Demo
prepared by :

ITC

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UNEP

WELCOME
to
The Land Use Database :

Demo-7 : Query

Shown is how to carry out a Query

Emphasis is put on the following software aspects :

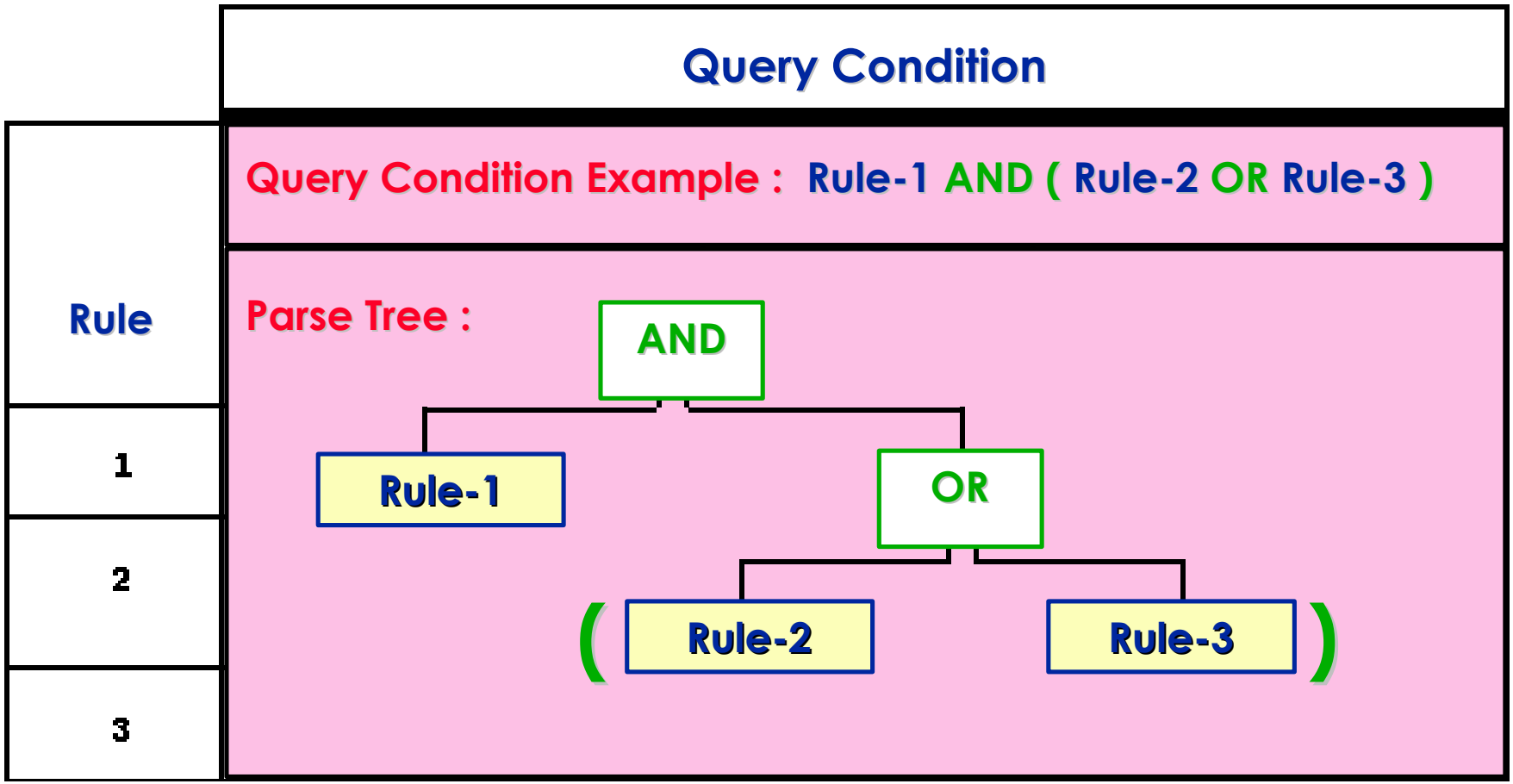
1. **Select a query and define query settings.**
2. **The functionality of the Approval File concept.**
3. **How to define a query Condition.**
4. **How to define query Output Fields.**
5. **Run the query to get the required data.**

First some basic query info in a nutshell :

	Query Condition		
		Criterion	
Rule	Field Name	Operator	Value
1	Administrative area	is equal to	Zimbabwe
2	Plot size	is larger than	0.5 hectares
3	Material input	is equal to	urea

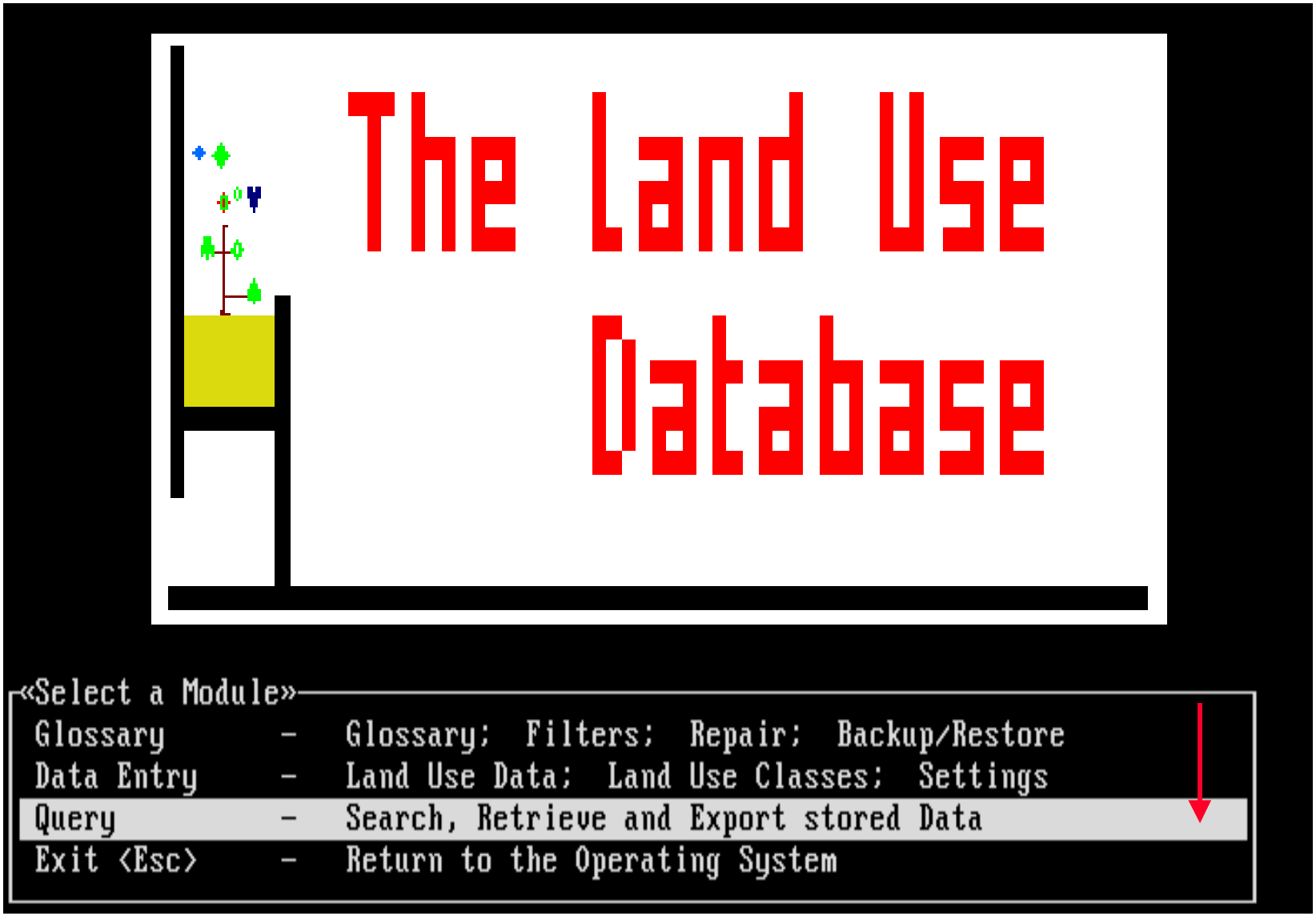
Keywords used to define a **Query Condition** are : **Rule**, **Field Name**, **Criterion**, **Operator** and **Value**.

Rules of one query can be combined using AND, OR, and () :



Besides the Query Condition, the selected fields to include in the query output must be selected; they are called : Output Fields.

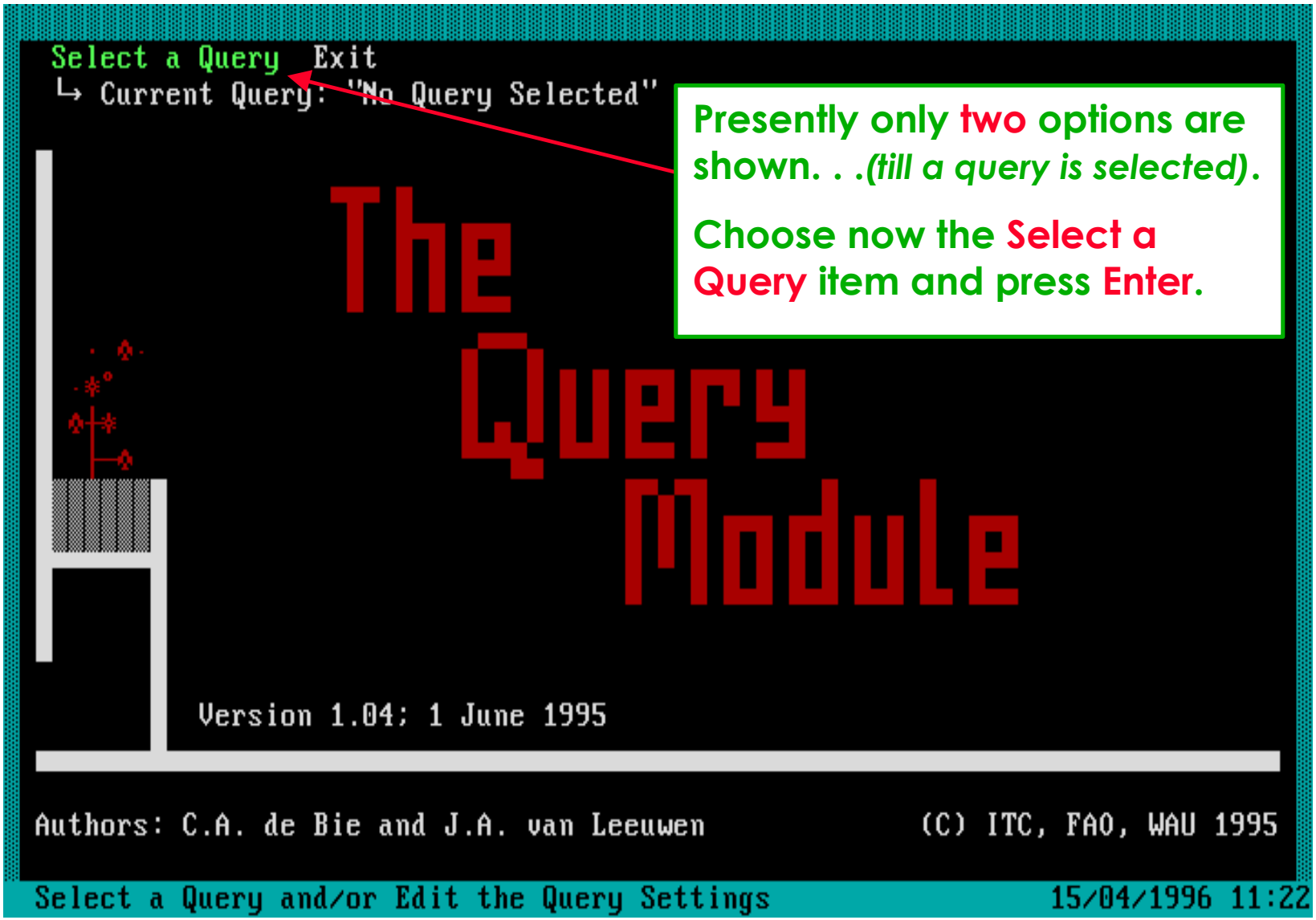
Now back to the software: select Query of the Main Menu.



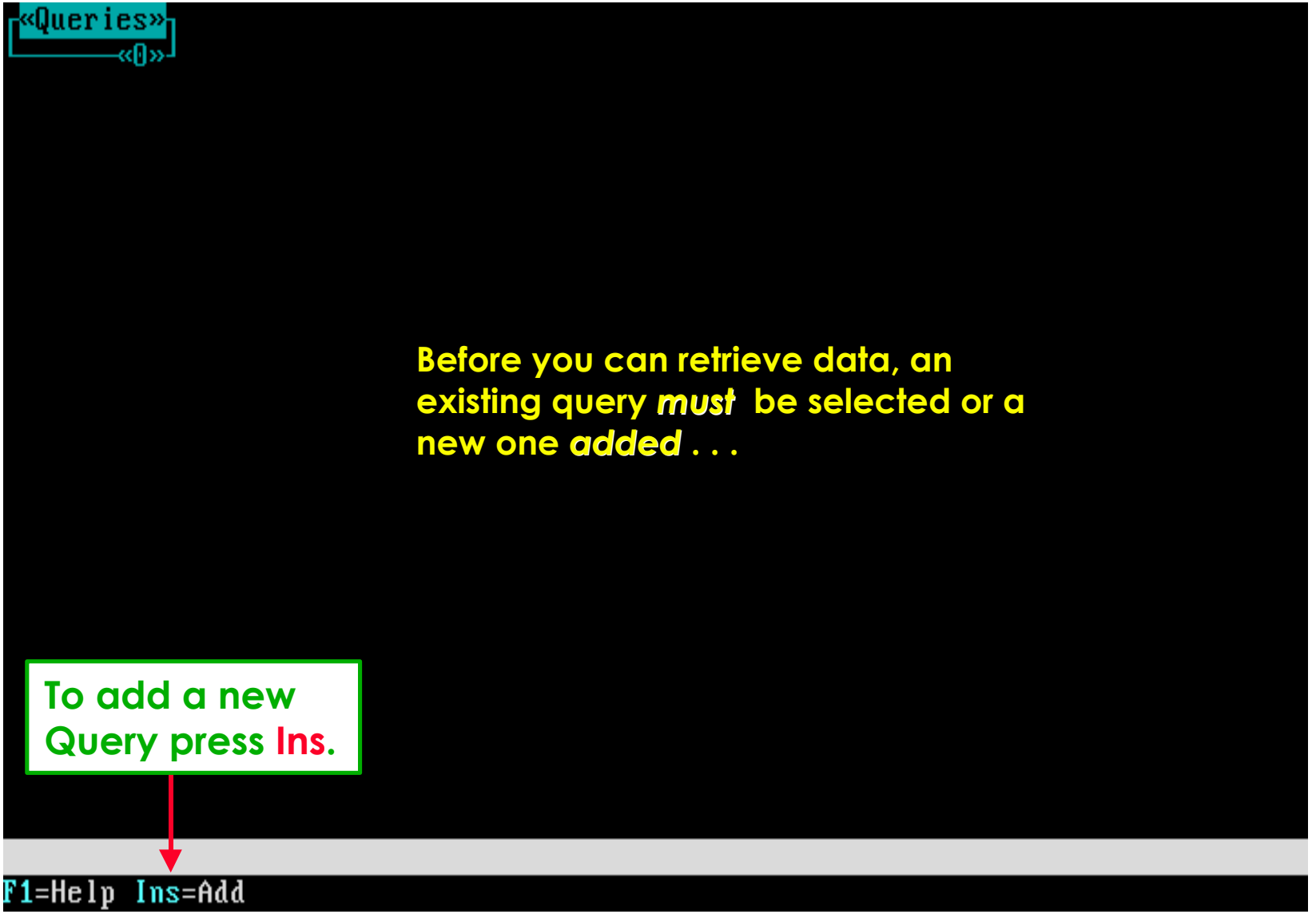
Software aspect no.-1:

1. **Select a query and define query settings.**
2. The functionality of the Approval File concept.
3. How to define a query Condition.
4. How to define query Output Fields.
5. Run the query to get the required data.

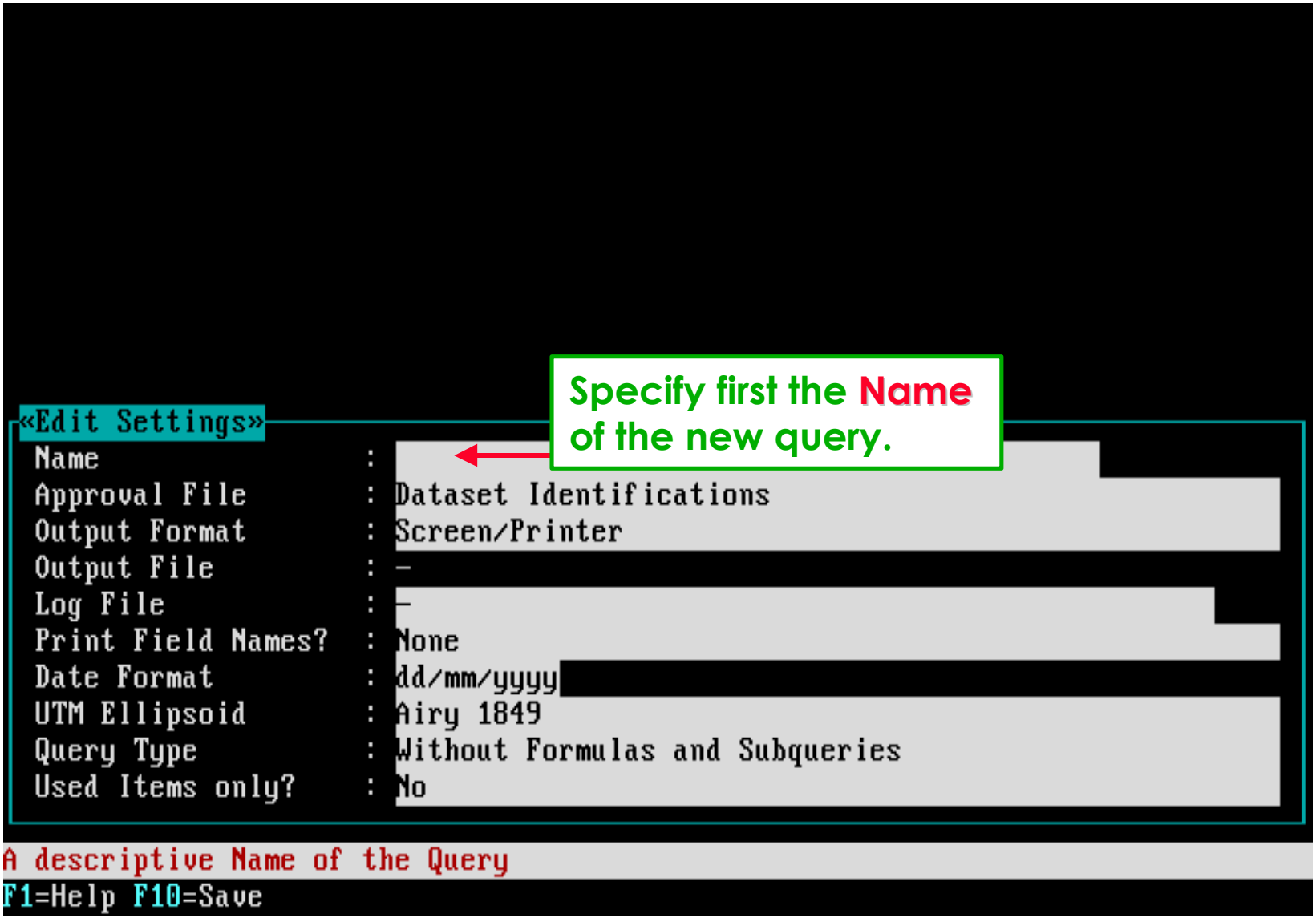
Accordingly the first Main Menu of the Query Module will be shown.



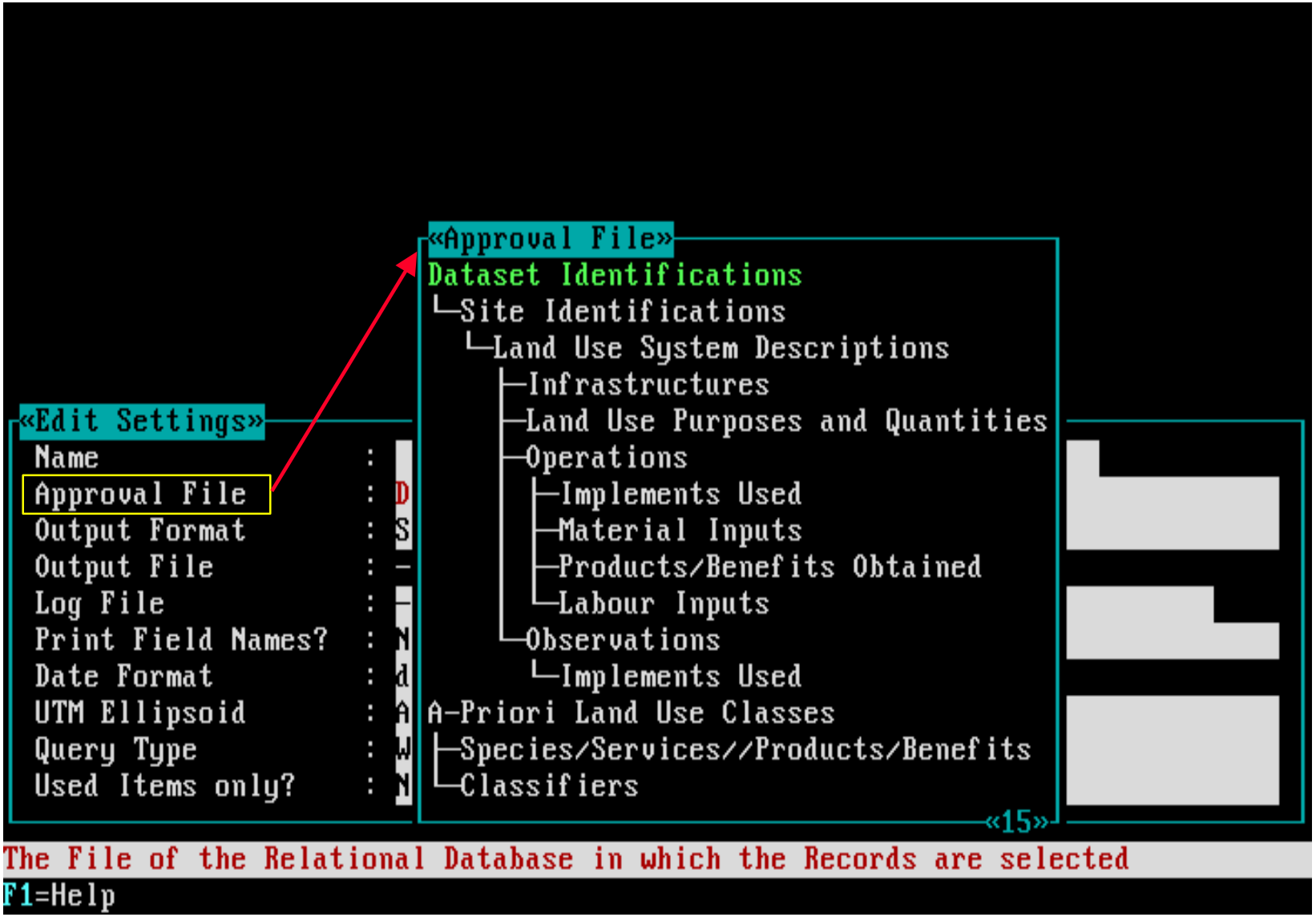
The Queries picklist shows that no queries were previously defined.



