

**Chapter
2**

**SYSTEM
OVERVIEW**

*Get on the
Fast Track!*



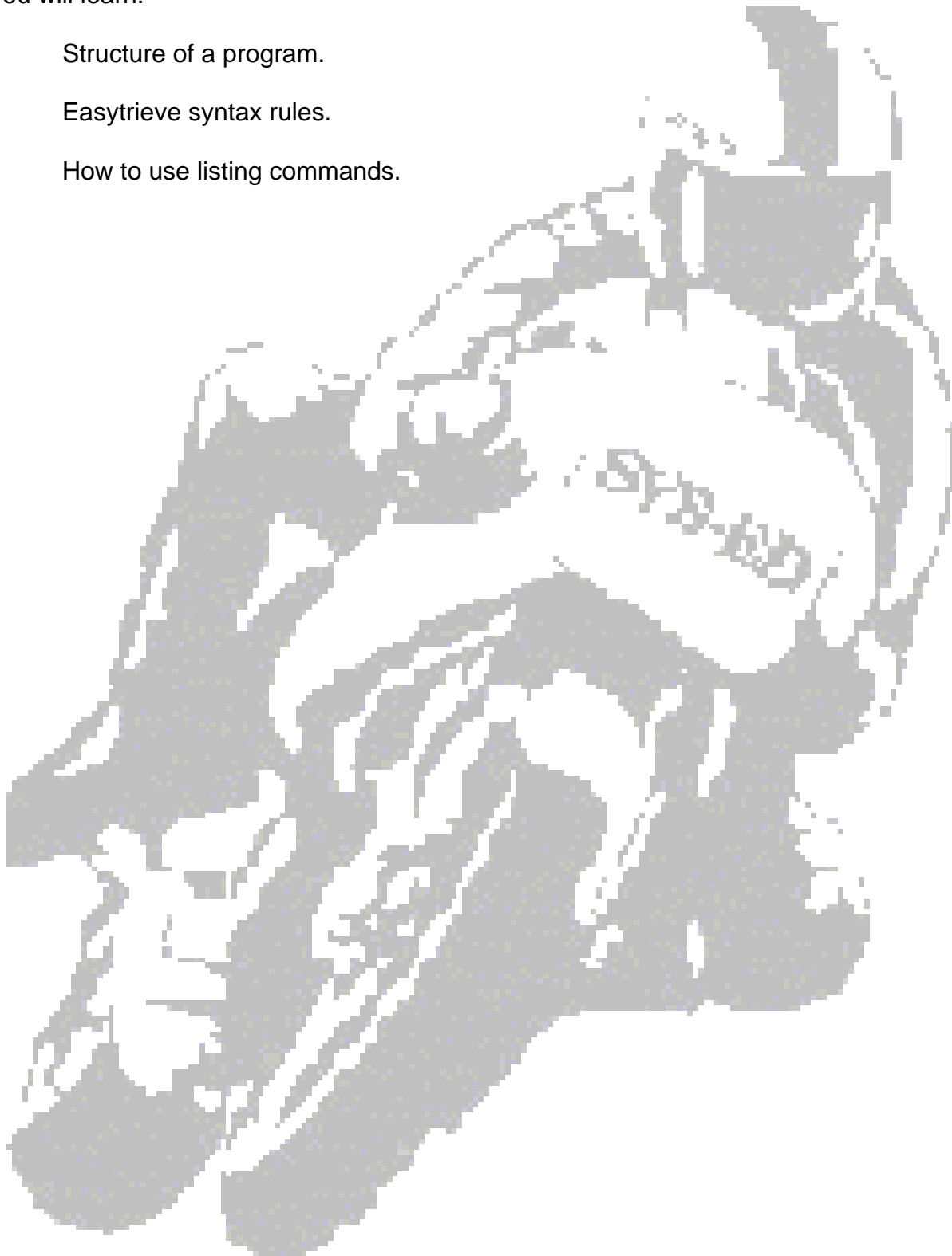
TM

**SYS-ED/
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Objectives:

You will learn:

- C Structure of a program.
- C Easytrieve syntax rules.
- C How to use listing commands.



