

# **Real world examples of trading with TotalView data**

**NASDAQ TotalView has arrived.**

**And it's changing the way you look at the market.**

**NASDAQ TotalView<sup>SM</sup> has arrived—and it's changing the way you look at the market.**

**TotalView is the newest data product from NASDAQ<sup>®</sup>—a powerful tool to help you make better-informed trading decisions based on the increased depth and liquidity in the NASDAQ market center<sup>SM</sup>.**

**The NASDAQ market center allows individual market participants to post multiple quotes in a single NASDAQ security and allows all market participants to enter anonymous order interest for immediate execution in NASDAQ.**

**TotalView creates transparency from this additional market depth and provides you with even more and deeper insight into market participants' trading interest than today's NASDAQ Level II service. Unlike Level II, which only displays each participant's best quote, TotalView enables traders and investors to see the full picture, including participants' additional interest within pennies of their best quotes, plus anonymous order interest submitted to NASDAQ.**

# Level II vs. TotalView

**Detailed depth makes the difference.**

To take full advantage of trading in the NASDAQ market center, traders need more information than Level II provides.

- TotalView shows each market participant's best quote—as Level II displays today—plus every additional quote and order position available for immediate execution in NASDAQ within the first five price levels.
- TotalView traders have an advantage over Level II traders because they can see the full depth of the NASDAQ market and the drivers of this depth—the maximum amount of information available. The detailed depth helps TotalView traders to:
  - identify trading opportunities,
  - pursue unique trading strategies,
  - follow pockets of liquidity over time, and
  - better understand how orders are distributed throughout the market.

# Level II vs. TotalView

## **New perspective - smarter trades.**

The following slides use real, historical quote data to show four examples of how TotalView provides a better look at NASDAQ market activity and the opportunity for better trading results than Level II. The first two examples show how firms and seasoned professionals can benefit from the TotalView data; the latter two are more tailored to nonprofessional, active traders.

These examples demonstrate only a portion of the potential strategies using TotalView's detailed depth information.

# Example 1

# Level II vs. TotalView – example 1

## What TotalView can do for you.

- Thinking Amazon.com might be headed up sharply on April 24<sup>th</sup>, a trader decided to go long up to 2,000 shares if buy-side pressure appeared in the market.
- The inside quote at 11:59 was 24.98 24.99 500 x 400.

Actual Level II data as of 4/24/03, 11:59 am

Symbol: AMZN Amazon.com Inc (NNM)					
Last Sale: 24.99 NASDAQ Bid Tick (+)					
NASDAQ Inside: 24.98 24.99 500 x 400					
MPID	Bid	Size	MPID	Ask	Size
SIZE	24.98	500	BERN	24.99	100
GVRC	24.95	1700	FBCO	24.99	100
BRUT	24.94	100	JPHQ	24.99	100
JPHQ	24.94	100	LEHM	24.99	100
NITE	24.93	300	BRUT	25.00	300
CIBC	24.92	100	SBSH	25.00	100
COWN	24.92	100	WCHV	25.00	100
WCHV	24.92	100	GVRC	25.01	900
			SIZE	25.02	1300
			TMBR	25.02	400
			COWN	25.02	100
			MSCO	25.03	100
			UBSW	25.03	100

Using both Level II and TotalView, the trader is able to see that the best quotes, and quotes near the best, are most likely being generated by retail orders, since GVR and Knight are prevalent on the buy side.

But, with the advantage of TotalView, the trader sees that NASDAQ has, in fact, ten times more liquidity available for immediate execution just below the inside than is visible in Level II.

Actual TotalView data as of 4/24/03, 11:59 am

Symbol: AMZN Amazon.com Inc (NNM)					
Last Sale: 24.99 NASDAQ Bid Tick (+)					
NASDAQ Inside: 24.98 24.99 500 x 400					
MPID	Bid	Size	MPID	Ask	Size
	24.98	500		24.99	400
	24.95	22000		25.00	500
	24.94	200		25.01	900
	24.93	300		25.02	1800
	24.92	300		25.03	1100
MPID	Bid	Size	MPID	Ask	Size
SIZE	24.98	500	BERN	24.99	100
SIZE	24.95	20300	FBCO	24.99	100
GVRC	24.95	1700	JPHQ	24.99	100
BRUT	24.94	100	LEHM	24.99	100
JPHQ	24.94	100	BRUT	25.00	300
NITE	24.93	300	SBSH	25.00	100
CIBC	24.92	100	WCHV	25.00	100
COWN	24.92	100	GVRC	25.01	900
WCHV	24.92	100	SIZE	25.02	1300
			TMBR	25.02	400
			COWN	25.02	100
			SIZE	25.03	900
			MSCO	25.03	100
			UBSW	25.03	100

