### Conditional Statements

**Traffic Lighting**

- cellstyle expr-1 as style-element{style-attributes};
- expr-2 as style-element{style-attributes};
- ...
- expr-n as style-element{style-attributes};

The CELLSTYLE-AS statement is valid in both table and column definitions, although only one style is applied in a single data cell. Each expression is a WHERE expression that is evaluated for each data cell. If the result of the expression is true, the given style element and attributes are applied. Once a matching expression is found, execution stops.

**Translating Values**

- translate expr-1 into expr-2b,
- expr-2a into expr-2b,
- ...
- expr-nb into expr-n;

The TRANSLATE-INTO statement is valid in both table and column definitions, although only one result is applied in a single data cell. Each expression is a WHERE expression. The (a) expressions are evaluated for each data cell. If the result of the expression is true, execution stops.

**Expression Variables**

<table>
<thead>
<tr>
<th>column name</th>
<th>name of any column in the table template or data set</th>
</tr>
</thead>
<tbody>
<tr>
<td>col</td>
<td>current column number</td>
</tr>
<tr>
<td>dataname</td>
<td>name of the current data column</td>
</tr>
<tr>
<td>label</td>
<td>label on the current data column</td>
</tr>
<tr>
<td>row</td>
<td>current row number</td>
</tr>
<tr>
<td>style</td>
<td>current style element name</td>
</tr>
<tr>
<td>val</td>
<td>current data value</td>
</tr>
</tbody>
</table>

### Table Template Example

```sas
proc template;
define table classroom;
  notes "Classroom BMI Table";
  column name age sex (height weight) bmi;
  define header classroomheader;
  notes "Table header";
  text "Classroom BMI Information";
  end;
  define column height;
  define header heightweight;
  notes "Header for Height/Weight";
  text "Height/Weight";
  split = "/";
  end;
  header = heightweight;
  end;
  define bmi;
  notes "Compute BMI (Body Mass Index)";
  header = "BMI";
  compute as (weight*weight) / (height*height);
  cellstyle _val_ < 18
  as {background=yellow};
  header = "BMI";
  notes "Compute BMI (Body Mass Index)";
  compute as (weight*weight) / (height*height);
  cellstyle _val_ <= 18
  as {background=yellow};
  header = "BMI";
  notes "Compute BMI (Body Mass Index)";
  compute as (weight*weight) / (height*height);
  end;
  notes "Table header";
  text "Classroom BMI Information";
  end;
run;
```

### Classroom BMI Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Height</th>
<th>Weight</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfred</td>
<td>14</td>
<td>M</td>
<td>69</td>
<td>112.5</td>
<td>16.6</td>
</tr>
<tr>
<td>Alice</td>
<td>13</td>
<td>F</td>
<td>56.5</td>
<td>84</td>
<td>18.5</td>
</tr>
<tr>
<td>Barbara</td>
<td>13</td>
<td>F</td>
<td>65.5</td>
<td>16.2</td>
<td></td>
</tr>
</tbody>
</table>
# Browsing Templates

The table templates supplied by SAS are stored in the SASHELP.TMPLMST itemstore. You can browse the templates using either a graphical interface or PROC TEMPLATE code.

```sas
ods templates;
file print ods=(
  set odstemplates into the command bar to open
  the Template Browser. Double-clicking a template
  displays its source code.
proc template; list directory-name; run;
proc template; source template-name; run;
  Displays the source of template-name to the log.
ods trace on;
  Displays information about tables as they are
  created. This information includes the name of the
  object, the name of the template, labels, paths, and
  label paths.
```

## Using a Table Template

The following code applies a SAS data set to a PROC TEMPLATE table template.

```sas
data null;
set data-set-name;
file print cd=(
  template='table-name');
put _ods_;
run;
```

data-set-name is the name of the data set to apply to the table template. table-name is the name of the table template to use.

## Defining a Table Template

### Basic Structure

```sas
proc template;
  define table table-name;
    ... statements / attributes / headers / footers / columns ...
  end;
run;
```

### Commonly Used Statements

- **cellstyle expr as style-element{style-attributes};**
  Conditionally applies styles to data cells.
- **column column-specification(s);**
  Displays the name of the column(s) that appear in the table.
- **just=left | center | right;**
  Specifies horizontal text alignment, respectively.
- **vjust=top | middle | bottom;**
  Specifies vertical text alignment, respectively.
- **translate expr-1 into expr-2;**
  Conditionally alters the values in the data cells.
- **notes "text";**
  Specifies comments about the table that are stored with the template.
- **note="text";**
  Specifies comments about the header or footer that are stored with the template.
- **text "text";**
  Specifies the text to be used as the content of the header or footer.

### Commonly Used Attributes

- **parent=table-name;**
  Specifies the parent table template for inheritance.
- **style=style-element{style-attributes};**
  Applies specified styles to the table.
- **style-element{style-attributes};**
  Applies specified styles to the header or footer.

## Defining Header and Footer Templates

### Basic Structure

```sas
proc template;
  define header header-name;
    ... statements / attributes ... 
  end;
define footer footer-name;
  ... statements / attributes ...
end;
run;
```

### Commonly Used Statements

- **cellstyle expr as style-element{style-attributes};**
  Conditionally applies styles to data cells.
- **compute as expr;**
  Computes values for data cells instead of using a column from a SAS data set.
- **compute expr as expr;**
  Computes values for data cells using a column from another data set.
- **translate expr-1 into expr-2;**
  Conditionally alters the values in the data cells.

### Commonly Used Attributes

- **parent=header-name;**
  Specifies the parent header or footer template for inheritance.
- **parent=footer-name;**
  Specifies the parent header or footer template for inheritance.
- **style=style-element{style-attributes};**
  Applies specified styles to the header or footer.
- **style-element{style-attributes};**
  Applies specified styles to the data cells.
- **parent=column-name;**
  Specifies the parent column template for inheritance.
- **style=style-element{style-attributes};**
  Applies specified styles to the data cells.

## Defining Column Templates

### Basic Structure

```sas
proc template;
  define column column-name;
    ... statements / attributes / header / footer ...
  end;
run;
```

### Commonly Used Statements

- **cellstyle expr as style-element{style-attributes};**
  Conditionally applies styles to data cells.
- **compute as expr;**
  Computes values for data cells instead of using a column from a SAS data set.
- **translate expr-1 into expr-2;**
  Conditionally alters the values in the data cells.

### Commonly Used Attributes

- **parent=header-name;**
  Specifies the parent column template for inheritance.
- **parent=footer-name;**
  Specifies the parent column template for inheritance.
- **style=style-element{style-attributes};**
  Applies specified styles to the header or footer.
- **style-element{style-attributes};**
  Applies specified styles to the data cells.