1 Modes of Operation

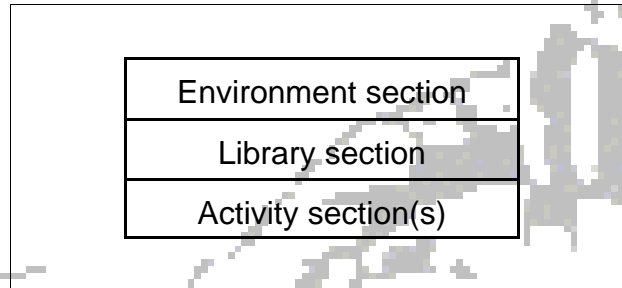
There are five modes of operation which include:

- C Syntax check source statements.
- C Syntax check and compile source statements
- C Syntax check, compile, and execute source statements (the default).
- C Syntax check and compile source statements and produce an object module.
- C Execute previously link edited programs.

The modes are determined by the PARM parameters.

2 Structure of a Program

Each program contains an optional environment definition section, an optional library definition section, and one or more activity section(s).



Environment Definition Section

Establishes parameters for the program.

Library Definition Section

Describes the data to be processed by the program.

Activity Definition Section

The activity definition section is the only mandatory section of your program. There are two types of activities--JOB and SORT. You can code any number of JOB or SORT activities in any order.

- C JOB activities read information from files, examine and manipulate data, write information to files, and initiate printed reports.
- C SORT activities create sequenced files.

More than one procedure (PROCs) can be coded at the end of each activity.

One or more REPORT subactivities can be coded after the PROCs at the end of each JOB activity. PROCs used within a REPORT subactivity must be coded immediately after the REPORT subactivity in which they are used.

The general order of statements is:

Environment	PARM...
Library	FILE ... DEFINE
Activities	JOB (statements) (job procedures) REPORT (report procedures) SORT (sort procedures) ...

3 Syntax Rules

Important syntax rules implemented in EASYTRIEVE PLUS include:

C Statement Area

All source statements are records of 80 characters each. The default statement area is in columns 1 through 72.

C Multiple Statements

The statement area normally contains a single statement. However, you can enter multiple statements on a single record. The EBCDIC character string `'.'` (period followed by a space) indicates the end of a statement.

C Comments

When the first non-blank character of a statement is an `'*'` (asterisk), the remainder of that record is a comment statement.

C Continuations

The last non-blank character of a statement terminates the statement unless that character is a `-` (hyphen) or a `+` (plus). The `-` indicates that the statement continues at the start of the next statement area. The `+` indicates that the statement continues with the first non-blank character in the next statement area. The difference between `-` and `+` is important only when continuing words. Continuation between words is the same for both.

C Words and Delimiters

A word can be a keyword, field name, literal, or symbol. All words begin with a non-blank character. A delimiter or the end of the statement area terminates these words.

Word Delimiters	Function
Space	The basic delimiter within each statement.
'	Encloses literals which are alphabetic.
.	Terminates a statement.
,	Used optionally for readability.
()	Encloses multiple parameters and portions of arithmetic expressions (the left parenthesis acts as a basic delimiter).
:	Used as a delimiter for file, record, and field qualifications.

C Labels

Labels are locations within the program.

C EBCDIC Alphabetic Literals

Alphabetic literals are words enclosed within apostrophes, and can be 254 characters long.

Whenever an alphabetic literal contains an embedded apostrophe, you must code two apostrophes.

C Numeric Literals

Numeric literals can contain 18 numeric digits (EBCDIC characters 0 to 9). You can indicate the algebraic sign of a numeric literal attaching a + (plus) or a - (minus) prefix to the numeral.

C EBCDIC Format Hexadecimal Literals

Prefix hexadecimal literals with 'X' (the letter X and an apostrophe), and terminate it with an apostrophe.

4 Listing Commands

LIST [ON,OFF] [MACROS,NO MACROS]

NEWPAGE

SKIP n

PARM

CLIST

DMAP

PMP

XREF

STATE

FLOW

