

Application Data Forms

Application Data Characteristic Groups Form

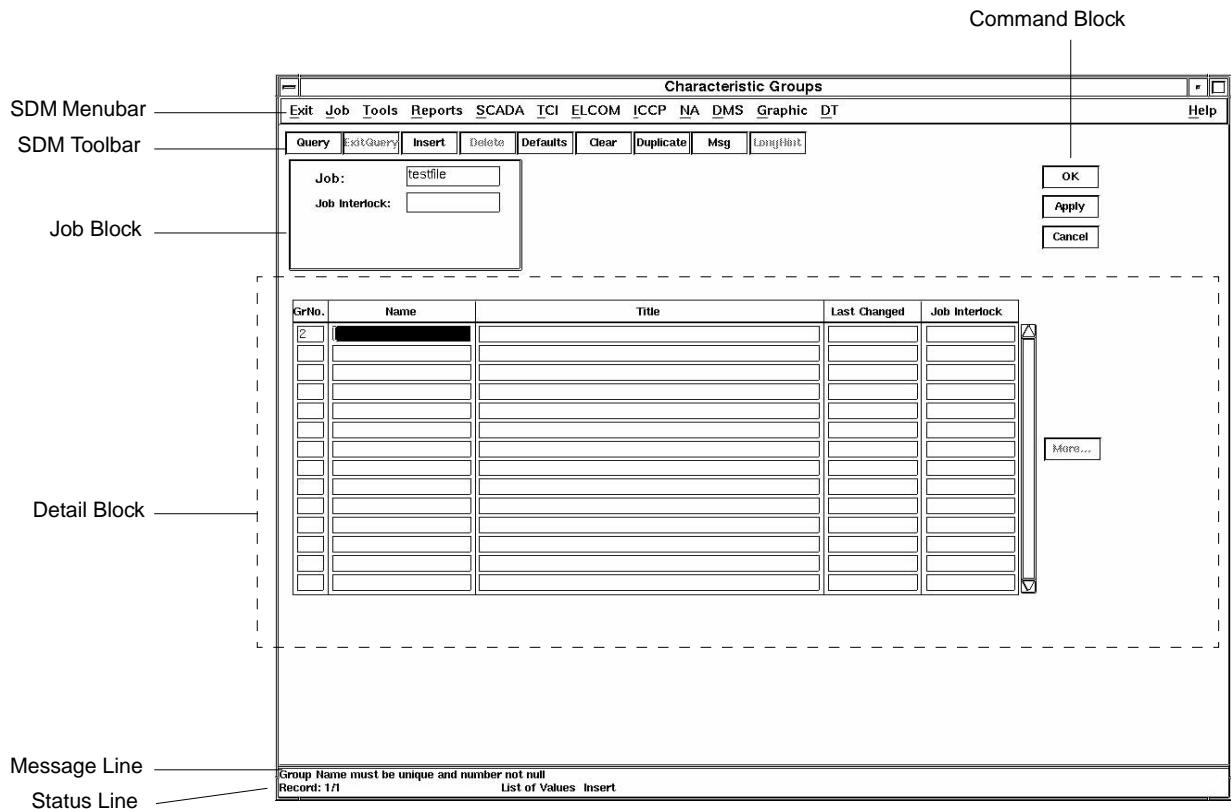
This section describes the facilities provided by the Application Data Characteristic Groups Form to view, create or modify application data characteristic groups and their associated application data characteristics.

Structure of the Application Data Characteristic Groups Form

The Application Data Characteristic Groups Form supports the above described application data characteristic groups features by a hierarchically structured Detail Block that uses worksheets and other graphical form components grouped in a feature-oriented way (see description of the Detail Block on page 181). The basic structure of the Application Data Characteristic Groups Form is shown in figure 70:

FIGURE 70

Basic structure of the Application Data Characteristic Groups Form



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The Application Data Characteristic Groups Form is composed of the following form components:

- SDM Menubar
- SDM Toolbar
- Job Block
- Message Line
- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the respective subsection of chapter 3, section 'SDM Basics' on page 3 in this document which contains a comprehensive description of the SDM basics.

- Detail Block

The Detail Block provides all facilities necessary to perform the above mentioned operations on application data characteristic groups. Figure 71 (below) shows the Detail Block of the Application Data Characteristic Groups Form containing the Application Data Characteristic Groups Worksheet.

FIGURE 71

Structure of the Detail Block

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Handling Application Data Characteristic Groups

Attributes of application data characteristic groups can be created and modified via the Application Data Characteristic Groups Worksheet presented in the Detail Block of the Application Data Characteristic Groups Form.

Creating Application Data Characteristic Groups

1. Select an application data characteristic group from the Application Data Characteristic Groups Tabular List by clicking on any of the text fields in the concerned row of the Application Data Characteristic Groups Tabular List and press the button **Insert** in the SDM Toolbar to create an empty line in the Application Data Characteristic Groups Tabular List below the selected application data characteristic group.

 **Note:**

After the Application Data Characteristic Groups Form has been entered the very first time during a SDM session, the Application Data Characteristic Groups Worksheet shows an empty Application Data Characteristic Groups Tabular List. The Application Data Characteristic Groups Form is in query mode.

*Press the button **Query** in the SDM Toolbar to query of the available application data characteristic groups from the database. The query results will be shown in the Application Data Characteristic Groups Tabular List. If the Application Data Characteristic Groups Tabular List remains empty, no application data characteristic groups are available in the database. An appropriate system message will appear.*

2. Enter a unique number for the new application data characteristic group into the concerned text field of the column **GrNo.** .
3. Enter a unique name for the new application data characteristic group into the concerned text field of the column **Name**.

 **Note:**

If application data characteristic group data are reverse transferred from the Operational Database (ODB) and then imported into the source database after application data characteristic groups have been defined, the names of the available application data characteristic groups will be removed and replaced in the source database by a combination of group number and group title.

4. Enter a unique description for the new application data characteristic group into the concerned text field of the column **Title**.

 **Note:**

*An attempt to enter an ambiguous value for any of the attributes **GrNo.**, **Name** or **Title** will be rejected. An appropriate system message will appear.*

 **Note:**

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The following steps 5, 6, 7, 8, 9 and 10 deal with application data characteristics and may be omitted and can be performed at a later time, too. In this case, continue with step 11.

For more information on application data characteristics, refer to the section 'Application Data Characteristics Form' on page 187.

5. Add application data characteristics to your new application data characteristic group. Press the button **More ...** to bring up the Application Data Characteristics Form and configure the associated application data characteristics.

 **Note:**

For more information on how to create application data characteristics, refer to the section 'Appending Application Data Characteristics To An Available Application Data Characteristic Group' on page 190.

6. Configure the basic group attributes of your new application data characteristic group. Press the button **More ...** to bring up the Application Data Characteristics Form.
7. Specify a group slope for your new application data characteristic group by entering a valid value in the text field of the attribute **Group Slope**.
8. Specify the abscissa usage for the associated application data characteristics of your new application data characteristic group by entering a valid value in the text field of the attribute **Abscisse**.
9. Specify a common characteristic size restriction for the associated application data characteristics of your new application data characteristic group by entering a valid value in the text field of the attribute **Size**.

 **Note:**

*Either enter the values of the attributes **Group Slope**, **Abscisse** or **Size** directly into the text field of the respective attribute in the Characteristic Group Attributes Block or double-click on any of these text field to open a list of values and choose the desired attribute from this list of values.*

10. Apply your modifications in the Application Data Characteristics Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

 **Note:**

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

11. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form.

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Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Modifying Application Data Characteristic Groups

1. Select an application data characteristic group from the Application Data Characteristics Tabular List by clicking on any of the text fields in the concerned row of the Application Data Characteristics Tabular List.

 **Note:**

After the Application Data Characteristic Groups Form has been entered the very first time during a SDM session, the Application Data Characteristic Groups Worksheet shows an empty Application Data Characteristics Tabular List. The Application Data Characteristic Groups Form is in query mode.

*Press the button **Query** in the SDM Toolbar to query of the available application data characteristic groups from the database. The query results will be shown in the Application Data Characteristics Tabular List. If the Application Data Characteristics Tabular List remains empty, no application data characteristic groups are available in the database. An appropriate system message will appear.*

2. Modify the desired attributes of the selected application data characteristic group in the Characteristic Group Attributes Block.

 **Note:**

For more information on the text fields of the Application Data Characteristics Tabular List refer to the description of the Application Data Characteristics Tabular List in the section 'Application Data Characteristic Groups Tabular List' on page 186.

The following steps 3 and 4 may be omitted and can be performed at a later time, too. In this case, continue with step 5.

3. If the group slope, the abscissa usage, the size restriction or any of the associated application data characteristic need to be modified, press the button **More ...** to bring up the Application Data Characteristics Form and modify the desired attributes in the Application Data Characteristics Form.
4. Apply your modifications in the Application Data Characteristics Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

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☞ Note:

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

5. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Removing Application Data Characteristic Groups

1. Select an application data characteristic group from the Application Data Characteristics Tabular List by clicking on any of the text fields in the concerned row of the Application Data Characteristics Tabular List.

☞ Note:

After the Application Data Characteristic Groups Form has been entered the very first time during a SDM session, the Application Data Characteristic Groups Worksheet shows an empty Application Data Characteristics Tabular List. The Application Data Characteristic Groups Form is in query mode.

*Press the button **Query** in the SDM Toolbar to query of the available application data characteristic groups from the database. The query results will be shown in the Application Data Characteristics Tabular List. If the Application Data Characteristics Tabular List remains empty, no application data characteristic groups are available in the database. An appropriate system message will appear.*

2. Press the button **Delete** in the SDM Toolbar to remove the selected application data characteristic group.

☞ Note:

This action removes the associated application data characteristics, too.

3. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Application Data Characteristic Groups Worksheet

The Application Data Characteristic Groups Worksheet contains a tabular list showing the available application data characteristic groups and a button for the selection of the application data characteristics form.

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Application Data Characteristic Groups Tabular List

The Application Data Characteristic Groups Worksheet contains a tabular list that shows general information about the available application data characteristic groups. Each line of the tabular list represents a single application data characteristic group record. The columns **GrNo.**, **Name**, **Title**, **Last changed** and **Job interlock** contain the associated attribute settings of the respective application data characteristic group.

- **GrNo.**
Number of the respective application data characteristic group.
- **Name**
Name of the respective application data characteristic group.
- **Title**
A character string that describes the respective application data characteristic group.
- **Last changed**
Shows date and time of the latest change of the respective application data characteristic group. Read-only display field.
- **Job interlock**
Shows the name of the job locking this list, if such an interlock exists. Read-only display field.

Button for the Selection of the Application Data Characteristic Form

Application data characteristics are maintained via a separate application data characteristic form (refer to section 'Application Data Characteristics Form' on page 187). To call up the application data characteristic form, the operator must choose an application data characteristic from the Application Data Characteristic Groups Tabular List and press the button for the selection of the application data characteristics form (see figure 71 on page 181).

 **Note:**

After the application data characteristic groups form has been called up initially, the first application data characteristic group of the Application Data Characteristic Groups Tabular List is automatically selected and the button for the selection of the application data characteristics form is enabled.

If no application data characteristic groups are available, the button for the selection of the application data characteristics form will be disabled.

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Application Data Characteristics Form

This section describes the Application Data Characteristics Form that deals with basic application data characteristic group attributes, attributes of application data characteristics associated with an application data characteristic group and attributes of application data characteristic segments. The facilities provided by the Application Data Characteristics Form can be used to perform the following operations:

- View or modify attributes of application data characteristic groups
- View, specify or modify application data characteristics associated with an application data characteristic group
- View, specify or modify segments of application data characteristics

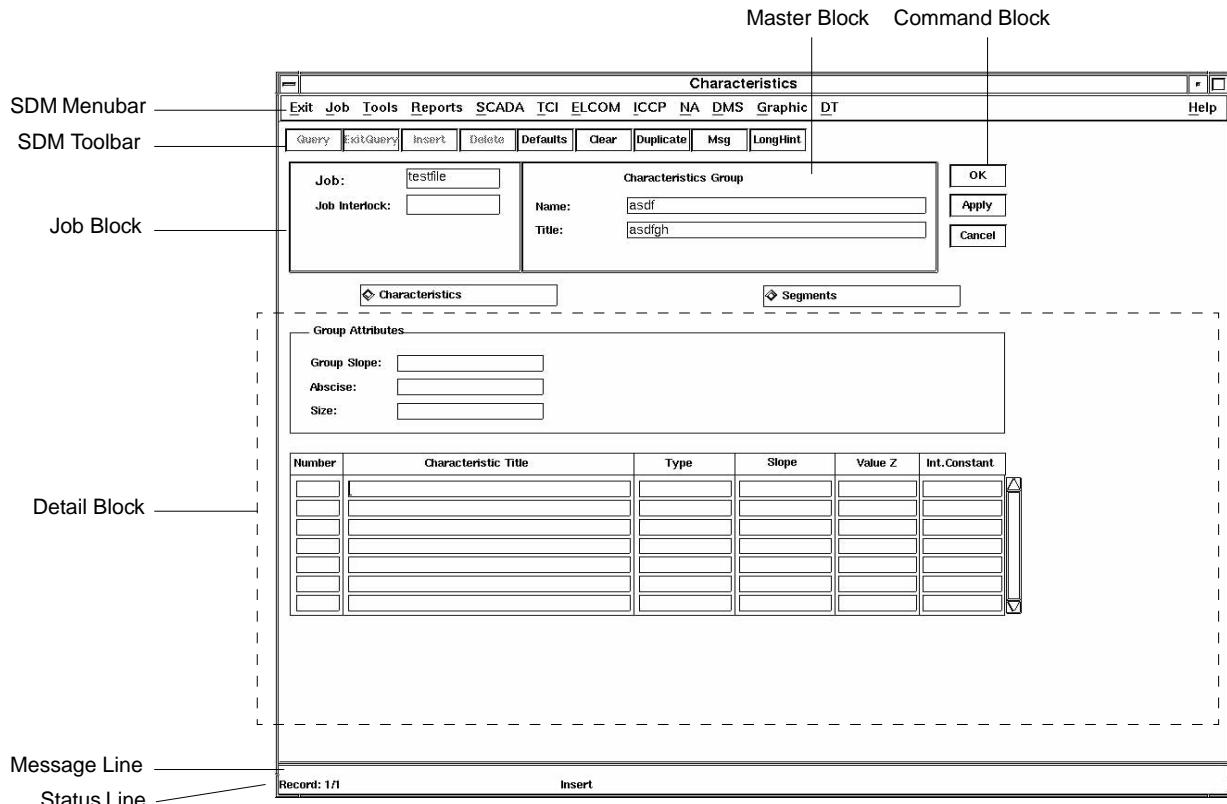
Structure of the Application Data Characteristics Form

The Application Data Characteristics Form supports the above described application data features by a hierarchically structured Detail Block that uses worksheets and other graphical form components grouped in a feature-oriented way (see description of the Detail Block on page 188). The basic structure of the Application Data Characteristic Groups Form is shown in figure 72 on page 188.

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FIGURE 72

Basic structure of the Application Data Characteristics Form



The Application Data Characteristics Form is composed of the following form components:

- SDM Menubar
- SDM Toolbar
- Job Block
- Message Line
- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the respective subsection of chapter 3, section 'SDM Basics' on page 3 in this document.

- Master Block

For further information on the Master Block of the Application Data Characteristics Form, refer to the section 'Master Block' on page 194.

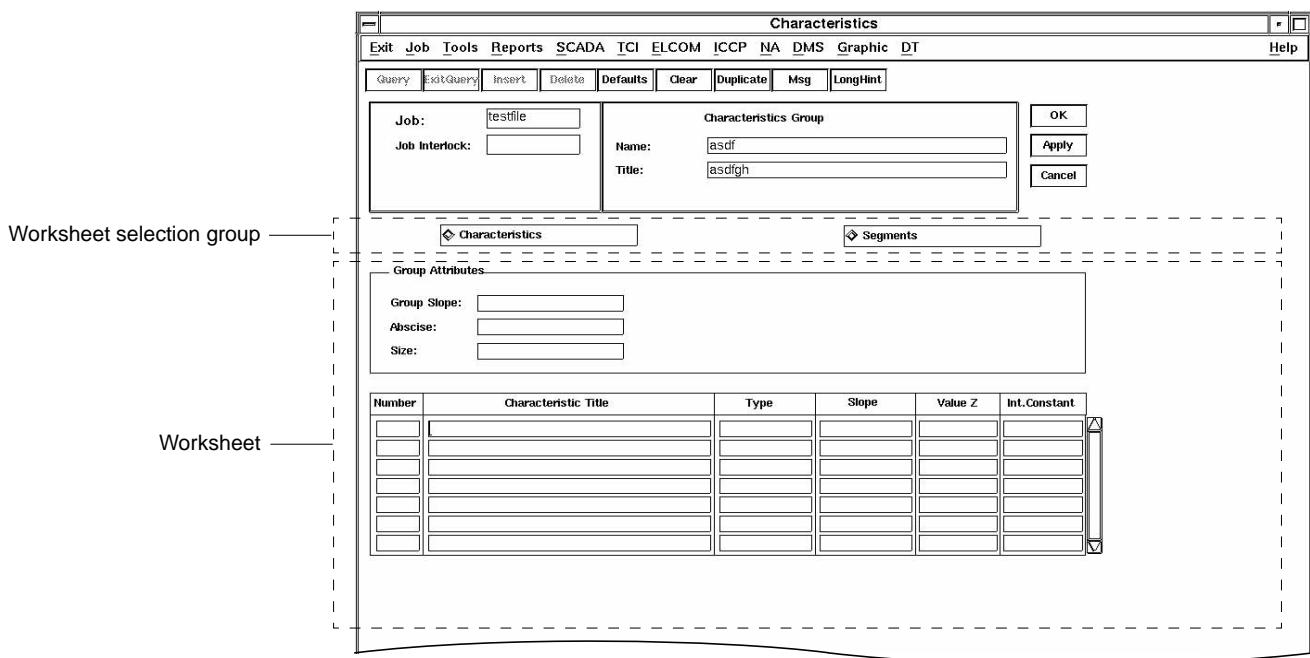
- Detail Block

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The Detail Block provides all facilities necessary to perform the above mentioned operations on application data characteristics. Figure 73 (below) shows the Detail Block of the Application Data Characteristics Form containing the Application Data Characteristics Worksheet.

FIGURE 73

Structure of the Detail Block



The Detail Block consists of one of two different worksheets (Application Data Characteristics Worksheet, Characteristic Segments Worksheet) and a group of radio buttons for the worksheet selection.

A worksheet usually contains a tabular list showing the requested data. Depending on the selected worksheet, additional form components for specific worksheet operations may appear with the tabular list. For example, if the Application Data Characteristics Worksheet is selected, the Characteristic Group Attributes Block appears together the Application Data Characteristics Tabular List.

 **Note:**

The content of the Master Block changes depending on the selected worksheet. See the following worksheet descriptions for details.

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Modifying Application Data Characteristic Group Attributes

The facilities provided by the Characteristic Group Attributes Block in the Application Data Characteristics Form can be used to modify attributes of application data characteristic groups.

For a detailed description of the related actions, refer to the description of the steps 3 and 4 in the section 'Modifying Application Data Characteristic Groups' on page 184.

Handling of Application Data Characteristics

The Application Data Characteristics Form can be used to view, specify and modify application data characteristics via the Application Data Characteristics Worksheet and to view, specify and modify segments of application data characteristics via the Application Data Characteristics Form.

Appending Application Data Characteristics To An Available Application Data Characteristic Group

☞ **Note:**

*If the Application Data Characteristics Form is already visible, the steps 1 to 3 may be omitted. In this case, the desired application data characteristic group may also be selected from the pop-list **Name** in the Master Block of the Application Data Characteristics Form.*

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.

☞ **Note:**

For further details on the procedures described in step 1 to step 3, please refer to the description of the corresponding steps in the section 'Modifying Application Data Characteristic Groups' on page 184

4. Select an empty row from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
If no empty rows are available, select an available row by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List and press the button **Insert** in the SDM Toolbar to create an empty line in the Application Data Characteristics Tabular List below the selected application data characteristic.
5. Enter a unique title for the new application data characteristic into the concerned text field of the column **Title**.

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☞ Note:

The number of the new application data characteristic will be generated automatically and needs not to be entered.

6. Specify an application data characteristic type for your new application data characteristic by entering a valid value into the concerned text field of the attribute **Type**.

☞ Note:

For further details on the attributes and text fields of the Application Data Characteristics Worksheet, please refer to the section 'Application Data Characteristics Worksheet' on page 194.

7. Specify the individual characteristic slope for your new application data characteristic by entering a valid value into the concerned text field of the attribute **Slope**.

☞ Note:

*Either enter the values of the attributes **Type** or **Slope** directly into the text fields of the respective attribute in the Application Data Characteristics Tabular List or double-click on any of these text fields to open a list of values and choose the desired attribute from this list of values.*

*Be aware that there is a relation between the individual characteristic slope and the common group slope. For more information, please refer to the description of the attribute **Group Slope** on page 195 and the description of the attribute **Slope** on page 198.*

☞ Note:

The following steps 8, 9, 10, and 11 may be omitted and can be performed at a later time, too. In this case, continue with step 11.

