

Understanding NPD's Point of Sale Data

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While NPD Techworld is the best source of point of sale data for PC software titles sold in the U.S., the subtleties and nuances of the data set often confuse those who are tasked with making sense of it. Below is a short primer to help explain the data and make sense of some of the trends analysts typically come across.

Introduction

Those that monitor the performance of software companies know that NPD Techworld is the best source of point of sale (POS) data for PC software titles sold in the U.S. distributor, retail and reseller channels. Headquartered in Port Washington, New York, NPD is a widely-respected research firm that collects point of sale data from a panel of retailers, aggregates it, and sells the combined data set to those interested in tracking the software market.¹

While the point of sale data is useful, the subtleties and nuances of the data set often confuse those who are tasked with making sense of it. Some users of the data are uncertain about which elements of the data set to focus on, others are unsure about how to interpret certain trends. The data is so detailed that oftentimes two analysts looking at the same data set will come up with two entirely different interpretations of the data, and will thus arrive at different conclusions about a company's performance.

To help those charged with using NPD data to track the performance of Macromedia in the market avoid some of these problems, Macromedia Market Research has composed this short primer to help explain the NPD data set, and to help analysts make sense of some of the trends inherent in the point of sale data.

About the Author

Chris brings over 14 years of research experience to Macromedia. Previously, he was a Sr. Market Research Analyst at Adobe Systems, a Business Strategist at Silicon Graphics, and a Product Planner at Cadence Design Systems. Before moving into high tech, Chris worked for several public policy research think tanks in Washington DC.

Definition of Terms

Macromedia sells its software in two basic ways: direct and indirect. Direct sales are sales of product from Macromedia directly to the customer. Both the sale of a copy of

¹ NPD sells point of sale data for a wide variety of other products sold in the channel as well, including: PCs, Printers, TVs, Video Games, Clothing, Footwear, etc. In addition, NPD conducts numerous custom research studies for a variety of customers, including Macromedia's Flash Penetration Study.

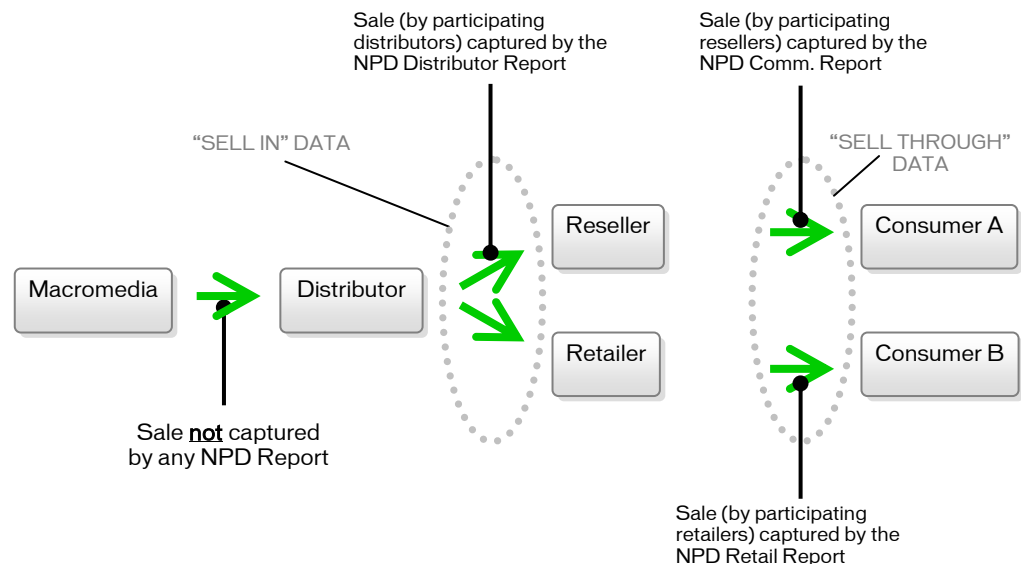


Studio MX 2004 on the Macromedia.com website and the sale of Breeze Live web conferencing software by one of Macromedia's sales representatives to a large Fortune 500 company are considered to be "direct" sales. The sum total of these sales is referred to as the "direct channel."

"Indirect" sales, on the other hand, are sales of product by a third party intermediary other than Macromedia. The sale of a single copy of Flash MX 2004 Professional by a reseller such as Software Spectrum or Softmart to an end user is considered to be an indirect sale. The sum total of these sales is referred to as the "indirect channel."

The indirect channel is comprised of three main types of participants: distributors, retailers, and resellers (see **Figure 1** below). Distributors such as Ingram Micro and Tech Data buy product directly from Macromedia and sell it to resellers and retailers. The sale of product from Macromedia to the distributors is not captured by any market research firm, including NPD. However, the sale of product from the distributors to resellers and retailers is captured by NPD in its "distributor" or "distie" report, and is often referred to as "sell in" data (as in selling into the channel).

