

THE MANUNA LOA CFCs EXAMPLE USING ODS GRAPHICS

```
options ls=79;

data to1993;
  infile 'maunaloadata.txt' firstobs=33;
  input year 1-4 month 6-7 day 9-10 time $ date $ time2 $ cfc11 nd sd f cs rem;
  if cfc11 < -9999 then cfc11=.;
  drop day time date time2 nd sd f cs rem;

data after1994;
  infile 'maunaloadata2.txt' firstobs=248;
  input year 1-4 month 6-7 day 9-10 time $ date $ time2 $ cfc11 nd sd f cs rem;
  if cfc11 < -9999 then cfc11=.;
  drop day time date time2 nd sd f cs rem;

data all;
  set to1993 after1994;
  time=year+(month-1)/12;
  time2=time*time;

ods graphics on;

symbol1 v=circle;
proc gplot;
  plot cfc11*time;
run;

data preMP;
  set all;
  if time<1990;

proc reg data =premp;
  title 'Before Montreal Protocol (before January 1990)';
  model cfc11=time;
run;

data postMP;
  set all;
  if time >= 1995;

proc reg data =postmp;
  title 'After Montreal Protocol (after December 1994)';
  model cfc11=time;
run;

ods graphics off;
```

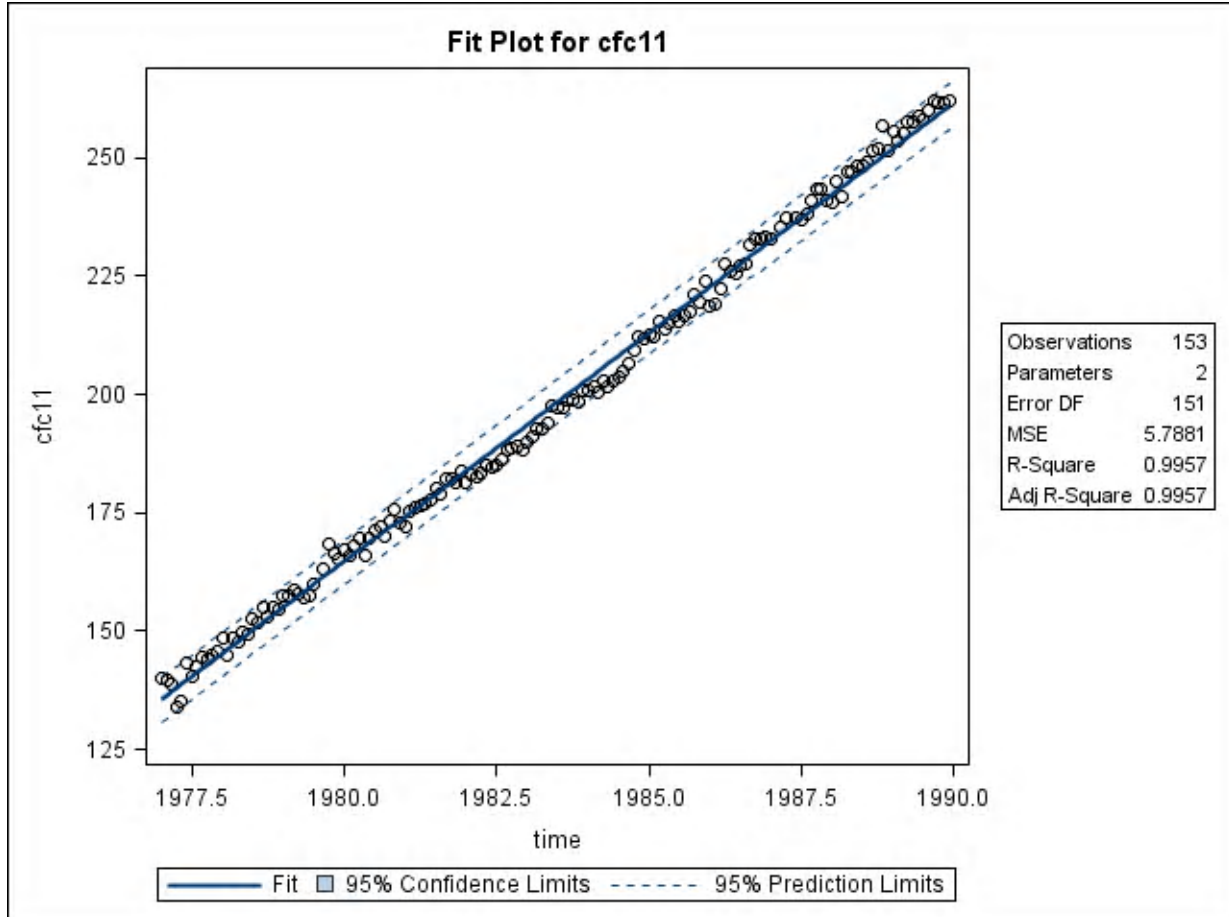
ODS = "Output Delivery System"
} ODS graphics doesn't apply to proc gplot
(plot will be in SAS graphics window)

