INTERCOMM

INSTALLATION GUIDE

ISOGON CORPORATION
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LICENSE: INTERCOMM TELEPROCESSING MONITOR

Installation Guide

Publishing History

Publication	Date	Remarks
First Edition	November 1973	This manual corresponds to Intercomm Release 6.0.
Second Edition	December 1974	New edition, corresponding to Intercomm Release 6.1.
Third Edition	April 1976	New edition, corresponding to Intercomm Release 7.
Fourth Edition	September 1978	New edition, corresponding to Intercomm Release 8.0.
Fifth Edition	April 1983	New edition, corresponding to Intercomm Release 9.0 and containing completely new installation procedures.
Sixth Edition	February 1988	New edition, corresponding to Intercomm Release 10.
Seventh Edition	February 1995	New edition corresponding to Intercomm Release 10 at SM Level 2300.
Eighth Edition	June 1998	New Edition corresponding to Intercomm Release 11.

PREFACE

Intercomm is a state-of-the-art teleprocessing monitor, executing on the IBM System/390 family of mainframe computers and operating under the control of IBM Operating Systems (ESA and OS/390). Intercomm monitors the transmission of messages to and from terminals, concurrent message processing, centralized access to I/O files, and the routine utility operations of editing input messages and formatting output messages, as required.

The Intercomm Installation Guide details the installation procedures for Intercomm Release 11. It is intended for systems programmers involved with general installation procedures and/or maintenance on a day-to-day basis for both new and ongoing installations.

This manual describes standard job steps to accomplish installation of an Intercomm system, and provides references to the Intercomm technical publications for detailed specifications regarding implementation of all Intercomm features. The following Intercomm publications are prerequisite and/or relevant to this document:

Planning Guide

Concepts and Facilities

Operating Reference Manual

Basic System Macros

and the appropriate Teleprocessing Network installation manuals:

SNA Terminal Support Guide

SNA LU6.2 Support Guide

BTAM Terminal Support Guide

TCAM Support Users Guide

INTERCOMM PUBLICATIONS

GENERAL INFORMATION MANUALS

- Concepts and Facilities
- Planning Guide

APPLICATION PROGRAMMERS MANUALS

- Assembler Language Programmers Guide
- COBOL Programmers Guide
- PL/1 Programmers Guide

SYSTEM PROGRAMMERS MANUALS

- Basic System Macros
- BTAM Terminal Support Guide
- Installation Guide
- Messages and Codes
- Operating Reference Manual
- System Control Commands

CUSTOMER INFORMATION MANUALS

- Customer Education Course Catalog
- Technical Information Bulletins
- User Contributed Program Description

FEATURE IMPLEMENTATION MANUALS

- Autogen Facility
- ASMF Users Guide
- DBMS Users Guide
- Data Entry Installation Guide
- Data Entry Terminal Operators Guide
- Dynamic Data Queuing Facility
- Dynamic File Allocation
- Extended Security System
- File Recovery Users Guide
- Generalized Front End Facility
- Message Mapping Utilities
- Multiregion Support Facility
- Page Facility
- Store/Fetch Facility
- SNA Terminal Support Guide
- Table Facility
- TCAM Support Users Guide
- Utilities Users Guide

EXTERNAL FEATURES MANUALS

- SNA LU6.2 Support Guide

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Chapter 1

INSTALLATION PLANNING

1.1 INTRODUCTION

Intercomm Release 11 represents a new and significant level of code integrity and efficiency in the implementation of the on-line systems environment. A functional superset of previous Intercomm releases, Release 11 provides extensive new capabilities in message processing control, teleprocessing control, and system control functions. The Intercomm Planning Guide should be consulted for a review of new features and modifications to existing facilities. Please review that manual thoroughly prior to beginning installation. An Intercomm Systems Engineer may be scheduled to assist you in all phases of installation.

The Intercomm installation process is a phased procedure which under Release 11 is simplified by the provision of a customized 'sysgen'. An installation (for new users), a reinstallation, or an Intercomm or operating system upgrade which necessitates a reinstallation, consists of the following steps:

1. Documentation familiarity: all users must read Chapter 2 of the Operating Reference Manual (Release 10 edition) to understand the importance of Intercomm library naming conventions, supplied JCL procedures, system standards and system table revisions. The new user should first read Chapter 1 of that manual and Concepts and Facilities. Users upgrading from Release 10 below SM Level 2300, or from a lower Release version, must first review the Release 10 Planning Guide for SM Level 2300 (seventh edition). All users must then review the Release 11 Planning Guide.

2. Installation preparation: consists of reviewing this entire manual to gain a basic familiarity with the installation process and then proceeding to Chapter 2 to confirm that preinstallation requirements are met.

3. Unload the Intercomm release tape to disk (Chapter 2).

4. Move Intercomm supplied JCL procedures to the system procedure library (Chapter 2).

5. Study Intercomm table requirements and perform installation-dependent modifications to supplied tables (Chapter 3).

6. Code and assemble the Intercomm sysgen macro ICOMGEN (Chapter 4).

7. Review, modify if necessary, and submit the individual installation jobs generated by assembly of ICOMGEN (Chapter 5).

For the existing Intercomm user, additional Release 11 conversion considerations are provided in Chapter 14, those for Release 10 are provided in Chapter 13 (prerequisite for converting from Release 9 or 10 to Release 11), and those for Release 9 are provided in Chapter 12 (prerequisite for converting from Release 9, or lower, to Release 11).

For the new user, the installation of the Intercomm system is a phased operation concerning both systems and application programming personnel. A successful installation period includes education of personnel who will be involved with the system. Figures 1-1 and 1-2 illustrate the associated Intercomm education plan.

For further details regarding Intercomm education, refer to the Intercomm Customer Education Course Catalog.

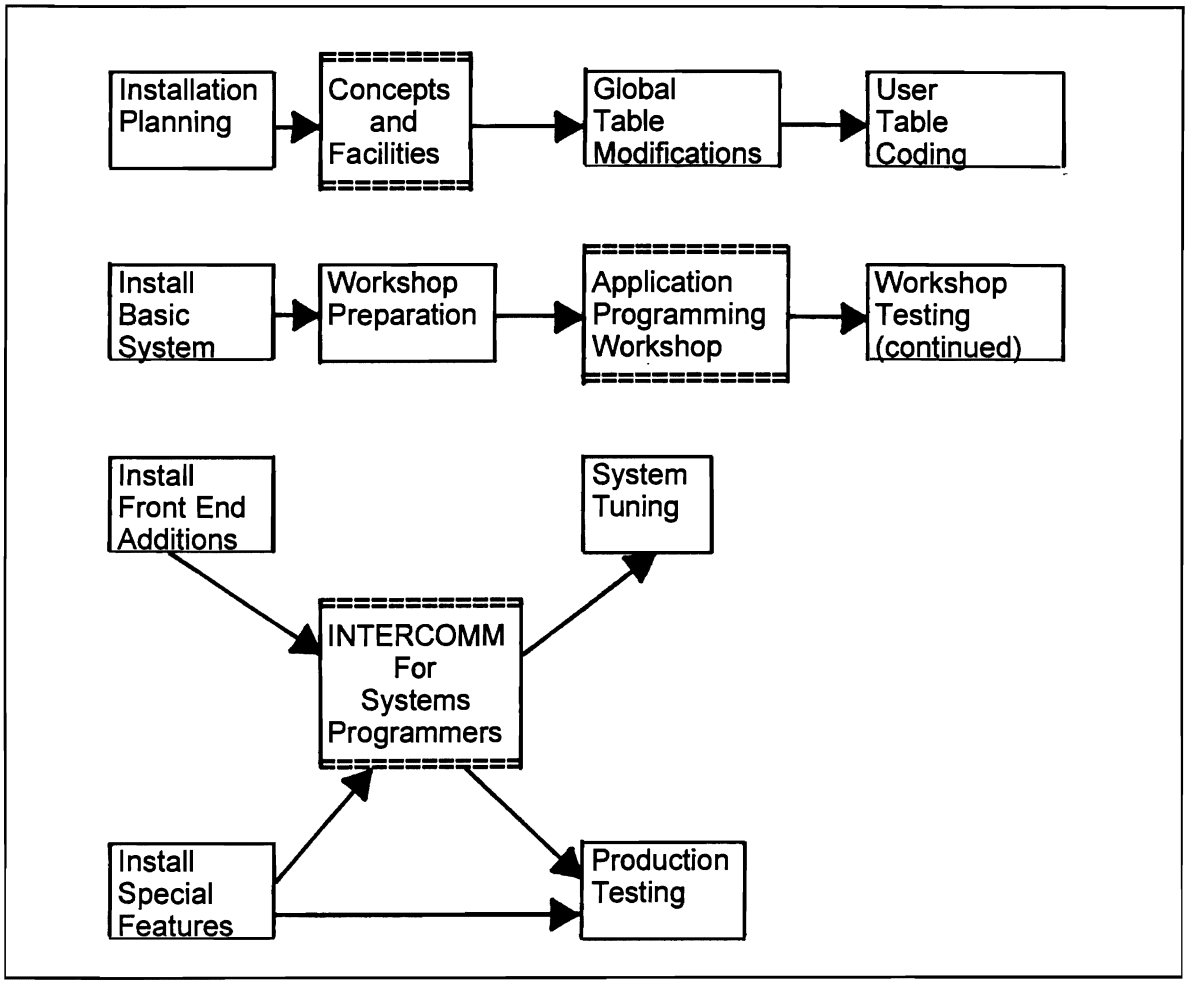

Figure 1-1. System Installation and Staff Education

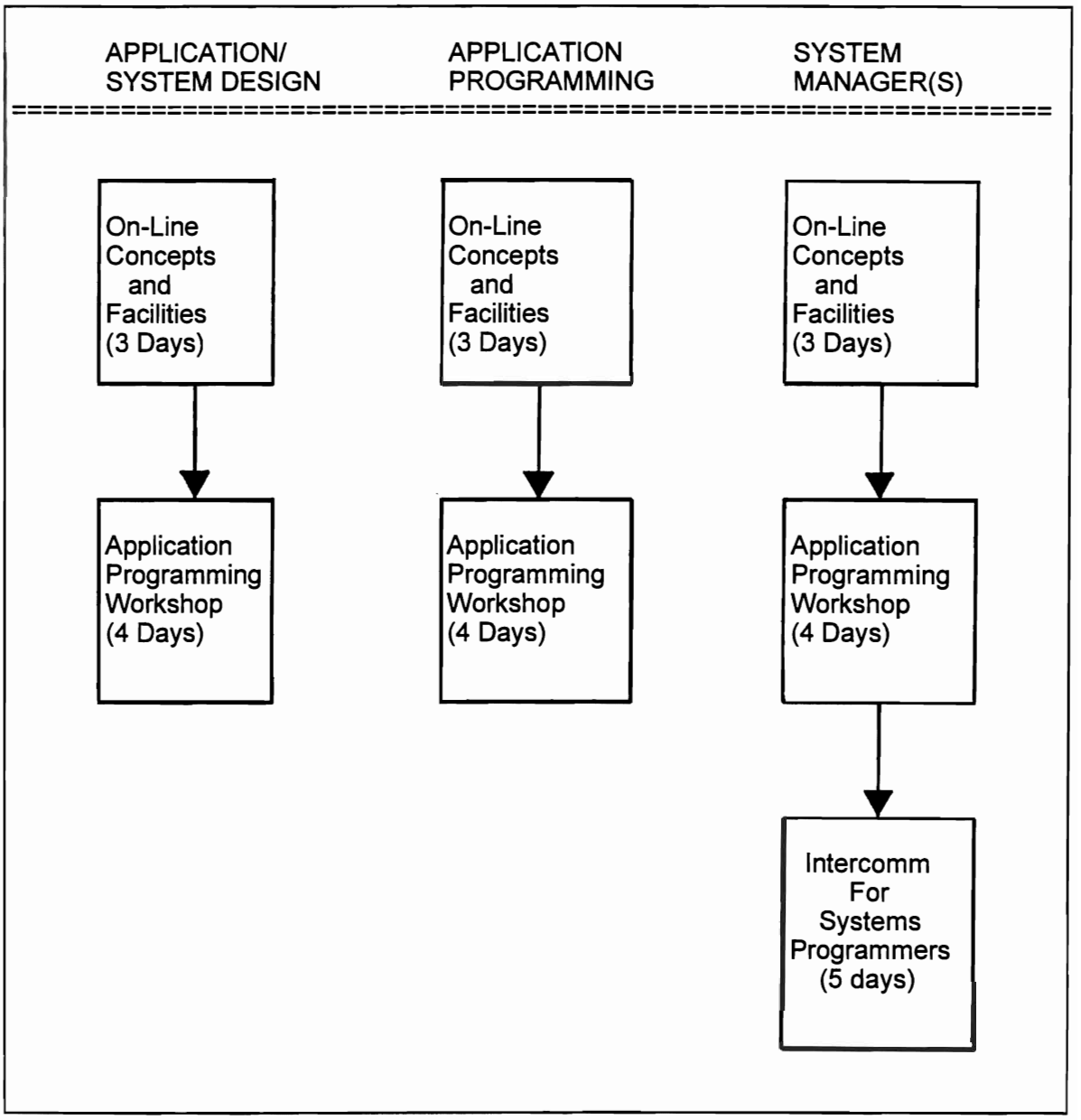

Figure 1-2. Intercomm Customer Education Program

Chapter 2

PREPARATIONS FOR INSTALLING INTERCOMM

2.1 PREINSTALLATION CONSIDERATIONS

When reinstalling, or if installing Intercomm for the first time, the user site must take the following preparatory steps:

1. MVS Sysgen Specifications

   - All the appropriate BTAM, VTAM and/or TCAM specifications for the terminal configuration must be followed.

2. Direct Access Device Requirement

   - A disk pack (3380 or 3390) initialized with VOL=SER=INT001. A different serial number may be used, if desired, and specified for the release tape unload job described in this chapter and for the ICOMGEN macro described in Chapter 4.

3. Operating System PTFs and APARs

   - Verify that all MVS PTF's applicable to the installation terminal configuration have been applied. If using a 3380 or 3390 disk pack, all related IBM PTF's must be applied.

   - Determine if any other PTF's or APAR's are applicable, or if problems arise with non-IBM equipment, by reviewing the Intercomm manual Technical Information Bulletins.

4. Installation Standard Naming Conventions

   - Verify that all JCL described in this document meets the installation standard for library and data set naming conventions. If necessary, it is recommended that changes be made to data set names and Intercomm JCL procedures after the installation process is complete. Intercomm libraries may not be authorized, except the special load library created for ASMF execution.

   - Existing installations should use a different high-level qualifier for Release 11 or must rename existing Intercomm libraries and the RCT000 data set.

5. Macro Libraries

   - Verify that all VTAM (and VSAM, BTAM and/or TCAM, if applicable) macros that generate source code and/or Dsects are contained on the installation SYS1.MACLIB (or equivalent).

   - SYS1.AMODGEN is concatenated after SYS1.MACLIB in all Intercomm JCL procedures executing the Assembler (to assemble Intercomm modules), and therefore must be accessible. Note: this library may be called SYS1.MODGEN; and if so, modify Intercomm procs as necessary.

6. Network Configuration

For a new installation:

- prepare a list of terminals specifying line address, polling characters, addressing characters, dial lists, etc. (see the BTAM Terminal Support Guide), or terminal type and network-id if a VTAM Front End is to be used;
- assign each terminal a unique five-character name;
- select one of the above terminals to be the Intercomm control terminal (the CPU console may be employed for this function).

For an existing installation:

- the Front End Network Table may have to be modified to implement Release 11 changes and enhancements.

See also Chapter 7 for additional considerations if installing Intercomm with a TCAM or VTAM network.

7. Source Statement Libraries

- Several members of the SYMREL source library are provided to copy into COBOL or PL/1 application programs. If the Intercomm JCL procedures for compilation are not used, verify that a block size of 6160 is acceptable to the installation JCL procedures. Consult the Intercomm application Programmers Guides for applicable member names to copy to your installation source statement library. For PL/1 users, a job step is provided to copy the source members to an Intercomm data set (SYMPL1).

2.2 THE INTERCOMM RELEASE LIBRARIES

Intercomm is released as three program libraries on magnetic tape. The libraries are:

- INT.SYMREL

  Symbolic form of the standard Intercomm release, Special Features (as ordered), Macros, Dsects, and JCL Procedures.

- INT.MODREL

  Load Module form of the standard Intercomm release and Special Features.

- INT.SYMUCL

  Symbolic form of the Intercomm User Group Contributed Program Library. Documentation for these programs is in User Contributed Program Description. Additions to the library are announced by a mail distribution to all installations.

2.2.1 Unloading the Intercomm Libraries

The libraries are loaded to disk in the order INT.MODREL, INT.SYMUCL, INT.SYMREL from the Intercomm release tape. Note that the block size of the data sets on the new pack must be identical to the original data sets. All data sets on the tape are blocked 6160. Key in the unload JCL (RXINSTAL) illustrated in Figure 2-1, then consider the following:

- Modify the JOB statement to site standards.
- JCL assumes a dedicated disk pack of the 3390 type with a volser of INT001. If a different disk pack size is used, SPACE allocations must be appropriately modified. A 3390 contains 15 tracks per cylinder, and holds 45 directory blocks per track.
- RXINSTAL allocates and catalogs installation libraries on the disk pack identified by the INT DD statement which may be modified to system requirements along with the COPY statements that follow the SYSIN DD statement.
- INT.SYMREF is a dummy data set for which only one track is allocated with a block size of 32760. The Intercomm assembly procedures refer to this data set as the first of a series of concatenated libraries in order to resolve blocksize differences between Intercomm and system libraries. For an ESA or OS/390 system, this library is not needed. However, the Intercomm Procs (see Figure 2.2) must be changed to omit the data set for SYSLIB references.
- DEN on DD statement T has been omitted (not needed for tape cartridges). Also change the VOL=SER parameter to that for the provided tape, and change the UNIT parameter if a specific device type (not TAPE) is needed.
- The COPY statements which follow the SYSIN DD statement may require modification as follows:

SYSDA=INT001	- Change SYSDA to the device type of the disk pack and/or change INT001 to the disk pack volser defined for the INT DD statement.
FROM=TAPE	- Change the generic name TAPE to a device type if a specific device type is required.
TAPE=(T1,n)	- Change T1 to the appropriate tape volser.
RENAME=XXX.name	- If a special high-level qualifier naming convention is required, change the DSN on the DD statements and change the RENAME parameter on the COPY statements to match. IEHMOVE will then unload the files into those data sets specified by XXX.name. The lowest level name must conform to Intercomm library requirements.

```
//RXINSTAL JOB
//*
//INT1     EXEC PGM=IEHMOVE,REGION=2048K
//SYSPRINT DD SYSOUT=A
//SYSUT1   DD UNIT=SYSDA,SPACE=(TRK,(10,2))
//INT      DD UNIT=SYSDA,DISP=OLD,VOL=SER=INT001
//SREF     DD DSN=INT.SYMREF,
//         VOL=REF=*.INT,DISP=(,CATLG),SPACE=(TRK,(1,0,1)),
//         DCB=(RECFM=FB,LRECL=80,BLKSIZE=32760,DSORG=PO)
//SLIB     DD DSN=INT.SYMLIB,
//         VOL=REF=*.INT,DISP=(,CATLG),SPACE=(CYL,(20,2,45)),
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//SUSR     DD DSN=INT.SYMUSR,
//         VOL=REF=*.INT,DISP=(,CATLG),SPACE=(CYL,(10,2,25)),
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//MLIB     DD DSN=INT.MODLIB,
//         VOL=REF=*.INT,DISP=(,CATLG),SPACE=(CYL,(3,1,45)),
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//MUSR     DD DSN=INT.MODUSR,
//         VOL=REF=*.INT,DISP=(,CATLG),SPACE=(CYL,(3,1,25)),
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//SREL     DD DSN=INT.SYMREL,
//         DISP=(,CATLG),SPACE=(CYL,(40,2,60)),
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80),
//         VOL=REF=*.INT
//MREL     DD DSN=INT.MODREL,
//         DISP=(,CATLG),SPACE=(CYL,(7,1,80)),
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160),
//         VOL=REF=*.INT
//SUCL     DD DSN=INT.SYMUCL,
//         DISP=(,CATLG),SPACE=(CYL,(1,1,5)),
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80),
//         VOL=REF=*.INT
//T        DD DSN=T,DISP=(OLD,PASS),
//         VOL=SER=T1,UNIT=(TAPE,,DEFER),LABEL=(,BLP),
//         DCB=(RECFM=FB,BLKSIZE=800,LRECL=80,TRTCH=NOCOMP)
//SYSIN DD *
 COPY PDS=INT.MODREL,TO=SYSDA=INT001,FROMDD=T,FROM=TAPE=(T1,1),        X
               RENAME=INT.MODREL,CATLG
 COPY PDS=INT.SYMUCL,TO=SYSDA=INT001,FROMDD=T,FROM=TAPE=(T1,2),        X
               RENAME=INT.SYMUCL,CATLG
 COPY PDS=INT.SYMREL,TO=SYSDA=INT001,FROMDD=T,FROM=TAPE=(T1,3),        X
               RENAME=INT.SYMREL,CATLG
//
```

Figure 2-1. RXINSTAL

2.3 UNLOADING THE INTERCOMM JCL PROCEDURES

The released SYMREL library contains a JCL member COPYPROX (see Figure 2-2) which must be used at this time to move required Intercomm supplied JCL procedures to the system procedure library (SYS1.PROCLIB), or an Intercomm procedure library pre-allocated by the user for this purpose. The procedures to be moved are described in Chapter 2 of the Operating Reference Manual. Before submitting the COPYPROX JOB, consider the following:

- The JOB statement should be altered according to your installation requirements.
- On the SYSUT1 DD statement, the DSN file name prefix (INT) should be changed if not your installation standard.
- On the SYSUT2 DD statement the DSN file name prefix (SYS1) should be changed if not your installation standard.
- Add REPRO statements for any other Intercomm procs described in Chapter 2 of the Operating Reference Manual which you may wish to use.
- Delete the REPRO statement for ASMOC if no object libraries are used at the installation (that is, only source and load libraries are used).
- Delete REPRO statements for the COBOL and/or PL1 procedures if not applicable to your installation.
- Note that compile (COB2PC) and compile and linkedit (COB2PCL) procs have been added for VS COBOL II users. If VS COBOL II is (or will be) used, then change SYS1.COBLIB to SYS1.COB2LIB in the LKEDT proc (when support is installed).
- After unloading the procs, it may be desirable to increase the region size (to a multiple of 1M) for the ASM step and (to a multiple of 2M) for the LKED step in the ASMPCL proc for use with a large Network and/or Station Table, and also (to a multiple of 2M) for the LKEDP and LDEDT procs. Add the OVLY parm to the LKEDP and LKEDT procs if an overlay linkedit structure is used.

```
//COPYPROX  JOB
//*
//*  COPY  CATALOGED  PROCEDURES  ONTO  SYS1.PROCLIB
//*
//S10      EXEC  PGM=IEBUPDTE
//SYSUT1   DD  DSN=INT.SYMREL,DISP=SHR
//SYSUT2   DD  DSN=SYS1.PROCLIB,DISP=OLD
//SYSPRINT DD  SYSOUT=A
//SYSIN    DD  *
.*    REPRO  THE  FOLLOWING  PROCS  FOR  HLASM (HI-LEVEL ASSEMBLER)
./       REPRO   NAME=ASMOC,LIST=ALL
./       REPRO   NAME=ASMPC,LIST=ALL
./       REPRO   NAME=ASMPCL,LIST=ALL
./       REPRO   NAME=LIBEASM,LIST=ALL
./       REPRO   NAME=LIBELINK,LIST=ALL
./       REPRO   NAME=SYMGEN,LIST=ALL
./       REPRO   NAME=DEFSYM,LIST=ALL
.*    THE  FOLLOWING  PROCS  USED  AS  NEEDED
./       REPRO   NAME=LIBE,LIST=ALL
./       REPRO   NAME=LKEDP,LIST=ALL
./       REPRO   NAME=LKEDT,LIST=ALL
./       REPRO   NAME=PMIPRT,LIST=ALL
./       REPRO   NAME=PMIPRT1,LIST=ALL  (CONTROL STATEMENT FOR PMIPRT)
./       REPRO   NAME=PMIPCH,LIST=ALL
./       REPRO   NAME=PMIPCH1,LIST=ALL  (CONTROL STATEMENT FOR PMIPCH)
./       REPRO   NAME=COBUPC,LIST=ALL
./       REPRO   NAME=COBUPCL,LIST=ALL
./       REPRO   NAME=LIBECOBL,LIST=ALL
./       REPRO   NAME=COB2PC,LIST=ALL
./       REPRO   NAME=COB2PCL,LIST=ALL
./       REPRO   NAME=PLIXPC,LIST=ALL
./       REPRO   NAME=PLIXPCL,LIST=ALL
./       REPRO   NAME=INTASMF,LIST=ALL
./ ENDUP
/*
//
```

Figure 2-2. COPYPROX Job

Chapter 3

TABLE PREPARATION

3.1 INTRODUCTION

Intercomm is a table driven system in that the user must code tables to describe the terminals for the on-line teleprocessing network, the transaction codes to be entered, the user application programs which are to process the message text entered with the transaction codes, etc. Critical tables are described in Chapter 1 of the Operating Reference Manual; all tables are listed in Appendix A of that manual. Tables to be used in the on-line environment must be coded prior to completion of the installation process.

