

# Die Zitrone (Proc Tabulate) mit Formaten und ODS bis zum letzten Tropfen ausquetschen



Die Zitrone (Proc Tabulate) mit Formaten und ODS bis zum letzten Tropfen ausquetschen:



"PROC TABULATE"



About 29.700 results (0,34 seconds)

# PROC TABULATE ist hilfreich bei der Erstellung von individuellen Kreuztabellierungen

TABULATE structured tables

state	amt			j_ind			j_ind2		
	N	Sum	PctSum	N	Sum	PctSum	N	Sum	PctSum
state									
FL	9	49,828	41.41	4	20,462	56.31	9	20,462	56.31
MA	10	70,489	58.59	3	15,876	43.69	10	15,876	43.69
All	19	120,316	100.00	7	36,338	100.00	19	36,338	100.00

TABULATE structured tables

state and city		amt			j_ind			j_ind2		
		N	Sum	PctSum	N	Sum	PctSum	N	Sum	PctSum
state	city									
FL	Boca Raton	3	11,979	9.96	2	7,644	21.03	3	7,644	21.03
	Lakeland	4	23,369	19.42	1	5,787	15.93	4	5,787	15.93
	Orlando	2	14,479	12.03	1	7,031	19.35	2	7,031	19.35
	All	9	49,828	41.41	4	20,462	56.31	9	20,462	56.31
MA	city									
	Boston	4	23,808	19.79	2	10,626	29.24	4	10,626	29.24
	Nantucket	3	19,521	16.22	1	5,250	14.45	3	5,250	14.45
	Salem	3	27,159	22.57	0			3	0	0.00

# 5 Schritte der Erstellung von Kreuztabellen

1. Spezifikation der Klassifikationsvariablen

```
class City Country date date1;  
format Date year4.;  
format Date1 yyq4.;
```

2. Spezifikation der Analysevariablen

```
var Waste;
```

3. Definition der Anzeigedimensionen, Hierarchien und Gesamtauswertungen

```
Country*(City ALL) ALL
```

4. Spezifikation der Statistischen Kennzahlen (Operatoren) der Analysevariablen

```
N SUM MEAN PCTN COLPCTN ROWPCTNSUM
```

5. „Schön machen“: Label, Formate, Hintergrundfarben, Output Design ODS

```
Country=''  
S=[foreground=watchit.]  
ALL=' '* ([style=[background=#EDF2F9] ])
```

# Tabulate Operatoren:

## Statistiken

Descriptive Statistics	Quantile Statistics
COLPCTN	MEDIAN   P50
PCTSUM	P1
COLPCTSUM	Q3   P75
MAX	P90
ROWPCTN	P95
MEAN	P5
ROWPCTSUM	P10
MIN	P99
STDDEV / STD	Q1   P25
N	QRANGE
STDERR	
NMISS	
SUM	Hypothesis Testing
PAGEPCTSUM	ProbT
PCTN	T
VAR	

## Operatoren

Operator	Name	What is does
*	Nesting	Compounds items into a hierarchy
Space	Concatenation	Joins adjacent items one after another
()	Grouping	Controls the precedence of combinations using * and Space
< >	Denominator	Defines the percent base
" "	Text	Inserts Text or Null Text
F=W.d	Format	Attaches a numeric format to table cells

Und ganz wichtig: bitte das Komma nicht vergessen!!!!

Demo

## Speaking Klingon: A translator's guide to PROC TABULATE

Dianne Louise Rhodes,  
Westat,  
Rockville, Maryland

“In the 1982 version of Base SAS, the PROC TABULATE procedure was introduced. It borrowed many of the strengths of **TPL**, and overcame many of its weaknesses.



**The Bureau of Labor Statistic's  
Table Producing Language (TPL)**

Rudolph C. Mendelsohn  
U.S. Department of Labor

**ABSTRACT**

A national statistical agency such as the Bureau of Labor Statistics usually produces the results of its surveys in tabular form at the cost of a substantial portion of its data processing resources. The tables are often quite complex with common requirements for cross tabulation of irregular patterns of hierarchical data files with many intermediate levels of summarization, percentage distributions, measures of statistical precision, and intricate publication formats. The Table Producing Language (TPL) has been designed and implemented as a general tool for producing statistical tables.

