INTEGRATED INFORMATION
SUPPORT SYSTEM (IISS)
Volume VIII - User Interface Subsystem
Part 29 - Text Editor Product Specification

General Electric Company
Production Resources Consulting
One River Road
Schenectady, New York 12345

November 1985

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This technical report has been reviewed and is approved for publication.

David L. Judson, Project Manager
AFWAL/MLTC
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5 Aug 1986

For the Commander:

Gerald C. Shumaker, Branch Chief
AFWAL/MLTC
Wright Patterson AFB OH 45433

7 Aug 86

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Copies of this report should not be returned unless return is required by security considerations, contractual obligations, or notice on a specific document.
This specification establishes the detailed design of a computer program identified as the Text Editor (TE). The TE provides the user with the ability to edit a file in a manner consistent with the User Interface. Editing functions such as inserting, deleting, moving and replacing text are available.
Integrated Information Support System (IISS)
Vol VIII - User Interface Subsystem
Part 29 - Text Editor Product Specification

A S D 86 1486
17 Jul 1986
This product specification covers the work performed under Air Force Contract F33615-80-C-5155 (ICAM Project 6201). This contract is sponsored by the Materials Laboratory, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Gerald C. Shumaker, ICAM Program Manager, Manufacturing Technology Division, through Project Manager, Mr. David Judson. The Prime Contractor was Production Resources Consulting of the General Electric Company, Schenectady, New York, under the direction of Mr. Alan Rubenstein. The General Electric Project Manager was Mr. Myron Hurlbut of Industrial Automation Systems Department, Albany, New York.

Certain work aimed at improving Test Bed Technology has been performed by other contracts with Project 6201 performing integrating functions. This work consisted of enhancements to Test Bed software and establishment and operation of Test Bed hardware and communications for developers and other users. Documentation relating to the Test Bed from all of these contractors and projects have been integrated under Project 6201 for publication and treatment as an integrated set of documents. The particular contributors to each document are noted on the Report Documentation Page (DD1473). A listing and description of the entire project documentation system and how they are related is contained in document FTR620100001, Project Overview.

The subcontractors and their contributing activities were as follows:

<table>
<thead>
<tr>
<th>Subcontractors</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boeing Military Aircraft Company (BMAC)</td>
<td>Reviewer</td>
</tr>
<tr>
<td>D. Appleton Company (DACOM)</td>
<td>Responsible for IDEF support, state-of-the-art literature search</td>
</tr>
<tr>
<td>General Dynamics/Ft. Worth</td>
<td>Responsible for factory view function and information models</td>
</tr>
</tbody>
</table>
Subcontractors | Role
---|---
Illinois Institute of Technology | Responsible for factory view function research (IITRI) and information models of small and medium-size businesses
North American Rockwell | Reviewer
Northrop Corporation | Responsible for factory view function and information models
Pritsker and Associates | Responsible for IDEF2 support
SofTech | Responsible for IDEF0 support

**TASKS 4.3 - 4.9 (TEST BED)**

Subcontractors | Role
---|---
Boeing Military Aircraft Company (BMAC) | Responsible for consultation on applications of the technology and on IBM computer technology.
Computer Technology Associates (CTA) | Assisted in the areas of communications systems, system design and integration methodology, and design of the Network Transaction Manager.
Control Data Corporation (CDC) | Responsible for the Common Data Model (CDM) implementation and part of the CDM design (shared with DACOM).
D. Appleton Company (DACOM) | Responsible for the overall CDM Subsystem design integration and test plan, as well as part of the design of the CDM (shared with CDC). DACOM also developed the Integration Methodology and did the schema mappings for the Application Subsystems.
### Subcontractors

<table>
<thead>
<tr>
<th>Subcontractors</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Equipment Corporation (DEC)</td>
<td>Consulting and support of the performance testing and on DEC software and computer systems operation.</td>
</tr>
<tr>
<td>McDonnell Douglas Automation Company (McAuto)</td>
<td>Responsible for the support and enhancements to the Network Transaction Manager Subsystem during 1984/1985 period.</td>
</tr>
<tr>
<td>On-Line Software International (OSI)</td>
<td>Responsible for programming the Communications Subsystem on the IBM and for consulting on the IBM.</td>
</tr>
<tr>
<td>Rath and Strong Systems Products (RSSP) (In 1985 became McCormack &amp; Dodge)</td>
<td>Responsible for assistance in the implementation and use of the MRP II package (PIOS) that they supplied.</td>
</tr>
<tr>
<td>SofTech, Inc.</td>
<td>Responsible for the design and implementation of the Network Transaction Manager (NTM) in 1981/1984 period.</td>
</tr>
<tr>
<td>Software Performance Engineering (SPE)</td>
<td>Responsible for directing the work on performance evaluation and analysis.</td>
</tr>
<tr>
<td>Structural Dynamics Research Corporation (SDRC)</td>
<td>Responsible for the User Interface and Virtual Terminal Interface Subsystems.</td>
</tr>
</tbody>
</table>

Prime contractors under other projects who have contributed to Test Bed Technology, their contributing activities and responsible projects are as follows:

<table>
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<tr>
<th>Contractors</th>
<th>ICAM Project</th>
<th>Contributing Activities</th>
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<td>Boeing Military Aircraft Company (BMAC)</td>
<td>1701, 2201, 2202</td>
<td>Enhancements for IBM node use. Technology Transfer to Integrated Sheet Metal Center (ISMC)</td>
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<td>Contractors</td>
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<td>Contributing Activities</td>
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<td>---------------------------------</td>
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<td>Boeing Military Aircraft Company</td>
<td>1701, 2201, 2202</td>
<td>Enhancements for IBM node use. Technology Transfer to Integrated Sheet Metal Center (ISMC)</td>
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<tr>
<td>(BMAC)</td>
<td></td>
<td></td>
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<tr>
<td>Control Data Corporation (CDC)</td>
<td>1502, 1701</td>
<td>IISS enhancements to Common Data Model Processor (CDMP)</td>
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<tr>
<td>D. Appleton Company (DACOM)</td>
<td>1502</td>
<td>IISS enhancements to Integration Methodology</td>
</tr>
<tr>
<td>General Electric</td>
<td>1502</td>
<td>Operation of the Test Bed and communications equipment.</td>
</tr>
<tr>
<td>Hughes Aircraft Company (HAC)</td>
<td>1701</td>
<td>Test Bed enhancements</td>
</tr>
<tr>
<td>Structural Dynamics Research Corporation (SDRC)</td>
<td>1502, 1701, 1703</td>
<td>IISS enhancements to User Interface/Virtual Terminal Interface (UI/VTI)</td>
</tr>
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</table>
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SECTION 1

SCOPE

1.1 Identification

This specification establishes the detailed design of a computer program identified as the Text Editor, hereinafter referred to as the TE. The TE is one configuration item of the Integrated Information Support System (IISS) User Interface (UI).

1.2 Functional Summary

The TE provides the user with the ability to edit a file in a manner consistent with the User Interface. Editing functions such as inserting, deleting, moving and replacing text are available.
2.1 Reference Documents


2.2 Terms and Abbreviations

**Buffer Name**: the default file in which the buffer will be saved if no file is given on a save command.

**Current Cursor Position**: the position of the cursor before an edit command or function is issued in the text editor.

**Cursor Position**: the position of the cursor after any command is issued.

**Cut and Paste Buffer**: where deleted lines go and the paste and fill edit commands get their data.

**Display Start Line**: the first line in the buffer to be displayed.

**Display Size**: the number of lines used in the edit area.

**Field**: two dimensional space on a terminal screen.

**Field Pointer**: indicates the ITEM which contains the current cursor position.

**Form Processor**: (FP), subset of the IISS User Interface that consists of a set of callable execution time routines available to an application program for form processing.

**Form Processor Text Editor**: (FPTE), subset of the Form Processor that consists of software modules that provide text editing capabilities to all users of applications that use the Form Processor.

**IISS Function Screen**: the first screen that is displayed after logon. It allows the user to specify the function he wants to access and the device type and device name on which he is working.
Integrated Information Support System: (IISS), a test computing environment used to investigate, demonstrate and test the concepts of information management and information integration in the context of Aerospace Manufacturing. The IISS addresses the problems of integration of data resident on heterogeneous data bases supported by heterogeneous computers interconnected via a Local Area Network.

**Item:** non-decomposable area of a form in which hard-coded descriptive text may be placed and the only defined areas where user data may be input/output.

**Message:** descriptive text which may be returned in the standard message line on the terminal screen. They are used to warn of errors or provide other user information.

**Message Line:** a line on the terminal screen that is used to display messages.

**Operating System:** (OS), software supplied with a computer which allows it to supervise its own operations and manage access to hardware facilities such as memory and peripherals.

**Paging and Scrolling:** a method which allows a form to contain more data than can be displayed with provisions for viewing any portion of the data buffer.

**Previous Cursor Position:** the position of the cursor when the previous edit command was issued.

**Previous Edit Command:** the function key pressed before the current one.

**Select Line:** one terminus of the select range.

**Select Mode:** when on, certain commands will be executed over the lines in the selected range. The commands are 'DELETE LINE' and replace.

**Text Editor:** (TE), subset of the IISS User Interface that consists of a file editor that is based on the text editing functions built into the Form Processor.

**Top of file:** the first line of the buffer.
User Interface: (UI), IISS subsystem that controls the user's terminal and interfaces with the rest of the system. The UI consists of two major subsystems: the User Interface Development System (UIDS) and the User Interface Management System (UIMS).

User Interface Development System: (UIDS), collection of IISS User Interface subsystems that are used by application programmers as they develop IISS applications. The UIDS includes the Form Editor and the Application Generator.

User Interface Services: (UIS), subset of the IISS User Interface that consists of a package of routines that aid users in controlling their environment. It includes message management, change password, and application definition services.

Virtual Terminal: (VT), subset of the IISS User Interface that performs the interfacing between different terminals and the UI. This is done by defining a specific set of terminal features and protocols which must be supported by the UI software which constitutes the virtual terminal definition. Specific terminals are then mapped against the virtual terminal software by specific software modules written for each type of real terminal supported.
SECTION 3

REQUIREMENTS

3.1 Structural Description

The Text Editor is an IISS application and as such can be invoked from the IISS Function Screen. It provides IISS users with file editing capabilities.

The Text Editor has two basic modes, edit and command. Edit mode is used most often and consists of entering text and using key commands called functions. The command mode is entered by pressing the 'COMMAND' key in the edit mode. The command mode is exited by completing a command or by pressing the 'QUIT' key.

Text files are input through the host operating system's file access method, modified by the TE's user, and then written back to the file. Depending on the host this may overwrite the old version or create a new version of the file.

The detailed structure of the Text Editor is illustrated in section 3.10.

3.2 Functional Flow

Figure 3-1 is a data flow diagram of the Text Editor.
Figure 3-1 Text Editor Data Flow

3.3 Interfaces

Figure 3-2 describes the structure of the TE interfaces.

```
+---------------+
| TE            |
+---------------+    | OS file access method |
|                |
+---------------+    | file |
     +-----------+    +---------------+
     |           |
     | NTM        |
     +-----------+    +---------------+
     |            |
     | UIM        |
     +-----------+    +---------------+
     |             |
     | FP          |
     +-----------+
```

Figure 3-2 Text Editor Interfaces
3.3.1 Application Interface

The TE interfaces with the Form Processor through calls to the Application Interface (AI). The AI routines translate the application request into the NTM message format and then send the message that contains the application request data to the User Interface Monitor.

3.3.2 UIM

The UIM, which is the main control program for the Form Processor, calls the appropriate FP routine when a message is received from the Text Editor. The UIM then returns the output parameters to the TE.