In addition, a number of Intercomm modules are conditionally assembled based on system global tables which must be modified by the user to provide such information as the type of TP network in use, the SVC to be used, and whether or not certain Intercomm support features are to be used (generated). These assemblies are necessary because, for example, BTAM macros may not be available in a VTAM-only environment, etc. The global tables are described at the end of Chapter 2 of the Operating Reference Manual. The global tables must be modified to installation requirements before proceeding further with the installation process.

NOTE: in this manual, MVS refers to MVS/ESA and to OS/390. Therefore, the operating system definitions have been removed from INTGLOBE and SETGLOBE. Also, the RM and RMPOOLS globals been removed. The global BMNOLD has been added for existing users that require the old Release 9 2-byte BMN number in the Intercomm message header (see Job 06 in Chapter 5).

3.2 SYSTEM GLOBAL TABLES

The following system global tables which contain SET statements must be copied (use STATS OFF and NUM ON when copying via ISPF) from SYMREL to SYMLIB and then modified to installation requirements:

- SETGLOBE - see Operating Reference Manual and above NOTE
- SETENV - see BTAM Terminal Support Guide
- LOGSETGB - see Operating Reference Manual
- DDQENV - see Dynamic Data Queuing (if used)

Do not change the sequence numbers or renumber these tables because future System Modifications (SM's) to the tables will not be correct. An existing installation should review the old version of these tables and the new descriptions of each individual global before changing any setting. A new installation should only modify SETGLOBE. For all installations, if a BTAM and/or Extended TCAM Front End will be used in addition to VTAM, modify SETENV to generate support only for the features and device types which the user expects to use.

3.3 USER CODED INTERCOMM TABLES

Certain tables are required for Intercomm execution, others are feature (facility) dependent and are to be coded when the feature is installed.

Required tables for all Intercomm regions (including Test Mode) are:

- INTSPA (SPALIST macro) - System Parameter Area
- INTSCT (SYCTTBL macro) - Application program (subsystem) definitions
- PMISTATB (STATION macro) - Back End terminal descriptions
- PMIDEVTB (DEVICE macro) - Back End device type definitions
- PMIVERBS (VERB, etc. macros) - Edit Utility definitions
- NEWPOOLS (ICOMPOOL macro) - Intercomm 24-Amode core pools

In addition, for Intercomm regions containing a TP interface:

- BTVRBTB (BTVERB macro) - Transaction code (verb) definitions
- Network Table - Terminal/line and/or Logical Unit descriptions
- BTAMSCTS (SYCTTBL macro) - BTAM/TCAM queue descriptions (optional)
- VTIDTABL (VTIDTAB macro) - VTAM terminal name correspondence (optional - may now be coded on LUNIT macros)
- PMIBROAD (BCGROUP macro) - Broadcast terminal groups (optional)

Examples of Network Table coding for a BTAM Front End are provided in BTSAMP and for a VTAM Front End in VTSAMP. These members are on SYMREL. For the new user, a starter table called FENETWRK is also provided.

For other tables automatically included in the Intercomm linkedit, the released version should be used unless an existing installation has already modified them. In this case, the user modification must be reapplied to the released version and placed on SYMUSR.

User additions to tables containing required Intercomm entries have been simplified by the provision for COPY members which the user must code. These are:

- USRSCTS (for INTSCT)
- USRBTVRB (for BTVRBTB)
- USRVERBS (for PMIVERBS - Edit Utility processing)
- USRSUBS (for REENTSBS - user subroutine definitions)

All user coded or user modified tables must be placed on SYMUSR and assembled and linkedited to MODUSR. Do not place user modified modules or tables (except system global tables) on SYMLIB (or MODLIB) nor on SYMREL (or MODREL).

3.3.1 Table Coding for New Installations

For the new user, installation job 02 (see Chapter 5) copies the released versions of the above tables to SYMUSR. Further action to be taken after executing that job is described therein. The NEWPOOLS module may be used as is until the user learns how to tune the pools for optimum usage. Assemblies of the tables are performed in later jobs. For future table assemblies, the user should use the Intercomm supplied ASMPCL or LIBELINK JCL procedures.

For special features and facilities implemented at installation time, released table versions are copied to SYMUSR and assembled in the applicable installation jobs. These tables will need later modification as the user learns how to use the facility.

3.3.2 Table Revisions for Existing Installations

Existing installations converting to Release 11 must perform the following prior to proceeding further with the installation process:

1) Copy existing versions of Intercomm tables to the new SYMUSR, then modify or recode them as described below.

2) If upgrading from Release 9, PMISPA and SPAEXT no longer exist and are not to be used. If not already done for Release 10, code all SPALIST macro parameters in one module named INTSPA (Csect SPA) as described in the Operating Reference Manual, Chapter 3. Different versions of INTSPA (different module names) are to be created in a Multiregion environment. The sample INTSPA (or CRSPA, SR1SPA and SR2SPA for Multiregion) on SYMREL may be modified and placed on SYMUSR.

3) If not already done for Release 10, move all user SYCTTBL macro coding from the old PMISPA to a COPY member called USRSCTS placed on SYMUSR.

   Delete SYCTTBL entries from USRSCTS (etc.) for Intercomm subsystems which are in the supplied INTSCT (single region Intercomm) or CRSCT, SR1SCT and SR2SCT (Multiregion Intercomm). The GENINDEX and PCENSCT macros are already coded in the supplied INTSCT, etc. Do not code them in USRSCTS. Refer to Basic System Macros to determine obsolete parameters that may be deleted from SYCTTBL macro coding. See job 38 in Chapter 5 for further considerations.

   If the RESOURCE macro was previously used, copy INTSCT (or CRSCT, SR1SCT, SR2SCT as applicable) to SYMUSR and insert the macro coding after the first SCT CSECT statement and before COPY SCTLISTC and the Intercomm SYCTTBL macros. Delete the //ASM.SYSIN DD statement from the applicable assembly step(s) in job 38.

4) If not already done for Release 10, ensure the BTVRBTB module has been separated into two modules containing a) the BTVERB macros and called USRBTVRB, and b) the Network Table macros in a user named member. If executing with a VTAM Front End, the VTIDTAB macro table may optionally be moved to a third member called VTIDTABL (or delete the INCLUDE statement in the linkedit deck generated in job 80). Then, in USRBTVRB, delete the Csect statement, BTVERB macro entries for Intercomm verbs supplied in the released BTVRBTB, and the trailing PMISTOP macro. Finally, delete the old BTVRBTB table.

   In the Network Table, implement new parameters (if desired) which are described in the Planning Guide, Basic System Macros, and terminal support guides. Also, if local 3270 BTERMs are defined, the OP2, OP2IND and OP2RPL parameters should be deleted from the associated BDEVICE macro(s).

5) If SUBMODS macros were added to REENTSBS under Release 9 or 10, then move them to the COPY member USRSUBS. Delete the old REENTSBS.

6) If user coded entries exist in the Release 9 or 10 PMIVERBS for non-Intercomm verbs, then move them to the COPY member USRVERBS. Delete the old PMIVERBS.

7) Replace the Release 9 or Release 10 version of PMIFILET with the Release 11 version on SYMUSR; add user file entries if the Change/Display Utility is used, delete (or comment out) entries for the following Intercomm files if not used: DES000, VRB000, SEC000. Note that the block size for RCT000 is increased for Release 11 (see job 58).

8) If not already done, recode the STATION macro IOCODE parameter (in PMISTATB) and DEVICE macro TYPE parameter (in PMIDEVTB) to use MMU device type names (even if MMU not presently used in your system). Use the DVMODIFY macro for defining 3270-type devices with alternate (or larger than 1920-byte) buffers.

9) Before executing job 85 (Intercomm linkedit), all user tables containing Intercomm macros for which assembly steps are not generated must be reassembled and linked to the new MODUSR. Other tables may be relinked from the Release 9 or Release 10 MODUSR to the Release 11 MODUSR - use the LKEDP procedure and specify:
   //LKED.SYSLIN DD DSN=release-nn-MODUSR(table-name).

10) For Release 11, the COREACCT macro previously coded in the MANAGER module under Release 9 must now precede the ICOMPOOL macros in the pools table(s), see job 34. Also, use COREACCT CSECT, not ICOMINX CSECT (before the COREACCT macro definition). After several days of executing under Release 11, retune the Intercomm core pools (member NEWPOOLS or as user-defined) for each Intercomm region.

11) For Release 11, the Page Facility PAGETBLE (and Page Data Sets) no longer exist (replaced in Release 10 at SM Level 2300 with dynamically generated tables). Do not copy PAGETBLE to the Release 11 SYMUSR.

12) For Releases 10 and 11, the TUNERTBL formerly used by the Fine Tuner system commands is no longer used. Do not copy the TUNERTBL to the Release 11 SYMUSR (if upgrading from Release 9 or lower).

Chapter 4

ICOMGEN MACRO

4.1 CREATING THE INTERCOMM GENERATION JOB STREAM

The ICOMGEN macro is used to generate a JCL job stream tailored to the user's specific Intercomm installation/reinstallation requirements.

Assembly of the ICOMGEN macro produces a customized job stream to be used for:

- assembly and linkediting of various Intercomm modules and user coded or user modified tables
- allocation and loading of necessary Intercomm data sets
- linking the Intercomm execution load module via ICOMLINK macro generated decks which are tailored to the user's specifications (see Basic System Macros for a detailed description of the ICOMLINK macro)
- execution of the Intercomm system.

The parameters of the ICOMGEN macro combine with the settings within the SETENV and SETGLOBE global table members to produce the installation job stream. Therefore, the released versions (on SYMREL) of SETENV and SETGLOBE must be modified for the installation environment and placed on SYMLIB (for ASMF), and optionally on SYMUSR, prior to assembly of ICOMGEN.

To assemble the ICOMGEN macro, use the following JCL:

```
//ASMGEN     EXEC   ASMPC,DECK=DECK,Q=USR,NAME=ICOMGEN
//ASM.SYSIN  DD   *
             ICOMGEN  parameters
             END
//SYSPUNCH   DD    SYSOUT=B,DCB=BLKSIZE=80
//
```

Substitute a TSO or CMS data set for the SYSPUNCH output, as desired. Code the P parameter for ASMPC if the SYMUSR (etc.) high-level qualifier is other than the default INT.

The produced JCL stream consists of many separate conditionally generated jobs. Each job is delimited by a // statement. Therefore, the entire job stream should be divided into the individual jobs listed in the next chapter and submitted separately. Care should be taken not to saturate the operating system with too many assemblies at one time. Accordingly, single-threading the assembly jobs is recommended.

For parameter descriptions listed below, unless otherwise noted, coding YES generates the JCL statements associated with the facility; NO excludes the facility from the installation job stream. A bullet (•) indicates parameters related to system features which may require additional specifications for implementation. For each feature, the Intercomm manual which describes the use and installation of that feature is named. The form of the ICOMGEN macro is as follows:

```
(blank)  ICOMGEN    JOB-statement definition parameters:

                    [JOBACCT={acct}]            Job accounting
                    [        {ICOM}]            information

                    [,JOBCLAS={class}]          Job class
                    [         {A    }]

                    [,JOBNAME={name  }]         Jobname prefix
                    [         {ICMGEN}]

                    [,JOBPGNM={name   }]        Programmer name
                    [         {GENICOM}]        Job field

                    Procedural-parameters:

                    [,GEN={NEW}]                Intercomm
                    [     {OLD}]                installation type

                    [,LOG={TAPE}]               Intercomm logging
                    [     {DISK}]               device

                    [,LPALIB={link-pack-lib}]   Link pack library
                    [        {LPALIB       }]

                    [,P={prefix}]               Intercomm data
                    [   {INT   }]               set high-level
                                                qualifier

                    [,SYS={prefix}]             High-level
                    [     {SYS1  }]             qualifier for MVS
                                                system data sets

                    [,UNIT={unit }]             Device type for
                    [      {SYSDA}]             all allocated
                                                disk data sets

                    [,VOLSER={volser}]          Volser number for
                    [        {INT001}]          all allocated
                                                disk data sets
                                                (continued)
```

```
Intercomm-facility-parameters:

[,AUTOGEN={YES}]                    Autogen Feature
[         {NO }]

[,BACKOUT={YES}]                    Backout-on-the-Fly
[         {NO }]                      facility

[,CHKRES={YES}]                     Checkpoint/Restart
[        {NO }]                       facility

[,COBOL={NO }]                      COBOL interface
[       {YES}]                       routines

[,COBOL2={YES}]                     VS COBOL II
[        {NO }]                       support

[,DATAENT={YES}]                    Data Entry
[         {NO }]                      Feature

[,DBASE={({DL1   },{INQ})}]         Data Base Support
[       { {TOTAL} {UPD} }]            Feature
[       { {IDMS }       }]
[       { {ADA  }       }]
[       {(NONE,INQ)     }]

[,DBLIBR={ddname}]                  Data Base library
[        {SYSLIB}]                    ddname

[,DDQ={YES}]                        Dynamic Data Queuing
[     {NO }]                          Feature

[,DFA={YES}]                        Dynamic File Allocation
[     {NO }]                          Feature

[,DSCT={IXFDSCT2}]                  File Handler DSCT
[      {IXFDSCT3}]                    member-name
[      {IXFDSCT1}]

[,DYNLINK={NO }]                    Dynamic Load/Linkedit
[         {YES}]                      facility

[,DYNPOOL={P31}]                    24- and/or 31-Amode
[         {YES}]                      ICOMPOOL module(s)
[         {NO }]                      load at startup

[,DYNVERB={YES}]                    BTVRBTB (verbs only)
[         {NO }]                      load at startup
```

(continued)

```
[,FETABLE={network-table-name}]  Front End
[         {BTVRBTB           }]  Network Table

[,FILEREC={YES}]                 File Recovery
[         {NO }]                    Feature

[,FILSTAT={YES}]                 File Handler
[         {NO }]                   Statistics facility

[,LPSPA={YES}]                   Link Pack facility
[       {NO }]

[,LU62={YES    }]                LU6.2 External
[      {ACTIVE }]                  Feature
[      {PASSIVE}]
[      {NO     }]

[,MMU={NO }]                     Message Mapping
[     {YES}]                       Utilities

[,MULTREG={YES}]                 Multiregion Facility
[         {NO }]                   Feature

[,OVLYSTR={YES}]                 Overlay/Non-Overlay
[         {NO }]                   linkedit structure

[,PL1={OPT}]                     PL/1 interface
[     {NO }]                       routines

[,SAM={YES}]                     System Accounting and
[     {NO }]                       Measurement facility

[,SECUR={ESS}]                   Security facility
[       {YES}]
[       {NO }]

[,STORFCH={NO }]                 Store/Fetch facility
[         {YES}]

[,TCAM={YES}]                    TCAM Front End
[      {NO }]                      support

[,UTILITY={ALL                    }]       On-line
[         {NONE                   }]       Utilities
[         {utility                }]
[         {(utility[,...],utility)}]
[         {(EDIT,OUTPUT)          }]
```

(continued)

```
[,VTAM={(lutype[,...,lutype])}]          VTAM
[      {YES                  }]          Front End
[      {NO                   }]            support
```

•AUTOGEN

specifies the Autogen special feature. If AUTOGEN=YES is specified, then STORFCH=YES is forced, and MMU=YES is required. See Autogen Facility. The default is NO, which indicates that Autogen is not used.

•BACKOUT

specifies the Backout-on-the-Fly facility of the File Recovery special feature. If BACKOUT=YES is specified, FILEREC=YES, CHKRES=YES and DDQ=YES are forced. For new installations, the THREDLOG DDQ data set is created. See the File Recovery Users Guide. The default is NO.

•CHKRES

specifies the Checkpoint and Automated Message Restart facilities and for new installations, creation of a CHEKPTFL data set. In addition, the Automated Restart facility data set STRTUPSW is allocated and initialized. See the Operating Reference Manual. The default is NO, unless Backout-on-the-Fly (BACKOUT=YES), or the File Recovery special feature (FILEREC=YES) or data base updating is specified, in which case CHKRES=YES is forced.

COBOL

specifies OS/VS (ANS) COBOL interface support for user application programs executing under Intercomm. See the Operating Reference Manual. If COBOL=YES, RECOBOL=YES is forced for the ICOMLINK generation. See also COBOL2. The default is YES.

•COBOL2

specifies VS COBOL II interface support. If YES is coded, but COBOL=NO (implying only VS COBOL II support), then for ICOMLINK (see job 80), RECOBOL=NO is generated and COBOL=YES is forced. If YES is coded and COBOL=YES (implying both OS/VS or ANS COBOL and VS COBOL II support), then for ICOMLINK, RECOBOL=YES is forced. If YES is coded, basic VS COBOL II installation steps are also generated (see also COBOL Programmers Guide). The default is NO.

•DATAENT

specifies the Data Entry special feature for ICOMLINK generation. See the Data Entry Installation Guide. If DATAENT=YES, STORFCH=YES is forced. The default is NO.

•DBASE

specifies a Data Base Management System special feature is in use for ICOMLINK generation, as follows:

Code	Data Base Management System
DLI	DL/I
TOTAL	TOTAL
IDMS	IDMS
ADA	ADABASE

If any DBMS is specified, the mode of operation must be specified as follows:

Code	Meaning
INQ	Inquiries only. No updates permitted.
UPD	Updates permitted. The Checkpoint/Restart facility must be included in the system (see CHKRES). UPD recommended only for TOTAL. For others, use INQ even though updates are done online.

See DBMS Users Guide. The default is (NONE,INQ); that is, no DBMS is in use.

DBLIBR

specifies the ddname of the library or concatenated library group in which the database modules reside for the ICOMLINK generation. The default ddname is SYSLIB.

•DDQ

specifies the Dynamic Data Queuing special feature and for new installations, generation of DDQ data sets and the Queue Control File and the Space Control File. DDQ=YES is forced if a Multiregion Intercomm system is in use or BACKOUT=YES. See Dynamic Data Queuing Facility. The default is NO.

•DFA

specifies whether the Dynamic File Allocation special feature is used, requiring assembly and linkedit of the support module, and addition of an INCLUDE for the module in the Intercomm linkedit. See Dynamic File Allocation. Code YES if desired, the default is NO.

DSCT

specifies the member name of the particular File Handler Data Set Control Table module to be assembled and linked in the File Handler assembly job, based on the number of files to be processed during Intercomm execution. See the description of the IXFDSCTA macro in Basic System Macros. Code one of the following:

Module	Number of Files to be Monitored
IXFDSCT1	21-50 (default)
IXFDSCT2	50-100
IXFDSCT3	100-200 (or user-generated version)

DYNLINK

specifies the Dynamic Linkedit facility and generation of DD statements for the DYNLLIB and DYNLPRNT data sets in the Intercomm execution JCL (see Job 90). DYNLINK=YES also forces the ICOMLINK parameter DYNLOAD=YES: set DYNLOAD=NO on the generated ICOMLINK deck (see Job 80) if no dynamically loaded user subsystems or subroutines are defined (and delete DYNLLIB and DYNLPRNT DD statements from the execution JCL - see job 90). See the Operating Reference Manual. The default is YES (required to use the LOC option on the SCTL system control command).

•DYNPOOL

specifies the Dynamically Loaded Intercomm Pools facility, wherein 24-Amode and/or 31-Amode Intercomm pools modules are loaded at startup. See the Operating Reference Manual. The default is NO (include NEWPOOLS in the Intercomm linkedit, and 31-Amode pools not used). Code YES for loading both pools types, code P31 to load only 31-Amode pools (NEWPOOLS is resident). Note that loading of 31-Amode pools also requires coding of a SPALIST macro parameter as described in the Planning Guide.

•DYNVERB

specifies whether the Front End Verb Table is to be loaded at startup. See the Operating Reference Manual. The default is NO (include BTVRBTB in the Intercomm linkedit - see FETABLE).

•FETABLE

specifies the name of the Front End Network Table (BTAM, TCAM and/or VTAM) to reassemble and linkedit in the Intercomm installation job stream, if separately assembled from the Front End Verb Table (BTVRBTB) which is automatically assembled. See the Operating Reference Manual and applicable Terminal Support Guides. The default is BTVRBTB which indicates that the Front End Verb and Network Tables have been coded in one module (not valid if DYNVERB=YES).

•FILEREC

specifies the File Recovery special feature. See the File Recovery Users Guide. FILEREC=YES forces CHKRES=YES. The default is NO, unless the Backout-on-the-Fly facility is specified (BACKOUT=YES), in which case FILEREC=YES is forced.

•FILSTAT

specifies the File Handler Statistics Report facility. See the Operating Reference Manual. The default is NO.

GEN

specifies the type of Intercomm installation being done. Code as NEW for first-time installation. The default is OLD indicating a reinstallation of an existing Intercomm system. Specifying NEW will result in production of JCL for allocation of various data sets such as Map Definition Files for MMU, DDQ data sets, the SECURITY data set for Extended Security, the CHEKPTFL data set for Checkpoint/Restore, the STATFILE data set for File Handler Statistics, Store/Fetch data sets, etc. In either case, the JCL is generated for loading of the RCT000 data set used by the Output Utility (which is used by the Intercomm system itself), assembly of various modules from the SYMREL data set and the creation (if GEN=NEW) and assembly (from SYMREL or SYMUSR as appropriate) of tables for various facilities.

JOBACCT

specifies accounting information that may be required on the JOB statements to be generated and is installation-dependent. Code in parentheses if imbedded commas are present. The default is ICOM. Due to the number of assembly steps in some of the jobs, the number of print lines subparameter should be at least 40 (40,000 lines).

JOBCLAS

specifies the MVS job class governing MVS selection of the generated jobs for execution. The default is A.

JOBNAME

specifies the jobname prefix for all generated JOB statements. Code as one to six alphanumeric characters. The default is ICMGEN.

JOBPGNM

specifies the programmer name field for all generated JOB statements and is installation-dependent. Code in quotes if imbedded blanks are present. The default is GENICOM.

LOG

specifies the type of device to be used for Intercomm logging and governs the type of log data set JCL that will be generated for the Intercomm execution job. Code as DISK or TAPE. If DISK is coded, JCL is generated to allocate disk data sets to utilize the Intercomm sequential output disk file flip/flop facility described in the Operating Reference Manual. The default is DISK.

LPALIB

specifies the name of the library designated as the System Link Pack library to be used for Multiregion, ESS, and/or Link Pack installation. See also the SYS parameter. The default is LPALIB.

•LPSPA

specifies whether the Intercomm Link Pack Facility is used and if YES, causes installation JCL to be generated, the LPSPALIB DD statement to be included in the generated Intercomm execution JCL, and modification of the Intercomm linkedit. See the Operating Reference Manual. The default is NO.

•LU62

specifies whether the LU6.2 External Feature is being used and if YES or PASSIVE (for basic support), or if ACTIVE (for extended/combined support) causes the modules involved to be assembled and linked, and included in the Intercomm linkedit. See SNA LU6.2 Support Guide. The default is NO.

•MMU

specifies whether Message Mapping Utilities are to be used, and if YES, generates assembly of the MMUVTBL table. If GEN=NEW, applicable MMU data sets are created. See Message Mapping Utilities. MMU=YES is required if AUTOGEN=YES is coded. MMU=YES forces STORFCH=YES. The default is YES.

•MULTREG

specifies the Multiregion Facility special feature and causes creation for a new user of all applicable control and satellite region data sets, in addition to ICOMLINK decks for a control and two satellite regions, and assembly and linkedit of tables MRMCT and PMIRDT00. If YES is coded, the MRSVC or IISVC global and the MULTREG global must be preset in SETGLOBE. See Multiregion Support Facility. MULTREG=YES forces DDQ=YES. The default is NO.

OVLYSTR

specifies the use of an overlay structure in the Intercomm linkedit for certain Intercomm and/or user modules. OVLYSTR=YES forces the ICOMLINK parameters TRANS=YES and ASYNCH=YES. The default is NO (recommended).

P

specifies the high-level qualifier for all Intercomm data set names, and must be the same as that used for the RXINSTAL job to allocate Intercomm libraries. Do not code in quotes if multiple qualifiers are used. The default is INT.

PL1

specifies the use of PL/1 interface routines for user application programs executing under Intercomm. If OPT (or YES) is coded, causes assembly and linkedit of modules PREPLI and PMIPL1, and copying of PL/1 source members to SYMPL1. For new users, SYMPL1 is also allocated. See the PL/1 Programmers Guide and the Operating Reference Manual. The default is NO, indicating that PL/1 programs will not be used.

•SAM

specifies linkedit of the System Accounting and Measurement facility modules for the ICOMLINK generation. See the Operating Reference Manual. The default is NO.

•SECUR

specifies the security functions to be used. ESS specifies the Extended Security System special feature and causes the linkedit of the appropriate Intercomm SVC. For new installations, JCL for assembly and linkedit of the link pack module SECVECT, as well as the creation of the SECURITY data set is generated. See Extended Security System. YES specifies Basic Security functions are in use; see the Operating Reference Manual. The default is NO.

•STORFCH

specifies the Store/Fetch Facility and for a new installation, causes creation of the Store/Fetch data sets. See Store/Fetch Facility. STORFCH=YES is forced if AUTOGEN=YES, MMU=YES, or DATAENT=YES is coded. The default is YES.

SYS

specifies the high-level qualifier for various MVS system data set names. Do not code in quotes if multiple qualifiers are used. The default is SYS1.

•TCAM

specifies whether a TCAM Front End is desired. Code YES if the Intercomm Extended TCAM support via the BTAM Front End (and GFE special feature) is used. See TCAM Support Users Guide. The default is NO.

