PC SOFTWARE MARKET TREND

IN JAPAN Fiscal year 2003

December 2003

Japan Personal Computer Software Association

This work was subsidized by the Japan Keirin Association through its Promotion funds from KEIRIN RACE.

I. Methodology

1. Objectives

This survey was conducted in order to understand the current Japanese (domestic) personal computer software market, its trends and its characteristics.

2. Method

Survey format:	Conducted via mail following screening by telephone
Survey target:	PC software vendors that ship products to the Japanese market
No. of samples:	218 samples We screened 1,025 companies by phone and then mailed a questionnaire to 737 companies.
Recovery rate:	30.7% (telephone calls were made to encourage response)
Selection of target companies:	Mailed to all companies on the Japan Personal Computer Software Application (number) as well as those on selected vendor lists.
Target Area:	All of Japan

3. Survey Contents

1) Sales revenue from FY (fiscal year) 2002
2) Value of PC software shipped domestically
   (Actual figures for FY 2001 and 2002, forecast for FY 2003)
3) Breakdown of PC software sales revenue
4) PC software supply method and destination
5) Value of product shipped by category

* A sample questionnaire is attached at the end of the report

4. Period

July 11, 2003 through September 9, 2003

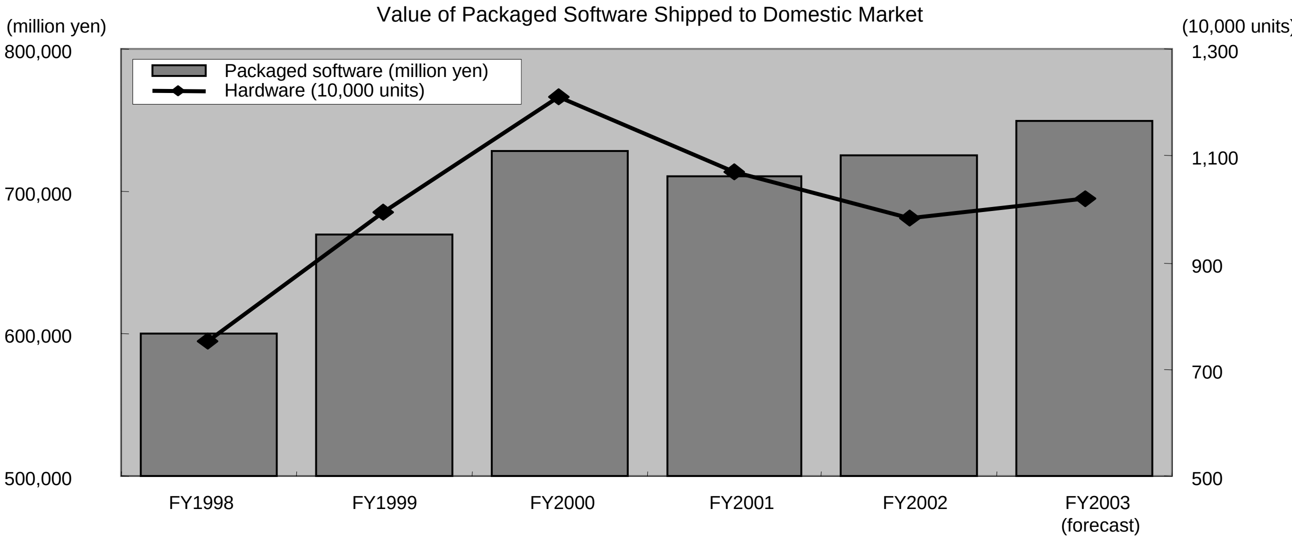
5. Body Conducting the Survey

Conducted under the name of "Japan Personal Computer Software Association"

("Nikkei Research" also stated as jointly conducting the survey)