3.3.3 NTM

The Text Editor application must also use the NTM initialization routine, INITAL and the NTM termination routine, TRMNAT.

3.4 Program Interrupts

This section does not apply to the detailed design of the Text Editor.

3.5 Timing and Sequencing Description

The TE is initiated through the IISS Function Screen presented to the user after correctly logging on to the IISS. The TE accepts input from and returns output to the user's terminal via defined forms. The TE permits the user to load files from host operating system and modify and save them.

3.6 Special Control Features

The detailed design of the Text Editor does not include any special control features as defined in the ICAM Documentation Standards manual.

3.7 Storage Allocation

The Text Editor executable is 163 blocks.
3.7.1 Data Base Definition

3.7.1.1 File Descriptions

1. FILE NAME: user specified

   PURPOSE: This is the file that is modified by the user of the Text Editor.

   DECLARATION:

   char line[79];

3.8 Object Code Creation

   All TE modules were compiled using a C compiler developed by Interactive Software under VAX/VMS.

3.9 Adaptation Data

   The C source modules for the Text Editor can be compiled using any UNIX version 7 compatible C compiler.

3.10 Detailed Design Description

3.10.1 Main Program List

   The following is a list of all "Main Programs" which are modules that are not called by any other module being documented here. These modules are either program entry points or, if they are hooked into another set of programs via subroutine calls, they are the points the external programs can call and therefore enter through. To differentiate between the two types of entry points, look at the individual Module Documentation (section 3.10.8) and look at Module Type for each of the Main Program modules listed. Note whether the routine is a Program, Subroutine, or Function. If it is a Program, it is truly a main program entry point. If not, then it is merely called by other programs not being documented here.
<table>
<thead>
<tr>
<th>Module Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE/MAIN</td>
<td>MAIN MODULE FOR TEXT EDITOR</td>
</tr>
</tbody>
</table>
3.10.2 Module List

The following is a list of all the modules being documented here along with their purpose. Each module has a unique name, no matter what language it was written in.
<table>
<thead>
<tr>
<th>Module Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLEAR</td>
<td>CLEAR BUFFER</td>
</tr>
<tr>
<td>EDITCI</td>
<td>EDIT CALLABLE INTERFACE</td>
</tr>
<tr>
<td>EDITCI/ADDNODE</td>
<td>ADD NODE</td>
</tr>
<tr>
<td>EDITCI/CMDLIST</td>
<td>COMMAND LIST</td>
</tr>
<tr>
<td>EDITCI/CMDMENU</td>
<td>COMMAND MENU</td>
</tr>
<tr>
<td>EDITCI/COMMAND</td>
<td>COMMAND FUNCTION</td>
</tr>
<tr>
<td>EDITCI/CUT</td>
<td>CUT FUNCTION</td>
</tr>
<tr>
<td>EDITCI/DELLINE</td>
<td>DELETE LINE</td>
</tr>
<tr>
<td>EDITCI/DELNODE</td>
<td>DELETE NODE</td>
</tr>
<tr>
<td>EDITCI/DOCMD</td>
<td>DO A COMMAND</td>
</tr>
<tr>
<td>EDITCI/EDIT</td>
<td>EDIT LOOP</td>
</tr>
<tr>
<td>EDITCI/FILL</td>
<td>PASTE WITH FILL FUNCTION</td>
</tr>
<tr>
<td>EDITCI/FREENODE</td>
<td>FREE NODE</td>
</tr>
<tr>
<td>EDITCI/FRSTPAGE</td>
<td>FIRST PAGE</td>
</tr>
<tr>
<td>EDITCI/GETNODE</td>
<td>GET NODE</td>
</tr>
<tr>
<td>EDITCI/INDEX</td>
<td>FIND INDEX OF SUBSTRING</td>
</tr>
<tr>
<td>EDITCI/INLINE</td>
<td>INSERT LINE</td>
</tr>
<tr>
<td>EDITCI/LASTPAGE</td>
<td>LAST PAGE</td>
</tr>
<tr>
<td>EDITCI/MIDLINE</td>
<td>MIDLINE BREAK FUNCTION</td>
</tr>
<tr>
<td>EDITCI/NEWLINE</td>
<td>NEW LINE</td>
</tr>
<tr>
<td>EDITCI/NXTLINE</td>
<td>NEXT LINE</td>
</tr>
</tbody>
</table>
### TEXT EDITOR Module List

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDITCI/NXTPAGE</td>
<td>NEXT PAGE</td>
</tr>
<tr>
<td>EDITCI/NXTVAL</td>
<td>NEXT VALUE OF COMMAND LINE</td>
</tr>
<tr>
<td>EDITCI/PFSRCH</td>
<td>CONTINUE SEARCH FUNCTION</td>
</tr>
<tr>
<td>EDITCI/PRVLINE</td>
<td>PREVIOUS LINE</td>
</tr>
<tr>
<td>EDITCI/PRVPAGE</td>
<td>PREVIOUS PAGE</td>
</tr>
<tr>
<td>EDITCI/PUTDEF</td>
<td>PUT DEFAULTS</td>
</tr>
<tr>
<td>EDITCI/QUIT</td>
<td>QUIT FUNCTION</td>
</tr>
<tr>
<td>EDITCI/RETRN</td>
<td>RETURN</td>
</tr>
<tr>
<td>EDITCI/SELECT</td>
<td>SELECT LINES FUNCTION</td>
</tr>
<tr>
<td>EDITCI/SPLIT</td>
<td>SPLIT A LINE</td>
</tr>
<tr>
<td>EDITCI/TMPCPY</td>
<td>TEMPORARY COPY</td>
</tr>
<tr>
<td>EDITCI/YANK</td>
<td>PASTE FUNCTION</td>
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<tr>
<td>LOAD</td>
<td>LOAD A FILE</td>
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<tr>
<td>MARGIN</td>
<td>SET MARGINS</td>
</tr>
<tr>
<td>NAME</td>
<td>NAME THE BUFFER</td>
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<tr>
<td>REPEAT</td>
<td>REPEAT FUNCTION/COMMAND</td>
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<tr>
<td>REPLACE</td>
<td>REPLACE COMMAND</td>
</tr>
<tr>
<td>SAVE</td>
<td>SAVE FILE</td>
</tr>
<tr>
<td>SEARCH</td>
<td>SEARCH COMMAND</td>
</tr>
<tr>
<td>TE/MAIN</td>
<td>MAIN MODULE FOR TEXT EDITOR</td>
</tr>
</tbody>
</table>
3.10.3 External Routines List

The following is a list of all routines or functions not documented here that are called by modules that are documented here. The first caller, in alphabetical order, is listed as well. The specification in which any module is documented may be found in the Module Documentation Index (Document Number CM 620100001). See section 3.10.6 for a list of the modules that call each of these external routines.
TEXT EDITOR External Routines List

<table>
<thead>
<tr>
<th>Module Name</th>
<th>First User</th>
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<tr>
<td>ABORT</td>
<td>EDITC/I/INLINE</td>
</tr>
<tr>
<td>ADDFRM</td>
<td>EDITC/I/CMDLIST</td>
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<tr>
<td>ATOI</td>
<td>REPEAT</td>
</tr>
<tr>
<td>ESCPY</td>
<td>EDITC/I</td>
</tr>
<tr>
<td>FCLOSE</td>
<td>LOAD</td>
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<td>FGETS</td>
<td>LOAD</td>
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<td>FOPEN</td>
<td>LOAD</td>
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<td>FWRITE</td>
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<tr>
<td>GDATA</td>
<td>EDITC/I/COMMAND</td>
</tr>
<tr>
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<td>EDITC/I/CMDLIST</td>
</tr>
<tr>
<td>GETMORE</td>
<td>EDITC/I</td>
</tr>
<tr>
<td>GPAGE</td>
<td>EDITC/I/CMDLIST</td>
</tr>
<tr>
<td>GWINDO</td>
<td>EDITC/I/CMDLIST</td>
</tr>
<tr>
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<td>TE/MAIN</td>
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<tr>
<td>INITFP</td>
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<td>EDITC/I/COMMAND</td>
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<td>EDITC/I/SELECT</td>
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<tr>
<td>PUTLOC</td>
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<td>RNVPG</td>
<td>EDITC/I/CHMENU</td>
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<tr>
<td>STRCAT</td>
<td>REPLACE</td>
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<td>STRCPY</td>
<td>EDITC/I/PUTDEF</td>
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<td>EDITC/I</td>
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<td>REPLACE</td>
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<td>EDITC/I/EDIT</td>
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<tr>
<td>STRUCP</td>
<td>EDITC/I/DOCMD</td>
</tr>
<tr>
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<td>TE/MAIN</td>
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<td>CLEAR</td>
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<td>TE/MAIN</td>
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3-10
3.10.4 Include File List

The following is a list of all include files called in by modules being documented here. Each include file has a unique name regardless of the language being used. The purpose of each include file is listed as well. A more complete description of each include file is given in section 3.10.9. The purpose listed is the one that is in the source code of the include file.

A purpose of "**** PURPOSE NOT FOUND BY STRIPPER ****" indicates that a purpose statement was not written into the include file itself. The most common reason for this is that the include file comes from system libraries that were not developed by the project, such as 'C' libraries that are provided with the 'C' compiler.

See section 3.10.6 for a set of lists which show all the modules which call in each of these include files.
### TEXT EDITOR Include File List

<table>
<thead>
<tr>
<th>File Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTYPE</td>
<td>**** PURPOSE NOT FOUND BY STRIPPER ****</td>
</tr>
<tr>
<td>FPCODE</td>
<td>FORM PROCESSOR RETURN CODES</td>
</tr>
<tr>
<td>FPD</td>
<td>FORM PROCESSOR DATA</td>
</tr>
<tr>
<td>FPPARM</td>
<td>FORM PROCESSOR PARAMETERS</td>
</tr>
<tr>
<td>NTH</td>
<td>NTH INTERFACE INCLUDE FILE</td>
</tr>
<tr>
<td>STDIO</td>
<td>**** PURPOSE NOT FOUND BY STRIPPER ****</td>
</tr>
<tr>
<td>STDTYPE</td>
<td>STANDARD TYPE DEFINITIONS</td>
</tr>
</tbody>
</table>
3.10.5 Where Include File Used List

The following lists each include file from 3.10.4 and all the modules documented in this specification which include them. The purpose of each module is listed as well.
**TEXT EDITOR Where-include-file-used List**

<table>
<thead>
<tr>
<th>Include</th>
<th>Module</th>
<th>Module Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>--------</td>
<td>--------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
</tbody>
</table>

**CTYPE**

- CLEAR CLEAR BUFFER
- EDITCI EDIT CALLABLE INTERFACE
- EDITCI/AD ADD NODE
- EDITCI/CM COMMAND LIST
- EDITCI/CM COMMAND MENU
- EDITCI/CO COMMAND FUNCTION
- EDITCI/CU CUT FUNCTION
- EDITCI/DE DELETE LINE
- EDITCI/DE DELETE NODE
- EDITCI/DO DO A COMMAND
- EDITCI/ED EDIT LOOP
- EDITCI/FI PASTE WITH FILL FUNCTION
- EDITCI/FR FREE NODE
- EDITCI/FR FIRST PAGE
- EDITCI/GE GET NODE
- EDITCI/IN FIND INDEX OF SUBSTRING
- EDITCI/IN INSERT LINE
- EDITCI/LA LAST PAGE
- EDITCI/MI MIDLINE BREAK FUNCTION
- EDITCI/NE NEW LINE
- EDITCI/NX NEXT LINE
- EDITCI/NX NEXT PAGE
- EDITCI/NX NEXT VALUE OF COMMAND LINE
- EDITCI/PF CONTINUE SEARCH FUNCTION
- EDITCI/PR PREVIOUS LINE
- EDITCI/PR PREVIOUS PAGE
- EDITCI/PU PUT DEFAULTS
- EDITCI/QU QUIT FUNCTION
- EDITCI/RE RETURN
- EDITCI/SE SELECT LINES FUNCTION
- EDITCI/SP SPLIT A LINE
- EDITCI/TM TEMPORARY COPY
- EDITCI/YA PASTE FUNCTION
- LOAD LOAD A FILE
- MARGIN SET MARGINS
- NAME NAME THE BUFFER
- REPEAT REPEAT FUNCTION/COMMAND
- REPLACE REPLACE COMMAND
- SAVE SAVE FILE
TEXT EDITOR Where-include-file-used List