UNIT

specifies the disk device type used for all Intercomm data set allocation. See also the description of RXINSTAL job in Chapter 2. The default is SYSDA.

•UTILITY

specifies use of certain on-line application oriented utilities. Code ALL if all utilities in the following list are in use. Code NONE if no utilities are to be used. If selected utilities only are to be used, code in a parameter sublist, as follows:

Code	Meaning
CHANGE	Change Utility
DISPLAY	Display Utility
EDIT	Edit Utility
OUTPUT	Output Utility
PAGE	CRT Page Browsing special feature.

See the Operating Reference Manual and Utilities Users Guide. When PAGE (or ALL) is coded, see Page Facility for additional installation requirements. For Intercomm system command processing, EDIT and OUTPUT are required. The default is (EDIT,OUTPUT).

VOLSER

specifies the volume serial number of the dedicated pack used for the Intercomm installation and all initial Intercomm data set and library allocations (see RXINSTAL job in Chapter 2). The default is INT001.

•VTAM

specifies whether a VTAM Front End is desired, and if so, causes the assembly and linkedit of various VTAM Front End modules, and for a new installation, the allocation of the VTAMQ disk queue data set. If VTAM is used, code a list of all logical unit type codes to be used; valid logical unit type codes are given in the description of the VTLSB macro LUTYPE parameter in the SNA Terminal Support Guide. Add ICOM or CICS if LU62 is not coded as NO. YES may be coded (for all types) instead of a list. If this parameter is coded, the VTAM global in SETGLOBE must be preset to 1. The default is NO.

Chapter 5

INSTALLATION JCL

5.1 EXECUTING THE GENERATED JCL

The JCL job stream produced by the assembly of the ICOMGEN macro consists of 40 separate jobs, some of which are conditionally produced. The jobs are numbered from job ICMGEN02 to job ICMGEN62 plus job ICMGEN70 to install the Intercomm Link Pack Facility, if specified, and job ICMGEN78 to allocate a linkedit deck (control statements) library called SYMINCL, job ICMGEN80 to produce the linkedit deck(s) (assemble ICOMLINK), job ICMGEN85 to linkedit Intercomm, and job ICMGEN90 to generate a sample job stream procedure for Intercomm execution JCL. Do not attempt to run the jobs concurrently as several are dependent on previous jobs executing successfully.

The following pages list the purpose of, and affected Intercomm elements for, each job. Generation of the job and/or individual steps within the job is dependent on the individual installation environment and may require modification as described under each job. In addition, if PROCLIB or ROUTE statements are required for the user installation, add those statements to each job as necessary. Also, add MSGCLASS and/or NOTIFY parameters to the JOB statements if the jobs are submitted under TSO (ISPF) or a similar text editor.

Note that for Release 11, the individual Intercomm load modules on the MODREL release library were assembled using the HLASM (ASMA90) executing on an ESA 4.3 operating system with DFSMS 1.2, and then link edited using the DFSMS binder/linkage editor with the options NCAL, LIST, LET, MAP, NORENT, and XREF. The generated installation job stream includes steps to reassemble modules affected by different MVS, VTAM, DFSMS, etc. releases.

The generated jobs should be kept for future reference on modules to reassemble should an upgrade to the Front End access method or the entire Operating System be made at your site, or if global table settings are changed. Whenever changes are made to Intercomm tables to add, delete, or modify entries, those tables must also be reassembled and relinked with the Intercomm load module(s).

For each job, the section title provides the primary job function and whether it may be generated for a new user only (NEW), an existing user (OLD), or both (NEW/OLD). Before submitting a job, read the entire description. For some jobs, system limits on the number of steps per job may require breaking the job into smaller job streams.

NOTE: some modules are listed under more than one job due to their reference to multiple system functions.

5.2 JOB 02 - COPY TABLES, ALLOCATE MDF LIBRARIES (NEW)

Job ICMGEN02, produced only if doing a new installation, copies supplied sample Intercomm tables from SYMREL to SYMUSR. The tables are FENETWRK (sample BTAM Front End Network Table), PMIBROAD, PMIDEVTB, PMISTATB, USRBTVRB (for BTVRBTB assembly), USRSUBS (for REENTSBS assembly), USRVERBS (for PMIVERBS assembly), NEWPOOLS, IC31PL00, PMIFILET, BTAMSCTS (if a BTAM Front End used), and MMUVTBL (if MMU used). The tables are assembled in job 34. If MMU is included in the system, the SYMMDF and MODMDF data sets (map definition files) are also allocated.

If a VTAM Front End is being installed, the module VTSAMP supplied on SYMREL and described in the SNA Terminal Support Guide should be used as a table base for the FENETWRK table. VTSAMP may be added to (if BTAM also used), or modified, instead of using the supplied FENETWRK module. To use VTSAMP, scratch FENETWRK from SYMUSR, then copy VTSAMP to SYMUSR and rename it to the value coded for the FETABLE parameter when the ICOMGEN macro was assembled.

In addition, modules INTSPA, CRSPA, SR1SPA, SR2SPA, USRSCTS, USRSCTS1, and USRSCTS2 are also copied. These tables are assembled in job 38. At assembly time, USRSCTS is copied into INTSCT or if a Multiregion System is being generated, USRSCTS is copied by CRSCT, USRSCTS1 is copied by SR1SCT, and USRSCTS2 is copied by SR2SCT.

Before proceeding further with the installation process, the tables should be modified to installation needs in consultation with an Intercomm System Engineer. For SR1SPA and SR2SPA, see also Multiregion Support Facility on coding of SPALIST parameters for a Multiregion system. For PMIFILET, delete the GENFTBLE entries for DES000 (if the CHANGE/DISPLAY Utility will not be used), VRB000 (if the EDIT Utility will only be used for Intercomm verbs), and SEC000 (if the Basic Security feature is not used - see SECUR parameter description for the ICOMGEN macro).

```
//ICMGEN02   JOB    ICOM,GENICOM,CLASS=A
//*
//* COPY  FENETWRK, PMIBROAD, PMIDEVTB, PMISTATB,
//*       USRBTVRB, USRSUBS, USRVERBS, MMUVTBL, PMIFILET
//*       NEWPOOLS, IC31PL00, INTSPA, USRSCTS
//*       CRSPA, SR1SPA, SR2SPA, USRSCTS1, USRSCTS2
//*       AND    BTAMSCTS
//* TO  SYMUSR  (FIRST TIME ONLY)
//*
//S10 EXEC  PGM=IEBUPDTE
//SYSPRINT  DD  SYSOUT=A
//SYSUT1    DD  DSN=INT.SYMREL,DISP=OLD
//SYSUT2    DD  DSN=INT.SYMUSR,DISP=OLD
//SYSIN     DD  *
./  REPRO  NAME=FENETWRK
./  REPRO  NAME=PMIBROAD
./  REPRO  NAME=PMIDEVTB
./  REPRO  NAME=USRBTVRB
./  REPRO  NAME=USRSUBS
./  REPRO  NAME=USRVERBS
./  REPRO  NAME=MMUVTBL
./  REPRO  NAME=PMIFILET
./  REPRO  NAME=NEWPOOLS
./  REPRO  NAME=IC31PL00
./  REPRO  NAME=INTSPA
./  REPRO  NAME=USRSCTS
./  REPRO  NAME=CRSPA
./  REPRO  NAME=SR1SPA
./  REPRO  NAME=SR2SPA
./  REPRO  NAME=USRSCTS1
./  REPRO  NAME=USRSCTS2
./  REPRO  NAME=BTAMSCTS
./  ENDUP
/*
//*
//*  ALLOCATE  INTERCOMM  MMU  LIBRARIES
//*
//S20       EXEC  PGM=IEFBR14
//SMDF  DD  DSN=INT.SYMMDF,DISP=(,CATLG),
//          SPACE=(CYL,(2,2,25)),
//          UNIT=SYSDA,VOL=SER=INT001,
//          DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//*
//MMDF  DD  DSN=INT.MODMDF,DISP=(,CATLG),
//          SPACE=(CYL,(2,2,25)),
//          UNIT=SYSDA,VOL=SER=INT001,
//          DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//
```

5.3 JOB 04 - ALLOCATE DISK LOG DATA SETS (NEW/OLD)

Job ICMGEN04, produced only if Intercomm logging is to be done to a disk device, allocates the log data set (INTERLOG) and its companion (INTERLOC) and thus implements the sequential output disk file flip/flop facility as described in the Operating Reference Manual, Chapter 6. If installing a Multiregion Intercomm system, log data sets will be allocated for the control region and two satellite regions, and will be named INT.region-id.INTERLOG and INT.region-id.INTERLOC where region-id will be CR, SR1 and SR2. Data set names for a single region Intercomm system will be INT.INTERLOG and INT.INTERLOC. If the ICOMGEN parameter P is coded, the specified value will be substituted for the default data set prefix value INT.

The user may change the generated values for BLKSIZE (4100), LRECL (4096) and NCP (8 - must be the same as the value coded for the LGNUM parameter on the SPALIST macro), however the same values must be coded on the INTERLOC companion data set as are coded on the primary INTERLOG data set. These changes must then also be made on all the INTERLOG and INTERLOC DD statements and for the block size on LOGDISK and RESTRTLG (if message restart is used) in the Intercomm execution JCL generated by job 90. The number of allocated cylinders may be changed, however a secondary extent may not be specified when using the flip/flop facility. This restriction is due to requirements for the ICOMFEOF utility to recover the log disk data set after a system (hardware) crash. See the Operating Reference Manual, Chapter 12.

Full details on the Intercomm logging facility are provided in Chapter 9 of the Operating Reference Manual.

For Single Region:

```
//ICMGEN04   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ALLOCATE  INTERLOG,  INTERLOC  FOR  DISK  LOGGING
//*
//S10       EXEC  PGM=IEFBR14
//INTERLOG DD  DSN=INT.INTERLOG,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//INTERLOC DD  DSN=INT.INTERLOC,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//
```

For Multiregion:

```
//ICMGEN04   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ALLOCATE  INTERLOG,  INTERLOC  FOR  DISK  LOGGING
//*
//S10       EXEC  PGM=IEFBR14
//INTERLOG DD  DSN=INT.CR.INTERLOG,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//INTERLOC DD  DSN=INT.CR.INTERLOC,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//SR1INTLG DD  DSN=INT.SR1.INTERLOG,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//SR1INTLC DD  DSN=INT.SR1.INTERLOC,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//SR2INTLG DD  DSN=INT.SR2.INTERLOG,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//*
//SR2INTLC DD  DSN=INT.SR2.INTERLOC,
//             DISP=(NEW,CATLG,CATLG),
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C),
//             VOL=SER=INT001,UNIT=SYSDA,
//             SPACE=(CYL,(5),RLSE)
//
```

5.4 JOB 06 - BMN BACK-OFF INSTALLATION (OLD only)

Job ICMGEN06, which is produced only if the &BMNOLD global in SETGLOBE is set to 1 and this is a reinstallation for an existing user, causes an update to SYMLIB to back off to the old Release 9 2-byte BMN number in the MSGHDR Dsect for the Intercomm message header, and in COBOL and PL/1 copy members which reference the message header. If the ICOMGEN parameter P is coded, the specified value will be substituted for the default data set prefix value INT in the update step. In addition, steps to reassemble and link modules which reference the BMN number are generated for modules which are not automatically reassembled in other jobs: CONVERSE, FINTUNER, FORMGEN, LOGANE15, LOGPRINT, LOGPROC, MAPOUT (if MMU used), PAGEMSG (if Page Facility used), and QUEUEMOD (if a BTAM Front End is used).

Modules referencing the BMN number which are automatically assembled in other jobs are: BSEGMOD (if DDQ global set to 1 in SETENV), BTSEARCH (if BTAM used), DDQMOD (if DDQ used), FECMD, FEMSG, INITLU6 (if extended LU6.2 used), MRINPUT (if Multiregion used), PMITEST, SYCT400, TALLY, VTCDM62 and VTLUDM62 (if extended LU6.2 used) or VTLUDM6 (if basic LU6.2 used), VTRECVE and VTSEND (if a VTAM Front End is used), VT01MOD (if BTAM not used), and WTOMOD.

```
//ICMGEN06   JOB    ICOM,GENICOM,CLASS=A
//*
//* APPLY BMN BACKOFF CHANGES
//*
//S5         EXEC PGM=IEBUPDTE
//SYSPRINT   DD  SYSOUT=A
//SYSUT1     DD  DSN=INT.SYMREL,DISP=SHR
//SYSUT2     DD  DSN=INT.SYMLIB,DISP=OLD
//SYSIN      DD  DSN=INT.SYMREL(CMSGHBMN),DISP=SHR
//*
//* ASSEMBLE/LINK AFFECTED MODULES
//*    NOT ASSEMBLED IN OTHER JOBS
//*
//S5 EXEC  ASMPCL,P='INT',Q=LIB,NAME=CONVERSE,LMOD=CONVERSE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FINTUNER,LMOD=FINTUNER
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S15 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FORMGEN,LMOD=FORMGEN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=LOGANE15,LMOD=LOGANE15
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S25 EXEC  ASMPCL,P='INT',Q=LIB,NAME=LOGPRINT,LMOD=LOGPRINT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=LOGPROC,LMOD=LOGPROC
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S35 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MAPOUT,LMOD=MAPOUT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PAGEMSG,LMOD=PAGEMSG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S45 EXEC  ASMPCL,P='INT',Q=LIB,NAME=QUEUEMOD,LMOD=QUEUEMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.5 JOB 08 - ASSEMBLIES FOR EXTENDED TCAM (NEW/OLD)

Job ICMGEN08, produced only if installing an Extended TCAM system, causes the reassembly and relink of modules TCAMINTF and TCAMASYN to incorporate TCAM macros. See the TCAM Terminal Support Guide.

NOTE: these modules should also be reassembled for every future upgrade in a TCAM release.

```
//ICMGEN08   JOB    ICOM,GENICOM,CLASS=A
//*
//*  EXTENDED  TCAM  MODULES
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=TCAMINTF,LMOD=TCAMINTF
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=TCAMASYN,LMOD=TCAMASYN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//*  CREATE  MCP  INTERFACE  DISK Q  DATA SETS  (SEPARATE JOB)
//*
//
```

5.6 JOB 10 - ASSEMBLE COMMON FRONT END MODULES (NEW/OLD)

Job ICMGEN10, which is always produced, causes the reassembly and relink of the Front End modules BLHSTRC, FECMD, FEMSG, TALLY, SYSCNTL, CLOSDWN3, FEWHOI, PMIEXTRM, WTOMOD, and OUT3270 which are common to the BTAM and VTAM Front Ends. Note that the module INTVRB00 (required for all Front End types) does not contain any global or operating system (TP access method) dependent code and does not need reassembly. See the BTAM and SNA Terminal Support Guides, as appropriate.

NOTE: all modules must be reassembled if VTAM is installed at a later date, after setting &VTAM to 1 in SETGLOBE. If BTAM is no longer used, set &BTAM to 0 in SETGLOBE and rerun this job.

```
//ICMGEN10   JOB    ICOM,GENICOM,CLASS=A
//*
//*  COMMON  FRONT  END  MODULES
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BLHSTRC,LMOD=BLHSTRC
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FECMD,LMOD=FECMD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FEMSG,LMOD=FEMSG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=TALLY,LMOD=TALLY
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=SYSCNTL,LMOD=SYSCNTL
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=CLOSDWN3,LMOD=CLOSDWN3
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FEWHOI,LMOD=FEWHOI
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S80 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMIEXTRM,LMOD=PMIEXTRM
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S90 EXEC  ASMPCL,P='INT',Q=LIB,NAME=OUT3270,LMOD=OUT3270
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S100 EXEC ASMPCL,P='INT',Q=LIB,NAME=WTOMOD,LMOD=WTOMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.7 JOB 12 - BTAM FRONT END ASSEMBLIES (NEW/OLD)

Job ICMGEN12, produced only if installing a BTAM Front End (requires &BTAM global set to 1 in SETGLOBE), causes the reassembly and relink of the common BTAM/TCAM Front End modules (see the BTAM Terminal Support Guide), including BSTAT2 if the system separator (SEPCHAR in SETENV) is specified as other than the default of a comma ('6B'). In addition, the following modules are reassembled and relinked in this job only if related special device support is specified for the system via SETENV:

- ERRSTATS - only if IBM2740 support included
- GFEINTFC - only if using the Generalized Front End, and Local 3270 support included
- BDIAL - only if start/stop dialup support included
- BSCDIAL - only if bisync dialup CPU support included
- BSCLEASE - only if bisync leased CPU support included
- PMI3735S,OUT3735 - only if IBM3735 support included
- PMI7770S - only if IBM7770 support included
- CNT01MOD - only if CNT1050 and backspace support (BACKSPC) included
- PMI2741 - only if IBM2741 support included
- SIMTTY - only if special NCIC support (SIMTTY) used

NOTE: if an upgrade in BTAM or BTAM/SP occurs, all modules in the generated job stream must be reassembled.

```
//ICMGEN12   JOB    ICOM,GENICOM,CLASS=A
//*
//*  BTAM FRONT END
//*
//*
//*  REQUIRED MODULES
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BLHIN,LMOD=BLHIN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BLHOT,LMOD=BLHOT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BMH000,LMOD=BMH000
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BSTAT2,LMOD=BSTAT2
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BTAMLINE,LMOD=BTAMLINE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BTSEARCH,LMOD=BTSEARCH
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BTVERIFY,LMOD=BTVERIFY
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S80 EXEC  ASMPCL,P='INT',Q=LIB,NAME=TPUMSG,LMOD=TPUMSG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S90 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BLHTRACE,LMOD=BLHTRACE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//*  OPTIONAL MODULES
//*
//S100 EXEC ASMPCL,P='INT',Q=LIB,NAME=ERRSTATS,LMOD=ERRSTATS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S110 EXEC ASMPCL,P='INT',Q=LIB,NAME=GFEINTFC,LMOD=GFEINTFC
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S120 EXEC ASMPCL,P='INT',Q=LIB,NAME=BDIAL,LMOD=BDIAL
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S130 EXEC ASMPCL,P='INT',Q=LIB,NAME=BSCDIAL,LMOD=BSCDIAL
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S140 EXEC ASMPCL,P='INT',Q=LIB,NAME=BSCLEASE,LMOD=BSCLEASE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S150 EXEC ASMPCL,P='INT',Q=LIB,NAME=PMI3735S,LMOD=PMI3735S
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S160 EXEC ASMPCL,P='INT',Q=LIB,NAME=OUT3735,LMOD=OUT3735
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S170 EXEC ASMPCL,P='INT',Q=LIB,NAME=PMI7770S,LMOD=PMI7770S
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S180 EXEC ASMPCL,P='INT',Q=LIB,NAME=CNT01MOD,LMOD=CNT01MOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S190 EXEC ASMPCL,P='INT',Q=LIB,NAME=PMI2741,LMOD=PMI2741
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S200 EXEC ASMPCL,P='INT',Q=LIB,NAME=SIMTTY,LMOD=SIMTTY
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.8 JOB 14 - VTAM FRONT END ASSEMBLIES (NEW/OLD)

Job ICMGEN14, produced only if installing a VTAM Front End (requires &VTAM global set to 1 in SETGLOBE), causes the reassembly and relink of the various VTAM Front End modules (see the SNA Terminal Support Guide). If installing a BTAM Front End as well, module VT01MOD (CPU console support) is not reassembled because the CPU console is supported via the BTAM Front End module CNT01MOD (see job 12).

NOTE: after a VTAM upgrade, execute this job again, reassemble the Front End Network Table, and the LU6.2 support modules (see job 15) if used.

```
//ICMGEN14   JOB    ICOM,GENICOM,CLASS=A
//*
//*  VTAM FRONT END
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTSTART,LMOD=VTSTART
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTRECVE,LMOD=VTRECVE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTSEND,LMOD=VTSEND
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTRESP,LMOD=VTRESP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTTRACEV,LMOD=VTTRACEV
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTEXITS,LMOD=VTEXITS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTLUCMD,LMOD=VTLUCMD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S80 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTQMOD,LMOD=VTQMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S90 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTVREERR,LMOD=VTVREERR
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S100 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTERRMOD,LMOD=VTERRMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S110 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTSQRSYN,LMOD=VTSQRSYN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S120 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTLUSCAN,LMOD=VTLUSCAN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S130 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTAUTOUP,LMOD=VTAUTOUP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S140 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTAMSTAT,LMOD=VTAMSTAT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S150 EXEC ASMPCL,P='INT',Q=LIB,NAME=VT01MOD,LMOD=VT01MOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S160 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTCDM1,LMOD=VTCDM1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S170 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTCDM2,LMOD=VTCDM2
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S180 EXEC ASMPCL,P='INT',Q=LIB,NAME=VTLUDM2,LMOD=VTLUDM2
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.9 JOB 15 - LU6.2 EXTERNAL FEATURE INSTALLATION (NEW/OLD)

Job ICMGEN15, produced only if installing the LU6.2 External Feature (requires &VTAM global set to 1 in SETGLOBE), causes the reassembly and relink of the appropriate (depending on whether Passive/Basic or Active/Extended Mode specified) support modules (see the SNA LU6.2 Support Guide).

NOTE: these modules should be reassembled after a VTAM upgrade.

For Passive/Basic Mode installation:

```
//ICMGEN15   JOB    ICOM,GENICOM,CLASS=A
//*
//*   LU6.2 EXTERNAL FEATURE
//*   ASSEMBLE AND LINK LU6.2 MODULES
//*
//*   FOR PASSIVE MODE ONLY SYSTEMS
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTCDM6,LMOD=VTCDM6
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTLUDM6,LMOD=VTLUDM6
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

For Active/Extended Mode installation:

```
//ICMGEN15   JOB    ICOM,GENICOM,CLASS=A
//*
//*   LU6.2 EXTERNAL FEATURE
//*   ASSEMBLE AND LINK LU6.2 MODULES
//*
//*   FOR ACTIVE AND/OR PASSIVE MODE SYSTEMS
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTCDM62,LMOD=VTCDM62
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTLUDM62,LMOD=VTLUDM62
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=VTPASS62,LMOD=VTPASS62
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=INITLU6,LMOD=INITLU6
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.10 JOB 16 - ASSEMBLE SYSTEM MODULES (NEW/OLD)

Job ICMGEN16, which is always produced, causes reassembly and relink of the general system modules (containing SETGLOBE code which is global-dependent) FESEND and MANAGER and may cause reassembly and relink of modules ICOMCESD and IJKCESD (if IAM file support specified in SETGLOBE), IKJDSP01 (if &NUMWQES specified in SETGLOBE as other than the default value), POOLDUMP (if &POOLNM set to 0 in SETGLOBE to provide the address of the pool owner instead of Csect name and displacement in the printed listing), and INTSTS (if &MULTREG set to 0 in SETGLOBE because the Multiregion Facility is not used).

The above modules are all described in the Operating Reference Manual; see the index of that manual for specific references.

```
//ICMGEN16   JOB    ICOM,GENICOM,CLASS=A
//*
//*   GENERAL SYSTEM MODULES
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=POOLDUMP,LMOD=POOLDUMP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=ICOMCESD,LMOD=ICOMCESD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IJKCESD,LMOD=IJKCESD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IJKDSP01,LMOD=IJKDSP01
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=FESEND,LMOD=FESEND
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MANAGER,LMOD=MANAGER
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=INTSTS,LMOD=INTSTS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.11 JOB 18 - PL/1 SUPPORT INSTALLATION (NEW/OLD)

Job ICMGEN18, produced only if PL/1 support is included, causes reassembly and relink of PREPLI and PMIPL1. For a new installation, a SYMPL1 data set is allocated with a block size of 4000. Increase the block size if Version 2 of the PL/1 compiler is used (can be same as SYMREL). For all users, the PL/1 application program copy members PENTRY, PLMSGHD, PL1HDR, PLILOGCH and PLIENTRY are copied to the SYMPL1 data set. See the Operating Reference Manual, Chapter 3, and the PL/1 Programmers Guide. SYMPL1 is referenced on the SYSLIB DD statement by the supplied Intercomm PL/1 procedures. This data set may also be subsequently used to hold symbolic maps for MMU processing by PL/1 application programs (see also Message Mapping Utilities). If job 06 (BMN back-off) was executed to update some PL/1 copy members to SYMLIB, then SYMLIB is concatenated before SYMREL for the INREL DD statement for the IEBCOPY step (below). If an existing installation does not use the Intercomm supplied PL/1 procedures, then change the OUTPL1 DD statement for the IEBCOPY step to the DSN of the system PL/1 copy library.

NOTE: PREPLI must be reassembled for ESA and OS/390 upgrades.

