



# What's New in Enterprise 7.1.3

Jeff Simpson

Sr. Systems Engineer

# SAS Enterprise Guide 7.13

- The new DATA Step Debugger is a tool that enables you to find logic errors in a DATA step program. With the DATA Step Debugger, you can watch the variable values in a program change as the program runs. You can execute the program line by line, and you can also set specific breakpoints in the program

# SAS Enterprise Guide 7.13

The screenshot displays the SAS Enterprise Guide 7.13 interface. The main window is titled "SimpleDataStep" and contains a SAS program editor with the following code:

```
1 data testdebug;  
2   set demo.tarrant;  
3   testvar=basemsrp-baseinvoice;  
4   run;
```

The interface includes several panels:

- Project Tree:** Shows the project structure with "SimpleDataStep" and "DoDataStep" under "Programs".
- Servers:** A tree view showing the "SASApp" server and its libraries, including "demo", "MAPS", "MAPSGFK", "MAPSSAS", "SASApp - SAS", "SASApp - wsd", "SASApp - wrate", "SASHELP", "SASUSER", "STP Samples", and "WORK".
- Task Status:** A table at the bottom with columns for "Task", "Status", "Queue", "Server", and "Server Type".

A blue arrow points to the "History" button in the top right corner of the program editor window.

Task	Status	Queue	Server	Server Type
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# SAS Enterprise Guide 7.13

The screenshot displays the SAS DATA Step Debugger interface. The main window is titled "DATA Step Debugger" and contains a code editor, a variable watch table, and a debug console.

**Code Editor:**

```
1 data testdebug / ldebug;
2   set demo.tarrant;
3   testvar=basemsrp-baseinvoice;
4 run;
```

**Variable Watch Table:**

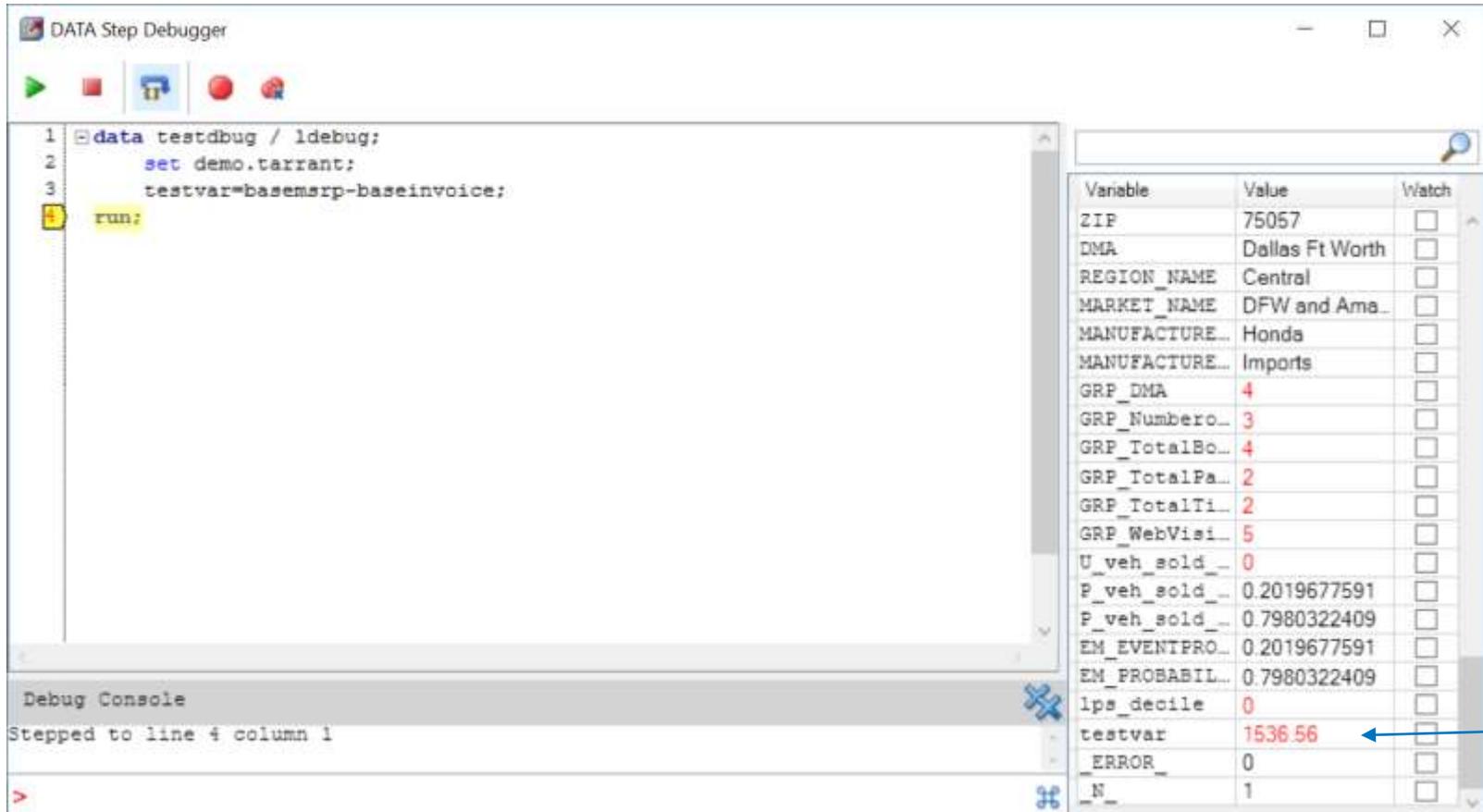
Variable	Value	Watch
ZIP	75057	<input type="checkbox"/>
DMA	Dallas Ft Worth	<input type="checkbox"/>
REGION_NAME	Central	<input type="checkbox"/>
MARKET_NAME	DFW and Ams...	<input type="checkbox"/>
MANUFACTURE...	Honda	<input type="checkbox"/>
MANUFACTURE...	Imports	<input type="checkbox"/>
GRP_DMA	4	<input type="checkbox"/>
GRP_Numero...	3	<input type="checkbox"/>
GRP_TotalBo...	4	<input type="checkbox"/>
GRP_TotalPa...	2	<input type="checkbox"/>
GRP_TotalTi...	2	<input type="checkbox"/>
GRP_WebVisi...	5	<input type="checkbox"/>
U_veh_sold_...	0	<input type="checkbox"/>
P_veh_sold_...	0.2019677591	<input type="checkbox"/>
P_veh_sold_...	0.7980322409	<input type="checkbox"/>
EM_EVENTPRO...	0.2019677591	<input type="checkbox"/>
EM_PROBABIL...	0.7980322409	<input type="checkbox"/>
lps_decile	0	<input type="checkbox"/>
testvar	.	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

**Debug Console:**

Debug Console  
Stepped to line 3 column 2

The variable watch table shows the current values of variables in the data step. The variable `testvar` is currently set to a missing value (represented by a period). A blue arrow points to the `testvar` row in the watch table.

# SAS Enterprise Guide 7.13



The screenshot displays the SAS DATA Step Debugger interface. The main window shows the following code:

```
1 data testdebug / ldebug;
2   set demo.tarrant;
3   testvar=basemsrp-baseinvoice;
4 run;
```

The 'run;' statement on line 4 is highlighted in yellow. Below the code editor is the 'Debug Console' which displays the message: 'Stepped to line 4 column 1'. To the right of the code editor is a 'Watch' window containing a table of variables and their current values.

