

NAME

plot – make plots of the last scan

SYNOPSIS

```
plot [data_group] [x_element] [y_element]
```

DESCRIPTION

The `plot` macro is called at the end of each scan in order to plot the data. You should use the `setplot` macro to select whether a screen plot, a simple printer plot or both are produced by `plot`.

DEFINITION

If both end-of-scan screen plots and lp plots are selected, `plot` is defined something like:

```
def plot '  
  if (BG) {do_bg} # calculate linear background  
  splot \$$*      # draw screen plot  
  onp; offt      # turn on printer, off tty  
  lp_plot \$$*   # draw lp plot  
  plot_res \$$*  # print scan results  
  ont; offp      # turn on tty, off printer  
,
```

If neither or just one type of plot is selected, the `plot` macro is redefined accordingly. If no plots are selected, the scan results are still printed on the screen and printer.

GLOBALS

`BG` – global variable holding a flag that if set, indicates to use the background-subtracted data in the analysis results and plots produced by the `plot` macro. It is important to make sure the `do_bg` macro is called to calculate the background-subtracted data before using macros such as `p1_FWHM` that look at the value of `BG` to determine which data group to analyze. The various standard definitions for the `plot` macro will call `do_bg` when appropriate.

MACROS

`do_bg` – calculates a linear background based on the scan endpoints, subtracts the background from the scan (in data group 0) and places the results in data group 1.

`plot_res` – prints results of simple scan analysis including peak value, full-width at half max, integrated intensity, etc.

SEE ALSO

```
data setplot splot lp_plot
```