```
//ICMGEN18   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ALLOCATE PL1 INTERFACE LIBRARY
//*
//S10       EXEC PGM=IEFBR14
//SYMP      DD DSN=INT.SYMPL1,DISP=(,CATLG),
//          SPACE=(CYL,(1,1,10)),
//          UNIT=SYSDA,VOL=SER=INT001,
//          DCB=(DSORG=PO,RECFM=FB,BLKSIZE=4000,LRECL=80)
//*
//*  COPY  PENTRY,  PLMSGHD,  PL1HDR,  PLIENTRY,
//*    AND PLILOGCH  TO  SYMPL1
//*
//S20 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//INREL     DD DSN=INT.SYMREL,DISP=SHR
//OUTPL1    DD DSN=INT.SYMPL1,DISP=OLD
//SYSUT3    DD UNIT=SYSDA,SPACE=(TRK,(1))
//SYSUT4    DD UNIT=SYSDA,SPACE=(TRK,(1))
//SYSIN     DD *
            COPY OUTDD=OUTPL1,INDD=INREL
            SELECT MEMBER=((PENTRY,,R),(PLMSGHD,,R))
            SELECT MEMBER=(PL1HDR,,R)
            SELECT MEMBER=((PLIENTRY,,R),(PLILOGCH,,R))
/*
//*
//*  ASSEMBLE PL1 INTERFACE MODULES
//*
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMIPL1,LMOD=PMIPL1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PREPLI,LMOD=PREPLI
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.12 JOB 20 - ASSEMBLIES FOR MVS-DEPENDENT CODE (NEW/OLD)

Job ICMGEN20, always produced, causes reassembly and relink of modules STAEEXIT, STAERTRY, STAETASK, SPIEEXIT (due to MVS ESTAE and ESPIE macros), and due to snap list variances: SNAPRTN, SPIESNAP, PMISNAP1, SYCT400, PMINQDEQ, CLOSDWN3, PMIDEBUG, INTTABLE; and for MVS code, STARTUP3, ICOMCESD, ICOMVCON; and for Test Mode snaps, PMITEST. The above modules are described in the Operating Reference Manual (see the index) except INTTABLE which is for the Table Facility. This job must be rerun for a conversion from ESA to OS/390 and for all ESA and/or OS/390 upgrades. (See also jobs 8 through 18, 21-24, and 70.)

If &MRSVC or &IISVC has been specified in SETGLOBE (as other than the default), SYSEVENT macro execution is automatically generated in STARTUP3 to force Intercomm to execute nonswappable; required for all regions except when executing in Test Mode. (See the Operating Reference Manual and jobs 30 and 31.)

```
//ICMGEN20   JOB    ICOM,GENICOM,CLASS=A
//*
//*  REASSEMBLE  AND  RELINK  MVS-DEPENDENT  MODULES
//*
//S5  EXEC  ASMPCL,P='INT',Q=LIB,NAME=ICOMVCON,LMOD=ICOMVCON
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=ICOMCESD,LMOD=ICOMCESD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S15 EXEC  ASMPCL,P='INT',Q=LIB,NAME=STAEEXIT,LMOD=STAEEXIT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=STAERTRY,LMOD=STAERTRY
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S25 EXEC  ASMPCL,P='INT',Q=LIB,NAME=STAETASK,LMOD=STAETASK
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=SPIEEXIT,LMOD=SPIEEXIT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S35 EXEC  ASMPCL,P='INT',Q=LIB,NAME=SNAPRTN,LMOD=SNAPRTN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=SPIESNAP,LMOD=SPIESNAP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S45 EXEC  ASMPCL,P='INT',Q=LIB,NAME=SYCT400,LMOD=SYCT400
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMISNAP1,LMOD=PMISNAP1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S55 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMINQDEQ,LMOD=PMINQDEQ
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=CLOSDWN3,LMOD=CLOSDWN3
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S65 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMIDEBUG,LMOD=PMIDEBUG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=INTTABLE,LMOD=INTTABLE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S75 EXEC  ASMPCL,P='INT',Q=LIB,NAME=STARTUP3,LMOD=STARTUP3
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
```

(continued)

```
//S80 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMITEST,LMOD=PMITEST
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//* LINK ICOMCESD WITH INTSORT
//*
//S85 EXEC  LKEDP,P='INT',Q=LIB,U=LIB,LMOD=ICOMCESD
//SYSIN  DD *
         INCLUDE SYSLIB(ICOMCESD)
         INCLUDE SYSLIB(INTSORT)
//
```

5.13 JOB 21 - COBOL ASSEMBLIES AND INSTALL VS COBOL II (NEW/OLD)

Job ICMGEN21, produced only if COBOL support is requested, causes reassembly and relink of modules PREPROG, COBREENT, and DWSSNAP for snap processing. The above modules are described in the COBOL Programmers Guide. If COBOL2=YES is specified, then basic installation steps for VS COBOL II are also generated: before executing these steps, ensure the inner macro ANTEST used by IBM's IGZOPD macro is available from SYS1.MACLIB or SYS1.AMODGEN (if not, it is available from the end of the IGZOPD macro - copy it to SYMLIB as a separate member named ANTEST).

NOTE: if upgrading from ESA to OS/390 or to a higher level of OS/390, the assemblies should be executed again. If upgrading the Release level of VS COBOL II, its installation must be executed again. For installing and using VS COBOL II, ensure the pre-Language Environment versions of the VS COBOL II libraries for compiles, linkedits, and Intercomm execution, are used. Language Environment is not currently supported by Intercomm.

```
//ICMGEN21   JOB    ICOM,GENICOM,CLASS=A
//*
//*  REASSEMBLE  AND  RELINK  IF  COBOL
//*
//S5  EXEC  ASMPCL,P='INT',Q=LIB,NAME=COBREENT,LMOD=COBREENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PREPROG,LMOD=PREPROG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S15 EXEC  ASMPCL,P='INT',Q=LIB,NAME=DSWSNAP,LMOD=DWSSNAP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//*          INSTALL  VS  COBOL  II
//*
//*   ASSEMBLE IGZOPD - CREATE ICOM VERSION OF IGZEOPD
//S20 EXEC ASMPCL,P='INT',Q=USR,NAME=IGZEOPD,LMOD=IGZEOPD,
//    PARM.LKED='LIST,LET,NCAL,RENT,AMODE=31,RMODE=24'
//ASM.SYSIN DD *
IGZEOPD  CSECT
         IGZOPD DEBUG=NO,MIXRES=NO,RTEREUS=NO,STAE=NO,                  *
               LANGUAGE=EN,LIBKEEP=YES,SYSTYPE=OS,WSCLEAR=YES
         END
//*
```

(continued)

```
//*   RELINK IGZCPCO (RMODE=ANY) AND TO REPLACE IGZEOPD
//S25 EXEC PGM=IEWL,
//    PARM='LIST,LET,XREF,NCAL,RENT,AMODE=31,RMODE=ANY'
//MODUSR   DD DSN=INT.MODUSR,DISP=SHR
//SYSLIB   DD DSN=SYS1.COB2LIB,DISP=SHR
//SYSLIN   DD DDNAME=SYSIN
//SYSPRINT DD SYSOUT=A
//SYSLMOD  DD DSN=INT.MODLIB,DISP=OLD
//SYSUT1   DD UNIT=SYSDA,SPACE=(TRK,(2,1))
//SYSIN    DD *
  REPLACE IGZEOPD                 REQUIRED
  INCLUDE SYSLIB(IGZCPCO)    VS COBOL II OS ESM COBPACK
  INCLUDE MODUSR(IGZEOPD)         ICOM VERSION
  ENTRY IGZCPCO
  NAME IGZCPCO(R)
//*
//*   RELINK IGZCPAC - REMOVE 24-AMODE ROUTINES,
//*                    AND LINK IT AS 31-AMODE
//S30 EXEC PGM=IEWL,
//    PARM='LIST,LET,XREF,NCAL,RENT,AMODE=31,RMODE=ANY'
//SYSLIB   DD DSN=SYS1.COB2LIB,DISP=SHR
//SYSLIN   DD DDNAME=SYSIN
//SYSPRINT DD SYSOUT=A
//SYSLMOD  DD DSN=INT.MODLIB,DISP=OLD
//SYSUT1   DD UNIT=SYSDA,SPACE=(TRK,(2,1))
//SYSIN    DD *
  REPLACE IGZCBUG           REPLACE THOSE WITH RMODE=24
  REPLACE IGZCCTL         SO CAN LINK/LOAD W. RMODE=ANY
  REPLACE IGZCLNK               (LOADED DYNAMICALLY)
  REPLACE IGZCRCL               (LOADED DYNAMICALLY)
  REPLACE IGZCULE             OTHERS NOT USED UNDER
  REPLACE IGZCXFR                    ICOM
  INCLUDE SYSLIB(IGZCPAC)   VS COBOL II GENERAL COBPACK
  ENTRY IGZCPAC
  NAME IGZCPAC(R)
//*
//*   ASSEMBLE IGZOPT - CREATE ICOM VERSION OF IGZEOPT
//S35 EXEC ASMPCL,P='INT',Q=USR,NAME=IGZEOPT,LMOD=IGZEOPT,
//    PARM.LKED='LIST,LET,NCAL,RENT,AMODE=31,RMODE=24'
//ASM.SYSIN DD *
IGZEOPT  CSECT
         IGZOPT DEBUG=NO,MIXRES=NO,RTEREUS=NO,STAE=NO,       REQUIRED  *
               SSRANGE=YES,SPOUT=NO                       OPTIONAL
         END
//
```

5.14 JOB 22 - FILE HANDLER ASSEMBLIES (NEW/OLD)

Job ICMGEN22, which is always produced, causes reassembly and relink of the File Handler modules IXFDSCTn (as specified by the user via the DSCT parameter), IXFFAR, IXFHND00 and IXFHND01, and will cause reassembly and relink of IXFQISAM if IAM file support is specified in SETGLOBE. The Intercomm File Handler and related features are described in Chapter 6 of the Operating Reference Manual.

NOTE: this job must be executed whenever the Version and/or Release level of DFSMS is upgraded, in addition to when changing the MVS (ESA and/or OS/390) level.

```
//ICMGEN22   JOB    ICOM,GENICOM,CLASS=A
//*
//*  FILE HANDLER
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFDSCT1,LMOD=IXFDSCT1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFFAR,LMOD=IXFFAR
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFHND00,LMOD=IXFHND00
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFHND01,LMOD=IXFHND01
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFQISAM,LMOD=IXFQISAM
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.15 JOB 23 - INSTALL DYNAMIC FILE ALLOCATION (NEW/OLD)

Job ICMGEN23, produced only if the Dynamic File Allocation Special Feature is specified, causes reassembly and relink of IXFDYNAM. The Intercomm Dynamic File Allocation facility is described in the Dynamic File Allocation manual.

NOTE: this job must be executed (if using the DFA special feature) whenever the DFSMS level of MVS is upgraded and/or the ESA or OS/390 level is upgraded or changed.

```
//ICMGEN23   JOB    ICOM,GENICOM,CLASS=A
//*
//*  REASSEMBLE AND RELINK IF DFA
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFDYNAM,LMOD=IXFDYNAM
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.16 JOB 24 - FILE HANDLER STATISTICS ASSEMBLIES (NEW/OLD)

Job ICMGEN24, produced only if File Handler Statistics reporting/display is requested and the &FHSTATS global value in SETGLOBE is changed from the released value of 5 (for detailed statistics counters), causes reassembly and relink of IXFRPT01 and of affected modules not reassembled in other steps: INTSTORF (if Store/Fetch used), IXFB37, IXFCTRL, LOGPUT, RMPURGE, IXFDYALC, IXFVSCRS (if VSAM used), IXFQISAM (if ISAM, but not IAM, used), and if file recovery used: IXFCHKPT, IXFCREAT, IXFLOG, IXFRVRSE, IXFSNAPL and IXFVERF1. See also the section on File Handler Statistics in Chapter 6 of the Operating Reference Manual.

NOTE: this job should be executed whenever the DFSMS level of MVS is upgraded and/or the MVS level (ESA or OS/390) is upgraded or changed.

```
//ICMGEN24   JOB    ICOM,GENICOM,CLASS=A
//*
//*  FILE  HANDLER  STATISTICS  FACILITY
//*
//S5  EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFRPT01,LMOD=IXFRPT01
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=INTSTORF,LMOD=INTSTORF
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S15 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFB37,LMOD=IXFB37
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFCTRL,LMOD=IXFCTRL
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S25 EXEC  ASMPCL,P='INT',Q=LIB,NAME=LOGPUT,LMOD=LOGPUT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=RMPURGE,LMOD=RMPURGE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S35 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFDYALC,LMOD=IXFDYALC
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFVSCRS,LMOD=IXFVSCRS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S45 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFQISAM,LMOD=IXFQISAM
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFCHKPT,LMOD=IXFCHKPT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S55 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFCREAT,LMOD=IXFCREAT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFLOG,LMOD=IXFLOG
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S65 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFRVRSE,LMOD=IXFRVRSE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFSNAPL,LMOD=IXFSNAPL
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S75 EXEC  ASMPCL,P='INT',Q=LIB,NAME=IXFVERF1,LMOD=IXFVERF1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.17 JOB 26 - ASSEMBLE MULTIREGION FACILITY MODULES (NEW/OLD)

Job ICMGEN26, produced only for Multiregion Intercomm systems, causes reassembly and relink of the Multiregion Facility modules (see Multiregion Support Facility).

NOTE: the use of Multiregion requires the use of an Interregion SVC for inter-region communication. Installation of either the MRSVC or IISVC (see SETGLOBE globals) must be planned (see Jobs 30 and 31).

```
//ICMGEN26   JOB    ICOM,GENICOM,CLASS=A
//*
//*  MULTI-REGION  FACILITY
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRINTER,LMOD=MRINTER
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRINPUT,LMOD=MRINPUT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRSTAE,LMOD=MRSTAE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRPURGE,LMOD=MRPURGE
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRCSAMOD,LMOD=MRCSAMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MROTPUT,LMOD=MROTPUT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRQMNGR,LMOD=MRQMNGR
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S80 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRLOGOT,LMOD=MRLOGOT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S90 EXEC  ASMPCL,P='INT',Q=LIB,NAME=MRLOGIN,LMOD=MRLOGIN
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S100 EXEC ASMPCL,P='INT',Q=LIB,NAME=MRBATCH,LMOD=MRBATCH
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S110 EXEC ASMPCL,P='INT',Q=LIB,NAME=MRCONSS,LMOD=MRCONSS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S120 EXEC ASMPCL,P='INT',Q=LIB,NAME=MRMOD,LMOD=MRMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.18 JOB 28 - MULTIREGION TABLE ASSEMBLIES (NEW/OLD)

Job ICMGEN28, produced only for Multiregion Intercomm systems, causes assembly and linkedit of the Multiregion tables MRMCT and PMIRDT00. For new installations, it first copies them from SYMREL to SYMUSR. The load module for MRMCT is placed in the system link pack area library (LPALIB) for MVS systems. The MRMCT must be in FLPA (not EFLPA) or MLPA, and NOPROT must be specified on the FIX (or MLPA) parameter in the IEASYSnn PARMLIB member used at system IPL. See Multiregion Support Facility. Under Release 11, it is not necessary to reinstall the MRMCT unless upgrading from ESA to OS/390.

For a new installation, dynamic user program source and load libraries are allocated at this time with names of the form INT.region-id.SYMDYNL and INT.region-id.MODDYNL, where region-ids are CR, SR1 and SR2. If a value is coded for the P parameter for ICOMGEN, that value is substituted for the default prefix INT. These libraries are to be used to contain user subsystems and subroutines which will execute under Intercomm. In a Multiregion system, a unique dynamic load library data set must be specified in each region for both the STEPLIB concatenation and for the DYNLLIB data set (see job 90), and each may have only one extent for dynamic linkedit to function (see Operating Reference Manual). User application programs and subroutines may be resident in the Intercomm linkedit or dynamically loaded when needed. See job 29 for allocation of SYMDYNL and MODDYNL for a single region system.

```
//ICMGEN28   JOB    ICOM,GENICOM,CLASS=A
//*
//*  COPY  MRMCT,  PMIRDT00  TO  SYMUSR (FIRST TIME ONLY)
//*
//S10       EXEC PGM=IEBUPDTE
//SYSPRINT DD SYSOUT=A
//SYSUT1    DD DSN=INT.SYMREL,DISP=OLD
//SYSUT2    DD DSN=INT.SYMUSR,DISP=OLD
//SYSIN     DD *
./ REPRO NAME=MRMCT
./ REPRO NAME=PMIRDT00
./ ENDUP
/*
//*
//*  ASSEMBLE  RDT
//*
//S20      EXEC ASMPCL,P='INT',Q=USR,NAME=PMIRDT00,LMOD=PMIRDT00,
//         PARM.LKED=(XREF,LIST,NCAL,LET)
//*
//*  ASSEMBLE  MCT
//*
//S30      EXEC ASMPCL,P='INT',Q=USR,NAME=MRMCT,LMOD=MRMCT,
//         PARM.LKED=(LIST,LET,RENT)
//LKED.SYSLMOD DD DSN=SYS1.LPALIB(&LMOD),DISP=OLD
```

(continued)

```
//*
//*  ALLOCATE  DYNAMIC  SUBSYSTEM  LIBRARIES
//*
//S40      EXEC PGM=IEFBR14
//SDYNCR   DD DSN=INT.CR.SYMDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,2,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//*
//MDYNCR   DD DSN=INT.CR.MODDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//*
//SDYNSR1 DD DSN=INT.SR1.SYMDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,2,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//*
//MDYNSR1 DD DSN=INT.SR1.MODDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//*
//SDYNSR2 DD DSN=INT.SR2.SYMDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,2,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//*
//MDYNSR2 DD DSN=INT.SR2.MODDYNL,DISP=(,CATLG),
//         SPACE=(CYL,(5,,50)),
//         UNIT=SYSDA,VOL=SER=INT001,
//         DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//
```

5.18.1 JOB 29 - ALLOCATE SYM/MODDYNL IF NOT MULTREG (NEW)

Job ICMGEN29, produced only for new users without a Multiregion environment, allocates dynamic user program source and load module libraries with names of the form INT.SYMDYNL and INT.MODDYNL. If a value is coded for the P parameter for ICOMGEN, that value is substituted for the prefix INT. The dynamic load library must be unique to each Intercomm region (allocate additional libraries with other prefix names for other regions, including the test system) and must be specified in the execution JCL for both the STEPLIB concatenation and for the DYNLLIB data set (see job 90), and each load library may have only one extent for dynamic linkedit to function (see Operating Reference Manual). User application programs and subroutines may be resident in the Intercomm linkedit or dynamically loaded when needed. See job 28 for allocation of SYMDYNL and MODDYNL data sets in a Multiregion environment.

```
//ICMGEN29   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ALLOCATE  DYNAMIC  SUBSYSTEM  LIBRARIES
//*
//S10     EXEC PGM=IEFBR14
//SDYNL   DD DSN=INT.SYMDYNL,DISP=(,CATLG),
//        SPACE=(CYL,(5,2,50)),
//        UNIT=SYSDA,VOL=SER=INT001,
//        DCB=(DSORG=PO,RECFM=FB,BLKSIZE=6160,LRECL=80)
//*
//MDYNL   DD DSN=INT.MODDYNL,DISP=(,CATLG),
//        SPACE=(CYL,(5,,50)),
//        UNIT=SYSDA,VOL=SER=INT001,
//        DCB=(DSORG=PO,RECFM=U,BLKSIZE=6160)
//*
//
```

5.19 JOB 30 - INSTALL INTERREGION MRSVC (NEW/OLD)

Job ICMGEN30, produced only if &MRSVC is specified in SETGLOBE as other than the default value, assembles module IGCICOM (Type 1 SVC) and linkedits it into the MVS system library (NUCLEUS) as IGCnnn, where nnn is the numerical &MRSVC value (set to 237 when producing JCL illustrated below). This is an Intercomm interregion SVC, which is used for Multiregion Intercomm systems (see job 26), the Extended Security System, the Fastsnap facility, and to use the SYSEVENT macro to make Intercomm execute nonswappable (see job 20). See Chapter 7 of the Operating Reference Manual for further details on installing the Intercomm interregion MRSVC. Reinstallation under Release 11 is recommended (reassemble and link to the MVS system library) and required if upgrading to OS/390.

See job 31 if using the IISVC instead of MRSVC.

```
//ICMGEN30   JOB    ICOM,GENICOM,CLASS=A
//*
//*  GENERATE  INTERCOMM  SVC
//*
//S10       EXEC ASMPCL,P='INT',Q=USR,NAME=IGCICOM,LMOD=IGC237,
//          PARM.LKED=(LIST,LET,RENT)
//ASM.SYSIN    DD  DSN=&P..SYMREL(&NAME),DISP=SHR
//LKED.SYSLMOD DD  DSN=SYS1.NUCLEUS(&LMOD),DISP=OLD
//
```

5.19.1 JOB 31 - INSTALL INTERREGION IISVC (NEW/OLD)

Job ICMGEN31, produced only if &IISVC (Intercomm Integrity SVC) is specified in SETGLOBE as other than the default value, links the Type 2 SVC load module IGCICSVC to SYS1.NUCLEUS as IGCnnn (where nnn is the numerical &IISVC value - set to 237 when producing JCL illustrated below), and then reassembles and links system (and ESS, if used) modules which use the SVC. This SVC is reentrant and requires the LOCAL lock at entry. It performs within the SVC all functions previously accessed via the MRSVC, but removes the possibility of executing in Supervisor State or Protect Key 0 in open code, shields the Operating System from illegal access by all programs, and validates the calling user and requested functions. If the IISVC is installed later, also reassemble and link all SPA tables which assemble the SPALIST macro (INTSPA, CRSPA, etc.). Multiregion modules which use IISVC are reassembled and linked in job 26, which must also be executed if a later conversion from use of MRSVC to IISVC is done, and the Multiregion Facility is used. Relink of the SVC to the operating system nucleus is required for Release 11 if ESS is used, and for an upgrade from ESA to OS/390.

See job 30 if using MRSVC instead of IISVC.

```
//ICMGEN31   JOB    ICOM,GENICOM,CLASS=A
//*
//*  LINK  IISVC
//*
//S5     EXEC LKEDP,Q=REL,P='INT',PARM.LKED=(LIST,LET,RENT)
//LKED.SYSLMOD DD DSN=SYS1.NUCLEUS,DISP=OLD
//SYSIN  DD *
         CHANGE IGCICSVC(IGC237)
         INCLUDE SYSLIB(IGCICSVC)
         NAME IGC237(R)
//*
//*  ASSEMBLE  MODULES  USING  IISVC
//*
//S10 EXEC  ASMPCL,Q=LIB,P='INT',NAME=STARTUP3,LMOD=STARTUP3
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,Q=LIB,P='INT',NAME=CLOSDWN3,LMOD=CLOSDWN3
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,Q=LIB,P='INT',NAME=STAEEXIT,LMOD=STAEEXIT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,Q=LIB,P='INT',NAME=PMISNAP1,LMOD=PMISNAP1
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,Q=LIB,P='INT',NAME=IJKDSP01,LMOD=IJKDSP01
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,Q=LIB,P='INT',NAME=INTVRB00,LMOD=INTVRB00
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70 EXEC  ASMPCL,Q=LIB,P='INT',NAME=INTSEC00,LMOD=INTSEC00
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S80 EXEC  ASMPCL,Q=LIB,P='INT',NAME=INTSEC02,LMOD=INTSEC02
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.20 JOB 32 - INSTALL EXTENDED SECURITY SYSTEM (NEW)

Job ICMGEN32, produced only for new installations of Intercomm using the Extended Security System, creates the SECURITY data set and assembles and linkedits the SECVECT table into the MVS LPALIB data set. The SECVECT table must be in FLPA (not EFLPA) or MLPA, and NOPROT must be specified on the FIX (or MLPA) parameter in the IEASYSnn PARMLIB member used at system IPL. For further details, and SECVECT table generation options, see the installation chapter of Extended Security System. The user may increase the space allocation for the SECURITY file depending on the algorithm for calculating space needs as described in the installation chapter of Extended Security System.

Existing installations need not execute this job unless installing ESS for the first time or upgrading to OS/390 (reassemble and link SECVECT to the system LPALIB). An existing installation should back up the Release 9 or 10 SECURITY file before testing with it under Release 11. Other requirements for upgrade of ESS to Release 11 are detailed in the Planning Guide.

NOTE: the use of ESS requires the use of an SVC, as online ESS control blocks are in store-protected core. Installation of either MRSVC or IISVC (see SETGLOBE globals) must be planned (see jobs 30 and 31).