Figure 1: Overview of NPD Indirect Point of Sale (POS) Data Types



Retailers like CompUSA, Best Buy and Amazon.com typically buy product from distributors and sell it directly to businesses and consumers, while resellers such as CompuCom and Softmart buy product from distributors and sell it directly to businesses. The sale of product by the retailers and resellers to consumers and businesses is captured by NPD in its "retail" and "commercial" reports, and is often referred to as "sell through" data (as in selling through to the consumer).

NPD's distributor, retail, and commercial reports only contain sales from the indirect channel, i.e., those distributors, retailers and resellers that serve as intermediaries between the software publisher and the end customer. In a few rare cases, however, some direct sales are indeed captured by the NPD data set as some software publishers have contracted with retailers or resellers to produce and host their e-commerce web stores that participate in NPD's data collection efforts. Further, a small number of "sell in" sales aren't captured by NPD as some large retailers purchase software directly from the software publisher, bypassing the distributor. However, the number of these "special cases" is thought to be small.

NPD Methodology

NPD maintains a panel of distributors, retailers and resellers that participate in the monthly data collection effort. In almost all cases, NPD uses the raw point of sale data that they receive directly from the MIS departments of the participating firms (two exceptions are noted below). Below is a list of firms that participate in the both the monthly panels for the various monthly reports (See **Table 1** below)²:

Although the bulk of the NPD data is raw data sent directly from the participating firms to NPD, two large firms do not participate in the NPD survey: Wal-Mart and Sam's Club. Although the two retailers sell significant quantities of software, their lack of participation in the NPD data collection effort is not as troubling from Macromedia's perspective for two reasons: (1) NPD incorporates estimates for Wal-Mart and Sam's Club software sales into the data set, and (2) the two retailers sell mostly consumer-level software titles (Macromedia does not concentrate on the retail channel to sell its professional-level software). Thus, because these firms sell little or no Macromedia software, even if the estimates were removed from the data set, one is unlikely to see any significant change in Macromedia sales.

What is somewhat concerning from Macromedia's perspective is the lack of participation of Douglas Stewart in the distributor report. Although many of the firms participating in the NPD distributor report have a sizable education business (as can be seen in the large number of education skus that are present in the distributor point of sale data), Douglas Stewart is Macromedia's main distributor serving the education market. Thus, Macromedia has some reservations about the distributor data set, and believes that it is unclear whether the data captures all of the important trends taking place among a core group of its customer base.

² Note that a smaller subset of this list participates in NPD's weekly reporting panel.

Table 1: List of Participating Vendors in NPD's Point of Sale Survey

Commercial Software Report (Monthly)		Distributor Software Report (Monthly)
<u>3rd Party Direct (Mail Order):</u>	<u>Select Resellers:</u>	American Software & Hardware - thru 12/00
CDW	Amherst Computer Products	Avnet
Creative Computers	A.S.A.P. Software	Inacom - thru 1/01
Creative Computers Online (cc-inc.com/pcmall)	Comark	Ingram Micro
MicroWarehouse	CompuCom	Merisel - thru 1/01
MicroWarehouse Online	Corporate Software & Technology - Software	Nacscorp - thru 8/01
Midwest Micro - thru 1/00	Spectrum	Navarre
Multiple Zones	En Pointe	Pinacor - thru 6/01
Multiple Zones Online	Pomeroy	Synnex
PC Connection	Sarcom	Tech Data
PCConnection.com	Softmart	
Quill Corporation	Software Plus	
Scholastic	Wareforce	
TEC Direct - thru 1/00	RCS Computer	
TEC Direct Online - thru 1/00	Experience	
Tiger	Staples Mail Order	
Tiger Online		

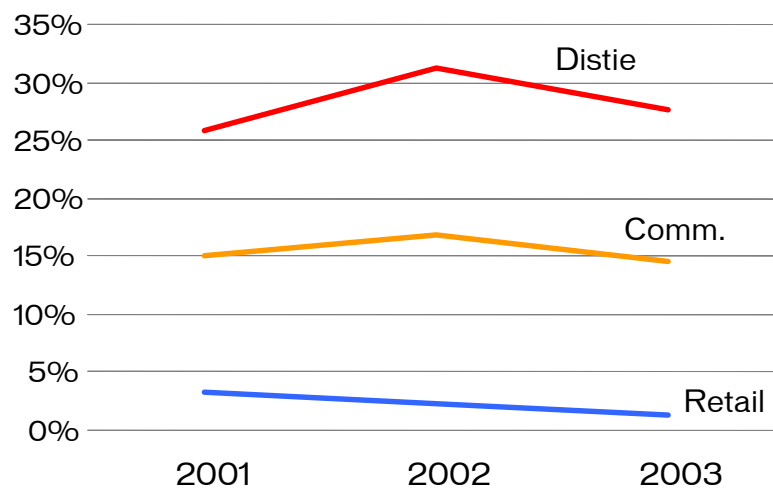
Retail Software Report (Monthly)