8. Enter a valid value for the attribute **Value Z**.
9. Enter a valid value for the attribute **Int. Constant**.

10. Specify application data characteristic segments for your new application data characteristic. Bring up the Characteristic Segments Worksheet by pressing the radio button **Segments** in the worksheet selection group of the Application Data Characteristics Form and configure the segments of the currently selected application data characteristic.

☞ Note:

For more information on how to specify segments of an application data characteristic, refer to the section 'Specifying Segments for an Available Application Data Characteristic' on page 199.

11. Apply your modifications in the Characteristic Segments Worksheet by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application

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Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

☞ **Note:**

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

12. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Modifying Application Data Characteristics

☞ **Note:**

*If the Application Data Characteristics Form is already visible, the steps 1 to 3 may be omitted. In this case, the desired application data characteristic group may also be selected from the pop-list **Name** in the Master Block of the Application Data Characteristics Form.*

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.

☞ **Note:**

For further details on the procedures described in step 1 to step 3, please refer to the description of the corresponding steps in the section 'Modifying Application Data Characteristic Groups' on page 184

4. Select the desired application data characteristic from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
5. Modify the desired attributes of the selected application data characteristic in the Application Data Characteristics Tabular List.

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 Note:

For more information on the text fields of the Application Data Characteristics Tabular List refer to the description of the Application Data Characteristics Tabular List in the section 'Application Data Characteristic Groups Tabular List' on page 186.

The following steps 6 and 7 may be omitted and can be performed at a later time, too. In this case, continue with step 8.

6. If the associated segments of the selected application data characteristic need to be modified, press the radio button **Segments** in the worksheet selection group to bring up the Characteristic Segments Worksheet and modify the desired attributes in the Characteristic Segments Tabular List.

 Note:

Further details on the attributes and text fields of the Characteristic Segments Worksheet, please refer to the section 'Characteristic Segments Worksheet' on page 203.

7. Apply your modifications in the Characteristic Segments Worksheet by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

 Note:

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

8. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Removing Application Data Characteristics

 Note:

*If the Application Data Characteristics Form is already visible, the steps 1 to 3 may be omitted. In this case, the desired application data characteristic group may also be selected from the pop-list **Name** in the Master Block of the Application Data Characteristics Form.*

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.

 Note:

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For further details on the procedures described in step 1 to step 3, please refer to the description of the corresponding steps in the section 'Modifying Application Data Characteristic Groups' on page 184

4. Select the desired application data characteristic from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
5. Press the button **Delete** in the SDM Toolbar to remove the selected application data characteristic group.

 **Note:**

This action removes the associated application data characteristic segments, too.

6. Apply your modifications in the Application Data Characteristics Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

 **Note:**

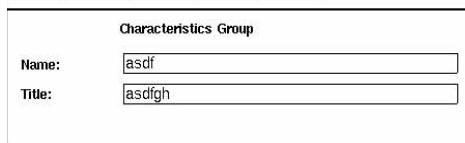
Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

Application Data Characteristics Worksheet

Clicking the radio button **Characteristics** in the worksheet selection group selects the Application Data Characteristics Worksheet. The Characteristic Group Attributes Block and the Application Data Characteristics Tabular List appear. The content of the Master Block changes.

FIGURE 74

Content of the Master Block if the Application Data Characteristics Worksheet is selected



Characteristics Group	
Name:	asdf
Title:	asdfgh

Master Block

 **Note:**

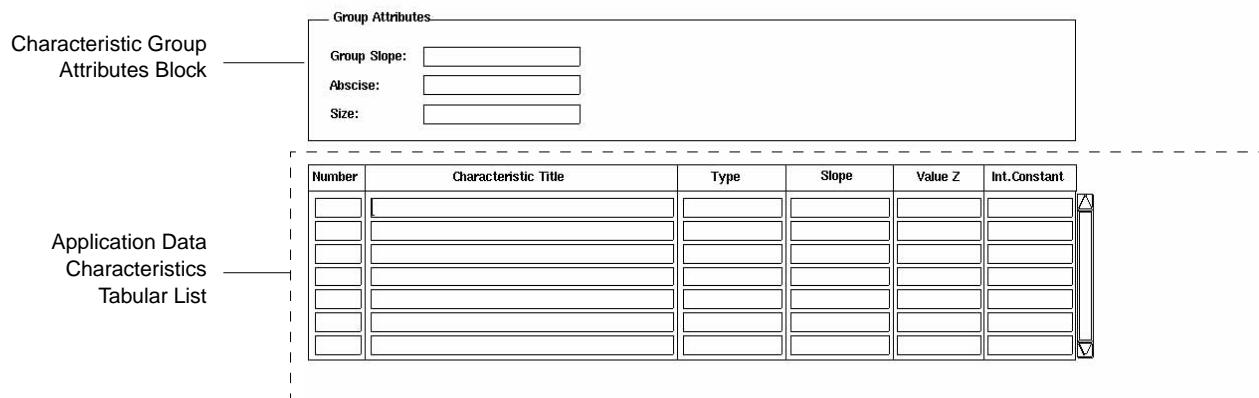
Before you can use the Master Block, you must switch to Query Mode. For more details on the Query Mode, refer to the section 'Query Mode' on page 7.

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- **Name**
Contains the names of the available application data characteristic groups. Another application data characteristic group may be selected from this input field at any time.
- **Title**
Shows the title of the selected application data characteristic group. Read-only display field.

FIGURE 75

Application Data Characteristics Worksheet



Characteristic Group Attributes Block

■ **Group Slope**

The value of the attribute **Group Slope** provides the maximum constraint on the slope of any of member characteristics of the selected application data characteristic group.

The possible attribute values are:

- **0 (Free)**
Free Slope refers to a characteristic without any slope constraints.
- **1 (Free Continuous)**
A free continuous slope is one in which the beginning of one segment is the same as the end of the previous segment.
- **2 (Increasing)**
An increasing slope is always positive.
- **3 (IncrStrict)**
A strictly increasing slope is not only positive as described above (refer to the option **2 (Increasing)**), but it is also one in which the slope is not less than or not greater than that of the previous segment respectively.
- **4 (IncrCont)**

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An continuously increasing slope is one in which the beginning of one segment is the same as the end of the previous segment.

- **5 (IncrStrictCont)**

A strictly increasing slope is not only positive as described above (refer to the options **2 (Increasing)**), but it is also one in which the slope is not less than or not greater than that of the previous segment respectively.

- **6 (Decreasing)**

A decreasing slope is always negative.

- **7 (DecrStrict)**

A strictly decreasing slope characteristic is not only negative as described above (refer to the option **6 (Decreasing)**), but it is also one in which the slope is not less than or not greater than that of the previous segment respectively.

- **8 (DecrCont)**

A continuously decreasing slope is one in which the beginning of one segment is the same as the end of the previous segment.

- **9 (DecrStrictCont)**

A strictly decreasing slope characteristic is not only negative as described above (refer to the option **6 (Decreasing)**), but it is also one in which the slope is not less than or not greater than that of the previous segment respectively.



Note:

*The setting of the attribute **Group Slope** can be overridden by an individual curve slope characteristic defined by the attribute **Slope** (for more details, refer to the description of the attribute **Slope** on page 198 of this document).*



Abscisse

If all characteristics of an application data characteristic group share the same abscissa specification, then the data storage can be optimized. Otherwise each characteristic must have its own abscissa specification.

The following attribute values are possible:

- **0 (Other X)**

Each characteristic of an application data characteristic group has its own individual abscissa specification.

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- **1 (Same X)**

All of the characteristics of an application data characteristic group have the same abscissa specification.

■ **Size**

The sizing restriction specifies whether the respective application data characteristic is completely defined by the available characteristic segments or whether the characteristic simply continues on after the last segment with its value (i.e., extrapolation behavior). The possible attribute values are:

- **0 (Unlimited)**

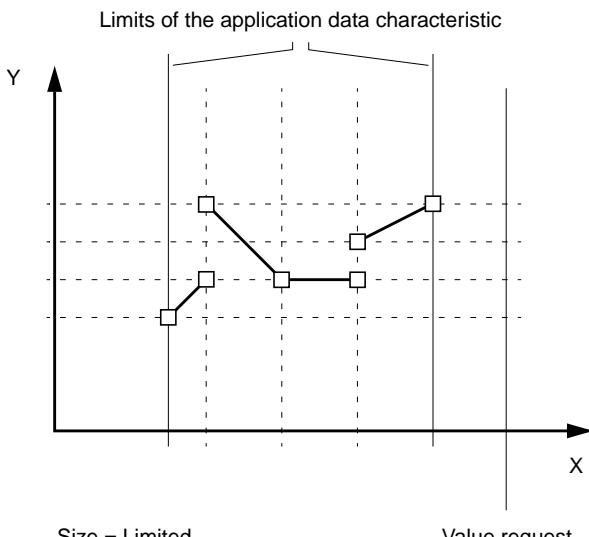
The application data characteristic continues on after the last segment. In case of a value request outside the available characteristic segments, it will be extrapolated with the slope of the last available characteristic segment.

- **1 (Limited)**

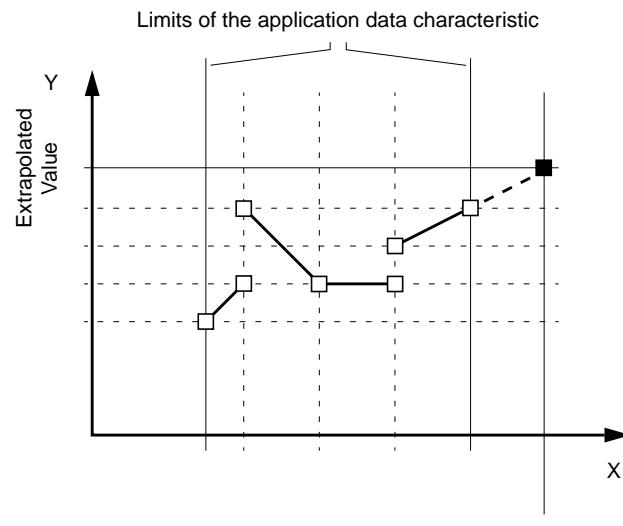
The application data characteristic is completely defined by the available characteristic segments. In case of a value request outside the available characteristic segments, no value will be returned.

FIGURE 76

Examples for the extrapolation behavior



Value request outside the last available characteristic segment;
No value will be returned

**Note:**

The extrapolation itself is carried out by the concerned application rather than the Application Data Characteristics Form.

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Application Data Characteristics Tabular List

The Characteristic Segments Worksheet contains a tabular list that shows the available application data characteristics of the selected application data characteristic group. Each line of the tabular list represents one characteristic record. The columns **Number ... Int. Constant** contain the attribute values of the respective application data characteristic.

■ **Number**

Contains the consecutive number of the currently selected X/Y curve within the respective group. This number is generated automatically and cannot be modified. Read-only display field.

■ **Title**

Shows the title of the respective application data characteristic (max. 40 characters).

■ **Type**

The attribute **Type** specifies how the specified characteristic segments are connected. The available attribute values are:

- **1 (Discrete)**

All characteristic segments will consecutively be “linked together” with no gap. No gap may occur between characteristic segments.

- **2 (Discrete with Additional Information)**

This value indicates that gaps may occur between segments of the application data characteristic. Within a gap, the application data characteristic is interrupted.

Gaps can be specified when defining the individual segments of an application data characteristic with the Characteristic Segments Worksheet. For more details, refer to the description of the attribute **Additional** on page 205 in this document.

■ **Slope**

Specifies an individual slope restriction for the currently selected application data characteristic.



Note:

*Be aware that the value of this attribute overrides the common group slope characteristic defined by the attribute **Group Slope** in the Characteristic Group Attributes Block (for details, refer to the description of the attribute **Group Slope** on page 195 in this document).*

Basically, the attribute **Slope** provides the same options as the attribute **Group Slope**, but the availability of certain slope options for this attribute is restricted by setting of the attribute **Group Slope**.

For a description of the supported slope options, refer to the description of the attribute **Group Slope** on page 195 of this document.

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■ **Value Z**

Specifies a value that can be used as an additional access key to the selected application data characteristic.

■ **Int. Constant**

For application data characteristics that represent the derivative of a function, the attribute **Int. Constant** can be used to specify a constant necessary to obtain the source function by integration.

Handling Segments of Application Data Characteristics

Specifying Segments for an Available Application Data Characteristic

☞ **Note:**

*If the Application Data Characteristics Form is already visible, the steps 1 to 4 may be omitted. In this case, the desired application data characteristic group and the desired application data characteristic may also be selected from the pop-list **Name** (application data characteristic group) and the pop-list **Charac** (application data characteristic) in the Master Block of the Application Data Characteristics Form.*

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.

☞ **Note:**

For further details on the procedures described in step 1 to step 3, please refer to the description of the corresponding steps in the section 'Modifying Application Data Characteristic Groups' on page 184

4. Select the desired application data characteristic from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
5. Click the radio button **Segments** in the worksheet selection group of the Application Data Characteristics Form to bring up the Characteristic Segments Worksheet.
Each line of the Characteristic Segments Tabular List represents one segment.
6. Select an empty row from the Characteristic Segments Tabular List by clicking on the text field of the column **X-Begin** in the concerned row of the Application Data Characteristics Tabular List.
If no empty rows are available, select an available row by clicking on the text field of the column **X-Begin** in the concerned row of the Characteristic Segments Tabular List and press the button **Insert** in the SDM Toolbar to create an empty line in the Characteristic Segments Tabular List below the selected application data characteristic.

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7. Enter valid coordinate values for segment begin coordinates (attributes **X-Begin** and **Y-Begin**).
8. Enter valid coordinate values for segment begin coordinates (attributes **X-End** and **Y-End**).

 **Note:**

*The valid values for the attribute **X-End** are restricted by the attribute **Abscisse** that specifies the abscissa usage for all application data characteristics of an application data characteristic group.*

*The valid values for the attribute **Y-End** are restricted by the group slope (attribute **Group Slope**) and the individual characteristic slope (attribute **Slope**).*

*For more details on this topic, refer to the corresponding descriptions of the attributes **X-End** and **Y-End** in the section 'Characteristic Segments Tabular List' on page 204, the corresponding description of the attribute **Group Slope** in the section 'Characteristic Group Attributes Block' on page 195 and the corresponding description of the attribute **Slope** in the section 'Application Data Characteristics Tabular List' on page 198.*

9. If required, specify a gap between two successive segments by entering an appropriate value for the attribute **Additional**.

 **Note:**

*The ability to enter a value for the attribute **Additional** is restricted by the setting of the application data characteristic type (attribute **Type**). For further details, please refer to the corresponding description of this attribute in the section 'Application Data Characteristics Tabular List' on page 198.*

10. Apply your modifications in the Characteristic Segments Worksheet by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

 **Note:**

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

11. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Application Data Forms

Modifying Segments of Application Data Characteristics

☞ **Note:**

*If the Application Data Characteristics Form is already visible, the steps 1 to 4 may be omitted. In this case, the desired application data characteristic group and the desired application data characteristic may also be selected from the pop-list **Name** (application data characteristic group) and the pop-list **Charac** (application data characteristic) in the Master Block of the Application Data Characteristics Form.*

The steps 1 to 5 may be omitted also if the Characteristic Segments Worksheet is already visible.

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.
4. Select the desired application data characteristic from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
5. Click the radio button **Segments** in the worksheet selection group of the Application Data Characteristics Form to bring up the Characteristic Segments Worksheet.
6. Select the desired segment by clicking on the text field of the column **X-Begin** in the concerned row of the Characteristic Segments Tabular List.
7. Modify the desired attributes of the selected segment in the Characteristic Segments Tabular List.

☞ **Note:**

For more information on the text fields of the Characteristic Segments Tabular List, their relations and dependencies, refer to the description of the Characteristic Segments Tabular List in the section 'Characteristic Segments Tabular List' on page 204.

Application Data Forms

8. Apply your modifications in the Characteristic Segments Worksheet by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

 **Note:**

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

9. Apply your modifications in the Application Data Characteristic Groups Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristic Groups Form. Pressing the **Cancel** button in the Command Block of the Application Data Characteristic Groups Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.

Removing Segments of Application Data Characteristics

 **Note:**

*If the Application Data Characteristics Form is already visible, the steps 1 to 4 may be omitted. In this case, the desired application data characteristic group and the desired application data characteristic may also be selected from the pop-list **Name** (application data characteristic group) and the pop-list **Charac** (application data characteristic) in the Master Block of the Application Data Characteristics Form.*

The steps 1 to 5 may be omitted also if the Characteristic Segments Worksheet is already visible.

1. Open the Application Data Characteristic Groups Form.
2. Select the desired application data characteristic group.
3. Press the button **More ...** to bring up the Application Data Characteristics Form.
4. Select the desired application data characteristic from the Application Data Characteristics Tabular List by clicking on the text field of the column **Title** in the concerned row of the Application Data Characteristics Tabular List.
5. Click the radio button **Segments** in the worksheet selection group of the Application Data Characteristics Form to bring up the Characteristic Segments Worksheet.
6. Select the desired segment by clicking on the text field of the column **X-Begin** in the concerned row of the Characteristic Segments Tabular List.
7. Press the button **Delete** in the SDM Toolbar to remove the selected segment.
8. Apply your modifications in the Application Data Characteristics Form by pressing the **Apply** button or the **OK** button in the Command Block of the Application Data Characteristics Form. Pressing the **Cancel** button in the Command Block of the Application

Application Data Forms

Data Characteristics Form dismisses the attribute modifications. For more details on the buttons of the Command Block, refer to the section 'Command Block' on page 26.



Note:

Any of these actions will close the Application Data Characteristics Form. The Application Data Characteristic Groups Form will appear again.

Characteristic Segments Worksheet

Clicking the radio button **Segments** in the worksheet selection group selects the Characteristic Segments Worksheet. The characteristic segments tabular list appears and the content of the Master Block changes.

FIGURE 77

Content of the Master Block if the Characteristic Segments Worksheet is selected

Characteristics Group	
Name:	IHR Paris A
Title:	IHR Paris A
Characteristic:	Without Valve Points

FIGURE 78

Characteristic Segments Worksheet

Application Data Characteristics Worksheet

Master Block



Note:

Before you can use the Master Block, you must switch to Query Mode. For more details on the Query Mode, refer to the section ‘Query Mode’ on page 7.

Application Data Forms

■ Name

Contains the names of the available application data characteristic groups. Another application data characteristic group may be selected from this input field at any time.

 **Note:**

If an application data characteristic group is selected from this pop-list, the Application Data Characteristics Worksheet is automatically selected in the Detail Block and the other fields of the Master Block are updated, too.

■ Title

Shows the title of the selected application data characteristic group. Read-only display field.

■ Charac

Contains the name of the available application data characteristics of the selected application data characteristic group. Other application data characteristics may be selected from this input field at any time.

 **Note:**

If another application data characteristic is selected, the Characteristic Segments Tabular List is automatically updated with the values of the newly selected application data characteristic.

Characteristic Segments Tabular List

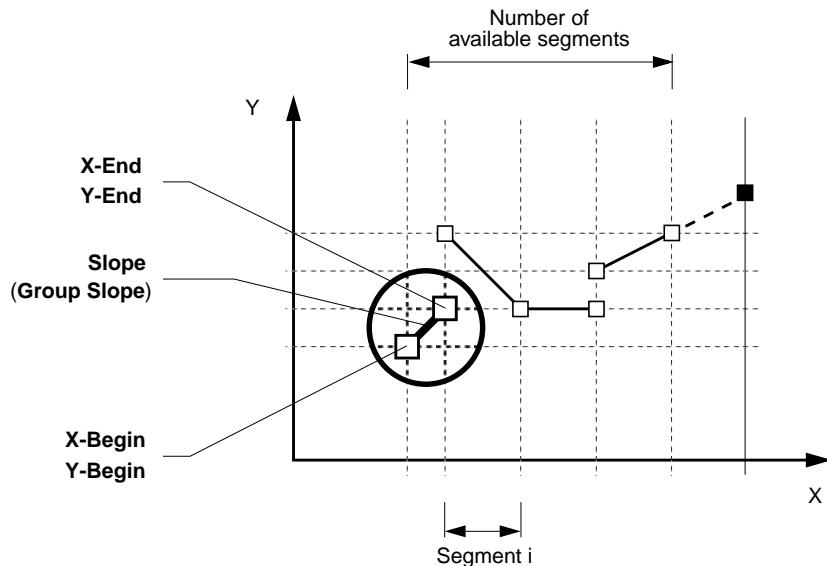
The Characteristic Segments Worksheet consists of a tabular list that contains the available segments of the selected application data characteristic. Each line of the tabular list represents one segment record. The columns **Segment**, **X-Begin**, **Y-Begin**, **X-End**, **Y-End** and **Additional** contain the associated attribute settings of the respective application data characteristic.