Then the **Edit Settings** screen will allow you to start defining a new query. Later the query **rules** and **output fields** must be specified.



Then the **Approval File** must be selected.



As intermezzo: Software aspect no.-2:

1 Select a query and define query settings.

2 **The functionality of the Approval File concept.**

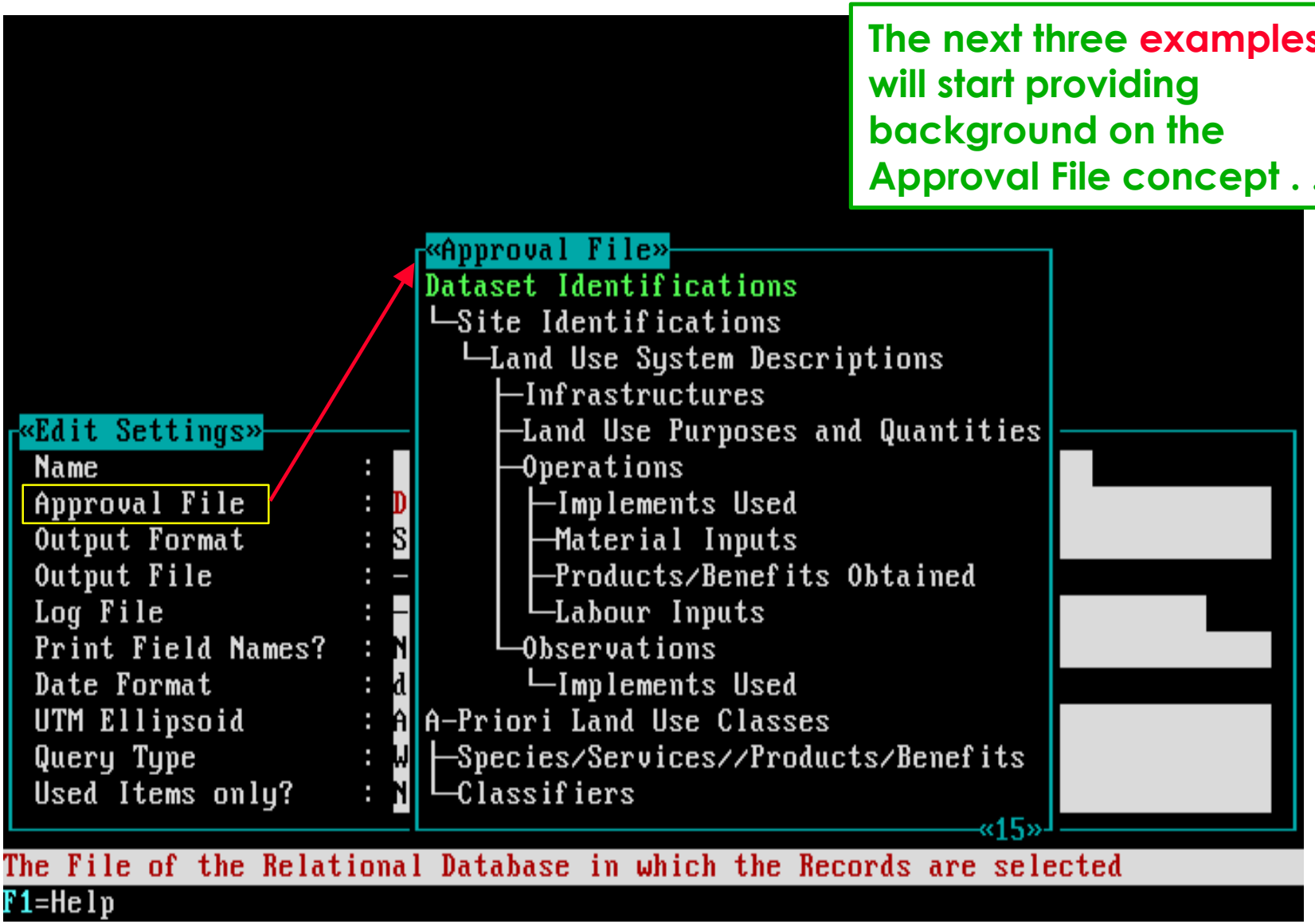
3 How to define a query Condition.

4 How to define query Output Fields.

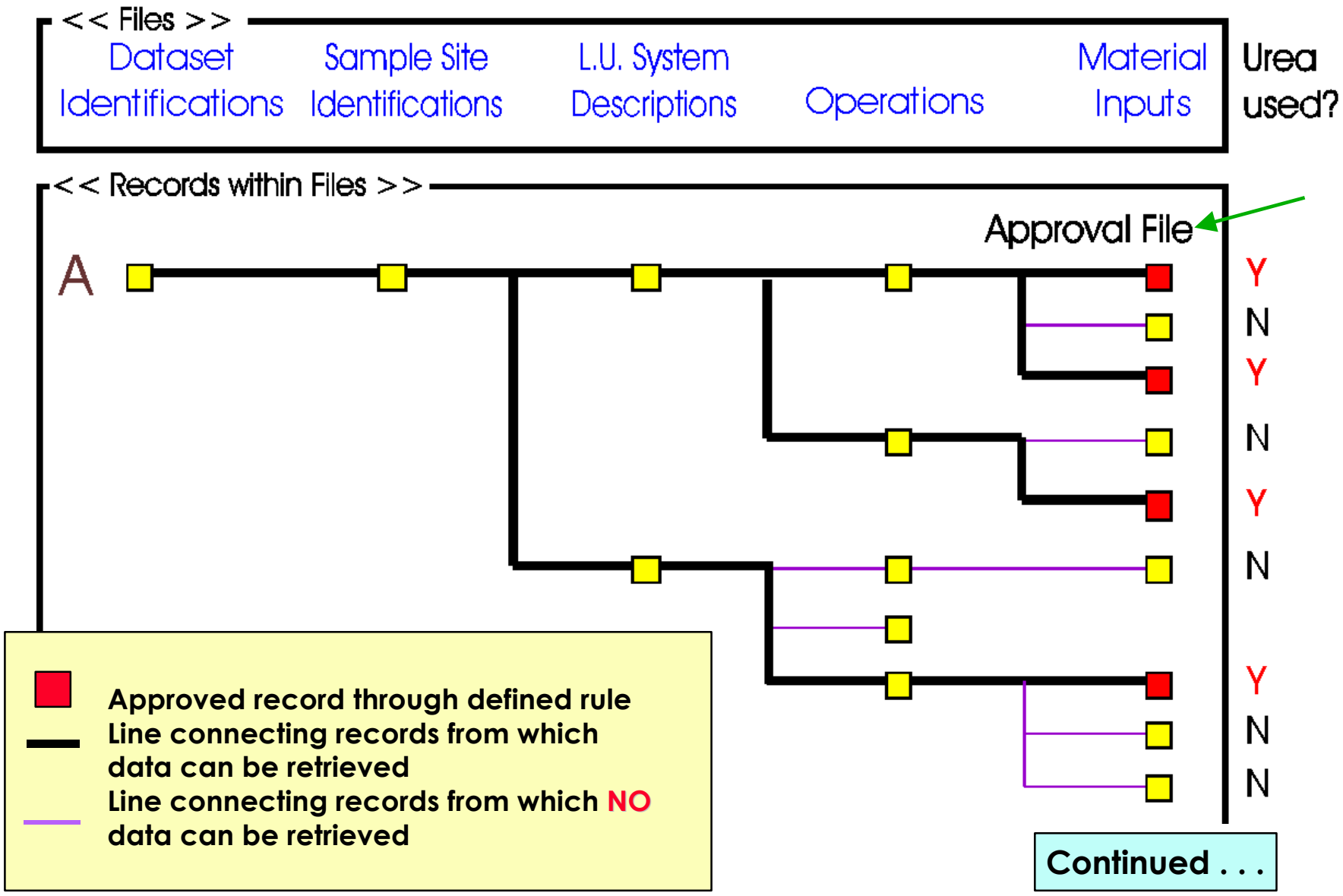
5 Run the query to get the required data.

The relational structure of all database files is shown in order to select one of these files.

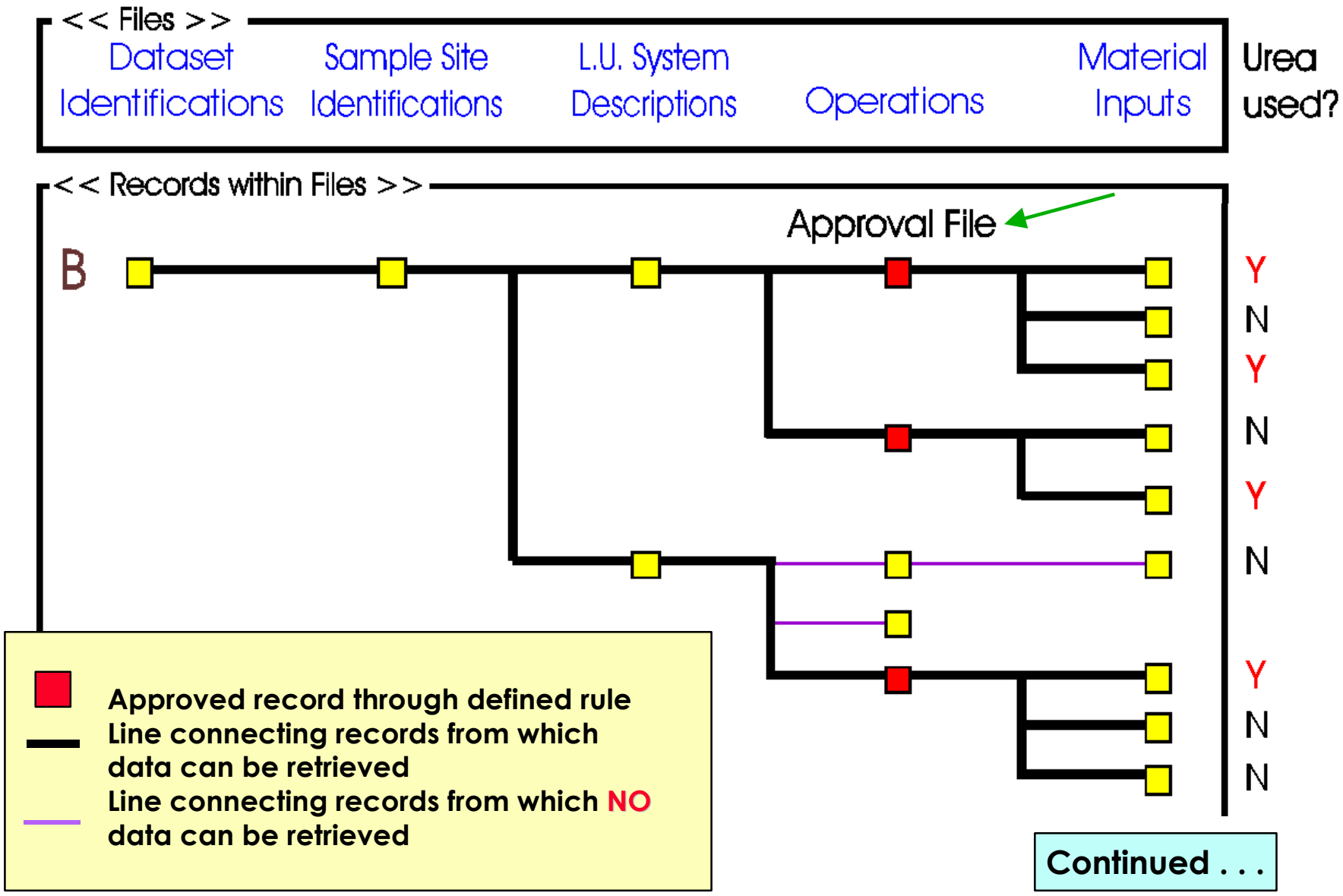
The next three examples will start providing background on the Approval File concept . . .



Example-A: The Approval File selected is Material Inputs.

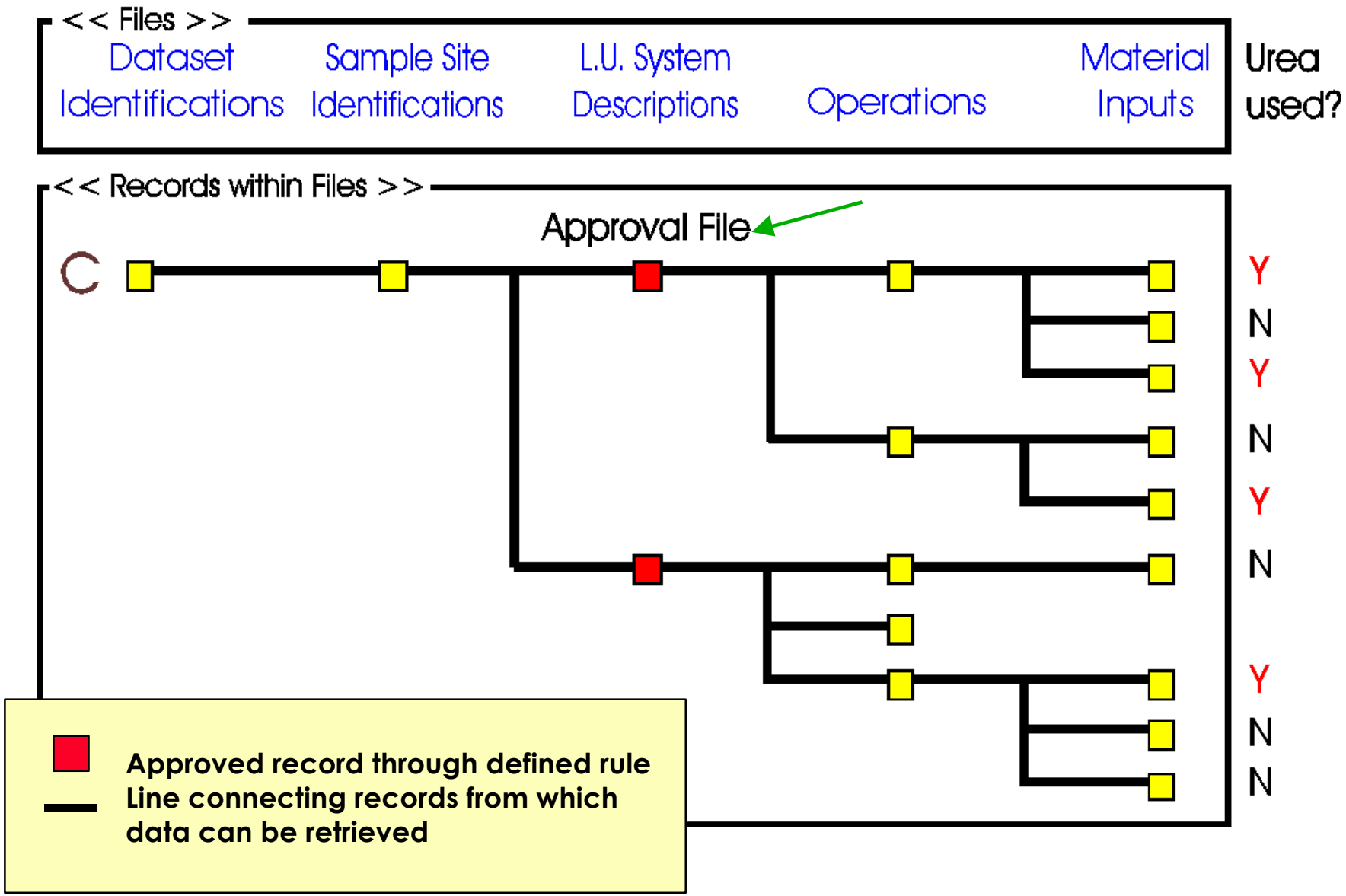


Example-B: The Approval File selected is Operations.

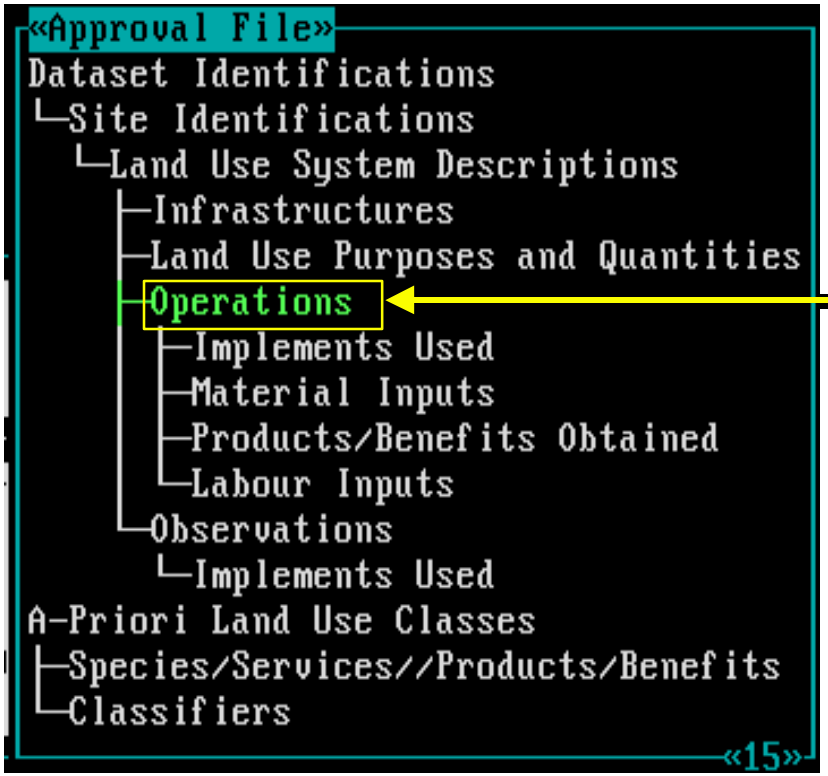


Continued . . .

Example-C: The Approval File selected is L.U.System Descriptions.



If the selected Approval File is Operations, then . . .



Data can be retrieved only from files connected through a left-up line or through a down-right line.

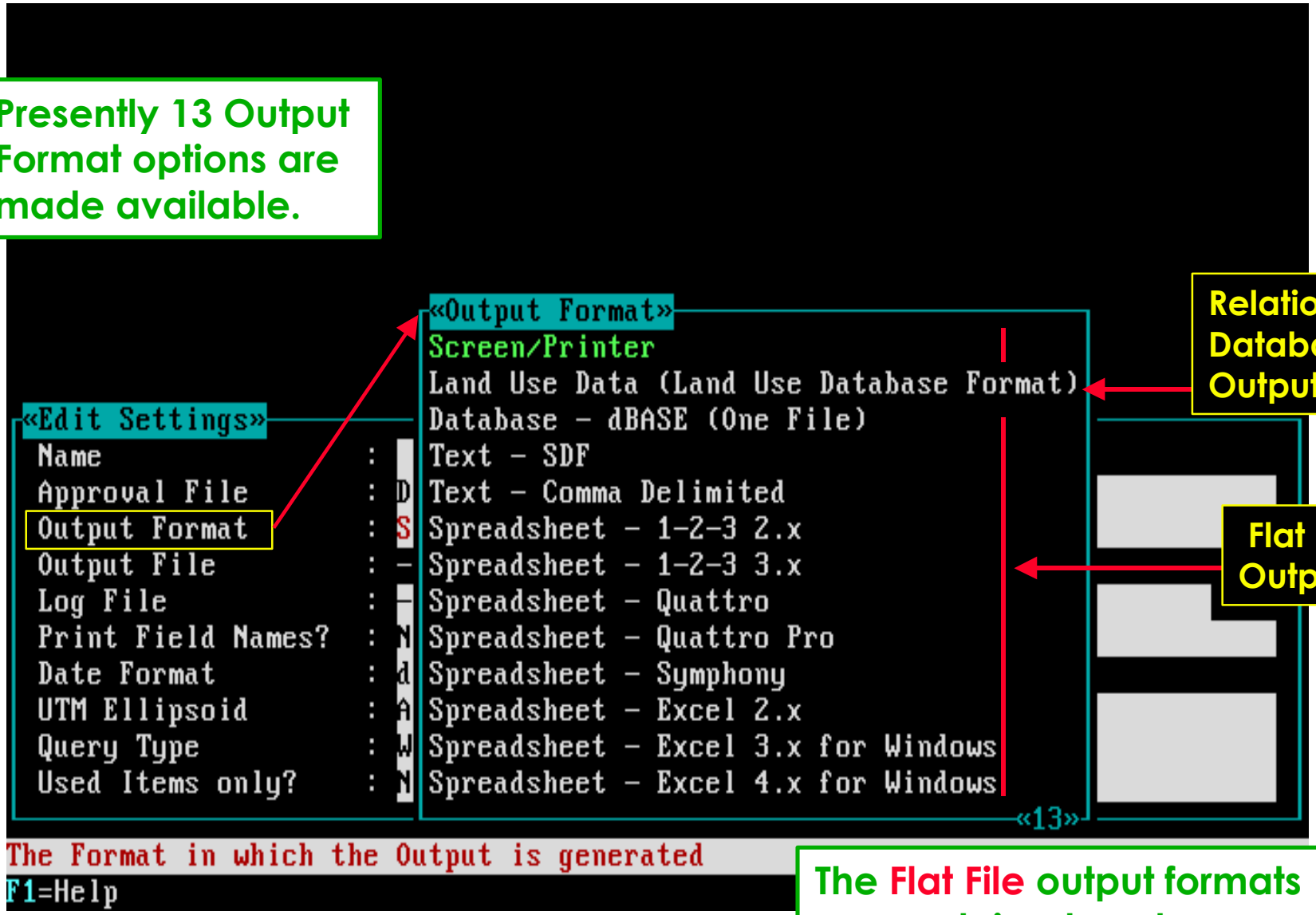
← Files from which data can be retrieved (define the fields later in Output Fields), and from which fields can be used to define query rules.