Actual Level II data as of 4/24/03, 11:59 am

<b>Symbol:</b> AMZN Amazon.com Inc (NNM)					
<b>Last Sale:</b> 24.99 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 24.98 24.99 500 x 400					
MPID	Bid	Size	MPID	Ask	Size
SIZE	24.98	500	BERN	24.99	100
GVRC	24.95	1700	FBCO	24.99	100
BRUT	24.94	100	JPHQ	24.99	100
JPHQ	24.94	100	LEHM	24.99	100
NITE	24.93	300	BRUT	25.00	300
CIBC	24.92	100	SBSH	25.00	100
COWN	24.92	100	WCHV	25.00	100
WCHV	24.92	100	GVRC	25.01	900
			SIZE	25.02	1300
			TMBR	25.02	400
			COWN	25.02	100
			MSCO	25.03	100
			UBSW	25.03	100

TotalView shows the trader significant price pressure on the bid and he buys 1,800 shares.

Using only Level II, the trader wouldn't have seen the buy-side pressure because it showed only modest depth at each of the top five price levels.

Actual TotalView data as of 4/24/03, 11:59 am

<b>Symbol:</b> AMZN Amazon.com Inc (NNM)					
<b>Last Sale:</b> 24.99 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 24.98 24.99 500 x 400					
MPID	Bid	Size	MPID	Ask	Size
	24.98	500		24.99	400
	24.95	22000		25.00	500
	24.94	200		25.01	900
	24.93	300		25.02	1800
	24.92	300		25.03	1100
MPID	Bid	Size	MPID	Ask	Size
SIZE	24.98	500	BERN	24.99	100
SIZE	24.95	20300	FBCO	24.99	100
GVRC	24.95	1700	JPHQ	24.99	100
BRUT	24.94	100	LEHM	24.99	100
JPHQ	24.94	100	BRUT	25.00	300
NITE	24.93	300	SBSH	25.00	100
CIBC	24.92	100	WCHV	25.00	100
COWN	24.92	100	GVRC	25.01	900
WCHV	24.92	100	SIZE	25.02	1300
			TMBR	25.02	400
			COWN	25.02	100
			SIZE	25.03	900
			MSCO	25.03	100
			UBSW	25.03	100

Actual Level II data as of 4/24/03, 1:05 pm

<b>Symbol:</b> AMZN Amazon.com Inc (NNM)					
<b>Last Sale:</b> 25.37 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 25.36 25.37 1,100 x 400					
MPID	Bid	Size	MPID	Ask	Size
SIZE	25.36	1000	SIZE	25.37	300
PIPR	25.36	100	BTRD	25.37	100
JPHQ	25.35	100	BEST	25.38	1000
BRUT	25.32	600	TMBR	25.38	1000
CIBC	25.32	100	BRUT	25.38	500
FBCO	25.32	100	MLCO	25.38	300
NITE	25.32	100	PERT	25.38	100
WCHV	25.31	100	COWN	25.39	100
			DAIN	25.39	100
			MSCO	25.39	100
			NITE	25.39	100
			PRUS	25.39	100
			UBSW	25.39	100
			WCHV	25.39	100
			SCHB	25.40	1000
			TDCM	25.40	200
			DRKW	25.40	100
			JPHQ	25.40	100
			SBSH	25.40	100

The trader sees a run-up in the stock price over the next hour. At 1:05 p.m. ET, the stock is trading at 25.36 25.37 1100 x 400.

With the TotalView advantage, the trader sells his 1,800 shares for an average price of \$25.349 and gains profits of \$624. If the trader had used only Level II, he would have missed this opportunity, and consequently, he wouldn't have made any profits.