Variable	Value	Watch
ZIP	75057	<input type="checkbox"/>
DMA	Dallas Ft Worth	<input type="checkbox"/>
REGION_NAME	Central	<input type="checkbox"/>
MARKET_NAME	DFW and Ama...	<input type="checkbox"/>
MANUFACTURE...	Honda	<input type="checkbox"/>
MANUFACTURE...	Imports	<input type="checkbox"/>
GRP_DMA	4	<input type="checkbox"/>
GRP_Numbere...	3	<input type="checkbox"/>
GRP_TotalBo...	4	<input type="checkbox"/>
GRP_TotalPa...	2	<input type="checkbox"/>
GRP_TotalTi...	2	<input type="checkbox"/>
GRP_WebVisi...	5	<input type="checkbox"/>
U_veh_sold_...	0	<input type="checkbox"/>
P_veh_sold_...	0.2019677591	<input type="checkbox"/>
P_veh_sold_...	0.7980322409	<input type="checkbox"/>
EM_EVENTPRO...	0.2019677591	<input type="checkbox"/>
EM_PROBABIL...	0.7980322409	<input type="checkbox"/>
lps_decile	0	<input type="checkbox"/>
testvar	1536.56	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

A blue arrow points to the 'testvar' row in the watch table, which has a value of 1536.56.

DATA Step Debugger

```
1 data testdebug / ldebug;
2   set demo.tarrant;
3   testvar=basemsrp-baseinvoice;
4 run;
```

Debug Console  
Stepped to line 4 column 1

Variable	Value	Watch
ZIP	75057	<input type="checkbox"/>
DMA	Dallas Ft Worth	<input type="checkbox"/>
REGION_NAME	Central	<input type="checkbox"/>
MARKET_NAME	DFW and Ama...	<input type="checkbox"/>
MANUFACTURE...	Honda	<input type="checkbox"/>
MANUFACTURE...	Imports	<input type="checkbox"/>
GRP_DMA	4	<input type="checkbox"/>
GRP_Numero...	3	<input type="checkbox"/>
GRP_TotalBo...	1	<input type="checkbox"/>
GRP_TotalPa...	1	<input type="checkbox"/>
GRP_TotalTi...	1	<input type="checkbox"/>
GRP_WebVisi...	1	<input type="checkbox"/>
U_veh_sold_...	0	<input type="checkbox"/>
P_veh_sold_...	0.376496998	<input type="checkbox"/>
P_veh_sold_...	0.623503002	<input type="checkbox"/>
EM_EVENTPRO...	0.376496998	<input type="checkbox"/>
EM_PROBABIL...	0.623503002	<input type="checkbox"/>
lps_decile	0	<input type="checkbox"/>
testvar	1590.08	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	3	<input type="checkbox"/>

# SAS Enterprise Guide 7.13

The screenshot displays the SAS Enterprise Guide 7.13 interface. The main window is titled "DSDebug - SAS Enterprise Guide" and contains a menu bar (File, Edit, View, Tasks, Favorites, Program, Tools, Help) and a toolbar. The interface is divided into several panes:

- Project Tree:** Shows a hierarchical view of the project structure, including "Process Flow", "INVESTMENT", "TESTDEBUG", "Programs", "SimpleDataStep", and "DoDataStep".
- Servers:** A pane for managing server connections, including "Refresh", "Disconnect", and "Stop" buttons. It shows a tree view of servers under "SASApp", including "Libraries" (demo, MAPS, MAPSGFK, MAPSSAS, SASApp - SASDATA, SASApp - wrdat, SASApp - wrtemp, SASHELP, SASUSER, STP Samples, WORK) and "Files (Documents)".
- Table:** A data table with columns: Lead ID, Department Name, Activity Date, VIN, Department Name, Year, Make, Model, and number of columns. It displays four rows of data.
- Task Status:** A pane for monitoring task execution, with columns for Task, Status, Queue, Server, and Server Type.

The status bar at the bottom indicates "Ready" and "100 %".

Lead ID	Department Name	Activity Date	VIN	Department Name	Year	Make	Model	number of columns
1 50387697	NEW	01SEP2014	3CZRM3H55EG703037	NEW	2014	Honda	CR-V	
2 50388804	NEW	01SEP2014	2HKRM3H53EH552843	NEW	2014	Honda	CR-V	
3 50388892	USED	01SEP2014	5J6YH1H72BL001830	USED	2011	Honda	Element	
4 50390652	NEW	01SEP2014	2FMDK3JC3EBA81793	NEW	2014	Ford	Edge	

# SAS Enterprise Guide 7.13

The screenshot displays the SAS Enterprise Guide 7.13 interface. The main window is titled "DoDataStep" and contains the following SAS code:

```
1 data investment;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11 run;
```

The interface includes a Project Tree on the left showing a process flow with steps like INVESTMENT, TESTDEBUG, and DoDataStep. Below it is the Servers panel showing a tree view of SASApp and its various libraries. At the bottom, the Task Status window is visible, showing a table with columns for Task, Status, Queue, Server, and Server Type.

Task	Status	Queue	Server	Server Type
------	--------	-------	--------	-------------

At the bottom right of the window, the status bar shows "Line 7, Col 37", "100 %", and "MyServer".

# SAS Enterprise Guide 7.13

The screenshot displays the SAS DATA Step Debugger interface. The main window shows the following SAS code:

```
1 data investment / ldebug;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11  run;
```

The second line of code is highlighted, and a yellow arrow points to it, indicating the current step in the execution process. Below the code editor is the Debug Console, which is currently empty.

On the right side of the debugger, there is a table showing the current state of variables:

Variable	Value	Watch
begin	.	<input type="checkbox"/>
end	.	<input type="checkbox"/>
year	.	<input type="checkbox"/>
Capital	\$0.00	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

# SAS Enterprise Guide 7.13



The screenshot displays the SAS DATA Step Debugger interface. The main window shows the following SAS code:

```
1 data investment / ldebug;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11  run;
```

A yellow arrow points to line 9, indicating the current step. To the right, a 'Variable Watch' table is visible:

Variable	Value	Watch
begin	18263	<input type="checkbox"/>
end	20819	<input type="checkbox"/>
year	2010	<input type="checkbox"/>
Capital	\$2,140.00	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

At the bottom, a 'Debug Console' is partially visible with the text 'Stepped to line 9 column 9'.

# SAS Enterprise Guide 7.13

The screenshot displays the SAS DATA Step Debugger interface. The main window shows the following SAS code:

```
1 data investment / ldebug;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11  run;
```

A yellow arrow points to line 7, indicating the current execution point. Below the code editor is a 'Debug Console' pane. To the right, a 'Variable Watch' table is visible:

Variable	Value	Watch
begin	18263	<input type="checkbox"/>
end	20819	<input type="checkbox"/>
year	2011	<input type="checkbox"/>
Capital	\$2,140.00	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

# SAS Enterprise Guide 7.13

The screenshot displays the SAS DATA Step Debugger interface. The main window shows the following SAS code:

```
1 data investment / ldebug;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11  run;
```

The execution is paused at line 9. A yellow arrow points to the `output;` statement. The right-hand pane shows the current state of variables:

Variable	Value	Watch
begin	18263	<input type="checkbox"/>
end	20819	<input type="checkbox"/>
year	2011	<input type="checkbox"/>
Capital	\$4,429.80	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

At the bottom, the Debug Console shows the message: "Stopped at line 9, column 9".

