SECTION II

Machine Conventions

2.1. Introduction

This section consists of a series of explanations describing: the IBM System/36 assembler, the IBM System/36 overlay linker and the error messages produced by Whitesmiths System/36 code generator.

2.2. Using the IBM System/36 Assembler

The IBM macro assembler may be run either from a menu or directory via the procedure member ASM.

To assemble a program, enter:

    ASM SMNAME

where SMNAME is a source member produced either by an editor or by the C compiler.

SEE ALSO
    IBM System/36 Programming with Assembler (SC21-7908).

2.3. Using the IBM System/36 Overlay Linker

The IBM overlay linker is started by one of the procedure members **CALINK** or **CEALINK**.

To link your program with the ANSI library:

    CALINK MNAME

To link your program with the Extended ANSI library:

    CEALINK MNAME

where MNAME is the subroutine member containing the main() function.

You don't have to name every called function or referenced data object on the command line. The linker will get the referenced subroutine members from your current session library automatically.

The name of the load member will also be MNAME.

2.3.1. Reserving Stack and Heap Space

The stack is allocated in low memory by the module STACK, which is documented in section III.a of this manual. To change the stack + heap space you have to modify this source member and reassemble it. The default stack + heap size is set to 4096 bytes. You may also change the exception stack size (used by _raise and _when functions) in this source member.

SEE ALSO
    stack, IBM System/36 Overlay Linkage Editor Guide (SC21-9041).

2.4.   Code Generator Diagnostics

The following diagnostic error messages are output by the Whitesmiths, Ltd.
code generator for the IBM System/36 (called p236 or p2.36 on most systems).

-a or -r# too high in p1 flags <file> - <file> produced by p1 with incorrect
     register parameters for S/36

bad builtin - builtin not known to code generator

bad p1 flags for S/36 target <file> - <file> produced by p1 with incorrect
     size parameters for S/36

intermediate file < release 3.0 <file> - <file> produced by wrong release of
     p1

unknown space: <space> - <space> not known to code generator