



# 14 DISPLAYING NASDAQ LEVEL II DATA

NASDAQ LEVEL II windows let you view Level II data for NASDAQ stocks.

Figure 14-1 is an example of a NASDAQ Level II window.

Market Maker	Change	Bid	Ask	Time
0000	+	24.00	25	11:00
0001	+	24.00	25	11:00
0002	+	24.00	25	11:00
0003	+	24.00	25	11:00
0004	+	24.00	25	11:00
0005	+	24.00	25	11:00
0006	+	24.00	25	11:00
0007	+	24.00	25	11:00
0008	+	24.00	25	11:00
0009	+	24.00	25	11:00
0010	+	24.00	25	11:00
0011	+	24.00	25	11:00
0012	+	24.00	25	11:00
0013	+	24.00	25	11:00
0014	+	24.00	25	11:00
0015	+	24.00	25	11:00
0016	+	24.00	25	11:00
0017	+	24.00	25	11:00
0018	+	24.00	25	11:00
0019	+	24.00	25	11:00
0020	+	24.00	25	11:00
0021	+	24.00	25	11:00
0022	+	24.00	25	11:00
0023	+	24.00	25	11:00
0024	+	24.00	25	11:00
0025	+	24.00	25	11:00
0026	+	24.00	25	11:00
0027	+	24.00	25	11:00
0028	+	24.00	25	11:00
0029	+	24.00	25	11:00
0030	+	24.00	25	11:00
0031	+	24.00	25	11:00
0032	+	24.00	25	11:00
0033	+	24.00	25	11:00
0034	+	24.00	25	11:00
0035	+	24.00	25	11:00
0036	+	24.00	25	11:00
0037	+	24.00	25	11:00
0038	+	24.00	25	11:00
0039	+	24.00	25	11:00
0040	+	24.00	25	11:00
0041	+	24.00	25	11:00
0042	+	24.00	25	11:00
0043	+	24.00	25	11:00
0044	+	24.00	25	11:00
0045	+	24.00	25	11:00
0046	+	24.00	25	11:00
0047	+	24.00	25	11:00
0048	+	24.00	25	11:00
0049	+	24.00	25	11:00
0050	+	24.00	25	11:00
0051	+	24.00	25	11:00
0052	+	24.00	25	11:00
0053	+	24.00	25	11:00
0054	+	24.00	25	11:00
0055	+	24.00	25	11:00
0056	+	24.00	25	11:00
0057	+	24.00	25	11:00
0058	+	24.00	25	11:00
0059	+	24.00	25	11:00
0060	+	24.00	25	11:00
0061	+	24.00	25	11:00
0062	+	24.00	25	11:00
0063	+	24.00	25	11:00
0064	+	24.00	25	11:00
0065	+	24.00	25	11:00
0066	+	24.00	25	11:00
0067	+	24.00	25	11:00
0068	+	24.00	25	11:00
0069	+	24.00	25	11:00
0070	+	24.00	25	11:00
0071	+	24.00	25	11:00
0072	+	24.00	25	11:00
0073	+	24.00	25	11:00
0074	+	24.00	25	11:00
0075	+	24.00	25	11:00
0076	+	24.00	25	11:00
0077	+	24.00	25	11:00
0078	+	24.00	25	11:00
0079	+	24.00	25	11:00
0080	+	24.00	25	11:00
0081	+	24.00	25	11:00
0082	+	24.00	25	11:00
0083	+	24.00	25	11:00
0084	+	24.00	25	11:00
0085	+	24.00	25	11:00
0086	+	24.00	25	11:00
0087	+	24.00	25	11:00
0088	+	24.00	25	11:00
0089	+	24.00	25	11:00
0090	+	24.00	25	11:00
0091	+	24.00	25	11:00
0092	+	24.00	25	11:00
0093	+	24.00	25	11:00
0094	+	24.00	25	11:00
0095	+	24.00	25	11:00
0096	+	24.00	25	11:00
0097	+	24.00	25	11:00
0098	+	24.00	25	11:00
0099	+	24.00	25	11:00
0100	+	24.00	25	11:00

Figure 14-1. NASDAQ Level II Window Example

Information in Level II windows is displayed by Market Maker ID. Market Makers are firms that buy and sell stocks that they choose to represent. Each Market Maker

competes for business from traders by displaying bid and ask quotations for a guaranteed number of shares. Once a Market Maker receives an order, the firm either completes the transaction from its own inventory or electronically searches for available shares to buy or sell. Because all these transactions occur electronically, trades can be completed very quickly.

