



Top 10 Syntax Errors and How to Fix Them

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What is a syntax error?

“Syntax errors occur when program statements do not conform to the rules of the SAS language.”

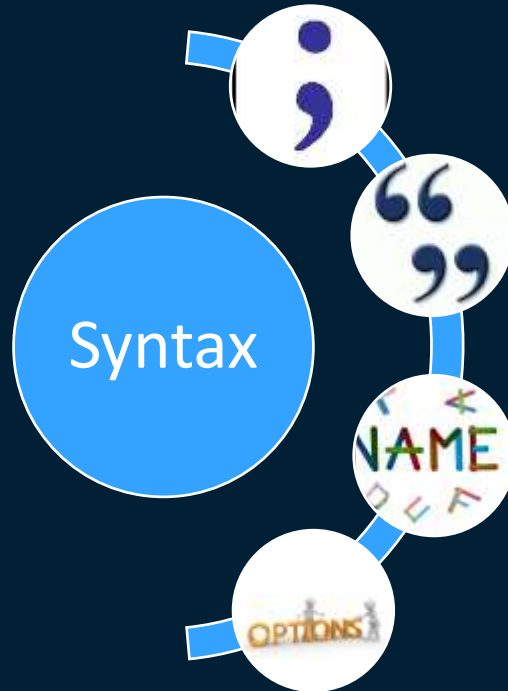


TOP

10

Top 10 Syntax Errors

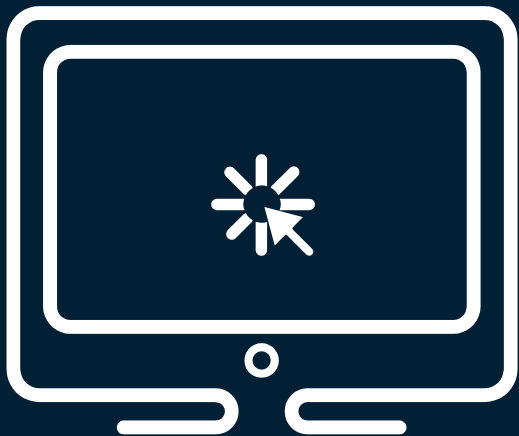
How to fix them?



Top 10 Syntax Errors

How to fix them?





DEMONSTRATION

Top 10 Syntax Errors and
How to Fix Them

Summary

① Missing Semicolon

Top 10 Syntax Errors

How to Fix Them

- Can't find the error in the line that's highlighted?
 - ★ READ YOUR LOG!
 - Look one line above. Usually, it's a missing semicolon.
 - **FIX:** Add the missing semicolon (or semicolons).

Summary

② Unbalanced Quotation Marks

Top 10 Syntax Errors

How to Fix Them

- SAS likes quotation marks to come in pairs!
 - What? They don't like getting separated and divorced from one another? That's right!
- ★ READ YOUR LOG!
 - **FIX: Balance the quotation marks. Make them match!**
 - ✓ Title "Davetta's Great Report";
 - ✓ Title 'Davetta''s Great Report';
 - ✗ Title 'Davetta's Great Report';

Summary

③ Meaning of Identifier Might Change

Top 10 Syntax Errors

How to Fix Them

- Meaning of Identifier Might Change
 - ★ READ THE LOG!
 - Usually, this message indicates that there is an unbalanced quotation mark.
 - **FIX: Balance the quotation marks. Make them match!**
 - Sometimes....it's not an unbalanced quote.
 - **FIX: Add a space after the last quotation mark!**

④ Misspelled Keywords

Top 10 Syntax Errors

How to Fix Them

- Typos are a part of SAS programming!
 - ★ READ THE LOG!
 - **FIX: Spell the keyword correctly.**
 - Depending on where you are in context, SAS is sometimes forgiving. It gives you a tap on the wrist with a WARNING message, but it executes the code.
 - Sometimes SAS is less forgiving and throws an ERROR but usually with suggestions of valid keywords!

Summary

⑤ Variable Name Starts with a Number

Top 10 Syntax Errors

How to Fix Them

- Variable names can't start with a number by default.
 - ★ READ YOUR LOG!
 - The message isn't always explicit about the problem, stating "Statement is not valid or is used out of proper order."
 - **FIX: Start variable names with a letter or an underscore.**
 - **FIX: Use a SAS name literal.**
 - SAS *name literals* enable you to create SAS variable names that start with a number or names that don't meet the default naming convention for SAS variable names.
 - "1PriceDiff"n
 - "First Name Basis"n

Summary

⑥ Wrong Option Name

Top 10 Syntax Errors

How to Fix Them

- Nobody knows all the option names.
 - ★ READ YOUR LOG!
 - **FIX: Find and use the correct option name.**
 - Let your documentation be your guide.
 - Read and reference SAS documentation often.

Summary

⑦ No . after a Format Name

Top 10 Syntax Errors

How to Fix Them

- The difference between a variable name and a format name is the . (period).

★ READ YOUR LOG!

- **FIX: Add a . (period) after the format name.**

WARNING: Variable COMMA8 does not exist in table *LIB.TABLEAME*.

✗ format salary comma8;

✓ format salary comma8.;

✓ format salary comma8 comma8.;

Summary

⑧ Invalid Request for a SAS Procedure or DATA Step

Top 10 Syntax Errors

How to Fix Them

- Nobody can remember ***all*** the statements that can be used in DATA and PROC steps.
 - ★ READ YOUR LOG!
 - **FIX: Use DATA step statements in the DATA step and PROC statements in the PROC step.**
 - Let your documentation be your guide.
 - Read and reference SAS documentation often
 - [DATA Step Statements](#) documentation
 - [Base SAS® 9.4 Procedures Guide, Seventh Edition](#)

Summary

⑨ Missing DO/END Block

Top 10 Syntax Errors

How to Fix Them

- How many DO/END blocks?
Let SAS count the ways!
 - ★ READ YOUR LOG!
 - **FIX: Add the matching DO; or END; statement.**
 - SAS keeps up with the number of open DO/END blocks!

Summary

10 Omitting CALCULATED Keyword in PROC SQL for Computed Columns

Top 10 Syntax Errors

How to Fix Them

- If it's a computed column, use the CALCULATED keyword to use the result of the expression in the same WHERE or SELECT clause!
 - ★ READ YOUR LOG!
 - **ERROR: The following columns were not found in the contributing tables: PriceDiff.**
 - **FIX: Add the CALCULATED keyword to the WHERE or SELECT clause.**

Q&A

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