

E02

# IMS SYSGEN for First Timers

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Sept. 30 - Oct. 3, 2002

# What is in this Presentation

## ■ The IMS SYSGEN

- ▶ Any manuals referenced are for IMS V710
- ▶ All IMSGEN macros are described in the manual - Installation Volume 2
- ▶ Useful tables to refer to
  - Chapter 1 Table 2 - Use of System Definition Macros
  - Chapter 2 Table 12 - Selecting the Appropriate IMS System Definition
  - Chapter 2 Figure 3 - Hierarchy of Stage 1 System Definition Macros
  - Chapter 3 Table 14 - Maximum occurrences of Each IMS System Definition Macro

# BASICS

- The following pages are a summary of the various types of SYSGEN and the basic steps in the SYSGEN process
- Further information on this topic is available Session E33, IMS Version 7 Installation and Generation

# BASICS

- Types of SYSGEN
  - ▶ MODBLKS
  - ▶ CTLBLKS
  - ▶ NUCLEUS
  - ▶ ON-LINE
  - ▶ ALL
  - ▶ MSVERIFY
  - ▶ BATCH

# BASICS

- Selecting the correct type of SYSGEN to run
  - ▶ Chapter 2, Table 11 - Types of System Definition
  - ▶ Chapter 2, Table 12 - Macro Table - Selecting the Appropriate IMS System Definition

# BASICS

- ▶ The basic steps in a SYSGEN
  - Stage 1 - A collection of SYSGEN Macros
  - Stage 2 - The result of assembling the STAGE1 SYSGEN macros
  - JCLIN - Required step for SMP/E to be able to apply maintenance (uses STAGE 2 input)
  - Reapply unaccepted maintenance - Any USERMODs or other maintenance in APPLY status must be reapplied
  - Security Gen - IMS Security Maintenance Utility (SMU) must be run after any SYSGEN

# GENERAL SUGGESTIONS

- Keep an organized comment section in the STAGE 1 member
  - ▶ When were the changes made
  - ▶ What changes were made for each IMS GEN
  - ▶ What type of IMS GEN was run
  - ▶ Who made the changes

```
*****  
* XYZ COMPANY - IMSTEST SYSTEM  
*  
* DATE OF SYSGEN      : SEPTEMBER 21, 2001  
* TYPE OF SYSGEN     : MODBLKS  
*  
* CHANGE BY      DATE SOURCE CHANGED      DESCRIPTION  
* -----  
*      ????      SEPTEMBER 5, 2001      ADD FOLLOWING DATABASE MACROS FOR  
*                                          DEPOSIT SYSTEM  
*                                          ACCTPRIM, ACCTINDX  
*  
*****
```

# GENERAL SUGGESTIONS

- Keep the STAGE 1 member organized
  - ▶ Macros may be placed in different orders - stay with a plan
  - ▶ Comment the general information in front of each section
  - ▶ You may wish to place further comments on individual entries

```
*****  
*   IVP DATABASES DEFINITION  
*****  
      DATABASE DBD=IVPDB1,ACCESS=UP           HIDAM/OSAM  
      DATABASE INDEX,DBD=IVPDB1I,ACCESS=UP    HIDAM/VSAM INDEX  
      DATABASE DBD=IVPDB2,ACCESS=UP           HDAM/VSAM  
      DATABASE DBD=IVPDB2,ACCESS=UP           HDAM/VSAM  
      DATABASE DBD=IVPDB3,ACCESS=UP           DEDB  
      DATABASE DBD=IVPDB4                     MSDB
```



# **SYSGEN Macros**

- An introduction to the SYSGEN Macros
  - ▶ Obsolete macros
  - ▶ General configuration macros
  - ▶ Applications, Databases, Transactions
  - ▶ Communications

# SYSGEN Macros

- Obsolete Macros (IMS V610)
  - ▶ SPAREA - If present in STAGE 1 it is ignored
- NOTE:
  - ▶ Certain parameters may be obsolete on currently used macros.
  - ▶ Such parameters will generally be accepted and syntax checked for compatibility with prior releases of IMS.

# SYSGEN Macros

- Basic Configuration
  - ▶ IMSCTRL

Gen Type

All, MODBLKS,  
NUCLEUS,  
ETC.