Actual TotalView data as of 4/24/03, 1:05 pm

<b>Symbol:</b> AMZN Amazon.com Inc (NNM)					
<b>Last Sale:</b> 25.37 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 25.36 25.37 1,100 x 400					
MPID	Bid	Size	MPID	Ask	Size
	25.36	1100		25.37	400
	25.35	100		25.38	2900
	25.33	800		25.39	700
	25.32	900		25.40	1500
	25.31	100		25.41	1900
MPID	Bid	Size	MPID	Ask	Size
SIZE	25.36	1000	SIZE	25.37	300
PIPR	25.36	100	BTRD	25.37	100
JPHQ	25.35	100	BEST	25.38	1000
SIZE	25.33	800	TMBR	25.38	1000
BRUT	25.32	600	BRUT	25.38	500
CIBC	25.32	100	MLCO	25.38	300
FBCO	25.32	100	PERT	25.38	100
NITE	25.32	100	COWN	25.39	100
WCHV	25.31	100	DAIN	25.39	100
			MSCO	25.39	100
			NITE	25.39	100
			PRUS	25.39	100
			UBSW	25.39	100
			WCHV	25.39	100
			SCHB	25.40	1000
			TDCM	25.40	200
			DRKW	25.40	100
			JPHQ	25.40	100
			SBSH	25.40	100
			TDCM	25.41	1900

# Example 2

# Level II vs. TotalView – example 2

## What TotalView can do for you.

- A program trading desk had been studying trends in Applied Materials trading and determined that trading opportunities exist when large pockets of buy-side pressure accumulate near the inside.
- On April 28th, the desk implemented a program which analyzed the TotalView data in real time, and began buying when pressure mounted on the buy side of the market.

Symbol: AMAT Applied Materials (NNM)					
Last Sale: 14.05 NASDAQ Bid Tick (+)					
NASDAQ Inside: 14.04 14.05 5,000 x 1,100					
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.04	3600	COWN	14.05	1000
NOCI	14.04	900	DBAB	14.05	100
ATTN	14.04	300	BRUT	14.06	3200
NEED	14.04	100	NOCI	14.06	900
PIPR	14.04	100	TDCM	14.06	500
SIZE	14.03	600	ATTN	14.06	300
NITE	14.02	5000	GSCO	14.06	100
PRUS	14.02	1000	SNDV	14.06	100
MADF	14.01	1100	SIZE	14.07	2000
UBSW	14.01	1000	MLCO	14.07	1000
SCHB	14.01	500	MONT	14.07	1000
DBAB	14.01	100	PRUS	14.07	1000
PERT	14.01	100	FBCO	14.07	100
SNDV	14.01	100	LEHM	14.07	100
SBSH	14.00	10600	SBSH	14.08	100
TDCM	14.00	6600	WIEN	14.09	500
GVRC	14.00	5500			
WCHV	14.00	1100			
AGED	14.00	200			
WEDB	14.00	200			
BERN	14.00	100			
DAIN	14.00	100			
FBCO	14.00	100			
JEFF	14.00	100			
LEHM	14.00	100			
MHMY	14.00	100			
MJSK	14.00	100			
MOKE	14.00	100			
THNK	14.00	100			
TWPT	14.00	100			
WEED	14.00	100			
WELS	14.00	100			

In AMAT, at 9:44, the inside quote was 14.04 14.05 5,000 x 1,100.

Looking at Level II data, the automated trading program would have seen some liquidity at each of the first five price levels, though not much displayed at \$14.00, where you might expect limit orders to be. Reading Level II data, the program wouldn't have detected enough price pressure to trigger a sell. By using TotalView, however, the program detected substantial and growing sell-side pressure near the inside, especially at \$14.00.

