

SAS Viewers

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Agenda

- Definition
- Current Versions
- General Capabilities
- Comparison
- How to learn more



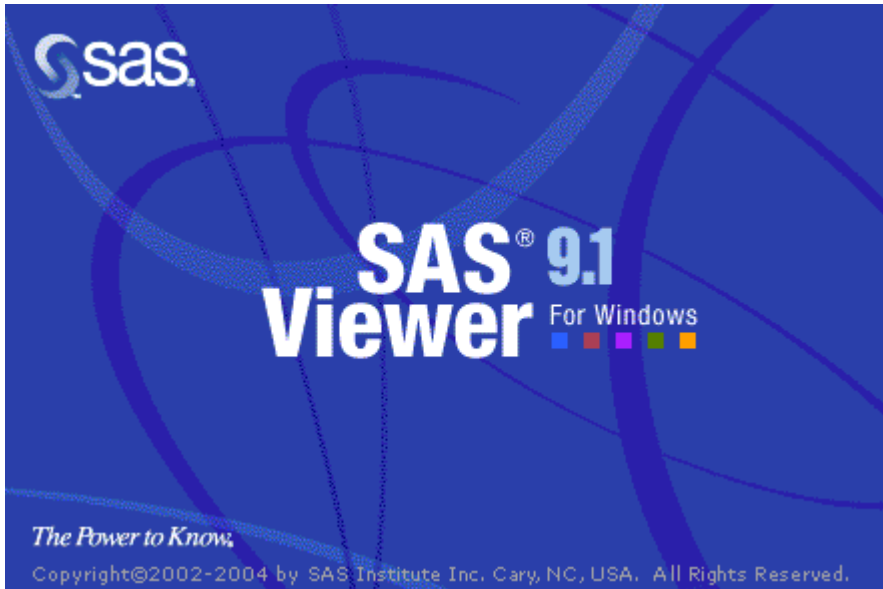
Definition

A SAS Viewer is a free application for the Windows operating environment which enables you to view SAS data sets and other types of files without invoking SAS and without having SAS installed on your computer.

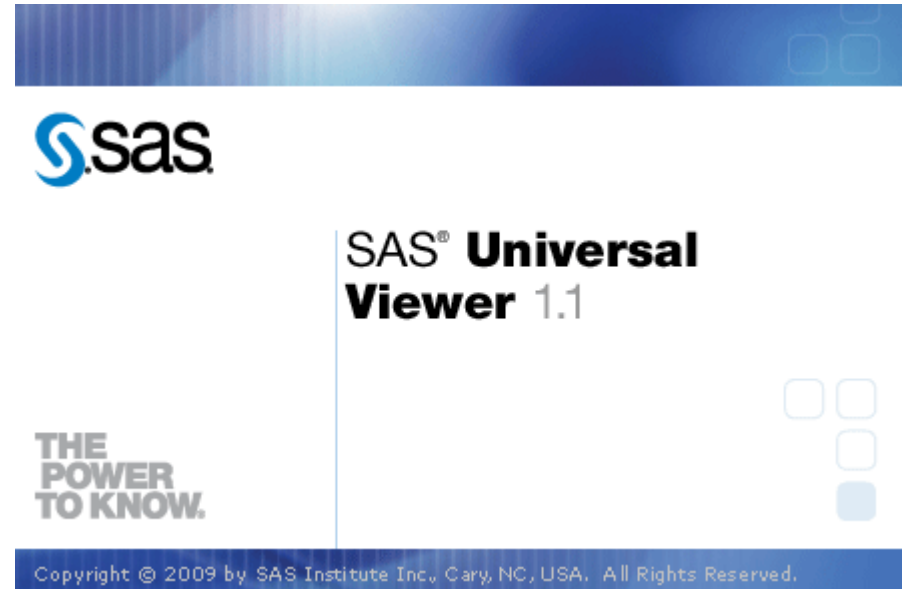


Current Versions

SAS System Viewer 9.1 (SV)



SAS Universal Viewer 1.1 (UV)



Note: both are available at support.sas.com - see “Downloads & Hot Fixes”



General Capabilities

- Viewing/Sorting/Filtering SAS data sets
- Viewing SAS v5 transport data sets
- Viewing SAS programs, logs, and listings
- Editing SAS programs
- Viewing general text files and HTML