II. Results

1) Value of Products Shipped



		FY1998 (Actual)	FY1999 (Actual)	FY2000 (Actual)	FY2001 (Actual)	FY2002 (Actual)	FY2003 (Forecast)
Packaged software	Value (million yen)	599,813	669,660	728,455	710,081	725,221	749,045
	Increase from previous year	-	111.6%	108.8%	97.5%	102.1%	103.3%
Hardware	No.(10,000 units)	754	994	1,210	1,069	984	1,020
	Increase from previous year	-	131.8%	121.7%	88.3%	92.0%	103.7%

*Data on hardware is extracted from “Japan Electronics and Information Technology Industries Association”

The market for packaged PC software in FY2002 increased by 2% since the previous year and amounted to 725.2 billion yen. Although it was small, the value of shipments showed an increase from FY 2001 (-2.5% since the previous year) in which the market suffered its first decrease since the start of the survey, and recovered to the level of FY 2000 (728.5 billion yen).

On the other hand, The market for PC hardware still remained sluggish and the number of shipments was 9.84 million units, which was stagnant at 92% compared to the previous year (surveyed by the Japan Electronics and Information Technology Industries Association (JEITA)).

In contrast to the decline in volume of shipments of PC hardware, the value of the shipments on the software market increased due to the following factors: the integrated office software that contributed to the previous year’s negative growth turned positive, and the market for security related software (for both businesses and individual users) has grown in response to users’ awareness about security which has been aroused by the various computer viruses such as “Klez”, “Badtrans”, “Nimda”, etc.

In particular, needs for security have grown among not only institutional users but also among individual users. As in the previous year, the number of virus cases reported to the Information-technology Promotion Agency, Japan (IPA) in FY 2002 exceeded 20,000. Although there were not many new species of viruses, a number of subspecies have spread and the modus operandi has become diversified.

Furthermore, in FY 2002, the broadbandization of general households was promoted. However, this exposed more PCs at home to various types of threats such as a virus, and as a result encouraged the introduction of security tools.

The results of the survey showed that the volume of packaged PC software shipped in FY 2003 was 749 billion yen, representing a 103% increase since the previous year, while the hardware market was estimated to achieve a shipment value of 10.2 million yen, up 104% since the year before (surveyed by the Japan Electronics and Information Technology Industries Association (JEITA)).

Although prospects for economic recovery are still unclear, it seems that some business surveys now show a sign of upturn. There are two favorable factors affecting the business environment surrounding the IT industry: the introduction of the tax system aimed at promoting investments in IT and the broadbandization of households.

As of FY 2003, a tax system promoting investments in IT was institutionalized. The intent is for the Japanese government to promote increases in corporate business efficiency and heighten added-value by offering tax support measures for corporate investments in IT networks in both hardware and software aspects. It is also intended to strengthen international competitiveness of the entire domestic industry and revitalize the economic society. The effect of these tax breaks would amount to approximately 60 million yen, and they are expected to strongly boost future corporate investments in information technology.

On the other hand, businesses are still keeping a strict eye on the effectiveness of investment, and the situation is far from reaching an optimistic outlook. Rather, as unnecessary investment is no longer overlooked, investment in information technology will be more carefully screened. To keep track of the effects of such investments, it would be useful to utilize the operation management software that has shown growth in this survey. Naturally as the demand for investment effectiveness increases, needs for more effective utilization of IT systems will also intensify. Thus, the role of the operation management software that manages or evaluates operation of an entire system and measures a reference mark for improvement is expected to grow.

In addition, in general households, the broadband network environment is advancing rapidly, and the PC has been established as an important terminal. Now, information gathering by browsing of WEB sites and the use of PC for e-mail as a means for communications have become indispensable to our lives. In the future, applications will further expand, and the use of content services such as delivery of moving images/music, etc. will be promoted.

Under these circumstances, there will be a growing need for software that accommodates broadband services, such as software that supports searching of information on the Internet or multimedia compatible software that will enable users to enjoy broadband contents.

With the promotion of broadbandization/networking, the field of security, mentioned earlier, will also carry more weight, whether users are businesses or individuals.

