

Chapter 5: List/Template Commands

List commands are a way to create related commands that have options or parameters. These options may be numbers, letters, names, commands, types of reports, etc. Typically these are commands that have fixed spoken words as part of the command, then one or more words that describe a specific (list) value, name, or other words.

Any time you realize that you are building several different commands, each with almost exactly the same script, you should consider a List Command. That is particularly true if you can express these different commands as

- (a) a fixed command word or two followed by a value, or
- (b) a value followed by a fixed command word or two.

The order of the “command” and “value” does not matter. You can have List Commands without fixed command words, and you can have them with multiple values.

Examples of List Commands include:

Lookup phone <name of the person>

to find a phone number based on a name.

Excise <size> millimeters

to document a standard procedure where the size of an excision varies.

Jurisdiction <state>

To insert a standard “state of jurisdiction” clause into a contract.

Almost anywhere there is standard language used, there is an opportunity to use List Commands.

Lists are tools for efficiency in coding commands. Using List commands effectively requires more practice than some other types of commands. For programmers, list commands may be natural as it is analogous to working with arrays.

We characterize lists as “simple” and “complex” in this chapter. “Simple” lists contain only the words being spoken. “Complex” lists embed additional information corresponding to the words spoken. These are our terms, not terms used within Dragon NaturallySpeaking®.

Release 8 introduces a method of using lists in Text & Graphics commands. These will be discussed first, followed by discussion of using Lists in Advanced Scripting commands.

There are mechanics to master as well as programming practices. We suggest skimming this chapter, then re-reading it because of the interrelated topics. Some of the material is intentionally replicated because it is fundamental to command creation for a wide variety of applications.

Text & Graphics Commands Using Lists

One of the most significant, but underplayed, advances in Release 8 is the ability to easily use lists in Text & Graphics commands. This hides most of the complexity of using lists in commands.

The first illustration will be of a command that generates text for an artificial medical condition using one variable. For this example, the variable can have a value of “mild,” “moderate,” or “severe.” There is no practical limit to the number of variables, or to the number of different values per variable, that can be used in these lists.

The second illustration will use relationships between what is spoken and what is generated in text.

Example: Acne Description Part 1

Continuing the dermatology examples, we will build an example where one can say one of the phrases:

```
mild acne
moderate acne
severe acne
```

What will be produced will be an entire sentence. It could be an entire paragraph, or even several paragraphs. There is no practical limit to the amount of text that can be generated with these commands.

The text produced will be:

```
The patient presents today with a <<mild/moderate/severe>> case of acne on both sides of the face.
```

Only one of the choices will be selected.

The words “mild”, “moderate”, and “severe” constitute a list. Each list has a name. That list name is an arbitrary word that can consist of lowercase letters, numbers, and underscore characters but no spaces. We suggest keeping it descriptive for long-term maintenance. For this example, we will name the list “stage” though there is no technical reason it couldn’t be called “r2d2_007”.

In command names, list names within Dragon are written within less-than “<” and greater-than “>” symbols as in “<stage>”. Within the text of commands, list names are referenced using the list name between sets of two less-than and greater-than symbols as in “<<stage>>”.

The command to be created will have a name of:

```
<stage> acne
```

To build this command, the command name will be established, and then the text will be entered. This requires digression to discuss the MyCommands Name Editor, the place where the list “<stage>” will be defined. One cannot create a list command without using the Name Editor.

Name Editor

MyCommands Editor has a “Name Editor” button. The Name Editor facilitates building command templates by providing a place to specify and edit “lists.”

Besides being started by pressing the button, the Name Editor is initiated if you type a “<” into a command name. The typing gets interrupted once you type a “<”, and the Name Editor is entered. There, you can choose an existing list or define one of your own. Sometimes you will need to edit the command name to eliminate duplicate “<” characters. Several lists are delivered for control functions (up/down/left/right) and numeric values. Most of the time you need to build your own lists. “Lists” of names/words are recognized for the command by giving the list a name, then defining the list elements, listing each allowed value, using the “Edit” function within the Name Editor.

Simple lists typically contain numbers or words. Later we will illustrate the use of complex lists that contain information prior to a backslash “\” that is processed by the command, followed by the word that is recognized on the right-hand side of the backslash. The names of these lists are interspersed between other fixed words in the command template name.

Remember that the Name Editor goals are two-fold: (1) to establish a command template name and (2) to provide an editor for lists.