General Capabilities

- Viewing SAS data sets with the SAS System Viewer 9.1





class.sas7bdat

	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69	112.5
2	Alice	F	13	56.5	84
3	Barbara	F	13	65.3	98
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84
10	John	M	12	69	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90
13	Louise	F	12	56.3	77
14	Mary	F	15	66.5	112

citiday.sas7bdat

	DATE	SNYDJCM	SNYSECM	DSIUSWIL	DFXWCAN	DFXWUK90	DSIUKAS	DSIJPND	DCPO7	DCD1M	DTBD3M
18	26JAN1988	714.04999	140.25999	2454.7099	1.2789999	176.65999	904.38999	23498.759	.	6.7199999	5.8199999
19	27JAN1988	712.93999	140.22999	2455.8299	1.2774999	177.59999	902.72999	23335.909	.	6.6799999	5.7399999
20	28JAN1988	722.48999	142.21999	2487.6499	1.2764999	177.63	911.69999	23587.25	.	6.6099999	5.6799999
21	29JAN1988	731.39999	144.13	2517.7999	1.2749999	175.82999	915.83999	23622.319	.	6.5899999	5.6399999
22	01FEB1988	731.39999	143.32999	2517.7999	1.2736999	174.94	910.30999	23732.319	.	6.5899999	5.6599999
23	02FEB1988	727.65999	143.60999	2506.5199	1.2752999	176.25999	909.21999	23672.209	.	6.6499999	5.7099999
24	03FEB1988	731.21999	141.96999	2513.5799	1.2732999	175.30999	906.06999	23595.369	.	6.6799999	5.7099999
25	04FEB1988	720.47999	141.88999	2485.9099	1.2687999	175.70999	905.87999	23709.099	.	6.5799999	5.6499999
26	05FEB1988	720.33999	141.34999	2485.7199	1.2680999	174.57999	892.43999	23650.799	.	6.5399999	5.6399999
27	08FEB1988	717.35999	140.33999	2478.5699	1.2656999	173.80999	870.18999	23771.599	.	6.5499999	5.6399999
28	09FEB1988	712.97999	141.63	2463.04	1.2663999	173.89999	875.90999	23662.269	.	6.5299999	5.5999999
29	10FEB1988	733.00999	144.23999	2526.9399	1.2685999	174.92999	881.18999	23771.879	.	6.4599999	5.6099999
30	11FEB1988	731.14999	143.98999	3524.8499	1.2639999	174.82999	887.32999	.	.	6.4399999	5.6299999
31	12FEB1988	736.63999	144.85999	2540.5899	1.2644999	173.09999	889.65999	23981.939	.	6.4499999	5.75

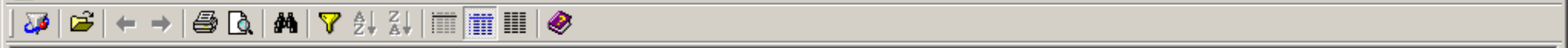


class.sas7bdat

	Name (Name)	Sex (Sex)	Age (Age)	Height (Height)	Weight (Weight)
1	Alfred	M	14	69	112.5
2	Alice	F	13	56.5	84
3	Barbara	F	13	65.3	98
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84
10	John	M	12	59	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90
13	Louise	F	12	56.3	77
14	Mary	F	15	66.5	112
15	Philip	M	16	72	150
16	Robert	M	12	64.8	128
17	Ronald	M	15	67	133
18	Thomas	M	11	57.5	85
19	William	M	15	66.5	112

citiday.sas7bdat

	Date of Observation (DATE)	STOCK MKT INDEX:NY DOW JONES COMPOSITE, (SNYDJCM)	STOCK MKT INDEX:NYSE COMPOSITE, (WSJ) (SNYSEC)	STOCK MKT INDEX:WILSH IRE 500, (WSJ) (DSIUSWIL)	FOREIGN EXCH RATE WSJ:CANAD A,CANADIA N \$/ (DFXMCAN)	FC EX WS: CE (D
18	26JAN1988	714.04999924	140.2599999	2454.709999	1.2789999	17
19	27JAN1988	712.93999958	140.2299999	2455.829999	1.2774999	17
20	28JAN1988	722.48999977	142.2199999	2487.649999	1.2764999	
21	29JAN1988	731.39999962	144.13	2517.799999	1.2749999	17
22	01FEB1988	731.39999962	143.3299999	2517.799999	1.2736999	
23	02FEB1988	727.65999985	143.6099999	2506.519999	1.2752999	17
24	03FEB1988	731.21999931	141.9699999	2513.579999	1.2732999	17
25	04FEB1988	720.47999954	141.8899999	2485.909999	1.2687999	17
26	05FEB1988	720.33999992	141.3499999	2485.719999	1.2680999	17
27	08FEB1988	717.35999966	140.3399999	2478.569999	1.2656999	17
28	09FEB1988	712.97999954	141.63	2463.04	1.2663999	17
29	10FEB1988	733.00999928	144.2399999	2526.939999	1.2685999	17
30	11FEB1988	731.14999962	143.9899999	3524.849999	1.2639999	17
31	12FEB1988	736.63999939	144.8599999	2540.589999	1.2644999	17
32	15FEB1988	
33	16FEB1988	744.75999928	145.9599999	2557.489999	1.2680999	17
34	17FEB1988	744.66999912	145.7199999	2555.909999	1.2665999	
35	18FEB1988	741.21999931	145.1399999	2545.599999	1.2702999	17
36	19FEB1988	753.04999924	146.9599999	2571.419999	1.2702999	17
37	22FEB1988	760.98999977	148.9599999	2604.489999	1.2732999	17
38	23FEB1988	759.89999962	148.7299999	2601.649999	1.2667999	17
39	24FEB1988	759.09999943	148.5399999	2601.569999	1.2645999	17
40	25FEB1988	754.16999912	147.2999999	2583.899999	1.2649999	17
41	26FEB1988	756.37999916	147.6999999	2590.779999	1.2629999	17



