The case of the missing blanks: Why SAS output might not show multiple blanks in strings.

A SAS programmer noticed that his SAS output was not displaying multiple blanks in his strings. He had some strings with leading blanks, others with trailing blanks, and others with multiple blanks in the middle. Yet, every time he used SAS to print the strings to the HTML destination, something mysterious happened. The leading and trailing blanks vanished and the multiple blanks in the middle of strings were replaced by a single blank.

HTML compresses multiple blanks

The following DATA step creates strings that have multiple blanks in the middle of a string, at the beginning of a string, and at the end of a string:

```
data BlankTest;
length str $ 30;
BlankLoc = 'Middle  '; str = '  string   with      blanks   ';
output;
BlankLoc = 'Leading '; str = '         string   with blanks';
output;
BlankLoc = 'Trailing'; str = 'string with    blanks        ';
output;
run;
/* note that the multiple blanks do not appear when you display them in HTML */
ods HTML;
proc print data=BlankTest; run;
```

Viewing the location of blanks in a SAS string

You can use a trick to visualize the location of blank characters in a SAS string. The trick is to use the TRANSLATE function in SAS to replace blanks with a visible character. The following DATA step view replaces each blank with the asterisk ('*') character:

```
/* you can replace blanks with another character to see that they are there */
data Substitute / view=Substitute;
set BlankTest;
str = translate(str, '*', ' ');
```

run;

proc print data=Substitute; run;

Other ODS destinations

Other ODS destinations do not compress multiple blanks, so an alternative is to use a non-HTML destination. For example, here is the output in the RTF destination:

ods RTF;

proc print data=BlankTest; run;

ods RTF close;

The SAS LISTING destination

As mentioned previously, SAS left-aligns text in most modern ODS destinations. However, the ancient SAS LISTING destination uses a monospace font and does not left-align the text. This enables you to see the location of all non-trailing blanks:

ods listing;

proc print data=BlankTest; run;

ods listing close;

Reference SAS link: **https://blogs.sas.com/content/tag/sas-programming/**

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