There are over 500 Market Maker firms. Each is identified by a four-letter abbreviation. If you want to know who the Market Makers are, you can go to [www.nasdaqtrader.com/trader/symboldirectory/symbol.stm](http://www.nasdaqtrader.com/trader/symboldirectory/symbol.stm) on the Internet to see a list of the names and contact information for Market Makers. You can download a text file with the information or search directly from the web site.

## Anatomy of a Level II Window

A Level II window displays data for a specified issue in a tabular form. The table can be sorted based on a number of criteria.

Figure 14-2 identifies the basic elements of a Level II window.

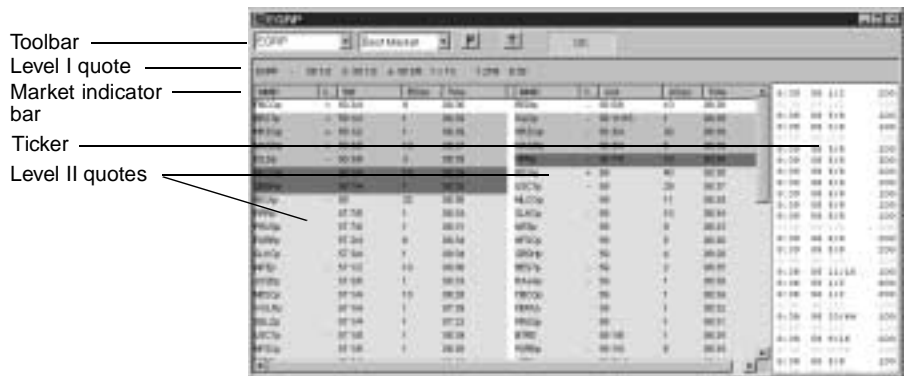


Figure 14-2. Level II Window Elements

## Toolbar

The Level II toolbar contains the following elements:

### Symbol Field

Identifies the issue for which data is displayed.



The Link toolbar grabs the symbol you entered in the main eSignal toolbar and applies it to the active Level II window.

### Sort Field

Specifies the sort option applied to the Level II quotes.



Opens the Level II Properties dialog box so that you can edit window options.



Opens and closes a special vertical ticker area in the window.



Toggles between displaying or not displaying Level I quote data at the top of the Level II window

### Status

Shows the status of your server connection. Level II data is maintained on a special server operated by eSignal. Normally, the indicator is green and reads "OK." If there is no connection to the server, the indicator is red and reads "NO NL2." This occurs if the Data Manager isn't running, if you don't have an Internet connection, or if there is a problem connecting with the server.

## Level I Quotes

A Level I quote includes the symbol, last, bid, ask, cumulative volume, and trade time. The quote data is continuously updated as changes occur.

## *Market Indicator*

The Market Indicator is a horizontal color bar at the top of the window that you can toggle on or off. Depending on how you set it up, it represents either the number of market makers at the various price levels or the size of the bid/ask at various prices.

## *Level II Quotes*


Level II data appears in the main part of the window. Each Level II quote includes the Market Maker ID (MMID) and time. Bid, bid size, ask, and ask size data display depending on the current sort option for the window.

The letter c after the MMID indicates that the market is closed. The letter p indicates that this is a primary Market Maker for the stock.

The background colors for the data rows change to highlight the best bid and ask quotes. The default colors and their meaning are as follows:

- | Yellow signifies the highest bid or lowest ask quote (Inside Market).
- | Green signifies the next best quote (1st Outer).
- | Blue signifies the second best quote (2nd Outer).
- | Red signifies the third best quote (3rd Outer).
- | White signifies other data.

## *Displaying Level II & Market Maker Data*

You can choose to display a ticker that shows each NASDAQ trade and net change on the day for the symbol. The data scrolls vertically in the right part of the Level II window. Clicking the  icon on the toolbar toggles the Ticker on and off.

You can also view NASDAQ Level II market maker activity within a scrolling ticker that features color-coded bid/ask changes (as shown in Figure 14-3). When you display trade or bid/ask prices in a ticker, you can also choose to display market maker

information. For all symbols selected for the Ticker window, market maker data will be displayed along with the Market Maker ID (MMID). You can choose to display bid-only data, ask-only data, or both. You can also choose to view updates for only one selected market maker.