# SAS Enterprise Guide 7.13

DATA Step Debugger

```
1 data investment / ldebug;
2   begin='01JAN2010'd;
3   end='31DEC2016'd;
4
5   do year=year(begin) to year(end);
6     format Capital dollar12.2;
7     Capital+2000 + .07*(Capital+2000);
8     keep year Capital;
9     output;
10  end;
11  run;
```

Variable	Value	Watch
begin	18263	<input type="checkbox"/>
end	20819	<input type="checkbox"/>
year	2013	<input type="checkbox"/>
Capital	\$6,879.89	<input type="checkbox"/>
_ERROR_	0	<input type="checkbox"/>
_N_	1	<input type="checkbox"/>

Debug Console

# SAS Enterprise Guide 7.13

The screenshot displays the SAS Enterprise Guide 7.13 interface. The main window is titled "INVESTMENT" and shows a data table with the following columns: "year" and "Capital". The data is as follows:

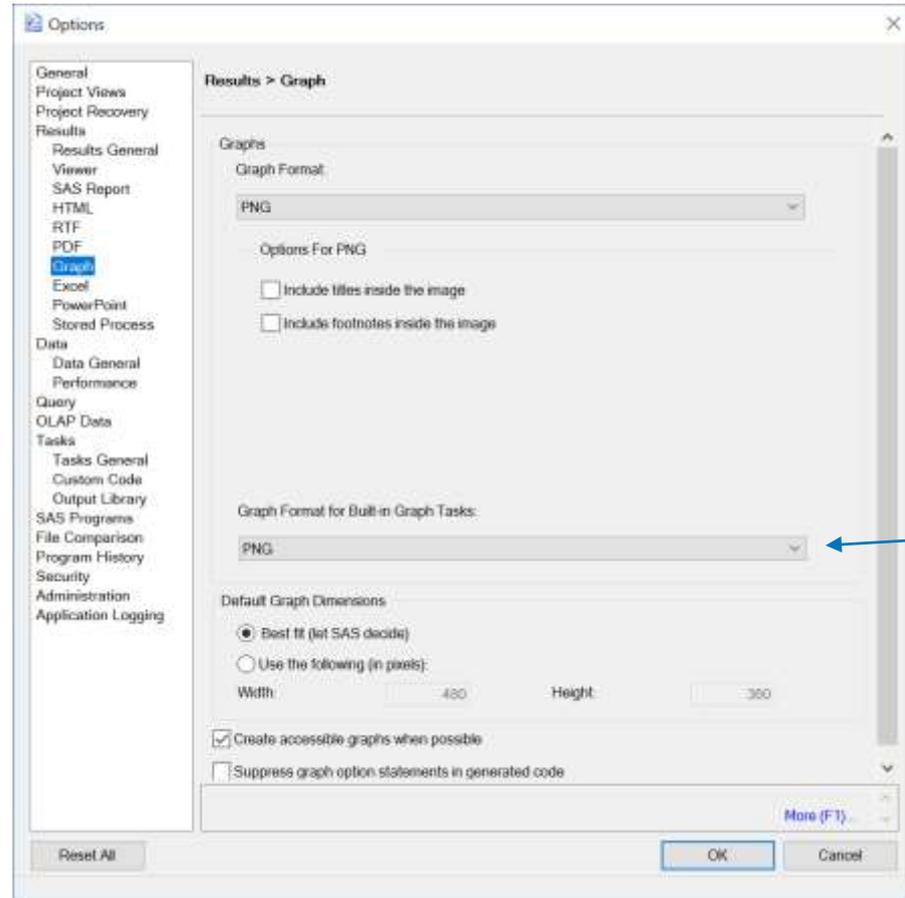
	year	Capital
1	2010	\$2,140.00
2	2011	\$4,429.80
3	2012	\$6,879.89
4	2013	\$9,501.48

The interface also includes a "Project Tree" on the left, a "Servers" panel, and a "Task Status" window at the bottom. The "Task Status" window has columns for "Task", "Status", "Queue", "Server", and "Server Type".

# SAS Enterprise Guide 7.13

- Starting with this release, the default graph format is PNG. Use the new **Graph Format** for Built-in Graph Tasks option to set the default format for the graph tasks, such as Bar Chart, Line Chart, and Pie Chart