<table>
<thead>
<tr>
<th>Include File</th>
<th>Module Name</th>
<th>Module Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SEARCH SEARCH COMMAND</td>
</tr>
</tbody>
</table>

FPCODE

CLEAR   CLEAR BUFFER
EDITCI  EDIT CALLABLE INTERFACE
EDITCI/AD  ADD NODE
EDITCI/CM  COMMAND LIST
EDITCI/CM  COMMAND MENU
EDITCI/CO  COMMAND FUNCTION
EDITCI/CU  CUT FUNCTION
EDITCI/DE  DELETE LINE
EDITCI/DE  DELETE NODE
EDITCI/DO  DO A COMMAND
EDITCI/ED  EDIT LOOP
EDITCI/FI  PASTE WITH FILL FUNCTION
EDITCI/FR  FREE NODE
EDITCI/FR  FIRST PAGE
EDITCI/GE  GET NODE
EDITCI/IN  FIND INDEX OF SUBSTRING
EDITCI/IN  INSERT LINE
EDITCI/LA  LAST PAGE
EDITCI/MI  MIDLINE BREAK FUNCTION
EDITCI/NE  NEW LINE
EDITCI/NX  NEXT LINE
EDITCI/NX  NEXT PAGE
EDITCI/NX  NEXT VALUE OF COMMAND LINE
EDITCI/PF  CONTINUE SEARCH FUNCTION
EDITCI/PR  PREVIOUS LINE
EDITCI/PR  PREVIOUS PAGE
EDITCI/PU  PUT DEFAULTS
EDITCI/QU  QUIT FUNCTION
EDITCI/RE  RETURN
EDITCI/SE  SELECT LINES FUNCTION
EDITCI/SP  SPLIT A LINE
EDITCI/TM  TEMPORARY COPY
EDITCI/YA  PASTE FUNCTION
LOAD    LOAD A FILE

3-15
### TEXT EDITOR Where-include-file-used List

<table>
<thead>
<tr>
<th>Include File</th>
<th>Module Name</th>
<th>Module Purpose</th>
</tr>
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<tbody>
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<td></td>
</tr>
<tr>
<td>NAME</td>
<td>NAME THE BUFFER</td>
<td></td>
</tr>
<tr>
<td>REPEAT</td>
<td>REPEAT FUNCTION/COMMAND</td>
<td></td>
</tr>
<tr>
<td>REPLACE</td>
<td>REPLACE COMMAND</td>
<td></td>
</tr>
<tr>
<td>SAVE</td>
<td>SAVE FILE</td>
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</tr>
<tr>
<td>SEARCH</td>
<td>SEARCH COMMAND</td>
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### FPD

- CLEAR CLEAR BUFFER
- EDITCI EDIT CALLABLE INTERFACE
- EDITCI/AD ADD NODE
- EDITCI/CM COMMAND LIST
- EDITCI/CM COMMAND MENU
- EDITCI/CM COMMAND FUNCTION
- EDITCI/CU CUT FUNCTION
- EDITCI/DE DELETE LINE
- EDITCI/DE DELETE NODE
- EDITCI/DO DO A COMMAND
- EDITCI/ED EDIT LOOP
- EDITCI/FI PASTE WITH FILL FUNCTION
- EDITCI/FR FREE NODE
- EDITCI/FR FIRST PAGE
- EDITCI/GE GET NODE
- EDITCI/IN FIND INDEX OF SUBSTRING
- EDITCI/IN INSERT LINE
- EDITCI/LO LAST PAGE
- EDITCI/MI MIDLNE BREAK FUNCTION
- EDITCI/NE NEW LINE
- EDITCI/NX NEXT LINE
- EDITCI/NX NEXT PAGE
- EDITCI/NX NEXT VALUE OF COMMAND LINE
- EDITCI/PF CONTINUE SEARCH FUNCTION
- EDITCI/PR PREVIOUS LINE
- EDITCI/PR PREVIOUS PAGE
- EDITCI/PU PUT DEFAULTS
- EDITCI/QU QUIT FUNCTION
- EDITCI/RE RETURN

3-16
## TEXT EDITOR Where-include-file-used List

<table>
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<th>Include File</th>
<th>Module Name</th>
<th>Purpose</th>
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<td>EDITCI/SE</td>
<td>SELECT LINES FUNCTION</td>
</tr>
<tr>
<td></td>
<td>EDITCI/SP</td>
<td>SPLIT A LINE</td>
</tr>
<tr>
<td></td>
<td>EDITCI/TM</td>
<td>TEMPORARY COPY</td>
</tr>
<tr>
<td></td>
<td>EDITCI/YA</td>
<td>PASTE FUNCTION</td>
</tr>
<tr>
<td></td>
<td>LOAD</td>
<td>LOAD A FILE</td>
</tr>
<tr>
<td></td>
<td>MARGIN</td>
<td>SET MARGINS</td>
</tr>
<tr>
<td></td>
<td>NAME</td>
<td>NAME THE BUFFER</td>
</tr>
<tr>
<td></td>
<td>REPEAT</td>
<td>REPEAT FUNCTION/COMMAND</td>
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<tr>
<td></td>
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<td>REPLACE COMMAND</td>
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<td>SAVE FILE</td>
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## FPPARM

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<td>EDIT CALLABLE INTERFACE</td>
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<tr>
<td>EDITCI/AD</td>
<td>ADD NODE</td>
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<tr>
<td>EDITCI/CN</td>
<td>COMMAND LIST</td>
</tr>
<tr>
<td>EDITCI/CN</td>
<td>COMMAND MENU</td>
</tr>
<tr>
<td>EDITCI/CF</td>
<td>COMMAND FUNCTION</td>
</tr>
<tr>
<td>EDITCI/CF</td>
<td>CUT FUNCTION</td>
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<tr>
<td>EDITCI/DF</td>
<td>DELETE NODE</td>
</tr>
<tr>
<td>EDITCI/DF</td>
<td>DELETE LINE</td>
</tr>
<tr>
<td>EDITCI/D</td>
<td>DO A COMMAND</td>
</tr>
<tr>
<td>EDITCI/ED</td>
<td>EDIT LOOP</td>
</tr>
<tr>
<td>EDITCI/FI</td>
<td>PASTE WITH FILL FUNCTION</td>
</tr>
<tr>
<td>EDITCI/FL</td>
<td>FREE NODE</td>
</tr>
<tr>
<td>EDITCI/FL</td>
<td>FIRST PAGE</td>
</tr>
<tr>
<td>EDITCI/GE</td>
<td>GET NODE</td>
</tr>
<tr>
<td>EDITCI/IN</td>
<td>FIND INDEX OF SUBSTRING</td>
</tr>
<tr>
<td>EDITCI/IN</td>
<td>INSERT LINE</td>
</tr>
<tr>
<td>EDITCI/LA</td>
<td>LAST PAGE</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>MIDLINE BREAK FUNCTION</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>MIDLINE MENU</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>MIDLINE VALUE OF COMMAND LINE</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>NEXT LINE</td>
</tr>
<tr>
<td>EDITCI/G</td>
<td>NEXT PAGE</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>NEXT VALUE OF COMMAND LINE</td>
</tr>
<tr>
<td>EDITCI/MA</td>
<td>CONTINUE SEARCH FUNCTION</td>
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3-17
TEXT EDITOR Where-include-file-used List

<table>
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</tr>
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<td>PREVIOUS PAGE</td>
<td></td>
</tr>
<tr>
<td>EDITCI/PU</td>
<td>PUT DEFAULTS</td>
<td></td>
</tr>
<tr>
<td>EDITCI/QU</td>
<td>QUIT FUNCTION</td>
<td></td>
</tr>
<tr>
<td>EDITCI/RE</td>
<td>RETURN</td>
<td></td>
</tr>
<tr>
<td>EDITCI/SE</td>
<td>SELECT LINES FUNCTION</td>
<td></td>
</tr>
<tr>
<td>EDITCI/SP</td>
<td>SPLIT A LINE</td>
<td></td>
</tr>
<tr>
<td>EDITCI/TM</td>
<td>TEMPORARY COPY</td>
<td></td>
</tr>
<tr>
<td>EDITCI/YA</td>
<td>PASTE FUNCTION</td>
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<tr>
<td>LOAD</td>
<td>LOAD A FILE</td>
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</tr>
<tr>
<td>MARGIN</td>
<td>SET MARGINS</td>
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<tr>
<td>NAME</td>
<td>NAME THE BUFFER</td>
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<td>REPEAT</td>
<td>REPEAT FUNCTION/COMMAND</td>
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<td>REPLACE COMMAND</td>
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<td>SAVE FILE</td>
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</tr>
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<td>SEARCH COMMAND</td>
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</tbody>
</table>

NTH
TE/MAIN MAIN MODULE FOR TEXT EDITOR

STUDIO
CLEAR CLEAR BUFFER
EDITCI EDIT CALLABLE INTERFACE
EDITCI/AD ADD NODE
EDITCI/CM COMMAND LIST
EDITCI/CM COMMAND MENU
EDITCI/CO COMMAND FUNCTION
EDITCI/GU CUT FUNCTION
EDITCI/DE DELETE LINE
EDITCI/DE DELETE NODE
EDITCI/DO DO A COMMAND
EDITCI/ED EDIT LOOP
EDITCI/FI PASTE WITH FILL FUNCTION
EDITCI/FR FREE NODE
**TEXT EDITOR Where-include-file-used List**

<table>
<thead>
<tr>
<th>Include File</th>
<th>Module Name</th>
<th>Module Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDITCI/FR</td>
<td>FIRST PAGE</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>EDITCI/IN</td>
<td>FIND INDEX OF SUBSTRING</td>
<td></td>
</tr>
<tr>
<td>EDITCI/IN</td>
<td>INSERT LINE</td>
<td></td>
</tr>
<tr>
<td>EDITCI/LA</td>
<td>LAST PAGE</td>
<td></td>
</tr>
<tr>
<td>EDITCI/MI</td>
<td>MIDLINE BREAK FUNCTION</td>
<td></td>
</tr>
<tr>
<td>EDITCI/NE</td>
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<tr>
<td>EDITCI/NX</td>
<td>NEXT LINE</td>
<td></td>
</tr>
<tr>
<td>EDITCI/NX</td>
<td>NEXT PAGE</td>
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</tr>
<tr>
<td>EDITCI/NX</td>
<td>NEXT VALUE OF COMMAND LINE</td>
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<td>PREVIOUS PAGE</td>
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</tr>
<tr>
<td>EDITCI/PU</td>
<td>PUT DEFAULTS</td>
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</tr>
<tr>
<td>EDITCI/QU</td>
<td>QUIT FUNCTION</td>
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</tr>
<tr>
<td>EDITCI/RE</td>
<td>RETURN</td>
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</tr>
<tr>
<td>EDITCI/SE</td>
<td>SELECT LINES FUNCTION</td>
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<td>EDITCI/SP</td>
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<td>LOAD A FILE</td>
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<tr>
<td>SAVE</td>
<td>SAVE FILE</td>
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<tr>
<td>SEARCH</td>
<td>SEARCH COMMAND</td>
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</table>