] plots removed from proc reg
(if have plots here, won't get ODS graphics plots)

- ODS plots are created in .png files & do not appear in graphics window

PNG FILES PRODUCED

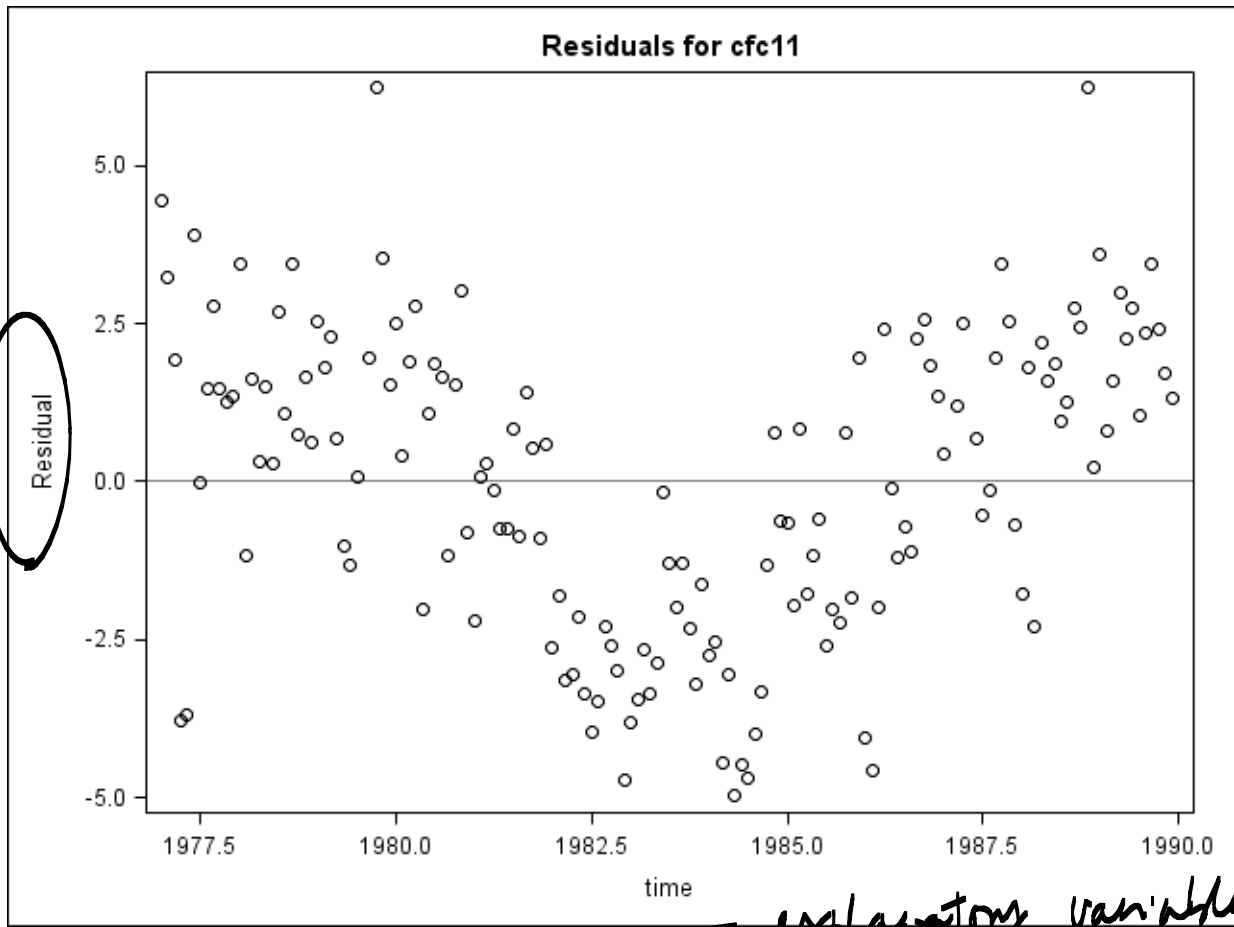
