Asterisk Dialplan Patterns

Extension Names and Patterns

Extension Names

Dialplan extensions can be simple numbers like "412" or "0". They can be alphanumeric names like "john" or "A93*". Although a typical telephone can't dial an extension called "john" (some can though), often your Dialplan logic will involve jumping from one extension to a different extension, and for those jumps you may define exension names with any name you like, as you don't wish them to be dialed directly.

Of course, touchtone telephones don't just have the digits 0 through 9, they also have * (star) and # ("pound" or "hash", depending on where in the world you live). And some touchtone (DTMF) telephones have the extra four "digits", **A**, **B**, **C** and **D**. If you have such handsets within your organization, there's nothing stopping you making use of those extra buttons for some special purpose of your own.

Note: To have an extension that is triggered by dialing the # symbol, you must use an extension pattern (see below). Asterisk does not recognize # as an ordinary 'digit', even though it appears on all DTMF telephones.

Why do people in the US call the # symbol "pound"? It doesn't seem to have anything to do with either money (e.g. the UK Pound Sterling) or with weight (lb). Answer: Pound Sign

Extension Patterns

Extension names are not limited to single specific extension "numbers". A single extension can also match *patterns*. In the <u>extensions.conf</u> file, an extension name is a pattern if it starts with the underscore symbol (_). In an extension pattern, the following characters have special meanings:

Special Characters for Pattern Matching

```
X matches any digit from 0-9
Z matches any digit form 1-9
N matches any digit from 2-9
[1237-9] matches any digit or letter in the brackets (in this example, 1,2,3,7,8,9)
. wildcard, matches one or more characters
```

Example

Consider the following context:

Context "rout:	ing":
Extension	Description
_61XX	Dallas Office
_63XX	Dallas Office
_62XX	Huntsville Office
_7[1-3]XX	San Jose Office
_7[04-9]XX	Los Angeles Office

This context, given the name "routing", sends calls to various servers according to their extension. This organization has decided that all of their telephone extensions will be 4 digits long. If a user dials an extension beginning with 61 or 63, it would be sent to the Dallas office; 62 would go to the Huntsville office; anything starting with 71, 72, or 73 would go to San Jose, and anything starting with 70, 74, 75, 76, 77, 78 or 79 would go to the Los Angeles office.

More Example Patterns

_NXXXXXX	matches a normal 7 digit telephone number
_1NXXNXXXXXX	matches an area code and phone number preceeded by a one
_9011.	matches any string of at least five characters that starts with 9011,
	but it does not match the four-character string 9011 itself.
_#	matches a single # keypress

Warning

Do not use a pattern of _. as this will match everything including Asterisk **special** extensions like **i**, **t**, **h**, etc. Instead use something like $_X$. or $_X$ which will not match **special** extensions.

Sort Order

If more than one pattern matches a dialed number, Asterisk may not use the one you expect. See:

Sort Order of Extension Patterns

See Also

Introducing Contexts and Extensions

Asterisk | Configuration | The Dialplan - extensions.conf

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