Class of Gen

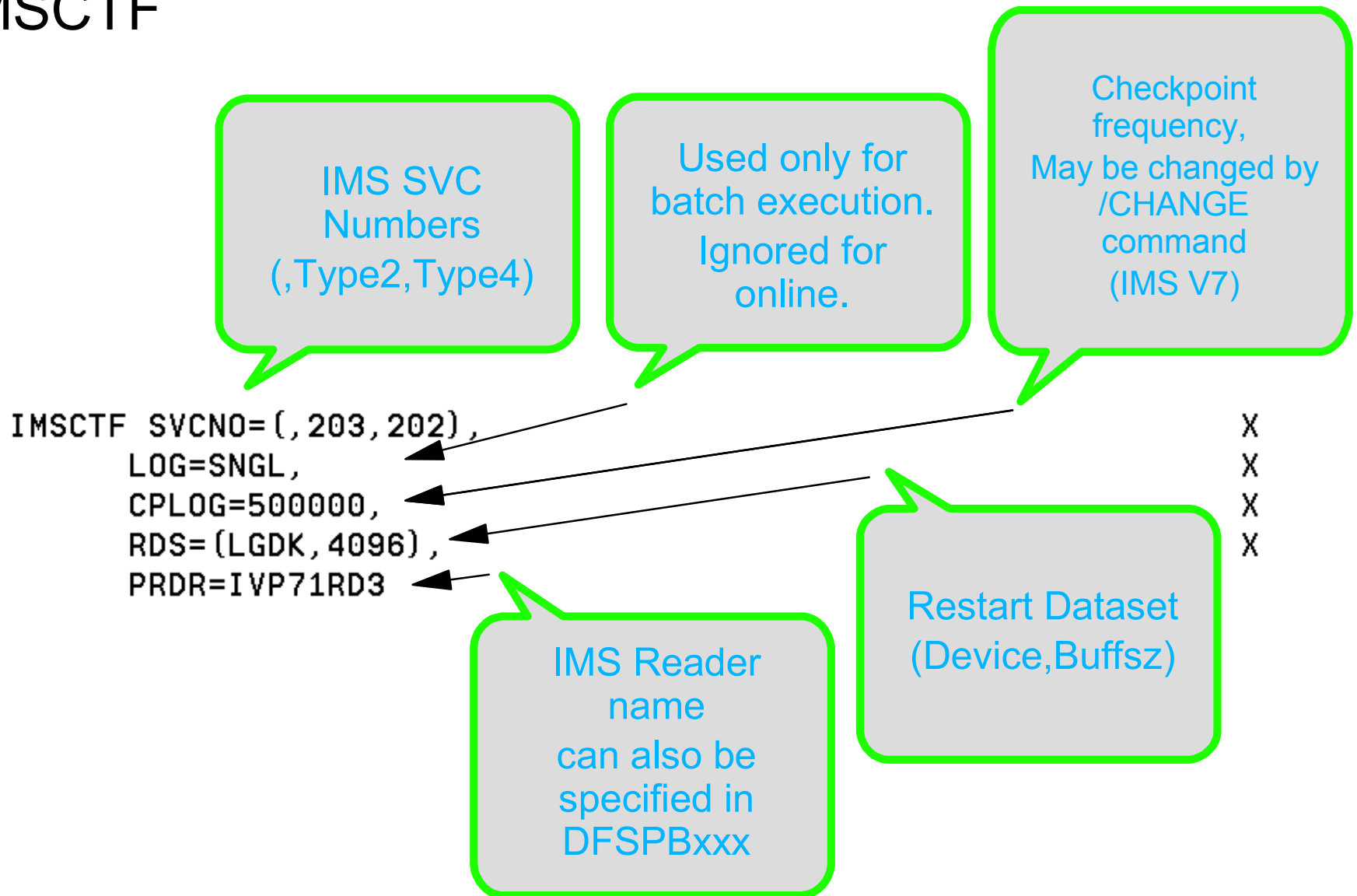
DB/DC  
DBCTL, DCCTL

```
IMSCTRL SYSTEM=(VS/2,(CTLBLKS,DB/DC),390), X
IRLM=YES, X
IRLMNM=IRLM, X
CMDCHAR=, X
DBRC=(YES,YES), X
DBRCNM=IVP71RC1, X
DLINM=IVP71DL1, X
DCLWA=YES, X
IMSID=IVP1, X
NAMECHK=(YES,S1), X
MAXREGN=(005,512K,A,A), X
MCS=(2,7), X
DESC=7, X
ETOFEAT=(YES,YES,ALL), X
MAXCLAS=016
```

Specify names for DBRC and DLI procedures

# SYSGEN Macros

- Basic Configuration
  - ▶ IMSCTF



# SYSGEN Macros

## ■ Basic Configuration

### ▶ BUFPOOLS

- Specifies default storage buffer pool sizes for DB/DC and DBCTL environments.
- Detailed information in manual (Installation Volume 2)
- Many of these value may also be specified in DFSPBxxx or IMS Procedure

```
BUFPOOLS PSB=24000,  
          DMB=24000,  
          SASPSB= (4000, 20000) ,  
          PSBW=12000
```

```
X  
X  
X
```

# SYSGEN Macros

## ■ Basic Configuration

### ▶ FPCTRL

- Used only if Fast Path is to be used on this system
- If used, this macro must appear between IMSCTRL and MSGEN macros
- Detailed information in manual (Installation Volume 2)
- NOTE: To remove Fast Path from a system requires an ON-LINE or ALL SYSGEN. After SYSGEN, SMPE TARGET zone should be rebuilt (INFOAPAR II08928)

```
FPCTRL OTHREAD=5,  
      BFALLOC=(10,50,2048)
```

X

# SYSGEN Macros

## ■ Basic Configuration

### ▶ MSGQUEUE

- LGDK is a generic device specification for 3375, 3390, 3390 and future devices

```
MSGQUEUE DSETS=(LGDK, LGDK, LGDK),  
          RECLNG=(336, 3360),  
          BUFFERS=(5, 6720),  
          SHUTDOWN=100
```



X  
X  
X

If number of available records in any queue dataset reaches this point, shutdown will occur (ABENDU0756)

Specify Device Type for message queue datasets

QBLKS, SHMSG, LGMSG

# SYSGEN Macros

## ■ Basic Configuration

### ▶ SECURITY

- Specifies security features to be in effect during IMS execution, unless overridden at system initialization.
- If present, overrides any security options specified on either COMM or IMSGEN macros.
- Detailed information in manual (Installation Volume 2)

```
SECURITY TYPE=(AGNEXIT,NORACTRM,NOTRANEX,NOSIGNEX) ,      X
      SECLVL=(NOTRAN,NOSIGN) ,                                X
      TERMNL=YES,                                           X
      SECCNT=2,                                             X
      PASSWD=YES,                                           X
      TRANCMD=YES
```



# SYSGEN Macros

- Basic Configuration

- ▶ IMSGEN

- Specifies the assembler and linkage editor data sets and options
    - Also specifies system definition output options and features
    - Must be the last macro in the STAGE 1 input and followed by assembler END statement
    - Detailed information in manual (Installation Volume 2)

# SYSGEN Macros

- Basic Configuration
  - ▶ IMSGEN (Sample Part 1)

```
IMSGEN ASM=(HLASM,SYSLIN),ASMPRT=OFF, X
      LKPRT=(XREF,LIST),LKSIZE=(880K,63K),LKRGN=900K, X
      SUFFIX=I, X
      SURVEY=YES, X
      NODE=(IVPEXE71, X
      J93.I71A27.DBDC, X
      J93.I71A27.DBDC), X
      OBJDSET=J93.I71A27.DBDC.OBJDSET, X
      PROCLIB=YES, X
      USERLIB=J93.I71A27.DBDC.ADFSLOAD, X
      UMACO=, X
      MACSYS=SYS1.MACLIB, X
```