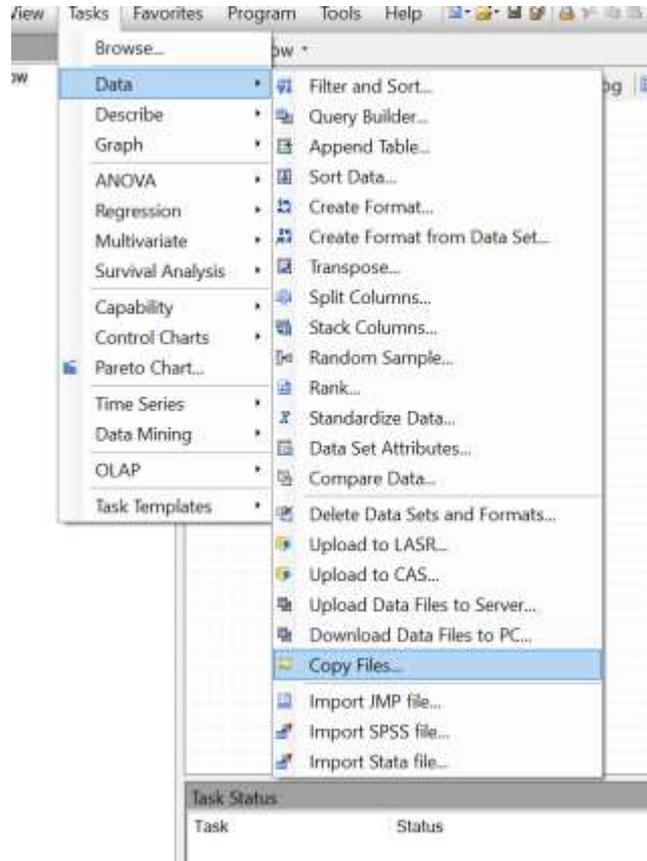
# SAS Enterprise Guide 7.13



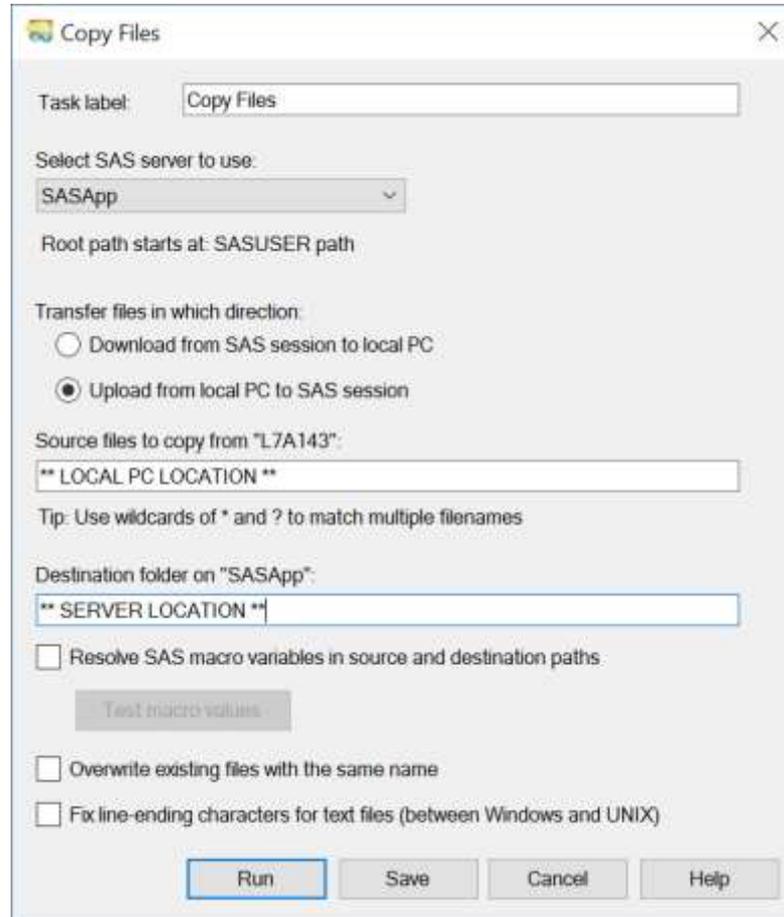
# SAS Enterprise Guide 7.13

- You can now transfer files from your local computer to a SAS server or from a SAS server to your local computer by using the Copy Files task. The Copy Files task works in a similar way to an FTP application. However, this task relies on the SAS protocols to complete the file transfers and does not require an FTP server.

# SAS Enterprise Guide 7.13



# SAS Enterprise Guide 7.13



The screenshot shows the 'Copy Files' dialog box with the following settings:

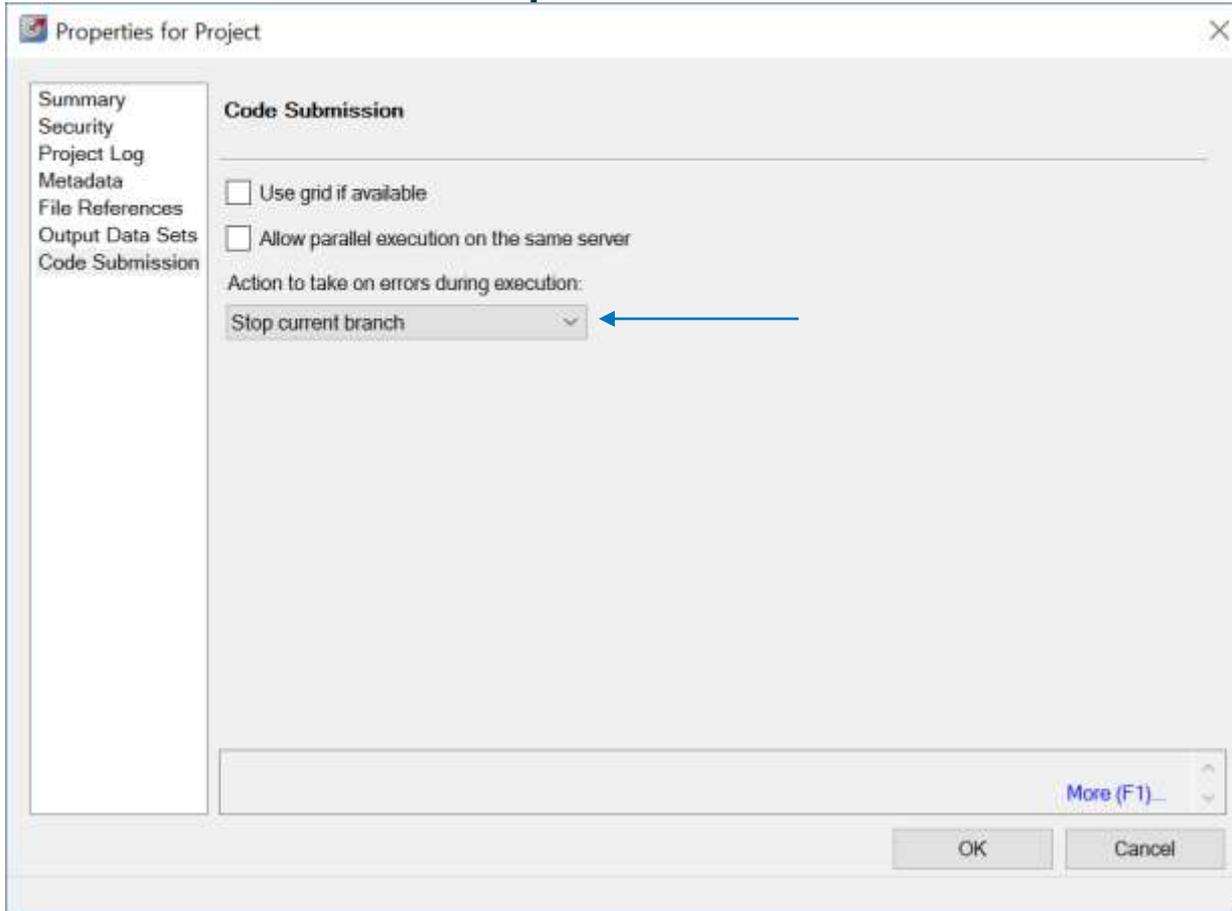
- Task label: Copy Files
- Select SAS server to use: SASApp
- Root path starts at: SASUSER path
- Transfer files in which direction:
  - Download from SAS session to local PC
  - Upload from local PC to SAS session
- Source files to copy from "L7A143":  
\*\* LOCAL PC LOCATION \*\*
- Tip: Use wildcards of \* and ? to match multiple filenames
- Destination folder on "SASApp":  
\*\* SERVER LOCATION \*\*
- Resolve SAS macro variables in source and destination paths  
Test macro values
- Overwrite existing files with the same name
- Fix line-ending characters for text files (between Windows and UNIX)

Buttons: Run, Save, Cancel, Help

# SAS Enterprise Guide 7.13

- You can specify whether to continue executing a process flow if an error is encountered

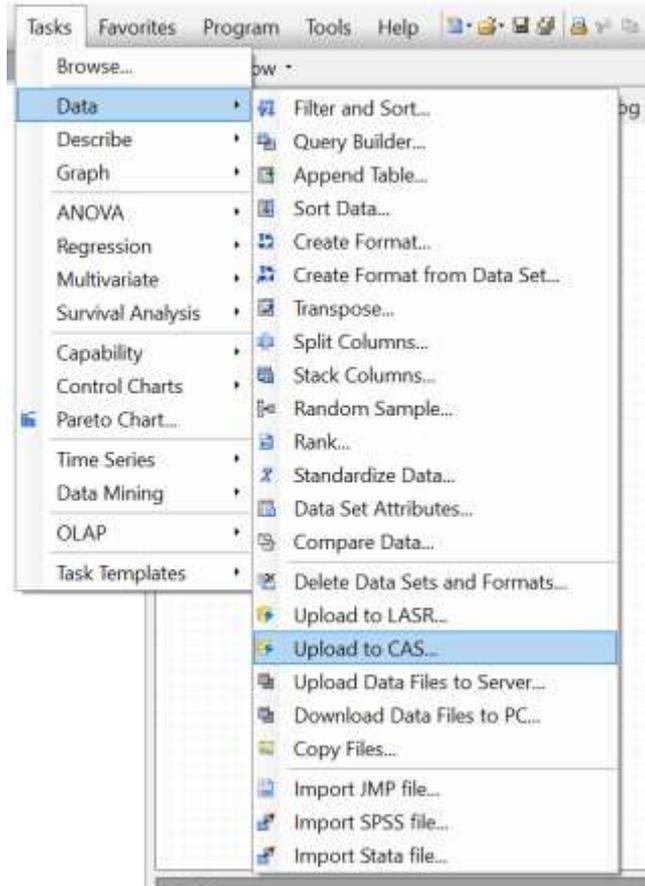
# SAS Enterprise Guide 7.13



# SAS Enterprise Guide 7.13

- You can upload your existing SAS 9.4 data to SAS Cloud Analytic Services (CAS) by using the new Upload to CAS task