As described above, the IT environment seems to have some favorable factors, although the overall situation is still not clear. In fact, on the hardware market, the volume of shipments for the 1st quarter of FY 2004 increased for the first time in the past 2 years. In response to such positive development, it is expected that the IT environment will head back on a recovery track to some degree in FY 2004.

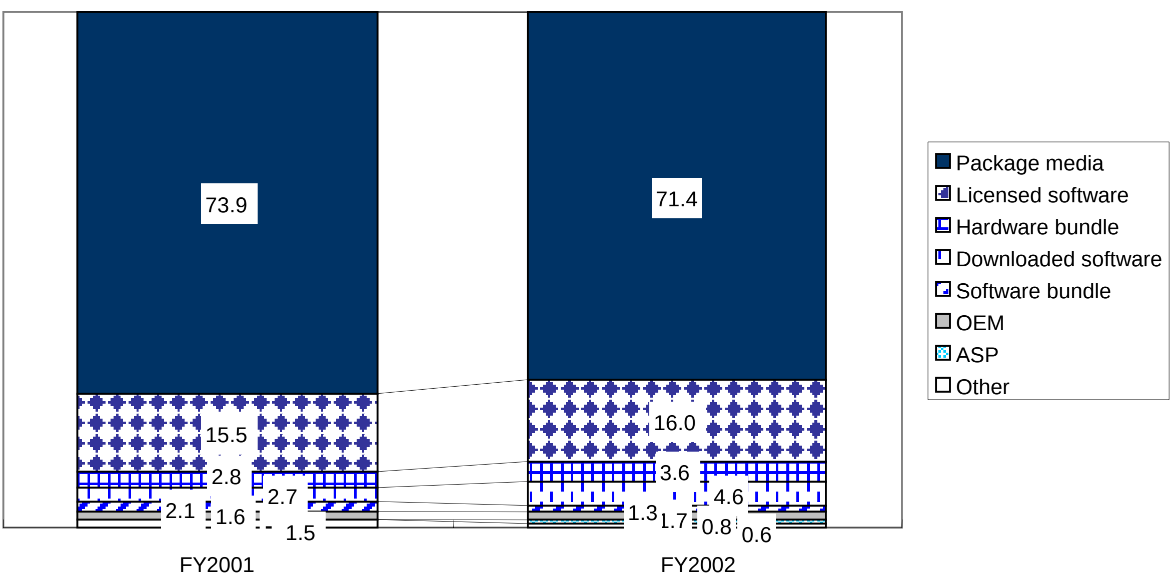
2) Trends in Supply Form

Comparing the percentage of distribution of packaged software sold by supply form, it is evident that the sales for FY2002 did not largely change from those of FY2001. Similar to FY2001, supply in the form of "Packaged Media (FD, DVD and CD-ROM) continues to dominate, accounting for 71.4% in FY 2002.

Over the past few years, the percentage of “licensed software” has been on the rise, from 13% in FY 2000 to 16.0% in FY 2002, while that of the “Hardware bundle” has been decreasing, and is not likely to increase. This must have been influenced by the fall in volume of PC hardware shipments.

On the other hand, “online download/registration from free CD-ROM” has shown a slight increase. It increased from 2.7% in FY2001 to 4.6% in FY 2002. With widespread use of the broadband environment in the future, we expect that the percentage of such a supply form will increase.