	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69	112.5
2	Alice	F	13	56.5	84
3	Barbara	F	13	65.3	98
4	Carol	F	14	62.8	102.5
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7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84
10	John	M	12	59	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90
13	Louise	F	12	56.3	77
14	Mary	F	15	66.5	112
15	Philip	M	16	72	150
16	Robert	M	12	64.8	128
17	Ronald	M	15	67	133
18	Thomas	M	11	57.5	85
19	William	M	15	66.5	112

General Capabilities

- Sorting SAS data sets with the SAS System Viewer 9.1



Before sorting by “Age”:

SAS System Viewer - class.sas7bdat

File Edit View Window Help

class.sas7bdat

	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69	112.5
2	Alice	F	13	56.5	84
3	Barbara	F	13	65.3	98
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83
7	Jane	F	12	59.8	84.5
8	Janet	F	15	62.5	112.5
9	Jeffrey	M	13	62.5	84
10	John	M	12	59	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90
13	Louise	F	12	56.3	77
14	Mary	F	15	66.5	112
15	Philip	M	16	72	150
16	Robert	M	12	64.8	128
17	Ronald	M	15	67	133
18	Thomas	M	11	57.5	85
19	William	M	15	66.5	112

After sorting by “Age”:

	Name	Sex	Age	Height	Weight
1	Joyce	F	11	51.3	50.5
2	Thomas	M	11	57.5	85
3	John	M	12	59	99.5
4	Jane	F	12	59.8	84.5
5	Robert	M	12	64.8	128
6	Louise	F	12	56.3	77
7	James	M	12	57.3	83
8	Barbara	F	13	65.3	98
9	Alice	F	13	56.5	84
10	Jeffrey	M	13	62.5	84
11	Henry	M	14	63.5	102.5
12	Alfred	M	14	69	112.5
13	Carol	F	14	62.8	102.5
14	Judy	F	14	64.3	90
15	Ronald	M	15	67	133
16	William	M	15	66.5	112
17	Mary	F	15	66.5	112
18	Janet	F	15	62.5	112.5
19	Philip	M	16	72	150

General Capabilities

- Filtering SAS data sets with SAS System Viewer 9.1



SAS System Viewer - class.sas7bdat

File Edit View Window Help

	Name (Name)	Sex (Sex)	Age (Age)	Height (Height)	Weight (Weight)
1	Joyce	F	11	51.3	50.5
2	Janet	F	15	62.5	112.5
3	Jane	F	12	59.8	84.5
4	Mary	F	15	66.5	112
5	Louise	F	12	56.3	77
6	Judy	F	14	64.3	90
7	Barbara	F	13	65.3	98
8	Carol	F	14	62.8	
9	Alice	F	13	56.5	
10	William	M	15	66.5	
11	Thomas	M	11	57.5	
12	Ronald	M	15	67	
13	Philip	M	16	72	
14	Robert	M	12	64.8	
15	Henry	M	14	63.5	
16	Alfred	M	14	69	
17	James	M	12	57.3	
18	John	M	12	59	
19	Jeffrey	M	13	62.5	

Filter

Where Clause: sex = 'M'

Show all observations allowed by memory.
 Show selected observations.