```
//ICMGEN32   JOB    ICOM,GENICOM,CLASS=A
//*
//*  EXTENDED  SECURITY  SYSTEM
//*
//S10       EXEC  PGM=SECFILE,PARM=01
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//SECURITY  DD  DSN=INT.SECURITY,DISP=(,CATLG,DELETE),
//          VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(3)),
//          DCB=(DSORG=DA,BLKSIZE=256,RECFM=F,OPTCD=R)
//*
//S20 EXEC ASMPCL,P='INT',Q=LIB,U=REL,NAME=SECVECT,LMOD=SECVECT
//ASM.SYSIN    DD  *
         SVECT DSECT=NO
         END
//LKED.SYSLMOD DD  DSN=SYS1.LPALIB(&LMOD),DISP=OLD
//
```

5.21 JOB 34 - ASSEMBLE SYSTEM TABLES (NEW/OLD)

Job ICMGEN34, which is always produced, unconditionally causes the assembly and linkedit of tables PMIBROAD, PMIDEVTB, PMIFILET, PMISTATB, PMIVERBS, NEWPOOLS (for Intercomm pools), and REENTSBS and the INTLOAD subroutine interface routine linked with dynamically loaded programs (except COBOL) which copies the same USRSUBS entries as REENTSBS for direct calls from BAL and PL/1 programs. Also, the assembly and linkedit of the following tables is generated depending upon the following conditions:

- MMUVTBL - if MMU is used (see Message Mapping Utilities)
- BTVRBTB - if dynamically loaded at startup (DYNVERB=YES), the load module is named BTVERBnn instead of BTVRBTB
- FETABLE (user-specified table name) - if the Front End Network Table is to be assembled and linkedited separately from BTVRBTB
- VTIDTABL - if a VTAM Front End is used (see SNA Terminal Support Guide) (delete this step if no VTIDTABL created, or it is generated in the Front End Network Table)
- BTAMSCTS - if a BTAM or Extended TCAM Front End is used (delete this step if queuing information coded on BTERM terminal definitions)
- IC31PL00 - if DYNPOOL=P31 or YES was coded for the ICOMGEN macro assembly.

For existing installations, if a name for the Intercomm pools module (ICOMPOOL macros) other than NEWPOOLS is used, change the name in the assembly step before executing this job. If a Multiregion system is used with different pools modules, then add assembly steps for each module. The generated linkedit control decks (see job 80) must also be correspondingly changed if the 24-Amode pools are resident (DYNPOOL=P31 or NO). For Release 9 installations, the COREACCT macro previously hard-coded in MANAGER must be coded as the first macro in the user's pools module(s), before the ICOMPOOL macros. See the Operating Reference Manual, Chapter 5, and Basic System Macros for COREACCT coding values (and NEWPOOLS on SYMREL for coding example). If dynamically loaded 31-Amode pools are used/coded, add assembly steps for each module for each region, as needed.

Unless otherwise noted above, coding of these tables is described in the Operating Reference Manual (use the index to find specific table names). Recommended parameter coding for the macros in the network related tables (FETABLE, PMISTATB, PMIDEVTB) are provided under descriptions of specific terminal types in the applicable TP Network installation description manuals. Under a Multiregion system, the same version of PMISTATB and PMIDEVTB should be used in every region, and the same basic version of REENTSBS and INTLOAD (if used) in every Satellite region. The Front End Network Table (FETABLE), BTVRBTB, BTAMSCTS and/or VTIDTABL, and PMIBROAD may only be in the control region. If a Broadcast Table is needed in a satellite region, then different versions should be used in each region specifying only those terminals which may execute subsystems in the region.

NOTE: after an upgrade of BTAM or VTAM, the Front End Network Table must be reassembled along with the corresponding Front End modules.

The previous requirement to modify the FEMACGBL global table, if more than 1000 subsystems or terminals or verbs (or SUBSYS macros in the RDT for Multiregion) are defined, is no longer necessary because HLASM (and Assembler H V2) automatically expand global arrays, as needed. Changes needed for more than 10,000 terminals in a VTAM environment are described in the installation chapter of SNA Terminal Support Guide.

```
//ICMGEN34   JOB    ICOM,GENICOM,CLASS=A
//*
//*          TABLES
//*
//S5  EXEC  ASMPCL,P='INT',Q=USR,NAME=PMIBROAD,LMOD=PMIBROAD
//S10 EXEC  ASMPCL,P='INT',Q=USR,NAME=PMIDEVTB,LMOD=PMIDEVTB
//S15 EXEC  ASMPCL,P='INT',Q=USR,NAME=PMIFILET,LMOD=PMIFILET
//S20 EXEC  ASMPCL,P='INT',Q=USR,NAME=PMISTATB,LMOD=PMISTATB
//S25 EXEC  ASMPCL,P='INT',Q=USR,NAME=PMIVERBS,LMOD=PMIVERBS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=USR,NAME=NEWPOOLS,LMOD=NEWPOOLS
//S35 EXEC  ASMPCL,P='INT',Q=USR,NAME=MMUVTBL,LMOD=MMUVTBL
//S40 EXEC  ASMPCL,P='INT',Q=USR,NAME=BTVRBTB,LMOD=BTVRBTB
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S45 EXEC  ASMPCL,P='INT',Q=USR,NAME=FENETWRK,LMOD=FENETWRK
//S50 EXEC  ASMPCL,P='INT',Q=USR,NAME=VTIDTABL,LMOD=VTIDTABL
//S55 EXEC  ASMPCL,P='INT',Q=USR,NAME=BTAMSCTS,LMOD=BTAMSCTS
//*
//*   SUBROUTINE  INTERFACE
//*
//S60 EXEC  ASMPCL,P='INT',Q=USR,NAME=REENTSBS,LMOD=REENTSBS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S65 EXEC  ASMPCL,P='INT',Q=USR,NAME=INTLOAD,LMOD=INTLOAD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//* 31-AMODE POOLS
//*
//S70 EXEC  ASMPCL,P='INT',Q=USR,NAME=IC31PL00,LMOD=IC31PL00,
//             AM=31,RM=ANY                  For loading above 16M line
//
```

5.22 JOB 36 - RELINK OFFLINE UTILTIES (NEW/OLD)

Job ICMGEN36, always produced, causes reassembly and relink of the module BATCHPAK, and relink of the BDAM file load utility PMIEXLD, the Store/Fetch data set print utility DUMPREST (if STORFCH=YES), and the MMU map load utility LOADMAPS (if MMU=YES). See the Operating Reference Manual for a description of PMIEXLD, Store/Fetch Facility for DUMPREST, and Message Mapping Utilities for LOADMAPS.

NOTE: this job must also be rerun after SMs are applied, along with the relink of DDQPRINT described in job 40.

```
//ICMGEN36   JOB    ICOM,GENICOM,CLASS=A
//*
//*  RELINK  OFFLINE  UTILITIES
//*
//S5  EXEC ASMPCL,P='INT',Q=LIB,NAME=BATCHPAK,LMOD=BATCHPAK
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//S10  EXEC LKEDP,P='INT',Q=USR,LMOD=PMIEXLD
//LKED.SYSLMOD DD DSN=&P..MODLIB(&LMOD),DISP=SHR
//LKED.SYSIN DD *
  INCLUDE SYSLIB(PMILOAD,PMIFILET,PMISERC3)
  INCLUDE SYSLIB(IXFHND00,IXFHND01,BATCHPAK)
/*
//S15  EXEC LKEDP,P='INT',Q=LIB,LMOD=DUMPREST
//LKED.SYSIN DD *
  INCLUDE SYSLIB(SFDMPRST,INTSTORF,STOSTART)
  INCLUDE SYSLIB(IXFHND00,IXFHND01,BATCHPAK)
/*
//S20  EXEC LKEDP,P='INT',Q=LIB,LMOD=LOADMAPS
//LKED.SYSIN DD *
  INCLUDE SYSLIB(LOADMAP,STOSTART,INTSTORF)
  INCLUDE SYSLIB(BATCHPAK,IXFHND00,IXFHND01)
/*
//
```

5.23 JOB 38 - ASSEMBLE SPA AND SCT TABLES (NEW/OLD)

Job ICMGEN38, which is always produced, causes the assembly and linkedit of the SPA and SCT modules. These are INTSPA and INTSCT if a single region only, or CRSPA, SR1SPA, SR2SPA and CRSCT, SR1SCT and SR2SCT if a Multiregion Intercomm system is being installed. New users should refer back to job 02 regarding copy members for SCT module assemblies. For an existing Multiregion installation, the names of the tables may be changed in the generated JCL; add additional assembly steps if more than two satellite regions are used. Also change the Q parameter if different user libraries are used for each region. Coding of INTSPA and INTSCT is described in Chapter 3 of the Operating Reference Manual. Further considerations apply if a Multiregion system is being generated, see Multiregion Support Facility.

For Single Region:

```
//ICMGEN38   JOB    ICOM,GENICOM,CLASS=A
//*
//*  SINGLE  REGION  SPA  AND  SCT
//*
//S10 EXEC  ASMPCL,P='INT',Q=USR,NAME=INTSPA,LMOD=INTSPA
//S20 EXEC  ASMPCL,P='INT',Q=USR,NAME=INTSCT,LMOD=INTSCT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

For Multiregion:

```
//ICMGEN38   JOB    ICOM,GENICOM,CLASS=A
//*
//*  MULTIREGION  SPA'S  AND  SCT'S
//*
//S10 EXEC  ASMPCL,P='INT',Q=USR,NAME=CRSPA,LMOD=CRSPA
//S20 EXEC  ASMPCL,P='INT',Q=USR,NAME=SR1SPA,LMOD=SR1SPA
//S30 EXEC  ASMPCL,P='INT',Q=USR,NAME=SR2SPA,LMOD=SR2SPA
//S40 EXEC  ASMPCL,P='INT',Q=USR,NAME=CRSCT,LMOD=CRSCT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50 EXEC  ASMPCL,P='INT',Q=USR,NAME=SR1SCT,LMOD=SR1SCT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60 EXEC  ASMPCL,P='INT',Q=USR,NAME=SR2SCT,LMOD=SR2SCT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.24 JOB 40 - ASSEMBLE DDQ FACILITY MODULES (NEW/OLD)

Job ICMGEN40, produced only if Dynamic Data Queuing is specified or forced, causes the reassembly and relink of modules DDQMOD and DDQSTART and the table DDQDSTBL, which is first copied from SYMREL to SYMUSR if this is a new installation. In addition, the offline utility DDQPRINT is relinked to MODLIB to INCLUDE the user DDQDSTBL. If the DDQ global is set to 1 in SETENV, then BSEGMOD (for BTAM segmented input processing) is also reassembled due to snap list variations between operating systems. See Dynamic Data Queuing Facility.

NOTE: for existing installations, ensure that the existing version of DDQENV has been copied to the Release 11 SYMLIB (or update the Release 11 version from SYMREL to SYMLIB) before executing this job.

```
//ICMGEN40   JOB    ICOM,GENICOM,CLASS=A
//*
//*  DYNAMIC  DATA  QUEUEING
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=DDQMOD,LMOD=DDQMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=DDQSTART,LMOD=DDQSTART
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=BSEGMOD,LMOD=BSEGMOD
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//*
//*  COPY  DDQDSTBL  TO  SYMUSR (FIRST TIME ONLY)
//*
//S40 EXEC PGM=IEBUPDTE
//SYSPRINT DD SYSOUT=A
//SYSUT1   DD DSN=INT.SYMREL,DISP=OLD
//SYSUT2   DD DSN=INT.SYMUSR,DISP=OLD
//SYSIN    DD *
./ REPRO NAME=DDQDSTBL
./ ENDUP
/*
//*
//*  ASSEMBLE  DDQDS  TABLE
//*
//S50 EXEC ASMPCL,P='INT',Q=USR,NAME=DDQDSTBL,LMOD=DDQDSTBL
//*
//*  LINK  DDQPRINT  UTILITY
//*
//S60  EXEC    LKEDP,P='INT',Q=USR,LMOD=DDQPRINT
//LKED.SYSLMOD DD DSN=&P..MODLIB(&LMOD),DISP=SHR
//LKED.SYSIN   DD  *
  ENTRY DDQBATCH
  INCLUDE SYSLIB(DDQPRT)
  CHANGE DDQENTRY(DDQPRT)
  INCLUDE SYSLIB(DDQSTART,DDQMOD,IXFHND00)
  INCLUDE SYSLIB(IXFHND01,BATCHPAK,PMIGETNB)
  INCLUDE SYSLIB(DDQDSTBL)
//
```

5.25 JOB 42 - CREATE DDQ DATA SETS (NEW)

Job ICMGEN42, produced only for a new installation if Dynamic Data Queuing is specified or forced, causes the creation of one (if single region used) or three (one for the control region and one for each satellite region) DEF (default) DDQ data sets, and a THREDLOG DDQ data set for single region or for SR1 (Satellite Region 1) use of Backout-on-the-Fly, in addition to the Space Control File (SCF) and the Queue Control File (QCF). In a Multiregion environment, the SCF and QCF data sets are shared across all regions using DDQ. If the P parameter is coded on the ICOMGEN macro, that value is used instead of the default prefix INT. See Dynamic Data Queuing Facility.

For Single Region:

```
//ICMGEN42   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  DDQ  DATASETS  AND  SPACE  CONTROL  FILE (SCF)
//*
//S10       EXEC  PGM=CREATEGF
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD  SYSOUT=A
//SYSUDUMP  DD  SYSOUT=A,SPACE=(TRK,(0,20))
//DEFCR     DD  DSN=INT.DDQDEF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//THREDLOG DD DSN=INT.THREDLOG,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//SCF       DD DSN=INT.SCF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(TRK,(3)),
//          DCB=(DSORG=DA,BLKSIZE=1200,RECFM=F)
//SYSIN     DD  *
F DEFCR    0000050
F THREDLOG0000050
F SCF      0000026
/*
//*
//*  CREATE  QUEUE  CONTROL  FILE (QCF)
//*
//S20       EXEC  PGM=KEYCREAT,PARM=500
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD  DSN=INT.QCF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(120,(500)),
//          DCB=(DSORG=DA,BLKSIZE=120,RECFM=F,KEYLEN=16)
//
```

For Multiregion:

```
//ICMGEN42   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  DDQ  DATASETS  AND  SPACE  CONTROL  FILE (SCF)
//*
//S10       EXEC  PGM=CREATEGF
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD  SYSOUT=A
//SYSUDUMP  DD  SYSOUT=A,SPACE=(TRK,(0,20))
//DEFCR     DD  DSN=INT.CR.DDQDEF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//DEFSR1    DD  DSN=INT.SR1.DDQDEF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//DEFSR2    DD  DSN=INT.SR2.DDQDEF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//THREDLOG DD DSN=INT.SR1.THREDLOG,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(CYL,(1)),
//          DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//SCF       DD DSN=INT.SCF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(TRK,(3)),
//          DCB=(DSORG=DA,BLKSIZE=1200,RECFM=F)
//SYSIN     DD  *
F DEFCR    0000050
F DEFSR1   0000050
F DEFSR2   0000050
F THREDLOG0000050
F SCF      0000026
/*
//*
//*  CREATE  QUEUE  CONTROL  FILE (QCF)
//*
//S20       EXEC  PGM=KEYCREAT,PARM=500
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//INTKEYFL  DD  DSN=INT.QCF,DISP=(,CATLG,DELETE),
//          UNIT=SYSDA,VOL=SER=INT001,SPACE=(120,(500)),
//          DCB=(DSORG=DA,BLKSIZE=120,RECFM=F,KEYLEN=16)
//
```

5.26 JOB 44 - ASSEMBLE EDIT/OUTPUT UTILITY MODULES (NEW/OLD)

Job ICMGEN44, which is always produced, causes the reassembly and relink of modules PMIOUTPT and PMIEDIT which contain SETGLOBE global dependencies. See Chapter 3 of the Operating Reference Manual.

```
//ICMGEN44   JOB    ICOM,GENICOM,CLASS=A
//*
//*  EDIT  AND  OUTPUT  UTILITIES
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMIOUTPT,LMOD=PMIOUTPT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=PMIEDIT,LMOD=PMIEDIT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.27 JOB 46 - CREATE CHECKPOINT FILE (NEW), AUTO-RESTART FILE (NEW/OLD)

Job ICMGEN46, produced only for installations where Checkpoint/Restore is specified or forced, creates a CHEKPTFL data set if the installation is new, and the Automated Restart STRTUPSW file (initialized for STARTUP). Note that if executing in a Multiregion environment, message restart (and file recovery) should be limited to one region. The checkpoint and Auto-Restart files may not be shared across regions, therefore multiple unique data sets must be created if checkpoint or message restart processing is specified for more than one region. See Chapter 9 of the Operating Reference Manual.

```
//ICMGEN46   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  CHEKPTFL  DATA  SET
//*
//S10       EXEC  PGM=CREATEGF
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD  SYSOUT=A
//SYSUDUMP  DD  SYSOUT=A,SPACE=(TRK,(0,20))
//CHEKPTFL  DD  DSN=INT.CHEKPTFL,DISP=(,CATLG,DELETE),
//              UNIT=SYSDA,VOL=SER=INT001,
//              DCB=(DSORG=DA,BLKSIZE=192,RECFM=F),
//              SPACE=(192,200)
//SYSIN     DD  *
F CHEKPTFL 000200
/*
//*
//*  CREATE  AUTO-RESTART  FILE
//*
//S20       EXEC  PGM=AUTORSET,PARM=STARTUP
//STEPLIB   DD  DSN=INT.MODREL,DISP=SHR
//STRTUPSW  DD  DSN=INT.STRTUPSW,DISP=(,CATLG,DELETE),
//              UNIT=SYSDA,VOL=SER=INT001,
//              SPACE=(TRK,(1)),DCB=DSORG=DA
//
```

5.28 JOB 48 - CREATE FILE HANDLER STATISTICS FILE (NEW)

Job ICMGEN48, produced only for new installations where File Handler Statistics are requested, creates a STATFILE data set. Note that the data set is only necessary if cumulative statistics across several Intercomm executions is desired. Also, in a Multiregion environment, the statistics file may not be shared across regions. Therefore, unique data sets must be created for each region if desired. See Chapter 6 of the Operating Reference Manual.

```
//ICMGEN48   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  STATFILE  DATA  SET
//*
//S10      EXEC  PGM=CREATEGF
//STEPLIB  DD  DSN=INT.MODREL,DISP=SHR
//SYSPRINT DD  SYSOUT=A
//SYSUDUMP DD  SYSOUT=A,SPACE=(TRK,(0,20))
//STATFILE DD  DSN=INT.STATFILE,DISP=(,CATLG,DELETE),
//             UNIT=SYSDA,VOL=SER=INT001,
//             DCB=(DSORG=DA,BLKSIZE=560),
//             SPACE=(560,100)
//SYSIN    DD  *
F STATFILE 000100
/*
//
```

5.29 JOB 50 - PAGE FACILITY INSTALLATION (NEW/OLD)

Job ICMGEN50 is no longer created for Release 11 because neither the Page data sets nor the PAGETBLE is needed for the revised version of the Page Facility (which instead uses the Table Facility to dynamically create a Master Page Table and the Response Tables above the 16M line (in 31-Amode Intercomm pools if installed - see job 34)). See Page Facility and Table Facility for additional SPALIST macro parameters to define for these facilities.

NOTE: ICOMLINK forces an INCLUDE for the sample USRPAGEX user exit if UTILITY=PAGE (or ALL) is specified on the ICOMGEN or ICOMLINK macros. See Page Facility for further details on this user exit, which is optional.

5.30 JOB 52 - CREATE STORE/FETCH FACILITY DATA SETS (NEW)

Job ICMGEN52, produced only for new installations when Store/Fetch is specified or forced, copies the FAR parameters module FARPARMS from SYMREL to SYMUSR for use in the Intercomm execution job (job 90 - ddname ICOMIN), and creates the Store/Fetch default data set (INTSTOR0) and, if MMU is specified, the Store/Fetch data sets needed for MMU processing (as specified via the MMUVTBL - see job 34).

For single region systems, the name(s) of the data set(s) created is(are) INT.INTSTOR0 (also INT.INTSTOR2 and INT.INTSTOR3, if MMU is specified), whereas for Multiregion Intercomm systems, the names of the data sets created are of the form INT.region-id.INTSTOR0 (also INT.region-id.INTSTOR2 and INT.region-id.INTSTOR3 if MMU is specified), where region-ids are CR, SR1 and SR2. If the P parameter is coded on the ICOMGEN macro, that value is used instead of the default prefix INT. See Store/Fetch Facility and Message Mapping Utilities. FAR parameters, which provide special processing attributes for selected files, are described in Chapter 6 of the Operating Reference Manual.

For Single Region:

```
//ICMGEN52   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE STORE/FETCH DATA SET(S)
//*
//*   INTSTOR0 - DEFAULT STORE/FETCH DATASET
//*   INTSTOR2 - MMU MAP DEFINITIONS
//*   INTSTOR3 - MMU WORK FILE
//*
//*  COPY FARPARMS TO SYMUSR (FIRST TIME ONLY)
//*   SPECIFIES   INTSTOR0,ICOMBDAMXCTRL
//*
//S10      EXEC PGM=IEBUPDTE
//SYSPRINT DD SYSOUT=A
//SYSUT1   DD DSN=INT.SYMREL,DISP=OLD
//SYSUT2   DD DSN=INT.SYMUSR,DISP=OLD
//SYSIN    DD *
./ REPRO NAME=FARPARMS
./ ENDUP
/*
//S20      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.INTSTOR2,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//            DCB=(DSORG=DA,BLKSIZE=1000,RECFM=F,KEYLEN=52)
//S30      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.INTSTOR3,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//            DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//S40      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.INTSTOR0,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//            DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//
```

For Multiregion:

```
//ICMGEN52   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  STORE/FETCH  DATA  SET(S)
//*
//*   INTSTOR0 - DEFAULT STORE/FETCH DATASET
//*   INTSTOR2 - MMU MAP DEFINITIONS
//*   INTSTOR3 - MMU WORK FILE
//*
//*  COPY  FARPARMS  TO  SYMUSR (FIRST TIME ONLY)
//*   SPECIFIES   INTSTOR0,ICOMBDAMXCTRL
//*
//S10      EXEC PGM=IEBUPDTE
//SYSPRINT DD SYSOUT=A
//SYSUT1   DD DSN=INT.SYMREL,DISP=OLD
//SYSUT2   DD DSN=INT.SYMUSR,DISP=OLD
//SYSIN    DD *
./ REPRO NAME=FARPARMS
./ ENDUP
/*
//S20      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.CR.INTSTOR2,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//            DCB=(DSORG=DA,BLKSIZE=1000,RECFM=F,KEYLEN=52)
//S30      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.CR.INTSTOR3,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//S40      EXEC PGM=KEYCREAT
//STEPLIB  DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.CR.INTSTOR0,
//            DISP=(,CATLG,DELETE),
//            VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//            DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
```

(continued)

Multiregion Job 52 continued:

```
//*
//*  S/F  DATA  SETS  FOR  SATELLITE  REGION(S)
//*
//S50       EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR1.INTSTOR2,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=1000,RECFM=F,KEYLEN=52)
//S60       EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR2.INTSTOR2,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=1000,RECFM=F,KEYLEN=52)
//S70       EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR1.INTSTOR3,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//S80       EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR2.INTSTOR3,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//S90       EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR1.INTSTOR0,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//S100      EXEC PGM=KEYCREAT
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//INTKEYFL DD DSN=INT.SR2.INTSTOR0,
//             DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(CYL,(5)),
//             DCB=(DSORG=DA,BLKSIZE=2440,RECFM=F,KEYLEN=52)
//
```

5.31 JOB 54 - CREATE SUBSYSTEM DISK QUEUE DATA SET (NEW)

Job ICMGEN54, produced only for new installations, creates one subsystem disk queue data set named INT.SSQUEUE if a single region system, or one for each region: INT.CR.SSQUEUE, INT.SR1.SSQUEUE and INT.SR2.SSQUEUE if a Multiregion Intercomm system. This is the data set referenced by the ddname PMIQUE on SYCTTBL macros coded in the module INTSCT on SYMREL (see also job 90). If the P parameter is coded on the ICOMGEN macro, that value is used instead of the default prefix INT. See Chapter 3 of the Operating Reference Manual.

For Single Region:

```
//ICMGEN54   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  SUBSYSTEM  DISK  QUEUE  DATA  SET(S)
//*   "PMIQUE" DDNAME IN EXEC JCL
//*
//S10       EXEC PGM=CREATEGF
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD SYSOUT=A
//SSQCR     DD DSN=INT.SSQUEUE,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(2048,(800)),
//             DCB=(DSORG=DA,BLKSIZE=2048)
//SYSIN     DD *
F SSQCR       0800
//
```

For Multiregion:

```
//ICMGEN54   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  SUBSYSTEM  DISK  QUEUE  DATA  SET(S)
//*   "PMIQUE" DDNAME IN EXEC JCL
//*
//S10       EXEC PGM=CREATEGF
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD SYSOUT=A
//SSQCR     DD DSN=INT.CR.SSQUEUE,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(2048,(800)),
//             DCB=(DSORG=DA,BLKSIZE=2048)
//SSQSR1    DD DSN=INT.SR1.SSQUEUE,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(2048,(800)),
//             DCB=(DSORG=DA,BLKSIZE=2048)
//SSQSR2    DD DSN=INT.SR2.SSQUEUE,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(2048,(800)),
//             DCB=(DSORG=DA,BLKSIZE=2048)
//SYSIN     DD *
F SSQCR       0800
F SSQSR1      0800
F SSQSR2      0800
//
```

5.32 JOB 56 - CREATE TERMINAL DISK QUEUE DATA SET (NEW)

Job ICMGEN56, produced only for new installations, creates the BTAM and/or VTAM terminal disk queue data sets: BTAMQ and/or VTAMQ. If the P parameter is coded on the ICOMGEN macro, that value is used instead of the default prefix INT. See BTAM Terminal Support Guide and SNA Terminal Support Guide.

```
//ICMGEN56   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CREATE  TERMINAL  DISK  QUEUE  DATA  SET(S)
//*   "BTAMQ" AND/OR "VTAMQ" DDNAME IN EXEC JCL
//*
//S10       EXEC PGM=CREATEGF
//STEPLIB   DD DSN=INT.MODREL,DISP=SHR
//SYSPRINT  DD SYSOUT=A
//BTQ       DD DSN=INT.BTAMQ,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(4096,(800)),
//             DCB=(DSORG=DA,BLKSIZE=4096)
//VTQ       DD DSN=INT.VTAMQ,DISP=(,CATLG,DELETE),
//             VOL=SER=INT001,UNIT=SYSDA,SPACE=(4096,(800)),
//             DCB=(DSORG=DA,BLKSIZE=4096)
//SYSIN     DD *
F BTQ          0800
F VTQ          0800
/*
//
```

5.33 JOB 58 - LOAD RCT000 DATA SET (NEW/OLD)

Job ICMGEN58, which is always produced, creates and loads (via the Intercomm utility PMIEXLD) the RCT000 data set. If the P parameter is coded on the ICOMGEN macro, that value is used instead of the default prefix INT. This data set will contain the OFTs used by the Output Utility for Intercomm system processing (members RPT00001-RPT00050). For an existing installation, user-coded OFTs (RPT00051 and up) may then be loaded to this data set using the partial file load option of PMIEXLD as described in Chapter 12 of the Operating Reference Manual. If necessary, increase the space or block size parameters before executing this job.