Q4. Breakdown of Packaged Software by Supply Format (%)



	FY2001	FY2002
Package media	73.9	71.4
Licensed software	15.5	16.0
Hardware bundle	2.8	3.6
Downloaded software	2.7	4.6
Software bundle	2.1	1.3
OEM	1.6	1.7
ASP	-	0.8
Other	1.5	0.6

3) Changes in Distribution Channels

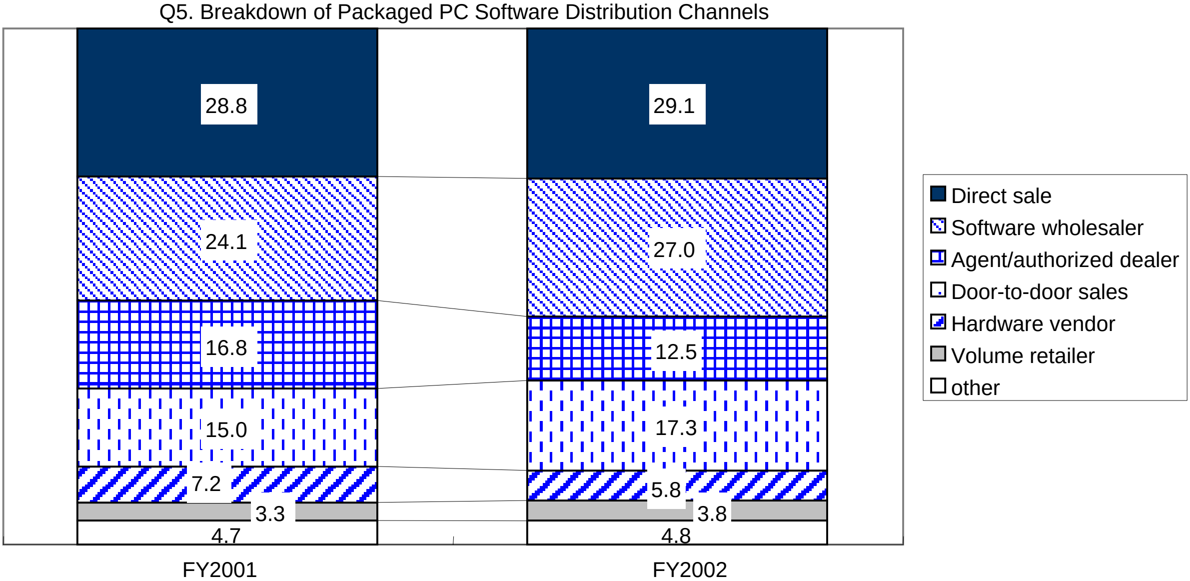
"Direct sales" accounted for 29.1% of the distribution channels, the largest share in FY 2002. This was followed by “software distributors (wholesalers)” at 27.0%, “door-to-door sales” at 17.3%, “agents/dealers” at 12.5%, and “hardware vendors” at 5.8%. We do not see a big change from the year before.

“Direct sales” is a method of selling to users directly through Web sites or by direct mail. Although it only increased slightly this year, sales by Internet will rise with the future penetration of broadband, and thus, direct sales will remain as a major distribution channel.

While “agents/dealers” somewhat dropped from the year before, “software distributors (wholesalers)” that lost part of their share in the past few years showed a slight increase. Supposedly, one of the reasons for the upturn is that the economic slowdown damped corporate intent of bringing in systems, reducing the purchase of business application software or server management software, etc., from “agents/dealers” at the time of system introduction. Given the sophistication of the software, however, “agents/dealers” that can offer human support, such as explanations at the time of purchase, are still

an important channel.

Q5. Breakdown of Packaged PC Software Distribution Channels



	FY2001	FY2002
Direct sale	28.8	29.1
Software wholesaler	24.1	27.0
Agent/authorized dealer	16.8	12.5
Door-to-door sales	15.0	17.3
Hardware vendor	7.2	5.8
Volume retailer	3.3	3.8
Other	4.7	4.8

