41.4. Expressions

All expressions used in PL/pgSQL statements are processed using the server's main SQL executor. For example, when you write a PL/pgSQL statement like

```
IF expression THEN ...
```

PL/pgSQL will evaluate the expression by feeding a query like

```
SELECT expression
```

to the main SQL engine. While forming the SELECT command, any occurrences of PL/pgSQL variable names are replaced by parameters, as discussed in detail in Section 41.10.1. This allows the query plan for the SELECT to be prepared just once and then reused for subsequent evaluations with different values of the variables. Thus, what really happens on first use of an expression is essentially a PREPARE command. For example, if we have declared two integer variables x and y, and we write

```
IF x < y THEN ...
```

what happens behind the scenes is equivalent to

```
PREPARE statement_name(integer, integer) AS SELECT $1 < $2;
```

and then this prepared statement is EXECUTEd for each execution of the IF statement, with the current values of the PL/pgSQL variables supplied as parameter values. Normally these details are not important to a PL/pgSQL user, but they are useful to know when trying to diagnose a problem. More information appears in Section 41.10.2.