NOTE: if the BLKSIZE of RCT000 is increased (may not be smaller), change the coding of the corresponding GENFTBLE macro in PMIFILET (see the Operating Reference Manual) and reassemble and relink it (see job 34). Then, relink PMIEXLD (see job 36) before executing this job.

```
//ICMGEN58   JOB     ICOM,GENICOM,CLASS=A
//*
//*  CREATE  AND  LOAD  RCT000  DATA  SET
//*
//S10     EXEC  PGM=PMIEXLD,PARM=(NOCHECK)
//STEPLIB  DD   DSN=INT.MODLIB,DISP=SHR
//RCT000   DD   DSN=INT.RCT000,DISP=(,CATLG,DELETE),
//              UNIT=SYSDA,VOL=SER=INT001,
//              SPACE=(TRK,(5,1),RLSE),
//              DCB=(DSORG=PS,BLKSIZE=2048,RECFM=F)
//RCTLOAD  DD   DSN=INT.MODREL,DISP=SHR
//SYSPRINT DD   SYSOUT=A
//SYSIN    DD   *
RCT000
/*
//
```

5.34 JOB 60 - ASSEMBLE DL/I DEPENDENT MODULES (NEW/OLD)

Job ICMGEN60, produced only if the DL/I data base interface is specified and the &DLI global in SETGLOBE is set to 1, causes the conditional reassembly and relink of the checkpoint/restart modules CHCKPTSS, DBCHKDSP and DBRSTRT, and of the control command module CPLUNCSS. See DBMS Users Guide.

```
//ICMGEN60   JOB    ICOM,GENICOM,CLASS=A
//*
//*  CHECKPOINT/RESTART  MODULES  WHEN  DL/I  USED
//*
//S10 EXEC  ASMPCL,P='INT',Q=LIB,NAME=CHCKPTSS,LMOD=CHCKPTSS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20 EXEC  ASMPCL,P='INT',Q=LIB,NAME=DBCHKDSP,LMOD=DBCHKDSP
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30 EXEC  ASMPCL,P='INT',Q=LIB,NAME=DBRSTRT,LMOD=DBRSTRT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40 EXEC  ASMPCL,P='INT',Q=LIB,NAME=CPLUNCSS,LMOD=CPLUNCSS
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//
```

5.35 JOB 62 - ASSEMBLE TOTAL DBMS FILE TABLE (NEW/OLD)

Job ICMGEN62, produced only if the TOTAL data base interface is specified, causes the assembly and linkedit of the TOTAL file table (generated via the TOTFLGEN macro) called TOTFILE, which must be precoded and placed on SYMUSR. If different versions are used for several regions, each must be coded and assembled under different names and the Intercomm linkedit must be correspondingly modified. In addition, INCLUDE statements for CINCOM-supplied modules applicable to the user installation must be added to the Intercomm linkedit generated by job 80. See DBMS Users Guide.

```
//ICMGEN62   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ASSEMBLE  TOTAL  FILE  TABLE
//*
//S10 EXEC ASMPCL,P='INT',Q=USR,NAME=TOTFILE,LMOD=TOTFILE
//
```

5.36 JOB 70 - INSTALL LINK PACK FACILITY (NEW/OLD)

Job ICMGEN70, produced only if the Link Pack Facility is specified, causes the assembly and linkedit (as reentrant) of all Link Pack eligible modules BLMSGCOL, PMIRETRV, PMINQDEQ, PMIEXTRM, CONVERSE, IXFHND01, IXFB37, and if using MMU: MAPIN, MAPOUT, MMUTRTS, MMUED001, MMUED002, MMUED003, MMUED008, LOGCHARS, MMUDDM, MMUDDMU, MMUDDMX, MMUDDMT (if using Data Speed 40), MMUDDMM, MMUCOMM, LMAP; and if using DDQ (or forced) DDQMOD; and if using Store Fetch (or forced) INTSTORF; and if using Vsam (for Cross Region sharing) IXFVSCRS; and if using File Recovery (or forced) IXFLOG; and if using Dynamic File Allocation IXFDYNAM; and if using the Edit Utility PMIEDIT, PMIFIXED, EDIT3270 (if using 3270s); and if using the Output Utility PMIOUTPT, PMIVMI56 (if using 3270s); and if using Change/Display Utilities CHANGE, FORMAT, CRUNCH, DISPLAY.

If using the OUTPUT utility only in the Control Region, delete the ASMPCL steps for PMIOUTPT and PMIVMI56 and ensure they are in the Control Region linkedit, not the LPSPA linkedit. Also delete the OUTPUT parameter for the ASMPCL of LPSPA and LPINTFC (see //ASM.SYSIN on page 5-52).

Once all required Link Pack eligible modules have been linked as reentrant, an assembly and link of the LPSPA is done, including the desired modules in the linkedit step, to create the LPSPA load module. LPSPA is linkedited as reentrant (see the Operating Reference Manual for additional MVS system requirements). LPSPA must be in the PLPA not the EPLPA. The final step in this job assembles and links the LPINTFC module which sets up addressability to the modules included in the LPSPA.

In the Intercomm execution JCL, the data set on which the LPSPA is assumed to reside (DD statement LPSPALIB) is 'SYS1.LPALIB' (default). If this is not the data set on which LPSPA resides and the LPALIB parameter on the ICOMGEN macro was not coded to override the default, then it will be necessary to manually correct the name of the data set generated in job 90.

```
//ICMGEN70   JOB    ICOM,GENICOM,CLASS=A
//*
//*  LINK  PACK  FACILITY  INSTALLATION
//*
//*  ASSEMBLE  AND  LINK  ELIGIBLE  MODULES  AS  REENTRANT
//*
//S2   EXEC ASMPCL,P='INT',Q=LIB,NAME=BLMSGCOL,LMOD=BLMSGCOL,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S4   EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIRETRV,LMOD=PMIRETRV,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S6   EXEC ASMPCL,P='INT',Q=LIB,NAME=PMINQDEQ,LMOD=PMINQDEQ,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S8   EXEC ASMPCL,P='INT',Q=LIB,NAME=MAPIN,LMOD=MAPIN,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
```

(continued)

```
//S10  EXEC ASMPCL,P='INT',Q=LIB,NAME=MAPOUT,LMOD=MAPOUT,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S12  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUTRTS,LMOD=MMUTRTS,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S14  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUED001,LMOD=MMUED001,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S16  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUED002,LMOD=MMUED002,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S18  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUED003,LMOD=MMUED003,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S20  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUED008,LMOD=MMUED008,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S22  EXEC ASMPCL,P='INT',Q=LIB,NAME=LOGCHARS,LMOD=LOGCHARS,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S24  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUDDM,LMOD=MMUDDM,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S26  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUDDMU,LMOD=MMUDDMU,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S28  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUDDMX,LMOD=MMUDDMX,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S30  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUDDMT,LMOD=MMUDDMT,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S32  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUDDMM,LMOD=MMUDDMM,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S34  EXEC ASMPCL,P='INT',Q=LIB,NAME=LMAP,LMOD=LMAP,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S36  EXEC ASMPCL,P='INT',Q=LIB,NAME=MMUCOMM,LMOD=MMUCOMM,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S38  EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIEXTRM,LMOD=PMIEXTRM,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S40  EXEC ASMPCL,P='INT',Q=LIB,NAME=CONVERSE,LMOD=CONVERSE,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
```

(continued)

```
//S42  EXEC ASMPCL,P='INT',Q=LIB,NAME=DDQMOD,LMOD=DDQMOD,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S44  EXEC ASMPCL,P='INT',Q=LIB,NAME=INTSTORF,LMOD=INTSTORF,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S46  EXEC ASMPCL,P='INT',Q=LIB,NAME=IXFVSCRS,LMOD=IXFVSCRS,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S48  EXEC ASMPCL,P='INT',Q=LIB,NAME=IXFLOG,LMOD=IXFLOG,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S50  EXEC ASMPCL,P='INT',Q=LIB,NAME=IXFHND01,LMOD=IXFHND01,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S52  EXEC ASMPCL,P='INT',Q=LIB,NAME=IXFDYNAM,LMOD=IXFDYNAM,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S54  EXEC ASMPCL,P='INT',Q=LIB,NAME=IXFB37,LMOD=IXFB37,
//       RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S56  EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIEDIT,LMOD=PMIEDIT,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S58  EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIFIXED,LMOD=PMIFIXED,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S60  EXEC ASMPCL,P='INT',Q=LIB,NAME=EDIT3270,LMOD=EDIT3270,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S62  EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIOUTPT,LMOD=PMIOUTPT,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S64  EXEC ASMPCL,P='INT',Q=LIB,NAME=PMIVMI56,LMOD=PMIVMI56,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S66  EXEC ASMPCL,P='INT',Q=LIB,NAME=CHANGE,LMOD=CHANGE,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S68  EXEC ASMPCL,P='INT',Q=LIB,NAME=FORMAT,LMOD=FORMAT,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S70  EXEC ASMPCL,P='INT',Q=LIB,NAME=CRUNCH,LMOD=CRUNCH,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
//S72  EXEC ASMPCL,P='INT',Q=LIB,NAME=DISPLAY,LMOD=DISPLAY,
//          RENT=RENT
//ASM.SYSIN DD DSN=&P..SYMREL(&NAME),DISP=SHR
```

(continued)

```
//*  ASSEMBLE + LINK  LPSPA  USING  LPSPA  MACRO
//*        TO  THE  SYSTEM  LOAD  LIBRARY
//*
//S74 EXEC ASMPCL,P='INT',Q=LIB,LMOD=LPSPA,
//         RENT=RENT
//ASM.SYSIN  DD   *
         LPENTRY  LMAP,SCT,,SSC=M,SSCH=L
         LPENTRY  MMUCOMM,SCT,,SSC=M,SSCH=M
         LPSPA A=A,MODS=(MSGCOL,RTRVER,                                *
               EDIT,                                                   *
               OUTPUT,                                                 *
               CHGDIS,                                                 *
               FILHNDQI,                                               *
               SFETCH,                                                 *
               DDQ,                                                    *
               MMU,                                                    *
               DFA,                                                    *
               PMIEXTRM,NQDEQ,CONVERSE)
         END
/*
//LKED.SYSLMOD DD DSN=SYS1.LPALIB(&LMOD),DISP=SHR
//LKED.SYSIN      DD  *
         INCLUDE SYSLIB(BLMSGCOL,PMIRETRV)
         INCLUDE SYSLIB(PMIEDIT,PMIFIXED)
         INCLUDE SYSLIB(EDIT3270)
         INCLUDE SYSLIB(PMIOUTPT)
         INCLUDE SYSLIB(PMIVMI56)
         CHANGE GET(GETZ)    IXFQISAM USED
         CHANGE PUT(PUTZ)    IXFQISAM USED
         INCLUDE SYSLIB(IXFHND01)
         INCLUDE SYSLIB(IXFVSCRS)
         INCLUDE SYSLIB(IXFB37)
         INCLUDE SYSLIB(IXFLOG)
         INCLUDE SYSLIB(IXFDYNAM)
         INCLUDE SYSLIB(CHANGE)
         INCLUDE SYSLIB(FORMAT,CRUNCH)
         INCLUDE SYSLIB(DISPLAY)
         INCLUDE SYSLIB(INTSTORF)
         INCLUDE SYSLIB(DDQMOD)
         INCLUDE SYSLIB(MAPIN,MAPOUT,MMUED001)
         INCLUDE SYSLIB(MMUED002,MMUED003,MMUED008)
         INCLUDE SYSLIB(LOGCHARS,MMUDDM,MMUDDMU)
         INCLUDE SYSLIB(MMUDDMX)
         INCLUDE SYSLIB(MMUDDMT)
         INCLUDE SYSLIB(MMUDDMM,MMUTRTS)
         INCLUDE SYSLIB(LMAP,MMUCOMM)
         INCLUDE SYSLIB(PMIEXTRM,PMINQDEQ,CONVERSE)
         ENTRY   LPSPA
         NAME    LPSPA(R)
/*
//*  ASSEMBLE + LINK  LPINTFC  USING  LPINTFC  MACRO
//*
//S76 EXEC ASMPCL,P='INT',Q=USR,LMOD=LPINTFC
//ASM.SYSIN  DD   *
         LPINTFC   MODS=(MSGCOL,RTRVER,                                *
               EDIT,                                                   *
               OUTPUT,                                                 *
               CHGDIS,                                                 *
               FILHNDQI,                                               *
               SFETCH,                                                 *
               DDQ,                                                    *
               MMU,                                                    *
               DFA,                                                    *
               PMIEXTRM,NQDEQ,CONVERSE)
         END
//
```

5.37 JOB 78 - ALLOCATE SYMINCL LINKEDIT LIBRARY (NEW/OLD)

Job ICMGEN78, which is always produced, allocates a source library to contain linkedit decks (control statements) for the user installation. This step is necessary if the linkage editor (not the binder under DFSMS) is used, due to linkage editor restrictions on the maximum input library block size (3200). The allocated block size is optimized for 3380 and 3390 disk packs. If the DFSMS binder is used to linkedit Intercomm, then a larger blocksize may be used - change the DCB BLKSIZE value before executing this job.

This linkedit control statements library is used to contain the output of job 80 resulting from assembly of the ICOMLINK macro, and is input to job 85 to linkedit the Intercomm load module(s).

```
//ICMGEN78   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ALLOCATE  LINKEDIT  INCLUDE  LIBRARY
//*
//S10  EXEC PGM=IEFBR14
//SINC DD DSN=INT.SYMINCL,DISP=(,CATLG),
//        SPACE=(CYL,(2,1,10)),
//        UNIT=SYSDA,VOL=SER=INT001,
//        DCB=(DSORG=PO,RECFM=FB,BLKSIZE=3120,LRECL=80)
//
```

5.38 JOB 80 - GENERATE INTERCOMM LINKEDIT DECK (NEW/OLD)

Job ICMGEN80, which is always produced, generates the Intercomm linkedit "deck", that is, the linkedit control INCLUDE (and OVERLAY, if OVLYSTR=YES) statements for linkediting the on-line Intercomm execution load module via assembly of a generated ICOMLINK macro with parameters coded according to ICOMGEN macro specifications. The generated linkedit control statements are placed on SYMINCL as member ILINKCR (for a single region Intercomm system or the control region of a Multiregion system). In addition, if a Multiregion system is specified, linkedit decks for satellite regions 1 and 2 are placed on SYMINCL as members ILINKSR1 and ILINKSR2. Considerations for user modification of the linkedit statements are described under preceding jobs and for job 85.

In generating the ICOMLINK macro coding for execution of this job, the defaults are assumed for the following ICOMLINK macro parameters: DEBUG, LIBR, LOOPTIM, MONOVLY and USRSTART. See Basic System Macros. If other than the default is needed, add the desired parameters to the generated ICOMLINK statements before executing this job. To generate a Test Mode linkedit, add the statement TEST=YES. See the Operating Reference Manual for further considerations for Test Mode installation. If the Generalized Front End Facility (GFE) was used in a previous Intercomm installation for other then the Extended TCAM Front End, modify the GFE parameter to force include statements for user-coded interface modules, or add them to the generated linkedit deck before executing job 85. If single region logging is desired for a Multiregion system (see Multiregion Facility), modify the generated ICOMLINK macro MULTREG parameter statements accordingly.

In a Multiregion environment, if using the Output Utility only in the Control Region, change the UTILITY parameter for the ICOMLINK macros for Satellite Region linkedits to omit the OUTPUT subparameter; that is, code the specific utility subparameters desired (in parentheses) such as EDIT, and/or PAGE. If there are no user subsystems in the Control Region, change all COBOL and PL1 parameters to NO, delete the DBASE parameter, ensure DYNLOAD=NO (but leave DYNLINK=YES), and check the other parameters.

Before proceeding with this job and jobs 85 and 90, the user should read Chapter 7 of the Operating Reference Manual which describes the Intercomm linkedit, on-line execution, MVS installation considerations, and related facilities.

NOTE: even if dynamic linkedit (for dynamically loaded subsystems and subroutines) is not needed, DYNLINK=YES should be coded to force an INCLUDE of ICOMDYNL to build a sorted 31-Amode NAME/ADDRESS table which is used by the SCTL system control command (which replaces TBUG functions - if used in earlier releases). DYNLOAD=YES is no longer required if DYNLINK=YES. Ensure DYNLOAD=NO is coded if there are no dynamically loaded subsystems or subroutines in a specific region.

```
//ICMGEN80   JOB    ICOM,GENICOM,CLASS=A
//*
//*  PRODUCE  INTERCOMM  LINKEDIT (ICOMLINK)  DECK(S)
//*
//*    CONTROL REGION ONLY
//*
//S10  EXEC  ASMPC,DECK=DECK,P='INT',Q=USR,NAME=LDECKCR
//ASM.SYSIN  DD  *
         ICOMLINK ASYNCH=NO,                                          *
               AUTOGEN=NO,                                            *
               CHKRES=YES,                                            *
               COBOL=YES,                                             *
               DATAENT=NO,                                            *
               DBASE=(TOTAL,UPD),                                     *
               DBLIBR=SYSLIB,                                         *
               DDQ=YES,                                               *
               DFA=YES,                                               *
               DSCT=IXFDSCT1,                                         *
               DYNLINK=YES,                                           *
               DYNLOAD=YES,                                           *
               DYNPOOL=NO,                                            *
               FETABLE=FENETWRK,                                      *
               FILEREC=YES,                                           *
               FILSTAT=YES,                                           *
               GFE=YES,                                               *
               GPSS=YES,                                              *
               LPSPA=NO,                                              *
               MMU=YES,                                               *
               MULTREG=CONTROL,                                       *
               OVLYSTR=NO,                                            *
               PL1=YES,                                               *
               RECOBOL=YES,                                           *
               SAM=YES,                                               *
               SECUR=ESS,                                             *
               STORFCH=YES,                                           *
               TRANS=NO,                                              *
               DYNVERB=NO,                                            *
               UTILITY=ALL,                                           *
               LU62=ACTIVE,                                           *
               VTAM=YES,                                              *
               COBOL2=YES
         END
//SYSPUNCH  DD  DSN=INT.SYMINCL(ILINKCR),DISP=SHR
```

(continued)

```
//*
//*     SATELLITE REGION 1
//*
//S20   EXEC  ASMPC,DECK=DECK,P='INT',Q=USR,NAME=LDECKSR1
//ASM.SYSIN  DD  *
          ICOMLINK ASYNCH=NO,                                          *
                AUTOGEN=NO,                                            *
                BACKOUT=YES,                                           *
                CHKRES=YES,                                            *
                COBOL=YES,                                             *
                DATAENT=NO,                                            *
                DBASE=(TOTAL,UPD),                                     *
                DBLIBR=SYSLIB,                                         *
                DDQ=YES,                                               *
                DFA=YES,                                               *
                DSCT=IXFDSCT1,                                         *
                DYNLINK=YES,                                           *
                DYNLOAD=YES,                                           *
                DYNPOOL=NO,                                            *
                FILEREC=YES,                                           *
                FILSTAT=YES,                                           *
                GPSS=YES,                                              *
                LPSPA=NO,                                              *
                MMU=YES,                                               *
                MULTREG=SATLITE,                                       *
                OVLYSTR=NO,                                            *
                PL1=YES,                                               *
                RECOBOL=YES,                                           *
                SAM=YES,                                               *
                SECUR=ESS,                                             *
                STORFCH=YES,                                           *
                TRANS=NO,                                              *
                UTILITY=ALL,                                           *
                LU62=ACTIVE,                                           *
                COBOL2=YES
          END
//SYSPUNCH  DD  DSN=INT.SYMINCL(ILINKSR1),DISP=SHR
```

(continued)

```
//*
//*     SATELLITE REGION 2
//*
//S30   EXEC  ASMPC,DECK=DECK,P='INT',Q=USR,NAME=LDECKSR2
//ASM.SYSIN  DD  *
          ICOMLINK ASYNCH=NO,                                          *
                AUTOGEN=NO,                                            *
                CHKRES=YES,                                            *
                COBOL=YES,                                             *
                DATAENT=NO,                                            *
                DBASE=(TOTAL,UPD),                                     *
                DBLIBR=SYSLIB,                                         *
                DDQ=YES,                                               *
                DFA=YES,                                               *
                DSCT=IXFDSCT1,                                         *
                DYNLINK=YES,                                           *
                DYNLOAD=YES,                                           *
                DYNPOOL=NO,                                            *
                FILEREC=YES,                                           *
                FILSTAT=YES,                                           *
                GPSS=YES,                                              *
                LPSPA=NO,                                              *
                MMU=YES,                                               *
                MULTREG=SATLITE,                                       *
                OVLYSTR=NO,                                            *
                PL1=YES,                                               *
                RECOBOL=YES,                                           *
                SAM=YES,                                               *
                SECUR=ESS,                                             *
                STORFCH=YES,                                           *
                TRANS=NO,                                              *
                UTILITY=ALL,                                           *
                LU62=ACTIVE,                                           *
                COBOL2=YES
          END
/*
//SYSPUNCH  DD  DSN=INT.SYMINCL(ILINKSR2),DISP=SHR
//
```

5.39 JOB 85 - LINKEDIT INTERCOMM LOAD MODULE (NEW/OLD)

Job ICMGEN85, which is always produced, executes an Intercomm on-line system linkedit using the output of job 80. The load module names are ICOMCR (single region or control region), and ICOMSR1 and ICOMSR2 for satellite regions 1 and 2 if a Multiregion system is being generated. Before executing this job, the linkedit deck(s) produced by execution of job 80 may be modified to:

- add MVS linkedit ORDER statements as described in the Operating Reference Manual, Chapter 7 (or copy them from existing linkedits), but omit ORDER statements for KEYFLIP and EXECWAIT (obsolete). Also omit ORDER statements for the NEWPOOLS Csects if the 24-Amode pools are to be loaded at startup.

- add user exit modules

- add user subsystems and subroutines which are not dynamically loaded

- add subsystems and tables for Intercomm system command processing which require special installation considerations as described in System Control Commands (note that the TUNERTBL and PAGETBLE are obsolete)

- add Data Base access, and/or high-level language, support routines required by the user installation

- add Intercomm special facility modules used by an existing installation, as necessary.

If a Multiregion Intercomm system is being generated, the user must also modify the INCLUDE statements for INTSPA and INTSCT to CRSPA and CRSCT in ILINKCR, to SR1SPA and SR1SCT in ILINKSR1, and to SR2SPA and SR2SCT in ILINKSR2. An existing installation may use other naming conventions, if desired. Also modify the statements for including the pools module (NEWPOOLS), REENTSBS, DDQDSTBL, and other region specific tables.

The generated load module(s) are placed on MODUSR. For existing installations using a Multiregion system with more than two satellite regions, additional linkedits are necessary; use the generated ILINKSR2 control statements module as a base and modify the INCLUDE statements for INTSPA and INTSCT (SPA and SCT), the Intercomm pools module, etc., accordingly.

Ensure that none of the libraries defined for STEPLIB when executing Intercomm contain any of the following load modules: MRMCT (if Multiregion used), LPSPA (if Link Pack Facility used), or SECVECT (if ESS used).

NOTE: some of the Release 9 and Release 10 modules have been deleted or incorporated in others; do not use the Release 9 or Release 10 linkedit for Release 11. New modules may be added; do not delete them from the ICOMLINK-generated Release 11 linkedit.

If COBOL2=YES is coded, then the system COB2LIB (instead of COBLIB) is automatically concatenated for the linkedit step(s) below. Ensure that the COB2LIB is that used in the pre-Language Environment system.

The concatenation of TELCMLIB for SYSLIB is omitted if BTAM is not used.

Add other libraries to the SYSLIB concatenation if PL/1 support modules or Data Base support modules are to be included from SYSLIB. For PL/1, ensure the pre-Language Environment PLIBASE is used.

```
//ICMGEN85   JOB    ICOM,GENICOM,CLASS=A
//*
//*  LINKEDIT  THE  ON-LINE  INTERCOMM  SYSTEM
//*
//S10  EXEC  LKEDP,P='INT',Q=USR,LMOD=ICOMCR
//LKED.SYSLIB  DD
//             DD
//             DD
//             DD
//             DD  DSN=SYS1.COBLIB,DISP=SHR
//             DD  DSN=SYS1.TELCMLIB,DISP=SHR
//LKED.SYSIN   DD  DSN=INT.SYMINCL(ILINKCR),DISP=SHR
//*
//S20  EXEC  LKEDP,P='INT',Q=USR,LMOD=ICOMSR1
//LKED.SYSLIB  DD
//             DD
//             DD
//             DD
//             DD  DSN=SYS1.COBLIB,DISP=SHR
//LKED.SYSIN   DD  DSN=INT.SYMINCL(ILINKSR1),DISP=SHR
//*
//S30  EXEC  LKEDP,P='INT',Q=USR,LMOD=ICOMSR2
//LKED.SYSLIB  DD
//             DD
//             DD
//             DD
//             DD  DSN=SYS1.COBLIB,DISP=SHR
//LKED.SYSIN   DD  DSN=INT.SYMINCL(ILINKSR2),DISP=SHR
//
```

5.40 JOB 90 - GENERATE INTERCOMM EXECUTION JCL (NEW/OLD)

Job ICMGEN90, which is always produced, generates a sample procedure ICOMEXEC for executing an on-line Intercomm system and places it on the system PROCLIB. This procedure must be user modified to add system and user files unique to the installation, JCL for TP lines if executing with a BTAM Front End, etc. An existing installation should study the placement of and specifications for Intercomm JCL DD statements and modify existing JCL streams accordingly. Considerations for defining user data sets and FAR parameters are described in Chapter 6 of the Operating Reference Manual. EXEC parameters are provided for defining the load module name, region size, data set prefix id, execution mode, and FAR parameters module name on the SYMUSR data set (for ICOMIN DD statement).