For a better understanding of the attributes described in this section, figure 79 shows how the described attributes affect definition of application data characteristics:

Application Data Forms

FIGURE 79

Influence of the attributes on the definition of application data characteristics



Individual segments of an application data characteristic are identified by a consecutive segment number and are entered in terms of the X/Y coordinates of the begin and end of the segment.

■ **Segment**

Contains the number of the respective characteristic segment. Segment numbers are generated automatically and cannot be modified. Read-only display field.

■ **X-Begin**

■ **Y-Begin**

The coordinate specified by the values of the attributes **X-Begin** and **Y-Begin** represents the starting point of the respective segment.

■ **X-End**

■ **Y-End**

The coordinate specified by the values of the attributes **X-End** and **Y-End** represents the end point of the respective segment.

Note:

*The values of the attributes **Slope** (see description on page 198) or **Group Slope** (see description on page 195) affect the definition of the attribute **Y-End**. Only appropriate values for the attribute **Y-End** can be entered. Invalid **Y-End** values will be highlighted in striking color and must be corrected before leaving the form.*

■ **Additional**

Application Data Forms

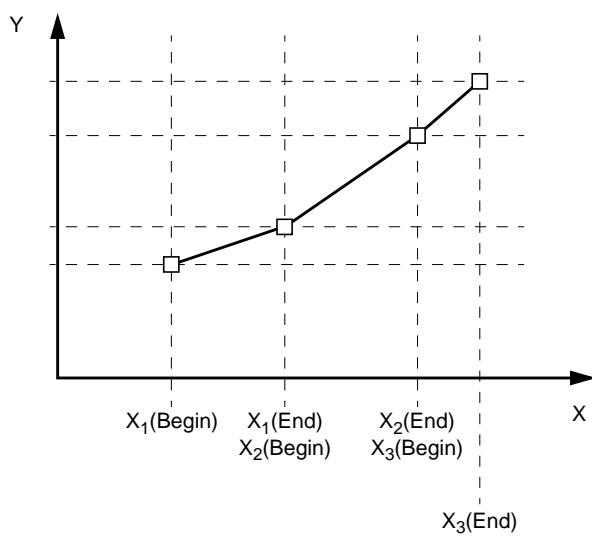
A value that shifts the X-coordinate of the respective segment starting point (attribute **X-Begin**) along the X-axis into the positive direction. Thus, the attribute **Additional** can be used to specify a gap within the respective characteristic segment.



Note:
*The attribute **Additional** can only be modified if the type of the respective application data characteristic (attribute **Type**) has been set to 2 (**Discrete with Additional Information**). If the attribute **Type** has been set to another value, the text field of this attribute will be read-only. For more details on the type of the respective application data characteristic refer to the description of the attribute **Type** on page 198 of this document.*

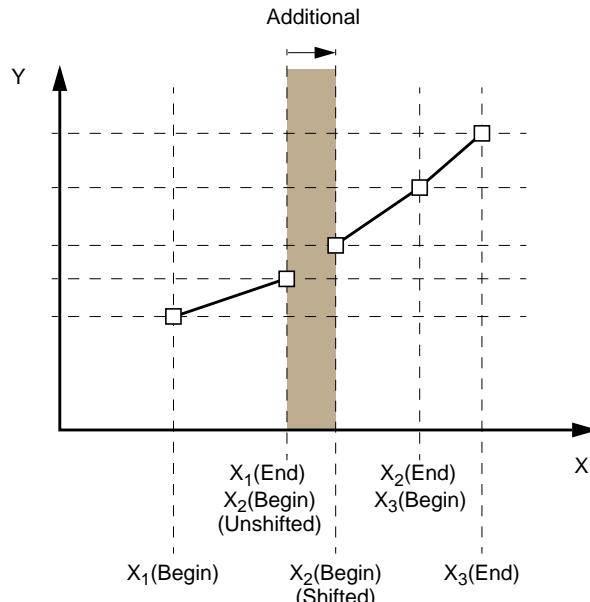
FIGURE 80

Examples for application data characteristics with and without gap



Type = 1 (Discrete)

Segments are linked together without a gap.



Type = 2 (Discrete with Additional Information)

Characteristic is interrupted by a gap.
 Gap reaches from X₂(Begin) (Unshifted) to X₂(Begin) (Shifted)

Note: X₂(Begin) (Unshifted) is the value that has been specified in the Characteristic Segments Tabular List for the segment starting point. X₂(Begin) (Shifted) is calculated automatically as: X₂(Begin) (Unshifted) + Additional

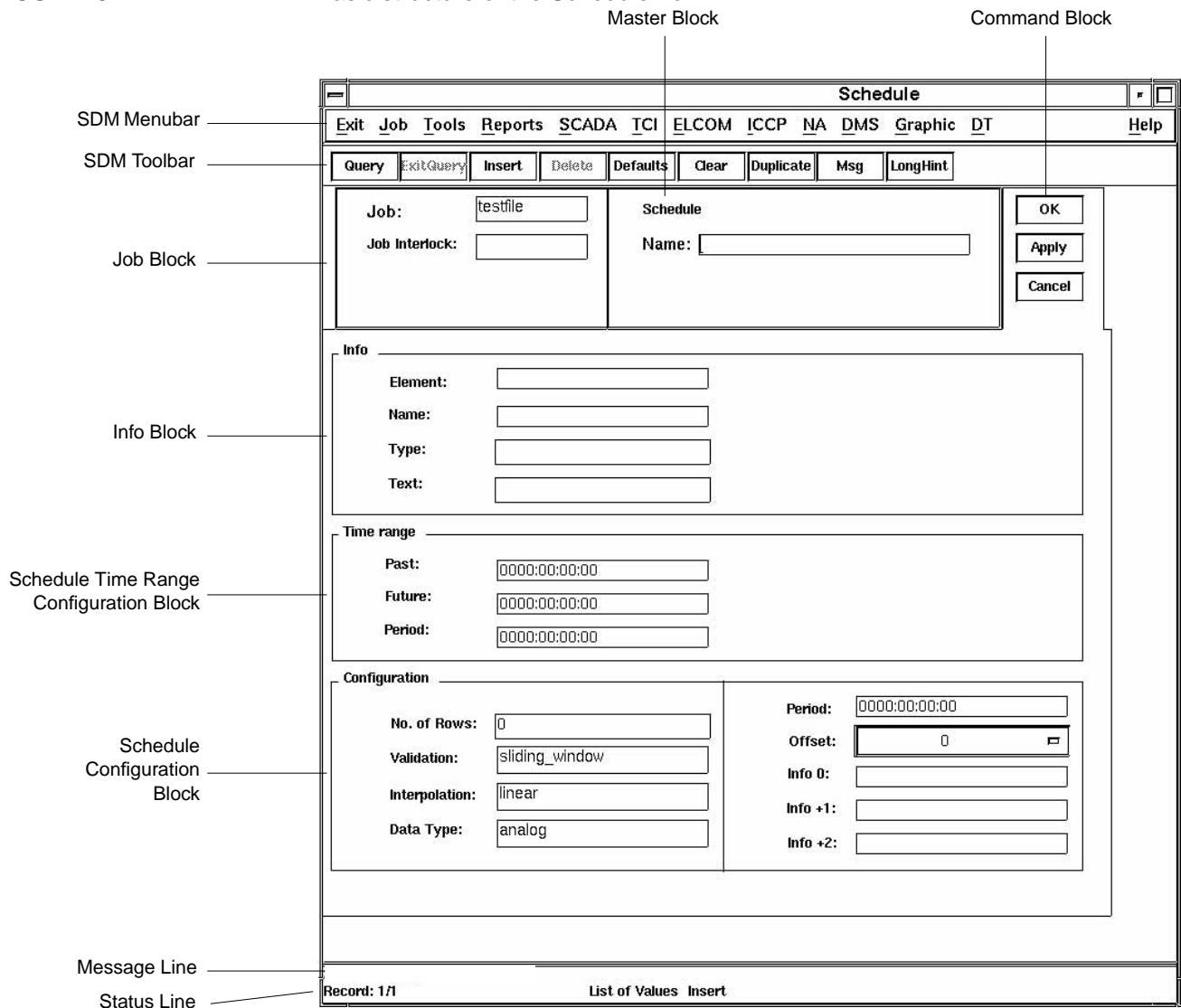
Application Data Forms

Schedule Form

The Schedule Form deals with application data schedules. The facilities provided by the Schedule Form can be used to create schedules, to view or modify the basic schedule configuration and to view, or modify the schedule time range configuration of a schedule.

FIGURE 81

Basic structure of the Schedule Form



Application Data Forms

The Schedule Form is composed of the following form components:

- SDM Menubar
- SDM Toolbar
- Message Line
- Status Line
- Job Block
- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the respective subsection of chapter 3, section 'SDM Basics' on page 3 in this document which contains a comprehensive description of the SDM basics.

- Master Block
- Info Block
- Schedule Time Range Configuration Block
- Schedule Configuration Block

Master Block

 **Note:**

Before you can use the Master Block, you must switch to Query Mode. For more details on the Query Mode, refer to the section 'Query Mode' on page 7.

- **Name**

Shows the name of the selected schedule. Another schedule may be selected from this text field by entering its name or by selecting its name from a list of values. The list of values is opened after a double-click on the concerned text field.

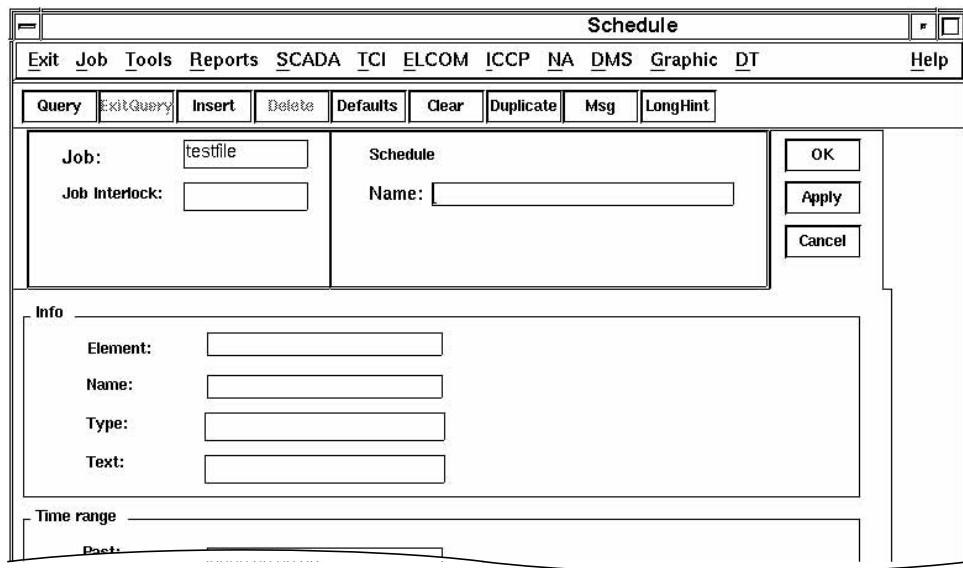
Info Block

The Info Block of the schedule form provides general information on the selected schedule. Its text fields are read-only display fields.

Application Data Forms

FIGURE 82

Structure of the Info Block



■ **Element**

Shows the name of the application data element to which the schedule has been assigned. Read-only display field.

■ **Name**

Shows the name of the application data info to which the schedule has been assigned. Read-only display field.

■ **Type**

Application data type of the application data info identified by the attribute **Name**. Read-only display field.

■ **Text**

Shows the info text of the application data info specified by the attribute **Name**.

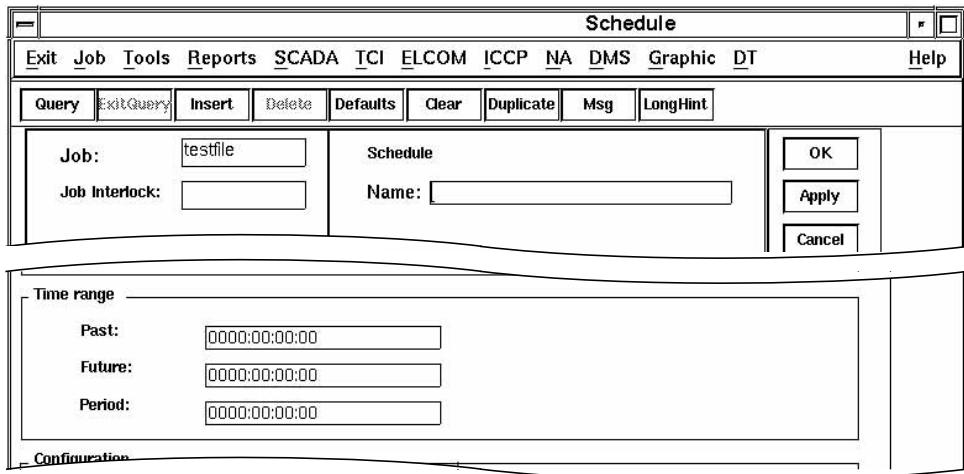
Schedule Time Range Configuration Block

The Schedule Time Range Configuration Block of the schedule form provides information on the schedule time range.

Application Data Forms

FIGURE 83

Structure of the Schedule Time Range Configuration Block



■ Past

Specifies the portion of the schedule time range in the past which is kept on records before it is considered no longer current (see description of the attribute **Validation** on page 212 and figure 85 on page 212, too).

The time range value entered is relative to the current time and must be composed as follows:

DDD : hh : mm : ss

DDD . . . Days	[0-365]
hh . . . Hours	[0-24]
mm . . . Minutes	[0-60]
ss . . . Seconds	[0-60]

■ Future

Specifies the future portion of the schedule time range.

The time range value entered is relative to the current time and must be composed as follows:

DDD : hh : mm : ss

DDD . . . Days	[0-365]
hh . . . Hours	[0-24]
mm . . . Minutes	[0-60]
ss . . . Seconds	[0-60]

Application Data Forms

■ Period

The time value entered in this text field represents the time difference between two points in a schedule and determines the schedule type.

Period	Schedule Type
000:00:00:00	non-periodic schedule
other values greater than zero	periodic schedule

The entered time value must be composed as follows:

DDD : hh : mm : ss

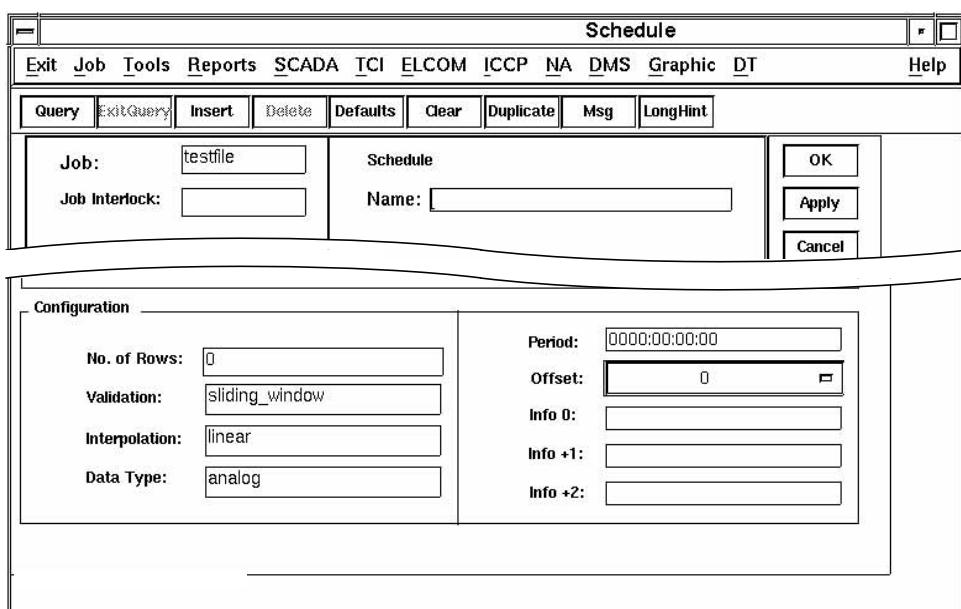
DDD Days [0-365]
 hh Hours [0-24]
 mm Minutes [0-60]
 ss Seconds [0-60]

Schedule Configuration Block

The Schedule Configuration Block of the schedule form provides information on the schedule time range. Its text fields are read-only display fields.

FIGURE 84

Structure of the Schedule Configuration Block



Application Data Forms

■ **No. of Rows**

Specifies the number of the schedule entries for the chosen schedule time range. The attribute value is calculated automatically:

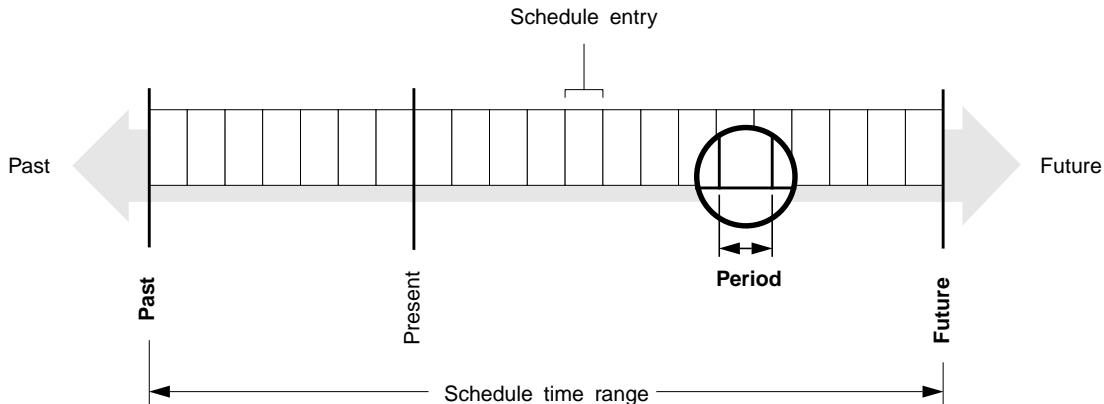
$$\text{No. of Rows} = (\text{Past} + \text{Future}) / \text{Period}$$

The text fields of the attribute **No. of Rows** are protected and read-only.

For a better understanding, the following illustration shows how the above described attributes affect the definition of a schedule:

FIGURE 85

Influence of the schedule configuration attributes on the definition of schedules



■ **Validation**

The attribute **Validation** specifies what happens to a schedule value when it moves in the past outside the defined schedule time range. The available options are:

- **Sliding Window**

The value moving out of the schedule time range becomes invalid and will be dismissed.

- **Round Robin**

The respective value will be recycled and becomes valid again at the same time in the next schedule cycle.

■ **Interpolation**

Specifies how the schedule value progresses from point to point in the schedule. The available options are:

- **Linear**

The schedule value changes in an interpolated fashion between two points in the schedule.

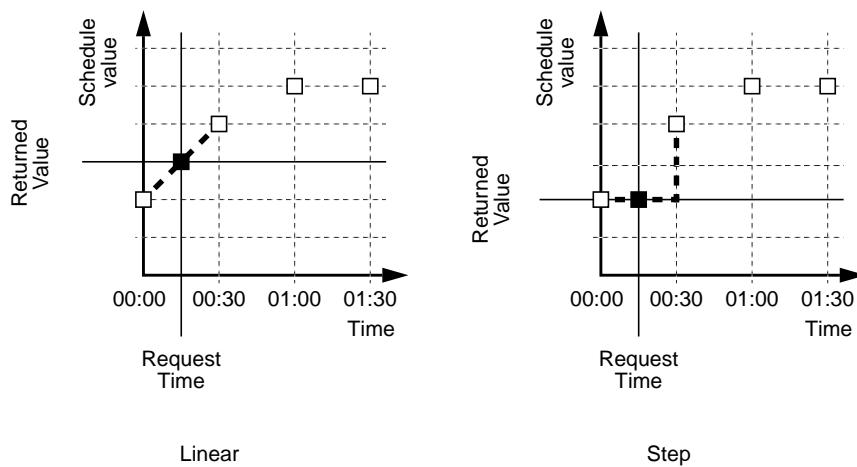
Application Data Forms

- Step

The schedule value changes step-wise, i.e., the value will be updated only at the beginning of a new time period and remains unchanged for the complete period.

FIGURE 86

Supported interpolation methods



■ Data Type

The attribute **Data Type** specifies in which form the schedule value will be stored in the schedule file. The available pop-list options are:

Without Flags	With Flags	With Flags and Time Stamp (Date and Time)
real value only	analog value	analog value
longreal value only	accumulator value	accumulator value
integer value only	status information	status information
	anlong value	real value
		longreal value
		integer value
		anlong value

Values with time stamps are used for non-periodic schedules where the time of each scheduled point is stored along with the point.

■ Period

Application Data Forms

Specifies the update period for the update of the schedule value.

The entered time value must be composed as follows:

DDD : hh : mm : ss

DDD	... Days	[0-365]
hh	... Hours	[0-24]
mm	... Minutes	[0-60]
ss	... Seconds	[0-60]



Note:

*The update period is represented by an absolute time value (for example “every 10:00 min”) rather than an offset that must be added to the schedule period (see description of the attribute **Period** in the section ‘Schedule Time Range Configuration Block’ on page 211).*



Offset

A pop-list that specifies the starting schedule entry of a schedule portion that covers three consecutive schedule entries. The schedule values of this schedule portion are used to update the infos identified by the attributes

Info 0, **Info +1** and **Info +2** (see description below). When updating, the update procedure uses the interpolation method specified by the setting of the attribute **Interpolation** (see description on page 212).

