**data** pln;

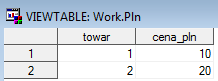
input towar cena\_pln @@;

cards;

1 10 2 20

;

**run**;



**data** \_null\_;

set pln;

cena\_usd=cena\_pln\***4**;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

**run**;



%let kurs=4.1;

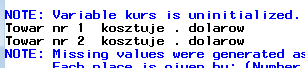
**data** \_null\_;

set pln;

cena\_usd=cena\_pln\*kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

**run**;



**data** \_null\_;

set pln;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

**run**;



options symbolgen;

\* pokazuje, rozwikłaną makrozmienną;

\* opcja globalna - będzie aż do wyłączenia;

\* options nosymbolgen - żeby wyłączyć;

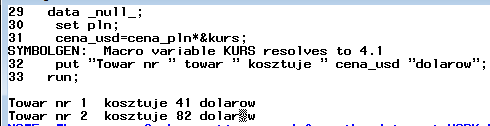
**data** \_null\_;

set pln;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

**run**;

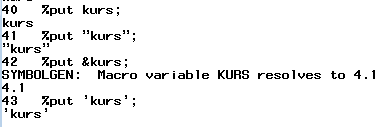


%put kurs;

%put "kurs";

%put &kurs;

%put 'kurs';



**data** \_null\_;

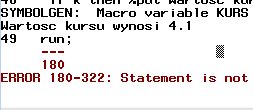
set pln end=k;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

if k then %put Wartosc kursu wynosi &kurs;

**run**;



**data** \_null\_;

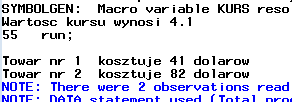
set pln end=k;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

if k then %put Wartosc kursu wynosi &kurs;;

**run**;



**data** \_null\_;

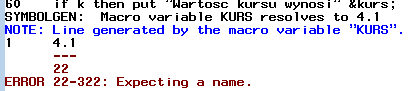
set pln end=k;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

if k then put "Wartosc kursu wynosi" &kurs;

**run**;



**data** \_null\_;

set pln end=k;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

if k then put "Wartosc kursu wynosi &kurs";

**run**;



**data** \_null\_;

set pln end=k;

cena\_usd=cena\_pln\*&kurs;

put "Towar nr " towar " kosztuje " cena\_usd "dolarow";

if k then put 'Wartosc kursu wynosi &kurs';

**run**;



**data** auta;

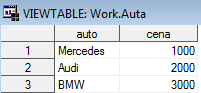
do auto='Mercedes','Audi','BMW';

cena+**1000**;

output;

end;

**run**;



**proc** **print** data=auta;

where auto='BMW';

**run**;

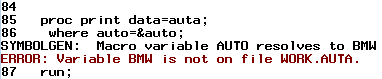


%let auto=BMW;

**proc** **print** data=auta;

where auto=&auto;

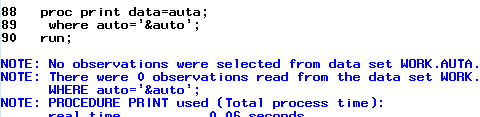
**run**;



**proc** **print** data=auta;

where auto='&auto';

**run**;



**proc** **print** data=auta;

where auto="&auto";

**run**;



%let auto='BMW';

%put &auto;



**proc** **print** data=auta;

where auto=&auto;

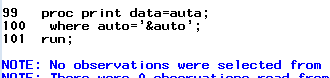
**run**;



**proc** **print** data=auta;

where auto='&auto';

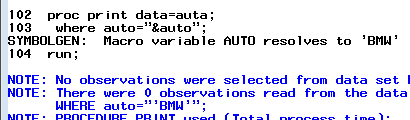
**run**;



**proc** **print** data=auta;

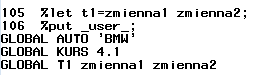
where auto="&auto";

**run**;



%let t1=zmienna1 zmienna2;

%put \_user\_;



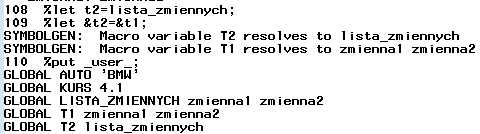
%put \*\*\*&t1\*\*\*;



%let t2=lista\_zmiennych;

%let &t2=&t1;

%put \_user\_;

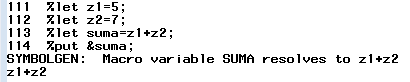


%let z1=5;

%let z2=7;

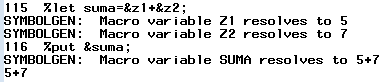
%let suma=z1+z2;

%put &suma;



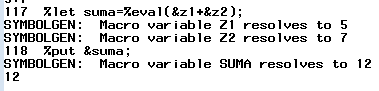
%let suma=&z1+&z2;

%put &suma;



%let suma=%eval(&z1+&z2);

%put &suma;

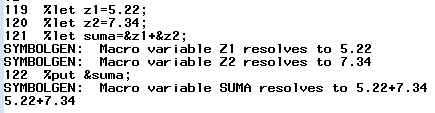


%let z1=5.22;

%let z2=7.34;

%let suma=&z1+&z2;

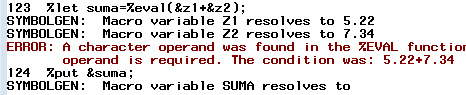
%put &suma;



%let suma=%eval(&z1+&z2);

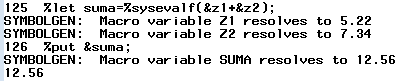
%put &suma;