← Files from which NO data can be retrieved, and from which NO fields can be selected to define query rules (except when defining a sub-query using having).

Continuation of software aspect no.-1:

1. **Select a query and define query settings.**
2. The functionality of the Approval File concept.
3. How to define a query Condition.
4. How to define query Output Fields.
5. Run the query to get the required data.

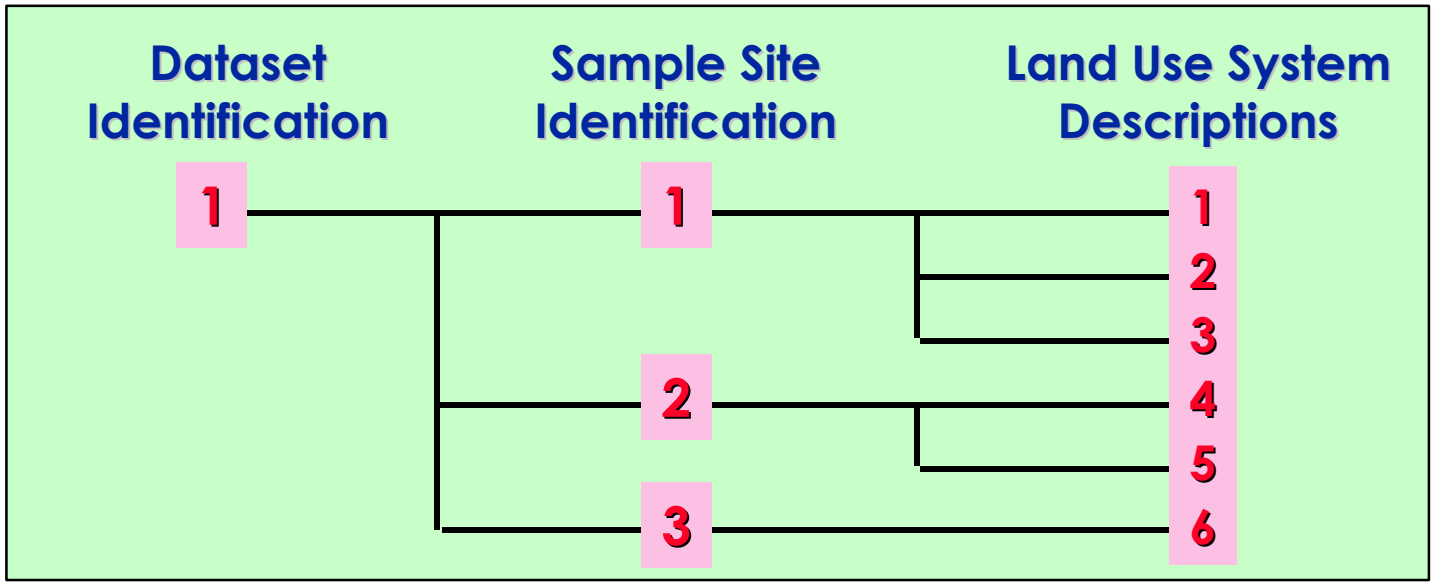
Next the Output Format must be selected.



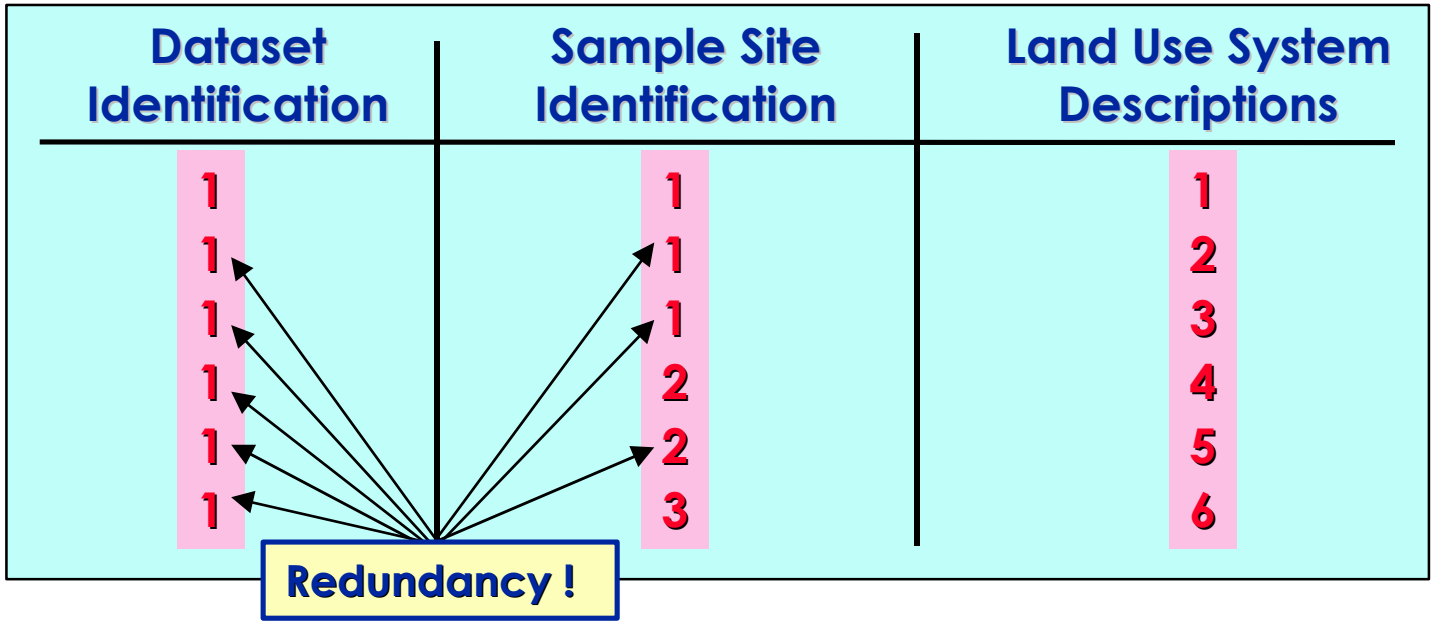
The Flat File output formats are explained next . . .

Converting Relational Files to a single Flat File output format :

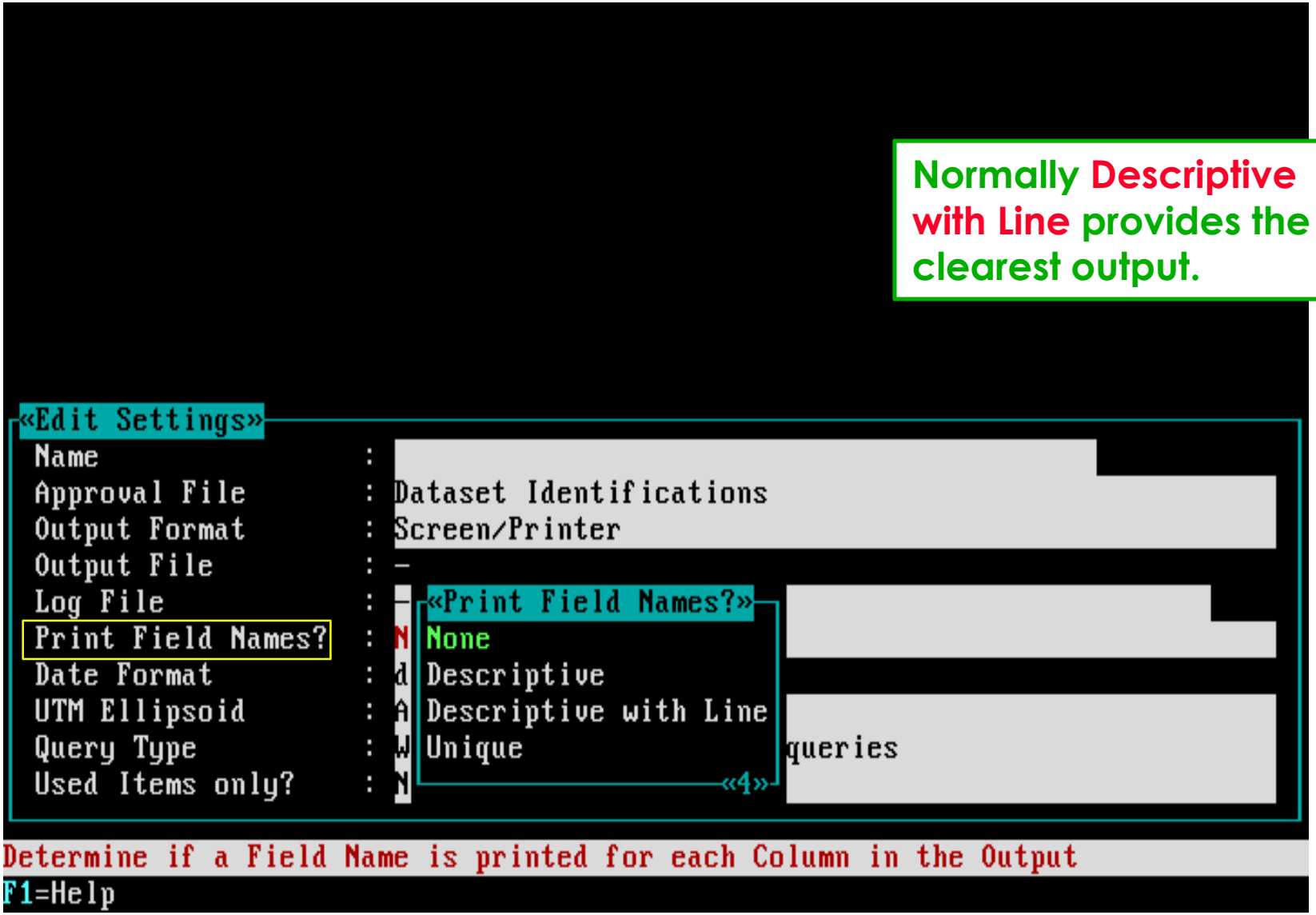
Records in Files of a Relational Database



Flat File with rows and columns



Next the Column Headings of the flat file must be specified.

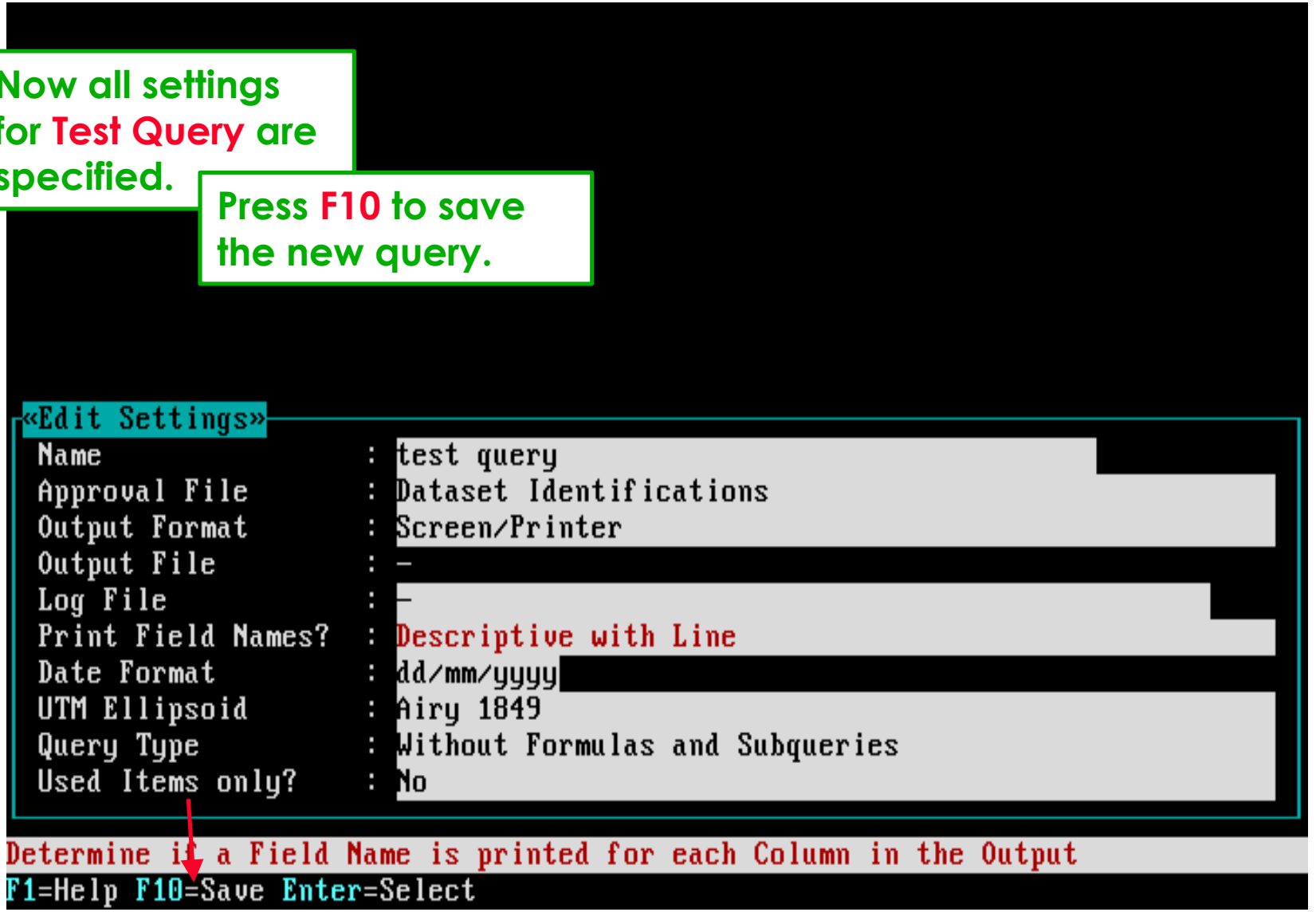


Normally Descriptive with Line provides the clearest output.

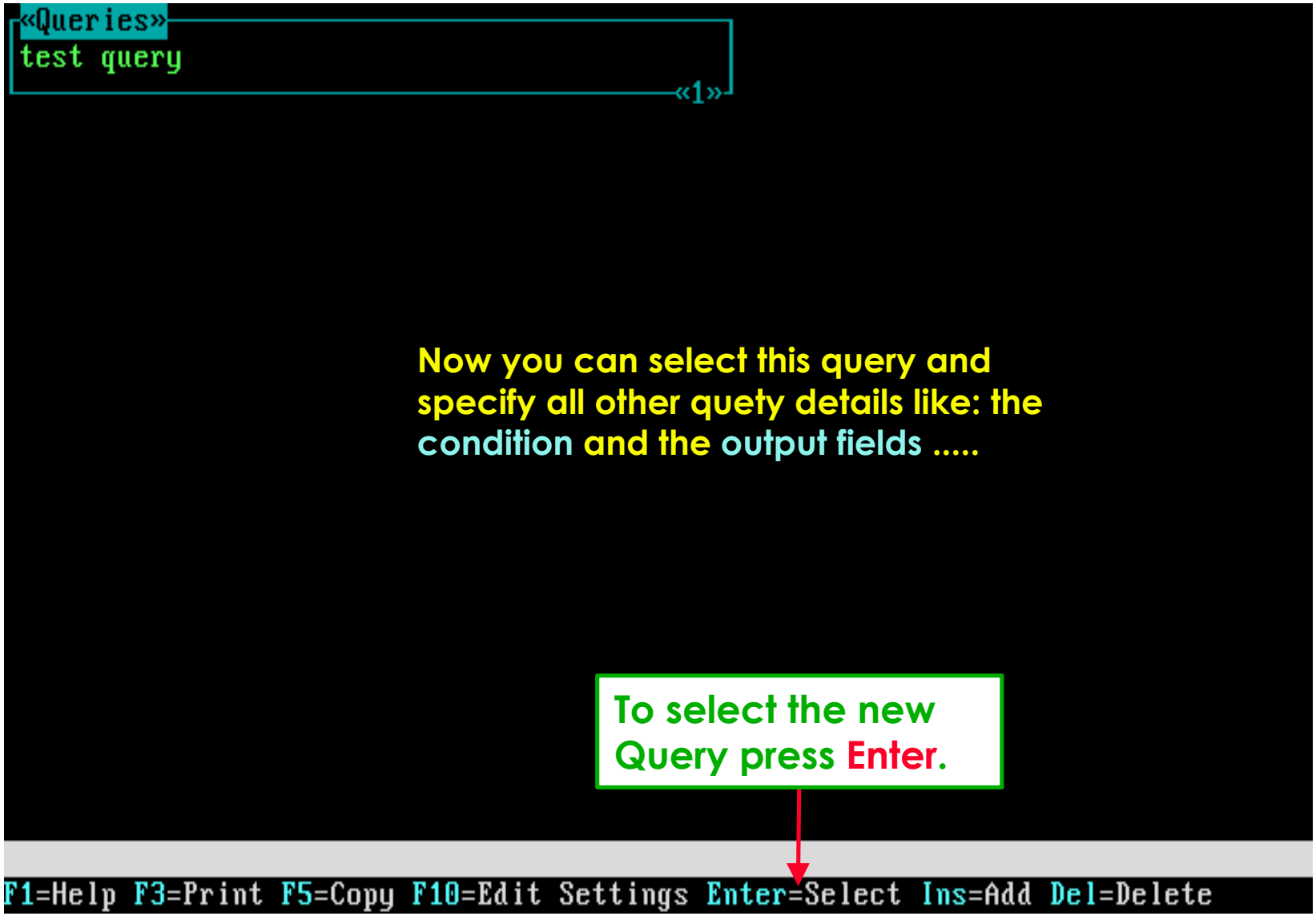
See the manual for the other settings (Section 7.3).

Now all settings for Test Query are specified.

Press F10 to save the new query.



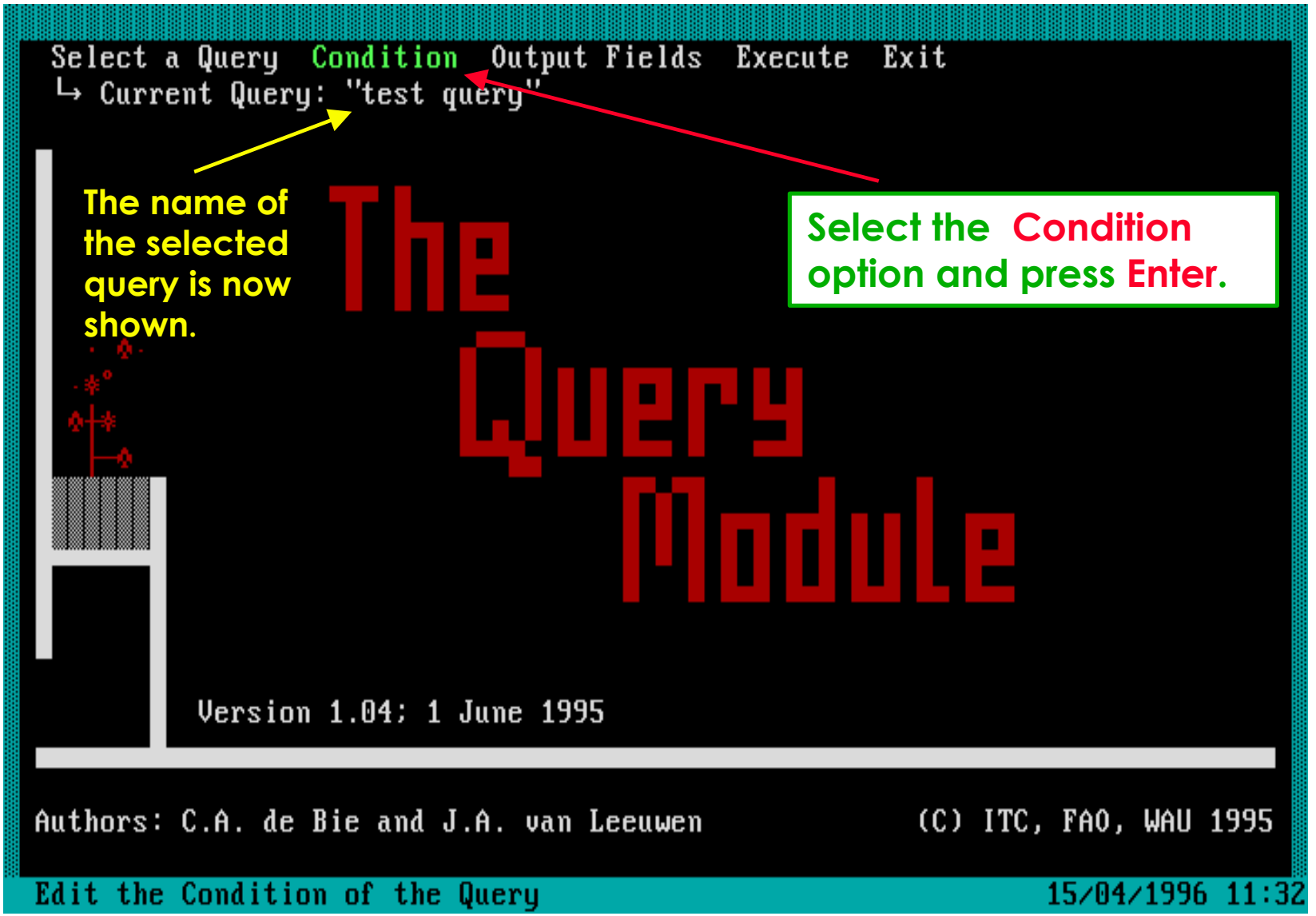
The Queries picklist includes now the new query : test query.