Note that if executing with a Multiregion system, and dynamic load libraries are used, the load library specified for DYNLLIB and as the first data set for STEPLIB must be unique to each region. Also, it may be necessary to create separate versions of this procedure for each region with unique user files. Front End queue data sets and TP lines JCL may not be present in satellite region JCL. Unique data sets for THREDLOG, CHEKPTFL, STRTUPSW, STATFILE, and SNAPDD (if spooling to disk) may be necessary in each region, if the corresponding feature is used.

Before attempting to execute Intercomm, ensure that a systems programmer has relinked the MVS nucleus to include the Intercomm Interregion SVC, and has defined the PARMLIB members necessary to use the MRMCT and SECVECT tables (if Multiregion and/or ESS is used), and for the LPSPA (if the Link Pack Facility is used), and then that a system IPL has been done.

On the following pages, two versions of job ICMGEN90 are illustrated. The first is for a single region Intercomm system with a VTAM Front End and the following non-default ICOMGEN options specified: LOG=TAPE, and DDQ=YES. The second version is for a Multiregion system with both a BTAM and a VTAM Front End and the following non-default options specified: BACKOUT=YES, FILSTAT=YES, LPSPA=YES, SECUR=ESS, and UTILITY=ALL. Note the generation of the execution parameter ILOGSER (to specify tape log volser numbers) on the first illustration, and of IMRSREG (to specify Multiregion region-id for data set name qualifiers) on the second illustration.

NOTE: if the flip/flop facility for disk logging (see job 04) is used and DISP=SHR is coded on all log DD statements, LOGPRINT may be executed while Intercomm is running.

DYNLWORK data set is no longer used for dynamic linkedit and the Page Facility data sets (PAGES) are no longer used.

For STEPLIB concatenation, add DD statements for the system load libraries TELCMLIB (if BTAM used), the system COBLIB (if only OS/VS or ANS COBOL used), and the pre-Language Environment version of COB2LIB (if VS COBOL II used) or PLILINK (if PL/1 used), etc., following those for Intercomm libraries, in appropriate regions.

For Single Region:

```
//ICMGEN90   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ADD  INTERCOMM  EXECUTION  JCL  TO  SYSTEM  PROCLIB
//*
//S10      EXEC  PGM=IEBUPDTE
//SYSPRINT DD  SYSOUT=A
//SYSUT1   DD  DSN=SYS1.PROCLIB,DISP=SHR
//SYSUT2   DD  DSN=SYS1.PROCLIB,DISP=SHR
//SYSIN    DD  DATA
./ ADD NAME=ICOMEXEC,LIST=ALL
./ NUMBER NEW1=100,INCR=100
//ICOMEXEC PROC IPROG=ICOMCR,
//              IREGSIZ=1024K,P=INT,
//              IPARM='STARTUP',
//              ILOGSER=,
//              FARPARM=FARPARMS
//*
//*
//*
//*************************
//*    I N T E R C O M M  *
//*************************
//*
//*
//ICOM   EXEC  PGM=&IPROG,
//             PARM=&IPARM,
//             REGION=&IREGSIZ
//*
//*********************************************
//*    S T E P L I B  -                       *
//*    DYNLLIB DATA SET MUST BE FIRST IF USED *
//*********************************************
//*
//STEPLIB  DD  DSN=&P..MODDYNL,DISP=SHR
//         DD  DSN=&P..MODUSR,DISP=SHR
//         DD  DSN=&P..MODLIB,DISP=SHR
//         DD  DSN=&P..MODREL,DISP=SHR
//         DD  DSN=&P..MODMDF,DISP=SHR
//*
//*
//*********************************************
//*    I N T E R C O M M  LOG  D A T A S E T   *
//*********************************************
//*
//INTERLOG DD  DSN=&P..INTERLOG,
//             UNIT=TAPE,LABEL=(,BLP),DISP=(NEW,KEEP),
//             VOL=SER=&ILOGSER,
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C)
//*
```

(continued)

Single Region Job 90 continued:

```
//*****************************************
//*    S Y S O U T   D A T A S E T S    *
//*****************************************
//*
//SMLOG    DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1200,LRECL=120,RECFM=FBA)
//STSLOG   DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1200,LRECL=120,RECFM=FBA)
//SYSPRINT DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1374,LRECL=137,RECFM=VBA)
//*
//*********************************************
//*    Q U E U E S  -  SUBSYSTEM/TERMINAL    *
//*********************************************
//*
//PMIQUE   DD  DSN=&P..SSQUEUE,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//VTAMQ    DD  DSN=&P..VTAMQ,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//*
//*********************************************
//*    I N T E R C O M M   D A T A S E T S    *
//*********************************************
//*
//RCT000   DD  DSN=&P..RCT000,DISP=SHR,
//             DCB=(DSORG=DA,OPTCD=RF)
//*
//*************************************************
//*    S T O R E / F E T C H  D A T A S E T S   *
//*************************************************
//*
//INTSTOR0 DD DSN=&P..INTSTOR0,DISP=OLD,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//INTSTOR2 DD DSN=&P..INTSTOR2,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//INTSTOR3 DD DSN=&P..INTSTOR3,DISP=OLD,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//*
//************************************
//*    D D Q   D A T A S E T S      *
//************************************
//*
//PMIQCFDD DD DSN=&P..QCF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RFE,LIMCT=3)
//PMISCFDD DD DSN=&P..SCF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RF)
//DDQDEF   DD DSN=&P..DDQDEF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RF)
//*
```

(continued)

Single Region Job 90 continued:

```
//*********************************************
//*   ADD USER FILES HERE BEFORE PMISTOP DD     *
//*********************************************
//*
//PMISTOP  DD  DUMMY
//*
//*  FILE  ATTRIBUTE  RECORD (FAR)  PARAMETERS
//*
//ICOMIN   DD  DSN=&P..SYMUSR(&FARPARM),DISP=SHR
//*
//*************************************************************
//*    D Y N L L I B  -                                       *
//*    NOT SHAREABLE WITH OTHER REGIONS                       *
//*************************************************************
//*
//DYNLLIB  DD  DSN=&P..MODDYNL,DISP=SHR
//****************************************
//*    D Y N L I N K   D A T A S E T      *
//****************************************
//*
//DYNLPRNT DD  SYSOUT=A
//*
//SNAPDD   DD  SYSOUT=A,FREE=CLOSE,
//             SPACE=(CYL,(10))
//SYSUDUMP DD  DUMMY
//*
//*************************
//*    L O G P R I N T    *
//*************************
//*
//LOGPRINT EXEC PGM=LOGPRINT,COND=EVEN
//STEPLIB  DD  DSN=&P..MODREL,DISP=SHR
//SYSPRINT DD  SYSOUT=A,
//             DCB=(DSORG=PS,BLKSIZE=121)
//SYSIN    DD  DUMMY,DCB=BLKSIZE=80
//*
//*********************************************
//*    I N T E R C O M M  LOG  D A T A S E T   *
//*********************************************
//*
//INTERLOG DD  DSN=&P..INTERLOG,
//             UNIT=TAPE,VOL=SER=&ILOGSER,
//             DCB=BLKSIZE=4100,
//             DISP=(OLD,KEEP,KEEP)
//
```

For Multiregion:

```
//ICMGEN90   JOB    ICOM,GENICOM,CLASS=A
//*
//*  ADD  INTERCOMM  EXECUTION  JCL  TO  SYSTEM  PROCLIB
//*
//S10      EXEC  PGM=IEBUPDTE
//SYSPRINT DD  SYSOUT=A
//SYSUT1   DD  DSN=SYS1.PROCLIB,DISP=SHR
//SYSUT2   DD  DSN=SYS1.PROCLIB,DISP=SHR
//SYSIN    DD  DATA
./ ADD NAME=ICOMEXEC,LIST=ALL
./ NUMBER NEW1=100,INCR=100
//ICOMEXEC PROC IPROG=ICOMCR,
//              IREGSIZ=1024K,P=INT,
//              IMRSREG=,
//              IPARM='STARTUP',
//              FARPARM=FARPARMS
//*
//*
//*
//*************************
//*    I N T E R C O M M  *
//*************************
//*
//*
//ICOM   EXEC  PGM=&IPROG,
//             PARM=&IPARM,
//             REGION=&IREGSIZ
//*
//*********************************************
//*    S T E P L I B  -                       *
//*    DYNLLIB DATA SET MUST BE FIRST IF USED *
//*********************************************
//*
//STEPLIB  DD  DSN=&P..&IMRSREG..MODDYNL,DISP=SHR
//         DD  DSN=&P..MODUSR,DISP=SHR
//         DD  DSN=&P..MODLIB,DISP=SHR
//         DD  DSN=&P..MODREL,DISP=SHR
//         DD  DSN=&P..MODMDF,DISP=SHR
//*
//*
//*********************************************
//*    I N T E R C O M M  LOG  D A T A S E T   *
//*********************************************
//*
//INTERLOG DD  DSN=&P..&IMRSREG..INTERLOG,
//             DISP=SHR,
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C)
//*
```

(continued)

Multiregion Job 90 continued:

```
//*****************************************
//*    S Y S O U T   D A T A S E T S    *
//*****************************************
//*
//SMLOG    DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1200,LRECL=120,RECFM=FBA)
//STSLOG   DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1200,LRECL=120,RECFM=FBA)
//FRLOG    DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1200,LRECL=120,RECFM=FBA)
//SYSPRINT DD  SYSOUT=A,
//         DCB=(DSORG=PS,BLKSIZE=1374,LRECL=137,RECFM=VBA)
//*
//*********************************************
//*    Q U E U E S  -  SUBSYSTEM/TERMINAL    *
//*********************************************
//*
//PMIQUE   DD  DSN=&P..&IMRSREG..SSQUEUE,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//VTAMQ    DD  DSN=&P..VTAMQ,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//BTAMQ    DD  DSN=&P..BTAMQ,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//*
//*********************************************
//*    I N T E R C O M M   D A T A S E T S   *
//*********************************************
//*
//RCT000   DD  DSN=&P..RCT000,DISP=SHR,
//             DCB=(DSORG=DA,OPTCD=RF)
//*
//*********************************************
//*    CHECKPOINT/RESTART   D A T A S E T S   *
//*********************************************
//*
//STRTUPSW DD  DSN=&P..STRTUPSW,DISP=SHR,
//             DCB=(DSORG=DA,OPTCD=R)
//CHEKPTFL DD  DSN=&P..CHEKPTFL,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=RF)
//LOGDISK  DD  UNIT=SYSDA,SPACE=(4096,(20,10),RLSE),
//             DCB=(DSORG=DA,BLKSIZE=4096,RECFM=F)
//RESTRTLG DD  DSN=&P..&IMRSREG..INTERLOC,
//             DCB=(DSORG=PS,RECFM=U,BLKSIZE=4100),
//             DISP=(OLD,PASS)
//         DD  DSN=&P..&IMRSREG..INTERLOG,
//             DCB=(DSORG=PS,RECFM=U,BLKSIZE=4100),
//             DISP=(OLD,PASS)
//*
```

(continued)

Multiregion Job 90 continued:

```
//*****************************************************
//*    F I L E  S T A T I S T I C S  D A T A S E T  *
//*****************************************************
//*
//STATFILE DD  DSN=&P..STATFILE,DISP=(OLD,KEEP),
//             DCB=(DSORG=PS,BLKSIZE=560,RECFM=FB,LRECL=28)
//*
//***************************************
//*    S E C U R I T Y  D A T A S E T  *
//***************************************
//*
//SECURITY DD  DSN=&P..SECURITY,DISP=OLD,
//             DCB=(DSORG=DA,OPTCD=R)
//*
//************************************************
//*    C H A N G E/D I S P L A Y  D A T A S E T  *
//************************************************
//*
//DES000   DD  DSN=&P..DES000,DISP=SHR,
//             DCB=(DSORG=DA,OPTCD=RF)
//*
//************************************************
//*    S T O R E / F E T C H  D A T A S E T S  *
//************************************************
//*
//INTSTOR0 DD DSN=&P..&IMRSREG..INTSTOR0,DISP=OLD,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//INTSTOR2 DD DSN=&P..&IMRSREG..INTSTOR2,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//INTSTOR3 DD DSN=&P..&IMRSREG..INTSTOR3,DISP=OLD,
//            DCB=(DSORG=DA,OPTCD=EF,LIMCT=3)
//*
//*********************************
//*    D D Q  D A T A S E T S   *
//*********************************
//*
//PMIQCFDD DD DSN=&P..QCF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RFE,LIMCT=3)
//PMISCFDD DD DSN=&P..SCF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RF)
//DDQDEF   DD DSN=&P..&IMRSREG..DDQDEF,DISP=SHR,
//            DCB=(DSORG=DA,OPTCD=RF)
//THREDLOG DD DSN=&P..&IMRSREG..THREDLOG,DISP=OLD,
//            DCB=(DSORG=DA,OPTCD=RF)
//*
```

(continued)

Multiregion Job 90 continued:

```
//*****************************************
//*   ADD USER FILES HERE BEFORE PMISTOP DD *
//*****************************************
//*
//PMISTOP  DD  DUMMY
//LPSPALIB DD  DSN=SYS1.LPALIB,DISP=SHR
//*
//*  FILE  ATTRIBUTE  RECORD (FAR)  PARAMETERS
//*
//ICOMIN   DD  DSN=&P..SYMUSR(&FARPARM),DISP=SHR
//*
//***************************************
//*    D Y N L L I B  -                 *
//*    NOT SHAREABLE WITH OTHER REGIONS *
//***************************************
//*
//DYNLLIB  DD  DSN=&P..&IMRSREG..MODDYNL,DISP=SHR
//***************************************
//*    D Y N L I N K   D A T A S E T    *
//***************************************
//*
//DYNLPRNT DD  SYSOUT=A
//*
//*        REMOVE FOLLOWING (TP DEVICES) IF NOT CONTROL REGION
//*
//*****************************
//*    T P   D E V I C E S    *
//*****************************
//REMOTE   DD  UNIT=039
//*
//SNAPDD   DD  SYSOUT=A,FREE=CLOSE,
//             SPACE=(CYL,(10))
//SYSUDUMP DD  DUMMY
//INTERLOC DD  DSN=&P..&IMRSREG..INTERLOC,
//             DISP=SHR,
//             DCB=(DSORG=PS,BLKSIZE=4100,RECFM=VB,
//             LRECL=4096,NCP=8,OPTCD=C)
//*
```

(continued)

Multiregion Job 90 continued:

```
//*************************
//*    L O G P R I N T    *
//*************************
//*
//LOGPRINT EXEC PGM=LOGPRINT,COND=EVEN
//STEPLIB  DD  DSN=&P..MODREL,DISP=SHR
//SYSPRINT DD  SYSOUT=A,
//             DCB=(DSORG=PS,BLKSIZE=121)
//SYSIN    DD  DUMMY,DCB=BLKSIZE=80
//*
//*********************************************
//*    I N T E R C O M M  LOG  D A T A S E T   *
//*********************************************
//*
//INTERLOG DD  DSN=&P..&IMRSREG..INTERLOG,
//             DCB=BLKSIZE=4100,
//             DISP=(OLD,KEEP,KEEP)
//         DD  DSN=&P..&IMRSREG..INTERLOC,
//             DCB=BLKSIZE=4100,
//             DISP=(OLD,KEEP,KEEP)
./ ENDUP
//
```

Chapter 6

APPLICATION PROGRAMMING WORKSHOP PREPARATION

Installations anticipating an Intercomm Application Programming Workshop may prepare for testing by executing the job stream provided in member names WRKSHP (for installations using Edit and Output) or WORKSHPM (for those using Message Mapping Utilities) on SYMREL.

All steps in the WRKSHP job stream up to and including the generation of test data (S9FILE) may be executed prior to arrival of the instructor. For the WORKSHPM job stream, the steps up to the linkedit (STEP10) may be executed.

Note that the JCL allocates test library space (SYMCLS and MODCLS) on the same volume where INT.SYMREL resides. Should this conflict with installation practices, the allocation step should be modified. All Intercomm data set names start with the high-level qualifier INT; change that name if the default is not used.

Chapter 7

VTAM OR TCAM FRONT END INSTALLATION

7.1 VTAM

VTAM support under Intercomm is an extra cost Special Feature (except to new users with a bundled system), and must be ordered by the prospective user. In order to implement System Network Architecture terminal support via VTAM, the user must consider several areas of installation:

- SNA Controller Application Design
- Subsystem Design
- VTAM Front End Installation
- Dynamic LU Support (new for Release 11)

Complete details are provided in the Intercomm SNA Terminal Support Guide.

7.2 VTAM LU6.2 Inter-Application Support

An interface to another APPC system (Intercomm, CICS, etc.) via LU6.2 is available as an external (to bundled system) extra cost feature. Implementation is described in the SNA LU6.2 Support Guide.

7.3 TCAM

In order to operate Intercomm under TCAM, the extended TCAM support requires the Generalized Front End facility (a Special Feature). If the facility is used solely for the support of TCAM, it is provided to the installation at no additional cost. New users receiving a bundled system are automatically provided with both the TCAM and GFE interface. Existing installations using early releases of Intercomm with basic TCAM (interfaced without GFE) are no longer supported.

Operation under TCAM further requires that the user provide a Message Control Program to execute in a separate region. The user-written MCP manages the terminal network and places input messages on a Process Queue defined to Intercomm. Conversely, Intercomm places output messages on a Destination Queue accessed by the MCP.

Until such time as the MCP is designed and implemented, Intercomm may be executed in Test Mode.

Complete details are provided in the Intercomm TCAM Support Users Guide.

Chapter 8

EXTENDED CAPABILITIES INSTALLATION

Several facilities are available to expand Intercomm beyond its basic functions as a TP Monitor. Customers purchasing the complete, bundled Intercomm already have these features. For others, such capabilities are available at an additional charge beyond the basic system fee. The items in the extended capabilities (Special Feature) category for Intercomm Release 11 are as follows:

- Generalized Data Base Management System Interface
- DL/I Support
- TOTAL Support
- ADABAS Support
- IDMS Support
- VTAM Support (SNA)
- Extended TCAM Support
- Generalized Front End Facility (GFE)
- Multiregion Support Facility (MRS)
- File Recovery (FR)
- Data Entry System
- CRT Page Facility
- Dynamic File Allocation (DFA)
- Dynamic Data Queuing (DDQ)
- Autogen Facility
- Extended Security System (ESS).

Each extended capability is documented by a separate publication which includes a description of its facilities, and implementation and installation procedures. Please refer to the Intercomm Publications page of this manual.

Note that the following features are included with the basic system: ASMF, BTAM support, Message Mapping Utilities, Store/Fetch Facility, Table Facility, the basic Utilities (Edit, Output, Change and Display), basic security support, High-Level Language support, Year 2000 compliance, OS/390 compatibility, and 31-Amode storage and pools support.

Chapter 9

MVS INSTALLATION TUNING

Intercomm supports ESA at level 4.3 and higher and all levels of OS/390. It is also assumed that DFSMS, rather than DFP, is in use at the user's site. Initial installation follows the standard procedures described in the previous sections. However, the Intercomm system as released does not automatically utilize all of the system's MVS facilities, as many functions are based upon installation-dependent specifications.

Following the initial installation, tuning of the MVS operation may be accomplished by updating the linkedit deck to include specifications for Csect ordering and page boundary alignments.

For a detailed description of Intercomm MVS specifications, see the Operating Reference Manual. Guidelines for tuning the Intercomm system on an ongoing basis are provided in Chapter 11 of the Operating Reference Manual.

Chapter 10

PRODUCT MAINTENANCE

10.1 INTRODUCTION

As with any complex software system, mechanisms must be provided to permit correction of problems detected as the system encounters unforseen permutations of environment, terminals and the operating system. Such mechanisms also serve as a convenient means of distributing system enhancements. These services are available only to subscribers to our Product Maintenance Agreement.

10.2 S.E. ON DUTY

We appreciate the urgency of certain questions or need for help which can not wait for normal mail turnaround or the arrival of a field support Systems Engineer. To meet this need, we have established an "S.E. on Duty" (SEOD) telephone hotline.

Users requiring assistance may contact the SEOD by calling (212) 376-3260 during office hours (New York time), and selecting **Intercomm** technical support.

10.3 MSR PROCESSING

Maintenance Service Requests (MSRs) are submitted by the user when an Intercomm problem occurs which the user is unable to solve. The form should be fully completed and sent with as much documentation as possible to enable us to find a solution. Do not send material, particularly snaps and dumps, on microfiche or tape. Before sending the MSR, however, consult with the SEOD regarding a possible existing solution, or supporting documentation (tables, snaps, etc.) needs.

Headquarters Engineering will examine the problem and notify the user as to whether it is a product error, a user error, or an error of another vendor. In the event of a product error having been discovered, an Experimental System Modification (XM) is written to fix the problem and is given to the user. It is then the responsibility of the user to test the fix and inform us of the results as soon as possible. MSRs should be sent to:

Intercomm Product Manager
Isogon Corporation
330 Seventh Avenue
New York, New York 10001

An MSR form is included at the back of this manual. Please make copies to send with maintenance, enhancement, and publications update requests.

10.4 SYSTEM MODIFICATIONS

System Modifications (SM's) are issued via tape on a periodic basis after testing of the modifications. A cumulative index on a module basis and a current SM listing is included with each distribution.

It is up to the user to determine whether or not an SM should be applied to their system. We strongly recommend that all SM's be applied using the ASMF Facility described in ASMF Users Guide. We apply them to the official Intercomm Release before release to users in order to run a regression test, and insure the accuracy of these fixes.

The SM's are released as source code changes to the module(s) being updated, plus changes to the SM index module (AAAAAAAA). AAAAAAAA is used to account for SM's that have been applied. If SM's are applied using the ASMF Facility; then SMS (in addition to AAAAAAAA) is updated.

10.5 TECHNICAL INFORMATION BULLETINS

To share the benefit of other users' experiences, and to reduce the probability of encountering known problems, Technical Information Bulletins (TIBs) are published periodically and include such items as:

- Frequently made user coding or table errors
- Techniques for better design of programs or systems
- IBM software errors and their corresponding PTFs or APARs that may be needed at Intercomm installations
- Non-IBM equipment and/or software problems and suggested corrective action
- Suggestions for better utilization of Intercomm features.

User-contributed TIB items may be forwarded to:

Intercomm Product Manager
Isogon Corporation
330 Seventh Avenue
New York, New York 10001

10.6 EARLY WARNINGS

Early Warnings are a summary of problems reported and their solution. Early Warnings are listed and sent as necessary to all customers covered by the maintenance contract.

10.7 SYSTEM PUBLICATION REVISIONS

System Publication Revisions (SPRs) and/or new editions are published periodically when new or revised documentation becomes necessary. Users must maintain at all times an up-to-date copy of each Intercomm manual. Note, however, that documentation revisions correspond to the current SM level of the system, and therefore users must also keep their Intercomm system up to date.

New Publication Price Lists for manuals and SPRs are issued periodically and mailed with the Early Warnings. Please use the price lists to order additional copies by mail, or telephone the SEOD (see section 10.2). If ordering by telephone, please prearrange for a company Purchase Order Number to be provided as authorization for the order.

In trying to make our documentation more adaptable to the needs of our users, we recommend the utilization of the MSR form with notes on the manual, page number and suggested change.

This form should be filled out and sent to:

Manager, Publications Department
Isogon Corporation
330 Seventh Avenue
New York, New York 10001

10.8 FIELD ENGINEERING SUPPORT

Field engineering consulting services, by an Intercomm Systems Engineer from Isogon corporation, are available to Intercomm users on site to install a new or updated Intercomm release, to review such an installation, and/or to develop user-specific enhancements or modifications to the Intercomm system. A daily fee plus travel and living expenses will be charged to the requesting user site. Optionally, a funded enhancement may be developed at Isogon and taken to the user site for final installation and testing. To arrange for field engineering services, please contact the Intercomm Product Manager at Isogon Corporation at 212-376-3200.

Chapter 11

ORDERING NEW RELEASES

Current releases of Intercomm can be ordered at any time. All current release tapes reflect the latest officially released SM level.

The Intercomm release is created on a new tape to minimize I/O error problems; this tape remains the property of your account. Product Maintenance Agreement subscribers are entitled to each new release of the system, including appropriate documentation, at no charge. There is a charge for subsequent release tape requests.

A "Request for Intercomm System Release Tape" form is enclosed at the back of this manual.

Chapter 12

RELEASE 9 CONVERSION

12.1 INTRODUCTION

For existing Release 8 users, conversion to Release 9 should go smoothly if the table changes described in Chapter 3 and other recommendations contained in this manual and the Release 9 Planning Guide are followed. For example, the only system data set that needs recreation is RCT000 due to larger block size requirements and Intercomm supplied Report changes and that Reports 2000 through 2003 have been eliminated. Optionally, all the Reports may be made core-resident. Many tables, except those for which assembly jobs are generated (see Chapter 5), do not have to be reassembled, but do need to be moved to the Release 9 SYMUSR and MODUSR. In particular, ensure that data set concatenations for assemblies and linkedits reference only the Release 9 libraries.