Starting Row: 1

Number of Rows: 1000

Text Color: Blue

Order By:

 Ascending

 Descending

Column: 2

Filter
Cancel
Help

SAS System Viewer - class.sas7bdat

File Edit View Window Help

class.sas7bdat

	Name (Name)	Sex (Sex)	Age (Age)	Height (Height)	Weight (Weight)
1	Robert	M	12	64.8	128
2	Philip	M	16	72	150
3	Ronald	M	15	67	133
4	William	M	15	66.5	112
5	Thomas	M	11	57.5	85
6	Henry	M	14	63.5	102.5
7	Alfred	M	14	69	112.5
8	James	M	12	57.3	83
9	John	M	12	59	99.5
10	Jeffrey	M	13	62.5	84

General Capabilities

- Viewing SAS data sets with the SAS Universal Viewer 1.1



Address

C:\Program Files\SAS\SAS 9.1\core\sashelp\class.sas7bdat

Library CLASS

Freeze Hide Show... Format Filter... Font... Find

Table View

	Name	Sex	Age	Height	Weight
1	Alfred	M	14	69	112.5
2	Alice	F	13	56.5	84
3	Barbara	F	13	65.3	98
4	Carol	F	14	62.8	102.5
5	Henry	M	14	63.5	102.5
6	James	M	12	57.3	83
7	Jane	F	12	59.8	84.5
8	Jane	F	15	62.5	112.5

Rows 1-19 of 19 Filter: Off Sort: none 1,1

C:\Program Files\SAS\SAS 9.1\core\sashelp\class.sas7bdat

C:\++Test\SAS Library 01\company.sas7bdat

Library COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5	DEPthead	LEVEL3	LEVEL4	JOB1	N
1	TOKYO	International Ai	So Suumi	1	ADMIN	CONTRACTS	MANAGER	1
2	TOKYO	International Ai	Steffen Graff	2	ADMIN	CONTRACTS	ASSISTANT	1
3	TOKYO	International Ai	Karin Schmidt	2	ADMIN	FINANCE	ACCOUNTANT	1
4	LONDON	International Ai	Anne Bauer	1	ADMIN	PERSONNEL	MANAGER	1
5	TOKYO	International Ai	Barbara Bial	2	ADMIN	PERSONNEL	ADMIN	1
6	TOKYO	International Ai	Lisa Lammers	2	ADMIN	SHIPPING	ASSIST.	1
7	LONDON	International Ai	Juergen Heidler	2	ADMIN	SHIPPING	ASSISTANT	1
8	LONDON	International Ai	Alex Brudel	1	SALES/MARKE	MARKETING	MARKET_CONS	1

Rows 1-48 of 48 Filter: Off Sort: none 1,1

C:\++Test\SAS Library 01\company.sas7bdat

C:\Program Files\SAS\SAS 9.1\core\sashelp\class.sas7bdat

Library CLASS

Freeze Hide Show... Format Filter... Font... Find

Table View

	Name	Sex	Age	Height	Weight
1	Alfred	M		14	69
2	Alice	F		13	56.5
3	Barbara	F		13	65.3
4	Carol	F		14	62.8
5	Henry	M		14	63.5
6	James	M		12	57.3
7	Jane	F		12	59.8
8	Janet	F		15	62.5
9	Jeffrey	M		13	62.5
10	John	M		12	59
11	Joyce	F		11	51.3
12	Judy	F		14	64.3
13	Louise	F		12	56.3
14	Mary	F		15	66.5
15	Philip	M		16	72
16	Robert	M		12	64.8
17	Ronald	M		15	67
18	Thomas	M		11	57.5
19	William	M		15	66.5

Rows 1-19 of 19 Filter: Off Sort: none

C:\Program Files\SAS\SAS 9.1\core\sashelp\class.sas7bdat

C:\++Test\SAS Library 01\company.sas7bdat

Library COMPANYY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5	DEPTHEAD	LEVEL3
1	TOKYO	International Ai	So Suumi	1	ADMIN
2	TOKYO	International Ai	Steffen Graff	2	ADMIN
3	TOKYO	International Ai	Karin Schmidt	2	ADMIN
4	LONDON	International Ai	Anne Bauer	1	ADMIN
5	TOKYO	International Ai	Barbara Bial	2	ADMIN
6	TOKYO	International Ai	Lisa Lammers	2	ADMIN
7	LONDON	International Ai	Juergen Heidler	2	ADMIN
8	LONDON	International Ai	Alex Brudel	1	SALES/M
9	TOKYO	International Ai	Uwe Benz	2	SALES/M
10	LONDON	International Ai	Mercedes Schauer	2	SALES/M
11	LONDON	International Ai	Heinz Ballmann	2	SALES/M
12	LONDON	International Ai	Cornelia Gut	2	SALES/M
13	LONDON	International Ai	Hartwig Hartmann	2	SALES/M
14	LONDON	International Ai	Jochen Lackner	2	SALES/M
15	LONDON	International Ai	Jlrgen Mueller	2	SALES/M
16	LONDON	International Ai	Peter Gruendel	2	SALES/M
17	LONDON	International Ai	Roland Koenig	2	SALES/M
18	LONDON	International Ai	Udo Lindermann	2	SALES/M
19	LONDON	International Ai	Karl Lichtermann	2	SALES/M
20	LONDON	International Ai	Fritz Weiss	2	SALES/M
21	TOKYO	International Ai	Wolfgang Gruen...	1	TECHN.
22	LONDON	International Ai	Susan Lang	2	TECHN.
23	TOKYO	International Ai	Markus Ender	2	TECHN.