FitPlot.png



Scatter plot
of
y vs x,
fitted
line,
95% CI
for $E(Y|X)$,
95% PE

- only get this plot for simple regression

ResidualPlot.png

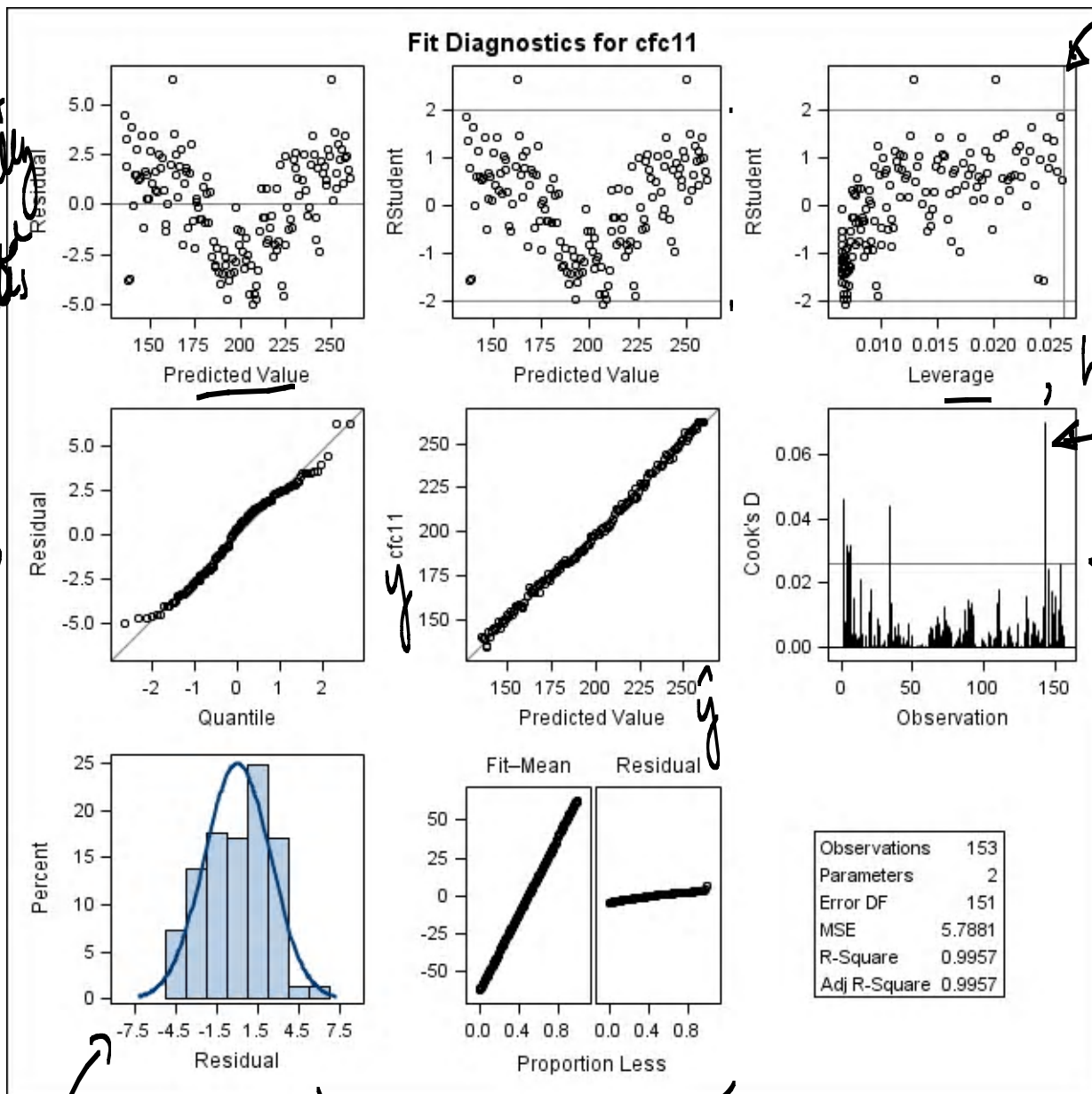


raw residuals
(not standardized)