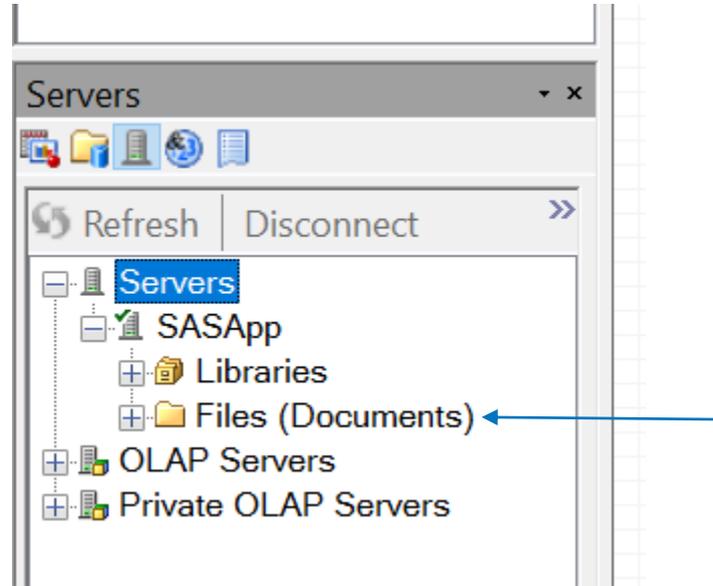
# SAS Enterprise Guide 7.13



# SAS Enterprise Guide 7.13

- Server file navigation now defaults to your Documents folder on Windows servers. In addition, the file navigation now contains folder shortcuts

# SAS Enterprise Guide 7.13



# SAS® Enterprise Guide™

## Resources

- Main Enterprise Guide documentation page:  
<http://support.sas.com/documentation/onlinedoc/guide/index.html>
- Enterprise Guide tutorial:  
<http://support.sas.com/documentation/onlinedoc/guide/tut71/en/>

## Copy SAS variable names to the clipboard in SAS Enterprise Guide



Chris Hemedinger | OCTOBER 28, 2015

1850 5

I recently met SAS user "CSC" at the Analytics 2015 conference. It might be generous to say that he's an avid user of SAS Enterprise Guide; it's probably more accurate to say that he's now accustomed to the tool and he's once again productive. But he still misses some features from his PC SAS days, including this one.

He wants to be able to copy just a list of SAS variables names from a SAS data set, so that he can then paste them into a SAS program (or another document). In PC SAS he had a simple GSUBMIT sequence that captured the names and "copied" them to the Windows clipboard with `FILENAME CLIPBRD`. That does not work in SAS Enterprise Guide, because SAS doesn't have direct access to the clipboard on your local machine.

CSC posted his question to the SAS Enterprise Guide community, and Tom suggested that a custom task might help. Good answer, but there it sat until CSC and I met in person this week in Las Vegas. After a short discussion and a personal plea, I was able to create the task in about 30 minutes.

search this blog

SEARCH

### About this blog

Chris Hemedinger is the manager of SAS Online Communities. He's also co-author of the popular *SAS for Dummies* book, author of *Custom Tasks for SAS Enterprise Guide using Microsoft .NET*, and a frequent participant on the SAS® Enterprise Guide® discussion forum.

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# SAS<sup>®</sup> Studio: An Introduction

Jeff Simpson

Sr. Systems Engineer

With this meeting we hope for you to achieve the following two takeaways:

1. Understand what SAS Studio is - when / why / how to use it
2. Witness the key capabilities of SAS Studio

# SAS® Studio

SAS® Studio is a browser-based, broadly available, consistent SAS programming interface:

- Available via a browser on any device that connects to your SAS server
- Easier administration - update once and gain latest updates/versions across the tiers of your configuration

# SAS® Studio

## When is SAS Studio used? Why and by whom?

**When** – you need to crunch data; turn raw data into actionable intelligence, develop reports and analytics

**Why** – enable knowledge workers to work anywhere with a broadly available, consistent SAS programmer interface

**Who** – programmers, analysts, statisticians, new and existing SAS users

- All SAS customers as of 9.4M2 – if you have Base SAS, you have SAS Studio
- You don't necessarily need a mid-tier or SAS Integration Technologies
- SAS® Studio is part of the *University Edition* of SAS®

Single-User / PC

Multi-User / Server\*

Multi-User / Enterprise\*

\* can be a hosted server in a cloud environment or in your own environment

# SAS® Studio

## Single-user / PC configuration

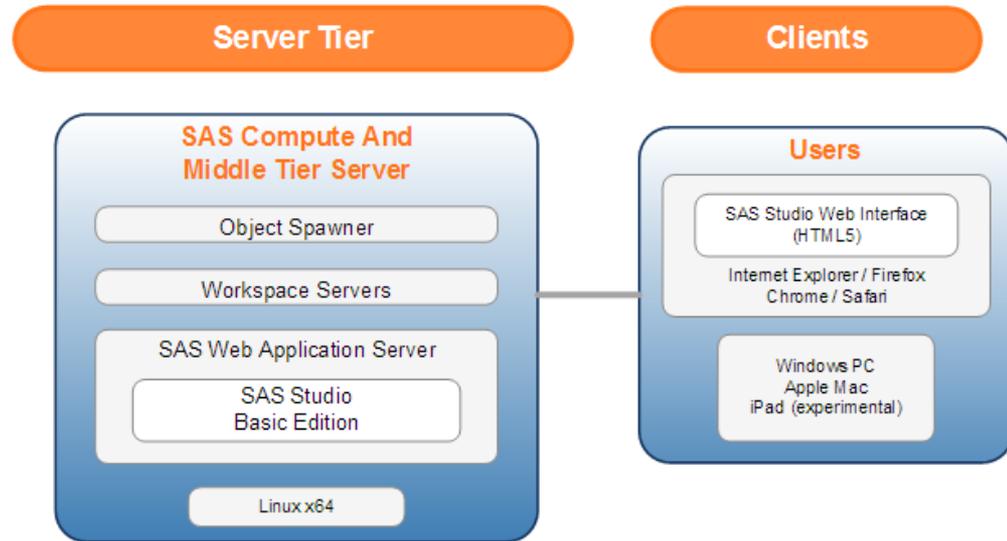
- Base SAS on a Windows PC or SAS University Edition
- Invoke SAS Studio via web browser on the same machine where Base SAS is installed
- Local permissions and policies determine which data & files you can access