\* nie działa dla wymiernych;



%let suma=%sysevalf(&z1+&z2);

%put &suma;

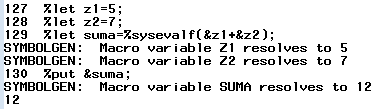


%let z1=5;

%let z2=7;

%let suma=%sysevalf(&z1+&z2);

%put &suma;

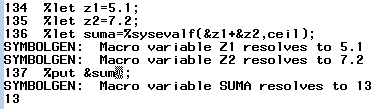


%let z1=5.1;

%let z2=7.2;

%let suma=%sysevalf(&z1+&z2,ceil);

%put &suma;

****

%let ko=cos(0);

%put &ko;

****

%let ko=%sysfunc(cos(0));

%put &ko;

****

%let ko=%sysfunc(date());

%put &ko;

****

%let ko=%sysfunc(date(),ddmmyy10.);

%put &ko;

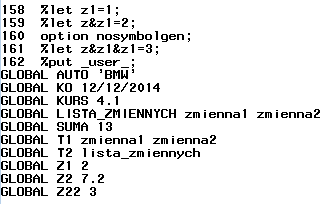
****

%let z1=1;

%let z&z1=2;

%let z&z1&z1=3;

%put \_user\_;

****

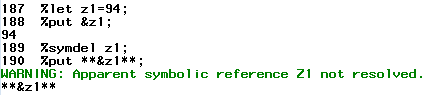
%let z1=94;

%put &z1;

%symdel z1;

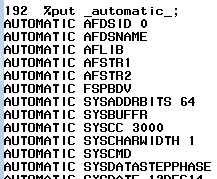
%put \*\*&z1\*\*;

\* żeby usunąć zmienną z pamięci;



%put \_automatic\_;

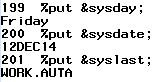
\* wyświetla jakieś zmienne systemowe;



%put &sysday;

%put &sysdate;

%put &syslast;



**data** b;

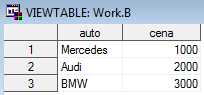
set;

**run**;

\* wczytuje domyślnie ostatni;

\* utworzony zbiór &syslast;

\* nie poleca się tego stosować...



\* MAKROPROGRAMOWANIE;

**%macro** drukuj(auto);

proc print data=auta;

where auto="&auto";

run;

**%mend** drukuj;

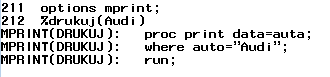
%***drukuj***(Audi)



options mprint;

%***drukuj***(Audi)





**%macro** drukuj(zbior,auto);

proc print data=&zbior;

where auto="&auto";

run;

**%mend** drukuj;

%***drukuj***(auta,Audi)



**%macro** stworz(n);

data a;

array z(&n);

do i=**1** to &n;

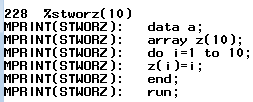
z(i)=i;

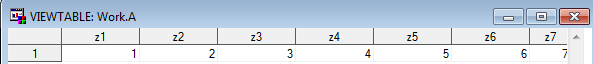
end;

run;

**%mend**;

%***stworz***(**10**)





**%macro** stworz(n=**15**);

data a;

array z(&n);

do i=**1** to &n;

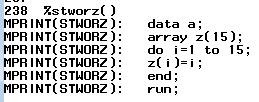
z(i)=i;

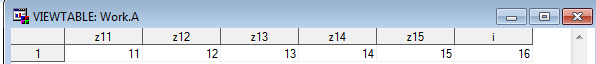
end;

run;

**%mend**;

%***stworz***()





**%macro** stworz(prefiks,ile);

%do i=**1** %to &ile;

data &prefiks&i;

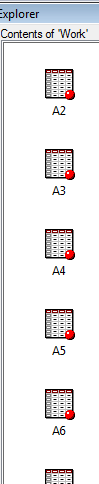
&prefiks=&i;

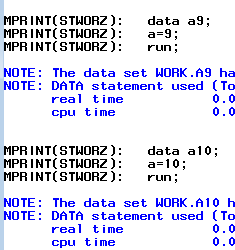
run;

%end;

**%mend**;

%***stworz***(a,**10**)





**%macro** stworz(prefiks,ile);

data %do i=**1** %to &ile;

&prefiks&i

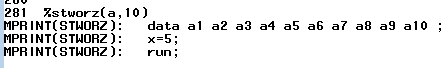
%end; ;

x=**5**;

run;

**%mend**;

%***stworz***(a,**10**)



**%macro** stworz(prefiks,ile);

data %do i=**1** %to &ile;

&prefiks&i

%end; ;

%do i=**1** %to &ile;

&prefiks=&i;

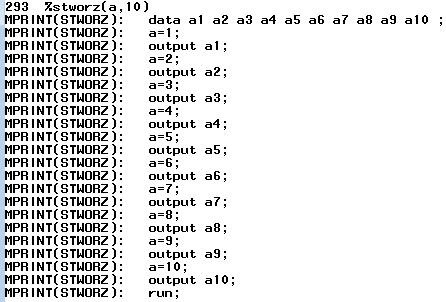
output &prefiks&i;

%end;

run;

**%mend**;

%***stworz***(a,**10**)



**%macro** stworz(co);

%if &co=TAK %then %do;

data a;

x=**1**;

run;

%end;

%else %if &co=NIE %then %do;

proc print data=a1;

run;

%end;

**%mend**;

%***stworz***(NIE)



