

MARCH 29 - APRIL 1 WASHINGTON, DC



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Abstract

Basics

Methods

Alternatives

Conclusion

4121 - Wildcarding in WHERE Clauses

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• There is wildcarding allowed within where clause like expressions by using special characters. But if you want to search for those specific characters, you have to override them. If you forget to escape the character, you'll get unexpected matches.

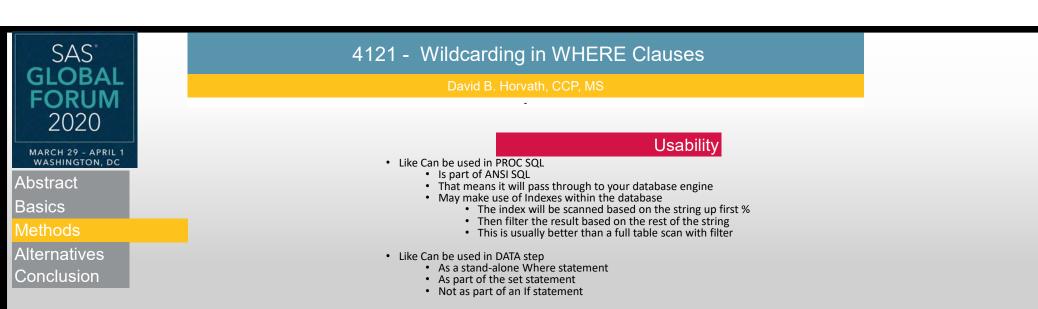
Topics include:

- proc sql; select x from y where x like %a/_b escape /;
- _ matches 1 character
- % matches any characters
- / escapes the next character (says next is actual character, not special meaning)
- set sorted_ddl (obs=max where=(name like '%/_ORD%' escape '/'));



Main Author

SAS [®] GLOBAL	4121 - Wildcarding in WHERE Clauses
	David B. Horvath, CCP, MS
2020	 Basics of LIKE The general format is:
March 29 - April 1 Washington, dc Abstract	Where variable like "%val%" escape "/";
Basics	% matches zero to many characters
Methods Alternatives Conclusion	• _ matches exactly one character
	 The escape clause is optional Use it if you want to match to a % or There is no default escape character
	Where variable like ``%string/_with/_underscore" escape ``/";
	If you make a mistake like:
	Where product_group like "%/%" escape "%";
	Or
	Where product_group like "%Kid/s%" escape "/";
	You'll see
	ERROR: Like pattern is not a valid pattern due to the invalid use of the escape pattern.



```
• SAS<sup>®</sup> Indexes will be used where possible – DATA and PROC SQL!
```

Some Examples

• Where name like like string – or

Where name like like_string escape '/'

				•		
nitial List	like_string	Result	like_string	name	like_string	name
Diana	David	David	Dav/%id escape	Dav%id	D_a%	Diana
Diane					D_a%	Diane
Dianna	like_string	name	like_string	name	D_a%	Dianna
Dianthus	Dav%	David	Dav/%% escape	Dav%id	D_a%	Dianthus
Dyan	Dav%	Dav%id			D_a%	Dyan
David	Dav%	Dav_id	like_string	name		
Dav%id	Dav%	Dav/id	Dav/id	Dav/id	like_string	name
Dav_id	Dav%	Dav/%id			%a	Diana
Dav/id			like_string	name	%a	Dianna
Dav/%id	like_string	name	Dav//id escape	Dav/id		
	Dav_%	David			like_string	name
	Dav_%	Dav%id	like_string	name	%nn%	Dianna
	Dav_%	Dav_id	Dia	Diana		
	Dav_%	Dav/id	Dia	Diane	like_string	name
	Dav_%	Dav/%id			Dav/% escape	NONE
			like_string	name		
	like_string	name	Di% or Dy%	Diana	like_string	name
	Dav/%	Dav/id	Di% or Dy%	Diane	Dav_	NONE
	Dav/%	Dav/%id	Di% or Dy%	Dianna		
			Di% or Dy%	Dianthus		
	like_string	name	Di% or Dy%	Dyan		
	Dav/%id	Dav/id				
	Dav/%id	Dav/%id				

Some More Examples

• Like can be used in many contexts

proc print data=list (where=(name like 'David')); run;

```
proc print data=list (where=(name like 'Dav//id' escape '/'));
run;
```

```
data list2;
```

```
set list (where=(name like 'Dav/%%' escape '/'));
```

```
run;
```

```
data list2;
```

```
set list;
```

```
where name like 'Dav/%%' escape '/';
```

run;

4121 - Wildcarding in WHERE Clauses
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Altenatives • Contains • Equivalent to like ``%string%"
Unlikely to pass through to underlying databaseWill use SAS Indexes
 Prxmatch Allows extremely complex search strings via Regular Expressions Definitely will not pass through Will not use SAS indexes
 There is limited functionality with EQ: if name eq: 'Dav%'; Equivalent to name like "Dav/%%" escape "/"
Cautions
In any commands in this presentation, the single and double quotation marks should be simple, not the "smart quotes" forced my Microsoft. The same applies to dashes or minus signs – they should not be "em dashes" (- versus –)
You can safely ignore this warning: where product_group like "%Kid's%"; WARNING: Apparent invocation of macro KID not resolved.

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References

SAS® 9.4 SQL Procedure User's Guide, Fourth Edition: https://documentation.sas.com/?docsetId=acreIdb&docsetTarget=n05b4mygsvt845n1vnr 6r5kchbjf.htm&docsetVersion=9.4&locale=en

The Basics of Using SAS[®] Indexes https://support.sas.com/resources/papers/proceedings/proceedings/sugi30/247-30.pdf

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