# SYSGEN Macros

- Basic Configuration
  - ▶ IMSGEN (Sample Part 2)

```
MODGEN=SYS1.MODGEN,           >
UMAC1=,                        >
UMAC2=,                        >
UMAC3=,                        >
ONEJOB=(YES,YES),             >
JCL=(IMSGEN,                  >
ACTINF01,                    >
'PGMRNAME',H,                >
(CLASS=A,MSGLEVEL=(1,1),REGION=32M,NOTIFY=JBUTTER), >
(USER=JBUTTER)),            >
SCL=(, ,(TIME=600)),         >
UJCL1=,                       >
UJCL2=,                       >
UJCL3=,                       >
UJCL4=,                       >
UJCL5=
END ,
```

# SYSGEN Macros

- Applications and Databases
  - ▶ Define what databases, application programs, and transactions will be used by this IMS system
  - ▶ Many of the following items may be changed with a MODBLKS gen and Online Change
  - ▶ The following pages are for non-Fast Path definitions

# SYSGEN Macros

- Applications and Databases
  - ▶ DATABASE Macro

```
DATABASE DBD=IVPDB2,ACCESS=UP,RESIDENT
```

```
COMMENTS...
```

DBDNAME  
of  
database

Type of Access  
EX,UP,RD,RO

May be changed  
with  
/START DB  
command

# SYSGEN Macros

## ■ Applications and Databases

### ▶ APPLCTN Macro

- Transaction Class may be specified for transactions using this program
- PGMTYPE=(TP,,3) specifies transactions will run as Class 3
  - If CLASS is specified on TRANSACT Macro this is ignored
- LANG= parm is only used when GPSB is specified

```
APPLCTN PSB=aaaaaaaa,PGMTYPE=BATCH           BMP Program
APPLCTN PSB=bbbbbbbb,PGMTYPE=(TP,,1)         TP Program
APPLCTN GPSB=IVPREXX,PGMTYPE=TP,LANG=ASSEM    REXXTDLI Sample
```

# SYSGEN Macros

## ■ Applications and Databases

### ▶ APPLCTN Macro - other parameters

#### – RESIDENT | DOPT

- RESIDENT PSB to be made resident at system initialization
- DOPT PSB to be loaded each time a program is used

#### – GPSB Generated PSB

#### – SYSID For multiple IMS system configuration

#### – SCHEDTYP SERIAL | PARALLEL

- SERIAL Program may only run in one region at a time
- PARALLEL Program may run in more than one region

# Applications and Databases

- The TRANSACT Macro specifies transaction codes for use with the prior APPLCTN macro
  - ▶ More than one TRANSACT Macro may follow an APPLCTN Macro
  - ▶ Where options are specified on both APPLCTN and TRANSACT Macro - TRANSACT Macro specification is used
  - ▶ Detailed information in manual (Installation Volume 2)
  - ▶ Following page shows some examples



# Applications and Databases

## ■ Some examples

```
APPLCTN PSB=DFSSAM03
TRANSACT CODE=DSPINV, PRTY=(7, 10, 2), INQUIRY=YES, MODE=SNGL
SPACE 2
APPLCTN PSB=DFSSAM04
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
```

Transaction  
Code

Scheduling Priority  
(normal, limit, count)

INQUIRY=NO  
INQUIRY=(YES, NORECOV)  
INQUIRY=(YES, RECOV)I

MODE=SNGL  
MODE=MULT  
Controls when  
database buffers  
are written to log  
MODE=MULT is  
default.  
MODE=SNGL is  
forced for WFI  
transactions.

# Fast Path Definitions

- Definition of Databases, Applications and Transactions using Fast Path
  - ▶ Mostly similar to the above non-Fast Path examples

# Fast Path Definitions

## ■ DATABASE

- ▶ Very much the same as for non Fast Path
  - Fast Path databases will be resident regardless of RESIDENT option
  - ACCESS=EX is not valid for Fast Path DEDB databases

```
*****  
*   FAST PATH SAMPLE DATABASES DEFINITION  
*****  
      SPACE 2  
      DATABASE DBD=DBFSAMD1           GENERAL LEDGER - MSDB  
      DATABASE DBD=DBFSAMD2           TELLER - MSDB  
      DATABASE DBD=DBFSAMD3,ACCESS=UP CUSTOMER ACCNT - DEDB
```

# Fast Path Definitions

## ■ APPLCTN

### ▶ FPATH parameter

- FPATH=NO - Not Fast Path exclusive
- FPATH=YES - Fast Path exclusive
- FPATH=size - Implies Fast Path exclusive
  - Determines EMH Buffer size required to run this transaction

```
APPLCTN PSB=DBFSAMP3,PGMTYPE=(TP),FPATH=256
```



EMH Buffer Size  
specified

# Fast Path Definitions

## ■ RTCODE

- ▶ The RTCODE macro may be used one or more times with the APPLCTN macro statement that defines an IMS Fast Path application
- ▶ A TRANSACT macro that specifies an IMS Fast Path exclusive transaction generates an internal RTCODE macro statement

# Fast Path Definitions

## ■ TRANSACT

- ▶ Similar to non-Fast Path TRANSACT specification
  - SMU cannot define a Fast Path exclusive transaction as able to issue commands
  - Detailed information in manual (Installation Volume 2)

# SYSGEN Macros

- Communications Macros
  - ▶ This section does not apply to DBCTL systems
  - ▶ Types of Communication Environments
    - BTAM ( BSAM, GAM and ARAM)
    - Switched Communication Devices
    - MSC - Multiple System Coupling
    - VTAM Communications Macros
  - ▶ Table 2 - Use of System Definition Macros (Chapter 1)
    - shows what macros are used for each environment
  - ▶ Complete coverage of this topic is beyond the scope of this presentation.