Example: Acne Description Part 2

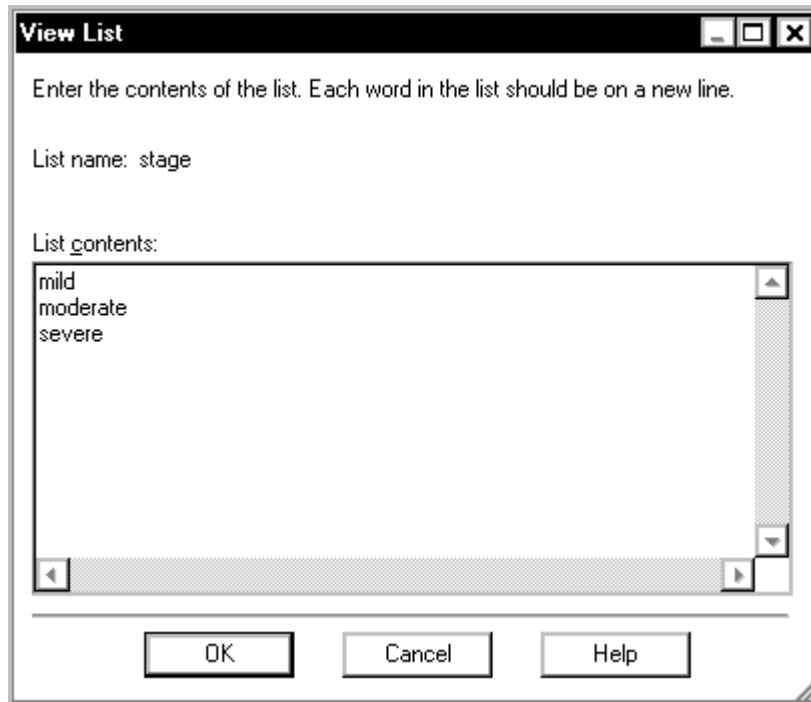
To build this command, initiate a new command using Add New Command. In the MyCommand Name field, enter the command name “<stage> acne”, one character at a time.

Once you enter the first “<” the MyCommands Name Editor screen will pop up. It may startle you, as normally a new screen doesn’t pop up just by typing a character. Depending on your typing speed, within that box, in the MyCommands Name field, will be the “<” and any other characters you have typed. Continue typing the entire command name within the MyCommand Name field of the MyCommands Name Editor until you have a screen like:



At this point, you can define the list of words in the list “stage” by double-clicking on the word “stage” in the “Lists used in the command” field of the window. (hands-free, Press Alt-L, down, Edit)

This opens the View List window. This is where you put your list. If you later want to add or delete entries from the list, you will return to this same window to do so. The “List contents” field starts out blank. Enter the desired variables for “stage”, one entry per line, so that the window looks like:



When finished entering the list, click “OK” and you will be returned to the Name Editor screen. At the name editor screen, click “OK” and you will be returned to the MyCommands Editor screen.

The command name(s) is established. What remains is to complete the command by defining the text to be produced.

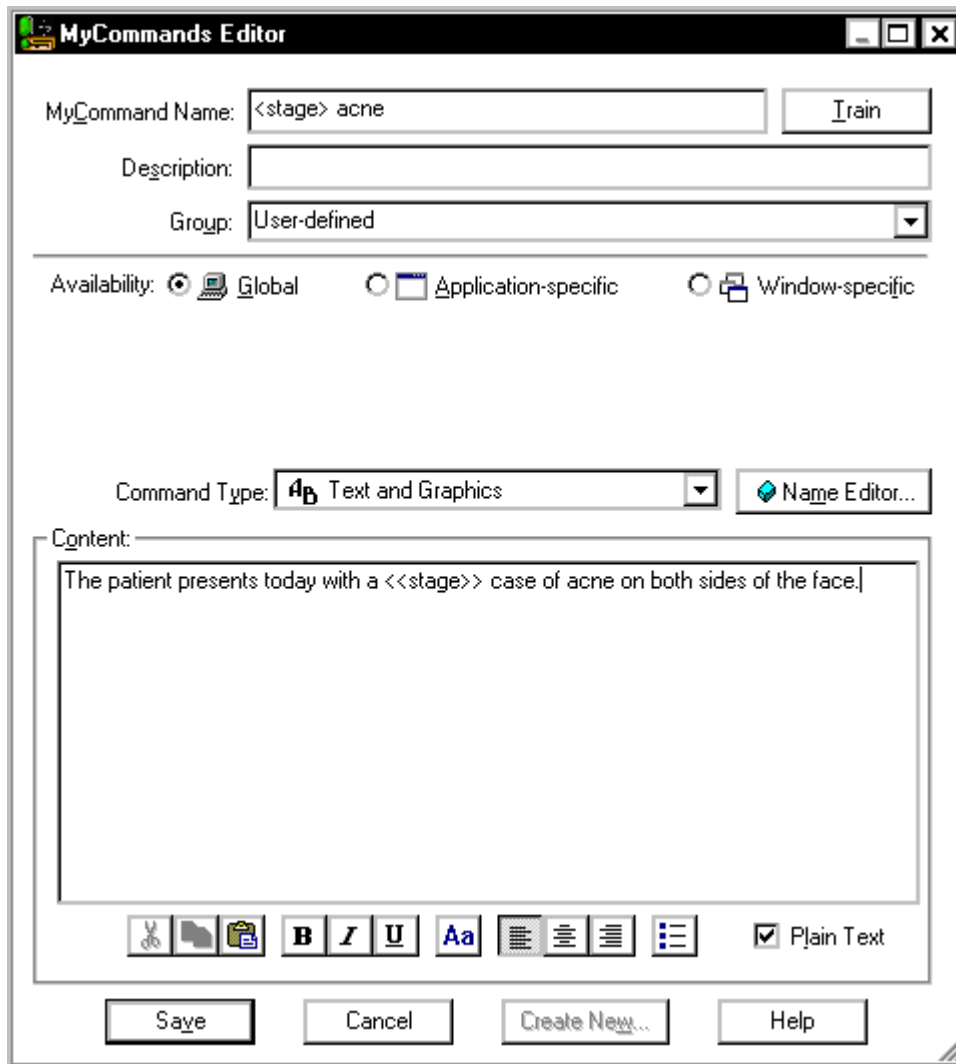
Next, most of the time you must check the “Plain Text” box near the lower right part of the screen.