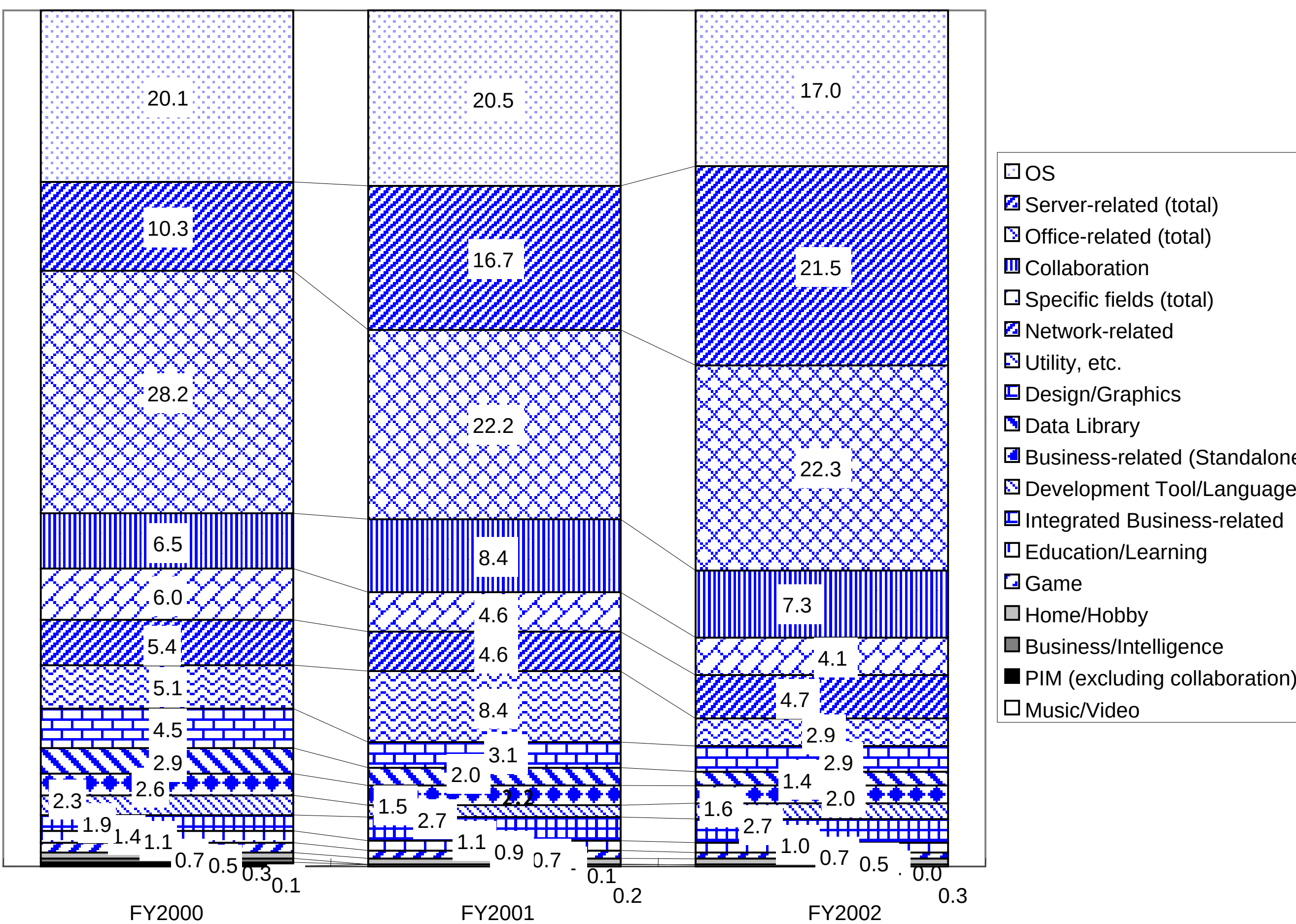
1) Value of Products Shipped and Breakdown by Category

A look at the breakdown by category of the value of products shipped shows that “Integrated Office” in the office-related category recorded the highest percentage at 19.0%, followed by “OS/Network OS” software at 17.0%. As with the year before, these two categories show a higher ratio than all the other listed categories. Both “OS/Network OS” and “Integrated Office” are pre-installed in most computers distributed on the market.