The syntax of the language allows the user to construct expressions representing the desired tables and auxiliary operations. The expressions are problem oriented, nonprocedural, compact, and written with English-like nomenclature. Together with a Codebook, they allow the specification of complex data reduction, cross tabulation, and table generation operations. Users may be research economists, statisticians and other social scientists who need not have experience with conventional computer programming languages, as well as computer oriented staff concerned with production tasks.

**Key Words and Phrases:** Cross tabulation, hierarchical data files, statistical tables, problem oriented, nonprocedural, language.

**SPECIAL PROBLEMS AT NATIONAL STATISTICAL AGENCIES**

It is commonplace to say that there are a lot of computer users nowadays. It is also true that they form a big market for vendors of computer software. The market is not monolithic, of course. It is divided in ways that compel software manufacturers to devise tools and sales strategies that vary according to the target population. For example, it is evident that software

requirements for a bank differ from the needs of a manufacturing plant, or an airline. Nevertheless, we see vendors creating a wide range of useful software tools for sale or lease to various segments of the customer population because each portion is large enough to make the venture profitable. As a result, many enterprises find that their software needs are increasingly served by proprietary products. In the commercial world, general programs for payroll processing, inventory control and other business data processing requirements are now fairly common.

Data processing problems in the Bureau of Labor Statistics (BLS) reflect conditions in other national statistical agencies. /1/ And for them, as for us, these conditions are not ordinarily found in commercial ventures. Consequently, software vendors have not done much to help us. This is not surprising, because the market for statistical data processing tools needed by national statistical agencies is small and scattered around the globe. It simply is not an inviting market.

Cross tabulating data is a chore shared by all governmental statistical agencies. Typically, it is our principal data processing task and requires that we tabulate many variables contained in huge files and produce large tables for printing. Commercial software is not available for tabulation tasks on the scale of a population census, for example. There are a few software packages with some general cross tabulating ability. These are useful where the amount of data is small, the number of variables tabulated is limited, and the requirements for columns and rows, and cosmetic demands for alphabetic headings and stubs in the final table are not severe. BLS staff has used one or two commercial packages and found them helpful on small, undemanding jobs.

Photocomposition is a standard process in the publication business, and a good deal of money has been invested in

Characteristics	DPS	Data-Text	NUCROS	SPSS	CENTS	TPL
Number of cases	17,958	17,958	17,958	17,958	17,958	20,196
Number of variables	2	2	2	2	2	2
CPU time required	1'51.98	1'47.62	0'56.24	0'42.94	0'18.70	0'40.46
Core (K Bytes)	180	300	104	214	100	150
Date of Census file	1960	1960	1960	1960	1960	1970
Single pass limits:						
Number of cells in table ....	10,000	Up to Core	1,980	62,500	1,772	30X(2 Billion) <sup>2</sup>
Table size ....	100X100	Up to Core	99X20	250X250	360X4	Virtually Unlimited
Levels of cross tabulation ...	2	Up to Core	4	10	2	65
Number of variables ....	100	Up to Core	40	500	Up to Core	2,000



