

Initializing a Map

This section describes how to define the settings (profile) for a new map or help map.

When you select the function **Initialize New Map** or **Initialize a New Help Map**, the first screen to be invoked is the **Define Map Settings** screen shown in the example below:

```

10:41:16                Define Map Settings for MAP                2007-08-13

Delimiters                Format                Context
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Cls Att CD  Del          Page Size ..... 23          Device Check .... _____
T   D      BLANK      Line Size ..... 79          WRITE Statement  -
T   I      ?          Column Shift ... 0 (0/1)      INPUT Statement  X
A   D      -          Layout ..... _____
A I      )          dynamic ..... N (Y/N)      Help _____
A   N      -          Zero Print ..... N (Y/N)      as field default N (Y/N)
M   D      &          Case Default ... UC (UC/LC)
M   I      :          Manual Skip .... N (Y/N)      Automatic Rule Rank 1
O   D      +          Decimal Char ... .          Profile Name .... SYSPROF
O   I      (          Standard Keys .. N (Y/N)
D   D      $          Justification .. L (L/R)      Filler Characters
D   I      /          Print Mode ..... _____
                                Control Var .... _____

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit
  
```

Delimiter class D (see *Delimiters*) only appears if Natural for MBCS is installed.

The sections contained in the **Define Map Settings** screen are described in the following section.

- Delimiters
- Format
- Context
- Filler Characters

Delimiters

The **Delimiters** section of the **Define Map Settings** screen displays the default delimiters that apply to the current map.

A delimiter is used to assign characteristics to a field. Field characteristics are the class (for example, input/output field), attribute (for example, typeface) and color settings of a field.

Note:

Attributes, colors and print modes require corresponding hardware features, and will be ignored at runtime if these features are not available. See also the session parameters AD, CD and PM described in the *Parameter Reference* documentation.

Each class, attribute and color setting is denoted by a one- or two-letter code. For example, the letter code A identifies an input field, the letter I identifies intensified. Class, attribute and color can be combined in a delimiter character. A delimiter character, for example, specifies a field as an input field (letter code A) *and* intensified (letter code I). In the example screen above, the delimiter character for this combination (letter codes A and I) is the right parenthesis ()).

A delimiter character is a non-alphabetical character that is prefixed to the field in the map editing area. (See also *Defining Map Fields* for examples of delimiter usage.) To display or modify the class, attribute and color settings assigned to a field by a delimiter character, use the extended field editing function described in the relevant section. Any non-alphabetical character can be defined as a delimiter character - except the control character for terminal commands, the control character for map commands and the decimal notation character.

Letter codes and delimiter characters can be entered in the columns **Cls** (Class), **Att** (Attribute), **CD** (Color Definition) and **Del** (Delimiter) or in the editing section provided by the extended field editing function.

 **To change the default delimiter settings for the current map**

- In the **Delimiters** section, in the columns **Cls**, **Att**, **CD** and/or **Del**, overwrite a value with the value required, or, in a blank column, enter a value.

 **To change the default delimiter settings for the current session**

- Before you initialize a map, on the **Edit Map** screen, in the **Profiles** field, replace the default map profile SYSPROF by the name of the profile you created earlier with the function **Maintenance of Profiles & Devices** (see *Functions in the Edit Map Menu*).

The profile SYSPROF can only be modified by the Natural system administrator.

The table below lists and explains all valid letter codes for class, attribute and color that can be entered in the columns **Cls** (Class), **Att** (Attribute) and **CD** (Color Definition) or in the extended field editing section.

Valid letter codes for classes, attributes and colors are:

Class (Cls)	Attribute (Att)	Color (CD)
A Input field	B Blinking	BL Blue
M Modifiable field	C Cursive/italic	GR Green
O Output field (non-modifiable)	D Default (for example, non-intensified, non-blinking)	NE Neutral
T Text field	I Intensified	PI Pink
D Extended text field	N Non-display	RE Red
Only applies if Natural for MBCS is installed.	U Underlined	TU Turquoise
See also <i>Delimiter Class D</i> below.	V Reversed video	YE Yellow
	Y Dynamic (attributes to be assigned dynamically by a program)	

Delimiter Class D

Only applies if Natural for MBCS is installed.