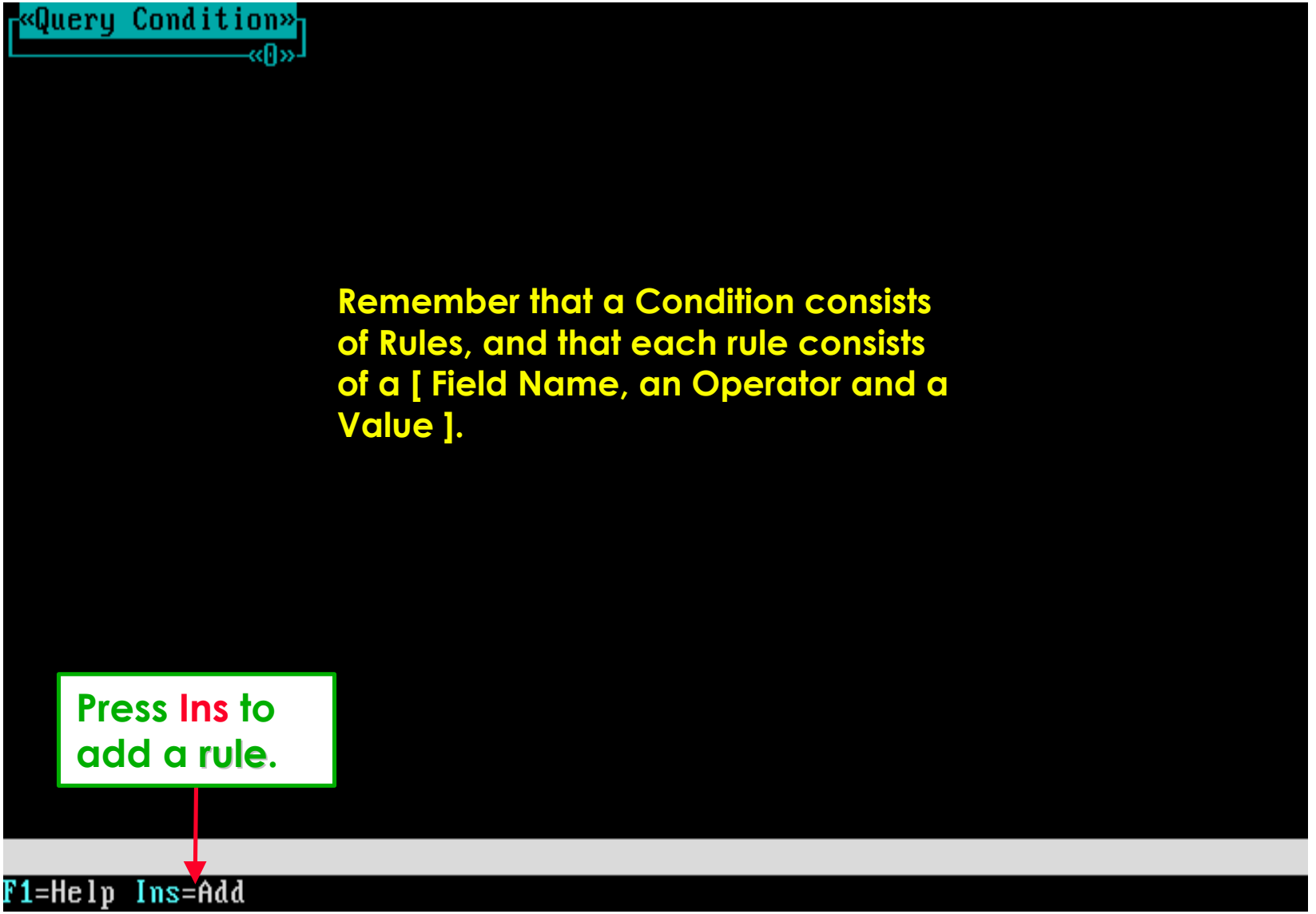
Software aspect no.-3:

1. Select a query and define query settings.
2. The functionality of the Approval File concept.
3. **How to define a query Condition.**
4. How to define query Output Fields.
5. Run the query to get the required data.

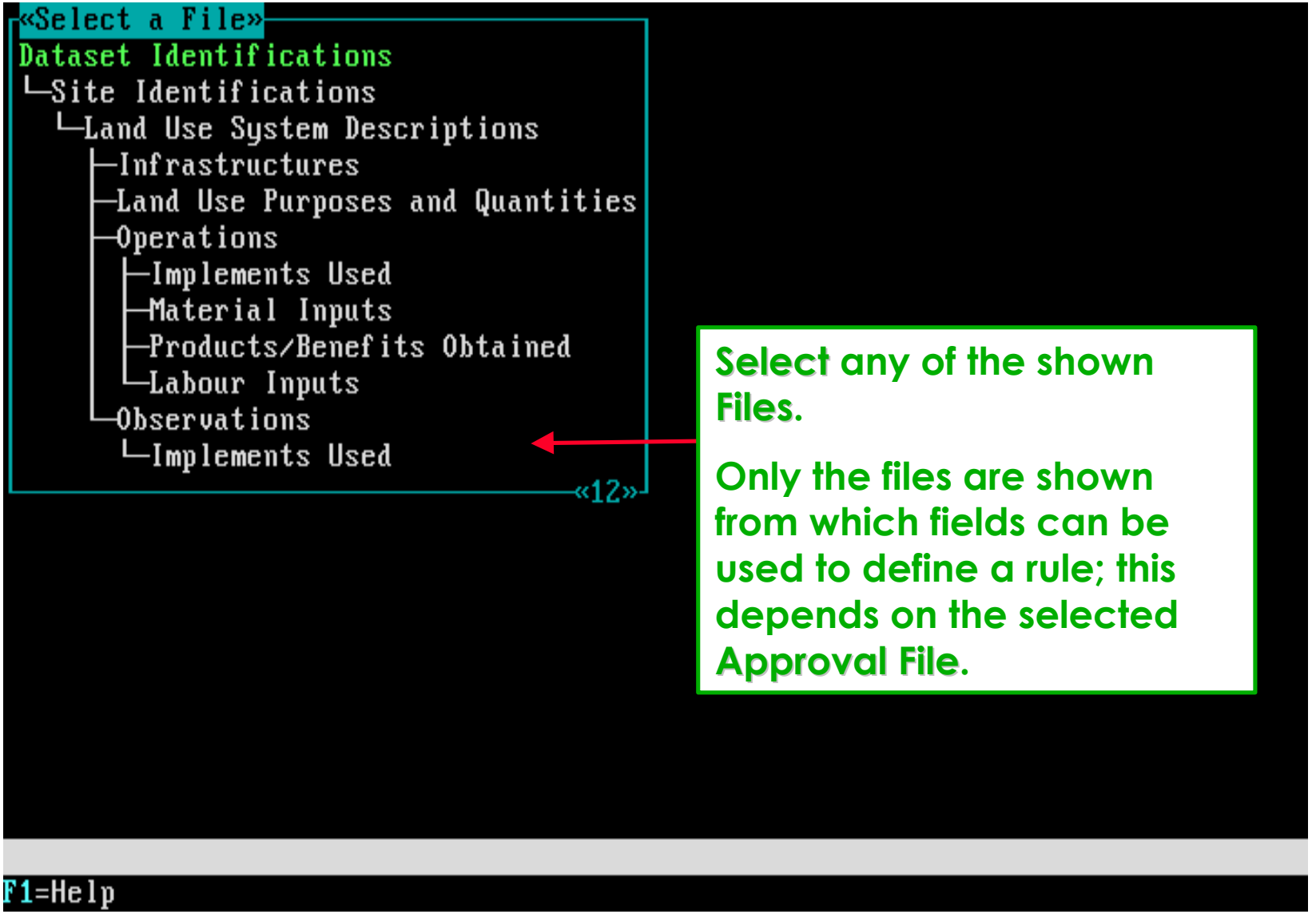
After selecting test query, the second Main Menu is shown which now includes the Condition and Output Fields options.



The Query Condition picklist shows that so far no rules are defined.



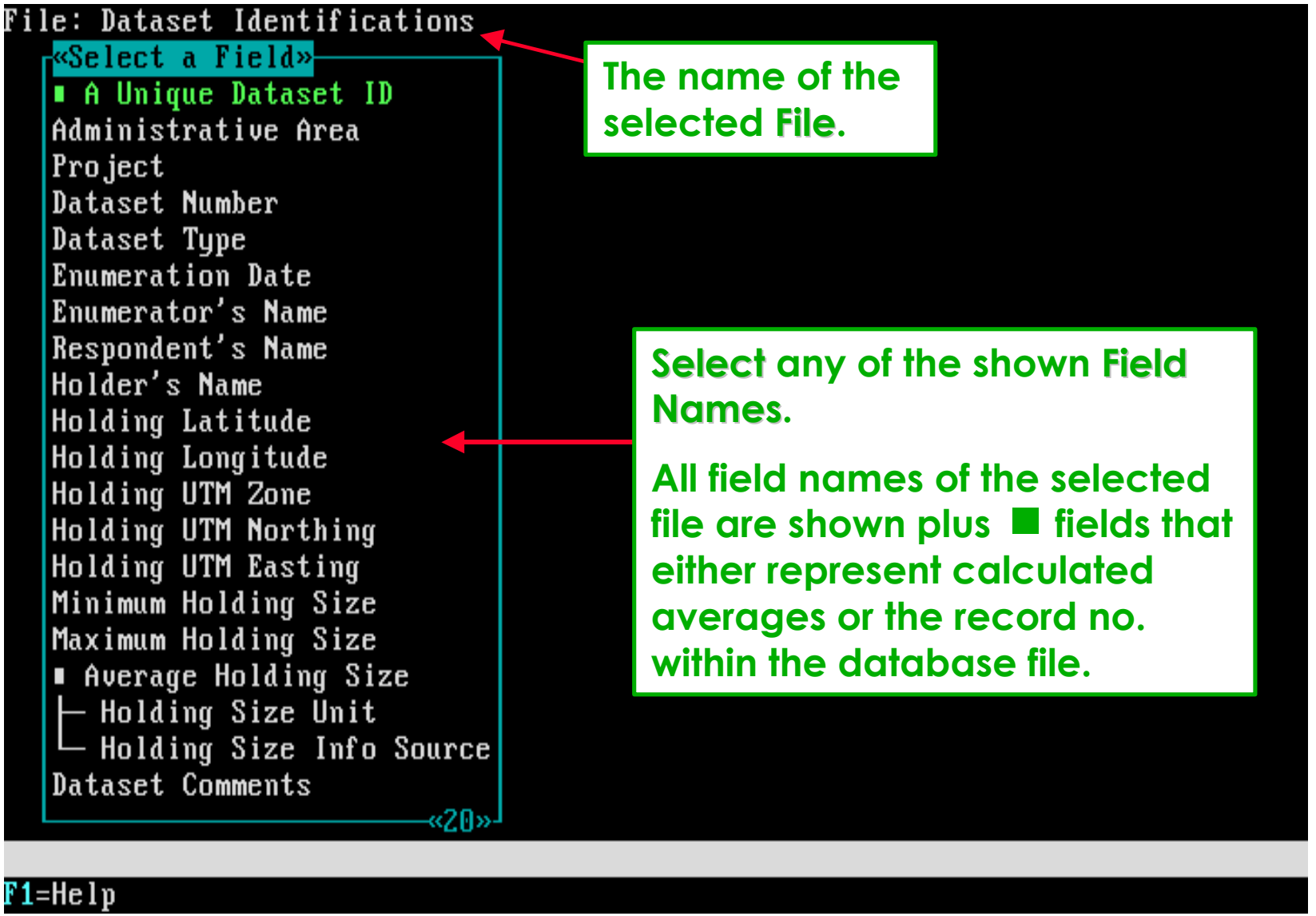
To start preparing a rule, first select a File from the relational structure.



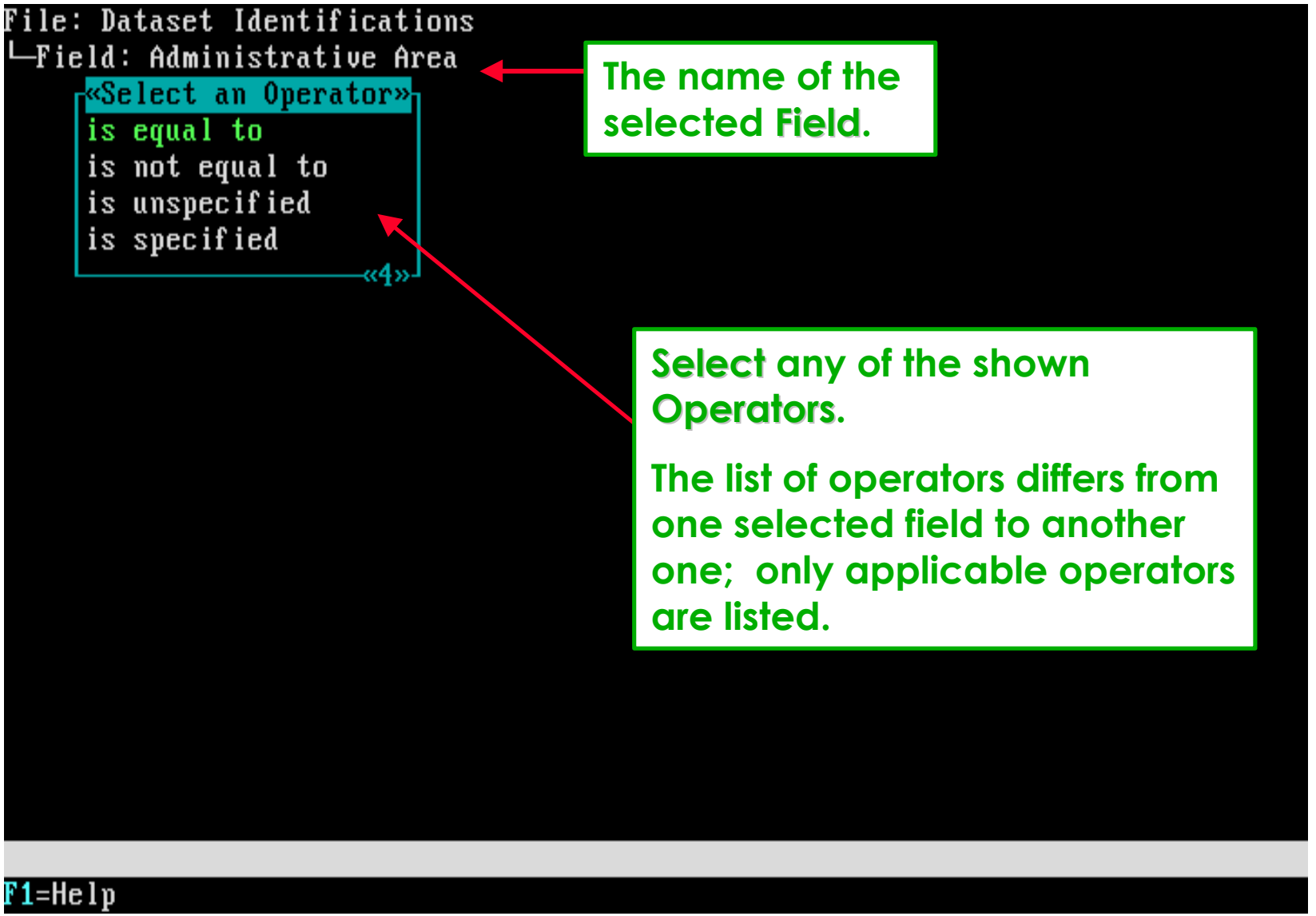
Select any of the shown Files.

Only the files are shown from which fields can be used to define a rule; this depends on the selected Approval File.

Next in sequence a Field Name must be selected . . .



Next in sequence the Operator must be selected . . .

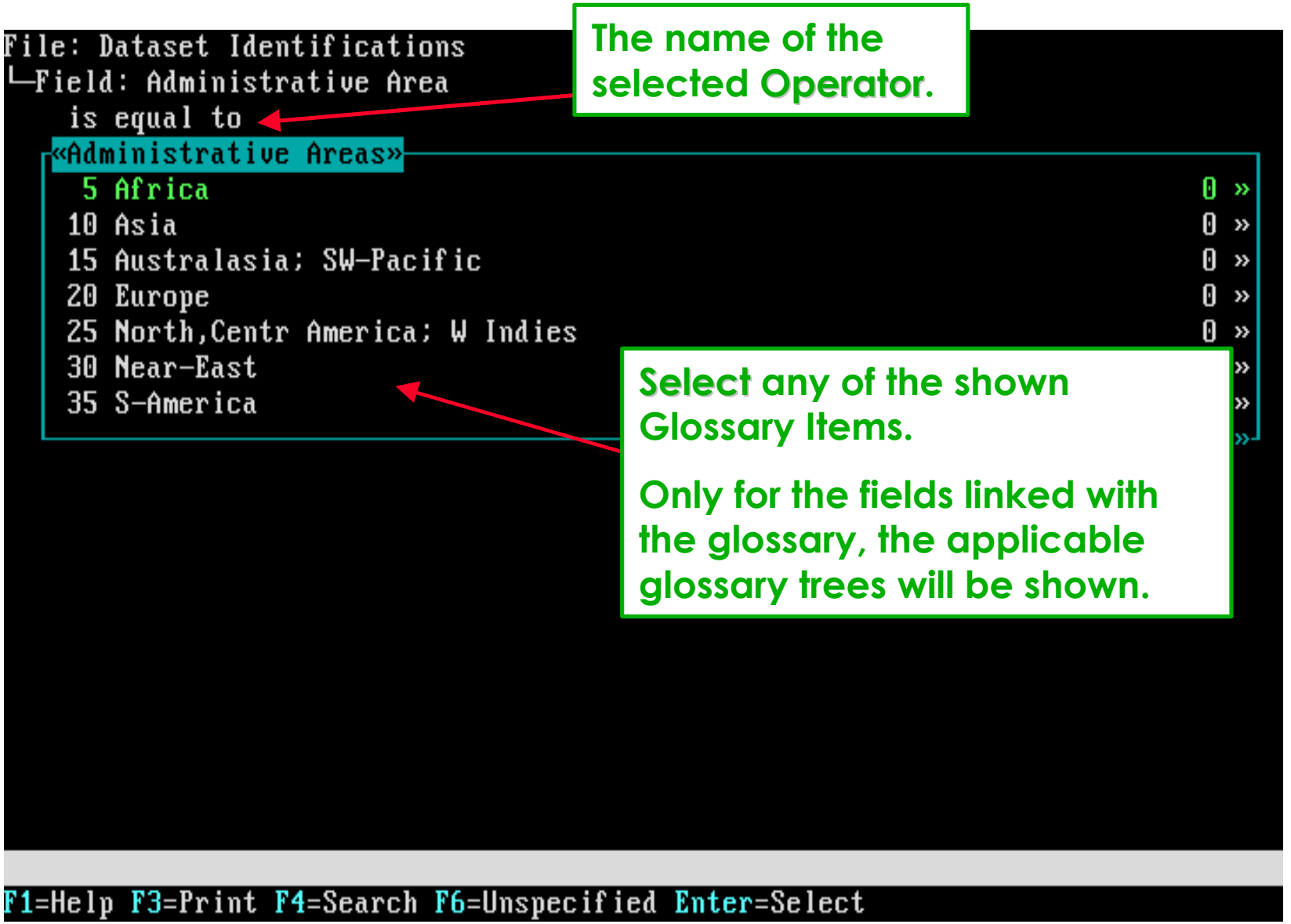


The name of the selected Field.

Select any of the shown Operators.

The list of operators differs from one selected field to another one; only applicable operators are listed.

Finally the Value of the rule must be selected . . .

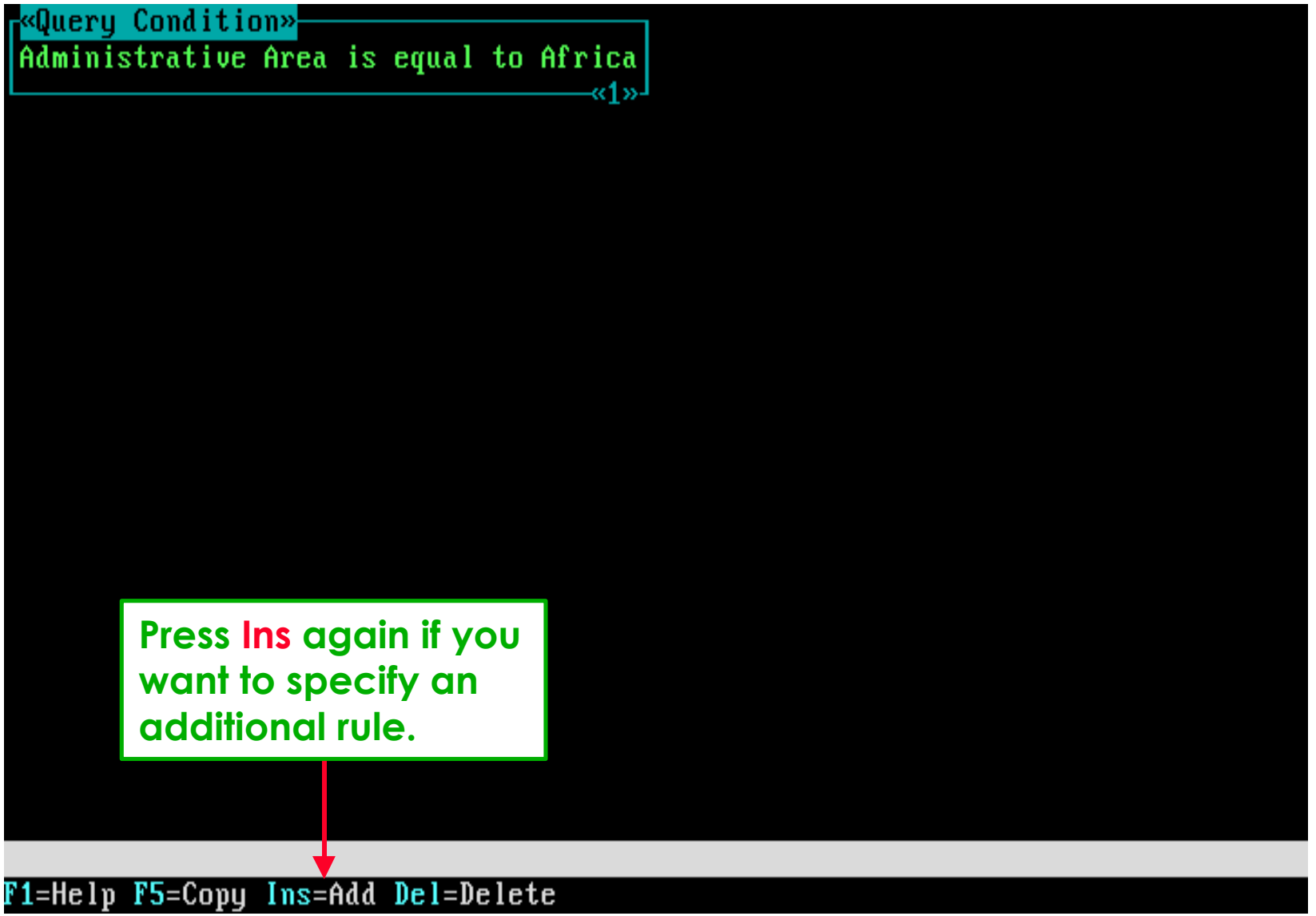


The name of the selected Operator.