Focusing on “OS/Network OS” and “Integrated Office”, their ranks were reversed from that of FY 2001. For reference sake, in FY 2000 they were in the same order as this year, which means “Integrated Office” has recovered this year. In terms of the value of shipments, “OS/Network OS” was down 84.5% for the year, while “Integrated Office” was up 104.1% for the year, a positive turn from last year.

Although “OS/Network” saw sluggish growth this time, the fact that it still occupies a central position in the software market remains unchanged and the category will attain large proportions in the software market in the future as well.

Q6. Breakdown of Value of Packaged Software Shipped Domestically



*In FY2000, “Music/Video” was separated from ”Home/Hobby” and “Security Management” from “Operation & Management”.
For other items, refer to “III. Questionnaire.”

In addition, compared to last year, there was a growth in server-related software. A look at the overall composition ratio reveals that “Security Management” reached a high percentage. For businesses or autonomous communities, possible damage from computer viruses represents a matter of life or death, and thus they have attached more importance to anti-virus measures. Diversifying viruses have resulted in a variety of anti-virus software programs, and the market will further expand. Among other server-related software, “Operation & Management”, “Database Server”, and “EAI” also increased since last year, although their ratios are not high on the whole.

Among categories other than server-related software, “Specific Industry Related” software, “Music/Video”, etc. also showed a high ratio. Future expansion of “Specific Industry Related” software is expected as the volume of software shipments for the government and other public offices and autonomous communities increases along with progress of the e-Japan strategy of the national government or electronic government in its approach towards autonomous communities. Also, as broadbandization expands, “Music/Video” is expected to grow in the future.

Q6. Value and Breakdown of Products Shipped by Category (value expressed in million yen)

						Actual Figures FY2002		
		FY1998 (Actual)	FY1999 (Actual)	FY2000 (Actual)	FY2001 (Actual)	Value of Domestic Shipment	% Change Over	Compared to the previous year
OS/Network OS		115,100	123,387	146,732	145,910	**123,293**	**17.0%**	**84.5%**
Server related (Total)	Integrated Server	2,164	2,333	2,690	2,635	**2,779**	**0.4%**	**105.5%**
	Operation & Management	23,991	35,003	8,033	14,285	**19,742**	**2.7%**	**138.2%**
	Security Management			36,596	63,431	**93,766**	**12.9%**	**147.8%**
	Database Server	15,000	18,030	16,479	16,829	**19,455**	**2.7%**	**115.6%**
	DWH Server, ETL Tool	2,050	3,499	3,184	3,817	**2,382**	**0.3%**	**62.4%**
	Web Server, Application Server	1,800	5,508	8,279	17,060	**17,060**	**2.4%**	**100.0%**
	EAI (Enterprise Application Integration) Tool	100	198	219	351	**530**	**0.1%**	**150.8%**
		45,105	64,571	75,480	118,409	**155,714**	**21.5%**	**131.5%**
Integrated Business Application		12,000	15,134	13,908	19,287	**19,444**	**2.7%**	**100.8%**
Office-related (Total)	Integrated Office	6,441	142,975	177,607	132,767	**138,149**	**19.0%**	**104.1%**
	Spreadsheet/Creation of graphs	30,691	5,125	6,969	5,022	**4,651**	**0.6%**	**92.6%**
	Word processing	60,168	13,778	13,255	12,561	**10,423**	**1.4%**	**83.0%**
	Database	22,173	3,792	6,183	5,383	**5,547**	**0.8%**	**103.1%**
	Presentation	24,895	1,568	1,543	2,145	**2,860**	**0.4%**	**133.3%**
		144,368	167,239	205,557	157,878	**161,629**	**22.3%**	**102.4%**
Collaboration		35,618	40,675	47,555	59,893	**52,854**	**7.3%**	**88.2%**
Development Tool/Language		19,068	17,352	16,462	10,837	**11,814**	**1.6%**	**109.0%**
Business Application (Standalone)		17,535	19,806	18,595	15,753	**14,620**	**2.0%**	**92.8%**
Specific Field (Total)	Specialized Application	9,717	11,789	12,893	11,927	**12,918**	**1.8%**	**108.3%**
	CAD/CAM/CAE/AEC/GIS	34,186	35,998	29,770	20,526	**16,304**	**2.2%**	**79.4%**
	Technical Calculation/AI	1,424	1,268	1,178	310	**325**	**0.0%**	**104.8%**
		45,327	49,055	43,841	32,764	**29,548**	**4.1%**	**90.2%**
Network (Total)	Communication	38,611	39,731	39,532	19,343	**18,932**	**2.6%**	**97.9%**
	Internet Tool				13,221	**15,364**	**2.1%**	**-**
		38,611	39,731	39,532	32,565	**34,296**	**4.7%**	**105.3%**
Design/Graphics		24,191	27,626	32,941	21,828	**21,076**	**2.9%**	**96.6%**
Data Library		24,057	22,976	21,301	13,930	**10,105**	**1.4%**	**72.5%**
Education/Learning		11,508	11,784	9,970	7,850	**7,190**	**1.0%**	**91.6%**
Game		12,165	12,846	7,892	6,569	**5,364**	**0.7%**	**81.7%**
Home/Hobby		6,007	6,187	5,128	4,717	**3,379**	**0.5%**	**71.6%**
Music/Video				570	1,763	**1,936**	**0.3%**	**109.9%**
Security Tools (for individual users)						**51,794**	**7.1%**	**-**
Utility, etc		46,654	47,337	39,343	60,127	**21,164**	**2.9%**	**35.2%**
Total		597,313	665,705	724,808	710,081	725,221	100.0%	102.1%

