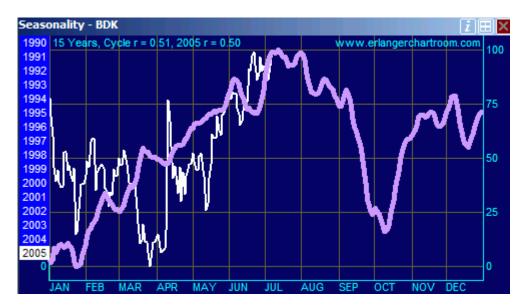
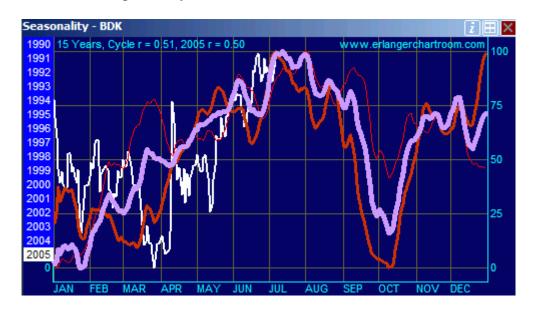
## **SEASONALITY**

We talk a lot about seasonal cycles, but the fact of the matter is that they are simply guidelines to past behavior during specific periods. Seasonal cycles are composites of past price action, and as such they "hide" measures of seasonality consistency throughout historical price action.

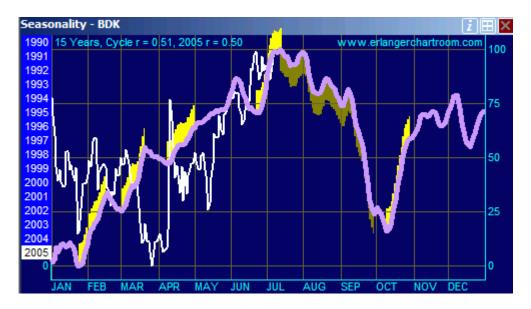
We have taken steps to capture the consistency of seasonality in our charts. These new charts tend to be a little busy (and colorful) so let's walk through their construction:



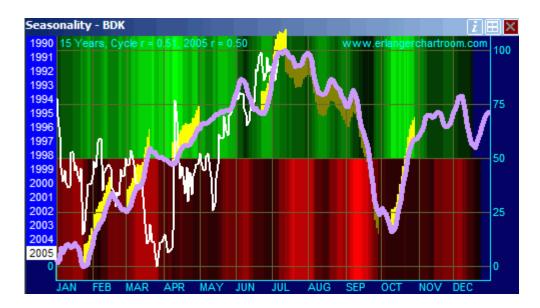
Above is the seasonal cycle for BDK – Black & Decker. This cycle is a composite of price action over a 15-year period from 1990 up to and including 2004. The action in 2005 (so far) is plotted by the white line.



Here we have added 2 red lines. The thin red line above is the seasonal cycle for BDK based on years 1990 through 1996. The thick red line is the seasonal cycle for BDK based on years 1997 through 2004. All these cycles bear similarities, especially at certain times of the year (the low point in October, for instance.) We use a correlation statistic called Pearson's R to compare the 2 red lines. Pearson's R is a statistical expression of linear relationship between two variables. It ranges from +1 to -1, with a reading of +1 being a perfect match between two variables. A reading of -1 indicates a perfectly inverse relationship between two variables, while a reading of 0 implies no relationship, or correlation at all between the two variables. The caption in the chart above is a Cycle r statistic. This is the Pearson's R of two variables, the seasonal cycle for BDK based on years 1990 through 1996 (thin red line) and the seasonal cycle for BDK based on years 1997 through 2004 (thick red line.) In this case the Cycle r equals 0.51, a strong correlation. We conclude from this that the yearly cycle derived from the entire 15-year history (purple line) does indeed reflect strong seasonal tendencies.



In this chart we have removed the red lines and added shading to highlight the strongest and weakest 14-day (or longer) periods of the seasonal cycle. The yellow sections are the statically strongest periods – the brown are the weakest.



In the above chart we have added our seasonal heat map. This shows where the positive and negative seasonal trends are most consistent in years past. Bright green is where strong seasonal zones of prior years have overlapped. The brighter the green the more consistent the positive price action was historically. Bright red is where weak seasonal zones of prior years have overlapped. The brighter the red, the more consistent the negative price action was historically. BDK has done well, jumping noticeably in early April, when the green was brightest. Looking ahead, September is a danger zone from a seasonal point of view.