**IBM System/360 Model 65**

**Manufacturer** International Business Machines Corporation (IBM)

**Product family** System/360

**Release date** March 1965

**Discontinued** March 1974

**Memory** 128 KB–1 MB Core



Fig. 1  
The Table Producing Language System  
Flow Diagram

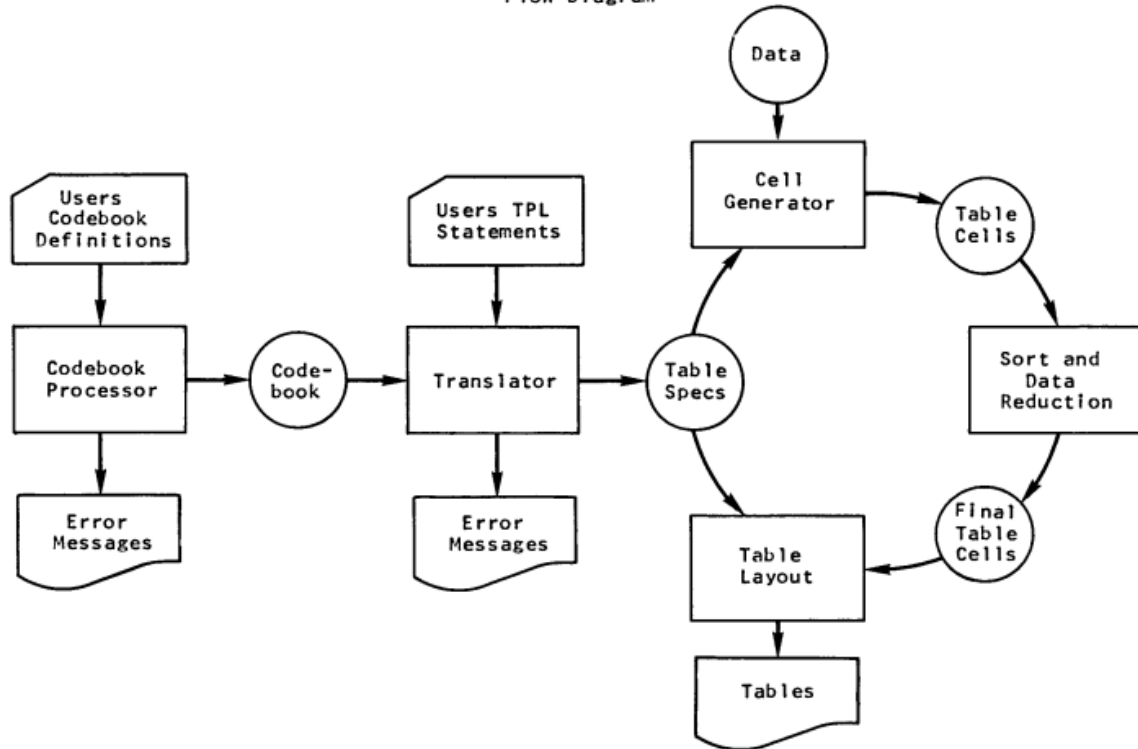


Table 1: Age, Income;

Age	Income		
	1	2	3
1			
2			
3			

TABLE WAFER 1: Quarter BY (Age THEN Sex),  
Region, Income;

Qtr 4, Female

Income			

Qtr 2, Age 1

Income			

Qtr 1, Female

Income			

Qtr 1, Male

Income			

Qtr 1, Age 3

Income			

Qtr 1, Age 2

Income			

Qtr 1, Age 1

Income			
	1	2	3
Region A ..			
B ..			
C ..			
D ..			

L2.46/3:  
L 26  
oper.

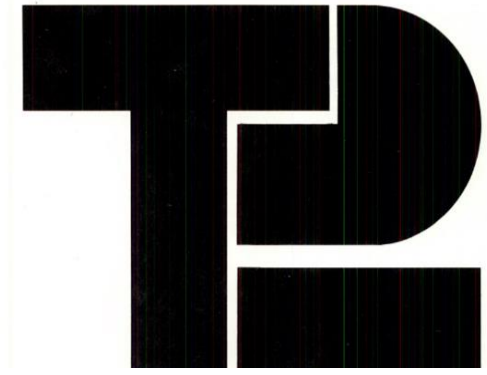
**Table Producing Language System**

Version 6  
TPL Operations Guide

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U.S. Department of Labor  
Raymond J. Donovan, Secretary

Bureau of Labor Statistics  
Janet L. Norwood, Commissioner

Office of Technology and Operations Review  
Division of Systems Design

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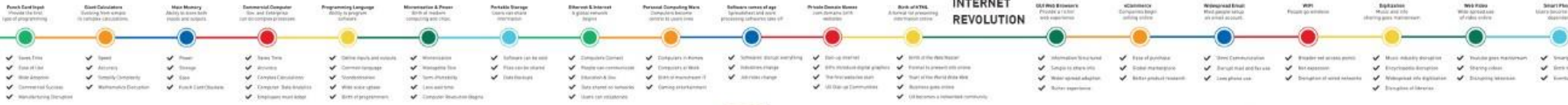
“In the 1982 version of Base SAS, the PROC TABULATE procedure was introduced. It borrowed many of the strengths of **TPL**, and overcame many of its weaknesses. Some of the most articulate speakers of TABULATE first learned ...TPL







**UX EVOLUTION MILESTONES**



**BIRTH OF COMPUTING**



**1822**  
**'World First Computer'**  
English mathematician Charles Babbage conceived the first concept of a digital programmable computer.