# SAS® Studio

## Multi-user / Server configuration

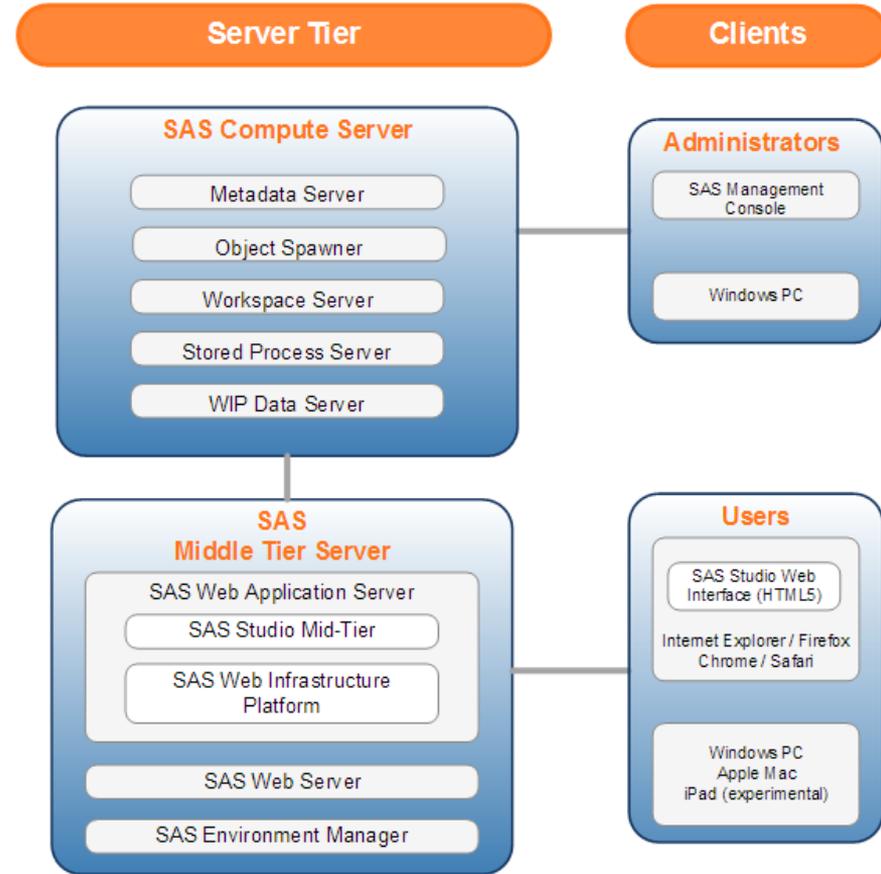
- Base SAS on a server
- Invoke SAS Studio from web browser on any machine connected to SAS server
- You must have credentials to log into the SAS server machine
- Server permissions determine which data & files you can access



# SAS® Studio

## Multi-user / enterprise configuration

- Base SAS on a server
- Invoke SAS Studio from web browser on any machine connected to SAS server
- You must have credentials to log into the SAS server machine
- Server permissions and SAS Metadata Server determine which data & files you can access



# SAS® Studio

## How does SAS Studio operate?

All operations are conducted in terms of the *workspace server*

- Web browser accesses your programs, data, libraries
- When you run a program or task, SAS Studio connects to SAS to process the [generated] SAS code
- After the code is processed, the log, [generated] code, and results are returned to SAS Studio



SAS Studio is an HTML5 application that requires no browser plug-ins

- Microsoft Internet Explorer 9, 10, 11
- Mozilla Firefox 21+
- Google Chrome 27+
- Apple Safari 6.0+ (on Apple OS X)

[http://www.sas.com/en\\_us/software/foundation/studio.html#m=system-requirements](http://www.sas.com/en_us/software/foundation/studio.html#m=system-requirements)



# Programming Interface

SAS® Studio - Development Environment

# SAS® Studio

## Programming interface

- You can access your programs, data files, and libraries
- When you run a program or task, SAS® Studio connects to a SAS® server in order to process the generated SAS® code
- The SAS® server can be a hosted server in a cloud environment, or it can be a server in your local environment
- After the code is processed, the program and task results are returned to SAS® Studio

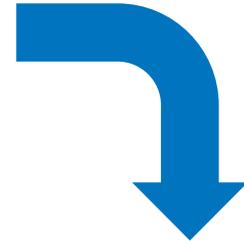




# SAS® Studio

## Table viewer

- Sort or filter a table
- View or copy the generated SQL



SAS® Studio

Search

Folders

Tasks

Snippets

Libraries

My Libraries

SASHELP

AACOMP

AARFM

ADSMMSG

AFMSG

ASSCMGR

BASEBALL

BMT

CARS

CLASS

Name

Sex

Age

Height

Weight

CLASSFIT

CLNMSG

SASHELP.CLASS

View: Column names

Filter: Age=11 OR Age=12 OR Age=13

Columns

Select all

Name

Sex

Age

Height

Weight

Property Value

Label Name

Name Name

Length 8

Type Char

Format

Informat

Total rows: 19 Total columns: 5 Filtered rows: 10 Rows 1-10

	Name	Sex	Age	Height
1	Thomas	M	11	57.5
2	Robert	M	12	64.8
3	Louise	F	12	56.3
4	Joyce	F	11	51.3
5	John	M	12	59
6	Jeffrey	M	13	62.5
7	Jane	F	12	59.8
8	James	M	12	57.3
9	Barbara	F	13	65.3
10	Alice	F	13	56.5

```
PROC SQL ;
    CREATE TABLE WORK.query AS SELECT "Name"n, "Sex"n, "Age"n, "Height"n FROM
        SASHELP.CLASS WHERE Age=11 OR Age=12 OR Age=13 ORDER BY Name DESCENDING;
RUN;
QUIT;
```

The screenshot displays the SAS Studio interface with the following components:

- Search and Folders:** A sidebar on the left containing search and folder navigation options. The 'My Folders' section shows 'sasuser.v94' and 'shared' (containing 'MySASFiles').
- LOG:** A window showing the execution log with categories for Errors, Warnings, and Notes (3).
- CODE:** A code editor window containing the following SAS code:
 

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE
42     ;
43     proc print data=sashelp.class;
44     run;
      