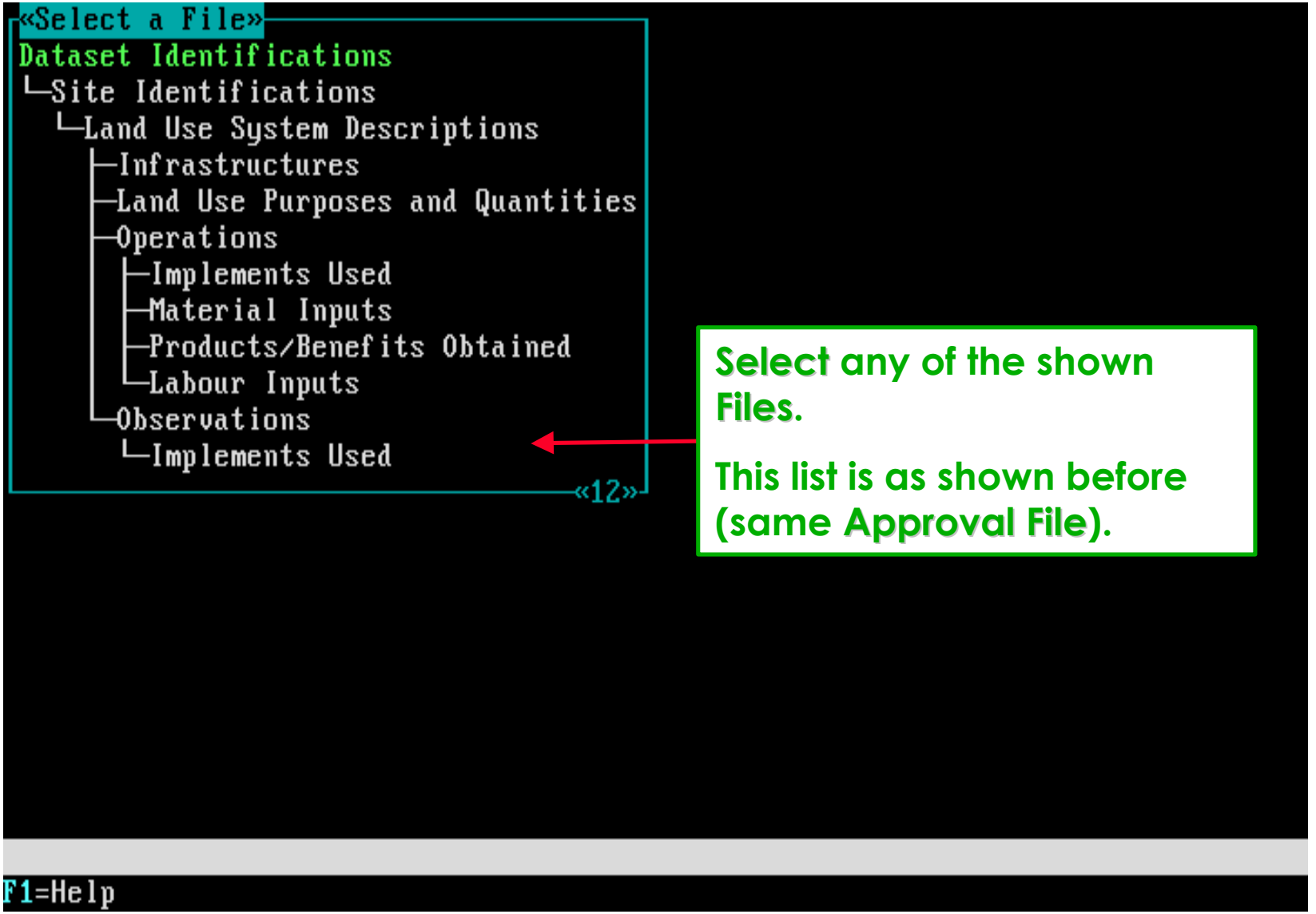
Select any of the shown Glossary Items.

Only for the fields linked with the glossary, the applicable glossary trees will be shown.

After selecting the Value, the Rule is added to the Query Condition.



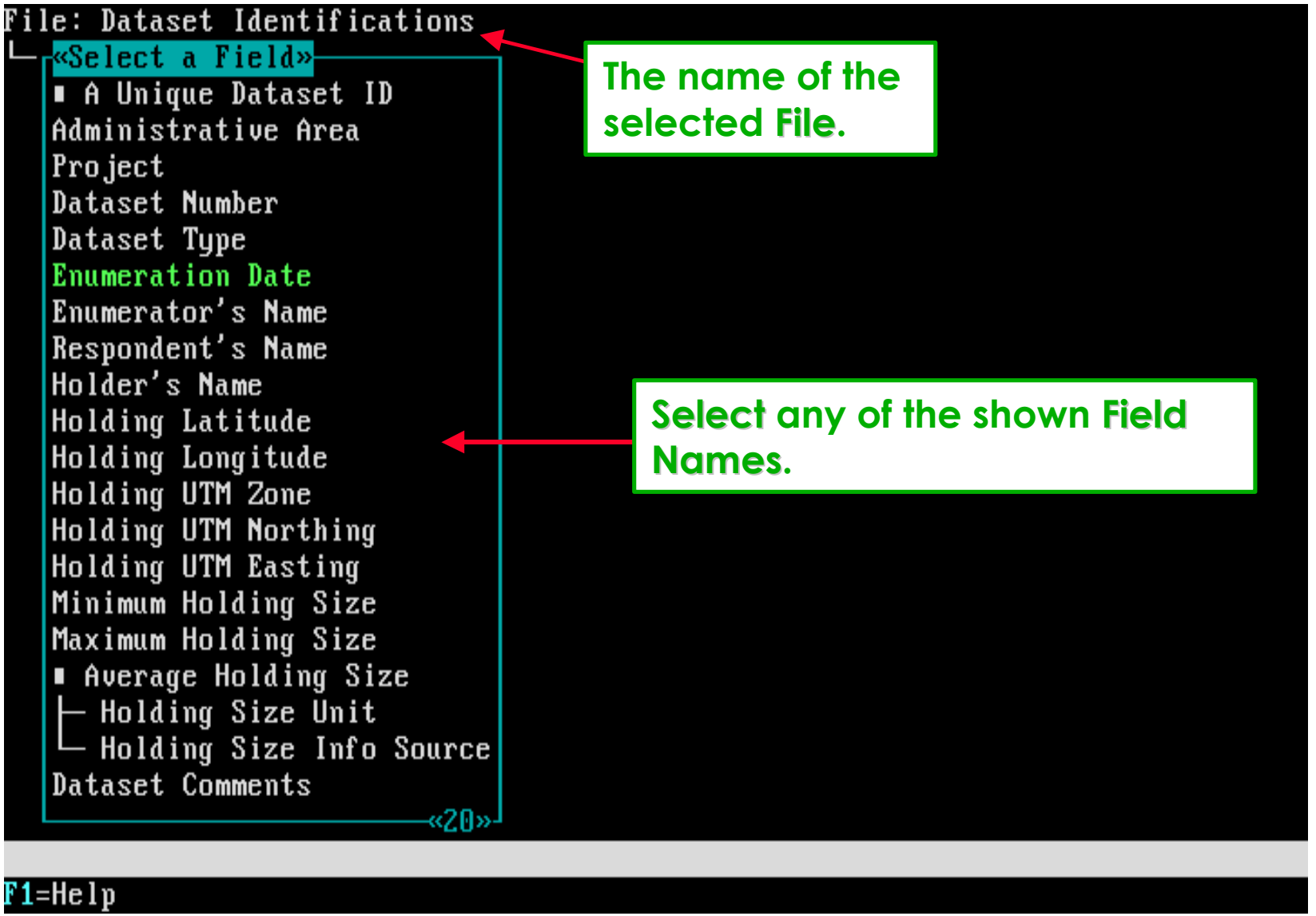
After pressing **Ins**, select again a **File** from the relational structure.



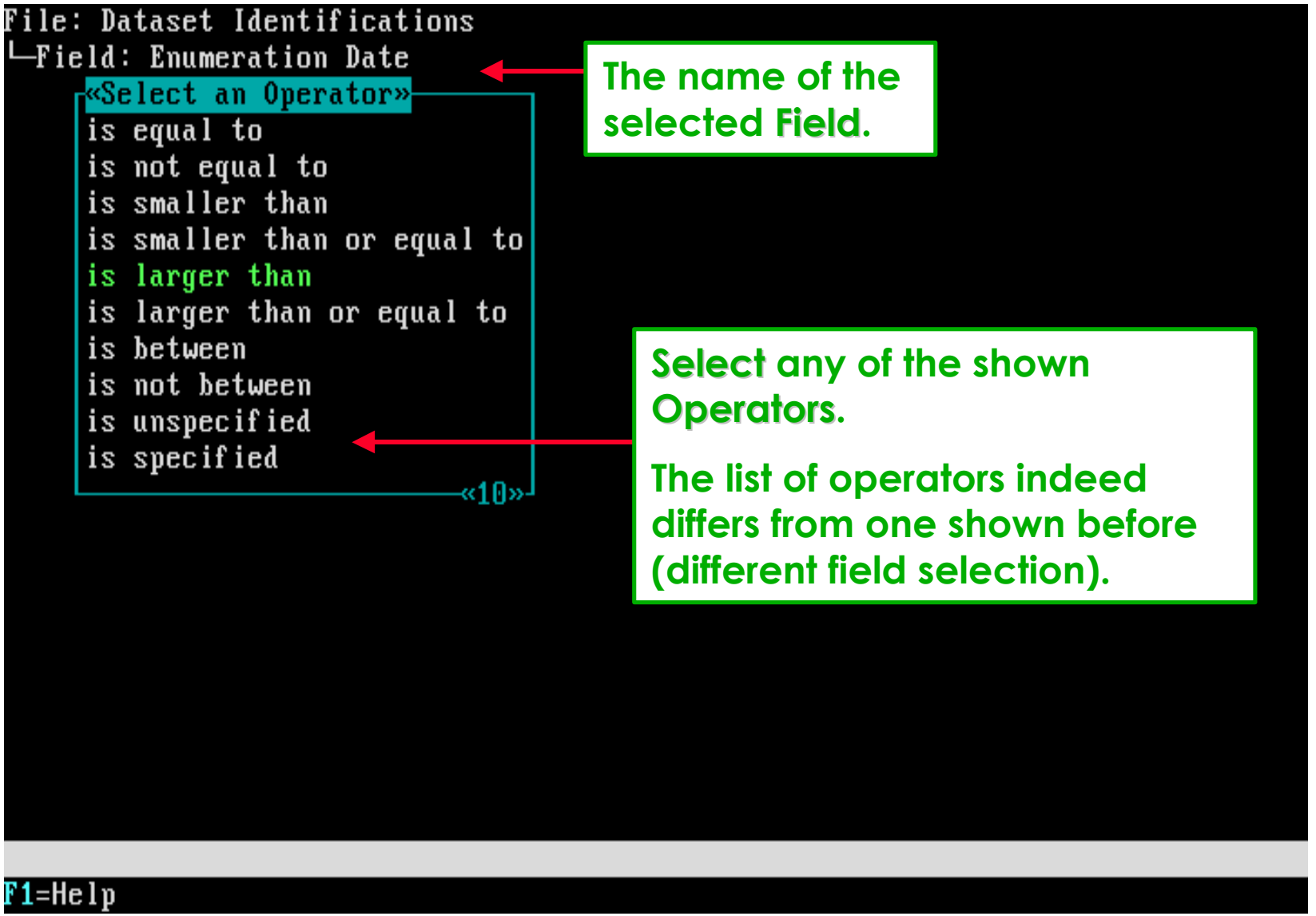
Select any of the shown **Files**.

This list is as shown before (same **Approval File**).

Again, next in sequence a **Field Name** must be selected . . .



Again, next in sequence the Operator must be selected . . .

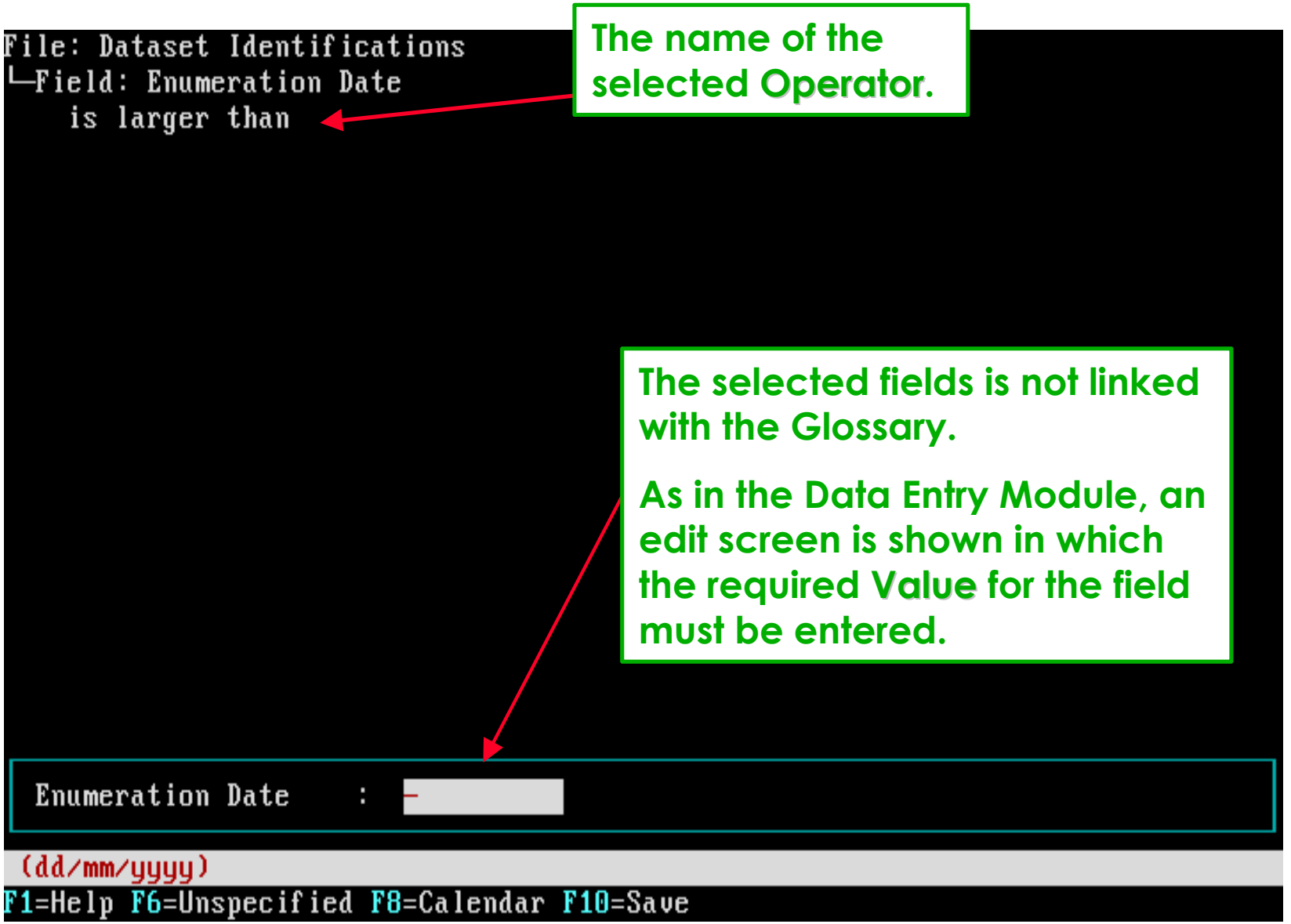


The name of the selected Field.

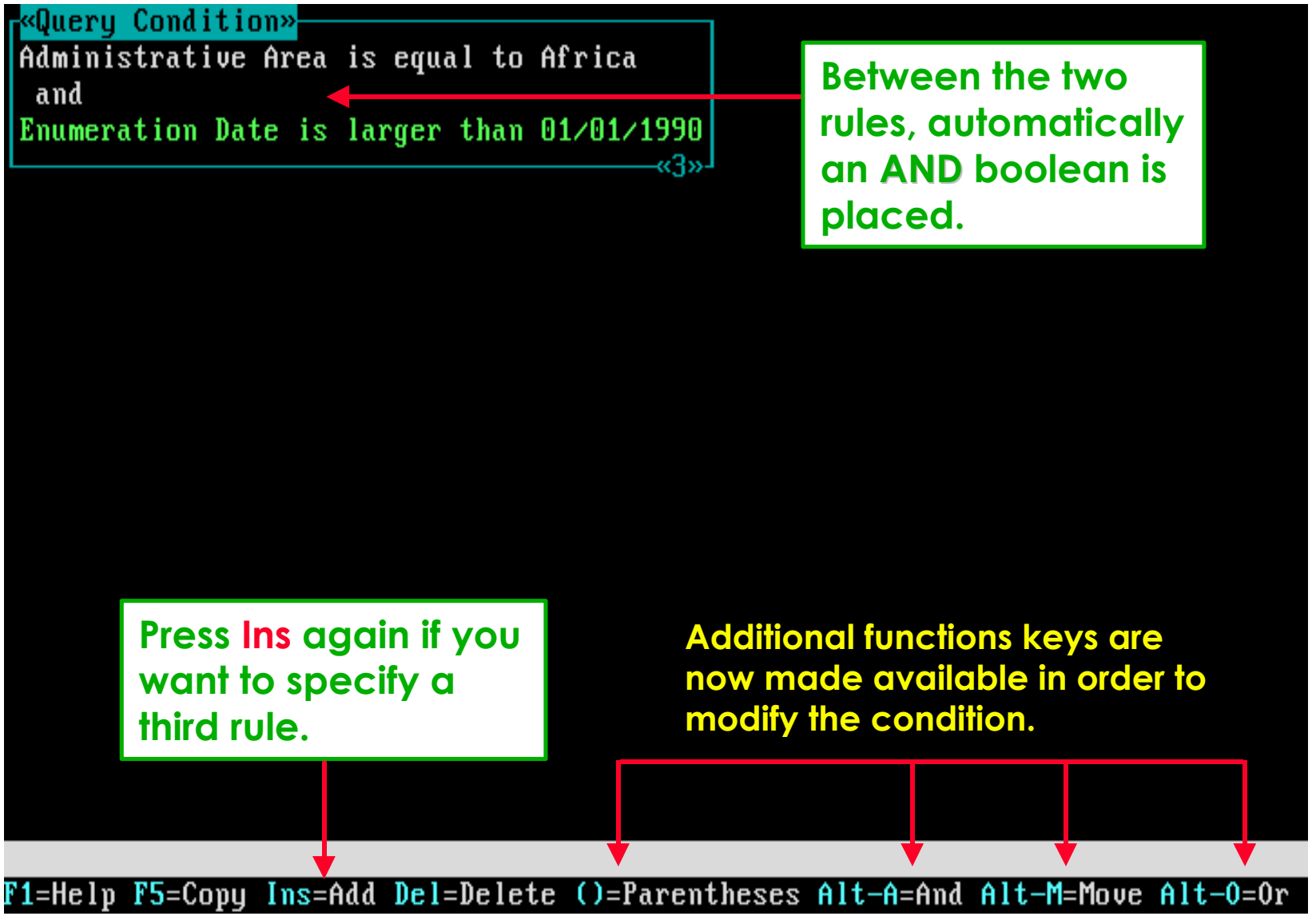
Select any of the shown Operators.

The list of operators indeed differs from one shown before (different field selection).