# SYSGEN Macros

- Communications Macros
  - ▶ For further details, please review the following manuals
    - Administration Guide - Transaction Manager
      - Provides detailed information about how to plan, design, and define a network to be used with IMS Transaction Manager
    - Installation Volume 2 - System Definition and Tailoring
      - Provides detailed information about the syntax of each macro and its options



# SYSGEN Macros

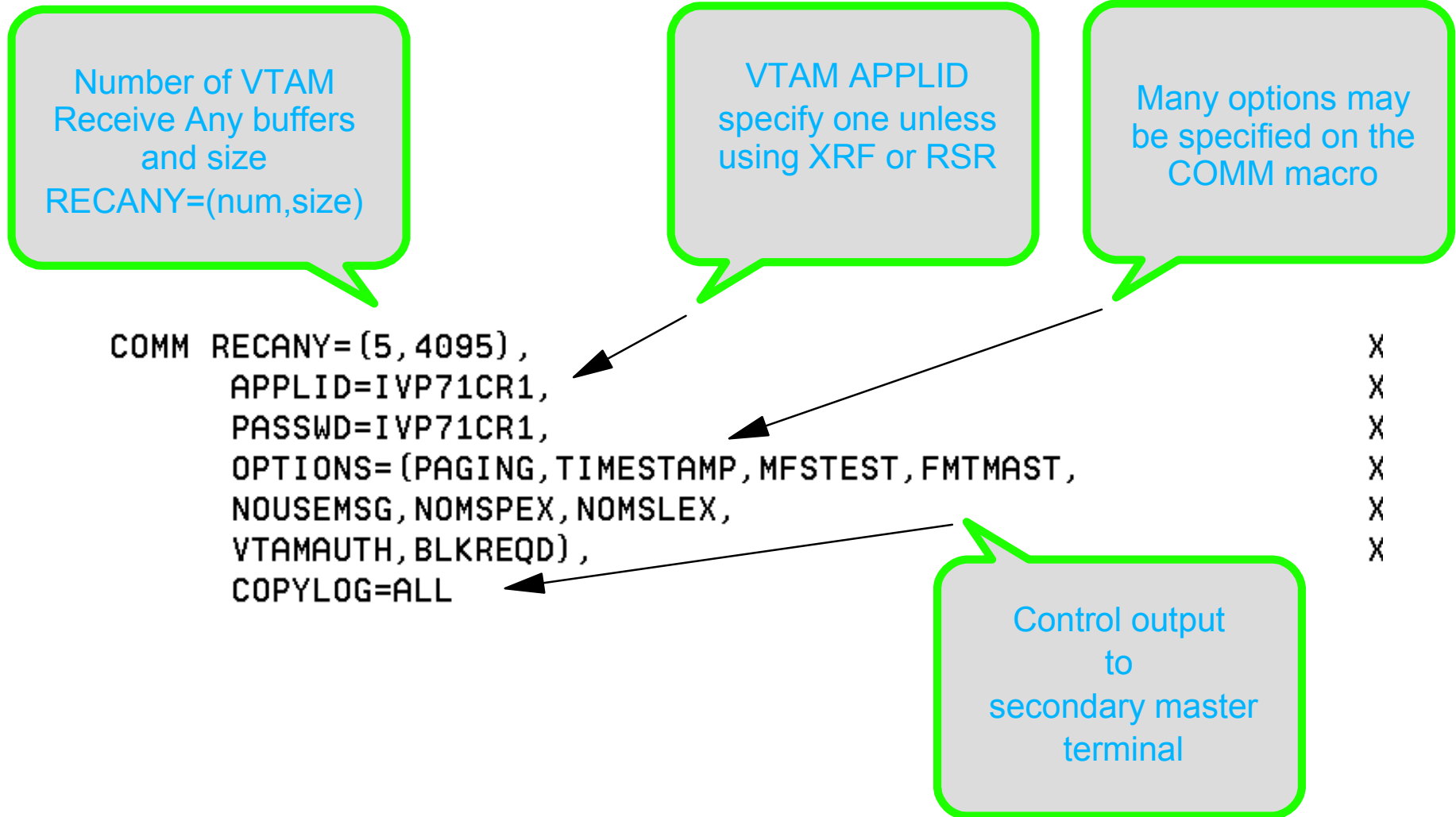
## ■ Communications Macros

### ▶ COMM

- General communication options
  - Not associated with any particular terminal type
  - Always required for VTAM terminal types
  - Optional for BTAM (BSAM, GAM, ARAM) terminal types
  - May specify other options
- Should be placed prior to any other communication macros in STAGE 1 source

# SYSGEN Macros

- Communications Macros
  - ▶ COMM (Example)



# SYSGEN Macros

- Communications Macros
  - ▶ CONFIG configuration for a switched 3275 terminal
  - ▶ IDLIST terminal security list for switched 3275

# SYSGEN Macros

- Communications Macros

- ▶ CTLUNIT      Specify 2848, 2972, and 3271 information

```
CTLUNIT ADDR=C1,MODEL=2
```

# SYSGEN Macros

## ■ Communications Macros

### ▶ An example showing CTLUNIT and other macros

```
*****  
*          REMOTE 3270 LINE GROUP          *  
*          AMDDM LINE - LTERMS CTRL, SEGUNDO *  
*****
```

```
      SPACE  
LINEGRP DDNAME=DD3270R, UNITYPE=3270, CODE=EBCDIC,      X  
        EDIT=(AMDDMOUT, DFSPIXT0)  
LINE    ADDR=0C9  
CTLUNIT ADDR=C1, MODEL=2  
      SPACE  
MSTR   TERMINAL ADDR=40, FEAT=(2, COPY, PFK, CARD, PEN) , PAGDEL=YES, EDIT=YES  
      NAME  T3270A  
      NAME  (CTRL, MASTER) ←  
      NAME  3TRL  
      NAME  LTERM3MB  
      NAME  LTERM3MC  
      NAME  LTERM3MM  
      TERMINAL ADDR=C2, UNIT=3286, FEAT=2, BUFSIZE=132  
      NAME  (SEGUNDO, SECONDARY) ←  
      NAME  T3270P1
```