Symbol: AMAT Applied Materials (NNM)					
Last Sale: 14.05 NASDAQ Bid Tick (+)					
NASDAQ Inside: 14.04 14.05 5,000 x 1,100					
MPID	Bid	Size	MPID	Ask	Size
	14.04	5000	14.05	1100	
	14.03	900	14.06	5100	
	14.02	6000	14.07	5200	
	14.01	8800	14.08	100	
	14.00	39200	14.09	4400	
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.04	3600	COWN	14.05	1000
NOCI	14.04	900	DBAB	14.05	100
ATTN	14.04	300	BRUT	14.06	3200
NEED	14.04	100	NOCI	14.06	900
PIPR	14.04	100	TDCM	14.06	500
SIZE	14.03	600	ATTN	14.06	300
ATTN	14.03	300	GSCO	14.06	100
NITE	14.02	5000	SNDV	14.06	100
PRUS	14.02	1000	SIZE	14.07	2000
SIZE	14.01	5900	MLCO	14.07	1000
MADF	14.01	1100	MONT	14.07	1000
UBSW	14.01	1000	PRUS	14.07	1000
SCHB	14.01	500	FBCO	14.07	100
DBAB	14.01	100	LEHM	14.07	100
PERT	14.01	100	SBSH	14.08	100
SNDV	14.01	100	SIZE	14.09	3900
SBSH	14.00	10600	WIEN	14.09	500
NITE	14.00	8000			
TDCM	14.00	6600			
GVRC	14.00	5500			
SIZE	14.00	5200			
WCHV	14.00	1100			
AGED	14.00	200			
WEDB	14.00	200			
BERN	14.00	100			
DAIN	14.00	100			
FBCO	14.00	100			
JEFF	14.00	100			
LEHM	14.00	100			
MHMY	14.00	100			
MJSK	14.00	100			
MOKE	14.00	100			
THNK	14.00	100			
TWPT	14.00	100			
WEED	14.00	100			
WELS	14.00	100			

Symbol: AMAT Applied Materials (NNM)					
Last Sale: 14.05 NASDAQ Bid Tick (+)					
NASDAQ Inside: 14.04 14.05 5,000 x 1,100					
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.04	3600	COWN	14.05	1000
NOCI	14.04	900	DBAB	14.05	100
ATTN	14.04	300	BRUT	14.06	3200
NEED	14.04	100	NOCI	14.06	900
PIPR	14.04	100	TDCM	14.06	500
SIZE	14.03	600	ATTN	14.06	300
NITE	14.02	5000	GSCO	14.06	100
PRUS	14.02	1000	SNDV	14.06	100
MADF	14.01	1100	SIZE	14.07	2000
UBSW	14.01	1000	MLCO	14.07	1000
SCHB	14.01	500	MONT	14.07	1000
DBAB	14.01	100	PRUS	14.07	1000
PERT	14.01	100	FBCO	14.07	100
SNDV	14.01	100	LEHM	14.07	100
SBSH	14.00	10600	SBSH	14.08	100
TDCM	14.00	6600	WIEN	14.09	500
GVRC	14.00	5500			
WCHV	14.00	1100			
AGED	14.00	200			
WEDB	14.00	200			
BERN	14.00	100			
DAIN	14.00	100			
FBCO	14.00	100			
JEFF	14.00	100			
LEHM	14.00	100			
MHMY	14.00	100			
MJSK	14.00	100			
MOKE	14.00	100			
THNK	14.00	100			
TWPT	14.00	100			
WEED	14.00	100			
WELS	14.00	100			

The program sent a market order to NASDAQ to buy 10,000 shares at the inside. NASDAQ delivered an immediate execution at an average price of \$14.063

The program was set to identify profit/buy opportunities throughout the balance of the day.

Symbol: AMAT Applied Materials (NNM)					
Last Sale: 14.05 NASDAQ Bid Tick (+)					
NASDAQ Inside: 14.04 14.05 5,000 x 1,100					
MPID	Bid	Size	MPID	Ask	Size
	14.04	5000	14.05	1100	
	14.03	900	14.06	5100	
	14.02	6000	14.07	5200	
	14.01	8800	14.08	100	
	14.00	39200	14.09	4400	
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.04	3600	COWN	14.05	1000
NOCI	14.04	900	DBAB	14.05	100
ATTN	14.04	300	BRUT	14.06	3200
NEED	14.04	100	NOCI	14.06	900
PIPR	14.04	100	TDCM	14.06	500
SIZE	14.03	600	ATTN	14.06	300
ATTN	14.03	300	GSCO	14.06	100
NITE	14.02	5000	SNDV	14.06	100
PRUS	14.02	1000	SIZE	14.07	2000
SIZE	14.01	5900	MLCO	14.07	1000
MADF	14.01	1100	MONT	14.07	1000
UBSW	14.01	1000	PRUS	14.07	1000
SCHB	14.01	500	FBCO	14.07	100
DBAB	14.01	100	LEHM	14.07	100
PERT	14.01	100	SBSH	14.08	100
SNDV	14.01	100	SIZE	14.09	3900
SBSH	14.00	10600	WIEN	14.09	500
NITE	14.00	8000			
TDCM	14.00	6600			
GVRC	14.00	5500			
SIZE	14.00	5200			
WCHV	14.00	1100			
AGED	14.00	200			
WEDB	14.00	200			
BERN	14.00	100			
DAIN	14.00	100			
FBCO	14.00	100			
JEFF	14.00	100			
LEHM	14.00	100			
MHMY	14.00	100			
MJSK	14.00	100			
MOKE	14.00	100			
THNK	14.00	100			
TWPT	14.00	100			
WEED	14.00	100			
WELS	14.00	100			