Rows 1-48 of 48 Filter: Off Sort: none

C:\++Test\SAS Library 01\company.sas7bdat

Address

Library COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5	DEPTH	LEVEL3	LEVEL4	JOB1	N
1	TOKYO	International Ai	So Suumi	1	ADMIN	CONTRACTS	MANAGER	1
2	TOKYO	International Ai	Steffen Graff	2	ADMIN	CONTRACTS	ASSISTANT	1
3	TOKYO	International Ai	Karin Schmidt	2	ADMIN	FINANCE	ACCOUNTANT	1
4	LONDON	International Ai	Anne Bauer	1	ADMIN	PERSONNEL	MANAGER	1
5	TOKYO	International Ai	Barbara Bial	2	ADMIN	PERSONNEL	ADMIN	1
6	TOKYO	International Ai	Lisa Lammers	2	ADMIN	SHIPPING	ASSIST.	1
7	LONDON	International Ai	Juergen Heidler	2	ADMIN	SHIPPING	ASSISTANT	1
8	LONDON	International Ai	Alex Brudel	1	SALES/MARKE...	MARKETING	MARKET. CONS.	1
9	TOKYO	International Ai	Uwe Benz	2	SALES/MARKE...	MARKETING	MARKETING	1
10	LONDON	International Ai	Mercedes Schauer	2	SALES/MARKE...	MARKETING	ASSISTANT	1
11	LONDON	International Ai	Heinz Ballmann	2	SALES/MARKE...	SALES	SALES.-CONS.	1
12	LONDON	International Ai	Cornelia Gut	2	SALES/MARKE...	SALES	SALES CONS	1
13	LONDON	International Ai	Hartwig Hartmann	2	SALES/MARKE...	SALES	SALES CONS B...	1
14	LONDON	International Ai	Jochen Lackner	2	SALES/MARKE...	SALES	MARKET. CONS.	1
15	LONDON	International Ai	Jlrgen Mueller	2	SALES/MARKE...	SALES	CONSULTANT S...	1
16	LONDON	International Ai	Peter Gruendel	2	SALES/MARKE...	SALES	SALES.-CONS.	1
17	LONDON	International Ai	Roland Koenig	2	SALES/MARKE...	SALES	SALES-TRAINEE	1
18	LONDON	International Ai	Udo Lindermann	2	SALES/MARKE...	SALES	CONSULTANT	1
19	LONDON	International Ai	Karl Lichtermann	2	SALES/MARKE...	SALES	SALES-CON SMA...	1
20	LONDON	International Ai	Fritz Weiss	2	SALES/MARKE...	SALES	ASSIST	1
21	TOKYO	International Ai	Wolfgang Gruen...	1	TECHN. SERVIC...	TRANSLATIONS	MANAGER	1
22	LONDON	International Ai	Susan Lang	2	TECHN. SERVIC...	TRANSLATIONS	TRANSLATOR	1
23	TOKYO	International Ai	Markus Ender	2	TECHN. SERVIC...	TRANSLATIONS	TRANSLATOR	1
24	NEW YORK	International Ai	James Dargon	2	ADMIN	CONTRACTS	ASSISTANT	1

Rows 1-48 of 48 Filter: Off Sort: none

1,1

C:\++Test\SAS Library 01\company.sas7bdat

Current Workspace: C:\Documents and Settings\wjacob\Application Data\SAS Institute Inc\SAS Universal Viewer\SASViewer.sasuvw

Opening a SAS library (Universal Viewer only)

The screenshot shows the SAS Universal Viewer interface. The main window displays a table of datasets within a library named 'SAS Library 01'. The table has three columns: 'Name', 'Obs', and 'Vars'. The datasets listed are CITIDAY, CLASS, COMPANY, DATASET_1GB, DATASET_1GB_COMPRESSED_..., DATASET_1GB_COMPRESSED_..., and ZIPCODE.