The starting schedule entry represented by the attribute **Offset** is relative to the current schedule entry, i.e., the current schedule time point (see figure 87 on page 215). The available pop-list options are:

- -3, -2, -1, 0, 1, 2 and 3



Info 0

An info name that identifies an application data info whose value will be updated with the value of the schedule entry identified by the attribute **Offset**.

The value of the attribute **Info 0** can be set or modified by entering the name of an application data info or by choosing an info name of a list of values. The list of values pops up after a double-click on the concerned text field. The list of values contains only those applications infos that have been assigned to the selected application data element.



Note:

*An attempt to use the name of an application data info that has not been assigned to the selected application data element will be rejected. The same entry procedure and restrictions apply to the attributes **Info +1** and **Info +2**.*

Application Data Forms

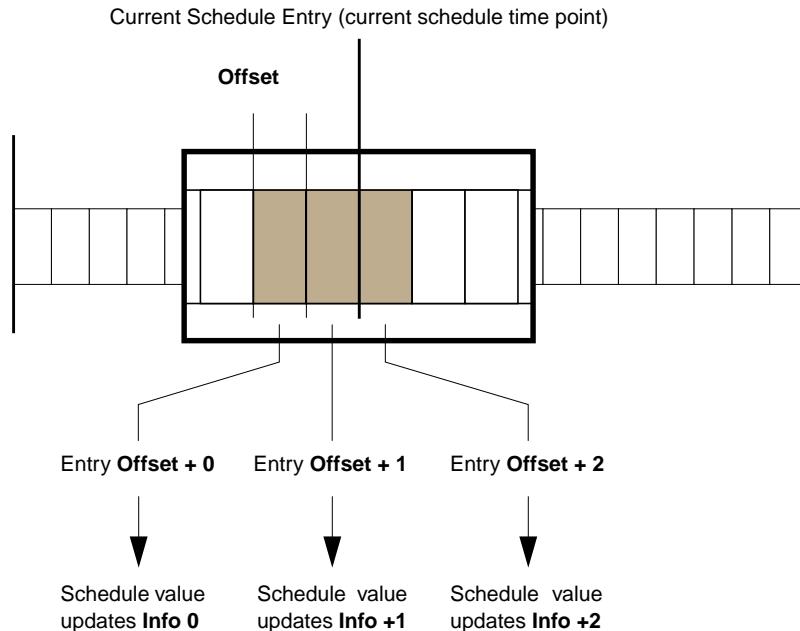
■ Info +1

An info name that identifies an application data info whose value will be updated with the value of the schedule entry at the schedule time point **Offset** + 1.

■ Info +2

An info name that identifies an application data info whose value will be updated with the value of the schedule entry at the schedule time point **Offset** + 2.

FIGURE 87

Example for the meaning of the attributes **Offset** and **Info 0 ... Info +2**

Decision Table Forms**CHAPTER 9**

Decision Table Forms

Decision tables are divided into two types:

- Combination decision tables and
- Interlocking decision tables.

Forms for combination decision tables allow the definition of rules for logical operations and the coordination of alternatives to those rules. These decision tables are used to decide which variable e. g. is displayed in a picture. When actual network states are logically connected, then (depending on the special rule which is fulfilled in this case and the respective alternatives) certain figures and/or attributes are selected from the alternative groups of figures and attributes, to display this network state. The following forms are provided for combination decision tables:

- Circuit Specific Combinations Form
- Element Specific Combinations Form
- Individual (1:1) Combinations Form

Furthermore the following forms for defining interlocking decision tables are provided:

- Superior Interlocking Conditions Form
- Global Area Interlocking Conditions Form
- Local Area Interlocking Conditions Form
- Function Specific Interlocking Conditions Form

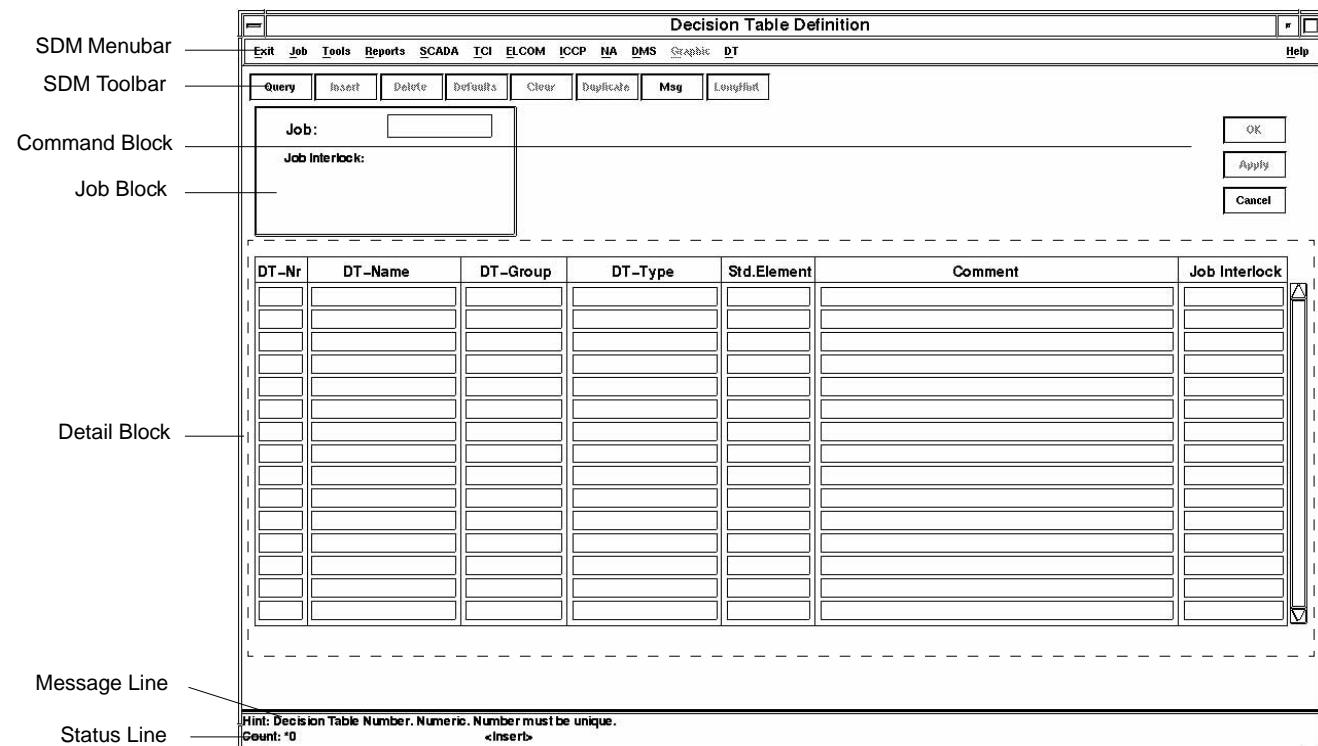
Before defining conditions for a decision table, the decision table first has to be defined with its general attributes in the Decision Table Definition Form.

Decision Table Forms

Decision Table Definition Form

When creating a new decision table, at first its general attributes have to be defined in the Decision Table Definition Form. Only after creating the decision table in this form, the respective decision table type-specific form can be used for defining conditions.

FIGURE 88 Basic structure of the Decision Table Definition Form



The Decision Table Definition Form is composed of the following components:

- SDM Menubar
- SDM Toolbar
- Message Line
- Status Line
- Job Block
- Command Block

Decision Table Forms

These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.

- Detail Block

Detail Block of the Decision Table Definition Form

The Detail Block of the Decision Table Definition Form contains a tabular list for defining general attributes of a decision table. This tabular list consists of the following columns:

- **DT-Nr**
Number of the decision table, which must be unique for all decision table types.
- **DT-Name**
This column indicates the name of the decision table.
- **DT-Group**
In this column the group the decision table belongs to can be defined. Possible input is either "interlocking" or "combinations".
- **DT-Type**
This column defines the type of the decision table. Depending on the decision table group the following input is possible:
 - for group "interlocking":
 - funcspec-interl.
 - superior-interl.
 - local-interl.
 - global-interl.
 - for group "combinations":
 - circuit-comb
 - elemspec-comb
 - individual-comb
- **Std.Element**
Name of the standard element type, whose information shall be logically connected. This field is only valid for decision tables of type "element-specific combinations".
- **Comment**
In this column a free comment can be entered for each decision table.
- **Job Interlock**
Shows the name of the interlocking job, if such an interlock exists. Read-only display field.

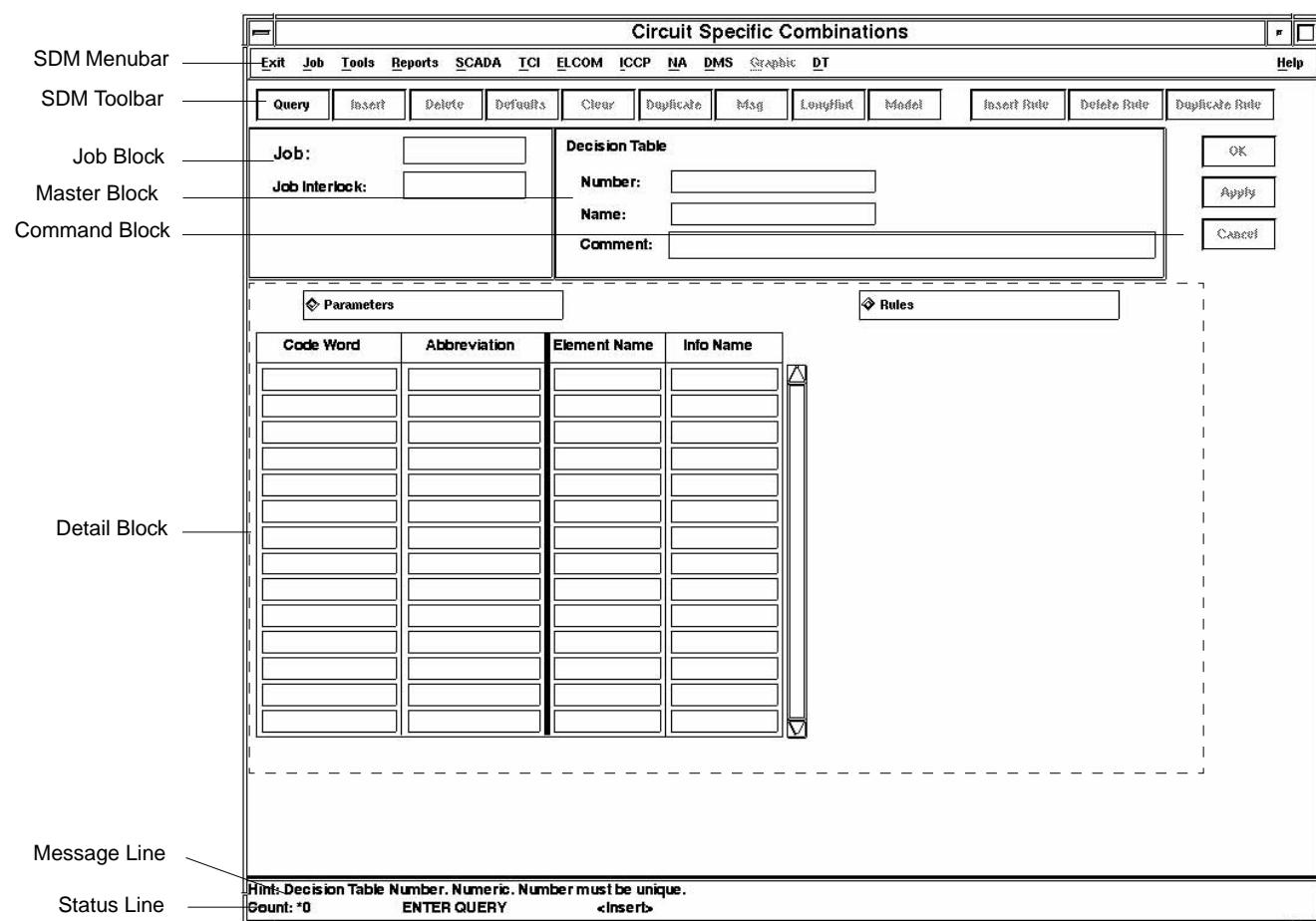
Decision Table Forms

Circuit Specific Combinations Form

This form is used for handling decision tables for standardized logical operations. It is possible to define rules to combine any informations within a block (block B1, block B2, block B3). If a network state is to be displayed on-line, the information is derived from the technological address of the respective block identification. The block identification for on-line access, when displaying a network state, is derived from the technological address of the information to be displayed. This decision table is preferably to used for all different logical operations within one network element group.

FIGURE 89

Basic structure of the Circuit Specific Combinations Form - Parameters Worksheet



The Circuit Specific Combinations Form is composed of the following components:

- SDM Menubar

Decision Table Forms

- SDM Toolbar
 - Message Line
 - Status Line
 - Job Block
 - Command Block
- These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.
- Master Block
 - Detail Block

Master Block of the Circuit Specific Combinations Form

The Master Block of the Circuit Specific Combinations Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.

For details about performing a query please refer to section 'Queries' on page 6.

- **Name**

This field shows the name of the decision table.

- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Circuit Specific Combinations Form

The Detail Block of the Circuit Specific Combinations Form consists of a worksheet selection group and two worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet and the Rules Worksheet respectively.

Parameters Worksheet

The Parameters Worksheet is shown in Figure 89. It consists of a tabular list with the following columns:

Decision Table Forms

- **Code Word**

The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. name of the element and/or name of the information, are necessary.

- **Abbreviation**

Optional text used for identification of element and information in the Rules Worksheet.

- **Element Name**

- **Info Name**

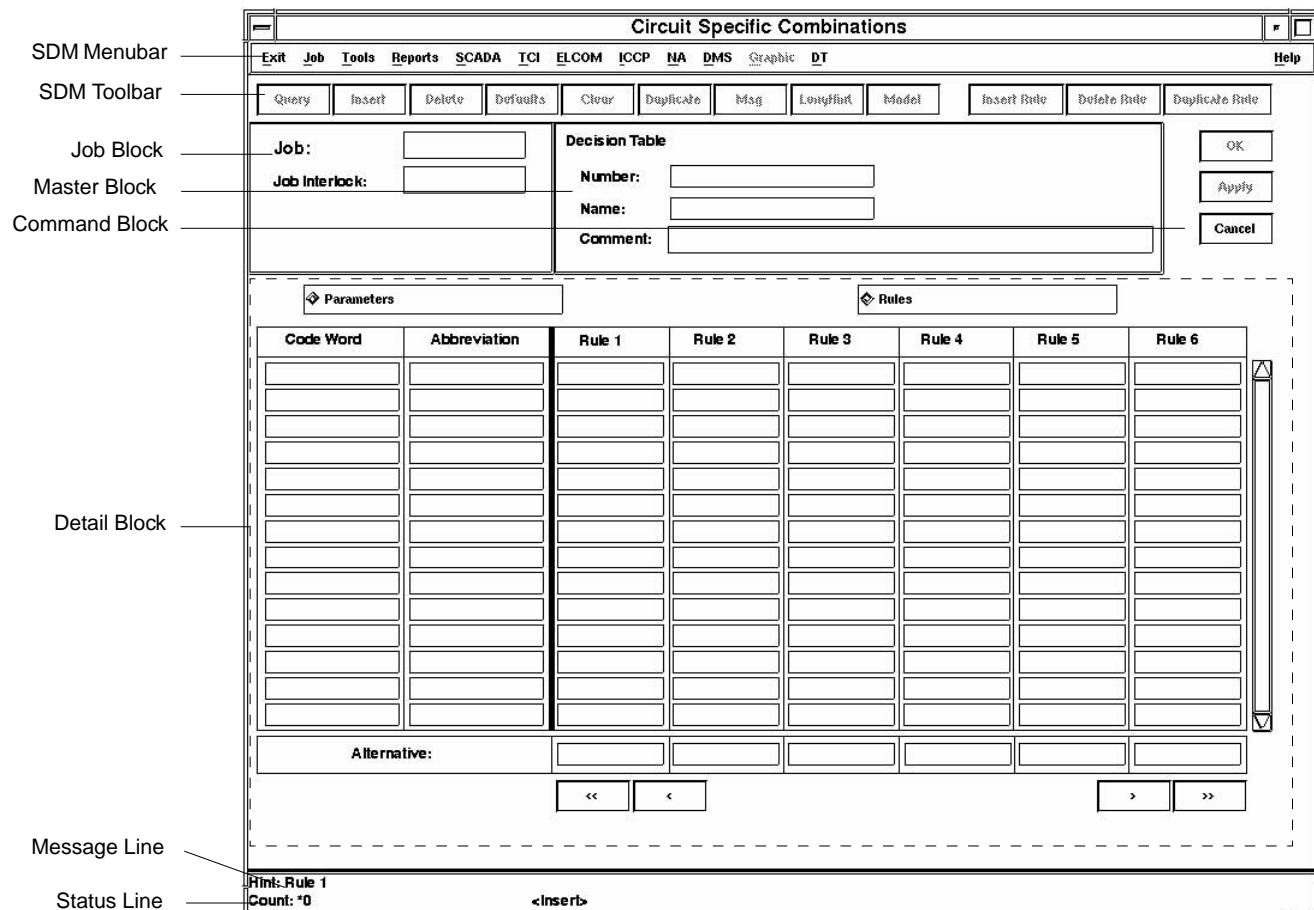
Element name and Info name of the information used in the decision table. In standardized logical connections the names of B1, B2 and B3 of that information, which is displayed in the picture, are added dynamically to the technological address.

Decision Table Forms

Rules Worksheet

FIGURE 90

Basic structure of the Circuit Specific Combinations Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested and a line for entering an alternative for each rule. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **Code Word**

- **Abbreviation**

These two columns show the codewords and abbreviations defined in the Parameters Worksheet. These fields cannot be modified in this worksheet.

- **Rule <n>**

Decision Table Forms

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

- ☞ *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

Beneath the tabular list the following line is displayed:

- **Alternative**

For each rule an alternative must be defined. Different rules can have the same alternative.

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

- **Insert Rule**

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

- **Delete Rule**

Selecting this button deletes the currently selected rule (column).

- **Duplicate Rule**

Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

Decision Table Forms

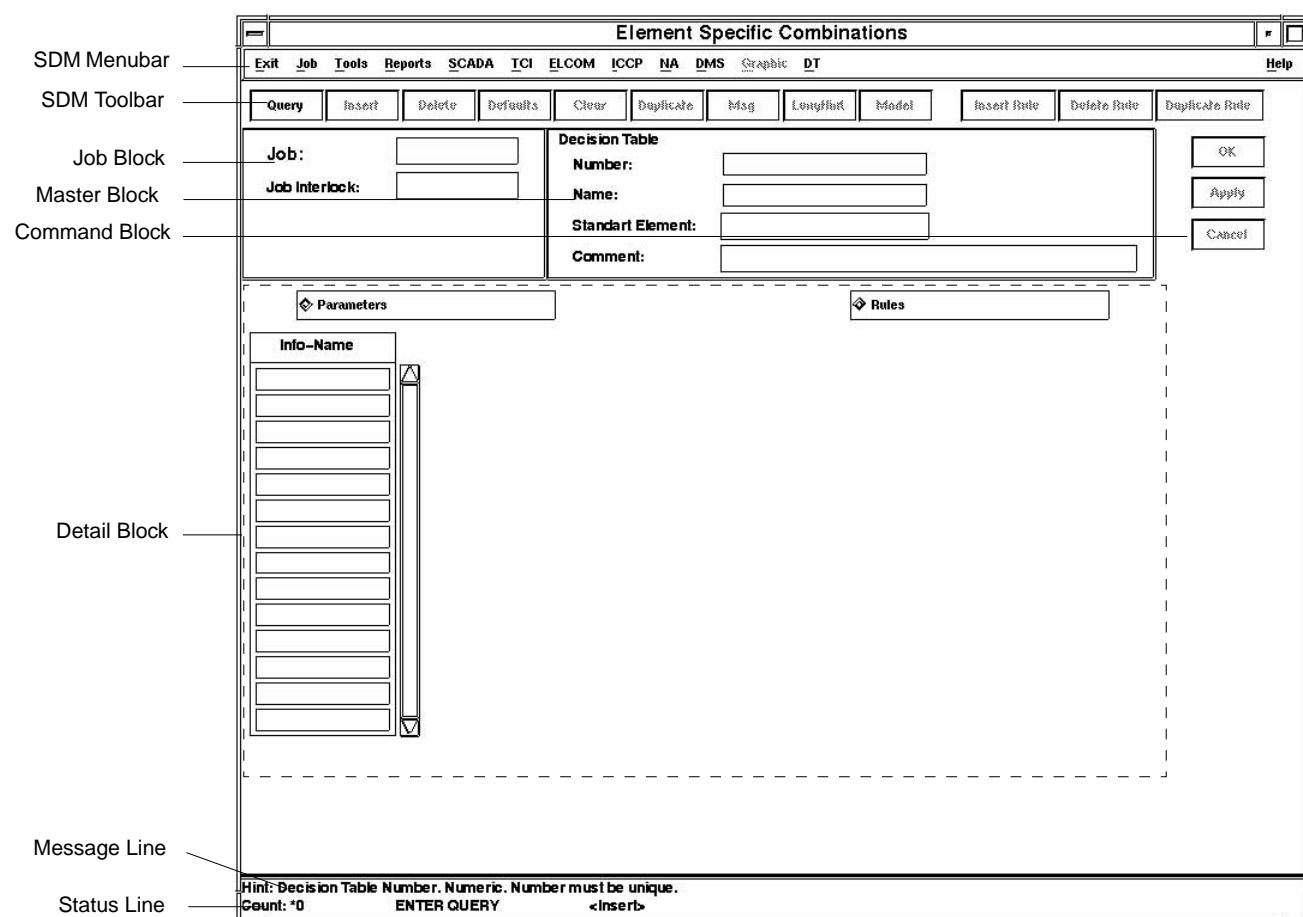
Element Specific Combinations Form

This form is used for handling decision tables for elementary logical operations. It is possible to define rules to combine any information of a standard element type with any other of the same type.