**STDTYP**

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<table>
<thead>
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<tbody>
<tr>
<td>CLEAR</td>
<td>CLEAR BUFFER</td>
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<tr>
<td>EDITCI</td>
<td>EDIT CALLABLE INTERFACE</td>
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<tr>
<td>EDITCI/AD</td>
<td>ADD NODE</td>
</tr>
<tr>
<td>EDITCI/CM</td>
<td>COMMAND LIST</td>
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<td>EDITCI/CM</td>
<td>COMMAND MENU</td>
</tr>
<tr>
<td>EDITCI/CO</td>
<td>COMMAND FUNCTION</td>
</tr>
<tr>
<td>EDITCI/CU</td>
<td>CUT FUNCTION</td>
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TEXT EDITOR Where-include-file-used List

<table>
<thead>
<tr>
<th>Include File</th>
<th>Module Name</th>
<th>Module Purpose</th>
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<tbody>
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<td>DO A COMMAND</td>
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<td>PASTE WITH FILL FUNCTION</td>
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<td>FIRST PAGE</td>
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<td>EDITCI/LA</td>
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<td>PUT DEFAULTS</td>
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3.10.6 Where External Routine Used List

The following lists each external function or routine listed in 3.10.3 and all the documented modules which call it. The purpose of each module is listed as well.
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FWRITE
SAVE
SAVE FILE

GDATA
EDITC/CMDCOMMAND LIST
EDITC/CMDCOMMAND MENU
EDITC/COMCOMMAND FUNCTION
EDITC/EDIEDIT LOOP

GETCUR
EDITC/CMDCOMMAND LIST
EDITC/EDIEDIT LOOP

GETMORE
EDITC EDIT CALLABLE INTERFACE

GPAGE
EDITC/CMDCOMMAND LIST

GWINDO
EDITC/CMDCOMMAND LIST

INITIAL
TE/MAIN MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Where-external-routine-used List

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OISCR

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TEXT EDITOR Where-external-routine-used List

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PUTATT

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**STRCAT**

EDITCI/PUTPUT DEFAULTS
REPLACE REPLACE COMMAND

**STRCPY**

EDITCI EDIT CALLABLE INTERFACE
EDITCI/CMDCOMMAND LIST
EDITCI/CMDCOMMAND MENU
EDITCI/PFSCONTINUE SEARCH FUNCTION
EDITCI/PUTPUT DEFAULTS
EDITCI/SEESELECT LINES FUNCTION

**STRLEN**

EDITCI EDIT CALLABLE INTERFACE
EDITCI/DOCD A COMMAND
EDITCI/PUTPUT DEFAULTS
EDITCI/SEESELECT LINES FUNCTION
REPLACE REPLACE COMMAND
SEARCH SEARCH COMMAND

**STRNCAT**

REPLACE REPLACE COMMAND

**STRNCMP**

EDITCI EDIT CALLABLE INTERFACE
EDITCI/CMDCOMMAND LIST
EDITCI/CMDCOMMAND MENU
EDITCI/COMCOMMAND FUNCTION
EDITCI/DOCD A COMMAND
### TEXT EDITOR Where-external-routine-used List

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3.10.7 Main Program Parts List

The following lists each Main Program listed in 3.10.1 and all the modules which are called either by that module itself or by any of the documented modules which it calls. It is possible for a non-main module to be listed more than once if it is called by multiple modules. The called modules, in this case known as program parts, are marked as to whether they are documented here. If so, the phrase "well-defined module" appears by the module name, if not it is an "external routine". The Purpose of the Main Program module is listed as well.
TEXT EDITOR Main Program Parts List

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The following documentation describes information which is specific to each individual module being documented in this specification as listed in section 3.10.2. It provides a compact way of getting information that would be otherwise buried within each module's source code.

The specific items in this module documentation have the following meanings:

NAME: Name of program Module.
PURPOSE: Purpose of Module as detailed in the source code.
LANGUAGE: Programming language source code is written in.
The choices are:
VAX-11 FORTRAN
C
(I/S-1 Workbench 'C')
VAX-11 COBOL

MODULE TYPE: Whether a Program, Subroutine, or Function.
SOURCE FILE: Name of Source File from file specification.
SOURCE FILE TYPE: Source File Extension from file specification.
HOST: Whether this is a host-dependent routine (VAX or IBM) or blank if host-independent.
SUBSYSTEM: IISS sub-system this file resides in.
SUBDIRECTORY: Sub-directory of that subsystem in which this file resides.
DOCUMENTATION GROUP: Name of documentation group of which this source file is a member.
DESCRIPTION: A description of the module as obtained.

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from the source code.

ARGUMENTS: The arguments with which this routine is called if it is a Subroutine or a Function.

INCLUDE FILES: A list of all the files that are included into this module as well as their purposes.

ROUTINES CALLED: Subroutines or Functions, either documented or external, called by this module, if any.

CALLED DIRECTLY BY: The documented routines which call this module, if any.

USED IN MAIN PROGRAM(S): The documented Main Programs which contain this module in their parts list according to the list in section 3.10.7.

The Module Documentation is arranged alphabetically according to Module Name.
TEXT EDITOR Module Documentation

NAME: CLEAR
PURPOSE: CLEAR BUFFER
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ( )
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

------------

CHAR *CLEAR()

DESCRIPTION - CLEAR

IMPLEMENTS THE CLEAR BUFFER COMMAND.
THE CONTENTS OF THE BUFFER SEL ARE REMOVED AND FREED AND THE
CONTENTS
OF THE BUFFER BUF ARE MOVED TO THE SEL BUFFER. THE POINTERS
BUF START
AND CUR_ROW ARE MAINTAINED.

INCLUDE FILES:

------------

STDTYP  - STANDARD TYPE DEFINITIONS
STDO10  - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD     - FORM PROCESSOR DATA
CTYPE   - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE  - FORM PROCESSOR RETURN CODES
FPARM   - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

------------

EDITCI/ADNODE - ADD NODE
EDITCI/DELLINE - DELETE LINE
EDITCI/FREENODE - FREE NODE
EDITCI/DELNODE - DELETE NODE
TOUPPER
CALLED DIRECTLY BY:

EDITCI/DOCMD - DO A COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI
PURPOSE: EDIT CALLABLE INTERFACE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: BOOL()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

SYNOPSIS

BOOL EDITCI(FILE, CHANGED)
CHAR FILE[];
INT *CHANGED;

INPUTS:
FILE - CHARACTER STRING WITH NAME OF FILE TO BE EDITED.
LENGTH IS 30. STRING MUST BE BLANK FILLED IN ALL LANGUAGES EXCEPT C.

OUTPUTS:
CHANGED - POINTER TO FLAG INDICATING THAT THE FILE WAS CHANGED.

DESCRIPTION
THIS STARTS UP THE EDITOR. IT IS THE ENTRY POINT IF CALLED FROM A PROGRAM. RETURNS TRUE IF THE FILE HAS BEEN CHANGED ELSE FALSE.
INITIALIZES THE THREE BUFFERS, PUTS UP THE EDITING FORM, IF SPECIFIED IT READS IN A FILE AND STARTS THE EDITING LOOP.

DESCRIPTION
FORMS PROCESSOR TEXT EDITOR. PROVIDES TEXT EDITING CAPABILITY FOR

3-37
IISS Environment.

The TE'S module hierarchy is rather flat. In general there is one module which implements each function or command. These modules are just below the initialization and edit loop. Under these are a small number of routines which perform pointer maintenance and other housekeeping functions.

Primary data structure consists of three buffers. These buffers are doubly linked lists with a header and trailer node. These two nodes are pointed to by X_TOF and X_BOF respectively, where X is the name of the buffer. The node structure is denoted by the struct "text_line". The main buffer containing the file being edited has several other pointers which indicate the first line to be displayed, the line containing the cursor and a line which is a terminus of the select range.

BUF - buffer which contains the contents of the file being edited.
BUF_TOF - a pointer to the buf's header node.
BUF_BOF - a pointer to the buf's trailer node.
CUR ROW - a pointer to the line containing the cursor.
BUF_START - a pointer to the first line of buf to display.
INSEL - a pointer to the line which is a terminus of the select range. It is null if no select range is active.

SEL - buffer which contains the contents of the paste buffer.
SEL_TOF - a pointer to the sel's header node.
SEL_BOF - a pointer to the sel's trailer node.

TMP - buffer for temporary holding. Lines are inserted here first then when an operation is successfully completed they are moved.
TO BUFFER BUF.
TMP_TOF - A POINTER TO THE TMP'S HEADER NODE.
TMP_BOF - A POINTER TO THE TMP'S TRAILER NODE.

LINE NODES ARE ALLOCATED FROM A FREE POOL AND EXCEPT FOR INITIALIZATION
ALL NEXT AND PREVIOUS POINTER MAINTENANCE IS PERFORMED BY ONE OF FOUR
PROCEDURES.
GETNODE - ALLOCATES A NODE FROM THE FREE LIST.
FREENODE - RETURNS A NODE TO THE FREE LIST.
ADDNODE - A GIVEN NODE IS LINKED INTO A BUFFER.
DELNODE - REMOVES A GIVEN NODE FROM A BUFFER.

TWO HIGHER LEVEL PROCEDURES ARE USED TO INSERT STRINGS AND DELETE NODES
AND MAINTAIN THE POINTERS BUF_START AND CUR_ROW.
INLINE - INSERTS THE GIVEN STRING INTO THE GIVEN BUFFER. MAINTAINS
THE POINTERS BUF_START AND CUR_ROW.
DELLINE - REMOVES THE GIVEN NODE BUT DOES NOT FREE IT. MAINTAINS
THE POINTERS BUF_START AND CUR_ROW.

THE POSITION THE CURSOR IS SUPPOSED TO BE AT IS KEPT IN
SCRN_ROW AND
SCRN_COL. ALONG WITH BUF_START AND CUR_ROW THEY DETERMINE WHICH
PORTION OF THE BUF IS TO BE DISPLAYED AND THE CURSOR'S POSITION.
NEARLY ALL MODULES MANIPULATE THEIR VALUES.

ARGUMENTS:
-------------
FILE = CHAR []
CHANGED = INT *

INCLUDE FILES:
-------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS
ROUTINES CALLED:
------------------
GETMORE
MEMSET
ADDFRM
STRNCMP
ESCPY
STRCPY
EDITCI/DOCMD - DO A COMMAND
EDITCI/FRSTPAGE - FIRST PAGE
EDITCI/EDIT - EDIT LOOP
EDITCI/DLNODE - DELETE NODE
EDITCI/FREENODE - FREE NODE
STRLEN

CALLED DIRECTLY BY:
-------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR

USED IN MAIN PROGRAM(S):
------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/ADDNODE
PURPOSE: ADD NODE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---
STATIC VOID ADDNODE(P, Q)
   TEXT_LINE *P, *Q:

DESCRIPTION - ADDNODE

INSERTS THE NODE POINTED TO BY P INTO THE LIST BEFORE THE
NODE POINTED TO BY Q.