LTERM CTRL is primary master (3270 terminal), LTERM SEGUNDO is secondary master (3286 printer)

# SYSGEN Macros

## ■ Communications Macros

### ▶ LINEGRP

- Refer to Customization Guide manual for details of physical terminal input and output edit exits
- Cannot be same exit routine specified on TRANSACT macro

DDNAME in IMS  
procedure

Device Type

User supplied  
(physical terminal  
output edit exit,  
physical terminal  
input edit exit)

LINEGRP

DDNAME=DD2740M2, UNITYPE=2740, EDIT=(DFSCTT00, DFSPIXT0)

# SYSGEN Macros

- Communications Macros

- ▶ LINE

- Any LINE macro must be followed by at least one TERMINAL macro

```
LINE  ADDR=0B3,RESP=TERM,MODEL=(2,120)
```

# SYSGEN Macros

## ■ Communications Macros

### ▶ LINEGRP and LINE (Device Type 2740)

```
LINEGRP      DDNAME=DD2740M2, UNITYPE=2740, EDIT=(DFSCTT00, DFSPIXT0)
LINE  ADDR=0B3, RESP=TERM, MODEL=(2, 120)
      TERMINAL ADDR=C5, EDIT=(YES, YES), FPBUF=120
NAME  2740M2K
NAME  N27402P1, EDIT=(YES, ULC)                      11/28/73
SPACE
TERMINAL ADDR=C6, EDIT=(YES, YES)
NAME  2740M2L
NAME  N27402P2, EDIT=(YES, UC)                       11/28/73
```



# SYSGEN Macros

## ■ Communications Macros

### ▶ LINEGRP and LINE (SPOOL dataset example)

```
*****  
*   IVP SPOOL LINE GROUP  
*****  
      LINEGRP  DDNAME=(IVPSPL1,IVPSPL2,IVPSPL3) , UNITYPE=SPPOOL  
      LINE      BUFSIZE=166  
SPOOL001  TERMINAL FEAT=AUTOSCH  
           NAME  IVPSPL1
```

For SPOOL line groups, up to 20 names may be specified

UNITYPE for SPOOL dataset

# SYSGEN Macros

- Communications Macros
  - ▶ Multiple Systems Coupling (MSC) Macros
    - MSPLINK
      - Defines a physical link between systems
    - MSLINK
      - Defines a logical link between systems
    - MSNAME
      - Provides a name for the remote and local systems

# SYSGEN Macros

## ■ Communications Macros

### ▶ NAME

- Defines a logical terminal name (LTERM) to be associated with a physical terminal (PTERM)

### ▶ POOL

- Defines a pool of logical terminals to be associated with a set of switched communications lines.
- Follows all LINE macros within a switched line group.

### ▶ SUBPOOL

- For switched communications lines defines, defines a set of logical terminal within a POOL of logical terminals.
- For VTAM LU6.1 devices, used between groups of NAME macro statements to LU6.1 LTERM subpools.

# SYSGEN Macros

## ■ Communications Macros

### ▶ STATION

- Defines physical and logical characteristics for System/3 or System/7 connection

### ▶ TERMINAL

- Defines physical and logical characteristics of VTAM nodes or non-VTAM terminals

### ▶ TYPE

- Defines the beginning of a set of communications terminals and logical terminal description macro statements which include TERMINAL and NAME.

### ▶ VTAMPOOL

- Required for parallel session support
- Begins the definition of VTAM LU6.1 LTERM subpools

# SYSGEN Macros

## ■ Sample STAGE 1 source (IVP IV3C201T)

```
***** ***** Top of Data *****:
000001 *
000002 *****
000003 * INSTALL/IVP IMS 7.1
000004 *
000005 * SKELETON: DFSIXSC1
000006 *
000007 * FUNCTION: STAGE 1 SOURCE FOR A DBT SYSTEM
000008 *****
000009 *
000010 *****@SCPYRT**
000011 *
000012 *          LICENSED MATERIALS - PROPERTY OF IBM
000013 *
000014 *          "RESTRICTED MATERIALS OF IBM"
000015 *
000016 *          5655-B01 (C) COPYRIGHT IBM CORP. 1989,1999
000017 *          ALL RIGHTS RESERVED.
```

# Sysgen Macros

## ■ Sample STAGE 1 source

```
000018 *                                                                 *
000019 *          US GOVERNMENT USERS RESTRICTED RIGHTS -                *
000020 *          USE, DUPLICATION OR DISCLOSURE RESTRICTED BY            *
000021 *          GSA ADP SCHEDULE CONTRACT WITH IBM CORP.                *
000022 *                                                                 *
000023 ******@ECPYRT**
000024 *
000025 * IMSCTRL MACRO --
000026 *
000027          IMSCTRL  SYSTEM=(VS/2, (CTLBLKS, DB/DC) , 390) ,          X
000028          IRLM=YES,                                                X
000029          IRLMM=IRLM,                                              X
000030          CMDCHAR=,                                                X
000031          DBRC=(YES, YES) ,                                         X
000032          DBRCNM=IVP71RC1,                                         X
000033          DLINM=IVP71DL1,                                         X
000034          DCLWA=YES,                                               X
000035          IMSID=IVP1,                                              X
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000036          NAMECHK= (YES, S1) ,                               X
000037          MAXREGN= (005, 512K, A, A) ,                       X
000038          MCS= (2, 7) ,                                         X
000039          DESC=7,                                               X
000040          ETOFEAT= (YES, YES, ALL) ,                             X
000041          MAXCLAS=016
000042 *
000043 * IMSCTF  MACRO  --
000044 *
000045          IMSCTF  SVCNO= (, 203, 202) ,                           X
000046          LOG=SNGL,                                             X
000047          CPLOG=500000,                                         X
000048          RDS= (LGDK, 4096) ,                                    X
000049          PRDR=IVP71RD1
000050 *
000051 * MSGQUEUE MACRO  --
000052 *
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000053          MSGQUEUE DSETS=(LGDK, LGDK, LGDK) ,           X
000054          RECLNG=(336, 3360) ,                          X
000055          BUFFERS=(5, 6720) ,                              X
000056          SHUTDWN=100
000057 *
000058 * FPCTRL    MACRO --
000059 *
000060          FPCTRL OTHREAD=5,                                  X
000061          BFALLOC=(10, 50, 2048)
000062 *
000063 * BUFPOOLS  MACRO --
000064 *
000065          BUFPOOLS PSB=24000,                                X
000066          SASPSB=(4000, 20000) ,                             X
000067          PSBW=12000,                                        X
000068          DMB=24000,                                        X
000069          FORMAT=(24000, 256) ,                             X
000070          FRE=30
000071 *
```



# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000072 * SECURITY MACRO --
000073 *
000074     SECURITY TYPE=(AGNEXIT,NORACTRM,NOTRANEX,NOSIGNEX),
000075     SECLVL=(NOTRAN,NOSIGN),
000076     TERMNL=YES,
000077     SECCNT=2,
000078     PASSWD=YES,
000079     TRANCMD=YES
000080 *****
000081 *   IVP DATABASES DEFINITION
000082 *****
000083     DATABASE DBD=IVPDB1,ACCESS=UP           HIDAM/OSAM
000084     DATABASE INDEX,DBD=IVPDB1I,ACCESS=UP   HIDAM/VSAM INDEX
000085     DATABASE DBD=IVPDB2,ACCESS=UP           HDAM/VSAM
000086     DATABASE DBD=IVPDB2,ACCESS=UP           HDAM/VSAM
000087     DATABASE DBD=IVPDB3,ACCESS=UP           DEDB
000088     DATABASE DBD=IVPDB4                     MSDB
000089 *****
```

X  
X  
X  
X  
X

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000090 *      IVP BATCH/BMP APPLICATION DEFINITION
000091 *****
000092         SPACE 2
000093         APPLCTN PSB=DFSIVP6,PGMTYPE=BATCH                HIDAM/OSAM-ASSEM
000094         SPACE 2
000095         APPLCTN PSB=DFSIVP61,PGMTYPE=BATCH              HIDAM/OSAM-PASCAL
000096         SPACE 2
000097         APPLCTN PSB=DFSIVP62,PGMTYPE=BATCH              HIDAM/OSAM-C
000098         SPACE 2
000099         APPLCTN PSB=DFSIVP64,PGMTYPE=BATCH              HIDAM/OSAM-COBOL
000100         SPACE 2
000101         APPLCTN PSB=DFSIVP65,PGMTYPE=BATCH              HIDAM/OSAM-REXX
000102         SPACE 2
000103         APPLCTN PSB=DFSIVP7,PGMTYPE=BATCH               HDAM/VSAM
000104         SPACE 2
000105         APPLCTN PSB=DFSIVP8,PGMTYPE=BATCH               DEDB/VSAM
000106         SPACE 2
000107         APPLCTN PSB=DFSIVP9,PGMTYPE=BATCH              HIDAM/OSAM OLIC
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000108          SPACE 2
000109          APPLCTN PSB=DFSIVPA,PGMTYPE=BATCH          HIDAM LOAD
000110          SPACE 2
000111          APPLCTN PSB=DFSIVPB,PGMTYPE=BATCH          HDAM  LOAD
000112          SPACE 2
000113          APPLCTN PSB=DFSIVPC,PGMTYPE=BATCH          DEDB  (DB LOAD)
000114          SPACE 2
000115 *****
000116 *      IVP NON-CONVERSATIONAL APPLICATIONS DEFINITION FOR DB/DC
000117 *****
000118          SPACE 2
000119          APPLCTN PSB=DFSIVP1,PGMTYPE=TP          HIDAM/OSAM
000120          TRANSACT CODE=IVTNO,MODE=SNGL,          X
000121          MSGTYPE=(SNGLSEG, NONRESPONSE, 1)
000122          SPACE
000123          APPLCTN PSB=DFSIVP2,PGMTYPE=TP          HDAM/VSAM
000124          TRANSACT CODE=IVTNV,MODE=SNGL,          X
000125          MSGTYPE=(SNGLSEG, NONRESPONSE, 1)
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000126          SPACE 2
000127 *****
000128 *      IVP CONVERSATIONAL APPLICATION DEFINITION FOR DB/DC
000129 *****
000130          SPACE 2
000131          APPLCTN PSB=DFSIVP3,PGMTYPE=TP                      HDAM/VSAM-ASSEM
000132              TRANSACT CODE=IVTCV,SPA=(80,),MODE=SNGL,      X
000133                  MSGTYPE=(SNGLSEG,NONRESPONSE,1)
000134          APPLCTN PSB=DFSIVP31,PGMTYPE=TP                      HDAM/VSAM-PASCAL
000135              TRANSACT CODE=IVTCP,SPA=(80,),MODE=SNGL,      X
000136                  MSGTYPE=(SNGLSEG,NONRESPONSE,1)
000137          APPLCTN PSB=DFSIVP32,PGMTYPE=TP                      HDAM/VSAM-C
000138              TRANSACT CODE=IVTCC,SPA=(80,),MODE=SNGL,      X
000139                  MSGTYPE=(SNGLSEG,NONRESPONSE,1)
