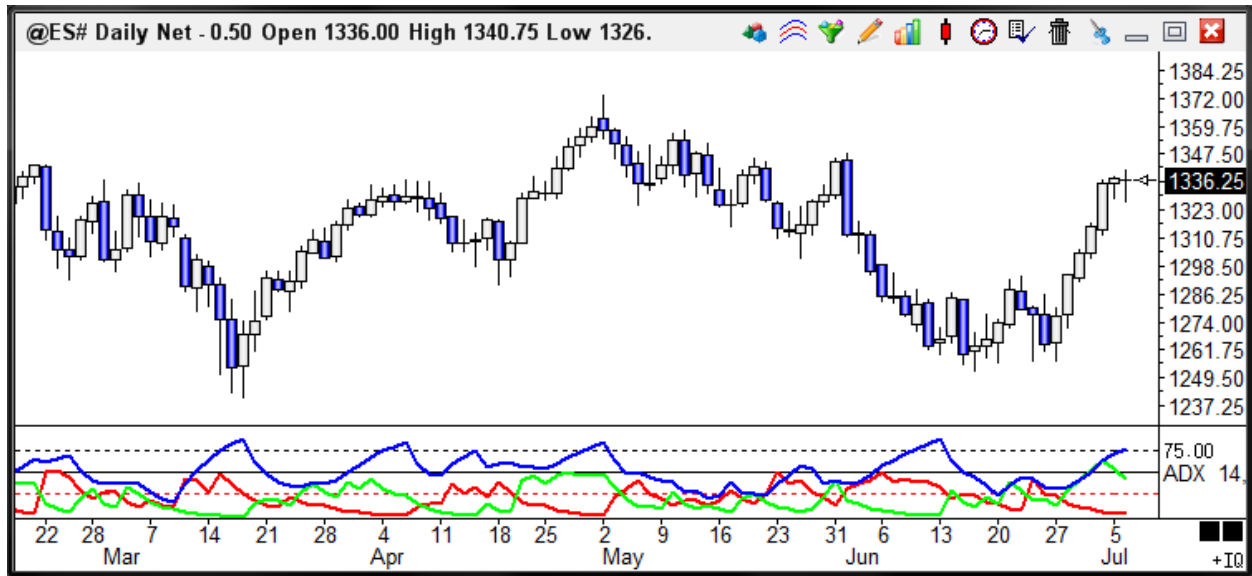


# Directional Movement Index

The Directional Movement Index provides an indication of how much directionality (trending) is in a market. The +DI, -DI, and Average Directional Movement Index (ADX) lines are displayed on the chart. The +DI line measures upward movement. The -DI line measures downward movement. The ADX line measures the overall trending strength of a market. The lines are scaled from 0 to 100.



Watch for the +DI line to cross the -DI line. Watch for markets that have the highest ADX values. Generally, markets that are trending will have an ADX value greater than 25. A +DI value of 20 means that twenty percent of the average True Range for the last N bars has been in an upward direction. A -DI value of 15 means that fifteen percent of the average True Range for the last N bars has been in a down direction.

## Formula

There are multiple calculations for the Directional Movement Index study. In summary, the True Range for each bar is calculated first. If a bar is trending up then the portion of the bar's True Range that is trending up is summed over N periods. This value is divided by the sum of the True Ranges over N periods to obtain the +DI value. If a bar is trending down then the portion of the bar's True Range that is trending down is summed over N periods. This value is divided by the sum of the True Ranges over N periods to obtain the -DI value. The difference of +DI and -DI are then divided by the sum of +DI and -DI to obtain a Directional Movement Index. This value is averaged over N periods to obtain the Average Directional Movement Index (ADX) value. For a detailed formula listing refer to Welles Wilders book, *New Concepts in Technical Trading Systems*.

## Credits

Developed by J. Welles Wilder, '*New Concepts in Technical Trading Systems*'.