Working with element specific decision tables in the on-line system is less time consuming than using individual or circuit specific decision tables.

FIGURE 91

Basic structure of the Element Specific Combinations Form - Parameters Worksheet



The Element Specific Combinations Form is composed of the following components:

- SDM Menubar

Decision Table Forms

- SDM Toolbar
 - Message Line
 - Status Line
 - Job Block
 - Command Block
- These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.
- Master Block
 - Detail Block

Master Block of the Element Specific Combinations Form

The Master Block of the Element Specific Combinations Form contains fields displaying general attributes of the currently selected decision table:

- **Number**
This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.
For details about performing a query please refer to section 'Queries' on page 6.
- **Name**
This field shows the name of the decision table.
- **Standard Element**
This field shows the name of the standard element type, whose information shall be logically connected.
- **Comment**
This field shows the comment that has been entered for the decision table.

Detail Block of the Element Specific Combinations Form

The Detail Block of the Element Specific Combinations Form consists of a worksheet selection group and two worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet and the Rules Worksheet respectively.

Decision Table Forms

Parameters Worksheet

The Parameters Worksheet is shown in Figure 91. It contains a tabular list with the following column:

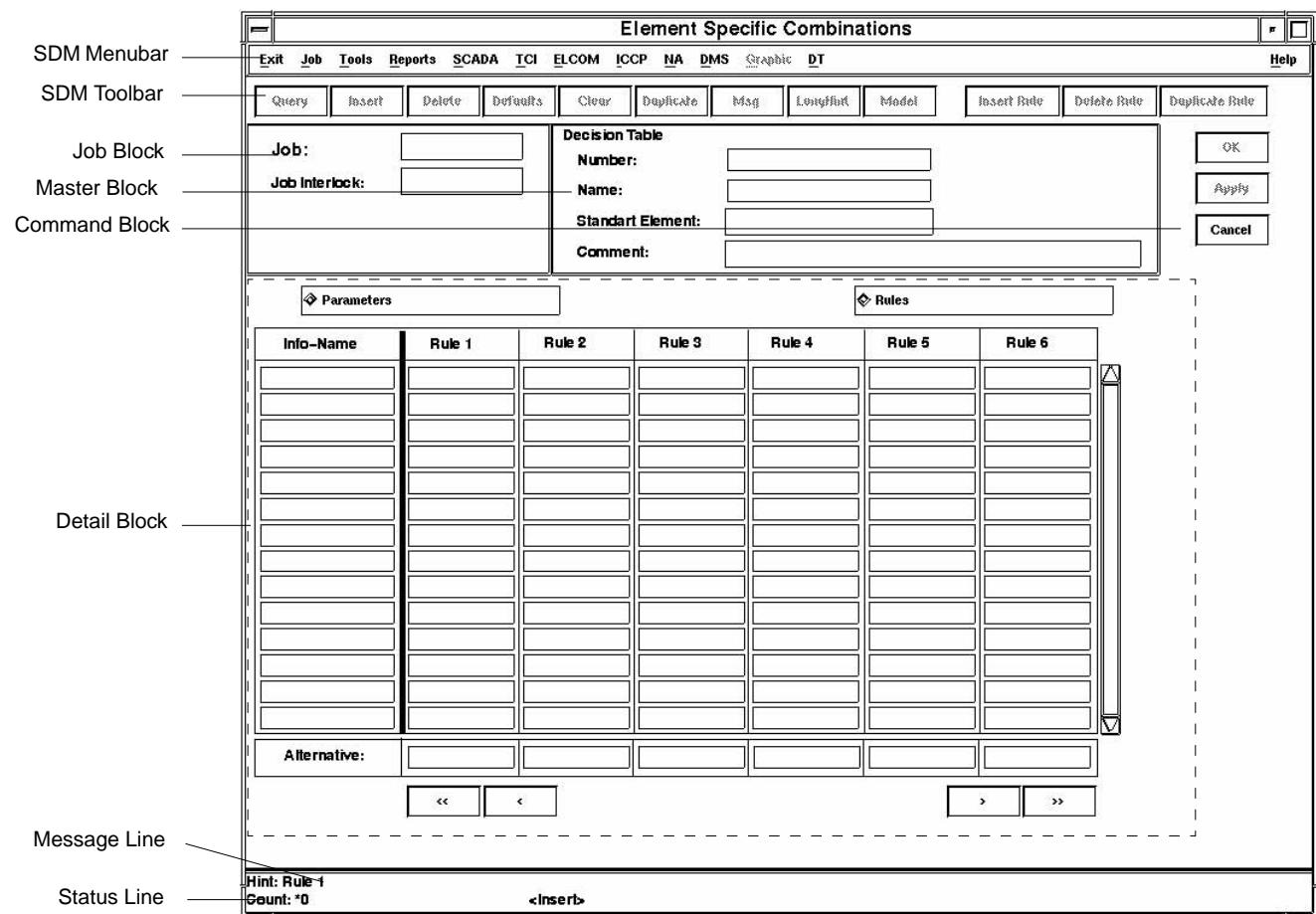
- **Info-Name**

In this column the names of all informations are listed, which have to be considered in the decision table.

Rules Worksheet

FIGURE 92

Basic structure of the Element Specific Combinations Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested and a line for entering an alternative for each rule. It is not possible to add or delete

Decision Table Forms

condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

■ **Info-Name**

This column shows the information names defined in the Parameters Worksheet. These fields cannot be edited in this worksheet.

■ **Rule <n>**

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

 *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

Beneath the tabular list the following line is displayed:

■ **Alternative**

For each rule an alternative must be defined. Different rules can have the same alternative.

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ **Insert Rule**

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ **Delete Rule**

Selecting this button deletes the currently selected rule (column).

■ **Duplicate Rule**

Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

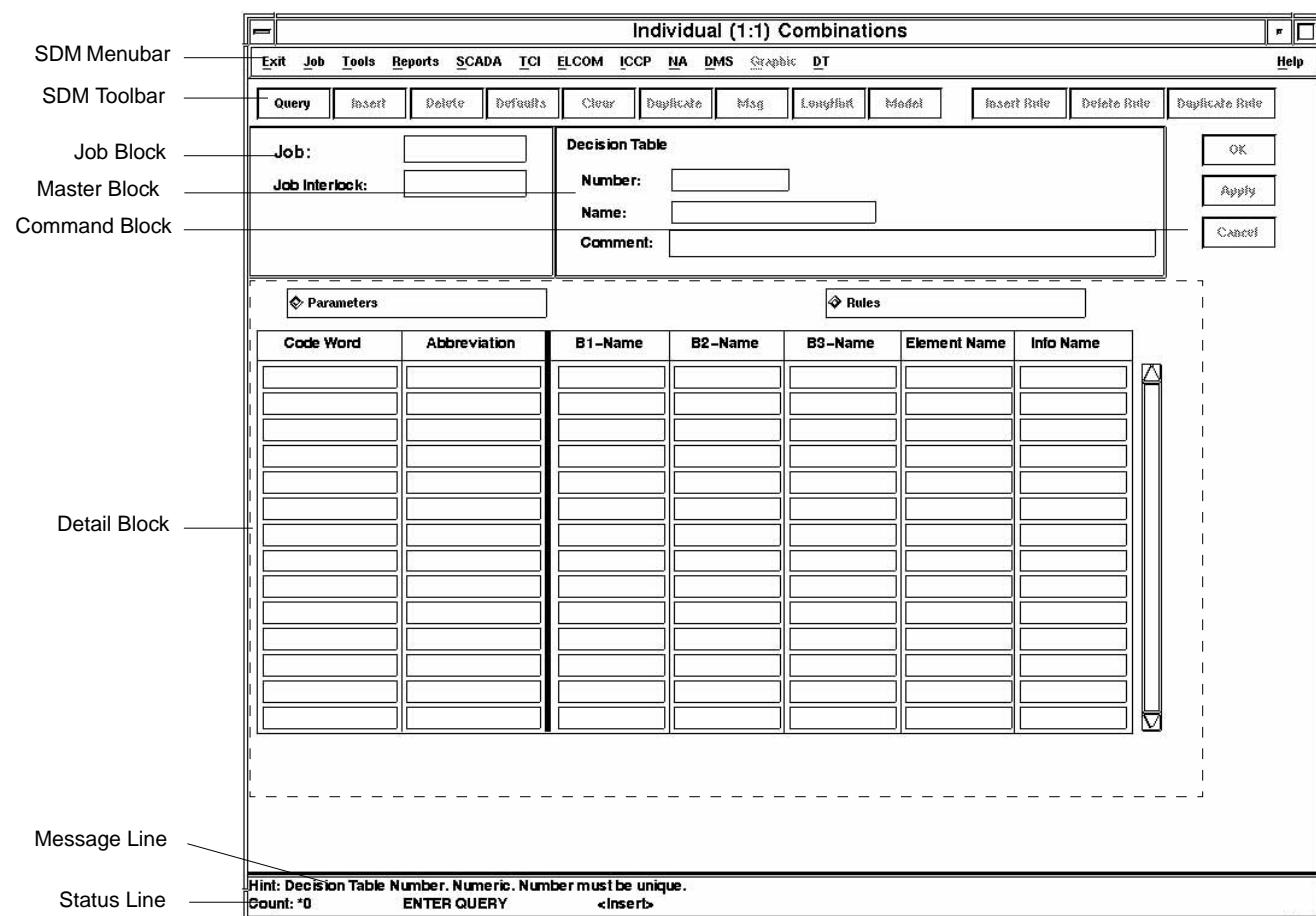
Decision Table Forms

Individual (1:1) Combinations Form

This form is used for editing decision tables for 1:1 logical operations. It is possible to define rules to combine any informations within the network. This decision table should only be used, if the desired logical connections cannot be defined with the elementary or standardized decision tables.

FIGURE 93

Basic structure of the Individual (1:1) Combinations Form - Parameters Worksheet



The Individual (1:1) Combinations Form is composed of the following components:

- SDM Menubar
- SDM Toolbar
- Message Line
- Status Line

Decision Table Forms

- Status Line

- Job Block

- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.

- Master Block

- Detail Block

Master Block of the Individual (1:1) Combinations Form

The Master Block of the Individual (1:1) Combinations Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.

For details about performing a query please refer to section 'Queries' on page 6.

- **Name**

This field shows the name of the decision table.

- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Individual (1:1) Combinations Form

The Detail Block of the Individual (1:1) Combinations Form consists of a worksheet selection group and two worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet and the Rules Worksheet respectively.

Decision Table Forms

Parameters Worksheet

The Parameters Worksheet is shown in Figure 93. It consists of a tabular list with the following columns:

- **Code Word**

The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. B1-, B2-, B3-name, name of the element and/or name of the information, are necessary.

- **Abbreviation**

Optional text used for identification of element and information in the Rules Worksheet.

- **B1-Name**

B1 name of the information used in the decision table.

- **B2-Name**

B2 name of the information used in the decision table.

- **B3-Name**

B3 name of the information used in the decision table.

- **Element Name**

Element name of the information used in the decision table.

- **Info Name**

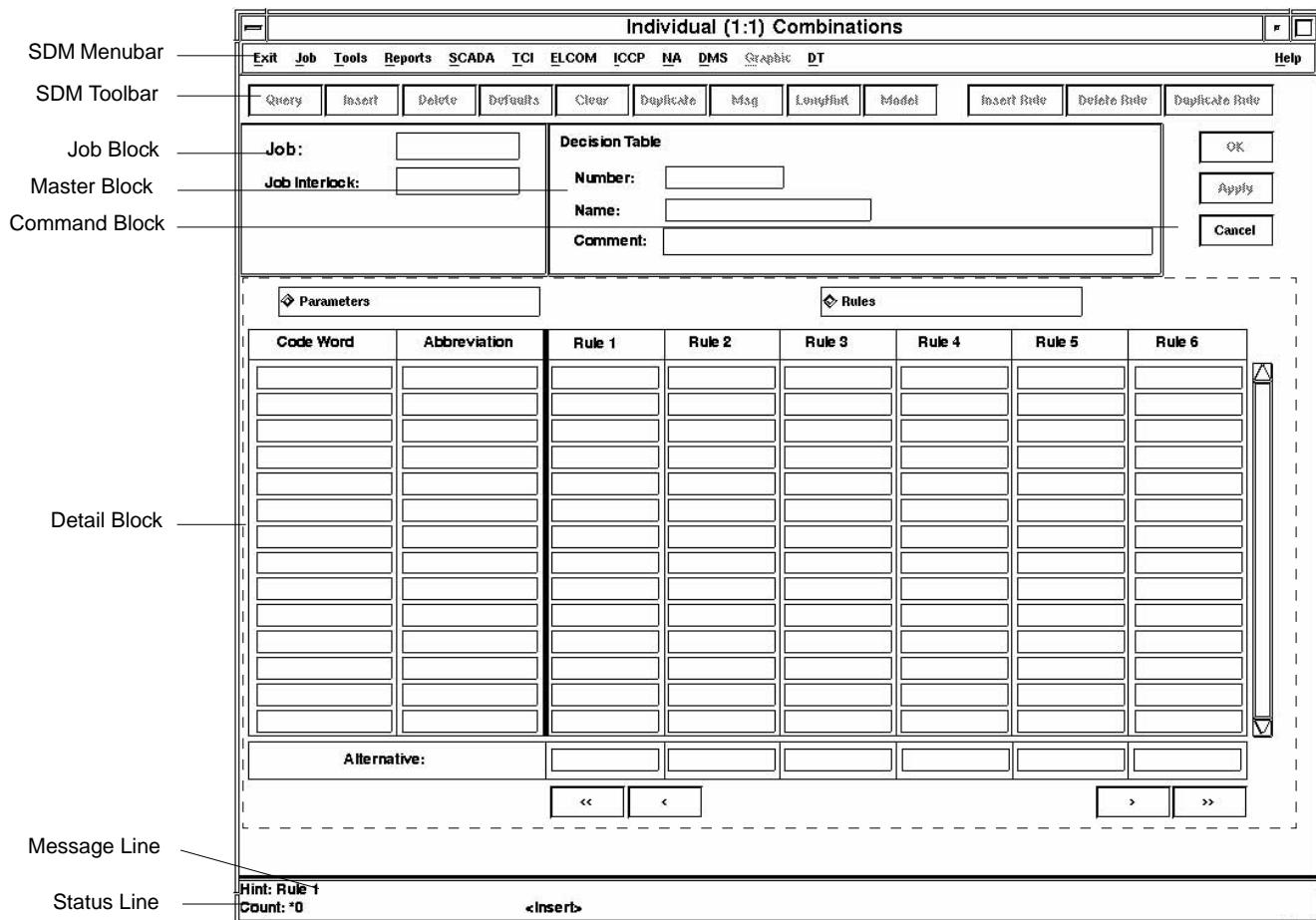
Info name of the information used in the decision table.

Decision Table Forms

Rules Worksheet

FIGURE 94

Basic structure of the Individual (1:1) Combinations Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested and a line for entering an alternative for each rule. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **Code Word**

- **Abbreviation**

These two columns show the codewords and abbreviations defined in the Parameters Worksheet. These fields cannot be modified in this worksheet.

Decision Table Forms

■ Rule <n>

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

- ☞ *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

Beneath the tabular list the following line is displayed:

■ Alternative

For each rule an alternative must be defined. Different rules can have the same alternative.

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ Insert Rule

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ Delete Rule

Selecting this button deletes the currently selected rule (column).

■ Duplicate Rule

Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

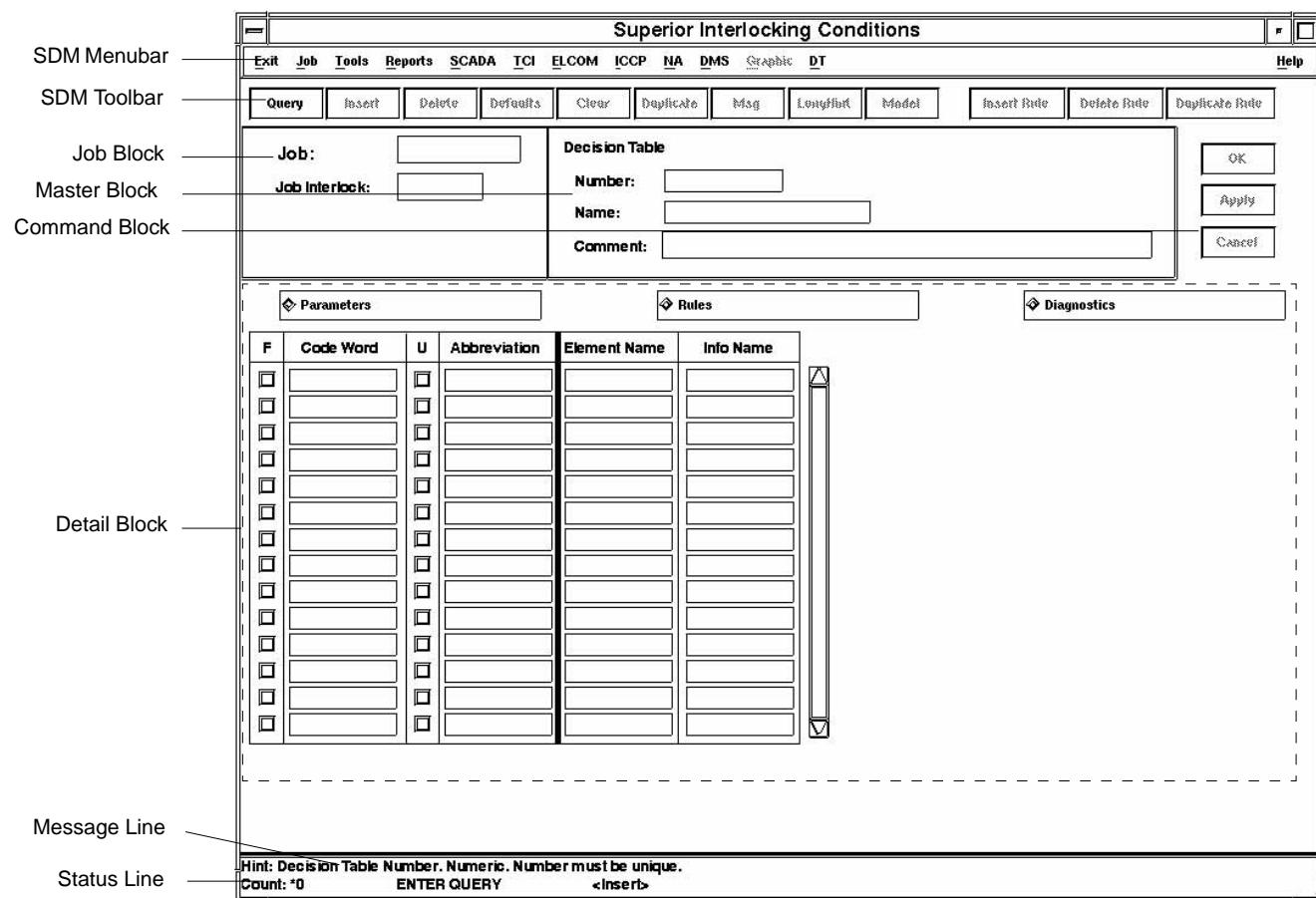
Decision Table Forms

Superior Interlocking Conditions Form

The decision table for superior interlocks contains only interlocking conditions depending on the type of step (e. g. control step, follow-up step, etc.). At test time the entire step information is present. The interlocking conditions are valid for each technological area and are tested with each remote control step and each tagging step. Technologically formulated conditions therefore are rarely useful in this table (but possible). This decision table exists only once in the system and is a project constant.

FIGURE 95

Basic structure of the Superior Interlocking Conditions Form - Parameters Worksheet



The Superior Interlocking Conditions Form is composed of the following components:

- SDM Menubar
- SDM Toolbar

Decision Table Forms

- Message Line
 - Status Line
 - Job Block
 - Command Block
- These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.
- Master Block
 - Detail Block

Master Block of the Superior Interlocking Conditions Form

The Master Block of the Superior Interlocking Conditions Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.