Delimiter class D must be defined in the map settings to create boxes for map fields by using the outline editor and the map editor. Delimiter class D allows the definition of boxes for text fields and blank areas (characters) contained in a map.

For maps created with KAPRI (a product by Beacon IT), delimiter class D is automatically added to the map setting when initially reading in the map definitions into the source area of the map editor. Delimiter class D is then entered with the attributes D (Default) and I (Intensified), and two of the following delimiter characters, which depends on the delimiter characters already used:

\$&/ ()=?@*+' #>< | ! " ^ ; , : . _ - §. Delimiter class D is also added automatically when you create a map definition with the **Initialize Map** or the **Initialize a new Help Map** function by using the default SYSPROF map profile supplied with the current Natural version.

Extended Text Fields

A text field for which you want to create a box must start with the delimiter character you assigned to delimiter class D. A field prefixed with this delimiter character is then considered an extended text field, which can be edited with the extended field editing function of the map editor as described in the relevant section.

An extended text field that has been defined as a native DBCS (Double Byte Character Set) field is represented by a series of Ks in the map editing area. See also the **PM** field described in *Fields in the Extended Text Field Editing Area*.

Blank Text Fields

Blank characters for which you define a box are considered a blank text field. When using the features of the outline editor, a blank text field is automatically added to the map with the delimiter character that represents class D. In the map editing area, depending on the field length, the delimiter character is followed by one or more periods (.), where each period represents a blank character. A blank field with a length greater than zero (0) is considered an extended text field, which can be edited (or created) with the extended field editing function of the map editor as described in the relevant section.

Format

The following map format settings can be used:

Field	Explanation
Page Size	<p>The number of map lines to be edited (1 - 250); if Standard Keys (see below) is set to Y, the number of lines is restricted to 3 - 250.</p> <p>For a map which is output with a WRITE statement, you specify the number of lines of the logical page output with the WRITE statement, not the map size. Thus, the map can be output several times on one page.</p>
Line Size	The number of map columns to be edited (5 - 249).
Column Shift	Column shift (0 or 1) to be applied to the map. This feature can be used to address all 80 columns on an 80-column screen (Column Shift = 1, Line Size = 80). Positional commands (PF10, PF11) must be used to edit all map positions.
Layout	The name of a map source definition which contains a predefined layout.
dynamic	<p>Y Specifies the layout to be dynamic. The dynamically used layout does not become a fixed part of the map at compilation time, but is executed at runtime. Thus, subsequent modifications of a layout map become effective for all maps using that layout map.</p> <p>If the layout map includes user-defined variables, you have to define these parameters in the map using the layout map. Input fields and modifiable fields in the layout map are not open at runtime. Parameters can be added by pressing PF9 within the Field and Variable Definitions function.</p> <p>N Specifies the layout to be static. The static layout is copied into the source area when a map is initialized. Filler characters are not transferred.</p> <p>N is the default setting.</p>
Zero Print	<p>Y Displays a field value of all zeros as one zero only.</p> <p>N Displays a zero value as blanks.</p> <p>N is the default setting.</p> <p>This value is copied into the field definition when a new field is created and can be modified for individual fields using the extended field editing function (see the relevant section).</p>

Field	Explanation
Case Default	<p>UC Indicates that all input entered for fields at map execution time is to be converted to upper case, that is, the session parameter AD=T is used as a field default. See also <i>AD - Attribute Definition</i> in the <i>Parameter Reference</i> documentation.</p> <p>LC Indicates that no lower to upper case conversion is to be performed, that is, the session parameter AD=W is used as a field default. To make the value LC effective, you have to specify the value ON for the Natural profile parameter LC. See also <i>AD - Attribute Definition</i> and <i>LC - Lower to Upper Case Translation</i> in the <i>Parameter Reference</i> documentation.</p> <p>This value is copied into the field definition when a new field is created and can be modified for individual fields using the extended field editing function (see the relevant section).</p>
Manual Skip	<p>Y Does <i>not</i> automatically move the cursor to the next field in the map at execution time even if the current field is completely filled.</p> <p>N Moves the cursor automatically to the next field in the map at execution time when the current field is completely filled.</p> <p>N is the default setting.</p>
Decimal Char	The character to be used as the decimal notation character. This character can only be changed with the GLOBALS command.
Standard Keys	<p>Y Leaves the last two lines of the map blank so that function-key specifications can be entered at execution time.</p> <p>N Causes all lines to be used for the map.</p> <p>N is the default setting.</p>