Name	Obs	Vars
CITIDAY	1069	11
CLASS	19	5
COMPANY	48	8
DATASET_1GB	4000000	11
DATASET_1GB_COMPRESSED_...	4000000	11
DATASET_1GB_COMPRESSED_...	4000000	11
ZIPCODE	41988	16



Address

C:\++Test\SAS Library 01

Library

Name	Obs	Vars
CITIDAY	1069	11
CLASS	19	5
COMPANY	48	8
DATASET_1GB	4000000	11
DATASET_1GB_COMPRESSED_...	4000000	11
DATASET_1GB_COMPRESSED_...	4000000	11
ZIPCODE	41988	16

#	Variable	Type	Length	Format	Informat	Label
1	Name	Character	8			
2	Sex	Character	1			
3	Age	Numeric	8			
4	Height	Numeric	8			
5	Weight	Numeric	8			



Address

C:\++Test\SAS Library 01

Library

Name	Obs	Vars	#	Variable	Type	Length	Format	Informat	Label
CITIDAY	1069	11	1	ZIP	Numeric	8	Z5.		The 5-digit ZIP Code
CLASS	19	5	2	Y	Numeric	8	11.6		Latitude (degrees) of the center (centroid) of ZIP Code...
COMPANY	48	8	3	X	Numeric	8	11.6		Longitude (degrees) of the center (centroid) of ZIP Co...
DATASET_1GB	4000000	11	4	ZIP_CLASS	Character	1			ZIP Code Classification:M= APO/FPO P=PO Box U=U...
DATASET_1GB_COMPRESSED_...	4000000	11	5	CITY	Character	35			Name of city/org
DATASET_1GB_COMPRESSED_...	4000000	11	6	STATE	Numeric	8			Two-digit number (FIPS code) for state/territory
ZIPCODE	41988	16	7	STATECODE	Character	2			Two-letter abbrev. for state name.
			8	STATENAME	Character	25			Full name of state/territory
			9	COUNTY	Numeric	8			FIPS county code. Blank for APO/FPO
			10	COUNTYNM	Character	25			Name of county/parish. No county for APO/FPO
			11	MSA	Numeric	8			Metro Service Area code by common pop; no MSA for...
			12	AREACODE	Numeric	8			Area Code for ZIP Code. None for APO/FPO
			13	TIMEZONE	Character	9			Time Zone for ZIP Code. None for APO/FPO
			14	GMTOFFSET	Numeric	8			Diff (hrs) between GMT and time zone for ZIP Code
			15	DST	Character	1			ZIP Code obeys Daylight Savings: Y-Yes N-No
			16	PONAME	Character	28	\$28.	\$28.	USPS Post Office Name

C:\++Test\SAS Library 01

General Capabilities

- Sorting SAS data sets with the SAS Universal Viewer 1.1



Before sorting by "LEVEL5":

SAS Universal Viewer

File Tools Window Help

Address

C:\++Test\SAS Library 01

Library CITIDAY COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5	DEPTHEAD	LEVEL3	LEVEL4	JOB1	N
1	TOKYO	International Ai	So Suumi	1	ADMIN	CONTRACTS	MANAGER	
2	TOKYO	International Ai	Steffen Graff	2	ADMIN	CONTRACTS	ASSISTANT	
3	TOKYO	International Ai	Karin Schmidt	2	ADMIN	FINANCE	ACCOUNTANT	
4	LONDON	International Ai	Anne Bauer	1	ADMIN	PERSONNEL	MANAGER	
5	TOKYO	International Ai	Barbara Bial	2	ADMIN	PERSONNEL	ADMIN	
6	TOKYO	International Ai	Lisa Lammers	2	ADMIN	SHIPPING	ASSIST.	
7	LONDON	International Ai	Juergen Heidler	2	ADMIN	SHIPPING	ASSISTANT	
8	LONDON	International Ai	Alex Brudel	1	SALES/MARKE...	MARKETING	MARKET. CONS.	
9	TOKYO	International Ai	Uwe Benz	2	SALES/MARKE...	MARKETING	MARKETING	
10	LONDON	International Ai	Mercedes Schauer	2	SALES/MARKE...	MARKETING	ASSISTANT	
11	LONDON	International Ai	Heinz Ballmann	2	SALES/MARKE...	SALES	SALES.-CONS.	
12	LONDON	International Ai	Cornelia Gut	2	SALES/MARKE...	SALES	SALES CONS	
13	LONDON	International Ai	Hartwig Hartmann	2	SALES/MARKE...	SALES	SALES CONS B...	
14	LONDON	International Ai	Jochen Lackner	2	SALES/MARKE...	SALES	MARKET. CONS.	
15	LONDON	International Ai	Jlrgen Mueller	2	SALES/MARKE...	SALES	CONSULTANT S...	
16	LONDON	International Ai	Peter Gruendel	2	SALES/MARKE...	SALES	SALES.-CONS.	
17	LONDON	International Ai	Roland Koenig	2	SALES/MARKE...	SALES	SALES-TRAINEE	
18	LONDON	International Ai	Udo Lindermann	2	SALES/MARKE...	SALES	CONSULTANT	
19	LONDON	International Ai	Karl Lichtermann	2	SALES/MARKE...	SALES	SALES-CONSMSA...	
20	LONDON	International Ai	Fritz Weiss	2	SALES/MARKE...	SALES	ASSIST	