<b>Symbol:</b> AMAT Applied Materials (NNM)					
<b>Last Sale:</b> 14.64 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 14.64 14.65 4,800 x 11,300					
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.64	3600	UBSW	14.65	3900
SCHB	14.64	1000	SCHB	14.65	2500
BTRD	14.64	200	MADF	14.65	1500
SIZE	14.63	2000	MONT	14.65	1000
NOCI	14.63	1600	PRUS	14.65	1000
ATTN	14.63	300	TRAC	14.65	800
GSCO	14.62	100	ATTN	14.65	300
PIPR	14.62	100	CIBC	14.65	100
CIBC	14.61	100	DAIN	14.65	100
NEED	14.61	100	DBAB	14.65	100
BEST	14.60	1000	BRUT	14.66	2900
DAIN	14.60	100	NFSC	14.66	2000
PRUS	14.60	100	NOCI	14.66	1600
			LEHM	14.66	100
			SBSH	14.66	100
			SNDV	14.66	100
			SIZE	14.67	4500
			MLCO	14.67	1000
			AGED	14.67	100
			NITE	14.67	100
			MRLN	14.68	5000
			COWN	14.68	1000
			JPHQ	14.68	100
			SUSQ	14.68	100
			FBCO	14.69	100
			MSCO	14.69	100
			WCHV	14.69	100

The system saw a significant run up in the stock price over the next couple hours. At 11:58, the program sent a sell order for 10,000 shares to NASDAQ and got an immediate execution at an average price of \$14.632 and profit of \$5,688 on the transaction.

At 9:44, without TotalView data, the program would have missed a third of the total depth in the first five levels of NASDAQ, and a full two thirds of the depth at the fourth price level. The trading desk would have missed this profit opportunity.

<b>Symbol:</b> AMAT Applied Materials (NNM)					
<b>Last Sale:</b> 14.64 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 14.64 14.65 4,800 x 11,300					
MPID	Bid	Size	MPID	Ask	Size
	14.64	4800		14.27	11300
	14.63	3900		14.29	8100
	14.62	200		14.58	5700
	14.61	200		14.60	11600
	14.60	2700		14.65	2300
MPID	Bid	Size	MPID	Ask	Size
BRUT	14.64	3600	UBSW	14.65	3900
SCHB	14.64	1000	SCHB	14.65	2500
BTRD	14.64	200	MADF	14.65	1500
SIZE	14.63	2000	MONT	14.65	1000
NOCI	14.63	1600	PRUS	14.65	1000
ATTN	14.63	300	TRAC	14.65	800
GSCO	14.62	100	ATTN	14.65	300
PIPR	14.62	100	CIBC	14.65	100
CIBC	14.61	100	DAIN	14.65	100
NEED	14.61	100	DBAB	14.65	100
SIZE	14.60	1500	BRUT	14.66	2900
BEST	14.60	1000	NFSC	14.66	2000
DAIN	14.60	100	NOCI	14.66	1600
PRUS	14.60	100	UBSW	14.66	1000
			ATTN	14.66	300
			LEHM	14.66	100
			SBSH	14.66	100
			SNDV	14.66	100
			SIZE	14.67	4500
			MLCO	14.67	1000
			AGED	14.67	100
			NITE	14.67	100
			SIZE	14.68	5400
			MRLN	14.68	5000
			COWN	14.68	1000
			JPHQ	14.68	100
			SUSQ	14.68	100
			SIZE	14.69	2000
			FBCO	14.69	100
			MSCO	14.69	100
			WCHV	14.69	100

# Example 3

# Level II vs. TotalView – example 3

**What TotalView can do for you.**

- Based on a sense that the market was headed south on April 30<sup>th</sup>, a trader decided to go short up to 1,500 shares in JNPR if sell-side pressure appeared in the market.
- The inside quote at 10:46 was 10.26 10.27  
1,500 x 6,100.