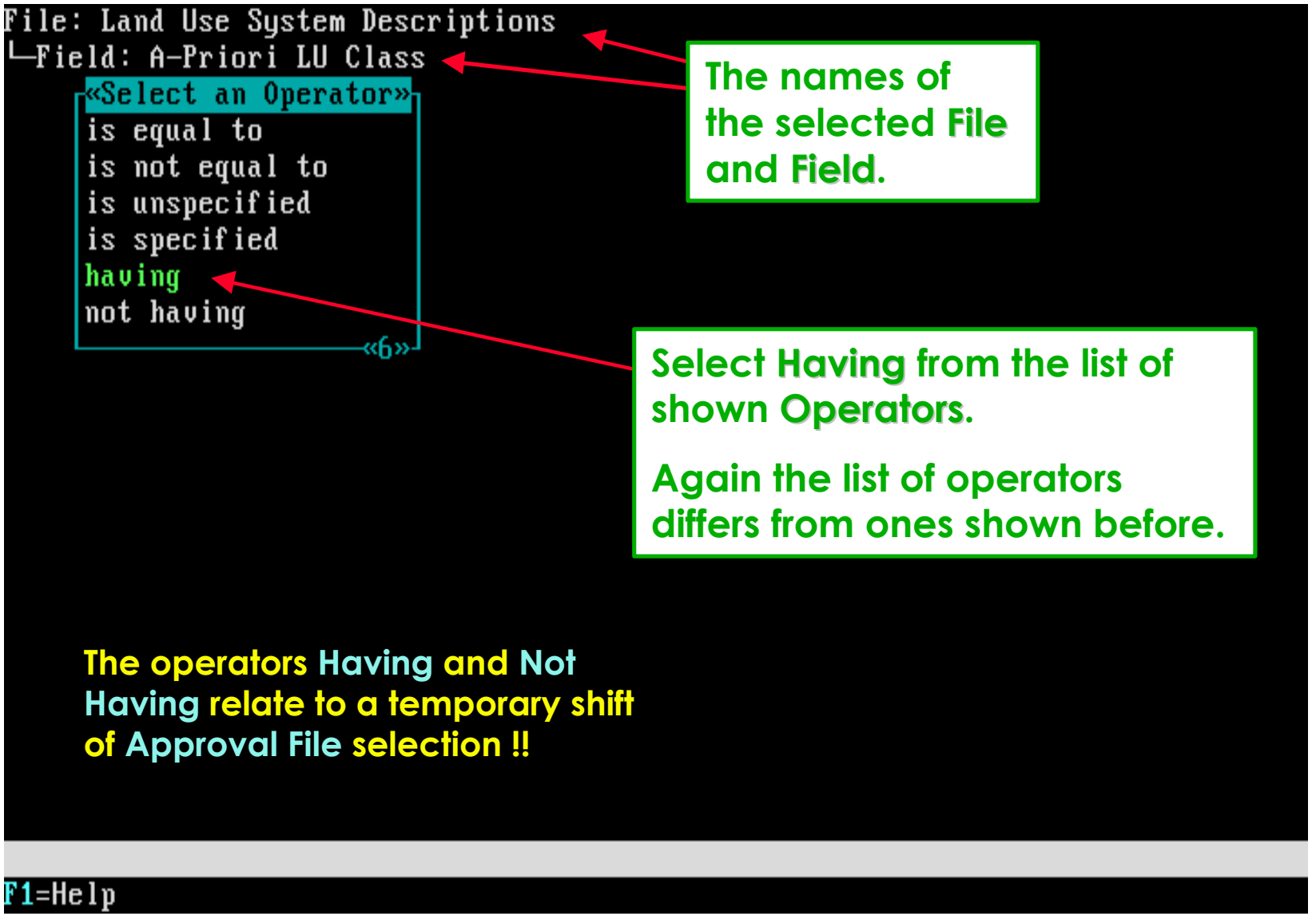
And again, finally the Value of the rule must be selected . . .



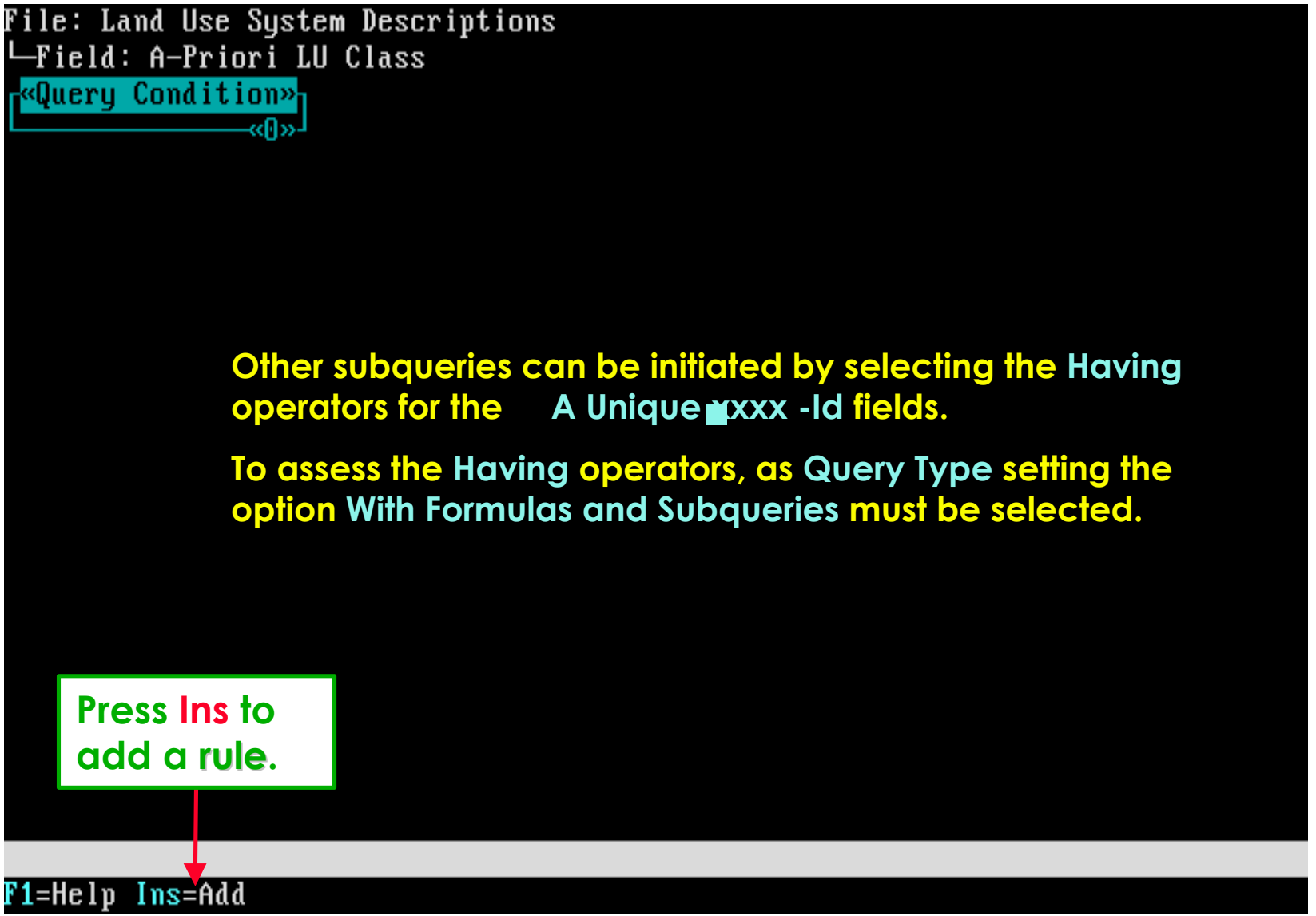
After selecting the Value, the Rule is added to the Query Condition.



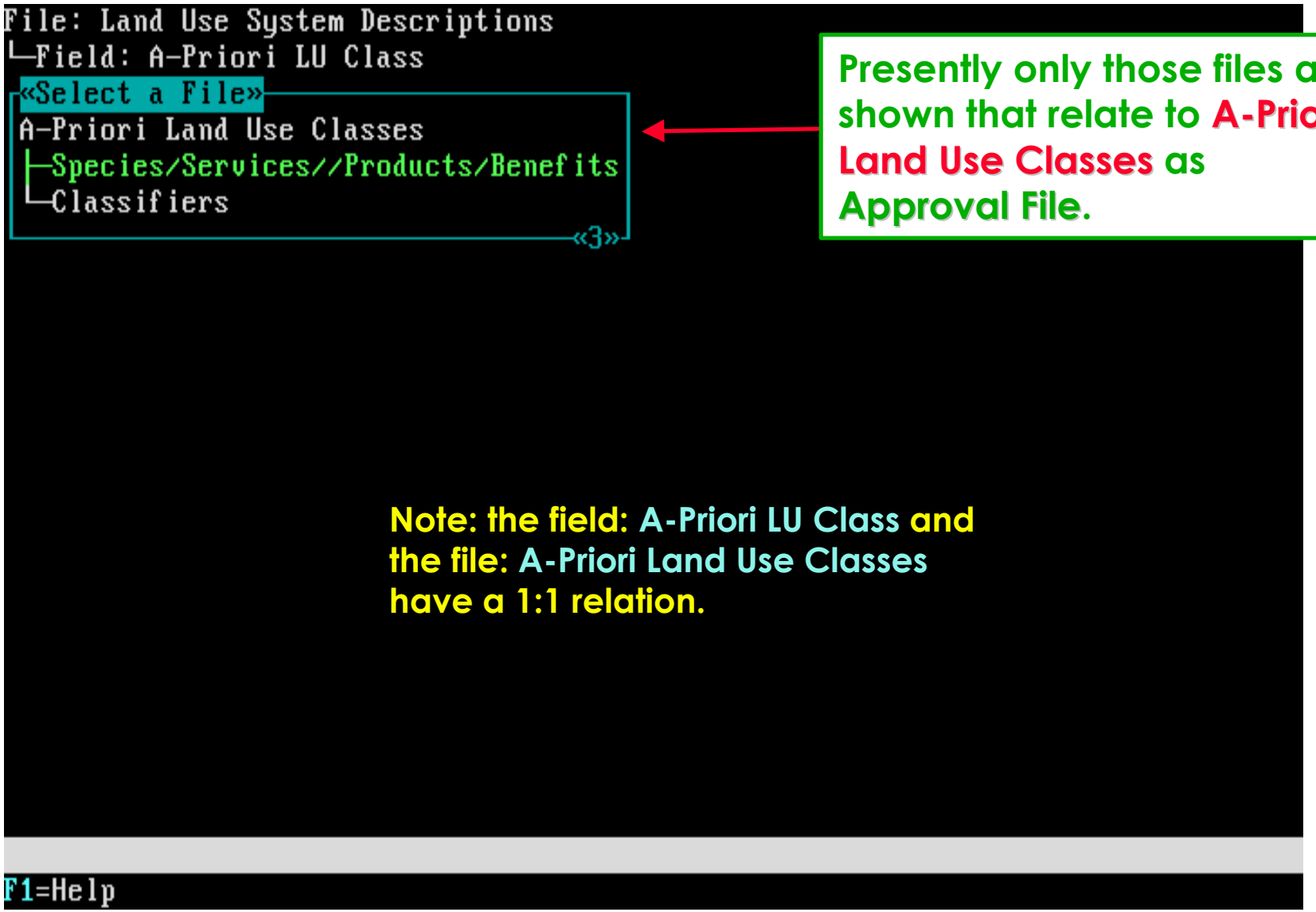
Again Ins is pressed. Now as example a subquery will be shown . . .



Since now a subquery is initiated, an empty Query Condition picklist is shown, the subquery behaves fully like a normal query . . .



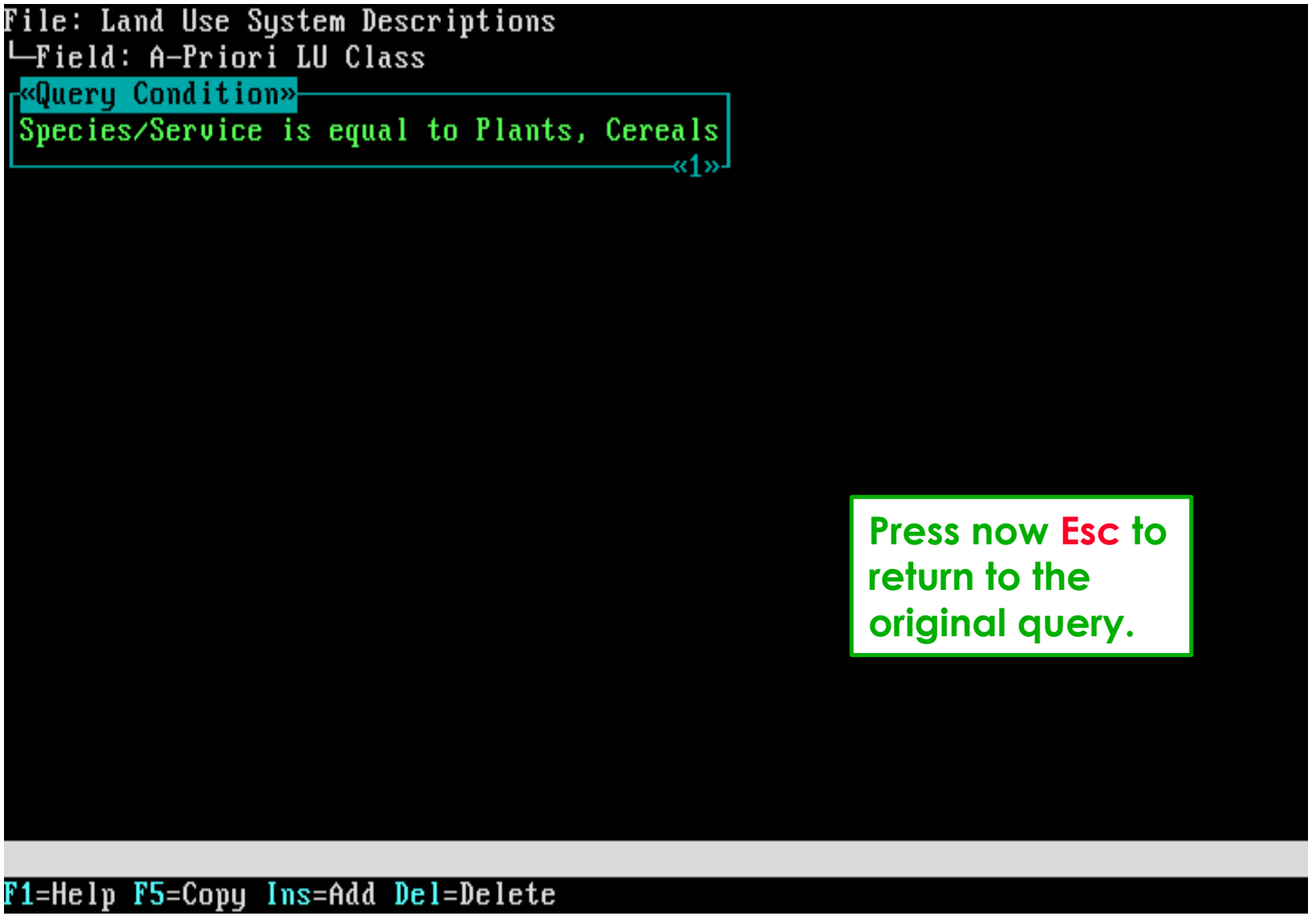
Once more, to start preparing a rule, first select a **File** from the relational structure.



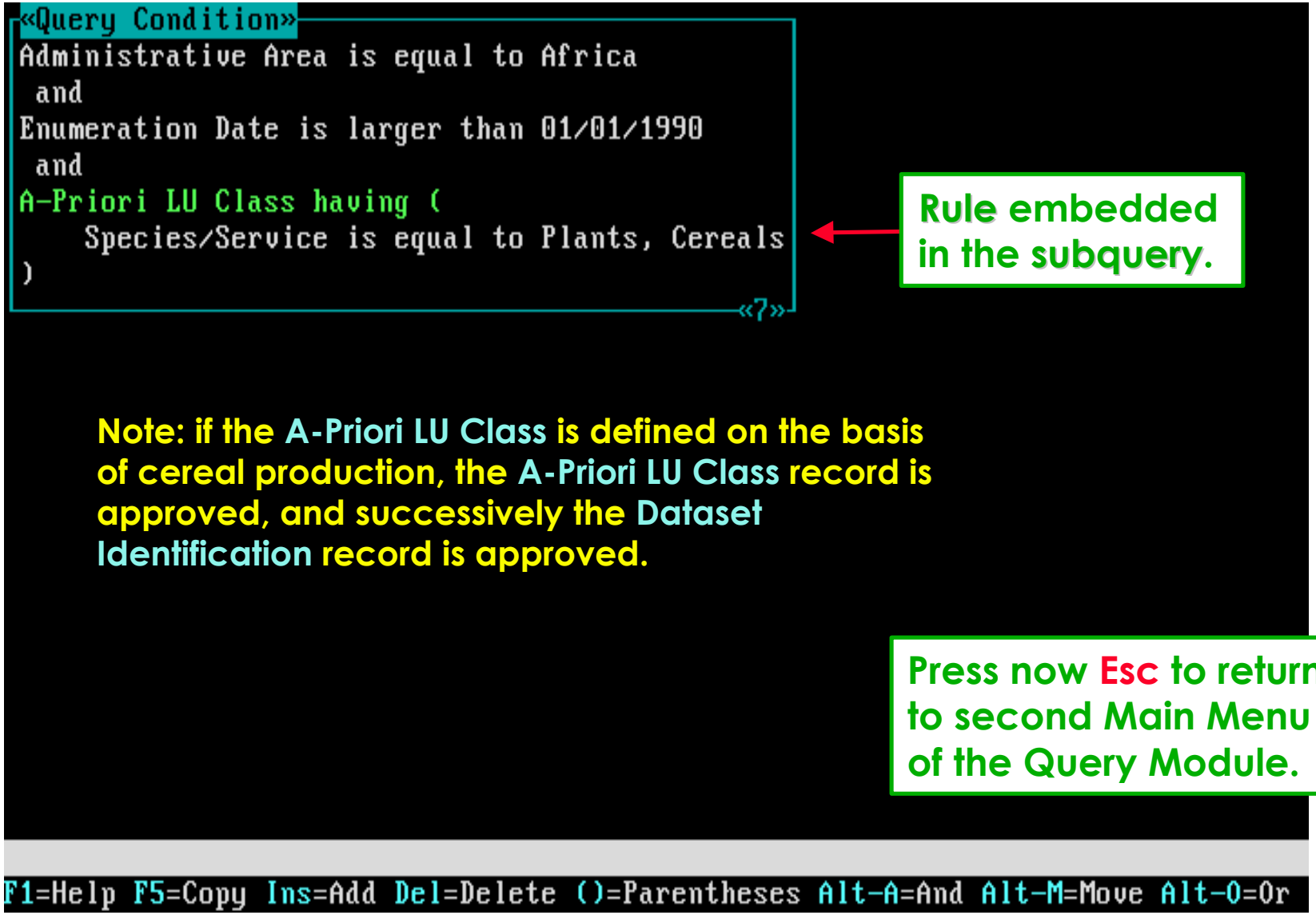
Presently only those files are shown that relate to **A-Priori Land Use Classes** as **Approval File.**

Note: the field: A-Priori LU Class and the file: A-Priori Land Use Classes have a 1:1 relation.

Once the rule is specified (as shown before), it will be included in the Query Condition picklist of the subquery.



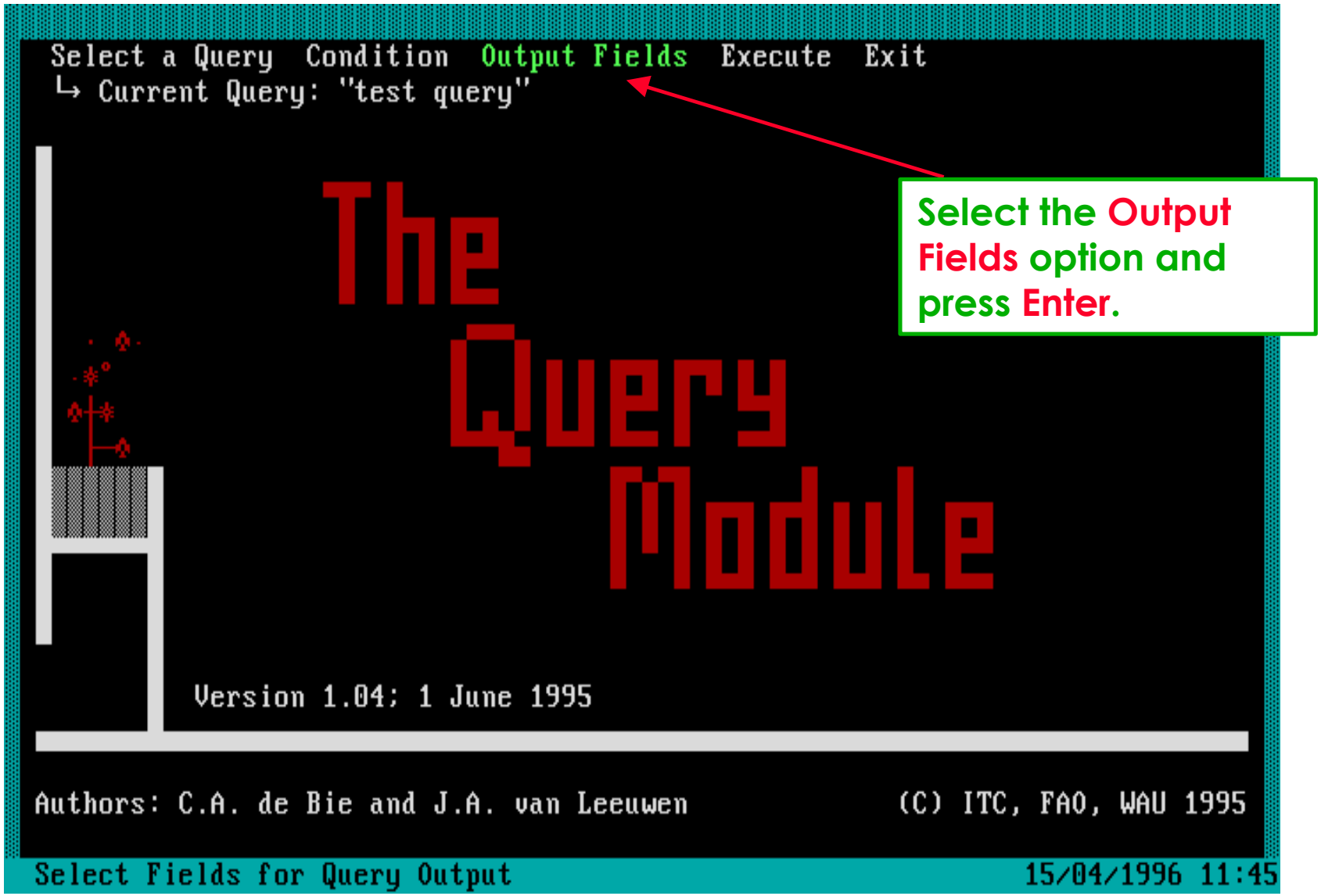
The Query Condition picklist of the original query will now include the subquery.