For users with a Multiregion Intercomm system, Release 9 may be implemented on a region by region basis. A Release 8 control region may communicate with a Release 9 satellite region and vice versa. However, if single region logging is used, the control region and all satellite regions using the control region log must be at the same release level. Also, if the Link Pack Facility is used, all regions referencing modules in the Link Pack, as well as the LPA modules themselves, must be at the same release level. Be careful when specifying STEPLIB concatenations for the Intercomm execution JCL.

12.2 CONVERSION CONSIDERATIONS

In addition to the recommendations in the Release 9 Planning Guide, the following should be noted:

- Obsolete globals have been eliminated from INTGLOBE, SETGLOBE, ENVIRON, SETENV, and DDQENV.

- If global setting changes were made to FEMACGBL (to allow definition of more than 1000 terminals, subsystems, etc.) for Release 8, then those same changes must be applied to the Release 9 version. Also modify the SUBSYS macro if more than 1000 are coded in PMIRDTnn in a Multiregion environment. See also Technical Information Bulletins.

- If changes were made to the LOGSETGB global table for Release 8, then reapply the changes for Release 9 and reassemble Log Analysis modules.

- User modifications to Intercomm modules must be carefully evaluated due to the number of Release 9 enhancements and renumbering of many modules. See also the documentation for the new CHANGER utility in the Operating Reference Manual, Chapter 12.

- All tested Experimental SMs through 1237 which were provided for Release 8 and listed on various Early Warnings publications up through 3/1/83 have been incorporated in Release 9. Call the SEOD if you have questions regarding EX SMs which you may have in the Release 8 system. New Experimental SM's start at number 0001. Use the latest Early Warnings listing to determine if any new EX SM's apply to your Release 9 system.

- Corrections and enhancements to ASMF modules previously provided as zaps have been incorporated. Both the AAAAAAAA and SMS modules are upgraded to Release 9 - base SM level 1497.

- The load module for assembly of the ASMF SMPROF macro is now called ASMFPROF to prevent confusion with the TSO PROFILE module.

- ICOMVCON and ICOMCESD do not need to be relinkedited as the supplied versions do not have the RENT attribute.

- The ICOMSBS copy module for COBOL programs has been revised and cleaned up but is downward compatible. User additions to this member must be reapplied.

- User additions to the PL/1 copy member PLIENTRY must be reapplied.

- For MMU users, the LOADMAP utility has been prelinkedited as member LOADMAPS as documented in Message Mapping Utilities.

- If there is any user dynamically loaded subsystem or subroutine larger than 200K, then increase the fullword value in GAMFQES accordingly, to ensure enough core is available to load a large module (no longer needed under Release 10 or 11).

12.3 INTERCOMM DSECT CHANGES AND ADDITIONS

Descriptive comments and alignments have been revised in most of the Dsects. In particular, note the following:

- SPALIST - obsolete fields reused for new entries

- BTSPA - completely revised and reorganized - reassemble and check user modules which reference this area

- VTAM Dsects - many changes necessitate reassembly of all user exit and other routines which reference VTAM tables and areas

- PTRDSECT and PEXTABLE - expansion requires reassembly of BTAM/TCAM user exits referencing these Dsects (for BTERM macro)

- AIDGRP/AIDDATA macro expansion changed, a new Dsect AIDSECTS is provided to describe the generated table areas

- MSGHDR/MSGHDRC - file recovery fields rearranged to provide date/time field initialization. Also ensure MSGHPID field not referenced by any user programs
- IXFDSCTA - changed for VSAM file enhancements, etc. check user additions and modifications
- FRDSECTS for the File Attribute Block (FAB) modified for new FAR options
- DDSASECT - new return codes for MVS (see Dynamic File Allocation)
- DYNDSECT - new fields for SUBMODS macro changes
- COBDSECT - provided for 256-byte prefix to COBOL subsystem/subroutine DWS area; field placements changed
- Intercomm pool sizes now in doublewords (not bytes) in pool header (RMDSECTS) and RCB (RCBCONWD field)
- INTENQ/DEQ enqueue-id expanded to 44 bytes (NQDSECTS) - see Basic System Macros
- DVMODIFY - expanded for alternate buffer and line size changes
- MMUDDMWK area expanded (used by MMU DDM modules)
- MMUVT - field labels changed
- SFCOREDS contains a local global DMPRST which is used to control the Dsect expansion in the off-line utility SFDMPRST. If any user modules copy in this Dsect, the statement LCLB DMPRST must be inserted at the beginning of the module. The default setting of zero is to be used
- INTTCB for Intercomm Thread Control Block contains new switch settings.

Chapter 13

RELEASE 10 CONVERSION

13.1 INTRODUCTION

For existing Release 9 users, conversion to Release 10 should go smoothly if the table changes described in Chapter 3 and other recommendations contained in this manual and the Release 10 Planning Guide are followed. For example, the only system data set that needs recreation is RCT000 due to larger block size requirements and Intercomm-supplied Report changes. Optionally, all the Reports may be made core-resident. Many tables, except those for which assembly jobs are generated (see Chapter 5), do not have to be reassembled, but do need to be moved to the Release 10 SYMUSR and MODUSR. In particular, ensure that data set concatenations for assemblies and linkedits reference only the Release 10 libraries.

For users with a Multiregion Intercomm system, Release 10 may be implemented on a region by region basis. A Release 9 control region may communicate with a Release 10 satellite region and vice versa. The only requirement is that the Release 10 version of MRINPUT must be linked with Release 9 regions (for BMN field conversion in the message header of messages transferred to the region). However, if single region logging is used, the control region and all satellite regions using the control region log must be at the same release level. Also, if the Link Pack Facility is used, all regions referencing modules in the Link Pack, as well as the LPA modules themselves, must be at the same release level. At SM level 2089 or higher, if using a mixed 9 and 10 Multiregion system with ESS, the Release 9 INTSEC00 (assembled under Release 9) must be used in a Release 10 Satellite Region if the Control Region is Release 9. If the Control Region is Release 10, then the Release 10 INTSEC00 must be included in Release 9 Satellite Regions. Be careful when specifying STEPLIB concatenations for the Intercomm execution JCL.

13.2 CONVERSION CONSIDERATIONS

In addition to the recommendations in the Release 10 Planning Guide, the following should be noted:

- Obsolete globals have been eliminated from INTGLOBE, SETGLOBE, ENVIRON, and SETENV.

- If global setting changes were made to FEMACGBL (to allow definition of more than 1000 terminals, subsystems, etc.) for Release 9, then those same changes must be applied to the Release 10 version, including to the 4 new globals at the bottom of the table.

- If changes were made to the LOGSETGB global table for Release 9, then reapply the changes for Release 10 and reassemble Log Analysis modules.

- If changes were made to the DDQENV global table for Release 9, then copy that version to the Release 10 SYMLIB or apply the changes to the Release 10 copy from the Release 10 SYMREL.

- User modifications to Intercomm modules must be carefully evaluated due to the number of Release 10 enhancements and renumbering of some modules. See also the documentation for the CHANGER utility in the Operating Reference Manual, Chapter 12.

- All tested Experimental SM's through 359 which were provided for Release 9 and listed on various Early Warnings publications up through 4/1/88 have been incorporated in Release 10, that is, Release 9 SM's 1731 through 1844 were incorporated in Release 10 under their XM numbers. Release 9 SM's 1928 to 2013 were incorporated in Release 10 SM's through 2089. Call the SEOD if you have questions regarding EX SM's which you may have in the Release 9 system. Release 10 Experimental SM's started at number 500. Use the latest Early Warnings listing to determine if any new EX SM's apply to your Release 10 system.

- Corrections and enhancements to ASMF modules previously provided as zaps have been incorporated. Both the AAAAAAAA and SMS modules are upgraded to Release 10 - base SM level 1730. Current SM level in SMS is the same as that given on the Release 10 installation tape.

- ICOMVCON and ICOMCESD do not need to be relinkedited as the supplied versions do not have the RENT attribute.

- The ICOMSBS copy module for COBOL programs has additions but is downward compatible. User additions to this member must be reapplied.

- User additions to the PL/1 copy members PENTRY and/or PLIENTRY must be reapplied.

- PMICANC and RPT00008 changed - incorporate in user version, if used.

- RPT00028 now used for LMAP command responses, not for Fine Tuner commands.

- Dynamic File Allocation Facility code moved from File Handler (IXFHND01), to a new module IXFDYNAM.

- If using VSAM LSR pools under DFP 2.3 (XA 2.2) or higher, and the pools should be above the 16M line, add the parameter LSR31=YES to the SPALIST definitions for the applicable regions. See Basic System Macros.

- KEYFLIP and GAMFQES are no longer used: also remove ORDER linkedit statements for them, as well as for the EXECWAIT Csect (no longer exists).

- Add SUBSYS macros for the new Intercomm subsystem codes for LMAP, FINTUNER, DYNSSUP and SYSCNTL to all regions in PMIRDT00 if Multiregion used (see INTSCT on SYMREL).

- MAPACCT macro for the SAM (System Accounting and Measurement Statistics - see Operating Reference Manual) table no longer supports the PFAULTS parameter, and now supports COBREENT, PAGE, and Table Facility calls. See Basic System Macros.

- If SAM statistics reporting is used, it is necessary to change the SORT FIELDS control card (see Operating Reference Manual, page 8-20) by replacing the offset value 29 with the value 41 (saved MSGHRSCH byte).

- User Assembler programs issuing the ESS SECTEST macro must be reassembled.

- WARNING - if using ESS, after the Security file has been used for sign-on under Release 10 (for testing), it can no longer be used under Release 9 due to the password encryption enhancement. It is recommended to copy the Release 9 file using the ESS expansion option for executing the SECFILE utility (see Extended Security System), and use the expanded file for Release 10. Also reapply user mods to SECUEXIT (if used) which has many changes.

- The new Table Facility requires no special installation other than several new SPALIST macro parameters (see Table Facility). The execution module INTTABLE is automatically included via ICOMLINK.

- PAGETBLE and SRCHPTBL are no longer used by the Page Facility and the Page data sets are no longer needed. See Page Facility for new SPALIST macro parameters.

- The TUNERTBL is obsolete (see System Control Commands for syntax on Fine Tuner commands (BEGN, DELY, etc.)).

- To use the new FTUN and SSUP commands (see System Control Commands), installation of MMU (see Message Mapping Utilities) is required.

- The VTIDTABL can be eliminated by coding the associated Vtam-name on each applicable LUNIT via the new VTID parameter.

- If still using BTAM terminals, note that the BTAMSCTS table may be eliminated by coding queuing parameters on each BTERM macro (see Basic System Macros). Also note that the CPU console may be defined as a VTAM LUNIT (see SNA Terminal Support Guide) to eliminate BTAM support, whether or not it is the control terminal.

- User Assembler programs and user exits issuing the INTTIME macro must be reassembled and must have a local or acquired save area to be used as a work area and to save and restore the issuer's registers (2-12 only).

- User Assembler programs and user exits issuing the LINKAGE, SUBLINK, RTNLINK, STORAGE, and/or STORFREE macros should be reassembled due to 31-Amode support changes.

13.3 INTERCOMM DSECT CHANGES AND ADDITIONS

Descriptive comments and alignments have been revised in most of the Dsects. In particular, note the following:

- SPALIST - obsolete fields reused for new entries: if a parameter is not documented in Basic System Macros, it is not supported and must be removed.
- BTSPA - some fields added - reassemble and check user modules which reference this area
- VTAM Dsects - many changes necessitate reassembly of all user exit and other routines which reference VTAM support tables, macros, and areas; an LBX area has been added to LUDSECTS for Extended LU6.2
- PLNDSECT - minor changes require reassembly of BTAM/TCAM user exits referencing this Dsect (for BLINE macro)
- DDQSECTS - changes require reassembly of any user routines referencing the DDQ Dsects
- MSGHDR/MSGHDRC - BMN-number field moved (to last 3 bytes of old MSGHPID field): now 3 bytes instead of 2. MSGHCON replaced by MSGHFLGS and flag settings revised. MSGHRETN and MSGHMRDX moved to overlay MSGHBLK field. Corresponding changes made to ICOMDWS, ICOMINMG, PLMSGHD and PL1HDR
- PGEDSECT completely changed and RQEDSECT no longer used by the revised Page Facility
- IXFDSCTA - changed for VSAM file enhancements, etc.: check user additions and modifications
- DDSASECT - new return codes for VSAM support (see Dynamic File Allocation)
- DYNDSECT - field size changes and additions for SUBMODS macro changes, statistics
- COBDSECT - for 256-byte prefix to COBOL subsystem/subroutine DWS area; flags and COBOL 2 support changes added
- SFTABLE for Store/Fetch core table expanded with counters for detailed System Tuning Statistics
- INTTCB for Intercomm Thread Control Block contains new switch settings, a different BMN save field, renamed and new fields. Add user fields just before ITCBLEN EQUate, and reassemble FDITCB and PMISNAP1
- INTSEC and ICP for ESS have field definition changes and additions
- LPINTFC and LPSPA have changes - see Basic System Macros

- SCTLISTC for SYCTTBL macro expansion has many changes - user modules or changes referencing the SYCTTBL area may need revision

- STALIST for STATION macro has some labels removed, check user mods referencing this area. Label on first STATION macro no longer required, labels on subsequent STATION macros ignored. Generic Station Table entries may be defined (see SNA Terminal Support Guide)

- PVRBTBLE (for BTVERB macro) has 2 bytes added (for Extended LU6.2 support) - reassemble user modules referencing this area.

Chapter 14

RELEASE 11 CONVERSION

14.1 INTRODUCTION

For existing Release 9 and 10 users, conversion to Release 11 should go smoothly if the table changes described in Chapter 3 and other recommendations contained in this manual and the Release 11 Planning Guide are followed. For example, the only system data set that needs recreation is RCT000 due to larger block size requirements and Intercomm-supplied Report changes. Optionally, all the Reports may be made core-resident. Many tables, except those for which assembly jobs are generated (see Chapter 5), do not have to be reassembled, but do need to be moved to the Release 11 SYMUSR and MODUSR. In particular, ensure that data set concatenations for assemblies and linkedits reference only the Release 11 libraries.

For users with a Multiregion Intercomm system, Release 11 may be implemented on a region by region basis. A Release 9 or 10 control region may communicate with a Release 11 satellite region and vice versa. The only requirement is that the Release 11 version of MRINPUT must be linked with Release 9 regions (for BMN field conversion from 3 bytes to 2 bytes in the message header of messages transferred to the region). However, if single region logging is used, the control region and all satellite regions using the control region log must be at the same release level. Also, if the Link Pack Facility is used, all regions referencing modules in the Link Pack, as well as the LPA modules themselves, must be at the same release level. If using a mixed 9 or 10 Multiregion system with Release 11 and ESS, the Release 9 or 10 INTSEC00 must be included in Release 11 Satellite Regions if the Control Region is Release 9 or 10. If the Control Region is Release 11, then the Release 11 INTSEC00 must be included in Release 9 or 10 Satellite Regions. Be careful when specifying STEPLIB concatenations for the Intercomm linkedit and for the execution JCL.

14.2 CONVERSION CONSIDERATIONS

In addition to the recommendations in the Release 11 Planning Guide, the following should be noted:

- User modification to the IBM SPLEVEL macro is no longer needed. Installation Job 06 to copy the macro to SYMLIB has been replaced by the BMN Back-off Installation (if needed). Ensure that old versions of the SPLEVEL macro are removed from user libraries for Release 11 and correct any user programs using the macro.

- Obsolete globals have been eliminated from INTGLOBE and SETGLOBE.

- Global setting changes to FEMACGBL (to allow definition of more than 1000 terminals, subsystems, etc.) are no longer needed.

- If changes were made to the LOGSETGB global table for Release 9 or 10, then reapply the changes on to the Release 11 SYMLIB and reassemble Log Analysis modules (see Operating Reference Manual, Chapter 12).

- If changes were made to the DDQENV global table for Release 9 or 10, then copy that version to the Release 11 SYMLIB or apply the changes on SYMLIB to the Release 11 copy from the Release 11 SYMREL.

- User modifications to Intercomm modules must be carefully evaluated due to the number of Release 11 enhancements and renumbering of some modules. See also the documentation for the CHANGER utility in the Operating Reference Manual, Chapter 12.

- All tested Experimental SM's through 920 which were provided for Release 10 are incorporated in Release 11. Call the SEOD if you have questions regarding EX SM's which you may have in the Release 9 or 10 system. Release 11 Experimental SM's start at number 1000. Use the latest Early Warnings listing to determine if any new EX SM's apply to your Release 11 system.

- Both the AAAAAAAA and SMS modules are upgraded to Release 11 - base SM level 2300. Current SM level in SMS is the same as that given on the Release 11 installation tape.

- The ICOMSBS copy module for COBOL programs has additions but is downward compatible. User additions to this member must be reapplied.

- User additions to the PL/1 copy members PENTRY and/or PLIENTRY must be reapplied.

- User Assembler programs issuing the ESS SECTEST macro must be reassembled.

- WARNING - if using ESS, after the Security file has been used for sign-on under Release 11 (for testing), it can no longer be used under Release 9 or 10 due to the Year 2000 enhancements. It is recommended to copy the Release 9 or 10 file using the ESS expansion option for executing the SECFILE utility (see Extended Security System), and use the expanded file for Release 11. Other required steps to convert the copied file for Y2K enhancements are described in the Release 11 Planning Guide. Also carefully review user mods to SECUEXIT (if used) which has changes and is resequenced.

- User Assembler programs and user exits issuing the INTTIME macro must be reassembled and must have a local or acquired save area to be used by the macro as a work area and to save and restore the issuer's registers (2-12 only) Note that the date is now returned with a 4-digit year in the form yyyyddds.

- User Assembler programs and user exits issuing the GETDATE macro must be reassembled to have a 4-digit year returned in the form yyyyddds. If used, the ADDR parameter must point to a 4-byte field where the date will be stored (not moved - length modifier for base/displacement value no longer supported).

- User Assembler programs and user exits issuing the LINKAGE, SUBLINK, RTNLINK, STORAGE, and/or STORFREE macros should be reassembled due to 31-Amode support changes.

- Loadable user Assembler programs linked with INTLOAD must be relinked with the Release 11 version of INTLOAD.

- The short forms of the parameters for VTIDTAB macros in the VTIDTABL can be used by coding the new VTID (instead of VTAMIDS) parameter, and the new ICID (instead of ICOMIDS) parameter.

- Generic Station Table entries may be defined for CRT's and Printers (see Release 11 Planning Guide).

- If MRBATCH is used with user batch programs, they must be relinked with the Release 11 MRBATCH.

- If user batch programs are linked with the File Handler modules, they must be relinked with the Release 11 versions and the Release 11 BATCHPAK. Note that PMISNAP1 (for PMISNAP macro processing) and PMINQDEQ (for system INTENQ and INTDEQ macro processing) may be linked with batch programs (no longer need the Dispatcher (IJKDSP01)).

- If SAM (System Accounting and Measurement) statistics are gathered on-line, then the batch SAMREPT load module must be relinked with the Release 11 versions of the included load modules and the reassembled user's SAMTABLE.

- If Log Analysis batch reports are used, then the LOGANAL load module must be relinked using the Release 11 versions of the included load modules (after reassembly if the LOGSETGB global table is changed).

- The Log Analysis date conversion routine JULIAND has been modified to handle 4-digit years, and the year 2000 as a leap year. The 2-digit year field in the date parameter area to be passed to the routine has been expanded to, and expects, a 4-digit year. Correct user programs, if any, which call this routine (see comments at the beginning of the module).

13.3 INTERCOMM DSECT CHANGES AND ADDITIONS

New flags and some new fields have been added to some of the Dsects. In particular, note the following:

- SPALIST - obsolete fields have been reused for new entries. The SPADATER field (was Vcon of PMIDATER) has been replaced (along with the preceding unused byte) with the new SPADATEC field described in the Release 11 Planning Guide. If a parameter is not documented in Basic System Macros, it is not supported and must be removed.

- RMDSECTS - field additions for 31-Amode pools changes, statistics.

- ICP for ESS has a field definition added.

- MSGHDR/MSGHDRC - as for Release 10, BMN-number field moved (to last 3 bytes of old MSGHPID field): now 3 bytes instead of 2 (if the BMN back-off installation is executed, the old 2-byte BMN number is restored to its original position). MSGHCON replaced by MSGHFLGS and flag settings revised. MSGHRETN and MSGHMRDX moved to overlay MSGHBLK field. Corresponding changes made to ICOMDWS, ICOMINMG, PLMSGHD and PL1HDR (except BMN field if the BMN back-off installation is executed).

- VTAM Dsects - many changes necessitate reassembly of all user exit and other routines which reference VTAM support tables, macros, and areas.

- A new Dsect, VTIDTABD, has been added to describe a VTIDTABL entry and includes fields in the expanded 32-byte version if 'dynamic' LU processing is implemented. In the base 16-byte entry, the low-order 2 bytes (of the Intercomm terminal name 8-byte area) are now used to accumulate a successful logon count for statistics processing.

REQUEST FOR INTERCOMM SYSTEM RELEASE TAPE

CUSTOMER _____

RELEASE _____
SM LEVEL _____
TAPE NUMBER _____

INSTALLATION SUPPORT CONTACT _____
TITLE _____ TELEPHONE (___) _____
ADDRESS _____ EXTENSION _____
_____ FAX NO. (___) _____
_____

EXECUTIVE CONTACT _____
TITLE _____
ADDRESS _____
_____
_____

TAPE DESCRIPTION:

TAPE TYPE - ( ) 3480 CARTRIDGE (uncompressed) ( ) 12-inch REEL (6250 BPI)

PRODUCT:

INTERCOMM - ( ) 902 MVS ( ) 910 BUNDLED SYSTEM

INTERCOMM CONTRACT STATUS - ( ) MAINTENANCE SUPPORT ( ) UNSUPPORTED

SPECIAL FEATURES:

( ) 920 MRS - MULTIREGION
( ) 921 MSG - MODEL SYSTEM GENERATOR
( ) 923 DE - DATA ENTRY
( ) 924 AUT - AUTOGEN
( ) 925 SNA - VTAM
( ) 930 DLI - DL/I
( ) 931 ADA - ADABAS
( ) 932 IDM - IDMS
( ) 933 TOT - TOTAL
( ) 934 M24 - MODEL 204
( ) 935 S2K - SYSTEM 2000
( ) 936 GDB - GENERALIZED DBMS
( ) 941 FR - FILE RECOVERY
( ) 943 GFE - GENERALIZED FRONT END
( ) 945 DFA - DYNAMIC FILE ALLOCATION
( ) 946 MSF - MESSAGE SERVICE FACILITIES
( ) 940 PAG - PAGE FACILITY
( ) 942 DDQ - DYNAMIC DATA QUEUING
( ) XTC - TCAM VIA/GFE
( ) 947 ESS - EXTENDED SECURITY SYSTEM

EXTERNAL FEATURES:
( ) CICS LU6.2 INTERFACE
( ) EXTENDED LU6.2 INTERFACE

B _____
I ACCOUNT NAME ATTENTION
L _____
L ADDRESS AUTHORIZED SIGNATURE
_____
T REFERENCE PURCHASE ORDER NO.
O _____ $_____
TOTAL

MAIL TO: Intercomm Support Coordinator
Isogon Corporation
330 Seventh Avenue
New York, New York 10001

ISOGON CORPORATION

330 7th Avenue
7th Floor
New York, N.Y. 10001

INTERCOMM

MAINTENANCE SERVICE REQUEST

ACCOUNT NAME

AUTHORIZATION SIGNATURE (Required)

DOCUMENTATION ATTACHED

- ☐ **NONE**
- ☐ DUMP AND LINKEDIT
- ☐ THREAD DUMP (SMLOG)
- ☐ WQE TRACE (SYSPRINT)
- ☐ JES JOB LOG
- ☐ JCL AND SYSMSG
- ☐ INTERCOMM LOG
- ☐ FRONT END TABLES
- ☐ BACK END TABLES
- ☐ SYSTEM MODULES
- ☐ LINE TRACE
- ☐ SCREEN MAP
- ☐ USER PROGRAM
- ☐ OTHER (SPECIFY)_____

CUSTOMER CONTACT | AREA CODE | TELEPHONE NUMBER | EXTENSION

PRODUCT RELEASE | OPERATING SYSTEM TYPE | OPERATING SYSTEM VERSION | USER PROBLEM NUMBER

DATE REPORTED | SM LEVEL (SYSTEM) | MODULE SUSPECTED | SM LEVEL (MODULE) | EX SM LEVEL (MODULE) | FREQUENCY* | SEVERITY** | TIME*** LIMIT

*1-recreatable at will
2-at least once a week
3-less than once a week
4-once only

**1-high--critical
2-moderate--needed but not critical
3-low--desired but not needed

***In Hours. Required. Minimum 2.

SUMMARY OF PROBLEM (Use Reverse Side For Details)

(FOR ISOGON INTERNAL USE ONLY)

MSR NUMBER | ACCOUNT CODE | HE/SE/DEV | PRIORITY | TIME SPENT | SOLUTION TYPE

DATE RECEIVED | ASSIGNED | DOC ARRIVED | ANSWERED | SOLVED | CLOSED

EXPERIMENTAL SMS | ISSUED SMS

SOLUTION DESCRIPTION SUMMARY