ARGUMENTS:

---
P = TEXT_LINE *
Q = TEXT_LINE *

INCLUDE FILES:

---
STDTYPE - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

CALLED DIRECTLY BY:

---
EDITCI/CUT - CUT FUNCTION
EDITCI/TMPCPI - TEMPORARY COPY
CLEAR - CLEAR BUFFER
EDITCI/INLINE - INSERT LINE

USED IN MAIN PROGRAM(S):

---

TE/M MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/CMDDLIST
PURPOSE: COMMAND LIST
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-------------
STATIC INT CMDLIST()

DESCRIPTION - CMDLIST

IMPLEMENTS THE COMMAND LIST.
IT PERFORMS THE FOLLOWING:
1. DISPLAYS THE COMMAND LIST
2. GETS AND PARSES THE INPUT FROM THE COMMAND LIST.
3. GOES TO THE COMMAND'S FORM IF REQUIRED.
   ELSE DOES THE COMMAND.
4. RETURNS THE FUNCTION KEY PRESSED.

INCLUDE FILES:

-------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO  - *** PURPOSE NOT FOUND BY STRIPPER ***
FPD    - FORM PROCESSOR DATA
CTYPE  - *** PURPOSE NOT FOUND BY STRIPPER ***
FPCODE - FORM PROCESSOR RETURN CODES
FPARM  - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

-------------
GWINDO
STRNCHP
PMSGCLC
RMVFAG

3-43
EDITCI/NXTVAL - NEXT VALUE OF COMMAND LINE
MEMCPY
STRCPY
EDITCI/DOCMD - DO A COMMAND
GETCUR
EDITCI/INDEX - FIND INDEX OF SUBSTRING
PMSGLS
EDITCI/CMDMENU - COMMAND MENU
GDATA
OISCR
MEMCMP
ADDFRM
GPAGE

CALLED DIRECTLY BY:
-----------------------
REPEAT - REPEAT FUNCTION/COMMAND
EDITCI/COMMAND - COMMAND FUNCTION

USED IN MAIN PROGRAM(S):
------------------------
TE/MEM - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITC1/CMDMENU
PURPOSE: COMMAND MENU
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT ()
SOURCE FILE: EDITC1
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-------------
STATIC INT CMDMENU(MENUNUM)
    INT MENUNUM;

DESCRIPTION - CMDMENU

IMPLEMENTS THE COMMAND FORM.
IT PERFORMS THE FOLLOWING:
1. DISPLAYS THE FORM WITH DEFAULTS FOR THE COMMAND
   REQUESTED FROM THE
   COMMAND LIST (MENUNUM).
2. GETS AND PARSES THE INPUT FROM THE COMMAND FORM.
3. DOES THE COMMAND.
4. RETURNS THE FUNCTION KEY Pressed.

ARGUMENTS:

-------------
MENUNUM = INT

INCLUDE FILES:

-------------
STDTYPE - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS
ROUTINES CALLED:

- ADDFRM
- STRNCMP
- PMSGLC
- RMVPAG
- EDITCI/NXTVAL - NEXT VALUE OF COMMAND LINE
- MEMCPY
- STRCPY
- EDITCI/DOCMD - DO A COMMAND
- PMGSLS
- MEMSET
- GDATA
- EDITCI/PUTDEF - PUT DEFAULTS
- PDATA
- OISCR

CALLED DIRECTLY BY:

- EDITCI/CMDLIST - COMMAND LIST

USED IN MAIN PROGRAM(S):

- TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/COMMAND
PURPOSE: COMMAND FUNCTION
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBLDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---------
STATIC INT COMMAND()
---------

DESCRIPTION - COMMAND

IMPLEMENT THE COMMAND FUNCTION AND COMMAND LINE COMMAND.
IT PERFORMS THE FOLLOWING:
1. GUARDS THE EDIT AREA.
2. GETS AND PARSES THE INPUT FROM THE COMMAND LINE.
3. GOES TO THE COMMAND LINE IF REQUIRED.
   ELSE DOES THE COMMAND.
4. RETURNS THE FUNCTION KEY PRESSED.

INCLUDE FILES:

---------
STDTYP - STANDARD TYPE DEFINITIONS
STDO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS
---------

ROUTINES CALLED:

---------
PUTATT
STRNCMP
PMSGLC
MEMCMP
---------
EDITCI/CMDLIST - COMMAND LIST
EDITCI/NXTVAL - NEXT VALUE OF COMMAND LINE
EDITCI/DOCMOD - DO A COMMAND
PMSGLS
GDATA
OISCR
PUTCUR

CALLED DIRECTLY BY:
-------------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND

USED IN MAIN PROGRAM(S):
------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/CUT
PURPOSE: CUT FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-----------------
STATIC VOID CUT(DELCUT)
  BOOL DELCUT;

DESCRIPTION - CUT

IMPLEMENTS THE DELETE LINE AND DELETE SELECT RANGE FUNCTION.
REMOVES THE INDICATED NODE(S) AND PLACES IT(THEM) IN THE SEL
BUFFER.
IF THE SELECT MODE IS ON THE SEL BUFFER IS CLEARED AND ALL
LINES IN
THE SELECT RANGE ARE PUT IN THE SEL BUFFER.
ELSE THE LINE WITH THE CURSOR IS PLACED IN THE SEL BUFFER.
THE POINTERS BUF_START AND CUR_ROW ARE MAINTAINED TO
MINIMIZE THE
VISUAL DISTURBANCE OF THE SCREEN.

ARGUMENTS:
-------------
DELCUT = BOOL

INCLUDE FILES:
-----------------
STDTYP  - STANDARD TYPE DEFINITIONS
STDIO   - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD     - FORM PROCESSOR DATA
CTYPE   - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE  - FORM PROCESSOR RETURN CODES
FPPARM  - FORM PROCESSOR PARAMETERS
ROUTINES CALLED:
---------------------
EDITCI/SELECT - SELECT LINES FUNCTION
EDITCI/SPLIT - SPLIT A LINE
EDITCI/ADDDNODE - ADD NODE
EDITCI/MIDLINE - MIDLINE BREAK FUNCTION
EDITCI/FREENODE - FREE NODE
EDITCI/DELLINE - DELETE LINE
PMSGLS

CALLED DIRECTLY BY:
---------------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND

USED IN MAIN PROGRAM(S):
--------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/DELLINE
PURPOSE: DELETE LINE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
--------------
STATIC VOID DELLINE(P)
    TEXT_LINE *P;

DESCRIPTION - DELLINE

REMOVES THE NODE POINTED TO BY P FROM ITS BUFFER BUT DOES
NOT FREE IT.
THE POINTERS BUF_START AND CUR_ROW ARE MAINTAINED.

ARGUMENTS:
----------
P = TEXT_LINE * 

INCLUDE FILES:
---------------
STDYP - STANDARD TYPE DEFINITIONS
STUDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
----------------
EDITCI/DELNODE - DELETE NODE
ABORT
PRINTF
CALLED DIRECTLY BY:

-------------------
EDITCI/CUT - CUT FUNCTION
EDITCI/SELECT - SELECT LINES FUNCTION
CLEAR - CLEAR BUFFER
REPLACE - REPLACE COMMAND

USED IN MAIN PROGRAM(S):

-------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/DELNODE
PURPOSE: DELETE NODE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID (
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDIT

DESCRIPTION:

-------------
STATIC VOID DELNODE(P)
TEXT_LINE *P;

DESCRIPTION - DELNODE

REMOVES THE NODE POINTED TO BY P FROM ITS BUFFER BUT DOES NO FREE IT.

ARGUMENTS:

-------------
P = TEXT_LINE *

INCLUDE FILES:

-------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

CALLED DIRECTLY BY:

-------------
EDITCI/DELLINE - DELETE LINE
EDITCI/TMPCPY - TEMPORARY COPY
CLEAR - CLEAR BUFFER
EDITCI - EDIT CALLABLE INTERFACE

3-53
EDITCI/INLINE - INSERT LINE

USED IN MAIN PROGRAM(S):

---------------------
TE/MAIL: - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/DOCMD
PURPOSE: DO A COMMAND
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---------------
STATIC CHAR *DOCMD()

DESCRIPTION - DOCMD

CALLS THE PROCEDURE IMPLEMENTING THE COMMAND CONTAINED IN
DATA[0].
EACH PROCEDURE RETURNS A POINTER TO NULL IF SUCCESSFUL ELSE
THE
POINTER IS TO A STRING WITH AN ERROR MESSAGE WHICH DOCMD
ISSUES.

INCLUDE FILES:

---------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

---------------
NAME - NAME THE BUFFER
REPEAT - REPEAT FUNCTION/COMMAND
MARGIN - SET MARGINS
REPLACE - REPLACE COMMAND
CLEAR - CLEAR BUFFER

3-55
SAVE - SAVE FILE
SEARCH - SEARCH COMMAND
LOAD - LOAD A FILE
PMSGLS
STRLEN
STRNCMP
STRUPC

CALLED DIRECTLY BY:
---------------------
EDITCI/PFSRCH - CONTINUE SEARCH FUNCTION
REPEAT - REPEAT FUNCTION/COMMAND
EDITCI - EDIT CALLABLE INTERFACE
EDITCI/COMMAND - COMMAND FUNCTION
EDITCI/CMDLIST - COMMAND LIST
EDITCI/CMDMENU - COMMAND MENU

USED IN MAIN PROGRAM(S):
-------------------------
TE/MMAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/EDIT
PURPOSE: EDIT LOOP
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---

STATIC VOID EDIT()

DESCRIPTION - EDIT

PERFORMS THE EDIT LOOP:
1. PUT DATA TO SCREEN.
2. DO AN OISCR.
3. GET DATA FROM SCREEN.
4. CALL PRODURE IMPLEMENTING FUNCTION KEY PRESSED.
5. REPEAT.

INCLUDE FILES:

---------------------------
STDTYPE - STANDARD TYPE DEFINITIONS
STUDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPFCD - FORM PROCESSOR RETURN CODES
FPFARM - FORM PROCESSOR PARAMETERS
---------------------------

ROUTINES CALLED:

-----------------------------
PMSGLS
EDITCI/PFSRCH - CONTINUE SEARCH FUNCTION
EDITCI/MIDLINE - MIDLINE BREAK FUNCTION
EDITCI/CUT - CUT FUNCTION
EDITCI/SELECT - SELECT LINES FUNCTION
-----------------------------

3-57
EDITCI/FILL - PASTE WITH FILL FUNCTION
EDITCI/YANK - PASTE FUNCTION
EDITCI/NEWLINE - NEW LINE
EDITCI/COMMAND - COMMAND FUNCTION
EDITCI/INDEX - FIND INDEX OF SUBSTRING
EDITCI/LASTPAGE - LAST PAGE
EDITCI/FRSTPAGE - FIRST PAGE
EDITCI/PRVLINE - PREVIOUS LINE
EDITCI/NXTLINE - NEXT LINE
EDITCI/PRVPAGE - PREVIOUS PAGE
EDITCI/NXTPAGE - NEXT PAGE
EDITCI/QUIT - QUIT FUNCTION
GETCUR
MEMCMP
GDATA
OISCR
PUTLOC
STRNCMP
PDATA
PRINTF
ISPRINT
MEMSET
MEMCPY

CALLED DIRECTLY BY:
---------------------
EDITCI - EDIT CALLABLE INTERFACE

USED IN MAIN PROGRAM(S):
------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/FILL
PURPOSE: PASTE WITH FILL FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-------------
STATIC VOID FILL()

DESCRIPTION - FILL

IMPLEMENT THE PASTE WITH FILL FUNCTION.
INSERTS A COPY OF THE SEL BUFFER JUST BEFORE THE CUR_ROW
ACCORDING TO THE
CURRENT FILL MARGINS (FILMRGN.LEFT AND FILMRGN.RIGHT)

INCLUDE FILES:
---------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
------------------
EDITCI/TMPCPY - TEMPORARY COPY
PMGLS
EDITCI/INLINE - INSERT LINE
MEMSET

CALLED DIRECTLY BY:

3-59
EDITCi/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCIFREENODE
PURPOSE: FREE NODE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

--------

STATIC VOID FREENODE(P)

TEXT_LINE *P;

DESCRIPTION - FREENODE

PUTS THE NODE POINTED TO BY P BACK ON THE FREE LIST.