Residual

explanatory variable

DiagnosticsPanel.png



R Student
= externally
standardized
residuals

Normal
quantile
plot

cut-off
for
 h_{ii}

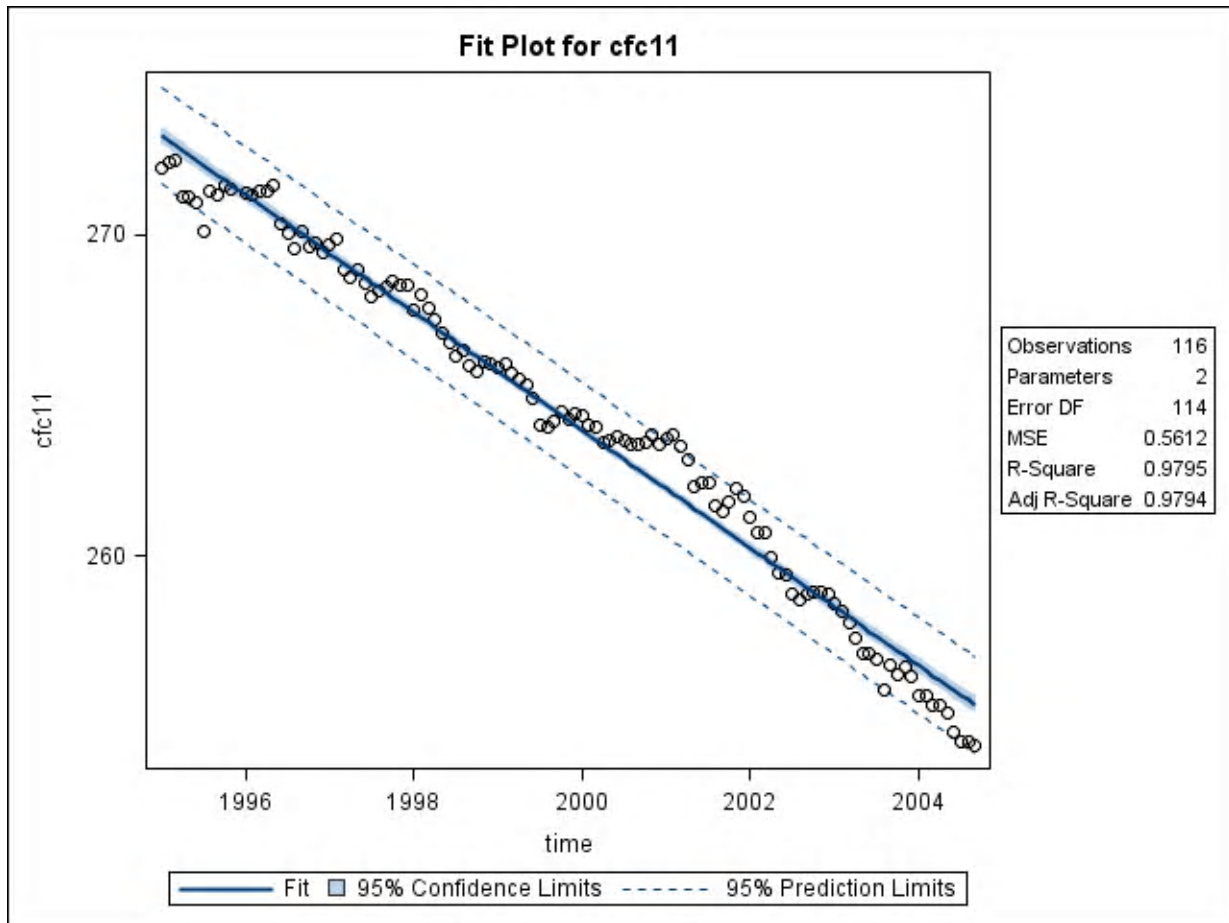
h_{ii}
influential