<u>Super Stores:</u>	<u>Electronics Retailers:</u>	<u>Mass Merchants:</u>	<u>Ecommerce:</u>
Babbages Etc.	American TV	Ames - thru 1/02	800.com (Circuit City) - thru 2/02
CompUSA	Best Buy	Costco	Amazon.com
Electronics	Circuit City	Family Toy Stores - thru 12/02	Beyond.com - thru 3/02
Boutique	Click Camera Shop	Fred Meyer	Buy.com
Hastings	Hh Gregg - thru 5/02	K-Mart	Circuitcity.com
Media Play	Murphy's Camera	Meijer	CompUSA.com
Office Depot	National Camera	Pamida	Costco.com
OfficeMax	Exchange	Sam's Clubs - NPD	CyberRebate.com - thru 4/01
Staples	Nebraska Furniture	Est.	Egghead.com - thru 8/01
	PC Richard & Son	Sears	Etoys - thru 12/00
	Radio Shack	Shopko	Gamedealer.com - thru 6/00
	The Good Guys!	Target	Gamefever.com - thru 9/00
	The Wiz	Toys R Us	hardwarestreet.com - thru 6/00
	Ultimate Electronics	Wal-Mart - NPD Est.	KBKids.com - thru 11/00
	Vann's	Zany Brainy	Onecall.com
	Wolfe's Camera		Shopping4Sure
			Smarter Kids - thru 2/02
			Staples.com
			Works.com - thru 4/01
			WorldSpy.com - thru 5/00

NPD's "Coverage" of the Channel, and of Macromedia

Given the specifics of NPD's panel, what percentage of total U.S. indirect software sales does the NPD panel represent? NPD publicly states that given the sheer size of some of the firms participating in its panel, its raw point of sale coverage for the retail channel is approximately 71% of the entire U.S. channel. If one factors its estimates for Wal-Mart and Sam's Clubs into the equation, NPD believes it has coverage for about 84% of the U.S. retail channel. And with regard to resellers, NPD believes that its commercial report covers approximately 77% of the U.S. reseller channel.

Figure 2: Percent. of Macromedia's Total CY Revenues Captured, By NPD Report, '01-'03



Coverage of the overall channel is one thing, but how about NPD's coverage of Macromedia? What percentage of Macromedia's retail sales does the NPD retail report, for example, provide coverage for? While Macromedia does not publish statistics on the exact performance of its products broken down by channel (as that would give its competition too much information), Macromedia can provide the ratio of total company sales that each report represents.

Looking at NPD's CY2003 revenues for all of Macromedia's products (three years of calendar year data are available to NPD subscribers), approximately 28% of Macromedia's total revenues are captured by the distributor report, approximately 1% are captured by the retail report, and approximately 15% are captured by the commercial report (see **Figure 2** above). The percentages for the retail report and the commercial report used to be the reverse, with the retail report commanding a disproportionate share of revenue. However, in 2003 NPD moved the mail order component of the retail report (which includes vendors such as MicroWarehouse, Multiple Zones, and PC Connection) into the commercial report.

Looking at **Figure 2**, it becomes readily apparent that the distributor report is the more important report from the perspective that it provides coverage for more of Macromedia's

sales than both of the "sell through" reports. And by its very nature, the distributor report should provide users with the best information needed to predict trends in Macromedia's sales in the short term. However, the retail and commercial reports provide a "leading indicator" of sales over the medium to long term. For example, if retail inventories increase dramatically over a short period of time, it is likely that the retail channel will decrease its orders in the future, and the drop off in sales will then be reflected in a future distributor report.

How To Analyze NPD Data

How does one go about analyzing the data contained in the various NPD reports? In order to gauge Macromedia's most recent monthly performance, most analysts look at "month over month" (current month/previous month) and "year over year" (current month/year ago month) comparisons for both particular Macromedia products and for the company as a whole. These metrics are the bread and butter of the analyst.

These are useful measures, but they have some limitations. First, as can be seen in Table 1, the coverage of Macromedia's total sales in NPD's reports varies from year to year. This is partially due to changes in Macromedia's channel spread, i.e., one channel may be experiencing growth while another declines. For example, increased sales experienced by a particular product on Macromedia's online store (part of its direct channel), may result in decreased sales in the retail channel for the same product. If Macromedia offers customers a particularly attractive offer on Macromedia.com, this phenomenon can be quite pronounced, thus, analysts should take into consideration these promotions when analyzing period/period trends.