Actual Level II data as of 4/30/03, 10:46 am

<b>Symbol:</b> JNPR Juniper Networks (NNM)					
<b>Last Sale:</b> 10.27 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 10.26 10.27 1,500 x 6,100					
MPID	Bid	Size	MPID	Ask	Size
SCHB	10.26	1000	SIZE	10.27	4900
BRUT	10.26	300	BRUT	10.27	800
CIBC	10.26	100	NOCI	10.27	400
JPHQ	10.26	100	MONT	10.28	100
NOCI	10.25	100	TDCM	10.29	800
PIPR	10.25	100	COWN	10.29	100
NITE	10.24	5000	MLCO	10.29	100
NTRD	10.24	500	WCHV	10.29	100
COWN	10.24	100	NFSC	10.30	1000
PRUS	10.24	100	SCHB	10.30	900
WCHV	10.24	100	JPHQ	10.30	100
BTRD	10.23	1200	PIPR	10.30	100
SIZE	10.23	1200	NITE	10.31	2000
MLCO	10.23	1000	GVRC	10.31	1500
TDCM	10.23	1000	CIBC	10.31	100
UBSW	10.22	100	SBSH	10.31	100

Using Level II, the trader would have seen 6,100 shares at the inside on the sell side, and even less interest at the next four price levels.

Actual Level II data as of 4/30/03, 10:46 am

<b>Symbol:</b> JNPR Juniper Networks (NNM)					
<b>Last Sale:</b> 10.27 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 10.26 10.27 1,500 x 6,100					
MPID	Bid	Size	MPID	Ask	Size
SCHB	10.26	1000	SIZE	10.27	4900
BRUT	10.26	300	BRUT	10.27	800
CIBC	10.26	100	NOCI	10.27	400
JPHQ	10.26	100	MONT	10.28	100
NOCI	10.25	100	TDCM	10.29	800
PIPR	10.25	100	COWN	10.29	100
NITE	10.24	5000	MLCO	10.29	100
NTRD	10.24	500	WCHV	10.29	100
COWN	10.24	100	NFSC	10.30	1000
PRUS	10.24	100	SCHB	10.30	900
WCHV	10.24	100	JPHQ	10.30	100
BTRD	10.23	1200	PIPR	10.30	100
SIZE	10.23	1200	NITE	10.31	2000
MLCO	10.23	1000	GVRC	10.31	1500
TDCM	10.23	1000	CIBC	10.31	100
UBSW	10.22	100	SBSH	10.31	100

Using TotalView, the trader saw that there were, in fact, over 20,000 more shares offered at 10.30, and an additional 6,000 at 10.31.

This was significant pressure and the trader decided to go short 1,500 shares.

Actual TotalView data as of 4/30/03, 10:46 am

<b>Symbol:</b> JNPR Juniper Networks (NNM)					
<b>Last Sale:</b> 10.27 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 10.26 10.27 1,500 x 6,100					
MPID	Bid	Size	MPID	Ask	Size
10.26	1500		10.27	6100	
10.25	200		10.28	400	
10.24	6000		10.29	1100	
10.23	4400		10.30	21300	
10.22	600		10.31	9700	
MPID	Bid	Size	MPID	Ask	Size
SCHB	10.26	1000	SIZE	10.27	4900
BRUT	10.26	300	BRUT	10.27	800
CIBC	10.26	100	NOCI	10.27	400
JPHQ	10.26	100	NOCI	10.28	300
NOCI	10.25	100	MONT	10.28	100
PIPR	10.25	100	TDCM	10.29	800
NITE	10.24	5000	COWN	10.29	100
NTRD	10.24	500	MLCO	10.29	100
NOCI	10.24	200	WCHV	10.29	100
COWN	10.24	100	MLCO	10.30	19000
PRUS	10.24	100	NFSC	10.30	1000
WCHV	10.24	100	SCHB	10.30	900
BTRD	10.23	1200	TDCM	10.30	200
SIZE	10.23	1200	JPHQ	10.30	100
MLCO	10.23	1000	PIPR	10.30	100
TDCM	10.23	1000	SIZE	10.31	6000
TDCM	10.22	500	NITE	10.31	2000
UBSW	10.22	100	GVRC	10.31	1500
			CIBC	10.31	100
			SBSH	10.31	100