ARGUMENTS:

--------

P = TEXT_LINE *

INCLUDE FILES:

---------

STDTPY - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPFCD - FORM PROCESSOR RETURN CODES
FPFARM - FORM PROCESSOR PARAMETERS

CALLED DIRECTLY BY:

--------

EDITCICUT - CUT FUNCTION
EDITCISELECT - SELECT LINES FUNCTION
CLEAR - CLEAR BUFFER
REPLACE - REPLACE COMMAND
EDITCII - EDIT CALLABLE INTERFACE

3-61
EDITCI/INLINE - INSERT LINE

USED IN MAIN PROGRAM(S):

---------------
TE/MAIN        - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/FRSTPAGE
PURPOSE: FIRST PAGE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---------

STATIC VOID FRSTPAGE()

DESCRIPTION - FRSTPAGE

IMPLEMENTS THE FIRST PAGE FUNCTION.
SETS BUF_START SO THE FIRST DSP_HT LINES OF BUF ARE DISPLAYED.

INCLUDE FILES:

---------

STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

---------

PMSGLS

CALLED DIRECTLY BY:

---------

EDITCI/EDI - EDIT LOOP
REPLACE - REPLACE COMMAND
EDITCI - EDIT CALLABLE INTERFACE
USED IN MAIN PROGRAM(S):

---------------

TE/MAIN       - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME:   EDITCI/GETNODE
PURPOSE: GET NODE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: TEXT_LINE * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:     
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
------------------------
STATIC TEXT_LINE *GETNODE()

DESCRIPTION - GETNODE

GETS A TEXT_LINE NODE FROM THE FREE LIST AND RETURNS A POINTER TO IT. NODES ARE ALLOCATED 100 AT A TIME. IF GETNODE FAILS IT RETURNS A NULL.

INCLUDE FILES:
------------------------
STDTYPE - STANDARD TYPE DEFINITIONS
STDIO   - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPD     - FORM PROCESSOR DATA
CTYPE   - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPF    - FORM PROCESSOR RETURN CODES
FPFARM  - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
------------------------
MALLOC

CALLED DIRECTLY BY:
------------------------
EDITCI/INLINE - INSERT LINE
USED IN MAIN PROGRAM(S):

-------------------------

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/INDEX
PURPOSE: FIND INDEX OF SUBSTRING
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-----------
SYNOPSIS

    INT INDEX(STR, SUB)
    CHAR *STR, *SUB;

DESCRIPTION

INDEX RETURNS THE OFFSET OF THE SUBSTRING IN THE STRING
OR -1 IF THE
STRING DOES NOT CONTAIN THE SUBSTRING. THE UPPER CASE
REPRESENTATION
OF THE STRINGS ARE USED.

ARGUMENTS:
-----------

    STR = CHAR *
    SUB = CHAR *

INCLUDE FILES:
-----------------

    STDTYP - STANDARD TYPE DEFINITIONS
    STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
    FPD - FORM PROCESSOR DATA
    CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
    FPCODE - FORM PROCESSOR RETURN CODES
    FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-----------------
TOUPPER

CALLED DIRECTLY BY:
---------------------
EDITCI/EDI - EDIT LOOP
SEARCH - SEARCH COMMAND
REPLACE - REPLACE COMMAND
EDITCI/CMDLIST - COMMAND LIST
EDITCI/PUTDEF - PUT DEFAULTS

USED IN MAIN PROGRAM(S):
-----------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/INLINE
PURPOSE: INSERT LINE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: BOOL ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

STATIC BOOL INLINE(P, LINE)
    TEXT_LINE *P;
    CHAR LINE[];

DESCRIPTION - INLINE

GETS A NODE PUTS THE STRING POINTED TO BY LINE INTO IT AND
INSERTS IT INTO THE LIST JUST BEFORE THE NODE POINTED TO BY P. THE
POINTER BUF_START IS MAINTAINED.

IF INLINE IS UNABLE TO OBTAIN A NODE IT ISSUES A MESSAGE AND
CLEARS THE TMP BUFFER.

ARGUMENTS:

P - TEXT_LINE *
LINE - CHAR []

INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS
STDCIO - PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - PURPOSE NOT FOUND BY STRIPPER ****
FPDCODE - FORM PROCESSOR RETURN CODES

3-69
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
---------------------
PRINTF
ABORT
EDITCI/GETNODE - GET NODE
PMSGLS
EDITCI/DENODE - DELETE NODE
EDITCI/FREENODE - FREE NODE
MEMCPY
EDITCI/ADDNODE - ADD NODE

CALLED DIRECTLY BY:
---------------------
EDITCI/NEWLINE - NEW LINE
EDITCI/YN - PASTE FUNCTION
EDITCI/FIL - PASTE WITH FILL FUNCTION
EDITCI/SELECT - SELECT LINES FUNCTION
EDITCI/SPLIT - SPLIT A LINE
LOAD - LOAD A FILE
REPLACE - REPLACE COMMAND

USED IN MAIN PROGRAM(S):
------------------------
TE/MAN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/LASTPAGE
PURPOSE: LAST PAGE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: 
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-------------
STATIC VOID LASTPAGE()

DESCRIPTION - LASTPAGE

IMPLEMENTS THE LAST PAGE FUNCTION.
SETS BUF_START SO THE LAST DSP_HT LINES OF BUF ARE DISPLAYED.

INCLUDE FILES:
-------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-------------
PMSGLS

CALLED DIRECTLY BY:
-------------
EDITCI/EDI - EDIT LOOP
REPLACE - REPLACE COMMAND
USED IN MAIN PROGRAM(S):

---------------
TE/MAIN         - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/MIDLINE
PURPOSE: MIDLINE BREAK FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-----

STATIC VOID MIDLINE()

DESCRIPTION - MIDLINE

IMPLEMENTS THE MIDLINE BREAK FUNCTION.
SPLITS THE LINE POINTED TO BY CUR_ROW AT SCRNCOL AND SETS
THE CURSOR TO
THE BEGINNING OF THE NEW LINE.

INCLUDE FILES:

---------------

STDTYPE - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

---------------

EDITCI/RETRN - RETURN
EDITCI/SPLIT - SPLIT A LINE

CALLED DIRECTLY BY:

---------------

EDITCI/EDI - EDIT LOOP

3-73
EDITCI/CUT - CUT FUNCTION
EDITCI/SELECT - SELECT LINES FUNCTION
REPEAT - REPEAT FUNCTION/COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME:          EDITCI/NEWLINE
PURPOSE:       NEW LINE
LANGUAGE:      C
MODULE TYPE:   SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE:   EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM:     UI
SUBDIRECTORY:  TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
----------------
STATIC VOID NEWLINE();

DESCRIPTION - NEWLINE

IMPLEMENTS THE INSERT LINE FUNCTION.
INSERTS A BLANK LINE AT CUR_ROW.

INCLUDE FILES:
---------------
STDTYP        - STANDARD TYPE DEFINITIONS
STDCIO        - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD           - FORM PROCESSOR DATA
CTYPE         - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCCODE       - FORM PROCESSOR RETURN CODES
FPPARM        - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
----------------
EDITCI/INLINE - INSERT LINE

CALLED DIRECTLY BY:
---------------------
EDITCI/EDI       - EDIT LOOP
REPEAT            - REPEAT FUNCTION/COMMAND
USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/NXTLINE
PURPOSE: NEXT LINE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-----------------
STATIC VOID NXTLINE()

DESCRIPTION - NXTLINE

IMPLEMENTES THE NEXT LINE FUNCTION.
ADVANCES BUF_START BY ONE LINE TO THE NEXT LINE IS DISPLAYED.

INCLUDE FILES:
-----------------
STDTYPE - STANDARD TYPE DEFINITIONS
STDCIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-----------------
PMSGLS

CALLED DIRECTLY BY:
-----------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND
USED IN MAIN PROGRAM(S):

---------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: \text{EDITCI/NXTPAGE}
PURPOSE: \text{NEXT PAGE}
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

\begin{verbatim}
---------
STATIC VOID NXTPAGE()

DESCRIPTION - NXTPAGE

IMPLEMENT THE NEXT PAGE FUNCTION.
ADVANCES BUF_START SO THE NEXT DSP_HT LINES OF THE BUFFER
ARE DISPLAYED.
\end{verbatim}

INCLUDE FILES:

\begin{verbatim}
---------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS
\end{verbatim}

ROUTINES CALLED:

\begin{verbatim}
---------------
PMSGLS
\end{verbatim}

CALLED DIRECTLY BY:

\begin{verbatim}
---------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND
\end{verbatim}
USED IN MAIN PROGRAM(S):

-----------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR

3-80
TEXT EDITOR Module Documentation

NAME: EDITCI/NXTVAL
PURPOSE: NEXT VALUE OF COMMAND LINE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

        -----------
STATIC INT NXTVAL(CMD_LINE)
        CHAR CMD_LINE[];

DESCRIPTION - NXTVAL

PARSES THE CMD_LINE ARGUMENT AND LEAVES EACH OPERAND IN A
DATA[I].
EACH OPERAND IS '\0' TERMINATED Puts THE NUMBER OF
ARGUMENTS FOUND
IN NUMDATA.

ARGUMENTS

        -----------
CMD LINE - CHAR []

INCLUDE FILES

      STTYP         STANDARD TYPE DEFINITION
      STTUP         PURPOSE module-wide constants
      STTDR         FORM formal parameters
      TYPEDR        TYPE declarations
      TYPDEF        FORM formal parameters
def

        -----------
EDITCI/CMDLIST - COMMAND LIST
EDITCI/CMDMENU - COMMAND MENU

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/PFSRCH
PURPOSE: CONTINUE SEARCH FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-------------------
STATIC VOID PFSRCH()

DESCRIPTION - PFSRCH

IMPLEMENTS THE FIND NEXT OCCURRENCE OF THE STRING AS A FUNCTION.

INCLUDE FILES:

-------------------
STDTYP - STANDARD TYPE DEFINITIONS
STDOIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPFARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

-------------------
EDITCI/DOCMD - DO A COMMAND
STRCPY

CALLED DIRECTLY BY:

-------------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND
USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/PRVLINE
PURPOSE: PREVIOUS LINE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-------------
STATIC VOID PRVLINE()

DESCRIPTION - PRVLINE

IMPLEMENTS THE PREVIOUS LINE FUNCTION.
BACKS UP THE BUF_START SO THE PREVIOUS LINE OF BUF IS DISPLAYED.

INCLUDE FILES:
-----------------
STDTYP - STANDARD TYPE DEFINITIONS
STDBO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-------------------
PMSGLS

CALLED DIRECTLY BY:
---------------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND

3-85
USED IN MAIN PROGRAM(S):

-------------------------

TE/MMAIN   - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME:              EDITCI/PRVPAGE
PURPOSE:           PREVIOUS PAGE
LANGUAGE:          C
MODULE TYPE:       SUBROUTINE
FUNCTION TYPE:     VOID ()
SOURCE FILE:       EDITCI
SOURCE FILE TYPE:  .C
HOST:              UI
SUBSYSTEM:         TE
SUBDIRECTORY:      TE
DOCUMENTATION GROUP: TEXTEDIT

DESCRIPTION:
-------------------
STATIC VOID PRVPAGE()

DESCRIPTION - PRVPAGE

IMPLEMENTS THE PREVIOUS PAGE FUNCTION.
BACKS UP BUF_START SO THE PREVIOUS DSP_HT LINES OF THE
BUFFER ARE DISPLAYED.