Rows 1-48 of 48 Filter: Off Sort: none 1,1

After sorting by "LEVEL5":

SAS Universal Viewer

File Tools Window Help

Address

C:\++Test\SAS Library 01

Library CITIDAY COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5 ▲	DEPTHEAD	LEVEL3	LEVEL4	JOB1	N ▲
1	NEW YORK	International Ai	Alan Bentz	2	SALES/MARKE...	SALES	ASSISTANT	
2	NEW YORK	International Ai	Alan Picard	2	SALES/MARKE...	SALES	RESPONS. TER...	
3	LONDON	International Ai	Alex Brudel	1	SALES/MARKE...	MARKETING	MARKET. CONS.	
4	LONDON	International Ai	Anne Bauer	1	ADMIN	PERSONNEL	MANAGER	
5	TOKYO	International Ai	Barbara Bial	2	ADMIN	PERSONNEL	ADMIN	
6	NEW YORK	International Ai	Barrett R. Joyner	2	ADMIN	SHIPPING	ASSISTANT	
7	NEW YORK	International Ai	Camille Besseel	2	SALES/MARKE...	SALES	LYON RESP.	
8	NEW YORK	International Ai	Claire Voyant	2	TECHN. SERVIC...	MIS	TRANSLATOR	
9	LONDON	International Ai	Cornelia Gut	2	SALES/MARKE...	SALES	SALES CONS	
10	NEW YORK	International Ai	Danielle Biabaut	2	TECHN. SERVIC...	MIS	TECH.-CONS.	
11	NEW YORK	International Ai	Danielle Prost	2	ADMIN	PERSONNEL	RECEPTIONIST	
12	NEW YORK	International Ai	Deva K. Kumar	2	ADMIN	FINANCE	RESPONS. FINA...	
13	NEW YORK	International Ai	Elaine Dumas	2	SALES/MARKE...	SALES	INDUSTRY	
14	NEW YORK	International Ai	Elizabeth Cousteau	2	ADMIN	PERSONNEL	RESPONSIBLE	
15	NEW YORK	International Ai	Emily P. Wallace	2	ADMIN	FINANCE	ASSISTANT	
16	LONDON	International Ai	Fritz Weiss	2	SALES/MARKE...	SALES	ASSIST	
17	NEW YORK	International Ai	George H. Ruth	2	TECHN. SERVIC...	MIS	TECH.-CONS	
18	LONDON	International Ai	Hartwig Hartmann	2	SALES/MARKE...	SALES	SALES CONS B...	
19	LONDON	International Ai	Heinz Ballmann	2	SALES/MARKE...	SALES	SALES.-CONS.	
20	NEW YORK	International Ai	Herbert J. Kirk	2	ADMIN	PERSONNEL	RECEPTION	

Rows 1-48 of 48 Filter: Off Sort: LEVEL5 1,1

General Capabilities

- Filtering SAS data sets with the SAS Universal Viewer 1.1



Address

C:\++Test\SAS Library 01

Library CITIDAY COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5	DEPTHEAD	LEVEL3	LEVEL4	JOB1
▶ 1	NEW YORK	International Ai	Alan Bentz	2	SALES/MARKE...	SALES	ASSISTANT
2	NEW YORK	International Ai	Alan Picard	2	SALES/MARKE...	SALES	RESPONS. TER...
3	LONDON	International Ai	Alex Brudel	1	SALES/MARKE...	MARKETING	MARKET. CONS.
4	LONDON	International Ai	Anne Bauer	1	ADMIN	PERSONNEL	MANAGER
5	TOKYO	International Ai	Barbara Bial	2	ADMIN	PERSONNEL	ADMIN
6	NEW YORK	International Ai	Barrett R. Joyner				
7	NEW YORK	International Ai	Camille Besseel				
8	NEW YORK	International Ai	Claire Voyant				
9	LONDON	International Ai	Cornelia Gut				
10	NEW YORK	International Ai	Danielle Biabaut				
11	NEW YORK	International Ai	Danielle Prost				
12	NEW YORK	International Ai	Deva K. Kumar				
13	NEW YORK	International Ai	Elaine Dumas				
14	NEW YORK	International Ai	Elizabeth Cousteau				
15	NEW YORK	International Ai	Emily P. Wallace				
16	LONDON	International Ai	Fritz Weiss				
17	NEW YORK	International Ai	George H. Ruth				
18	LONDON	International Ai	Hartwig Hartmann				
19	LONDON	International Ai	Heinz Ballmann				