Actual Level II data as of 4/30/03, 11:56 am

<b>Symbol:</b> JNPR Juniper Networks (NNM)					
<b>Last Sale:</b> 10.19 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 10.17 10.19 10,100 x 1,800					
MPID	Bid	Size	MPID	Ask	Size
NFSC	10.17	8200	BRUT	10.19	800
NITE	10.17	1000	NTRD	10.19	500
NOCI	10.17	400	BTRD	10.19	200
DBAB	10.17	100	NOCI	10.19	200
FACT	10.17	100	PIPR	10.19	100
MLCO	10.17	100	JPHQ	10.20	100
UBSW	10.17	100	MONT	10.20	100
WCHV	10.17	100	DBAB	10.21	300
SCHB	10.16	5600	COWN	10.21	100
BRUT	10.16	800	WCHV	10.22	100
BAMM	10.16	100	SIZE	10.23	1200
BEST	10.16	100	CIBC	10.23	700
CIBC	10.16	100			
COWN	10.16	100			
JPHQ	10.16	100			
PRUS	10.16	100			
SBSH	10.16	100			
SIZE	10.15	4200			
BTRD	10.15	1000			
GVRC	10.15	1000			
MADF	10.15	1000			
FBCO	10.15	100			
MSCO	10.15	100			
PIPR	10.14	100			
AGIS	10.13	100			
DAIN	10.13	100			

The trader saw the stock price drop as he expected. A little over an hour later, at 11:56, the stock was trading at 10.17 10.19.

The trader took the 1,500 shares at 20.19 and gained profits of \$105.

Using only Level II, the trader would have missed seeing 90% of the sell-side depth at the \$10.30 level and two-thirds of the total depth in the first five price levels. As a result, he would have missed this opportunity.

Actual TotalView data as of 4/30/03, 11:56 am

<b>Symbol:</b> JNPR Juniper Networks (NNM)					
<b>Last Sale:</b> 10.19 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 10.17 10.19 10,100 x 1,800					
MPID	Bid	Size	MPID	Ask	Size
	10.17	10100		10.19	1800
	10.16	7200		10.20	300
	10.15	11400		10.21	800
	10.14	4300		10.22	100
	10.13	200		10.23	1900
MPID	Bid	Size	MPID	Ask	Size
NFSC	10.17	8200	BRUT	10.19	800
NITE	10.17	1000	NTRD	10.19	500
NOCI	10.17	400	BTRD	10.19	200
DBAB	10.17	100	NOCI	10.19	200
FACT	10.17	100	PIPR	10.19	100
MLCO	10.17	100	JPHQ	10.20	100
UBSW	10.17	100	MONT	10.20	100
WCHV	10.17	100	NOCI	10.20	100
SCHB	10.16	5600	NOCI	10.21	400
BRUT	10.16	800	DBAB	10.21	300
BAMM	10.16	100	COWN	10.21	100
BEST	10.16	100	WCHV	10.22	100
CIBC	10.16	100	SIZE	10.23	1200
COWN	10.16	100	CIBC	10.23	700
JPHQ	10.16	100			
NOCI	10.16	100			
PRUS	10.16	100			
SBSH	10.16	100			
SIZE	10.15	4200			
NITE	10.15	4000			
BTRD	10.15	1000			
GVRC	10.15	1000			
MADF	10.15	1000			
FBCO	10.15	100			
MSCO	10.15	100			
SIZE	10.14	4200			
PIPR	10.14	100			
AGIS	10.13	100			
DAIN	10.13	100			



# Example 4

# Level II vs. TotalView – example 4

## What TotalView can do for you.

- Thinking American Power Conversion Corporation (APCC) might be headed up sharply on June 26<sup>th</sup>, a trader decided to go long up to 1,500 shares if buy-side pressure appeared in the market.
- The inside quote at 10:35 was 16.19 16.21 200 x 400.

Actual Level II data as of 6/26/03, 10:35 am

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.21 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.19 16.21 200 x 400					
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.19	100	BRUT	16.21	400
SIZE	16.19	100	TMBR	16.25	600
TMBR	16.16	400	SIZE	16.26	1600
PRUS	16.15	200	GSCO	16.28	100
GSCO	16.13	100			

Using both Level II and TotalView, the trader is able to see that the best quotes, and quotes near the best, are most likely being generated by retail orders, since BRUT and TMBR are prevalent on the buy side.

But, with the advantage of TotalView, the trader sees that NASDAQ has, in fact, ten times more liquidity available for immediate execution within the first four price levels than that which is visible in Level II.

