$CDUPD and P.$CMLB*n* libraries on SYSRES

1. Introduction

The current allocation of utilities and off-lined stubs in the various P.$CMLBn libraries on SYSRES makes the upgrade of GSM revisions very difficult. The current mechanism, using $CUSUPD, is potentially error prone and occasionally leads to problems when upgrading GSM revisions.

For the release of GSM V8.1l, the library allocation will be rationalised to make future upgrades, **including the upgrade to GSM V8.1l**, simpler, less error prone and faster.

Related documents describe the new Software Distribution and Installation Mechanism (SDIM) that will be released as part of GSM V8.1l; and the improvements to GSM to remove all the GSM customisation from SYSRES (i.e. the creation of a separate SYSCUS volume).

2. The pre-V8.1l library allocation

For all revision of GSM V8.1 up to, and including, GSM V8.1k, the library allocation is as follows:

GSM non-PM only (no development products)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	32-bit command programs (GSM V8.1k only)

GSM-PM only (no development products)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	Speedbase & 32-bit utilities

GSM non-PM (with Cobol Development System)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs and stubs to SYSDEV & SYSKIT
P.$CMLB2	32-bit command programs (GSM V8.1k only)

GSM-PM (with Cobol Development System)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs and stubs to SYSDEV & SYSKIT
P.$CMLB2	Speedbase & 32-bit utilities

GSM-PM (with Speedbase Development System or 32-bit Global Development System)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs and stubs to SYSKIT
P.$CMLB2	Speedbase & 32-bit utilities and stubs to SYSSBD

GSM-PM (with both Cobol Development System and either Speedbase Development System or 32-bit Global Development System)

P.$CMLB0	Command programs and $STARB customisation program
P.$CMLB1	Command programs and stubs to SYSDEV & SYSKIT
P.$CMLB2	Speedbase & 32-bit utilities and stubs to SYSSBD

GSM non-PM (with Speedbase Development System or 32-bit Global Development System)

This software combination is illegal and cannot be installed.

GSM non-PM (with both Cobol Development System and either Speedbase Development System or 32-bit Global Development System)

This software combination is illegal and cannot be installed.

For versions of non-PM GSM before GSM V8.1k, the P.$CMLB2 library is absent from SYSRES. For versions of GSM-PM before GSM V8.1k, the P.$CMLB2 library contains only 16-bit Speedbase utilities. For non-PM GSM V8.1k, and later, the P.$CMLB2 library contains non-Speedbase 32-bit utilities. For GSM-PM V8.1k, and later the P.$CMLB2 library contains 32-bit utilities in addition to the 16-bit Speedbase utilities.

3. The current problems

The library structure described in section 2 contains the following weaknesses that lead to complications when upgrading GSM revisions:

- The P.$CMLB0 library ALWAYS contains a site-specific customisation file, $STARB;
- The P.$CMLB1 library may contain stubs to SYSDEV and SYSKIT;
- The P.$CMLB2 library may contain stubs to SYSSBD.

The current upgrade mechanism cannot simply copy a P.$CMLB*n* library from the distribution media to SYSRES because the site-specific customisation will be lost. Similarly, if one, or more, development systems are installed the library links to the development system libraries will be lost.

4. The V8.1l, and later, library allocation

For GSM V8.1 revision V8.1l, the library allocation will be as follows:

GSM non-PM only (no development products)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Empty library, reserved for future use

GSM-PM only (no development products)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	Speedbase & 32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Empty library, reserved for future use

GSM non-PM (with Cobol Development System)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Stubs to SYSDEV & SYSKIT

GSM-PM (with Cobol Development System)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	Speedbase & 32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Stubs to SYSDEV & SYSKIT

GSM-PM (with Speedbase Development System or 32-bit Global Development System)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	Speedbase & 32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Stubs to SYSSBD & SYSKIT

GSM-PM (with both Cobol Development System and either Speedbase Development System or 32-bit Global Development System)

P.$CMLB0	Command programs excluding $STARB customisation program
P.$CMLB1	Command programs
P.$CMLB2	Speedbase & 32-bit utilities
P.$CMLB3	Empty library, reserved for future use
P.$CMLB4	Stubs to SYSDEV, SYSKIT & SYSSBD

GSM non-PM (with Speedbase Development System or 32-bit Global Development System)

This software combination is illegal and cannot be installed.

GSM non-PM (with both Cobol Development System and either Speedbase Development System or 32-bit Global Development System)

This software combination is illegal and cannot be installed.

The $STARB customisation file will reside as a stand-alone file on SYSRES (i.e. outside any command libraries).

As explained above, the P.$CMLB2 library will always be present on SYSRES (i.e. for non-PM systems as well as GSM-PM systems).

For external systems, the P.$CMLB3 library will normally be empty (for future use as more 32-bit utilities are developed). For internal systems, the P.$CMLB3 library holds the stubs to the various utilities installed as part of the PSS product.

The P.$CMLB4 library will hold ALL the stubs to the various development products.

5. Upgrading to GSM V8.1I

The installation of a fresh GSM V8.1I system will automatically construct the library structure described in section 4. However, those sites upgrading from pre-V8.1I to GSM V8.1I will have to run a reorganisation utility, $CDUPD (and its related meta-job, $CDUMJ) as part of the upgrade process.

$CDUPD, and $CDUMJ, are available for evaluation prior to the release of GSM V8.1I.

Important Note: If $CDUPD is used to upgrade a SYSRES, the version of P.$MON must be internal version V8.1F, or later. This is the 1st version of the Loader that recognises the P.$CMLB4 command library.

The PDL for the upgrade metajob should be:

```
Extract $STARB from P.$CMLB0 to SYSRES
Delete $STARB from P.$CMLB0
IF SYSDEV installed
        Remove all links to SYSDEV from library P.$CMLB1
END
IF SYSKIT installed
        Remove all links to SYSKIT from library P.$CMLB1
END
IF SYSSBD installed
        Remove all links to SYSSBD from library P.$CMLB2
END
IF P.$CMLB2 absent from SYSRES
        Create empty P.$CMLB2
END
IF P.$CMLB3 absent from SYSRES
        Create empty P.$CMLB3
END
Create empty P.$CMLB4 on SYSRES
IF SYSKIT installed
        Merge stubs from P.$CMLB0 on SYSKIT into P.$CMLB4 on SYSRES
```

```
END
IF SYSDEV installed
        Merge stubs from P.$CMLB0 on SYSDEV into P.$CMLB4 on SYSRES
END
IF SYSSBD installed
        Merge stubs from P.$CMLB0 on SYSSBD into P.$CMLB4 on SYSRES
        Off-line $SDL from SYSSBD into P.$CMLB4 on SYSRES
        IF 32-bit Development System installed
                Off-line $SDL from SYSSBD into P.$CMLB4 on SYSRES
        END
END
```