Rows 1-48 of 48 Filter: Off Sort: LEVEL5

C:\++Test\SAS Library 01

Filter editor

Standard Advanced

LEVEL2 = NEW YORK AND

JOB1 = MANAGER

Clear

```
Convert([LEVEL2].System.String)='NEW YORK'
AND
Convert([JOB1].System.String)='MANAGER'
```

OK Cancel

Address

C:\++Test\SAS Library 01

Library CITIDAY COMPANY

Freeze Hide Show... Format Filter... Font... Find

Table View

	LEVEL2	LEVEL1	LEVEL5 ▲	DEPTHEAD	LEVEL3	LEVEL4	JOB1
▶ 1	NEW YORK	International Ai	James H. Goodnight	1	ADMIN	SHIPPING	MANAGER
2	NEW YORK	International Ai	Richard G. Roach	1	TECHN. SERVICES	MIS	MANAGER
3	NEW YORK	International Ai	Sam Baker	1	SALES/MARKETING	MARKETING	MANAGER
4	NEW YORK	International Ai	Veronica Delorge	1	ADMIN	PERSONNEL	MANAGER

Rows 1-48 of 48 Filter: On Sort:LEVEL5

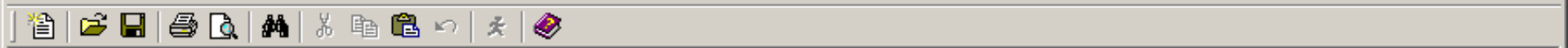
1,1

C:\++Test\SAS Library 01

General Capabilities

- Viewing SAS programs, logs, and listings with the SAS System Viewer 9.1





Program1.lst

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	57.3	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	59.0	99.5
11	Joyce	F	11	51.3	50.5
12	Judy	F	14	64.3	90.0
13	Louise	F	12	56.3	77.0
14	Mary	F	15	66.5	112.0
15	Philip	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	57.5	85.0

system 22:39 Monday, Nov
 ., Cary, NC, USA.
 FORMATION, Site 0032771009.
 tform.
 OGRA-1\SAS\SAS9-1.1\autoexec.sas.



```
1      proc print data=sashelp.class;
2      run;
```

NOTE: There were 19 observations read from the data set SASHELP.CLASS.
 NOTE: The PROCEDURE PRINT printed page 1.
 NOTE: PROCEDURE PRINT used (Total process time):

Program1.sas

```
proc print data=sashelp.class;
run;
```

General Capabilities

- Viewing SAS programs, logs, and listings with the SAS Universal Viewer 1.1



Program1.lst

Text Properties

File Tools

Find

```

1                               The SAS System      22:39 Monday, November
2
3                               Obs   Name      Sex    Age    Height  Weight
4
5                               1    Alfred   M     14    69.0    112.5
6                               2    Alice    F     13    56.5    84.0
7                               3    Barbara  F
8                               4    Carol    F
9                               5    Henry    M
10                              6    James    M
11                              7    Jane     F
12                              8    Janet    F

```

C:_Presentation\SAS Viewers\File Types\Program1.lst

Program1.log

Text Properties

File Tools

Find

```

20 NOTE: AUTOEXEC processing completed.
21
22 1          proc print data=sashelp.class;
23 2          run;

```

```

... 19 observations read from the data set SASHELP
... PROCEDURE PRINT printed page 1.
... PRINT used (Total process time):
...           1.71 seconds
...           0.04 seconds

```

```

... itute Inc., SAS Campus Drive, Cary, NC USA 27513-
... System used:
...           8.06 seconds

```

Row: 3, Col: 42

Program1.sas

Text Properties

File Tools

Find

```

1 * This is pretty much like the Enhanced Editor
2 *;
3 title "Listing: SASHELP.CLASS data set";
4 proc print data=sashelp.class;
5 run;

```

Row: 3, Col: 42

C:_Presentation\SAS Viewers\File Types\Program1.sas

Comparison

- SAS System Viewer 9.1
 - Old but fast, very easy to use
 - Unique feature: Batch Submit of SAS programs

- SAS Universal Viewer 1.1
 - Modern but slower, a little bit harder to learn
 - New: colour-coded Enhanced Editor
 - New: “break large data sets into pages”
 - New: does not lock data sets
 - New: “Workspace” concept (can be saved)
 - New: user-defined formats can be imported



How to learn more

- Both Viewers have reasonably good online help.
- The Universal Viewer 1.1 installs complete with a separate User's Guide (PDF format)
- SAS Global Forum 2010 Paper 229 by Steve Wright:

<http://support.sas.com/resources/papers/proceedings10/229-2010.pdf>

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