000140          APPLCTN PSB=DFSIVP33,PGMTYPE=TP                      HDAM/VSAM-JAVA
000141              TRANSACT CODE=IVTCJ,SPA=(80,),MODE=SNGL,      X
000142                  MSGTYPE=(SNGLSEG,NONRESPONSE,1)
000143          APPLCTN PSB=DFSIVP34,PGMTYPE=TP                      HDAM/VSAM-COBOL
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000144      TRANSACT CODE=IVTCB, SPA=(80, ), MODE=SNGL, X
000145          MSGTYPE=(SNGLSEG, NONRESPONSE, 1)
000146      APPLCTN PSB=DFSIVP35, PGMTYPE=TP          HDAM/VSAM-REXX
000147      TRANSACT CODE=IVTCX, SPA=(80, ), MODE=SNGL, X
000148          MSGTYPE=(SNGLSEG, NONRESPONSE, 1)
000149      SPACE 2
000150 *****
000151 *      IVP DEDB AND MSDB APPLICATION DEFINITIONS FOR DB/DC
000152 *****
000153      SPACE 2
000154      APPLCTN RESIDENT, PSB=DFSIVP4, FPATH=256      DEDB
000155          TRANSACT CODE=IVTFD, MODE=SNGL, X
000156          MSGTYPE=(SNGLSEG, RESPONSE, 1)
000157      SPACE 2
000158      APPLCTN RESIDENT, PSB=DFSIVP5, FPATH=256      MSDB
000159          TRANSACT CODE=IVTFM, MODE=SNGL, X
000160          MSGTYPE=(SNGLSEG, RESPONSE, 1)
000161 *****
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000162 *   IVP APPLICATIONS DEFINITION FOR DB/DC, DCCTL
000163 *****
000164     SPACE 2
000165     APPLCTN GPSB=IVPREXX,PGMTYPE=TP,LANG=ASSEM  REXXTDLI SAMPLE
000166     TRANSACT CODE=IVPREXX,MODE=SNGL,
000167     MSGTYPE=(SNGLSEG, NONRESPONSE, 1)
000168     SPACE 2
000169 *****
000170 *   IMS SAMPLE DATABASES DEFINITION
000171 *****
000172     SPACE 2
000173     DATABASE DBD=DI21PART,ACCESS=UP             HISAM/VSAM
000174     EJECT ,
000175 *****
000176 *   IMS SAMPLE APPLICATION DEFINITION - CICS IVP
000177 *****
000178     SPACE 2
000179     APPLCTN PSB=DFHSAM04,PGMTYPE=BATCH
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000180          SPACE 2
000181          APPLCTN PSB=DFHSAM14,PGMTYPE=BATCH
000182          SPACE 2
000183          APPLCTN PSB=DFHSAM24,PGMTYPE=BATCH
000184          SPACE 2
000185          APPLCTN PSB=DFHSAM05,PGMTYPE=BATCH
000186          SPACE 2
000187          APPLCTN PSB=DFHSAM15,PGMTYPE=BATCH
000188          SPACE 2
000189          APPLCTN PSB=DFHSAM25,PGMTYPE=BATCH
000190          EJECT  ,
000191 *****
000192 *    IMS SAMPLE APPLICATION DEFINITION
000193 *****
000194          SPACE 2
000195          APPLCTN  PSB=DFSSAM01,PGMTYPE=BATCH
000196          SPACE 2
000197          SPACE 2
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000198      APPLCTN  PSB=DFSSAM02
000199      TRANSACT CODE=PART , PRTY=( 7, 10, 2) , INQUIRY=YES, MODE=SNGL
000200      SPACE 2
000201      APPLCTN  PSB=DFSSAM03
000202      TRANSACT CODE=DSPINV, PRTY=( 7, 10, 2) , INQUIRY=YES, MODE=SNGL
000203      SPACE 2
000204      APPLCTN  PSB=DFSSAM04
000205      TRANSACT CODE=ADDPART, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000206      TRANSACT CODE=ADDINV, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000207      TRANSACT CODE=DLETPART, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000208      TRANSACT CODE=DLETINV, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000209      SPACE 2
000210      APPLCTN  PSB=DFSSAM05
000211      TRANSACT CODE=CLOSE, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000212      SPACE 2
000213      APPLCTN  PSB=DFSSAM06
000214      TRANSACT CODE=DISBURSE, PRTY=( 7, 10, 2) , INQUIRY=NO, MODE=SNGL
000215      SPACE 2
```



# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000216      APPLCTN  PSB=DFSSAM07
000217      TRANACT  CODE=DSPALLI , PRTY=(7,10,2) , INQUIRY=NO , MODE=SNGL
000218      SPACE 2
000219      APPLCTN  PSB=DFSSAM08 , PGMTYPE=BATCH
000220      SPACE 2
000221      APPLCTN  PSB=DFSSAM09 , PGMTYPE=BATCH              GENERAL PURPOSE
000222      SPACE 2
000223 *****
000224 *   FAST PATH SAMPLE DATABASES DEFINITION
000225 *****
000226      SPACE 2
000227      DATABASE  DBD=DBFSAMD1              GENERAL LEDGER - MSDB
000228      DATABASE  DBD=DBFSAMD2              TELLER - MSDB
000229      DATABASE  DBD=DBFSAMD3 , ACCESS=UP  CUSTOMER ACCNT - DEDB
000230      DATABASE  DBD=DBFSAMD4 , ACCESS=UP  CUSTOMER  LOAN - HDAM/VSAM
000231      EJECT    ,
000232 *****
000233 *   FAST PATH SAMPLE APPLICATION DEFINITION
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000234 *****
000235         SPACE 2
000236         APPLCTN  PSB=DBFSAMP1,PGMTYPE=BATCH           DEDB  LOAD
000237         SPACE 2
000238         APPLCTN  PSB=DBFSAMP2,PGMTYPE=BATCH           HDAM  LOAD
000239         SPACE 2
000240         APPLCTN  PSB=DBFSAMP3,PGMTYPE=(TP) ,FPATH=256
000241         TRANSACT CODE=FPSAMP1,MSGTYPE=(SNGLSEG,RESPONSE)
000242         SPACE 2
000243         APPLCTN  PSB=DBFSAMP4
000244         TRANSACT CODE=FPSAMP2,MODE=SNGL
000245         SPACE 2
000246         APPLCTN  PSB=DBFSAMP5,PGMTYPE=BATCH           HDAM  MISC.
000247         SPACE 2
000248         APPLCTN  PSB=DBFSAMP6,PGMTYPE=BATCH           DEDB  MISC.
000249         SPACE 2
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000250 *****
000251 *   IVP COMMUNICATIONS NETWORK DEFINITION
000252 *****
000253         SPACE 2
000254 *****
000255 *
000256 * THE IVP SYSTEMS
000257 * MAKE USE OF 5 TERMINALS --
000258 *
000259 *         MVS MASTER CONSOLE   - IMS LTERM NAME = WTOR
000260 *
000261 *         IMS MASTER CONSOLE   - IMS LTERM NAME = PMASTER
000262 *         IMS SECONDARY MASTER - IMS LTERM NAME = SMASTER
000263 *
000264 *         IMS USER TERMINALS   - IMS LTERM NAME = USER1
000265 *         IMS USER TERMINALS   - IMS LTERM NAME = USER2
000266 *
000267 *
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000268 * THE MVS MASTER TERMINAL IS DEFINED AUTOMATICALLY.
000269 *
000270 * THE SECONDARY MASTER IS DEFINED AS A PRINTER LINE GROUP. (A SPOOL
000271 * LINE GROUP IS ALSO AVAILABLE FOR USE AS A SECONDARY MASTER)
000272 *
000273 * THE USER MUST MAKE A CHOICE IN THE DEFINITION OF THE OTHER
000274 * TERMINALS. THIS SAMPLE STAGE 1 SOURCE DECK INCLUDES SAMPLE
000275 * TERMINAL DEFINITIONS FOR THE FOLLOWING TERMINAL TYPE --
000276 *
000277 *           VTAM 3270 LOCAL
000278 *
000279 * THE IVP IS NOT DEPENDENT UPON NODE (LINE/PTERM) NAMES.
000280 *
000281 * LTERM NAMES AND TRANSACTION CODES ARE USED TO ESTABLISH TERMINAL
000282 * SECURITY.
000283 *
000284 * THE USER MUST ENSURE THAT THE SELECTED TERMINALS ARE PROPERLY
000285 * DEFINED TO VTAM AND MVS.
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000286 *
000287 * THE MESSAGE FORMAT SERVICES USED BY THE IVP TRANSACTIONS ARE
000288 * DEFINED FOR A DEVICE TYPE OF 3270-A02 (A 24X80 SCREEN SIZE).
000289 * IF THE TERMINALS WHICH ARE SELECTED SPECIFY A DIFFERENT TYPE,
000290 * THEN THE MFS SOURCE WILL HAVE TO BE CHANGED.
000291 *
000292 *
000293 *
000294 *
000295 * COMM      MACRO --
000296 *         THE APPLID OPERAND SPECIFIES VTAM APPLID FOR THE IMS CONTROL
000297 *         REGION.
000298 *         THE PASSWD OPERAND SPECIFIES APPLICATION PASSWORDS.
000299 *         THESE OPERANDS MUST MATCH THE APPLICATION IDENTIFICATION
000300 *         SPECIFIED IN THE VTAM ACB(S) FOR THESE IMS DB/DC
000301 *         SYSTEMS.
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000302          COMM RECANV=(5,4095),                                X
000303              APPLID=IVP71CR1,                                  X
000304              PASSWD=IVP71CR1,                                  X
000305              OPTIONS=(PAGING,TIMESTAMP,MFSTEST,FMTMAST,      X
000306              NOUSEMSG,NOMSPEX,NOMSLEX,                          X
000307              VTAMAUTH,BLKREQD),                                  X
000308              COPYLOG=ALL
000309          EJECT ,
000310 *****
000311 *    IVP PRINTER LINE GROUP
000312 *****
000313          LINEGRP DDNAME=IVPPRT1,UNITYTYPE=PRINTER
000314          LINE      ADDR=000
000315          TERMINAL
000316          NAME      (SMMASTER,SECONDARY)
000317          NAME      IVPVRT1
000318          EJECT ,
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000319 *****
000320 *   IVP SPOOL LINE GROUP
000321 *****
000322         LINEGRP  DDNAME=(IVPSPL1,IVPSPL2,IVPSPL3) , UNITYPE=SPOOL
000323         LINE      BUFSIZE=166
000324 SPOOL001  TERMINAL FEAT=AUTOSCH
000325         NAME     IVPSP1
000326         EJECT   ,
000327 *****
000328 *   IVP VTAM DEFINITIONS
000329 *****
000330         SPACE 2
000331 *****
000332 *   IVP 3270 LOCAL - VTAM
000333 *****
000334         SPACE 2
```

# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000335      TYPE _UNITYPE=(3270,LOCAL),TYPE=3270-A02,SIZE=(24,80)
000336      TERMINAL NAME=PMASTER1
000337      NAME (PMASTER,MASTER)
000338      SPACE 2
000339      TERMINAL NAME=USER1,OPTIONS=(TRANRESP,NOCOPY)
000340      NAME USER1
000341      NAME HOWARD          USED BY THE IMS SAMPLE APPLICATION
000342      SPACE 2
000343      TERMINAL NAME=USER2,OPTIONS=(TRANRESP,NOCOPY)
000344      NAME USER2
000345      SPACE 2
```





# SYSGEN Macros

## ■ Sample STAGE 1 source

```
000364      UMAC3=, X
000365      ONEJOB= (YES, YES) , X
000366      JCL= (IMSGEN, X
000367      ACTINF01, X
000368      'PGMRNAME' , H, X
000369      (CLASS=A, MSGLEVEL= (1, 1) , REGION=32M, NOTIFY=JBUTTER) , X
000370      (USER=JBUTTER) ) , X
000371      SCL= ( , , (TIME=600) ) , X
000372      UJCL1=, X
000373      UJCL2=, X
000374      UJCL3=, X
000375      UJCL4=, X
000376      UJCL5=
000377      END ,
***** ***** Bottom of Data *****
```

# Further Information

- IMS Manuals
  - Installation Volume 2 (GC26-9430)
  - Administration Guide TM (SC26-9431)
  - Command Reference (SC26-9436)
- Redbook
  - IMS Primer (SG24-5352 - Chapter 23)
- Installation Class
  - Session E33 - Installation and Generation (Double Session) with John Butterweck