For details about performing a query please refer to section 'Queries' on page 6.

- **Name**

This field shows the name of the decision table.

- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Superior Interlocking Conditions Form

The Detail Block of the Superior Interlocking Conditions Form consists of a worksheet selection group and three worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet, the Rules Worksheet and the Diagnostics Worksheet respectively.

Parameters Worksheet

The Parameters Worksheet is shown in Figure 95. It consists of a tabular list with the following columns:

- **F**

Decision Table Forms

Selecting this checkbox marks the corresponding codeword and conditions as filter to determine the rules that must be checked. All lines marked as filter must be at the beginning of the table. They must not be mixed with the other lines. Therefore this checkbox can only be selected in the last line marked as filter and in the first line not marked as filter.

■ **Code Word**

The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. element name and info name are necessary.

■ **U**

If this checkbox is selected, it indicates that the condition can be unlocked by a command from the operator during supervisory control. This checkbox can be selected for all lines that are not marked as filter (see column 'F').

■ **Abbreviation**

Optional text for the technological address. This abbreviation serves as identification of the test steps in the other two worksheets.

■ **Element Name**

■ **Info Name**

Element name and info name of the information used in the decision table.

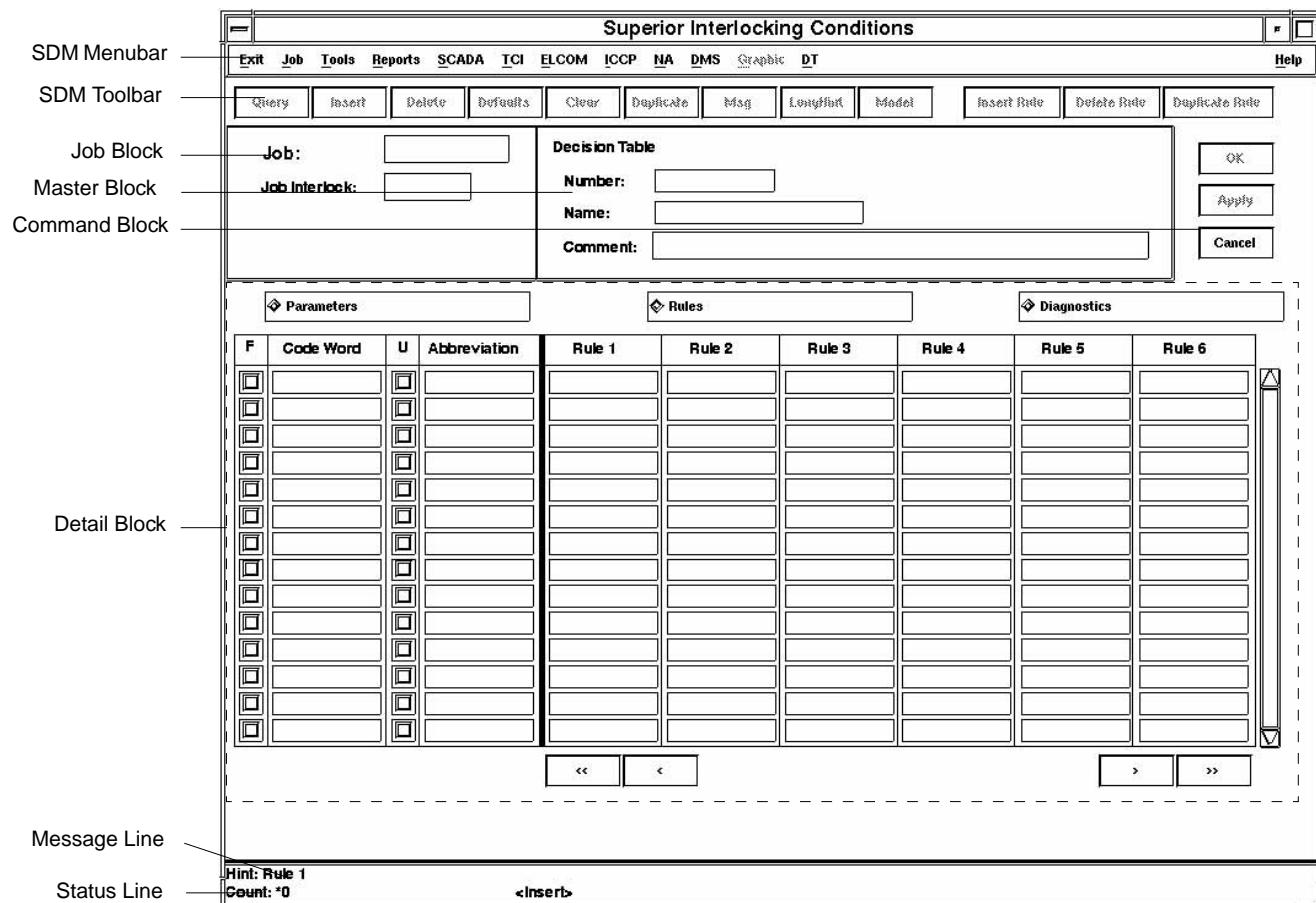
☞ When duplicating a condition line, setting of the checkbox 'F' depends on the position of the destination line (whether it is within filter lines or not). If checkbox 'U' is selected in the source line, it will not be copied if the destination line will be a filter line.

Decision Table Forms

Rules Worksheet

FIGURE 96

Basic structure of the Superior Interlocking Conditions Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Rule <n>**

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

- ☞ *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ **Insert Rule**

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ **Delete Rule**

Selecting this button deletes the currently selected rule (column).

■ **Duplicate Rule**

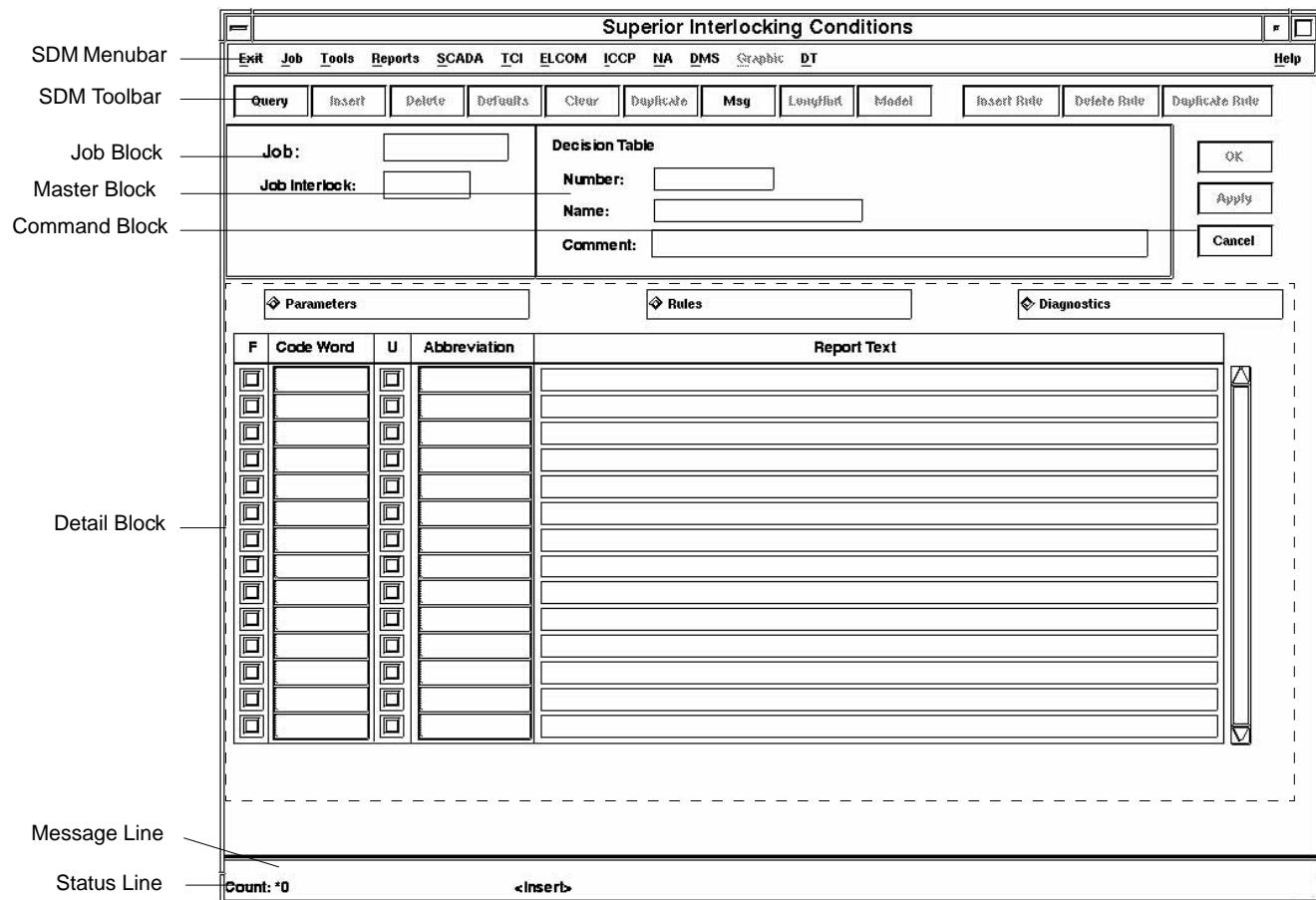
Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

Decision Table Forms

Diagnostics Worksheet

FIGURE 97

Basic structure of the Superior Interlocking Conditions Form - Diagnostics Worksheet



The Diagnostics Worksheet contains a tabular list for entering a report text for each condition line. It is not possible to add or delete condition lines in this worksheet.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

Decision Table Forms

■ **Report Text**

In this column a report text can be specified for each interlocking condition.

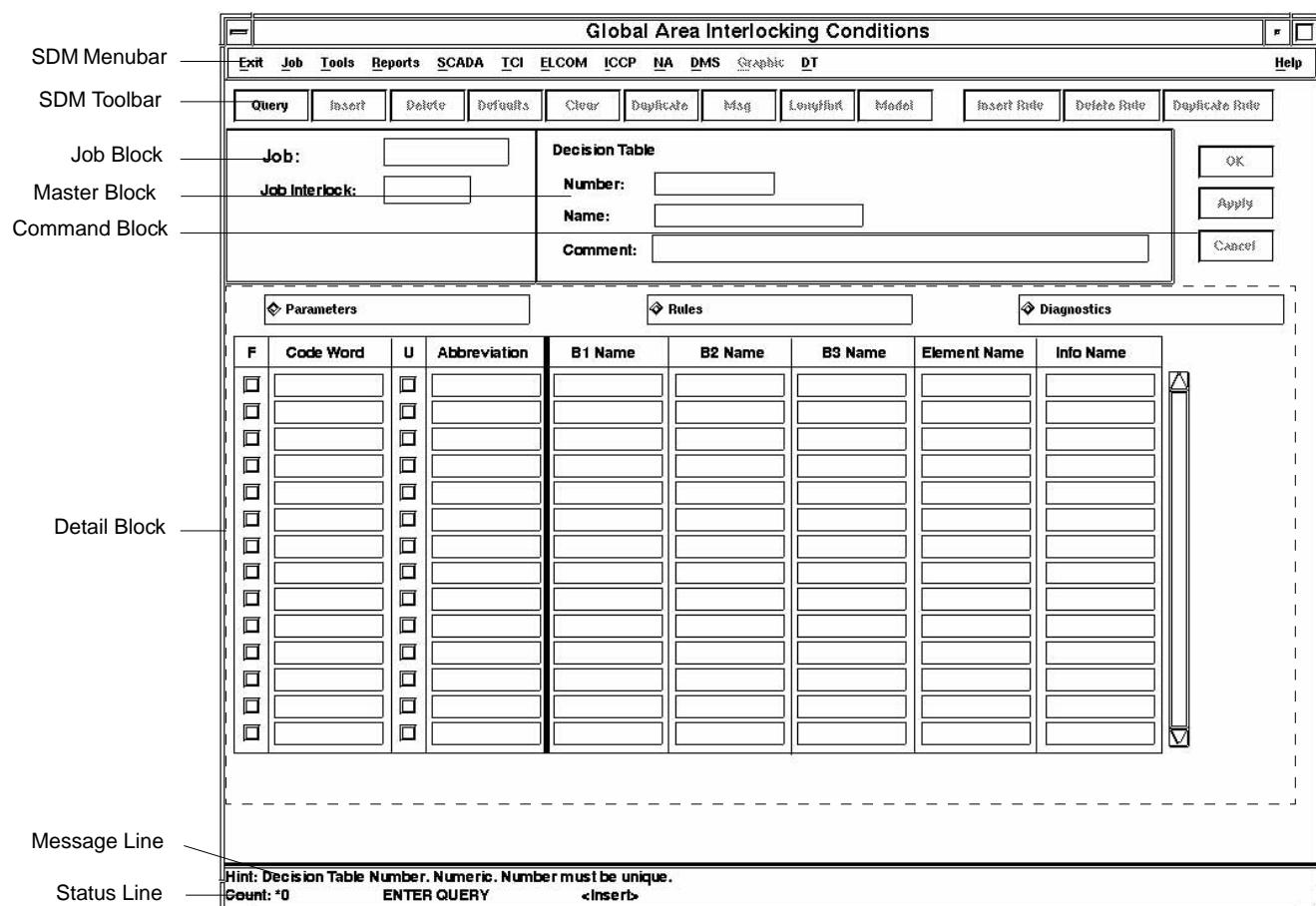
Decision Table Forms

Global Area Interlocking Conditions Form

With this form network information which lies outside of the own network element group can be included in the interlocking conditions.

FIGURE 98

Basic structure of the Global Area Interlocking Conditions Form - Parameters Worksheet



The Global Area Interlocking Conditions Form is composed of the following components:

- SDM Menubar
- SDM Toolbar
- Message Line

Decision Table Forms

- Status Line

- Job Block

- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.

- Master Block

- Detail Block

Master Block of the Global Area Interlocking Conditions Form

The Master Block of the Global Area Interlocking Conditions Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.

For details about performing a query please refer to section 'Queries' on page 6.

- **Name**

This field shows the name of the decision table.

- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Global Area Interlocking Conditions Form

The Detail Block of the Global Area Interlocking Conditions Form consists of a worksheet selection group and three worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet, the Rules Worksheet and the Diagnostics Worksheet respectively.

Parameters Worksheet

The Parameters Worksheet is shown in Figure 98. It consists of a tabular list with the following columns:

- **F**

Selecting this checkbox marks the corresponding codeword and conditions as filter to determine the rules that must be checked. All lines marked as filter must be at the be-

Decision Table Forms

ginning of the table. They must not be mixed with the other lines. Therefore this checkbox can only be selected in the last line marked as filter and in the first line not marked as filter.

■ **Code Word**

The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. B1 name, B2 name, B3 name, element name and info name are necessary.

■ **U**

If this checkbox is selected, it indicates that the condition can be unlocked by a command from the operator during supervisory control. This checkbox can be selected for all lines that are not marked as filter (see column '**F**').

■ **Abbreviation**

Optional text for the technological address. This abbreviation serves as identification of the test steps in the other two worksheets.

■ **B1 Name**

B1 name of the information used in the decision table.

■ **B2 Name**

B2 name of the information used in the decision table.

■ **B3 Name**

B3 name of the information used in the decision table.

■ **Element Name**

Element name of the information used in the decision table.

■ **Info Name**

Info name of the information used in the decision table.

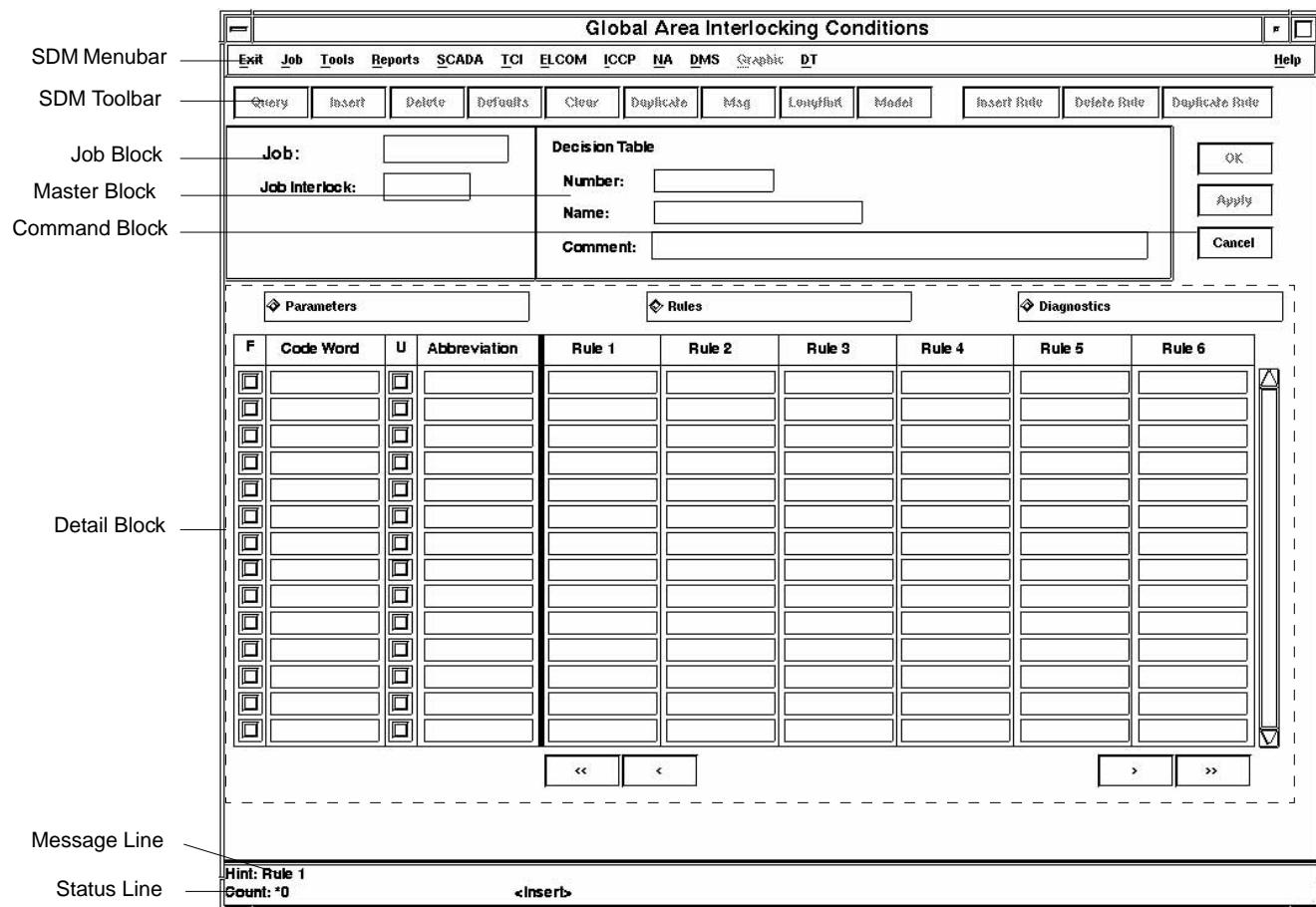
 When duplicating a condition line, setting of the checkbox '**F**' depends on the position of the destination line (whether it is within filter lines or not). If checkbox '**U**' is selected in the source line, it will not be copied if the destination line will be a filter line.

Decision Table Forms

Rules Worksheet

FIGURE 99

Basic structure of the Global Area Interlocking Conditions Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Rule <n>**

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

- ☞ *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ **Insert Rule**

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ **Delete Rule**

Selecting this button deletes the currently selected rule (column).