INCLUDE FILES:
-----------------
STDTYP - STANDARD TYPE DEFINITIONS
STDDIO - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-----------------
PMSGLS

CALLED DIRECTLY BY:
------------------
EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND

3-87
USED IN MAIN PROGRAM(S):

-------------------------

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/PUTDEF
PURPOSE: PUT DEFAULTS
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: INT ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: 
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

STATIC PUTDEF(FIELD, DATA)
  CHAR FIELD[ ], DATA[ ];

DESCRIPTION - PUTDEF

PUTS DEFAULT DATA IN THE FIELD.

ARGUMENTS:

FIELD = CHAR [
DATA = CHAR [

INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS
STUDIO - """" PURPOSE NOT FOUND BY STRIPPER """
FPD - FORM PROCESSOR DATA
CTYPE - """" PURPOSE NOT FOUND BY STRIPPER """
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

EDITCI/INDEX - FIND INDEX OF SUBSTRING
STRCPY
STRLLEN
MEMSET

3-89
PDATA
STRCAT

CALLED DIRECTLY BY:

EDITCI/CMDMENU - COMMAND MENU

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/QUIT
PURPOSE: QUIT FUNCTION
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: BOOL ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---------
STATIC BOOL QUIT()
---------

DESCRIPTION - QUIT

IMPLEMENTED THE QUIT KEY FUNCTION.
IF THE BUFFER HAS BEEN MODIFIED (SINCE THE INITIAL LOAD OR
THE LAST SAVE)
YOU MUST PRESS THE QUIT KEY TWICE. PRESSING ANY OTHER KEY
ABORTS THE QUIT
AND RETURNS TO EDIT.

IF THE BUFFER HAS NOT BEEN MODIFIED THE PROGRAM TERMINATES.

INCLUDE FILES:

------------------------
STDTTYP - STANDARD TYPE DEFINITIONS
STIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS
------------------------

ROUTINES CALLED:
------------------------
PMSGLS
OISCR
------------------------
CALLED DIRECTLY BY:

EDITCI/EDI - EDIT LOOP

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/RETRN
PURPOSE: RETURN
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-------------

STATIC VOID RETRN()

DESCRIPTION - RETRN

SETS THE CURSOR TO THE BEGINNING OF THE NEXT LINE. THE
POINTERS BUF_START
AND CUR_ROW ARE MAINTAINED.

INCLUDE FILES:

-------------

STDTYP  - STANDARD TYPE DEFINITIONS
STDDIO  - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD     - FORM PROCESSOR DATA
CTYPE   - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE  - FORM PROCESSOR RETURN CODES
FPARM   - FORM PROCESSOR PARAMETERS

CALLED DIRECTLY BY:

-------------

EDITCI/MIDLINE - MIDLINE BREAK FUNCTION

USED IN MAIN PROGRAM(S):

-------------

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/SELECT
PURPOSE: SELECT LINES FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-------------

STATIC VOID SELECT()

DESCRIPTION - SELECT

IMPLEMENTS THE MARK SELECT RANGE FUNCTION.
IF THE SELECT RANGE IS OFF, IT IS TURNED ON AND THE CUR_ROW
IS MARKED
AS ONE TERMINUS OF THE SELECT RANGE.
ELSE THE SELECT RANGE IS TURNED OFF.

INCLUDE FILES:

-------------

STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

-------------

EDITCI/FREENODE - FREE NODE
EDITCI/DELLINE - DELETE LINE
EDITCI/INLINE - INSERT LINE
STRLN
STRCPY
MEMSET

3-94
EDITCI/MIDLINE - MIDLINE BREAK FUNCTION

CALLED DIRECTLY BY:

EDITCI/EDI - EDIT LOOP
EDITCI/CUT - CUT FUNCTION
REPLACE   - REPLACE COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN   - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/SPLIT
PURPOSE: SPLIT A LINE
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
-------------------
STATIC VOID SPLIT()

DESCRIPTION - SPLIT

SPLITS THE LINE POINTED TO BY CUR_ROW AT SCRN_COL.

INCLUDE FILES:
-------------------
STDTYP - STANDARD TYPE DEFINITIONS
STDDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-------------------
EDITCI/INLINE - INSERT LINE

CALLED DIRECTLY BY:
-------------------
EDITCI/CUT - CUT FUNCTION
EDITCI/MIDLINE - MIDLINE BREAK FUNCTION

USED IN MAIN PROGRAM(S):
3-96
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/TMPCPY
PURPOSE: TEMPORARY COPY
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---------------
STATIC VOID TMPCPY(MOVE_START)
    BOOL MOVE_START;

DESCRIPTION - TMPCPY

MOVES THE CONTENTS OF THE TMP BUFFER TO THE BUF BUFFER JUST BEFORE THE CUR_ROW. THE POINTER BUF_START IS MAINTAINED IF MOVE_START IS TRUE.

ARGUMENTS:

---------------
MOVE_START = BOOL

INCLUDE FILES:

---------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

---------------
EDITCI/ADDNODE - ADD NODE
EDITCI/DELNODE - DELETE NODE
CALLED DIRECTLY BY:

EDITCI/YAN - PASTE FUNCTION
EDITCI/FIL - PASTE WITH FILL FUNCTION
LOAD - LOAD A FILE
REPLACE - REPLACE COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: EDITCI/YANK
PURPOSE: PASTE FUNCTION
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-----------------------

STATIC VOID YANK()

DESCRIPTION - YANK

IMPLEMENTS THE PASTE FUNCTION.
INSERTS A COPY OF THE PASTE BUFFER BEFORE CUR_ROW

INCLUDE FILES:

-----------------------

STDTYP - STANDARD TYPE DEFINITIONS
STDIO - ***** PURPOSE NOT FOUND BY STRIPPER *****
FPD - FORM PROCESSOR DATA
CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER *****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

-----------------------

EDITCI/TMPCPY - TEMPORARY COPY
EDITCI/INLINE - INSERT LINE

CALLED DIRECTLY BY:

-----------------------

EDITCI/EDI - EDIT LOOP
REPEAT - REPEAT FUNCTION/COMMAND
USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: LOAD
PURPOSE: LOAD A FILE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

CHAR *LOAD()

DESCRIPTION - LOAD

IMPLEMENTS THE LOAD FILE COMMAND.
LOADS THE FILE NAMED BY DATA[1] AND INSERTS IT BEFORE CUR_ROW IN THE BUFFER

INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FP CODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

FCLOSE
EDITCI/TMPCPY - TEMPORARY COPY
EDITCI/INLINE - INSERT LINE
FGETS
MEMSET
FOPEN
CALLED DIRECTLY BY:

EDITCI/DOCMOD - DO A COMMAND

USED IN MAIN PROGRAM(S):

TE/MAIN - MAIN MODULE FOR TEXT EDITOR
NAME: MARGIN
PURPOSE: SET MARGINS
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

---

CHAR *MARGIN()

DESCRIPTION - MARGIN

IMPLEMENTS THE SET FILL MARGINS COMMAND.
SETS THE LEFT MARGIN TO DATA[1] AND THE RIGHT MARGIN TO
DATA[2].

INCLUDE FILES:

---

STDTP - STANDARD TYPE DEFINITIONS
STDDO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYP - **** PURPOSE NOT FOUND BY STRIPPER ****
FP CODE - FORM PROCESSOR RETURN CODES
FP ARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

---

ATOI

CALLED DIRECTLY BY:

---

EDITCI/DOCM - DO A COMMAND
USED IN MAIN PROGRAM(S):

TE/MAIN — MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: NAME
PURPOSE: NAME THE BUFFER
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

-----
CHAR 'NAME()

DESCRIPTION - NAME

IMPLEMENTS THE GIVE THE BUFFER A DEFAULT SAVE NAME.
SETS THE DEFAULT SAVE NAME TO DATA[1].

INCLUDE FILES:

-----
STDTYP - STANDARD TYPE DEFINITIONS
STIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

-----
MEMCPY

CALLED DIRECTLY BY:

-----
EDITCI/DOCMD - DO A COMMAND

USED IN MAIN PROGRAM(S):

3-106
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: REPEAT
PURPOSE: REPEAT FUNCTION/COMMAND
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: 
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

CHAR *REPEAT()

DESCRIPTION - REPEAT

IMPLEMENTES THE REPEAT COMMAND/FUNCTION COMMAND. THE COMMAND OR FUNCTION WHICH FOLLOWS WILL BE PERFORMED THE NUMBER OF TIMES GIVEN BY DATA[1].

INCLUDE FILES:

STDTYPE - STANDARD TYPE DEFINITIONS
STDOI - ***** PURPOSE NOT FOUND BY STRIPPER *****
FPD - FORM PROCESSOR DATA
CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER *****
FPCODE - FORM PROCESSOR RETURN CODES
FPFARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

EDITCI/PFSRCH - CONTINUE SEARCH FUNCTION
EDITCI/MIDLINE - MIDLINE BREAK FUNCTION
EDITCI/CUT - CUT FUNCTION
EDITCI/FILL - PASTE WITH FILL FUNCTION
EDITCI/YANK - PASTE FUNCTION
EDITCI/NEWLINE - NEW LINE
EDITCI/PRVLINE - PREVIOUS LINE

3-108
EDITCI/NXTLINE - NEXT LINE
EDITCI/PRVPAGE - PREVIOUS PAGE
EDITCI/NXTPAGE - NEXT PAGE
EDITCI/DOCMD - DO A COMMAND
EDITCI/COMMAND - COMMAND FUNCTION
EDITCI/CMDLIST - COMMAND LIST
STRNCMP
PUTCUR
PMSGLS
ATOI

CALLED DIRECTLY BY:
---------------------
EDITCI/DOCMD - DO A COMMAND

USED IN MAIN PROGRAM(S):
------------------------
TE/MAIN - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: REPLACE
PURPOSE: REPLACE COMMAND
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

CHAR *REPLACE()

DESCRIPTION - REPLACE

IMPLEMENTS THE REPLACE STRING COMMAND.
IN DATA[3] (OR THE SELECT RANGE IF ACTIVE). THESE BECOME THE DEFAULTS
FROM_STR, TO_STR, AND REPTYP RESPECTIVELY. IF DATA[1..3] ARE UNSPECIFIED
THE DEFAULTS ARE USED. THE POINTERS CUR_ROW AND BUF_START ARE MAINTAINED.
WARNING: IF REPLACE CANNOT INSERT A LINE THE REPLACEMENTS PERFORMED ARE
NOT BACKED OUT BUT THE CURSOR IS LEFT AT THE LINE WHERE THE FAILURE OCCURRED. NO LINE IS LEFT PARTIALLY REPLACED.