point

cut-off
for
 D_i

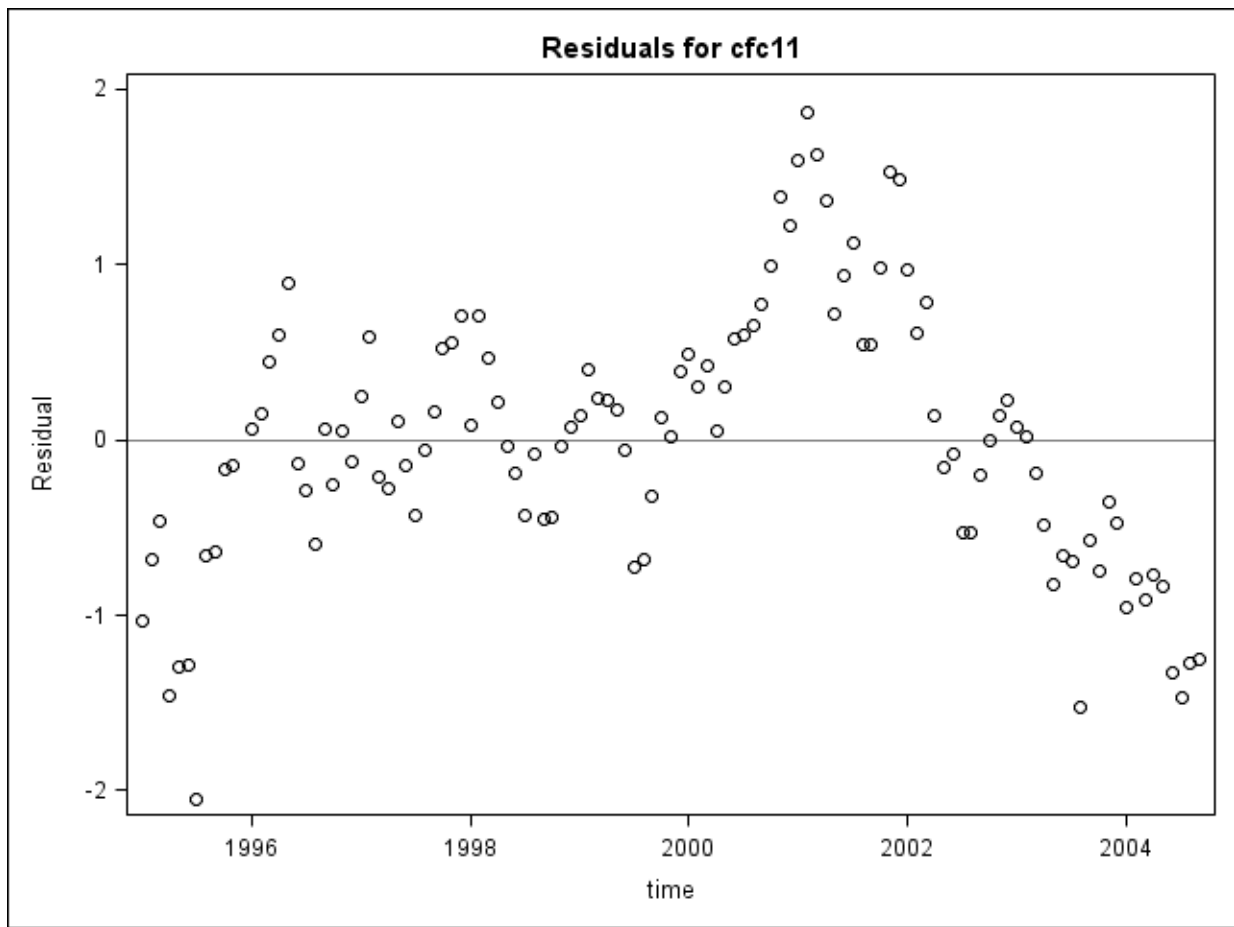
should
look
if $\hat{\epsilon} \sim N$

I don't know
why these are
useful

FitPlot1.png



ResidualPlot1.png



DiagnosticsPanel1.png