■ **Duplicate Rule**

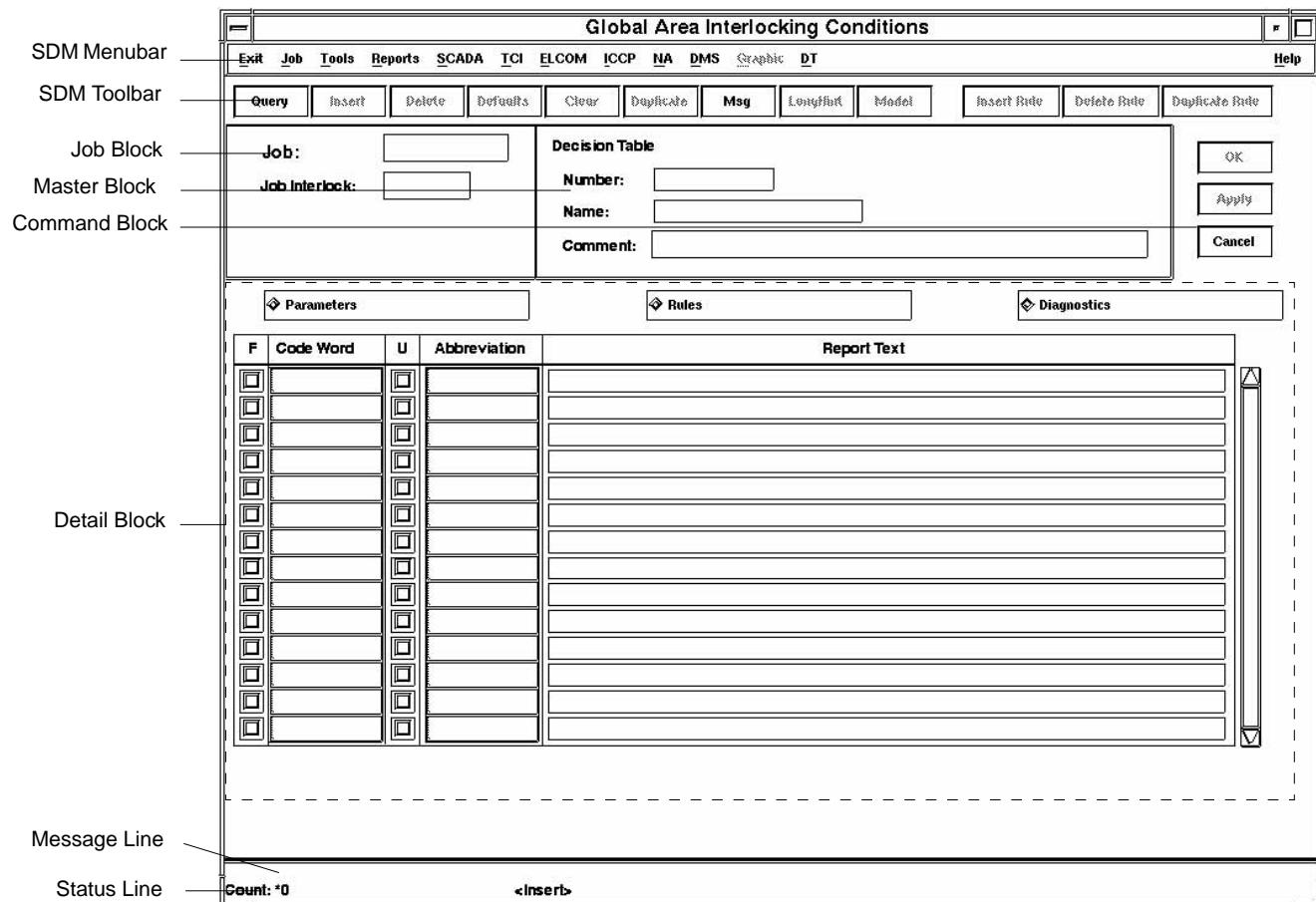
Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

Decision Table Forms

Diagnostics Worksheet

FIGURE 100

Basic structure of the Global Area Interlocking Conditions Form - Diagnostics Worksheet



The Diagnostics Worksheet contains a tabular list for entering a report text for each condition line. It is not possible to add or delete condition lines in this worksheet.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Report Text**

In this column a report text can be specified for each interlocking condition.

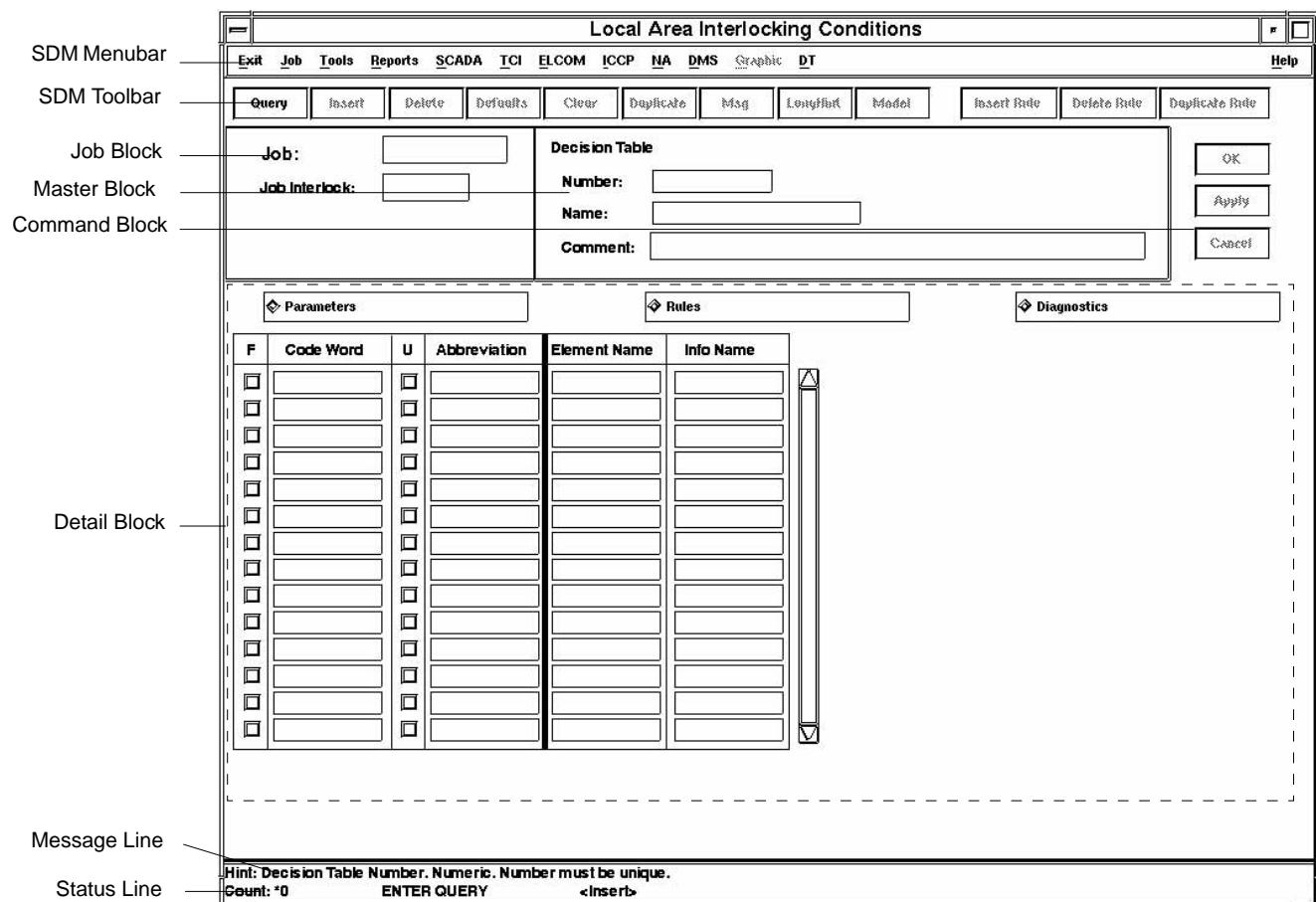
Decision Table Forms

Local Area Interlocking Conditions Form

The decision tables for local interlocks contain standardized, e.g. for each microtopology type formulated, interlocking conditions.

FIGURE 101

Basic structure of the Local Area Interlocking Conditions Form - Parameters Worksheet



The Local Area Interlocking Conditions Form is composed of the following components:

- SDM Menubar
- SDM Toolbar
- Message Line
- Status Line

Decision Table Forms

- Job Block
- Command Block
 - These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.
- Master Block
- Detail Block

Master Block of the Local Area Interlocking Conditions Form

The Master Block of the Local Area Interlocking Conditions Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.
For details about performing a query please refer to section 'Queries' on page 6.
- **Name**

This field shows the name of the decision table.
- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Local Area Interlocking Conditions Form

The Detail Block of the Local Area Interlocking Conditions Form consists of a worksheet selection group and three worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet, the Rules Worksheet and the Diagnostics Worksheet respectively.

Parameters Worksheet

The Parameters Worksheet is shown in Figure 101. It consists of a tabular list with the following columns:

- **F**

Selecting this checkbox marks the corresponding codeword and conditions as filter to determine the rules that must be checked. All lines marked as filter must be at the beginning of the table. They must not be mixed with the other lines. Therefore this check-

Decision Table Forms

box can only be selected in the last line marked as filter and in the first line not marked as filter.

■ **Code Word**

The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. element name and info name are necessary.

■ **U**

If this checkbox is selected, it indicates that the condition can be unlocked by a command from the operator during supervisory control. This checkbox can be selected for all lines that are not marked as filter (see column 'F').

■ **Abbreviation**

Optional text for the technological address. This abbreviation serves as identification of the test steps in the other two worksheets.

■ **Element Name**

■ **Info Name**

Element name and info name of the information used in the decision table.

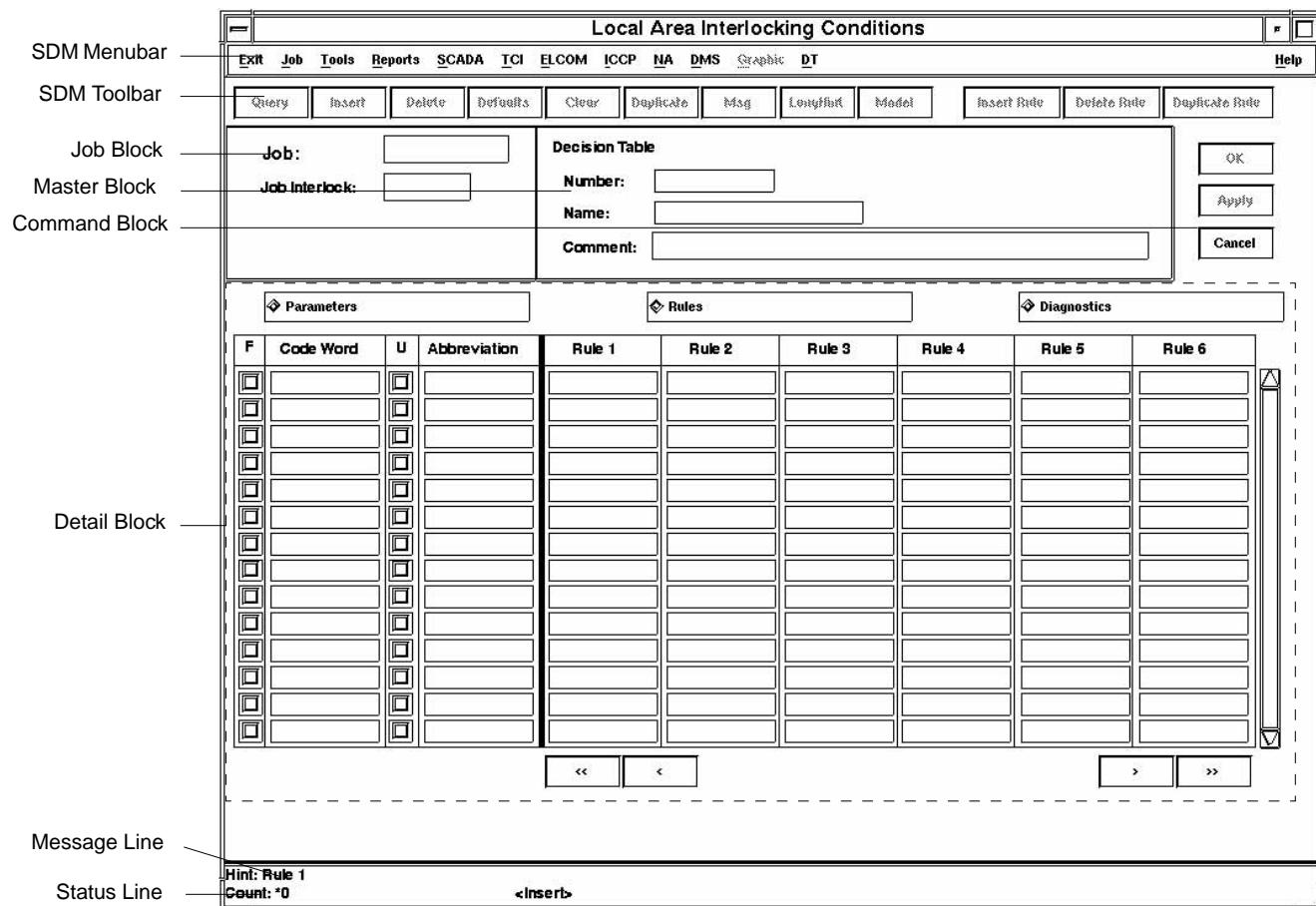
☞ When duplicating a condition line, setting of the checkbox 'F' depends on the position of the destination line (whether it is within filter lines or not). If checkbox 'U' is selected in the source line, it will not be copied if the destination line will be a filter line.

Decision Table Forms

Rules Worksheet

FIGURE 102

Basic structure of the Local Area Interlocking Conditions Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Rule <n>**

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

- ☞ *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ **Insert Rule**

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ **Delete Rule**

Selecting this button deletes the currently selected rule (column).

■ **Duplicate Rule**

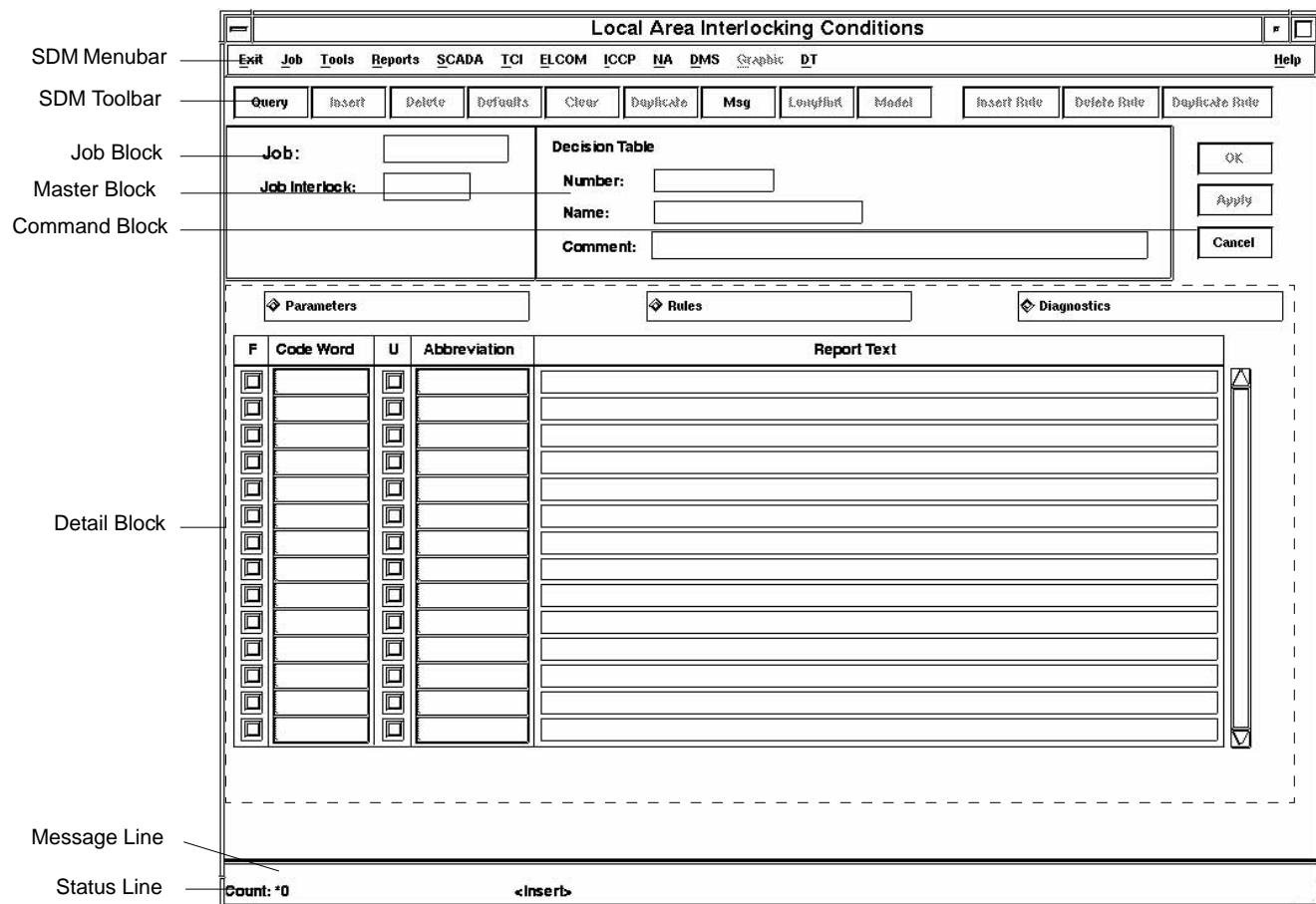
Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

Decision Table Forms

Diagnostics Worksheet

FIGURE 103

Basic structure of the Local Area Interlocking Conditions Form - Diagnostics Worksheet



The Diagnostics Worksheet contains a tabular list for entering a report text for each condition line. It is not possible to add or delete condition lines in this worksheet.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Report Text**

In this column a report text can be specified for each interlocking condition.

Decision Table Forms

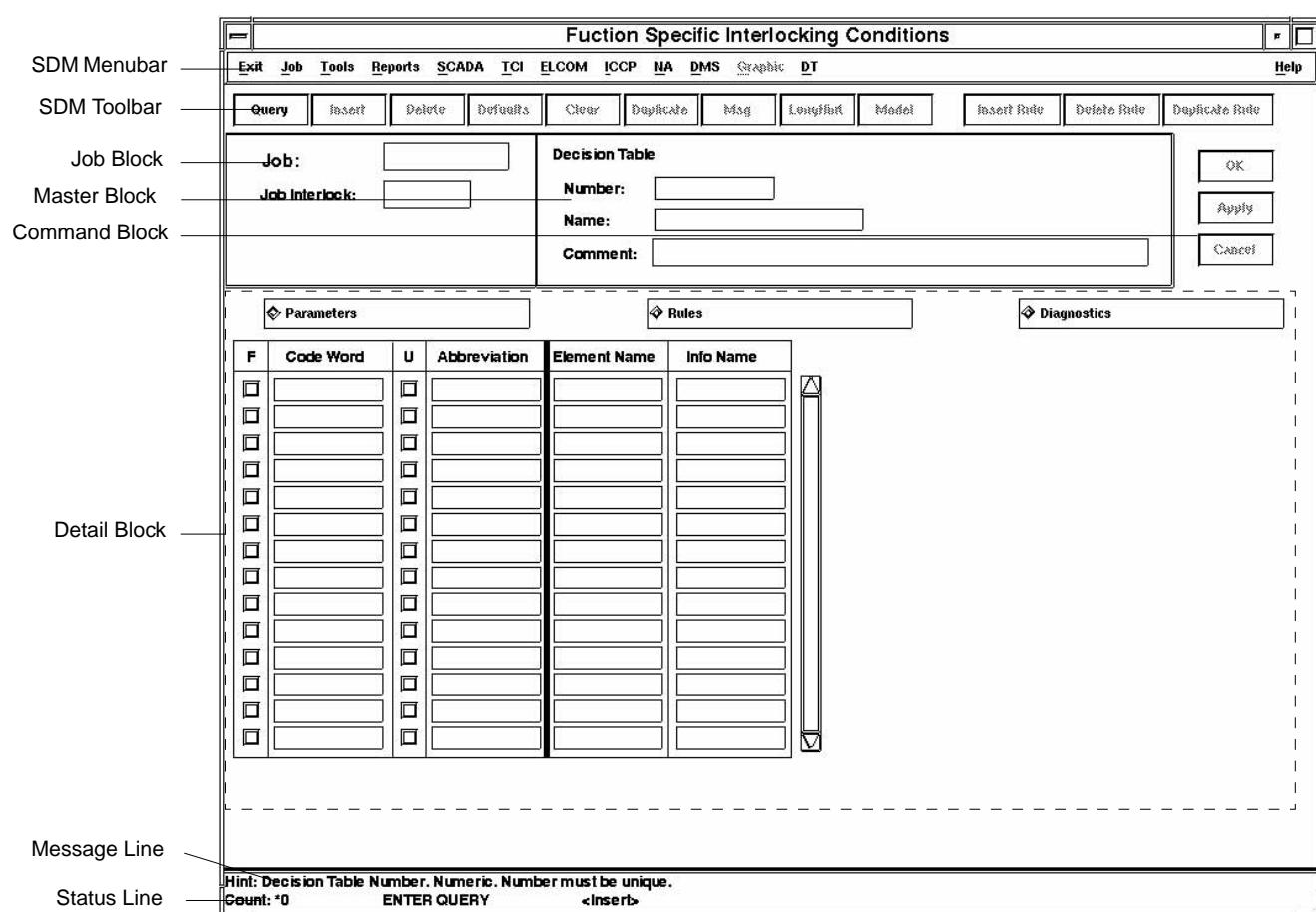
Function Specific Interlocking Conditions Form

Decision tables for function specific interlocking conditions contain only interlocking conditions depending on functions for supervisory control. At the time the interlocks are tested, only the type of the order for supervisory control exists and no technological information with the exception of declarations about the action area (positioning data), therefore technological interlocks can only be formulated conditionally in this table.

This decision table exists only once in the system and is a project constant.

FIGURE 104

Basic structure of the Function Specific Interlocking Conditions Form - Parameters Worksheet



The Function Specific Interlocking Conditions Form is composed of the following components:

Decision Table Forms

- SDM Menubar
- SDM Toolbar
- Message Line
- Status Line
- Job Block
- Command Block

These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.