If forgotten, you will probably have to come back and check it due to type font problems. Occasionally you may have special requirements that require the Plain Text box to not be checked, such as when a graphic is included or you wish larger fonts for standard headings.

Then enter the text that you want displayed when you give the command. When you come to the “mild/moderate/severe” part of the text, enter “stage” within two sets of less-than/greater-than symbols. The text will read like:

The patient presents today with a <<stage>> case of acne on both sides of the face.

This will result in a window that looks like:



Note that sometimes one should start or end the text with a blank line or one or two blank characters for formatting. Click Save, and your command is ready to test. Test it by saying “mild acne” in a word processor after creating this command.

Example: Acne Description Part 3 – Adding to a List

Later on, you may realize that your list is incomplete. A teenager may come in with a “very severe” case of acne and you realize your list is incomplete. To add an entry to the list, one uses the Command Browser.

1. Say “Open Command Browser” or go to Tools, Command Browser (this takes a few seconds)
2. Say “Script” or press the “Script” button
3. Find the “<stage> acne” command

4. Click or say "Edit"
5. Click or say "Name Editor"
6. Press "Alt+L" to move to the "Lists used in this command box" area then double-click on the list name "stage"

DNS alphabetizes the list, so the list may not appear exactly as you originally entered it.

You may then use basic editing methods to add an additional entry, on a new line. Add the entry "very severe". This has the effect of adding the command "very severe acne" to the list of possible commands. You are not restricted to one-word entries in the list. But the words must all be said at once, and the entry can be at most 126 characters.

This list is not unique to the "<stage> acne" command. This list can be used for other commands needing the same variables. For instance, you could use the same "<stage>" list to describe redness, psoriasis, the severity of a warning, or other conditions. You could even use that same list to describe variations in mechanical problems with cars if you decided to become an auto mechanic.

While this example used a list of words, it is common for lists to consist of numbers.

Example: Part Numbers Based on Part Names

Dragon NaturallySpeaking comes in Preferred, Professional, Medical, and Legal versions. Each of these has a different part number, none of which are particularly easy to remember. But it is easy to remember the command "*part number <dnsversion>*" as in:

```
part number preferred
part number professional
part number medical
part number legal
```

In this case, the text to be produced is simple, consisting only of the part number.

This illustrates a technique for saying one thing, but having something else appear in text. The technique is useful in medicine for ICD-9 or CPT codes, in law for generating common citations based on a verbal description, in general business for entering addresses, phone numbers, or fax numbers based on names, etc. A simple Text & Graphics command with a list accomplishes this task.

To build this command, start as before by going to Add New Command. Start by entering the command name, "*part number <DNSversion>*" and you will be passed to the Name Editor. As before, double-click the list name "dnsversion" and you will be at the View List window. Note that Dragon NaturallySpeaking® converts the case of "DNSversion" to lowercase. Lowercase is the Dragon NaturallySpeaking® default for list names.

If you are very familiar with Written form/Spoken forms in the Vocabulary Editor of NaturallySpeaking, the following technique will be familiar to you. It is the same basic technique.

Instead of simply having the variable word/phrase on each line, each line will consist of a left-hand "written form," a backslash "\" separator, then a right-hand "spoken form."