INCLUDE FILES:

- STDTYPE - STANDARD TYPE DEFINITIONS
- STDIO - ***** PURPOSE NOT FOUND BY STRIPPER ****
- FPD - FORM PROCESSOR DATA
- CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER ****
- FPCODE - FORM PROCESSOR RETURN CODES
- FPPARM - FORM PROCESSOR PARAMETERS
ROUTINES CALLED:

Editci/SELECT - SELECT LINES FUNCTION
Editci/LASTPAGE - LAST PAGE
Editci/FRSTPAGE - FIRST PAGE
Editci/FREEMODE - FREE NODE
Editci/DELLINE - DELETE LINE
Editci/TMPCPY - TEMPORARY COPY
Editci/INLINE - INSERT LINE
Strcat
Strncat
Strlen
Editci/INDEX - FIND INDEX OF SUBSTRING
Memcpy

CALLED DIRECTLY BY:

Editci/DOCMD - DO A COMMAND

USED IN MAIN PROGRAM(S):

Te/main - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: SAVE
PURPOSE: SAVE FILE
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * ()
SOURCE FILE: EDITCI
SOURCE FILE TYPE: .C
HOST: 
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
--------------
CHAR *SAVE()

DESCRIPTION - SAVE

IMPLEMENTS THE WRITE BUFFER TO A FILE COMMAND.
WRITES THE BUFFER BUF TO THE FILE NAMED BY DATA[1]. IF NO
NAME IS SPECIFIED THE NAME IN WORK_NAME IS USED.

INCLUDE FILES:
---------------
STDTYP - STANDARD TYPE DEFINITIONS
STDIO - **** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - **** PURPOSE NOT FOUND BY STRIPPER ****
FPCODE - FORM PROCESSOR RETURN CODES
FPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:
-----------------
FCLOSE
WRITE
MEMCPY
FOPEN

CALLED DIRECTLY BY:

3-112
EDITCI/DOCMD - DO A COMMAND

USED IN MAIN PROGRAM(S):

TE/MAY - MAIN MODULE FOR TEXT EDITOR
NAME: SEARCH
PURPOSE: SEARCH COMMAND
LANGUAGE: C
MODULE TYPE: FUNCTION
FUNCTION TYPE: CHAR * (
SOURCE FILE: EDITCI
SOURCE FILE TYPE:.C
HOST: 
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:
---------------------
CHAR *SEARCH()

DESCRIPTION - SEARCH

IMPLEMENTS THE SEARCH BUFFER FOR A STRING.
THE BUFFER BUF IS SEARCHED FOR THE STRING CONTAINED IN DATA[1] IN THE
DIRECTION SPECIFIED IN DATA[2]. THESE BECOME THE DEFAULT SEARCH VALUES
SRCH_LINE AND SRCHDIR RESPECTIVELY. THE SEARCH IS STARTED FROM CUR_ROW
SRCH_LINE AND SRCHDIR ARE USED RESPECTIVELY. THE POINTERS BUF_START AND
CUR_ROW ARE MAINTAINED.

INCLUDE FILES:
---------------------
STDTyp - STANDARD TYPE DEFINITIONS
STDIO - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPD - FORM PROCESSOR DATA
CTYPE - ***** PURPOSE NOT FOUND BY STRIPPER ****
FPCode - FORM PROCESSOR RETURN CODES
FPPARM - FORM PROCESSOR PARAMETERS

ROUTINES CALLED:

3-114
EDITCI/INDEX - FIND INDEX OF SUBSTRING
STRLEN
MEMCPY

CALLED DIRECTLY BY:

EDITCI/DOcmd - DO A COMMAND

USED IN MAIN PROGRAM(S):

TE/Main - MAIN MODULE FOR TEXT EDITOR
TEXT EDITOR Module Documentation

NAME: TE/MAIN
PURPOSE: MAIN MODULE FOR TEXT EDITOR
LANGUAGE: C
MODULE TYPE: SUBROUTINE
FUNCTION TYPE: VOID
SOURCE FILE: TE
SOURCE FILE TYPE: .C
HOST:
SUBSYSTEM: UI
SUBDIRECTORY: TE
DOCUMENTATION GROUP: TEXTEDT

DESCRIPTION:

SYNOPSIS

VOID MAIN(ARGC, ARGV)
    INT ARGC;
    CHAR *ARGV[];

INPUTS:

ARGC - ARGUMENT COUNT
ARGV - ARGUMENT VECTOR

DESCRIPTION - MAIN

CALLS EDITCI WITH A FILE NAME, IF SPECIFIED ELSE CALLS IT WITH NULL STRING.

INCLUDE FILES:

STDTYP - STANDARD TYPE DEFINITIONS
NTM - NTM INTERFACE INCLUDE FILE

ROUTINES CALLED:

INITAL
MEMCMP
PRINTF
INITFP
EDITCI - EDIT CALLABLE INTERFACE
TERMFP
TRMNAT
3.10.9 Include File Descriptions

The following list contains a purpose and description of each include file listed in 3.10.4 as specified in the source code. The language it is written in is also given.
TEXT EDITOR Include File Description

FILE NAME: FPCODE
PURPOSE: FORM PROCESSOR RETURN CODES
LANGUAGE: C

DESCRIPTION:

-------------
FILE NAME: FPD
PURPOSE: FORM PROCESSOR DATA
LANGUAGE: C

DESCRIPTION:

DATA DEFINITIONS FOR ALL FORM PROCESSOR (INCLUDING MONITER) DATA.
FILE NAME: FPPARM
PURPOSE: FORM PROCESSOR PARAMETERS
LANGUAGE: C

DESCRIPTION:

DESCRIPTION: THESE DATA DEFINITIONS ARE USED IN THE FORM PROCESSOR ROUTINES.
INCLUDE FILE Description

FILE NAME: NTM
PURPOSE: NTM INTERFACE INCLUDE FILE
LANGUAGE: C

DESCRIPTION:

DESCRIPTION
INCLUDE FILE FOR NTM INTERFACE
TEXT EDITOR Include File Description

FILE NAME: STDYP
PURPOSE: STANDARD TYPE DEFINITIONS
LANGUAGE: C

DESCRIPTION:

DESCRIPTION
THIS FILE ENSURES THAT THE FOLLOWING STANDARD TYPES ARE AVAILABLE:

FLOAT - SINGLE PRECISION FLOAT
DOUBLE - DOUBLE PRECISION FLOAT

LONG - 32 BIT (OR LARGER) SIGNED INTEGER
LBITS - 32 BITS (OR MORE) FOR BIT MANIPULATION

INT - NATURAL SIZE SIGNED INTEGER
UNSIGNED - NATURAL SIZE UNSIGNED INTEGER
BOOL - NATURAL SIZE LOGICAL (ZERO / NON-ZERO ONLY)

SHORT - 16 BIT (OR LARGER) SIGNED INTEGER
USHORT - 16 BIT (OR LARGER) UNSIGNED INTEGER
BITS - 16 BITS (OR MORE) FOR BIT MANIPULATION

CHAR - SINGLE MACHINE CHARACTER (REAL CHARACTERS ALWAYS POSITIVE)
TINY - 8 BIT (OR LARGER) SIGNED INTEGER
UTINY - 8 BIT (OR LARGER) UNSIGNED INTEGER
TBITS - 8 BITS (OR MORE) FOR BIT MANIPULATION
TBOOL - 8 BIT (OR LARGER) LOGICAL (ZERO / NON-ZERO ONLY)

METACHAR - 16 BIT (OR LARGER) AUGMENTED CHARACTER (SIGNED)

VOID - FUNCTION THAT RETURNS NO VALUE

FORTRAN - STORAGE CLASS FOR FOREIGN (NON-C) ROUTINES OR C ROUTINES WHICH ARE CALLABLE FROM FOREIGN ROUTINES

SINCE NOT ALL COMPILERS SUPPORT USHORT, TINY, AND UTINY, THE FUNCTIONS

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USHORT(), TINY(), AND UTINY() SHOULD BE USED WHENEVER REFERENCING THEM.

IN ADDITION, THE FOLLOWING UTILITY MACROS ARE DEFINED:
LURSHIFT(N, B) - UNSIGNED LONG RIGHT SHIFT
MAX(A, B)    - MAXIMUM OF A AND B
MIN(A, B)    - MINIMUM OF A AND B
TEXT EDITOR Include File Description

ABS(A) - ABSOLUTE VALUE OF A
STRASN(A, B) - TRANSPORTABLE A = B FOR STRUCTURES
NULL - NULL POINTER VALUE (0)
TRUE - 1
FALSE - 0
SUCCESS - EXIT(SUCCESS) INDICATES SUCCESSFUL COMPLETION
FAILURE - EXIT(FAILURE) INDICATES ERRORS

THE FOLLOWING SYMBOLS SHOULD BE DEFINED BASED ON THE COMPILER BEING USED:
USHORT - COMPILER SUPPORTS UNSIGNED SHORT
TINY - COMPILER TREATS CHAR AS SIGNED
UTINY - CHAR IS SIGNED AND COMPILER SUPPORTS UNSIGNED CHAR
VOID - COMPILER SUPPORTS VOID
FORTRAN - COMPILER SUPPORTS FORTRAN
STRASN - DEFINE APPROPRIATE MACRO
SUCCESS - DEFINE APPROPRIATE VALUE IF NOT 0
FAILURE - DEFINE APPROPRIATE VALUE IF NOT 1
3.10.10 Hierarchy Chart

The following hierarchy charts show the relationships between all of the modules mentioned in the above documentation. A module may call a subroutine several times within its code, but the call will only be shown once as a single relationship on this hierarchy chart. All modules shown at the top of the first page are considered Main Programs as described in section 3.10.1 above.

There is an internal paging scheme as marked by the numbers in the upper right corner of each page. An index after the last page of the chart shows where a routine and its calls are first defined. If a routine has no page reference, it either makes no calls or is an external routine. A continuation box on the end of a tree limb shows where that the tree continues on the page numbered mentioned. A number in a box with a routine name points to the page where the routine is further defined within the hierarchy tree. If there is no number in a box, the routine either makes no calls or is an external routine.
PS 620144600
1 November 1985

+--------+
|REPEAT|
+--------+

+-------------+
<table>
<thead>
<tr>
<th>(CONT)</th>
<th>EDITCI/FILL</th>
<th>EDITCI/YANK</th>
<th>(CONT)</th>
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<tbody>
<tr>
<td>6+</td>
<td>30+</td>
<td>24+</td>
<td>20+</td>
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</tbody>
</table>
PS 620144600
1 November 1985

EDITCI/EDIT

EDITCI/EDIT

EDITCI/FILL
EDITCI/YANK

EDITCI/TMPCPY
EDITCI/INLINE

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PS 620144600
1 November 1985

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[Diagram with bullet points and numbers]

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EDITCI/CMDLIST

(CONT)  EDITCI/NXTVAL  MEMCPY  STRCPY  (CONT)

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<table>
<thead>
<tr>
<th>Command</th>
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<tr>
<td>ABORT</td>
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<tr>
<td>ADDFRM</td>
<td>ISPRINT</td>
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<tr>
<td>ATOI</td>
<td>LOAD</td>
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<td>CLEAR</td>
<td>MALLOC</td>
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<td>MARGIN</td>
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<td>EDITCI/DOCMD</td>
<td>PMGLS</td>
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3.11 Program Listings Comments

This information is contained in the Module Descriptions in section 3.10.
SECTION 4
QUALITY ASSURANCE PROVISIONS

4.1 Introduction and Definitions

"Testing" is a systematic process that may be preplanned and explicitly stated. Test techniques and procedures may be defined in advance, and a sequence of test steps may be specified. "Debugging" is the process of isolation and correction of the cause of an error.

"Antibugging" is defined as the philosophy of writing programs in such a way as to make bugs less likely to occur and when they do occur, to make them more noticeable to the programmer and the user. In other words, as much error checking as is practical and possible in each routine should be performed.

4.2 Computer Programming Test and Evaluation

The quality assurance provisions for test consists of the normal testing techniques that are accomplished during the construction process. They consist of design and code walk-throughs, unit testing, and integration testing. These tests are performed by the design team. Structured design, design walk-through and the incorporation of "antibugging" facilitate this testing by exposing and addressing problem areas before they become coded "bugs."
END
8-87
DTIC