- Master Block
- Detail Block

Master Block of the Function Specific Interlocking Conditions Form

The Master Block of the Function Specific Interlocking Conditions Form contains fields displaying general attributes of the currently selected decision table:

- **Number**

This field shows the number of the decision table. Another decision table may be selected in this field by entering the name or by selecting the name from a list of values. The list of values is opened after a double-click on the concerned text field. Selecting a new decision table is only possible in Query mode.

For details about performing a query please refer to section 'Queries' on page 6.

- **Name**

This field shows the name of the decision table.

- **Comment**

This field shows the comment that has been entered for the decision table.

Detail Block of the Function Specific Interlocking Conditions Form

The Detail Block of the Function Specific Interlocking Conditions Form consists of a worksheet selection group and three worksheets.

The worksheet selection group is provided for selecting the Parameters Worksheet, the Rules Worksheet and the Diagnostics Worksheet respectively.

Decision Table Forms

Parameters Worksheet

The Parameters Worksheet is shown in Figure 104. It consists of a tabular list with the following columns:

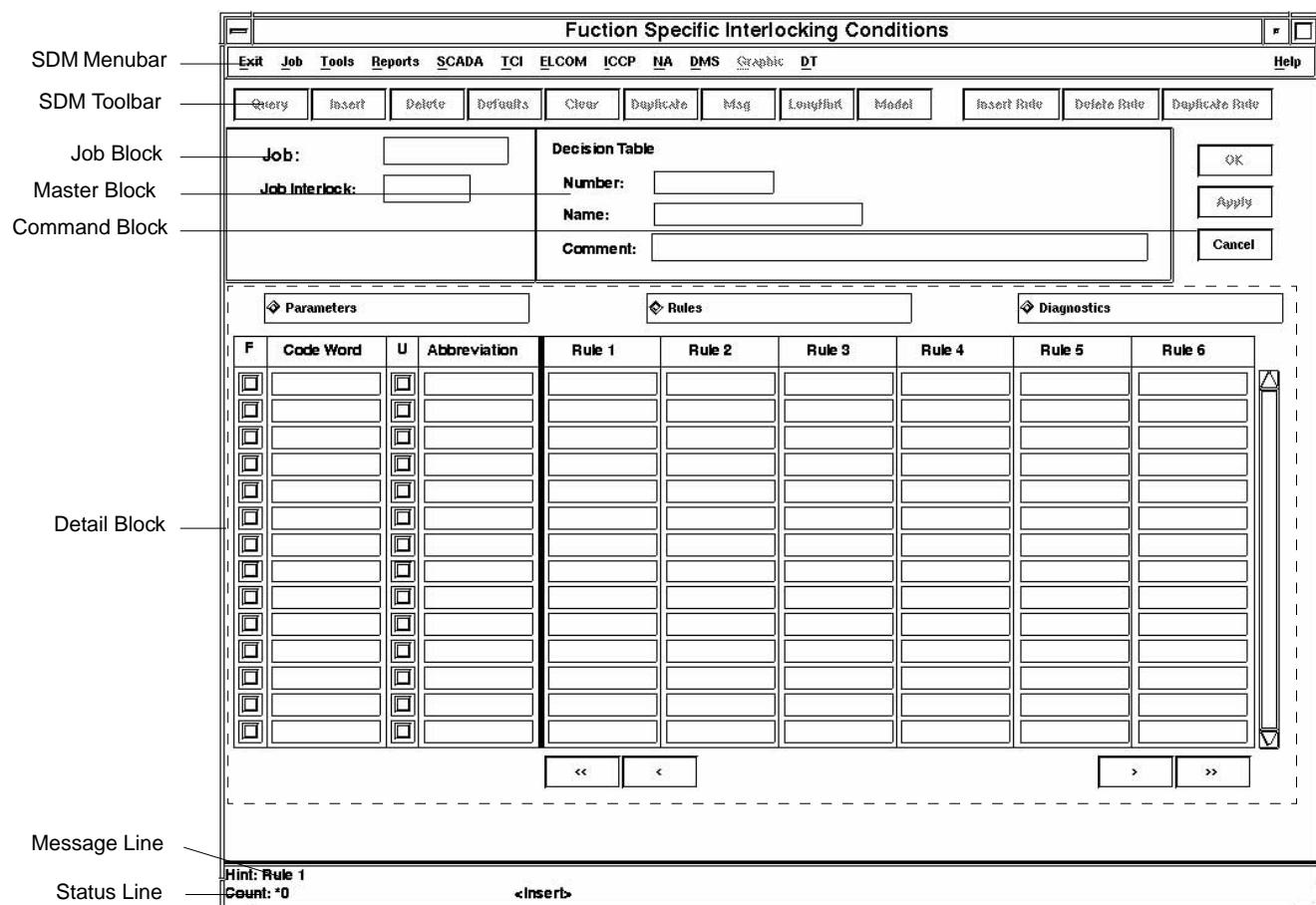
- **F**
Selecting this checkbox marks the corresponding codeword and conditions as filter to determine the rules that must be checked. All lines marked as filter must be at the beginning of the table. They must not be mixed with the other lines. Therefore this checkbox can only be selected in the last line marked as filter and in the first line not marked as filter.
 - **Code Word**
The codewords define the test conditions. For a complete description of the test conditions sometimes additional statements, e. g. element name and info name are necessary.
 - **U**
If this checkbox is selected, it indicates that the condition can be unlocked by a command from the operator during supervisory control. This checkbox can be selected for all lines that are not marked as filter (see column 'F').
 - **Abbreviation**
Optional text for the technological address. This abbreviation serves as identification of the test steps in the other two worksheets.
 - **Element Name**
 - **Info Name**
Element name and info name of the information used in the decision table.
-  When duplicating a condition line, setting of the checkbox '**F**' depends on the position of the destination line (whether it is within filter lines or not). If checkbox '**U**' is selected in the source line, it will not be copied if the destination line will be a filter line.

Decision Table Forms

Rules Worksheet

FIGURE 105

Basic structure of the Function Specific Interlocking Conditions Form - Rules Worksheet



The Rules Worksheet consists of a tabular list for entering conditions for each object to be tested. It is not possible to add or delete condition lines in this worksheet. Below the tabular list four buttons for scrolling through all rules are provided, as only a limited number of rules can be displayed at a time.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**

Decision Table Forms

■ Abbreviation

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ Rule <n>

These columns can be used for defining rules. A rule results from the total amount of conditions displayed vertically below a rule number. Adding new rules or deleting existing rules can be performed with buttons **Insert Rule**, **Delete Rule** and **Duplicate Rule** described below.

 *During on-line processing the system takes the rules one after the other beginning with rule 1. If a rule is fulfilled, the processing is stopped. This must be taken into consideration when defining the decision tables.*

When the Rules Worksheet is selected, the SDM Toolbar additionally contains the following buttons:

■ Insert Rule

This button is used to insert a new rule in the decision table. The new rule is inserted at the left side of the currently selected rule.

■ Delete Rule

Selecting this button deletes the currently selected rule (column).

■ Duplicate Rule

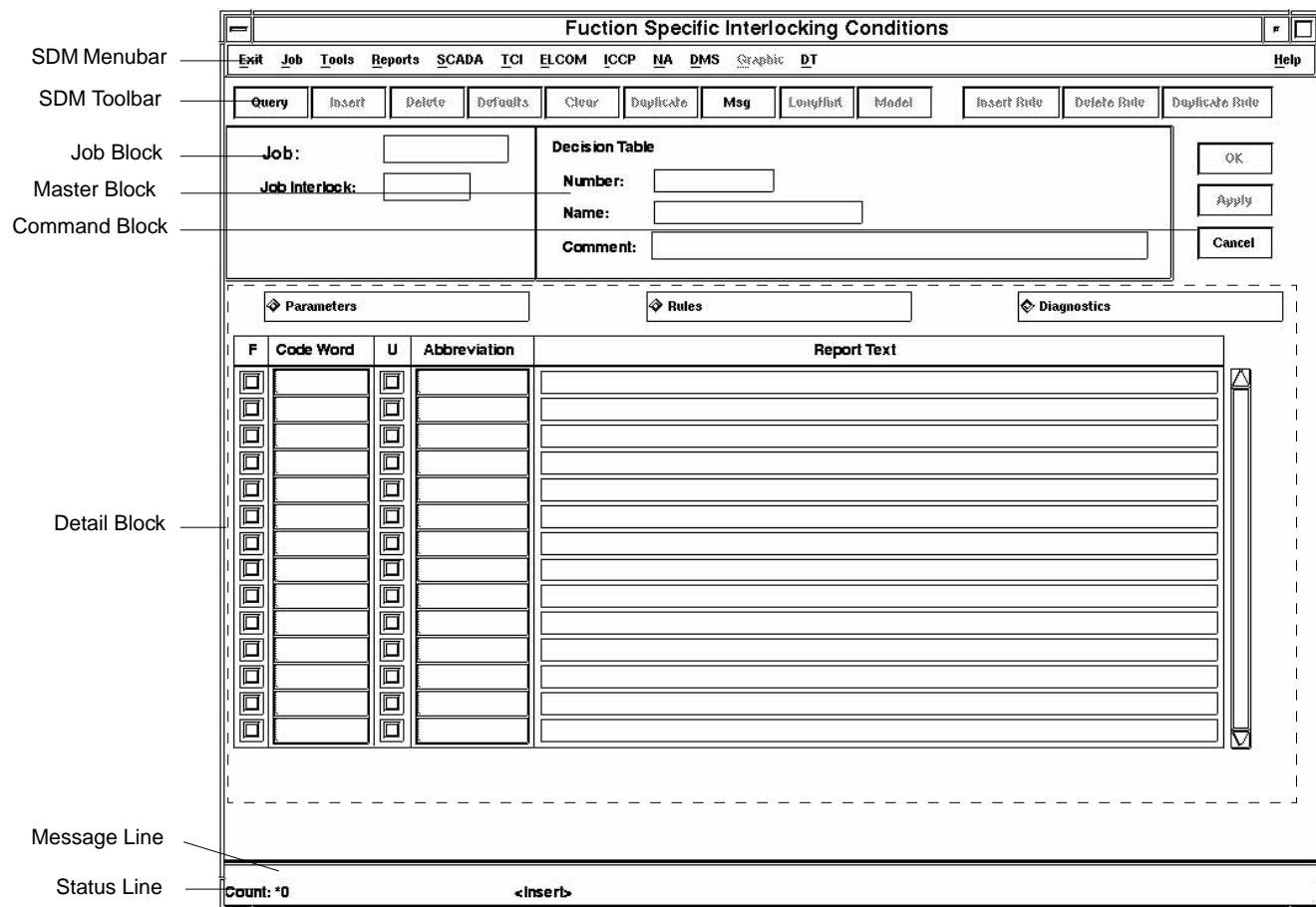
Selecting this button inserts a new rule and fills its lines with the data of the currently selected rule.

Decision Table Forms

Diagnostics Worksheet

FIGURE 106

Basic structure of the Function Specific Interlocking Conditions Form - Diagnostics Worksheet



The Diagnostics Worksheet contains a tabular list for entering a report text for each condition line. It is not possible to add or delete condition lines in this worksheet.

The tabular list consists of the following columns:

- **F**
- **Code Word**
- **U**
- **Abbreviation**

Decision Table Forms

These columns show the information entered in the Parameters Worksheet. They cannot be modified in this worksheet.

■ **Report Text**

In this column a report text can be specified for each interlocking condition.

Multisite Form**CHAPTER 10**

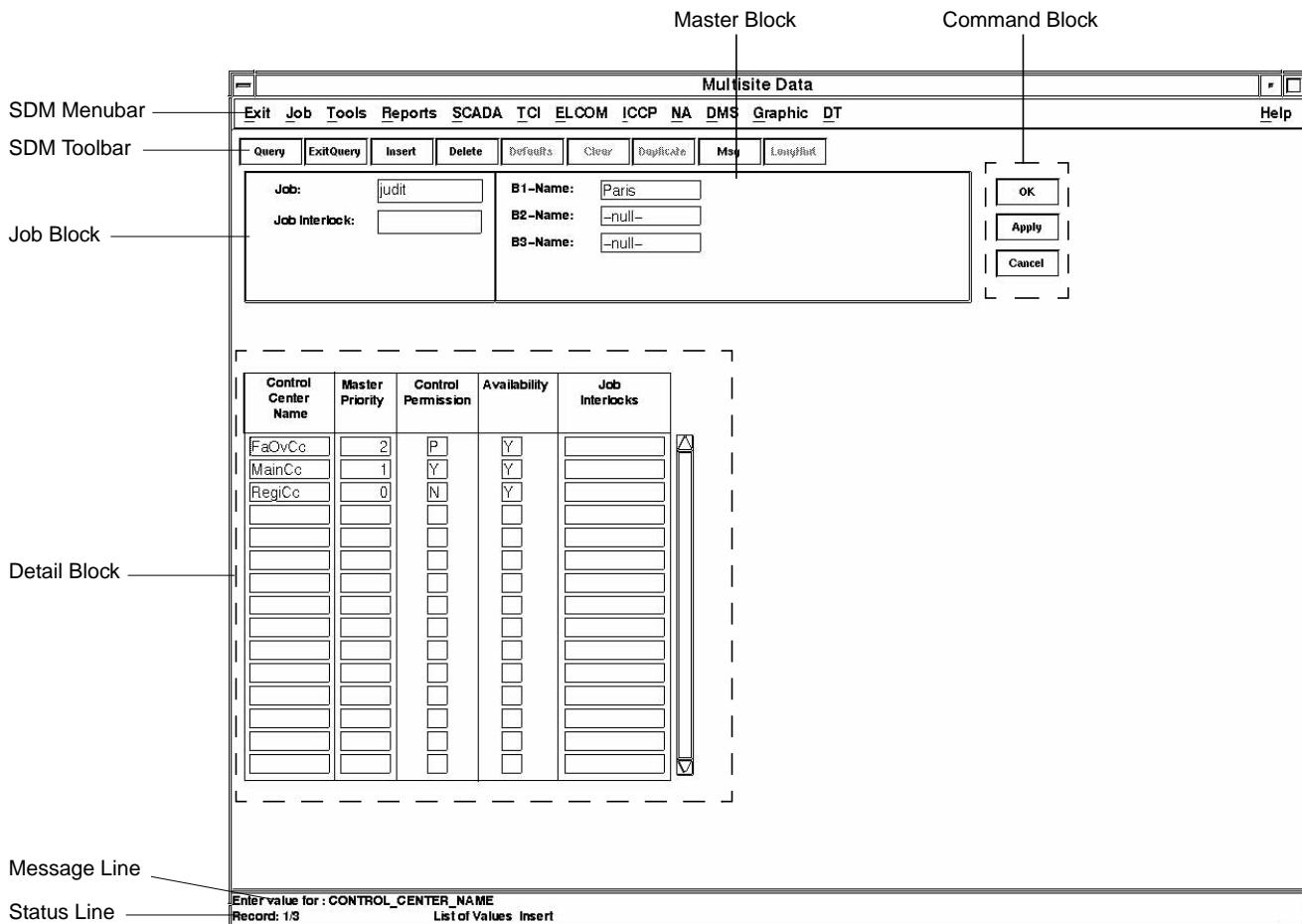
Multisite Form

The Multisite Form provides facilities for entering data describing the multisite functions assigned to certain control centers for the selected B1, B2 or B3 block. Multisite descriptions are inherited by subordinate blocks, but this inheritance may also be overwritten by defining new multisite data for a B2 or B3 block.

Multisite Form

FIGURE 107

Basic structure of the Multisite Form



The Multisite Form is composed of the following elements:

- SDM Menubar
- SDM Toolbar
- Job Block
- Master Block
- Command Block
- Message Line
- Status Line

Multisite Form

These form components are common in all SDM forms. For a detailed description, please refer to the corresponding sections in chapter 'SDM Basics' on page 3 in this document.

■ Detail Block

Detail Block of the Multisite Form

The Detail Block of the Multisite Form consists of a tabular list for entering multisite data for the block defined in the Master Block. This tabular list consists of the following columns:

■ **Control Center Name**

In this field you can enter the name of the control center for which you want to enter the multisite data.

■ **Master Priority**

This field determines, whether the control center is master system for the block defined in the Master Block, as well as its priority. The following input is allowed:

- 0
- 1
- 2
- 3
- 4

Entering "0" means that this control center is not master system for this block.
Entering numbers "1" to "4" determines the master priority of the control center.
A lower number means a higher priority (there may be no gaps when defining the master priority - e.g.: priority "3" may only be defined for a control center, if there are also control centers with priority "1" and "2" for this block).

■ **Control Permission**

This field determines, whether the control center can have control permission for this block. Possible values are:

- N
The control center can never have control permission for this block.
- P
If the control center is switched to mode "autonomous", it has preferred control permission for this block.
- Y
The control center can have control permission for this block.

Multisite Form

■ Availability

Input in this field determines, whether the data points of this block are always kept current in the network image (whether the data points are in the information area of the control center). The following input is possible:

- N
The data points in this block are not available to the control center.
- Y
The data points in this block are available to the control center.

 If **Control Permission** is set to 'Y', then also **Availability** should be set to 'Y'!

■ Job Interlocks

Shows the name of the interlocking job, if such an interlock exists. Read-only display field.

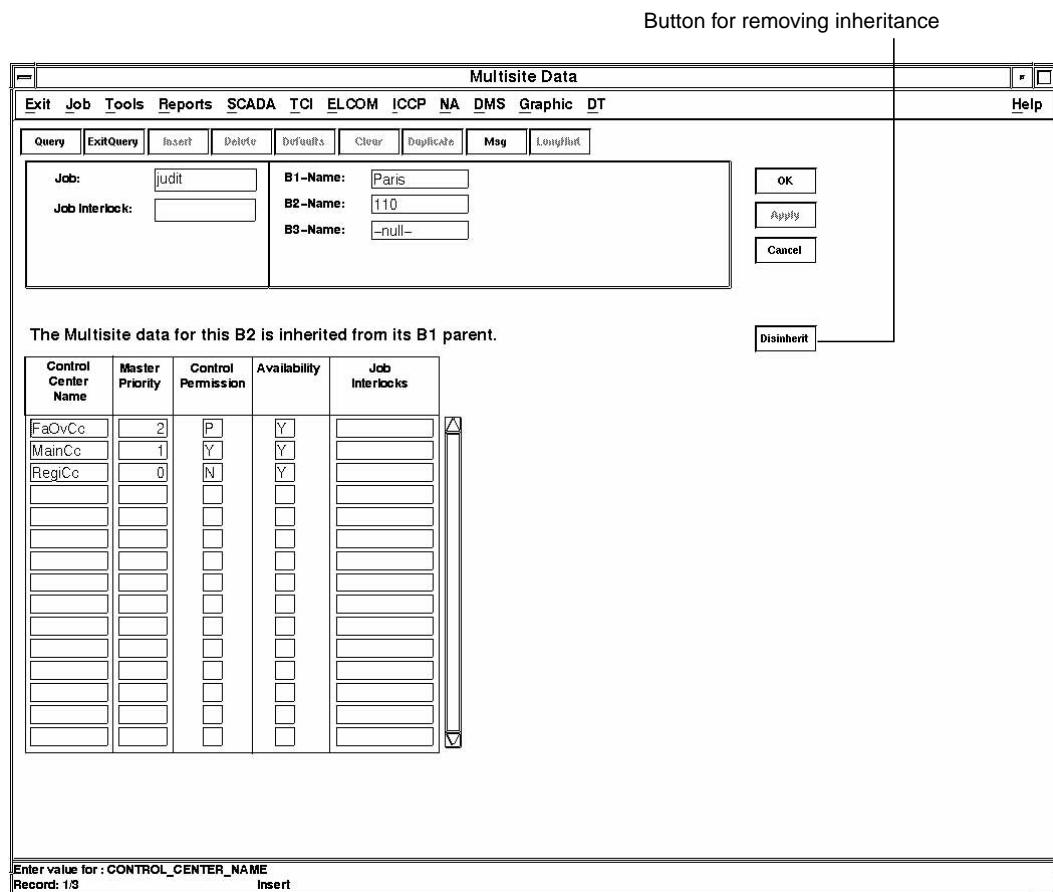
Inheritance of Multisite Descriptions by B2 and B3 Blocks

The multisite data are inherited automatically by all subordinate B2 and B3 blocks of a B1 block. When calling the Multisite Form e.g. for a B2 block, automatically the data of its parent B1 block are entered into the tabular list. Inheritance can be overwritten by pressing button **Disinherit** at the right side of the tabular list, as shown in figure 108.

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FIGURE 108

Multisite Form for defining multisite data for a B2 block with button **Disinherit**



After selecting button **Disinherit**, the fields of the tabular list are released for input and new data can be entered. Button **Disinherit** changes to **Reinherit**.

To undo this operation and select the inherited data again, press button **Reinherit** as shown in figure 109.

Multisite Form

FIGURE 109

Multisite Form for defining multisite data for a B2 block with button Reinherit