Second, given the nature of the calendar, every few months a particular month will have an extra "fifth week" of data, which typically shows up as a spike in the data. This obviously distorts both the month/month and the year/year comparisons. To correct for this phenomenon, some analysts try to "normalize" the data by taking a portion of the "fifth week" of data and distributing it to the month previous and the month after the month with the extra week. This methodology is problematic because: (1) if the month with the fifth week is the current month, then there is no month following the period allocate a portion of the fifth week of data to; and (2) there is no agreed upon method of "normalizing" the data, thus some analysts may come up with different estimates if they use this method.

To avoid this some analysts use "sequential" or "rolling quarters" to normalize the NPD data. By taking the last three months of data and comparing it to the preceding or "sequential" three months of data, the analyst is able to eliminate these peculiar "five week" spikes in the data as both quarters will likely contain a month that has five weeks of data. "Rolling" quarters, or taking the last three months of data and comparing it to the last three months shifted back one month (Jan, Feb, March compared to Feb, March, April, for example), are less successful at doing away with the "five week" phenomenon as on some occasions one rolling quarter will contain a five week month while the comparison rolling quarter will not. Still, the rolling quarter method can provide a useful indicator of a product's or a company's recent performance.

Even if analysts are using the same metrics (month/month comparisons, and sequential quarters), analysts often arrive at different numbers. The number one cause for these discrepancies is the selective use of certain Macromedia skus. When Macromedia looks at the total revenue and unit shipments for a particular product, Macromedia includes ALL of the skus for a particular product. Sometimes analysts leave maintenance skus out of their analysis, others leave out "NFR" (not for resale) skus, etc. However, Macromedia recommends that analysts look at all of the skus when reporting product totals, drilling down on certain classes of skus later if necessary. That way both the company and the analyst firm can be sure they're analyzing the same data.

Frequently Asked Questions (FAQ)

Q: How do I pull trended sku-level or product family-level data from the NPD Techworld website?

NPD has recently discontinued its "Interactive Reporter" web user interface, and has replaced it with the new "Solution Folder" user interface. To pull sku level or product family level data from the new Solution Folders, go to NPD Techworld (<http://www.npdtechworld.com>), and select "Solution Folders". Then, when presented with a list of folders, select the data set you are interested in pulling ("Software Distributor", "Software Retail" or "Software Commercial").

If one is interested in "sku-level" also known as "title-level" data from the Distributor report, for example, select "Software Distributor", and then the folder entitled: "(SF22) Category Insights". This will take you to another screen where you will enter the "criteria" you need to pull the appropriate data. The criteria are entered in the table on the left side of the screen, and the resulting report, once run, will be displayed on the right.

In the table on the left, there is a list of criteria that you can change to produce different reports. By highlighting a specific criterion, the box underneath displays the range of settings for that particular item. For example, under the criterion "Display Top", in the box at the bottom, you can select "Top 10", "Top 25", "Top 50", "Top 100" or "All". For pulling all Macromedia-related skus, make sure "Display Top" is set to "All". Further, make sure that that "Measure" is set to "Units Volume" or "Dollar Volume" (depending on the data you wish to pull) and that "Time Scale" is set to "Monthly Trend". Finally, under the "Publisher" criterion, make sure you select "Like" and enter "Macromedia" in the form field. Leave all the other settings as is. This will produce a complete list of trended sku-level data for Macromedia. To export this report to Excel, click "Export to Excel" and select "ASCII (Comma Delimited)" format.

To pull product family data for Macromedia, go back to the appropriate top-level folder (in this case: "Software Distributor") and select the folder entitled: "(SF22-R2) Top Selling Product Families". Again, this will take you to another screen where you will select the criteria you need to pull the appropriate data. If you follow the same procedures outlined above (selecting "All" for "Display Top", "Monthly Trend" for "Time Scale", etc.), you will produce a complete, trended set of product family-level data.

Q: I followed the steps outlined above, but I'm only able to pull 13 months of data at a time. How can I pull 25 months of trended sku-level or product family-level data from the NPD Techworld website?

Unfortunately, under the new Solution Folders user interface, users can no longer pull 25 months of trended data at one time. To get 25 months of data, you have to run the reports outlined above twice, changing the "End Date" criteria accordingly. NPD has said that they intend to give analysts the ability to pull 25 months of data at one time, and will add this capability to the Solution Folders as quickly as possible.

Q: Does NPD contain revenue and unit shipments for volume sales?

Yes, the NPD data does contain information pertaining to volume sales. Those skus that are sold in bulk are denoted by the "Lic" code in the title (meaning the sku is a "License Sku"). License skus are found in all three of NPD's reports, Distributor, Retail and Commercial. Again, analysts should note that a large portion of license skus are not sold in the channel, but are sold directly by Macromedia.