Field	Explanation
Justification	<p>The type of field justification to be used for numeric and alphanumeric fields taken from the data definitions in another Natural object:</p> <p>L Left justified</p> <p>R Right justified</p> <p>This value is copied into the field definition when a new field is created.</p>
Print Mode	<p>The default print mode for variables:</p> <p>C Indicates that an alternative character set is to be used (special character table as defined by the Natural administrator).</p> <p>D Indicates that double-byte character mode is to be used.</p> <p>I Indicates inverse print direction.</p> <p>N Indicates that no hardcopy can be made.</p> <p>This value is copied into the field definition when a new field is created.</p>
Control Var	<p>The name of an attribute control variable, the content of which determines the attribute characteristics of fields and texts that have the attribute definition AD=Y or Y. The attribute control variable referenced in the map must be defined in the program using that map.</p> <p>Removing an attribute control variable from the format map settings implies that the attribute control variable is removed from the map, too, unless it is associated with any other map field.</p>

Context

The following map context settings can be used:

Field	Explanation
Device Check	If a device name is entered in this field, the map settings are checked for compatibility with the device profile of the specified device. If a setting is not compatible, a warning message is issued (see also <i>Maintenance of Profiles & Devices</i> in the section <i>Functions in the Edit Map Menu</i>).
WRITE Statement	Marking this field with a non-blank value produces a WRITE statement at the end of the map definition process. The resulting map can then be invoked from a Natural program using a WRITE USING MAP statement. Blank lines at the end of the map are automatically deleted so that the map can be output several times on one page.
INPUT Statement	Marking this field with a non-blank value causes the result of the map definition process to be an INPUT statement. The resulting map can then be invoked from a Natural program using an INPUT USING MAP statement.
Help	The name of a helproutine or help map which is invoked at execution time when the help function is invoked for this map (global help for map). The syntax that applies to entering values in the Help field corresponds to the syntax of the HE session parameter described in <i>HE Parameter Syntax (Parameter Reference documentation)</i> .
as field default	<p>Y Specifies that the helproutine or help map entered in the Help field is to apply as default to each individual field on the map, which means that the name of each field is passed individually to the helproutine.</p> <p>N Specifies that the name of the map is passed to the helproutine or help map.</p> <p>N is the default setting.</p> <p>Note: If you define the map settings for a help map, on the Define Map Settings for HELPMAP screen, the Help and as field default fields are replaced by the Position Line Col field described below.</p>
Position Line Col	<p>The position where the help map is to appear on the screen at execution time.</p> <p>This field only appears if you define the map settings for a help map created with the Initialize a new Help Map function. This field replaces the Help and as field default fields on the Define Map Settings for HELPMAP screen.</p>
Automatic Rule Rank	The rank (priority) assigned to Predict automatic rules when they are linked to the map during field definition. Default is 1.

Field	Explanation
Profile Name	<p>The name of the profile which was active at map initialization time.</p> <p>If ENFORCED is displayed, the following map settings are protected:</p> <ul style="list-style-type: none"> ● All map delimiters ● Static and dynamic layout ● Device check ● WRITE and INPUT statements ● All filler characters ● Automatic rule rank ● Positioning of help maps <p>The name of the profile active at the time the map is created is stored within the map. When the map is edited later and another profile is active, a warning is produced but editing is allowed.</p>

Filler Characters

Filler characters can be assigned to indicate whether information for a field is mandatory and whether the field must be completely filled:

Field Type	Explanation
Optional, Partial	Input not mandatory, field need not be completely filled.
Required, Partial	Input mandatory, field need not be completely filled (AD=E).
Optional, Complete	Input not mandatory; if filled, field must be completely filled (AD=G).
Required, Complete	Input mandatory, field must be completely filled (AD=EG).

Filler characters can also be defined for individual fields using the extended field editing function (see the relevant section). For definition of field types, see also the session parameter AD described in the *Parameter Reference* documentation.