```
- RESULTS:** A window displaying the output of the SAS program, titled 'The SAS System', which is a table of data from the 'sashelp.class' dataset.
 

Obs	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69.0	112.5
2	Alice	F	13	56.5	84.0
3	Barbara	F	13	65.3	98.0
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	67.3	83.0
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84.0
10	John	M	12	69.0	99.5
11	Joyce	F	11	61.3	50.5
12	Judy	F	14	64.3	90.0
13	Louise	F	12	66.3	77.0
14	Mary	F	15	68.5	112.0
15	Phillip	M	16	72.0	150.0
16	Robert	M	12	64.8	128.0
17	Ronald	M	15	67.0	133.0
18	Thomas	M	11	67.5	85.0
19	William	M	15	66.5	112.0
- Tasks, Snippets, Libraries, File Shortcuts:** A vertical sidebar at the bottom left for managing tasks and resources.



# Code Snippets & Tasks

Ease of use

# Tasks

# Overview

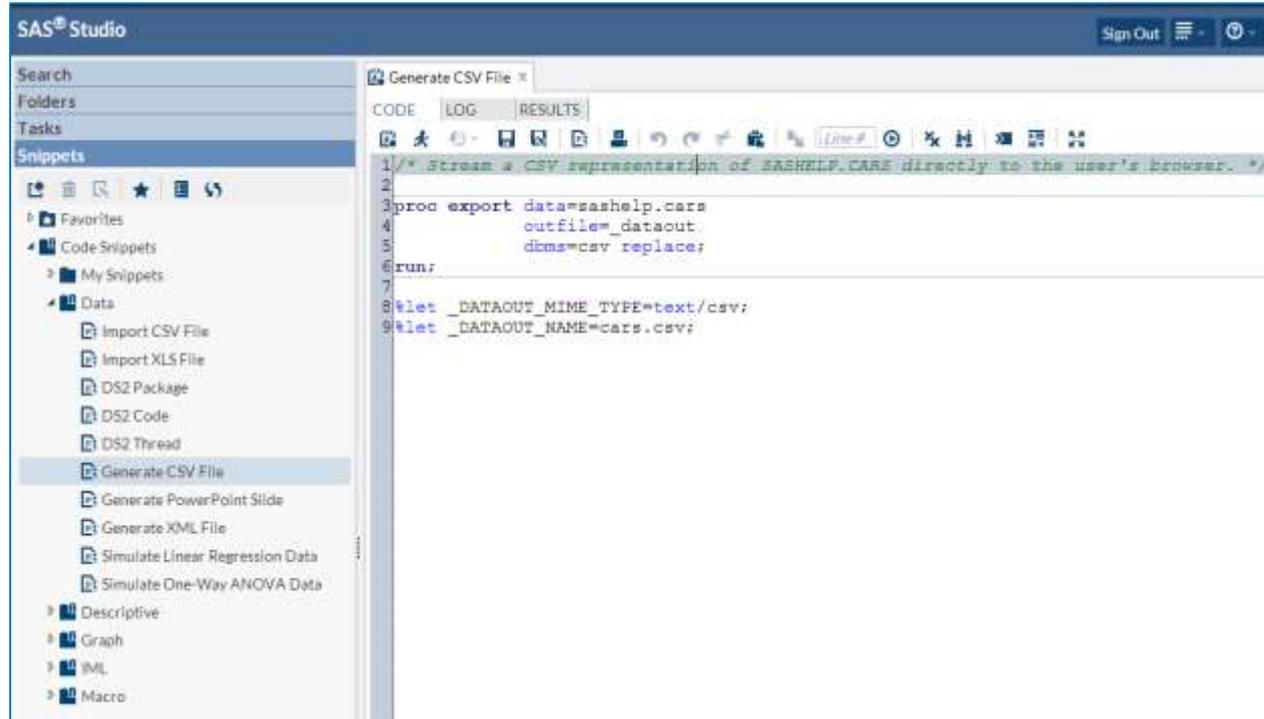
Tasks are point-and-click user interfaces which guide users through an analytical or other processes. Behind the scenes, SAS® code is generated.

The screenshot shows the SAS Studio interface for a 'Distribution Analysis' task. The left-hand navigation pane lists various statistical tasks, including 'Summary Statistics', 'Distribution Analysis', 'One-Way Frequencies', 'Correlations', 'Table Analysis', 'One-sample t Test', 'Paired-sample t Test', 'Two-sample t Test', 'One-Way ANOVA', 'Nonparametric One-Way A', and 'Linear Regression'. The main area displays the 'Distribution Analysis' task options, which are organized into three sections: 'EXPLORING DATA', 'CHECKING FOR NORMALITY', and 'FITTING DISTRIBUTIONS'. The 'EXPLORING DATA' section includes options for 'Histogram', 'Add normal curve', 'Add kernel density estimate', and 'Add inset statistics'. The 'CHECKING FOR NORMALITY' section includes options for 'Goodness-of-fit tests', 'Histogram with normal curve', 'Add inset statistics', 'Normal probability plot', and 'Normal quantile-quantile plot'. The 'FITTING DISTRIBUTIONS' section includes an option for 'Inset Statistics'. The right-hand pane shows the results of the task, which is a histogram titled 'Distribution of Height' with a normal curve overlaid. The histogram shows the distribution of height data, with bars for heights 52.5, 57.5, 62.5, and 67.5. The y-axis is labeled 'Percent' and ranges from 0 to 40. The x-axis is labeled 'Height' and ranges from 52.5 to 67.5. The normal curve is fitted to the data, showing a peak around 62.5.

# Code Snippets

## Overview

- Frequently used code snippets are provided in SAS® Studio
- Quickly insert SAS® Code
- Once inserted, you can modify the snippet code to meet your needs
- Easily create your own snippets
- Specify My snippets for easy access

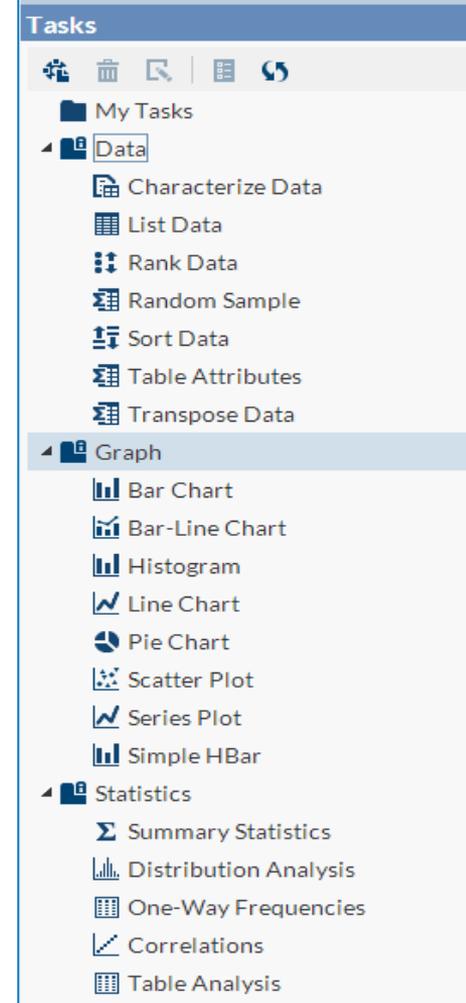


# Tasks

SAS® Studio provides a flexible task framework where both internal and external customers can create tasks

- SAS® R&D groups can add tasks
- Customers and consultants can easily create their own tasks without java coding or action-script coding
- Customers and consultants can copy delivered tasks and modify them

