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4.2 Rule Syntax

In general, a rule looks like this:

```
targets : prerequisites
recipe
...
```

or like this:

```
targets : prerequisites ; recipe
recipe
...
```

The targets are file names, separated by spaces. Wildcard characters may be used (see Using Wildcard Characters in File Names) and a name of the form a(m) represents member m in archive file a (see Archive Members as Targets). Usually there is only one target per rule, but occasionally there is a reason to have more (see Multiple Targets in a Rule).

目标是文件名,以空格分隔。 可以使用通配符(请参阅在文件名中使用通配符)并且格式为 a(m) 的名称表示 存档文件 a 中的成员 m(请参阅作为目标的存档成员)。 通常每个规则只有一个目标,但偶尔会有更多的理由(请参阅规则中的多个目标)。

The recipe lines start with a tab character (or the first character in the value of the .RECIPEPREFIX variable; see Special Variables). The first recipe line may appear on the line after the prerequisites, with a tab character, or may appear on the same line, with a semicolon. Either way, the effect is the same. There are other differences in the syntax of recipes. See Writing Recipes in Rules.

配方行以 tab 开头(或 .RECIPEPREFIX 变量值中的第一个字符;请参阅特殊变量)。 第一个配方行可能出现在 先决条件之后的行上,带有一个 tab ,也可能出现在同一行上,带有一个分号。 无论哪种方式,效果都是一样 的。 配方的语法还有其他差异。 请参阅在规则中编写配方。

Because dollar signs are used to start make variable references, if you really want a dollar sign in a target or prerequisite you must write two of them, '\$\$' (see How to Use Variables). If you have enabled secondary expansion (see Secondary Expansion) and you want a literal dollar sign in the prerequisites list, you must actually write four dollar signs ('\$\$\$\$').

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因为美元符号用于开始进行变量引用,所以如果您真的想要在目标或先决条件中使用美元符号,您必须编写其中两个,"\$\$"(请参阅如何使用变量)。如果您启用了二级扩展(请参阅二级扩展)并且您希望在先决条件列表中使用文字美元符号,则您实际上必须编写四个美元符号('\$\$\$\$')。

You may split a long line by inserting a backslash followed by a newline, but this is not required, as make places no limit on the length of a line in a makefile.

A rule tells make two things: when the targets are out of date, and how to update them when necessary.

您可以通过插入反斜杠后跟换行符来拆分长行,但这不是必需的,因为 make 对 makefile 中行的长度没有限制。

一条规则告诉 make 两件事:目标何时过期,以及如何在必要时更新它们。

The criterion for being out of date is specified in terms of the prerequisites, which consist of file names separated by spaces. (Wildcards and archive members (see Archives) are allowed here too.) A target is out of date if it does not exist or if it is older than any of the prerequisites (by comparison of last-modification times). The idea is that the contents of the target file are computed based on information in the prerequisites, so if any of the prerequisites changes, the contents of the existing target file are no longer necessarily valid.

过期的标准是根据先决条件指定的,先决条件由空格分隔的文件名组成。 (此处也允许使用通配符和存档成员 (请参阅存档)。) 如果目标不存在或如果它比任何先决条件更旧 (通过比较最后修改时间),则该目标已过期。 这个想法是目标文件的内容是根据先决条件中的信息计算的,因此如果任何先决条件发生变化,则现有目标文件的内容不再一定有效。

How to update is specified by a recipe. This is one or more lines to be executed by the shell (normally 'sh'), but with some extra features (see Writing Recipes in Rules).

如何更新由配方指定。 这是由 shell 执行的一行或多行(通常为 "sh"),但具有一些额外的功能(请参阅在规则中编写配方)。