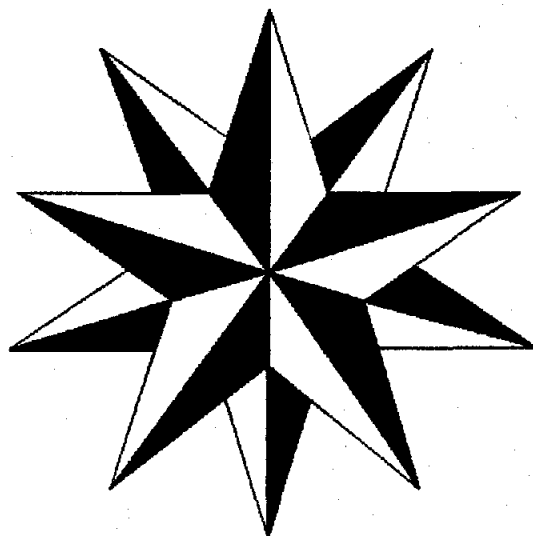


**COMPARISON OF SAS/GRAPH WITH
OTHER MAINFRAME GRAPHIC SOFTWARE**



**LeRoy Bessler
Miller Brewing Company**

**Comparison of SAS/GRAPH*
with Other Mainframe Graphics Software**

LeRoy Bessler, Miller Brewing Company

**means extra-cost item	ICU	SAS/GRAPH	TELL-A-GRAF
Context	IBM dominant market force in general-purpose computing	SAS System most popular data analysis tool in the world	part of collection of graphics specialty tools, some of them unique
Data Sources	SQL/DS (in QMF**); DB2 (in QMF**); FOCUS (in FOCUS); external files; typed-in data	SAS/SQL-DS**; SAS/DB2**; FOCUS extract; external files; typed-in data; SAS files	DATA CONNECTION**; FOCUS; external files; typed-in data
Portability & Compatibility	mainframe only	mainframe, mini, PC: all "same" language	not PC
Speed	may be fastest	may be slowest	
Hardcopy Device Interfaceability	non-IBM: complex or impossible; extra cost	extremely wide compatibility	extremely wide compatibility
User Interface	menus, fill-in-the-blanks screens, and online help (ICU: Interactive Chart Utility)	rigid syntax; Display Manager, or command-file submission, or line-mode entry	somewhat forgiving; "English-like" conversation, or command-file submission
Batch Processing	SQL/DS or DB2 data only (via QMF Batch)	yes	yes
Adequacy of Defaults	results may be unuseable	results always "useable", not necessarily elegant	results may be unuseable
Novice/Occasional Use	very good	SAS experience needed	CUECHART**
Programmer's Tool	no	excellent	for graphics, standalone
Graphic Editor	yes	no, Annotation	yes, PINPOINT**
Maps	no	yes	no
Plot 3 Numeric Variables	no	yes	no
Graph Catalogs	interactive; interface not customizable	interactive or batch	IVISS MANAGER**
Text/Graph Integration	graphs linked to PROFS** note	graphs imbedded in DCF** text, or linked to PROFS** note	graphs linked to PROFS** note
Special Features	"hot-key" access from QMF**; no data mapping needed	can invoke CMS & TSO commands and other software from SAS; "BY processing"	pre-defined "stencils" (CUECHART**); tabular presentation (TABLES**)
Values at Ends of Bars in Bar Charts	option	VBAR--must Annotate HBAR--automatic	best implementation of option
Pie Chart Limitations	always MATCHCOLOR	always NN.NN%: may be unwanted precision	
Vendor Manuals	slim, easy to use	too many (Release 5.18)	thick; not all-inclusive
Vendor Training	not needed	instructor/labs/video/CBT	instructor, CBT
Vendor Hot Line	not for end user	one call often suffices	yes
Users Groups	not for end user	many, well-organized	yes

Key Distinctions

SAS/GRAPH: SAS-conversant user; integrated, multi-function applications; ad-hoc interactive or production batch processing.

ICU: rare need for manuals, experts; fast feedback; QMF-conversant user with data in DB2, SQL/DS; invocable from FOCUS; IBM hardcopy.

TELL-A-GRAF: graphics specialty work. Some excellent add-ons at extra cost. Some of them (e.g., print optimizer--to reduce laser print times and reduce mainframe resource requirements) can also be used with SAS/GRAPH.

Notice

A paper of the same title and on this topic was also published by the author in *Proceedings of the Fifteenth Annual SAS* Users Group International Conference*, Cary, NC: SAS Institute Inc., 1990 (pp. 637-638).

SAS/GRAPH, SAS, SAS/SQL-DS, and SAS/DB2 are registered trademarks of SAS Institute Inc., Cary,

NC, USA. ICU (Interactive Chart Utility), SQL/DS, DB2, QMF, DCF, and PROFS are products of IBM Corp.; TELL-A-GRAF, PINPOINT, TABLES, CUECHART, IVISS MANAGER, and DATA CONNECTION are products of Computer Associates International, Inc.; FOCUS is a product of Information Builders, Inc. Trademark and copyright protections apply.

Products are specifically qualified as SAS/GRAPH Release 5.18, ICU Version 2.1.1, and TELL-A-GRAF Version 6.1.

This product comparison is intended neither as endorsement, nor as criticism. Nor is it intended as a substitute for your own investigation or your own evaluation.

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