# Authoring



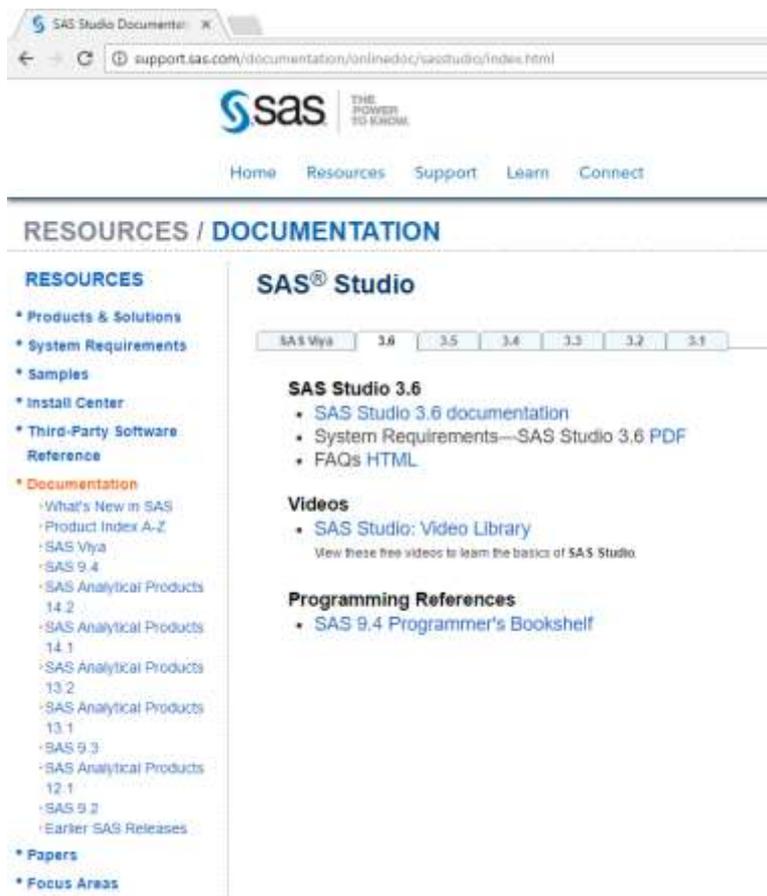


So what can I do?

# SAS Studio

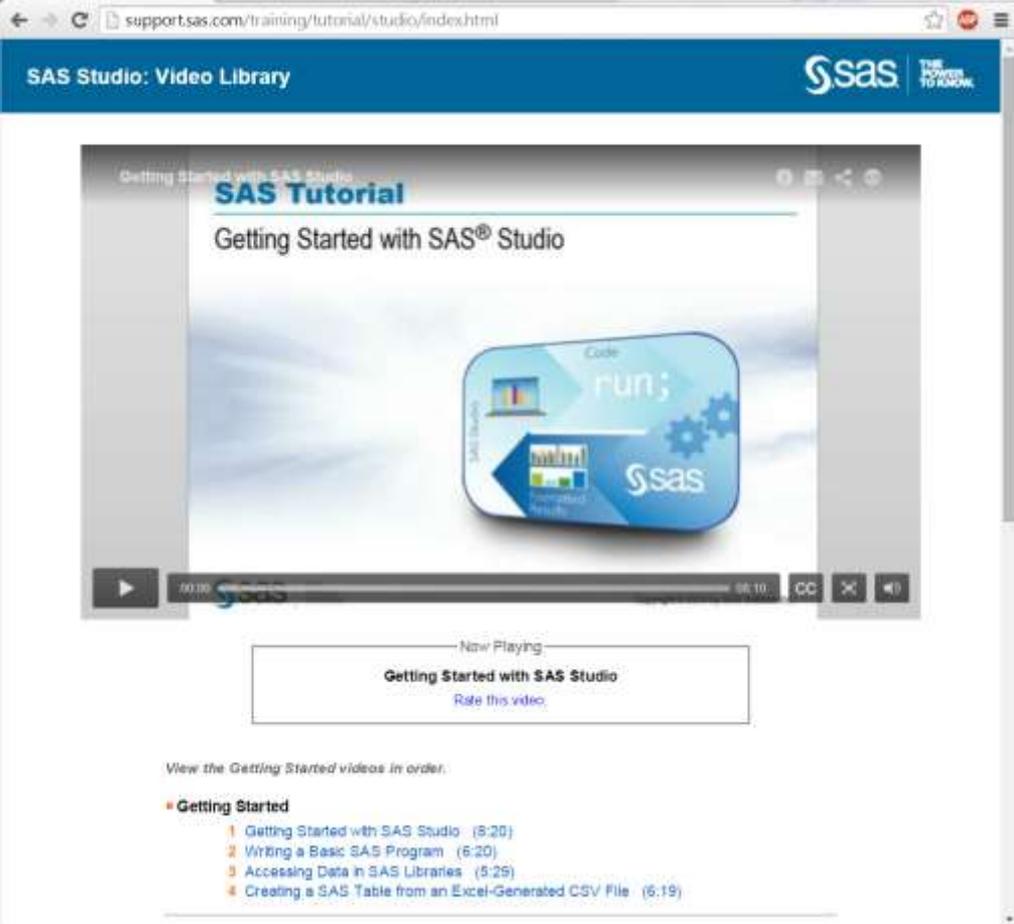
## Conclusion

- SAS Studio offers another option for programmers
  - Web-based – can be added to PC SAS
  - Server - update once, all connecting get latest version of SAS Studio PLUS backend SAS
  - HTML5 so nothing is added to browser
  - More coming including LOTS of Tasks and Snippets
  - *Perspectives* and *Notebook* to suit type of programmer
  - More IDE capabilities



The screenshot shows the SAS Studio Documentation page in a web browser. The browser's address bar displays the URL: support.sas.com/documentation/onlinedoc/sasstudio/index.html. The page features the SAS logo and the tagline "THE POWER TO KNOW." at the top, with navigation links for Home, Resources, Support, Learn, and Connect. The main heading is "RESOURCES / DOCUMENTATION". On the left, there is a "RESOURCES" sidebar with a list of links including Products & Solutions, System Requirements, Samples, Install Center, Third-Party Software Reference, Documentation (with sub-links for What's New in SAS, Product Index A-Z, SAS Viya, SAS 9.4, SAS Analytical Products 14.2, 14.1, 13.2, 13.1, SAS 9.3, SAS Analytical Products 12.1, SAS 9.2, and Earlier SAS Releases), Papers, and Focus Areas. The main content area is titled "SAS® Studio" and includes a version selector for SAS Viya (3.6, 3.5, 3.4, 3.3, 3.2, 3.1) with 3.6 selected. Below this, there are sections for "SAS Studio 3.6" (documentation, PDF, FAQs HTML), "Videos" (video library), and "Programming References" (SAS 9.4 Programmer's Bookshelf).

Main SAS® Studio  
Documentation page



The screenshot shows a web browser window with the URL `support.sas.com/training/tutorial/studio/index.html`. The page header is "SAS Studio: Video Library" with the SAS logo and the tagline "THE POWER TO KNOW". The main content is a video player for "Getting Started with SAS Studio". The video player shows a thumbnail with the text "SAS Tutorial" and "Getting Started with SAS® Studio". The video player interface includes a play button, a progress bar at 00:00, and a "Rate this video" button. Below the video player, there is a section titled "Getting Started" with a list of four videos:

- 1 Getting Started with SAS Studio (5:20)
- 2 Writing a Basic SAS Program (6:20)
- 3 Accessing Data in SAS Libraries (5:25)
- 4 Creating a SAS Table from an Excel-Generated CSV File (6:19)

# SAS® Studio

## Recommended Resources

### Videos

<http://support.sas.com/training/tutorial/#s1=4>

<http://www.sas.com/reg/web/corp/2305758>

### Benefits, Features, Fact Sheet

[http://www.sas.com/en\\_us/software/foundation/studio.html](http://www.sas.com/en_us/software/foundation/studio.html)

### SAS Global Forum Paper

<http://support.sas.com/resources/papers/proceedings14/SAS302-2014.pdf>

### Overview, Documentation, Training, Samples and Tips

<http://support.sas.com/software/products/sasstudio/index.html#s1=2>



Thank you for your time today  
and especially for using SAS!

[sas.com](https://sas.com)