**1936**  
**'The Turing Machine'**  
Alan Turing presents the concept of a universal machine, often called the Turing machine, capable of computing anything that is computable. The concept inspired all the modern computers we use today.



**1941**  
**'Z3 Computer'**  
Konrad and his graduate students, at the University of Hanover, designed the Z3 computer, the first electromechanical computer to use relays.



**1946**  
**'The First Commercial Computer'**  
ENIAC (Electronic Numerical Integrator and Calculator) was the first general-purpose electronic digital computer.



**1953**  
**'Computer Language'**  
The first computer language, Fortran, was developed by IBM scientists.



**1970**  
**'The Modern Computer'**  
The Intel 4004 microprocessor, the first single-chip microprocessor, was introduced.



**1973**  
**'Ethernet'**  
Robert Metcalfe, a member of the research staff at Xerox, developed Ethernet for connecting multiple computers with other networks.



**1977**  
**'Radio Shack'**  
Radio Shack's model 100 computer, the first home computer, was introduced.



**1981**  
**'IBM Computer'**  
The IBM System/360, the first personal computer, was introduced.



**1976**  
**'Apple II'**  
The Apple II, the first personal computer, was introduced.



**1973**  
**'Xerox 8010'**  
The Xerox 8010 Star Information System, the first office computer, was introduced.



**1976**  
**'Xerox'**  
The Xerox 8010 Star Information System, the first office computer, was introduced.



**1977**  
**'Apple II'**  
The Apple II, the first personal computer, was introduced.



**1984**  
**'IBM PC'**  
The IBM PC, the first personal computer, was introduced.



**1983**  
**'Apple's Lisa'**  
The Apple Lisa, the first graphical user interface, was introduced.



**1989**  
**'Commercial Web'**  
The first commercial website, the Commodore 64 website, was introduced.



**1992**  
**'World Wide Web'**  
The World Wide Web, the first web browser, was introduced.



**1995**  
**'Producers'**  
The first web browser, Netscape, was introduced.



**1997**  
**'Microsoft and Apple'**  
The first web browser, Microsoft Internet Explorer, was introduced.



**1999**  
**'Wi-Fi'**  
The first wireless network, Wi-Fi, was introduced.



**2005**  
**'YouTube'**  
The first video sharing website, YouTube, was introduced.



**2004**  
**'Gmail'**  
The first free email service, Gmail, was introduced.



**2006**  
**'Twitter'**  
The first social media network, Twitter, was introduced.



**2008**  
**'Facebook'**  
The first social media network, Facebook, was introduced.



**2007**  
**'iPhone'**  
The first smartphone, the iPhone, was introduced.



**2008**  
**'Microsoft Office 2008'**  
The first office suite, Microsoft Office 2008, was introduced.



**2012**  
**'Windows 8'**  
The first operating system, Windows 8, was introduced.



**2015**  
**'Google Maps'**  
The first mapping service, Google Maps, was introduced.



**2018**  
**'Google Photos'**  
The first photo storage service, Google Photos, was introduced.



**2019**  
**'Google Assistant'**  
The first voice assistant, Google Assistant, was introduced.



**2020**  
**'Google Home'**  
The first smart speaker, Google Home, was introduced.



**2021**  
**'Google Pixel'**  
The first smartphone, Google Pixel, was introduced.



**2022**  
**'Google Pixel 4'**  
The first smartphone, Google Pixel 4, was introduced.



**2023**  
**'Google Pixel 5'**  
The first smartphone, Google Pixel 5, was introduced.



**2024**  
**'Google Pixel 6'**  
The first smartphone, Google Pixel 6, was introduced.



**2025**  
**'Google Pixel 7'**  
The first smartphone, Google Pixel 7, was introduced.



**2026**  
**'Google Pixel 8'**  
The first smartphone, Google Pixel 8, was introduced.