Software aspect no.-4:

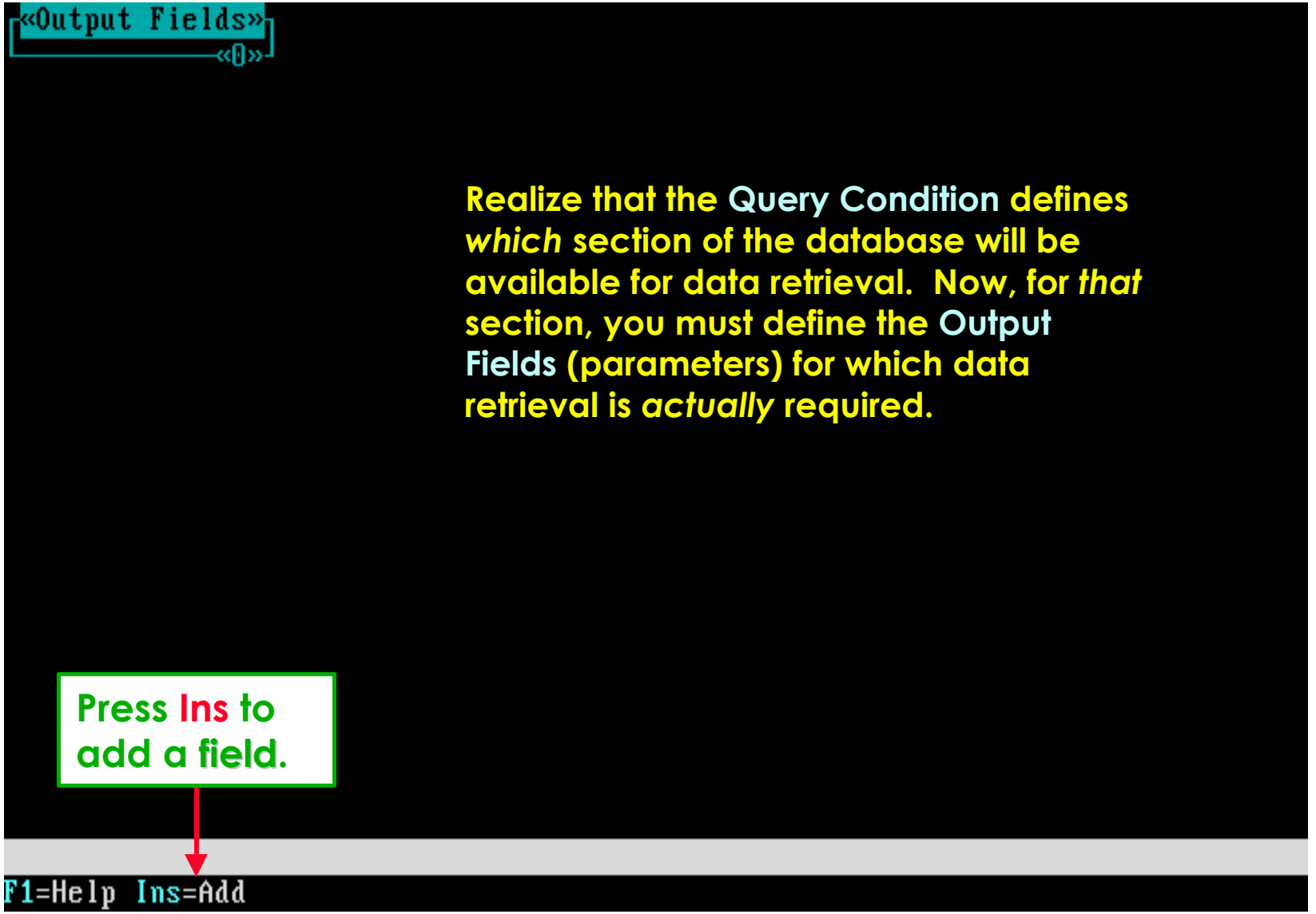
1. Select a query and define query settings.
2. The functionality of the Approval File concept.
3. How to define a query Condition.
4. **How to define query Output Fields.**
5. Run the query to get the required data.

After defining the Query Condition you must specify one or more Output Fields.

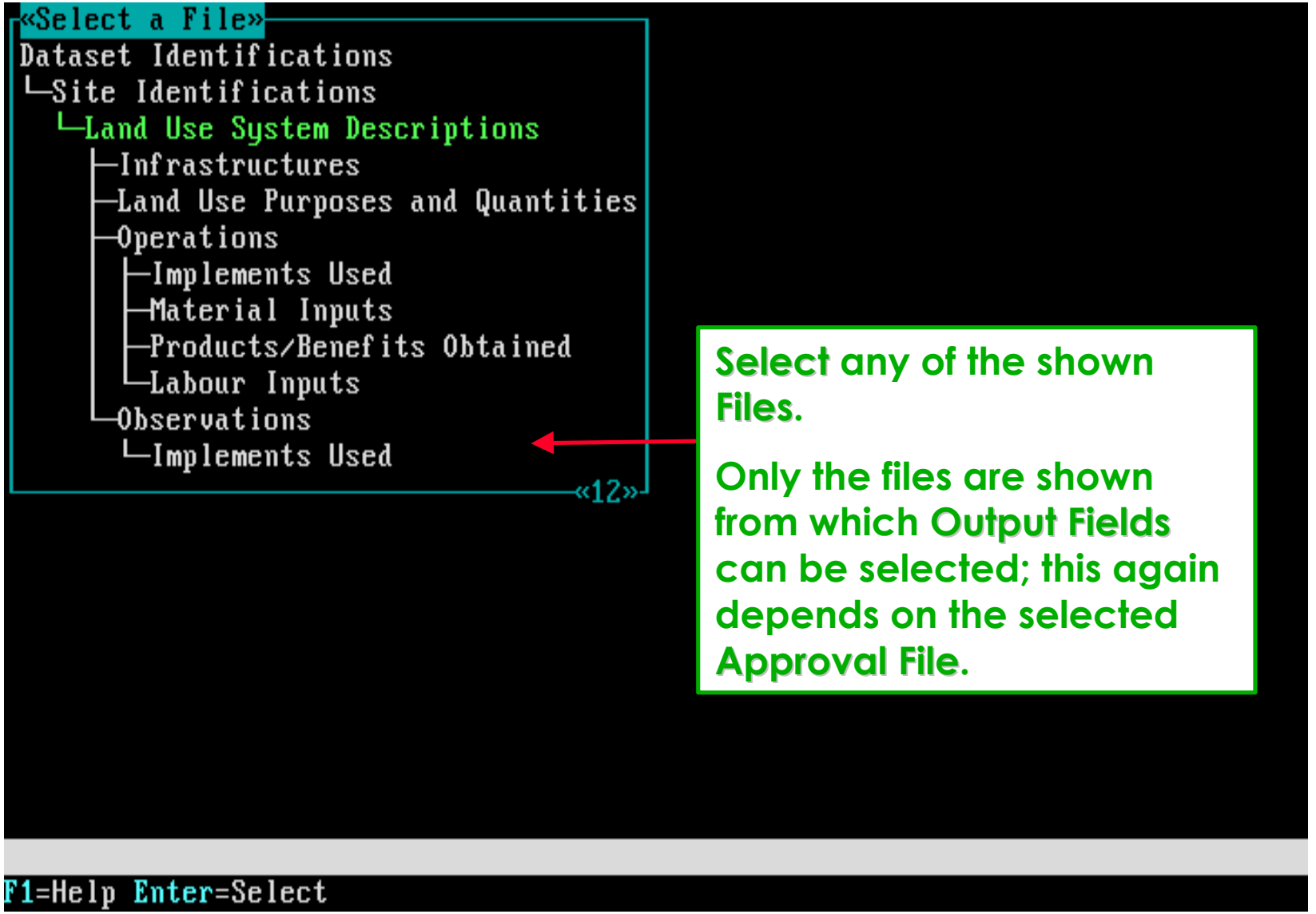


Select the Output Fields option and press Enter.

The Output Fields picklist shows that so far no fields are selected.



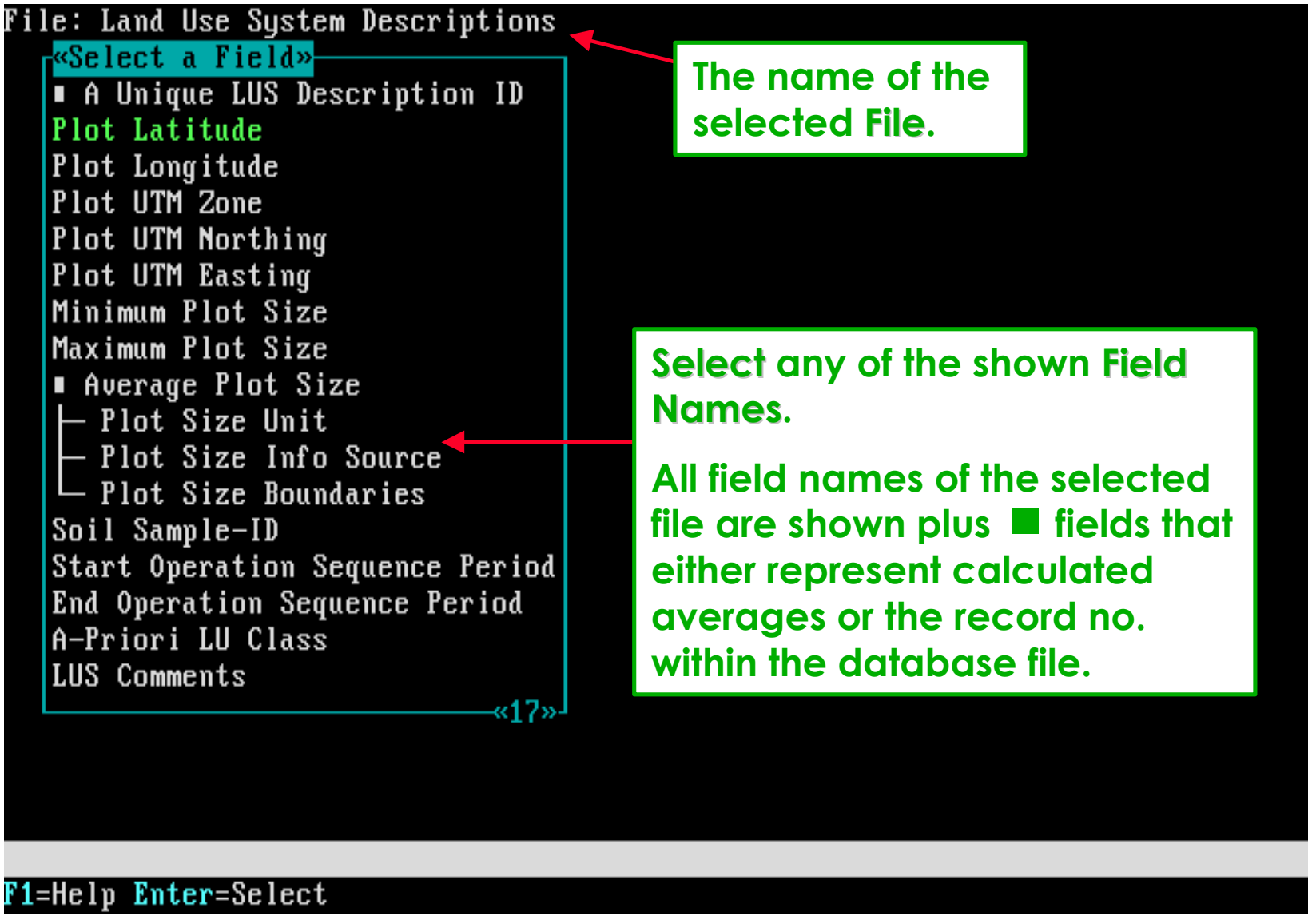
Before selecting an **Output Field**, first select a **File** from the relational structure.



Select any of the shown **Files**.

Only the files are shown from which **Output Fields** can be selected; this again depends on the selected **Approval File**.

Next in sequence, an Output Field must be selected . . .

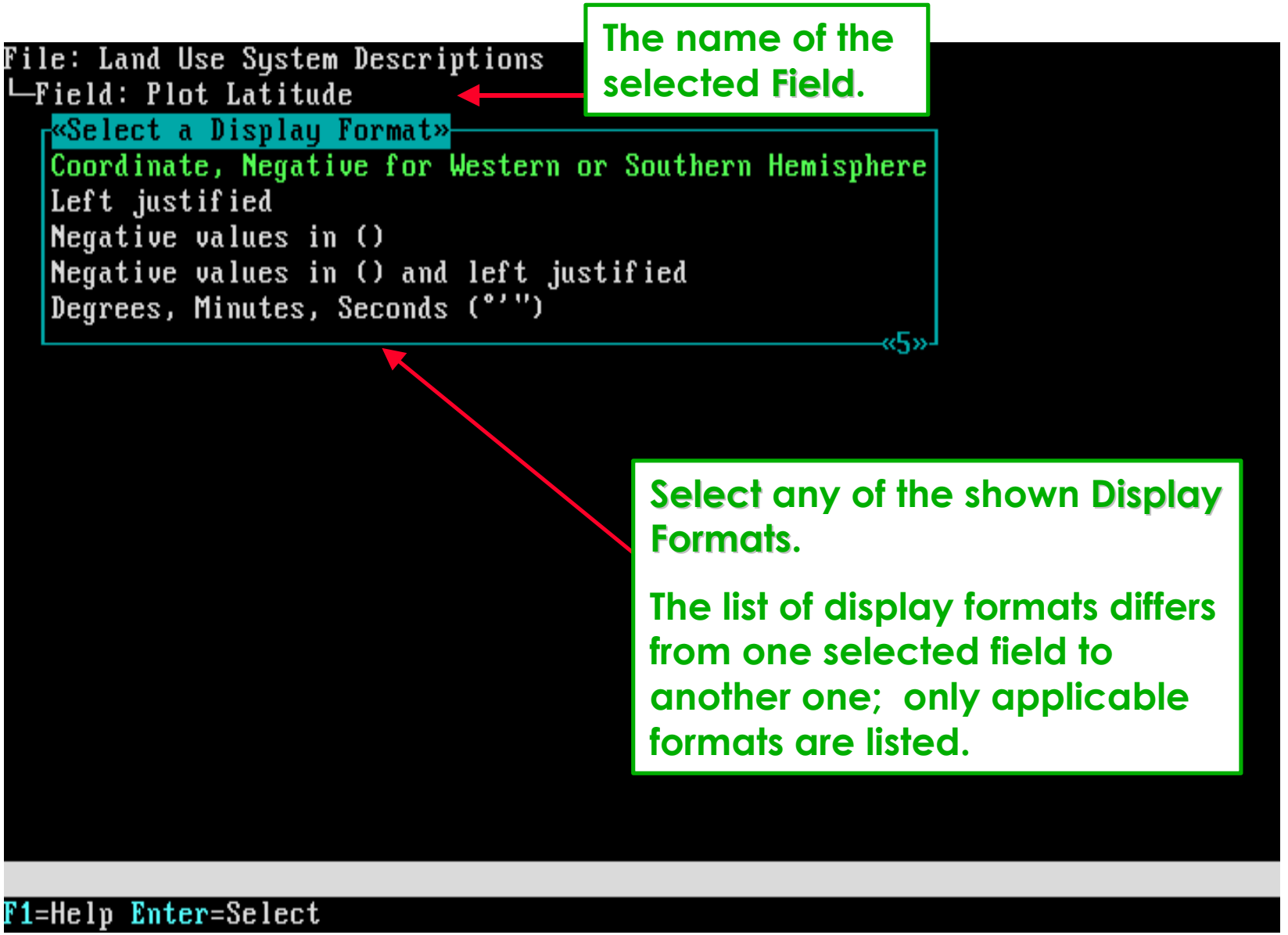


The name of the selected File.

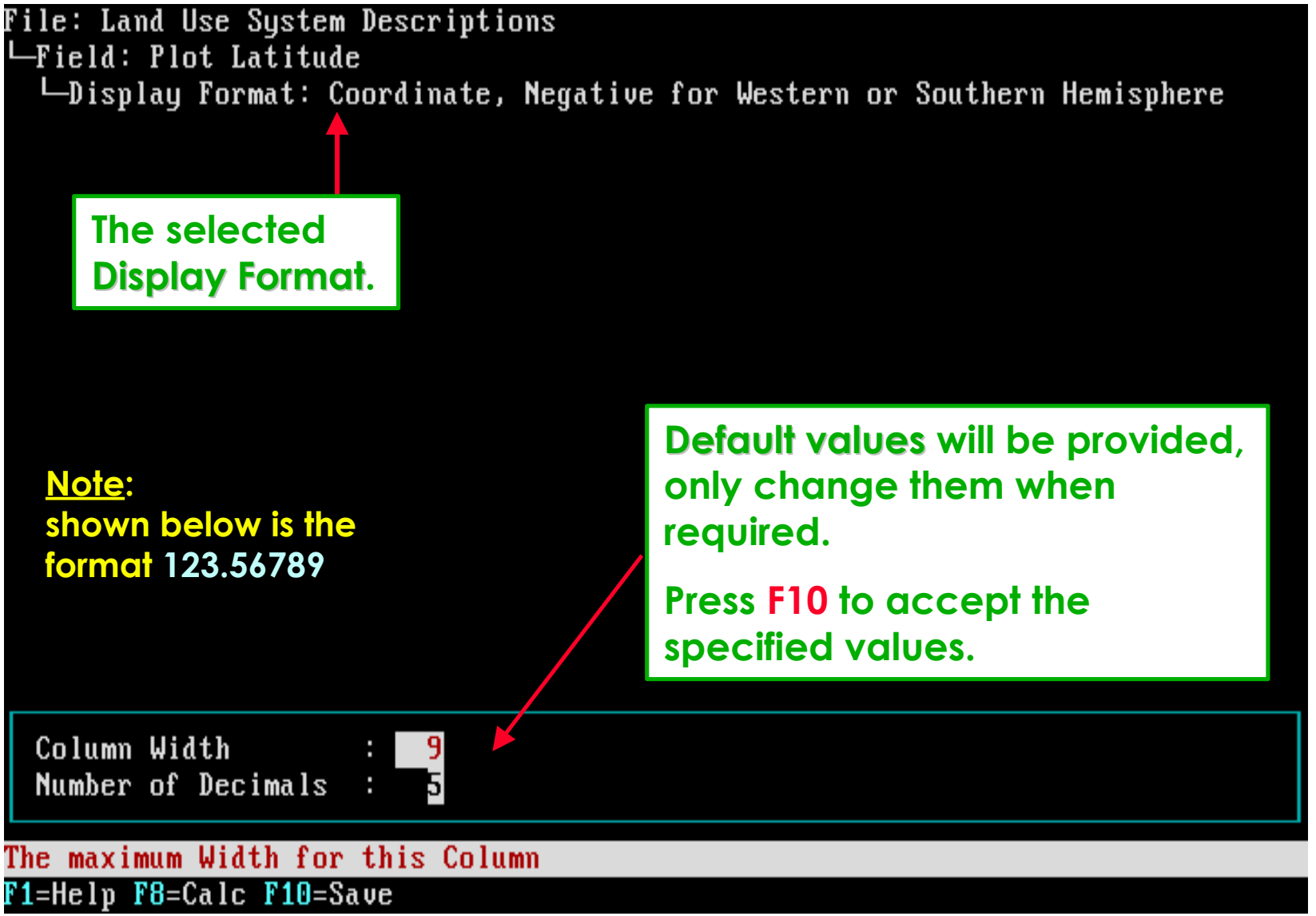
Select any of the shown Field Names.

All field names of the selected file are shown plus ■ fields that either represent calculated averages or the record no. within the database file.

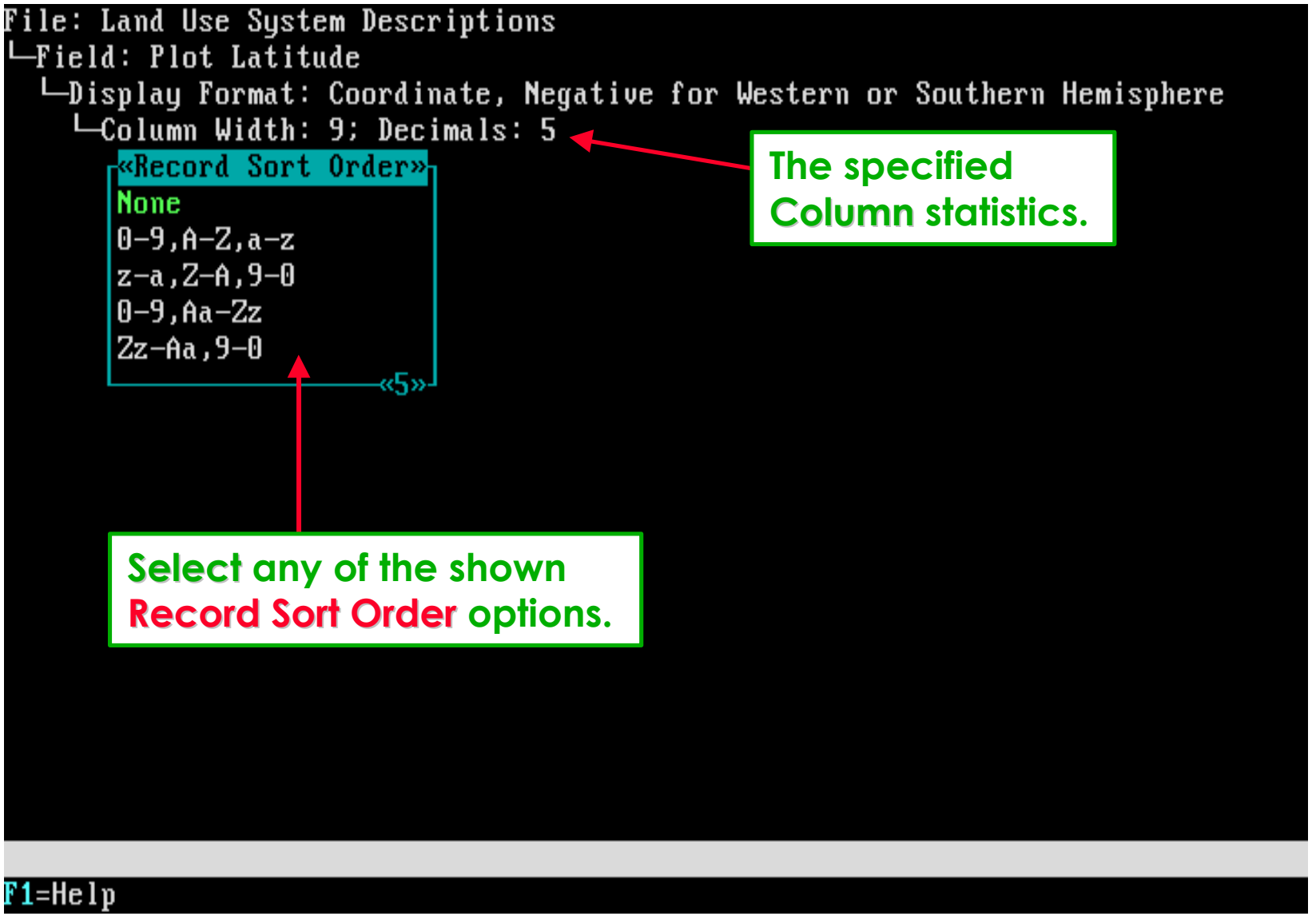
After selecting the Output Field, a Display Format must be selected.