Actual TotalView data as of 6/26/03, 10:35 am

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.21 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.19 16.21 200 x 400					
	16.19	200	16.21	400	
	16.16	500	16.25	600	
	16.15	200	16.26	1600	
	16.14	5900	16.27	3200	
	16.13	1300	16.28	1300	
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.19	100	BRUT	16.21	400
SIZE	16.19	100	TMBR	16.25	600
TMBR	16.16	400	SIZE	16.26	1600
SIZE	16.16	100	SIZE	16.27	3200
PRUS	16.15	200	SIZE	16.28	1200
SIZE	16.14	5900	GSCO	16.28	100
SIZE	16.13	1200			
GSCO	16.13	100			

Actual Level II data as of 6/26/03, 10:35 am

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.21 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.19 16.21 200 x 400					
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.19	100	BRUT	16.21	400
SIZE	16.19	100	TMBR	16.25	600
TMBR	16.16	400	SIZE	16.26	1600
PRUS	16.15	200	GSCO	16.28	100
GSCO	16.13	100			

TotalView shows the trader significant price pressure on the bid and he buys 1,500 shares.

Using only Level II, the trader wouldn't have seen the buy-side pressure because it showed only modest depth at each of the top five price levels (and nothing at all at the fourth price level).

Actual TotalView data as of 6/26/03, 10:35 am

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.21 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.19 16.21 200 x 400					
	16.19	200	16.21	400	
	16.16	500	16.25	600	
	16.15	200	16.26	1600	
	16.14	5900	16.27	3200	
	16.13	1300	16.28	1300	
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.19	100	BRUT	16.21	400
SIZE	16.19	100	TMBR	16.25	600
TMBR	16.16	400	SIZE	16.26	1600
SIZE	16.16	100	SIZE	16.27	3200
PRUS	16.15	200	SIZE	16.28	1200
SIZE	16.14	5900	GSCO	16.28	100
SIZE	16.13	1200			
GSCO	16.13	100			

Actual Level II data as of 6/26/03, 12:16 pm

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.59 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.59 16.62 1,500 x 100					
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.59	1100	COWN	16.62	100
TMBR	16.59	400	SCHB	16.63	4400
SIZE	16.56	100	BAMM	16.64	100
PRUS	16.55	200	BERN	16.64	100
			SIZE	16.64	100
			CANT	16.65	100
			BEST	16.66	100

The trader sees a run-up in the stock price over the next hour. At 12:16 p.m. ET, the stock is trading at 16.59 16.62 1,500 x 100.

With the TotalView advantage, the trader sells his 1,500 shares at \$16.59 and gains profits of \$521. If the trader had used only Level II, he would have missed this opportunity, and consequently, he wouldn't have made any profits.

Actual TotalView data as of 6/26/03, 12:16 pm

<b>Symbol:</b> APCC American Power Conv Corp (NNM)					
<b>Last Sale:</b> 16.59 <b>NASDAQ Bid Tick (+)</b>					
<b>NASDAQ Inside:</b> 16.59 16.62 1,500 x 100					
	16.59	1500	16.62	100	
	16.56	100	16.63	4400	
	16.55	300	16.64	300	
	16.54	2100	16.65	100	
	16.53	600	16.66	500	
MPID	Bid	Size	MPID	Ask	Size
BRUT	16.59	1100	COWN	16.62	100
TMBR	16.59	400	SCHB	16.63	4400
SIZE	16.56	100	BAMM	16.64	100
PRUS	16.55	200	BERN	16.64	100
SIZE	16.55	100	SIZE	16.64	100
SIZE	16.54	2100	CANT	16.65	100
SIZE	16.53	600	SIZE	16.66	400
			BEST	16.66	100

# Conclusion

**TotalView – it's going to change the way you look at the market.**

In each trading scenario, TotalView revealed more trading opportunities than Level II. Using TotalView, only a few smart transactions each month can yield profits that vastly exceed the cost of the data\*.

	TotalView	Level II
<b>Example #1</b>	\$624.00	\$0.00
<b>Example #2</b>	\$5,688.00	\$0.00

	TotalView	Level II
<b>Example #3</b>	\$105.00	\$0.00
<b>Example #4</b>	\$521.00	\$0.00

\* Professional TotalView users pay an additional \$40 per month over the Level II fee. Non-professional users pay only an additional \$5 per month over the Level II fee.