* As of FY2001, we separated “Internet Tool” from “Communications” and merged “Business Intelligence” into “DWH” Server, ETL Tool.” “PIM (excluding collaboration)” was integrated into “Utilities” as of FY 2002.

Q6. Number of Licenses Shipped and Breakdown
(Unit for licenses shipped: Thousand)

		FY2001 (Actual)	Actual Figures FY2002	
			No. of Licenses	Percentage
OS/Network OS		12,141	**10,259**	**20.3%**
Server related (Total)	Integrated Server	782	**1,026**	**2.0%**
	Operation & Management	138	**191**	**0.4%**
	Security Management	369	**546**	**1.1%**
	Database Server	117	**135**	**0.3%**
	DWH Server, ETL Tool	4	**4**	**0.0%**
	Web Server, Application Server	63	**63**	**0.1%**
	EAI (Enterprise Application Integration) Tool	0.2	**0.3**	**0.0%**
		13,614	**12,223**	**24.1%**
Integrated Business Application		3	**3**	**0.0%**
Office-related (Total)	Integrated Office	9,305	**9,428**	**18.6%**
	Spreadsheet/Creation of graphs	541	**501**	**1.0%**
	Word processing	525	**436**	**0.9%**
	Database	255	**263**	**0.5%**
	Presentation	157	**253**	**0.5%**
		10,786	**10,882**	**21.5%**
Collaboration		9,840	**8,683**	**17.2%**
Development Tool/Language		667	**705**	**1.4%**
Business Application (Standalone)		450	**307**	**0.6%**
Specific Field (Total)	Specialized Application	96	**104**	**0.2%**
	CAD/CAM/CAE/AEC/GIS	86	**68**	**0.1%**
	Technical Calculation/AI	4	**4**	**0.0%**
		186	**176**	**0.3%**
Network (Total)	Communication	1,666	**1,631**	**3.2%**
	Internet Tool	4,471	**5,196**	**10.3%**
		6,137	**6,827**	**13.5%**
Design/Graphics		1,613	**1,636**	**3.2%**
Data Library		986	**2,670**	**5.3%**
Education/Learning		546	**500**	**1.0%**
Game		1,277	**1,043**	**2.1%**
Home/Hobby		1,118	**446**	**0.9%**
Music/Video		64	**71**	**0.1%**
Security Tools (for individual users)			**3,953**	**7.8%**
Utility, etc		4,076	**503**	**1.0%**
Total		51,360	50,627	100.0%

* As of FY2001, we separated “Internet Tool” from “Communications” and merged “Business Intelligence” into “DWH” Server, ETL Tool.”
As of FY 2002, “PIM (excluding collaboration” was integrated into “Utilities”.