Next, for **Flat File** output formats, the **Column Width** and **Number of Decimals** for the selected **Output Column** must be specified.

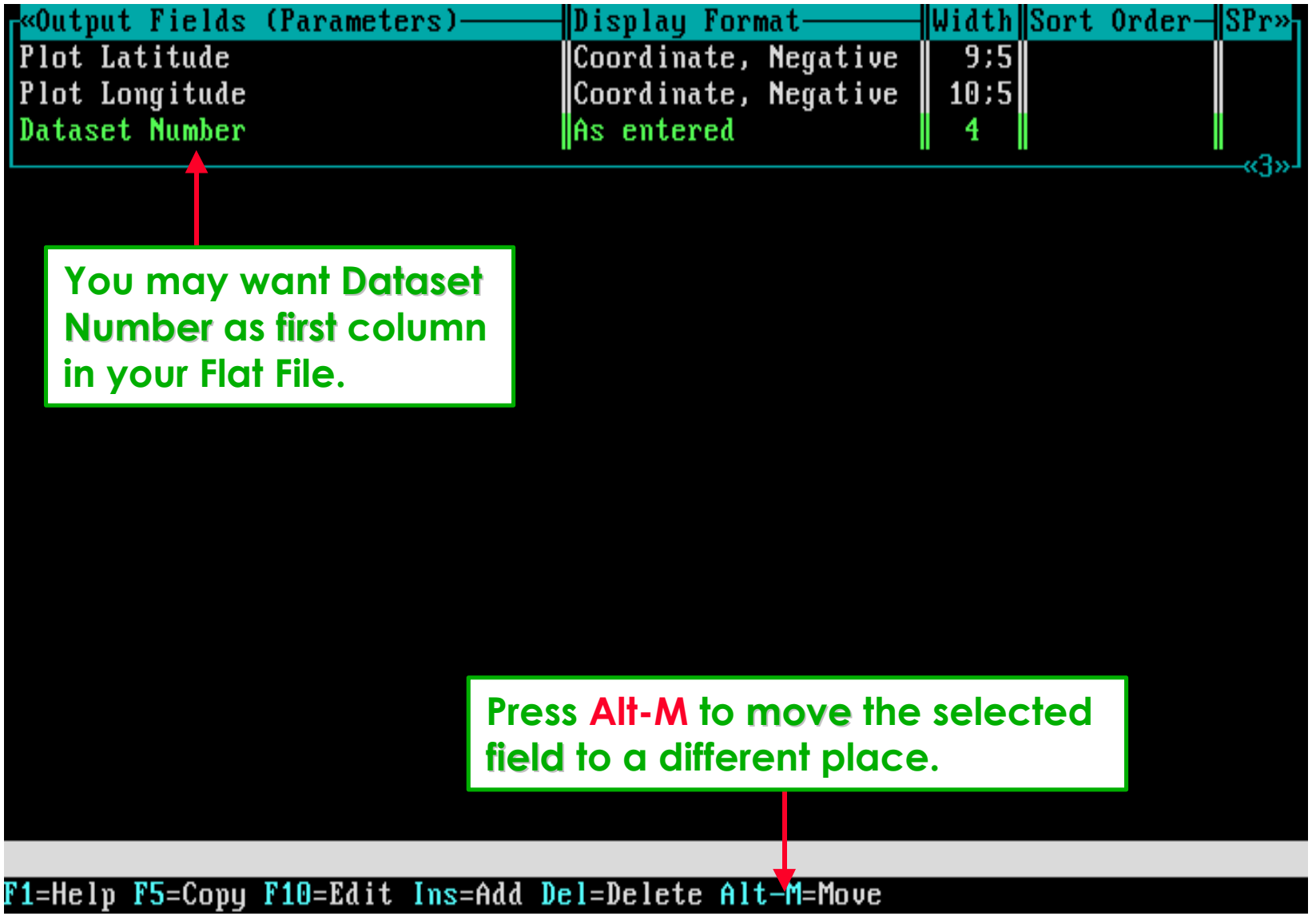


If, within the Flat File the selected Output Column must be sorted, then select one of the provided options.

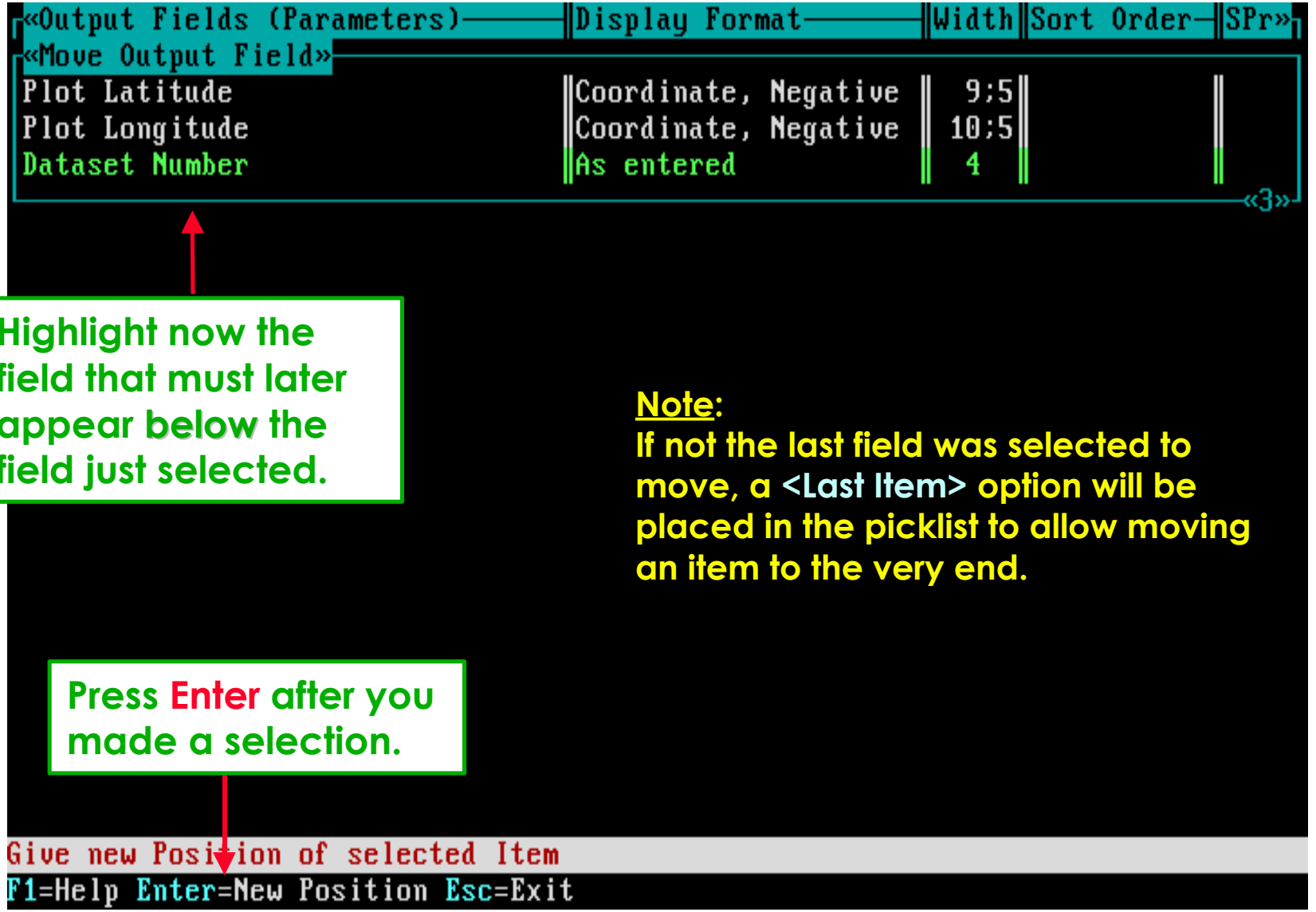


Then, you will return to the Output Fields picklist, that includes now summarized information on the field selected.

Presently three Output Fields are included in the picklist. You may want to change the order in which they appear in the final report.



After pressing **Alt-M**, a **Move Output Field** picklist will appear on top of the **Output Fields** picklist.

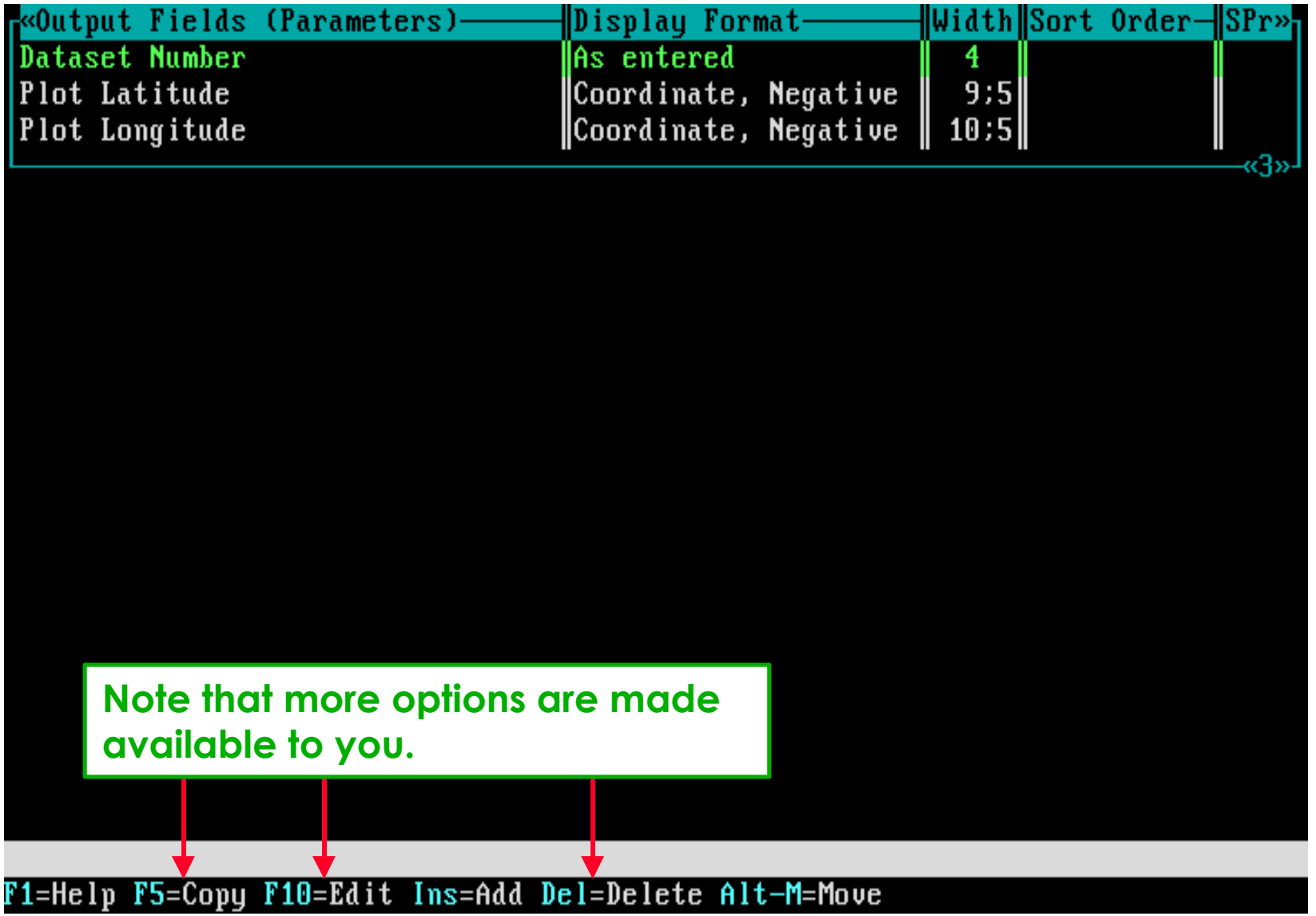


Highlight now the field that must later appear below the field just selected.

Press Enter after you made a selection.

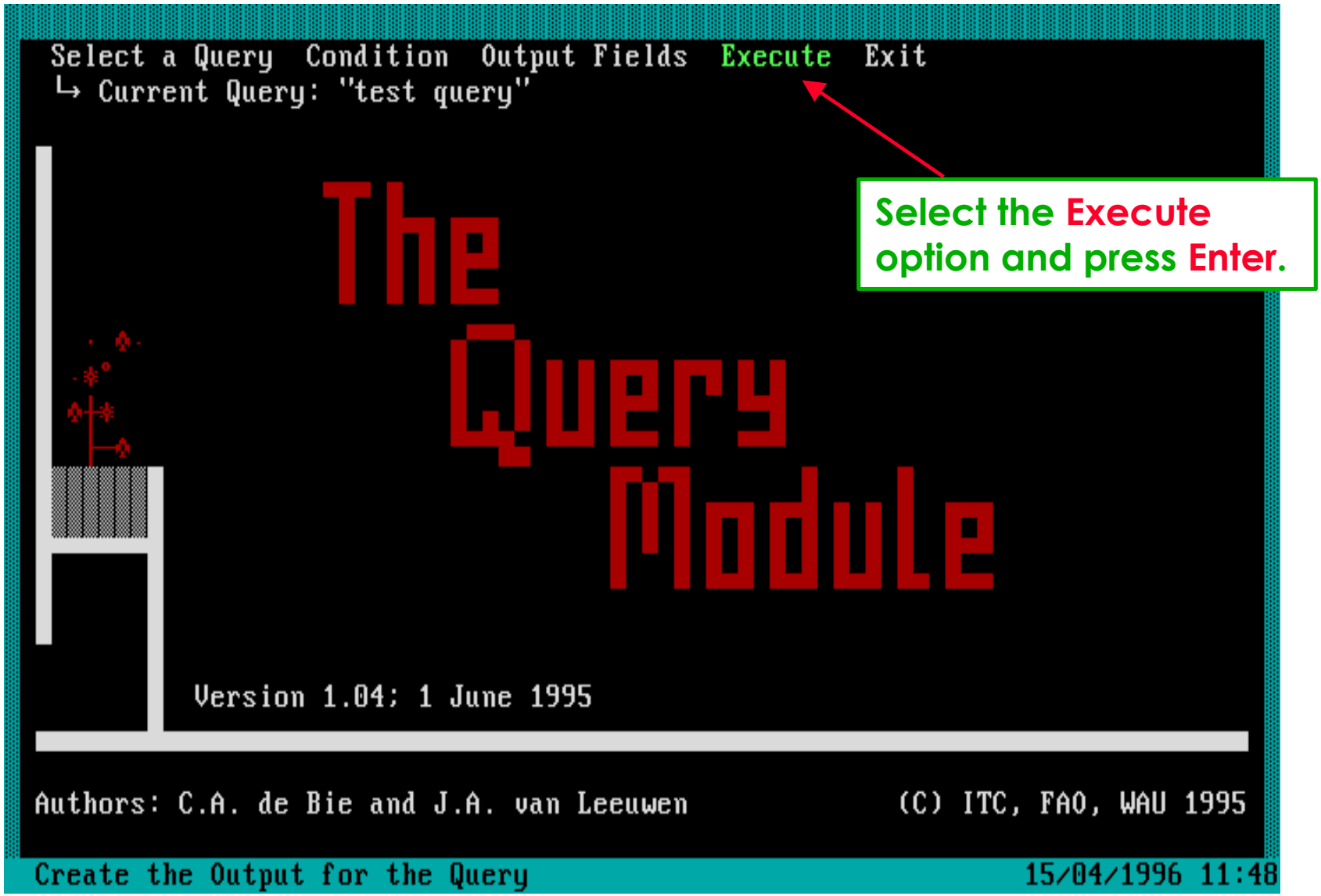
Note:
If not the last field was selected to move, a <Last Item> option will be placed in the picklist to allow moving an item to the very end.

Plot Latitude was selected in the **Move Output Field** picklist, and **Dataset Number** will thus appear on top in the picklist.



Software aspect no.-5:

1. Select a query and define query settings.
2. The functionality of the Approval File concept.
3. How to define a query Condition.
4. How to define query Output Fields.
5. **Run the query to get the required data.**


Select a Query Condition Output Fields Execute Exit
↳ Current Query: "test query"
Select the Execute option and press Enter.
The Query Module
Version 1.04; 1 June 1995
Authors: C.A. de Bie and J.A. van Leeuwen
(C) ITC, FAO, WAU 1995
Create the Output for the Query
15/04/1996 11:48

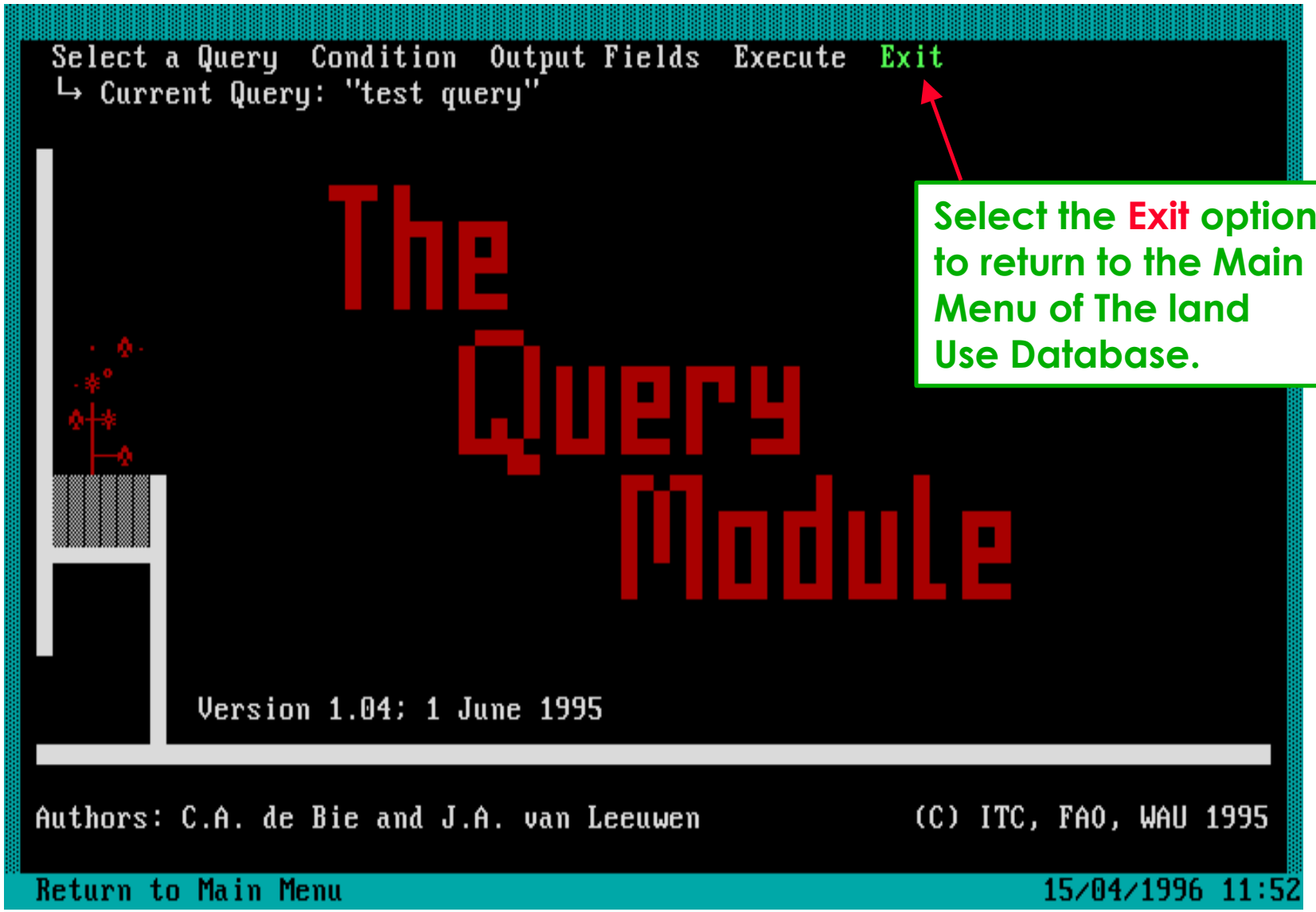
After a series of flash-messages at the bottom of the screen, the required query results are generated.

Dataset Number	Plot Latitude	Plot Longitude
1	-18.40972	29.11750
2	-18.40833	29.12083
3	-18.35639	29.11000
5	-18.35333	29.11278
7	-18.41000	29.08917
8	-18.40250	29.09000
9	-18.35722	29.09389
10	-18.36111	29.09472
11	-18.36417	29.09639
12	-18.40083	29.17333
13	-18.39889	29.17472
15	-18.39333	29.17472
16	-18.39556	29.17722
17	-18.38556	29.14944
19	-18.38639	29.14750
21	-18.39528	29.20444
22	-18.40139	29.20778
24	-18.39528	29.20722
25	-18.39417	29.20861
27	-18.40222	29.21639
29	-18.38694	29.21583

F1=Help Esc=Exit

As selected in the Query Settings, the query results will be printed, shown on the screen, or placed in a file in the required format.

All important options and features of the Quary Module are presently shown. See the User s Reference Manual for further details.



Select the Exit option to return to the Main Menu of The land Use Database.

The Land Use Database

End of Demo-7 ....Thank YOU

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LUW