SDLC ATTACHED DISPLAYS                  *****
*************************************************************************
SDLCPA01 TERMINAL NAME=SDLCPA01,            3278-4                    *
               TYPE=3270-A4,SIZE=(43,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=3600
         NAME  SDLCPA01

SDLCPA02 TERMINAL NAME=SDLCPA02,            3278-4                    *
               TYPE=3270-A4,SIZE=(43,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=3600
         NAME  SDLCPA02

SDLCPA03 TERMINAL NAME=SDLCPA03,            3278-3                    *
               TYPE=3270-A3,SIZE=(32,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=3600
         NAME  SDLCPA03

SDLCPA04 TERMINAL NAME=SDLCPA04,            3278-3                    *
               TYPE=3270-A3,SIZE=(32,80),                             *
               FEAT=IGNORE,                                           *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                 *
               OUTBUF=3600
         NAME  SDLCPA04

SDLCPB01 TERMINAL NAME=SDLCPB01,            3277-2                    *
```

```
                TYPE=3270-A2,SIZE=(24,80),                              *
                FEAT=IGNORE,                                            *
                OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                  *
                OUTBUF=3600
          NAME  SDLCPB01

*************************************************************************
*****             3276 SDLC ATTACHED DISPLAYS                       *****
*************************************************************************
SDLC76P1 TERMINAL NAME=SDLC76P1,            3276-12                     *
                TYPE=3270-A2,SIZE=(24,80),                              *
                FEAT=IGNORE,                                            *
                OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                  *
                OUTBUF=3600
          NAME  SDLC76P1

SDLC76P2 TERMINAL NAME=SDLC76P2,            3278-2                      *
                TYPE=3270-A2,SIZE=(24,80),                              *
                FEAT=IGNORE,                                            *
                OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                  *
                OUTBUF=3600
          NAME  SDLC76P2
```

```
IMS REMOTE 3790

**************************************************************************
*****              3790/3270 COMPATIBILITY MODE - 3790             *****
**************************************************************************

CM379011 TERMINAL NAME=CM379011,                                        *
               MODEL=2,                                                 *
               FEAT=(PFK,NOCD,PEN),                                     *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST),                   *
               OUTBUF=1536
         NAME  CM11




IMS REMOTE 3770 PROGRAMMABLE

         TYPE  UNITYPE=SLUTYPEP

**************************************************************************
*****    SLUTYPEP - 3770 SNA PROGRAMMABLE COMMUNICATIONS          *****
**************************************************************************

BA3770PV TERMINAL NAME=BA3770PV,          OLD NAME FOR PC SESSION       *
               MSGDEL=SYSINFO,              DELETE THIS TERMINAL AFTER  *
               COMPT1=(PROGRAM1,BASIC),       NCP HAS P70LU2 DEFINED    *
               OPTIONS=(FORCRESP,PAGDEL,OPNDST,OPTACK,BID),             *
               OUTBUF=256,                                              *
               SEGSIZE=256
         NAME  L.SNAPC70

P70LU2   TERMINAL NAME=P70LU2,                                          *
               MSGDEL=SYSINFO,                                          *
               COMPT1=(PROGRAM1,BASIC),                                 *
               OPTIONS=(FORCRESP,PAGDEL,OPNDST,OPTACK,BID),             *
               OUTBUF=256,                                              *
               SEGSIZE=256
         NAME  P70PC2

P70LU3   TERMINAL NAME=P70LU3,                                          *
               MSGDEL=SYSINFO,                                          *
               COMPT1=(PROGRAM1,BASIC),                                 *
               OPTIONS=(FORCRESP,PAGDEL,OPNDST,OPTACK,BID),             *
               OUTBUF=256,                                              *
               SEGSIZE=256
         NAME  P70PC3
```

```
*************************************************************************
*****                                                               *****
*****    SLUTYPEP - 3790 USER PROGRAMS - 3790                       *****
*****                                                               *****
*************************************************************************

UP379011 TERMINAL NAME=UP379011,                                        *
               MSGDEL=SYSINFO,                                          *
               COMPT1=(PROGRAM1,BASIC),                                 *
               OPTIONS=(FORCRESP,PAGDEL,OPNDST,OPTACK,BID),             *
               OUTBUF=256,                                              *
               SEGSIZE=256
         NAME  UP11P1

         TITLE 'TERMINAL DEFINITIONS - 3790 INQUIRY'
         TYPE  UNITYPE=3790

*************************************************************************
*****                  3790 INQUIRY                                 *****
*****                                                               *****
*****    NODE=INQ02     LTERM=INQ02                                 *****
*****                                                               *****
*************************************************************************

INQ02    TERMINAL NAME=INQ02,                                           *
               OUTBUF=256,                                              *
               OPTIONS=(NOPNDST)
         NAME  INQ02
```

```
IMS REMOTE 3270

         TYPE  UNITYPE=3270                                              *****

*************************************************************************
*****              VTAM 3270 TERMINAL DEFINITIONS                       *****
*****                                                                   *****
*****    SDLC 3271 CONTROLLER                                           *****
*****                                                                   *****
*****    NODE=LU3270V0   LTERM=LU3270V0   3277                          *****
*****    NODE=LU3270V7   LTERM=LU3270V7   3286                          *****
*****                                                                   *****
*****                                                                   *****
*****    LOCAL 3270 CONTROLLER                                          *****
*****                                                                   *****
*****    NODE=LU4C0      LTERM=LU4C0      3277                          *****
*****                                                                   *****
*************************************************************************

LU4C0 TERMINAL NAME=LU4C0,                                               *
               UNIT=3277,                                                *
               MODEL=2,                                                  *
               FEAT=(PFK,NOCD,PEN),                                      *
               OPTIONS=(TRANRESP,PAGDEL,OPNDST)
            NAME  LU4C0

LU3270V0 TERMINAL NAME=LU3270V0,                                         *
               UNIT=3277,                                                *
               MODEL=2,                                                  *
               FEAT=(PFK,NOCD,PEN),                                      *
               OPTIONS=(TRANRESP,COPY,PAGDEL,OPNDST)
            NAME  LU3270V0

LU3270V7 TERMINAL NAME=LU3270V7,                                         *
               UNIT=3286,                                                *
               MODEL=2,                                                  *
               PTRSIZE=120
            NAME  LU3270V7
            TITLE ' '
*************************************************************************
         IMSGEN  SUFFIX=0,                                               *
               NODE=(IMS115,IMS115,IMS115),                              *
```

```
                OBJDSET=IMS115.OBJSUF0,                                 *
                USERLIB=IMS115.RESLIB,                                  *
                MACLIB=UTILITY,                                         *
                PROCLIB=NO,                                             *
                ASM=H,                                                  *
                ASMPRT=ON,                                              *
                LKPRT=(XREF,LIST),LKSIZE=(300K,60K),LKRGN=400K,         *
                JCL=(YGH1,(3MD3665L00065Y),IMS,A,(REGION=2048K,MSGLEVEL=*
                1,CLASS=N)),                                            *
                SCL=(1)

***********************************************************************
*****    END OF SYSTEM DEFINITION FOR IMS5                        *****
***********************************************************************
         END
```

INDEX

READER'S COMMENT FORM

SNA Product Install Guide G320-6028

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