Time	Symbol	MMID	Price
10:32	INTC	ARCA	a31.46
10:32	INTC	ARCA	a31.54
10:32	INTC	ARCA	a31.46
10:32	INTC	ARCA	a31.54
10:32	INTC	INCA	a31.49
10:32	INTC	ISLD	b31.45
10:32	INTC	REDI	b31.39
10:32	INTC	ISLD	b31.46
10:32	INTC	ISLD	b31.46
10:32	INTC	REDI	b31.42
10:32	INTC	SLKC	a32.36
10:32	INTC	SLKC	b31.44
10:32	INTC	ISLD	b31.45
10:32	INTC	ARCA	a31.46
10:32	INTC	ISLD	b31.45
10:32	INTC	ISLD	a31.50
10:32	INTC	ISLD	b31.45
10:32	INTC	INCA	a31.49
10:32	INTC	INCA	a31.46
10:32	INTC	ISLD	a31.46
10:32	INTC	REDI	a31.50
10:32	INTC	ISLD	a31.46
10:32	INTC	SATI	b30.95

**Figure 14-3. NASDAQ Level II Market Maker Activity Ticker**

To activate a Level II Market Maker Activity Ticker (MMAT), select the Market Maker checkbox in the Ticker window options dialog box, then, click the Symbols button, enter your desired settings in the MMAT Options dialog box, then click OK to apply your settings.

## *Choosing a Level II Symbol*


You can open a Level II window by right-clicking a NASDAQ symbol in a Quote, Summary or Portfolio window and choosing NASDAQ Level II from the pop-up menu.

Each time you use the right-click method, you open a new Level II window. If you want to use the same window to track multiple issues, you'll need to enter symbols directly into the symbol field of an open Level II window. Each symbol you enter is saved so that you can access it quickly from the Symbol field pull-down menu. The symbols you enter are saved in the list. You can edit the symbols in the list by selecting Edit Symbol List (Alt-O,L) from the Level II Options menu.

You can change how the data is sorted by selecting a different sorting scheme from the Sort field pull-down list in the toolbar. You can choose from four sorting methods:

- 1 **Best Market.** Best Market displays quote information in descending order from best to worst. Bid quotes appear on the left, and ask quotes appear on the right.
- 1 **Best Bid.** Best Bid displays Market Maker quotes in order based on the bid price.
- 1 **Best Ask.** Best Ask displays Market Maker quotes in order based on the ask price.
- 1 **Alphabetical.** Alphabetical sorts quotes alphabetically by the MMID. A MMID followed by a lowercase letter p denotes a primary Market Maker.

## *Displaying the Ticker*

You can elect to display tick data for the symbol you are tracking. The  icon in the toolbar toggles a special ticker on and off. When the ticker is turned on, tick data appears in a vertically scrolling subwindow to the right of the main data area.

(Depending on the size of the window, a scroll bar may appear below the main data to allow you to see both the data area and the ticker.) By default, up-tick data is shown in green; down tick data is shown in red.

## *Setting Properties*

You can use the Properties dialog box to configure the information displayed in a Level II window. Here's what you can do in the Properties dialog box:

- 1 Save the current Level II window setup as the default for future Level II windows.
- 1 Set the ticker properties.
- 1 Display a color-coded market indicator bar at the top of the window that represents the number of Market Makers at the various price levels or the size of the bid/ask at various prices.

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To open the Properties dialog box

- 1 Click the Level II Properties button in the toolbar or choose Properties from the Level II Options menu (Alt-O, P).



The Properties dialog box appears displaying the current Level II window settings.

- 2 There are a number of options for configuring the ticker. Click the Trade checkbox to display level I trades, or click the MM Quote checkbox to display level II quotes, or click both to display both.

If you choose to display level II quotes, you can use the checkboxes to display all quotes or just those for a specific Market Maker. You can also specify bid or ask quotes or both.

You can choose to display the time for ticker updates.

Click the Market Indicator checkbox to display a horizontal color bar at the top of the window.

- 3 Click the Number of Market Makers button to display a representation of the number of Market Makers at various price levels, or click the Size of Bid/Ask button to display a representation of the size of the bid/ask at various price levels.

- 4 Click Save Defaults to save the settings you have changed as defaults for new windows.
- 5 When you're finished making changes, click OK to execute them.

## *Support for After-Hours Trading*

eSignal lets you view premarket and after-hours Form-T trades on the NASDAQ exchange.

In the Quote and Summary windows, Form-T trade volumes will update, but, because of NASD requirements, session-specific information such as Last and OHLC (Open High Low Close) will not change. There will be a color flash with each update. Form-T prices appear on charts and also in the Quote window if the Quote window has been set up to include the Form-T session change, % Change, and Last/Form-T fields.

Form-T trades are also displayed in eSignal Time & Sales window. The word *Form-T* appears to the right of every Form-T trade. Form-T trades also appear in Tick and Interval charts. Form-T trades are preset to appear in the same colors as regular trades, but you can change the colors if you like

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