As for the distribution pattern by category, in accordance with the previous year, ‘Door-to-Door” is high for “OS/Network OS” or “Server-related” and “Office-related” categories.

In particular, the share for “DWH Server, ETL Tool” in the “Server-related” category exceeded 70%. Meanwhile, in the same category, ‘Software Distributor’ in “Operation & Management” and ‘EAI’ in “Hardware Dealer/VAR/SI” also reached a percentage of more than 50%.

In “Integrated Office” of the “Office-related” category, “Direct Sales” and “Door-to-Door Sales” represent the highest ratio, while in other categories “Software Distributor” is high.

Taken as a whole, “Software Distributor” tends to hold the highest percentage as an intended destination in a number of categories.

Q8. Intended Destinations of Packaged Software by Category (%)

		No. of Corresponding Companies	Direct Sales	Door-to-Door	Software Distributor	Hardware Dealer/ VAR/SI	Volume Retailer	Hardware Manufacturer	Others
OS/Network OS		10	10.0	60.0	40.0	20.0	0.0	30.0	0.0
Server related (Total)	Integrated Server	9	22.2	33.3	44.4	22.2	0.0	22.2	0.0
	Operation & Management	20	25.0	40.0	55.0	45.0	0.0	30.0	15.0
	Security Management	19	21.1	42.1	42.1	36.8	5.3	31.6	5.3
	Database Server	16	37.5	37.5	31.3	37.5	0.0	31.3	0.0
	DWH Server, ETL Tool	4	0.0	75.0	50.0	50.0	0.0	0.0	0.0
	Web Server, Application Server	18	44.4	38.9	38.9	33.3	0.0	22.2	0.0
	EAI (Enterprise Application Integration) Tool	7	42.9	28.6	42.9	57.1	0.0	14.3	0.0
Integrated Business Application		10	30.0	60.0	40.0	50.0	10.0	30.0	10.0
Office-related (Total)	Integrated Office	11	45.5	45.5	27.3	18.2	0.0	9.1	9.1
	Spreadsheet/Creation of graphs	9	44.4	44.4	44.4	33.3	11.1	11.1	0.0
	Word processing	11	45.5	27.3	54.5	27.3	9.1	18.2	0.0
	Database	13	30.8	38.5	61.5	30.8	0.0	15.4	7.7
	Presentation	5	40.0	20.0	60.0	20.0	0.0	20.0	0.0
Collaboration		16	37.5	37.5	50.0	31.3	0.0	12.5	6.3
Development Tool/Language		27	55.6	18.5	63.0	25.9	7.4	25.9	0.0
Business Application (Standalone)		58	63.8	44.8	43.1	50.0	15.5	17.2	3.4
Specific Field (Total)	Specialized Application	41	58.5	46.3	22.0	43.9	4.9	17.1	9.8
	CAD/CAM/CAE/AEC/GIS	17	35.3	64.7	52.9	17.6	11.8	5.9	23.5
	Technical Calculation/AI	9	44.4	44.4	55.6	11.1	11.1	11.1	0.0
Network (Total)	Communication	8	12.5	50.0	37.5	37.5	0.0	37.5	0.0
	Internet Tool	12	50.0	8.3	58.3	41.7	16.7	25.0	8.3
Design/Graphics		11	63.6	18.2	90.9	36.4	9.1	18.2	0.0
Data Library		9	33.3	11.1	55.6	11.1	22.2	11.1	11.1
Education/Learning		19	47.4	15.8	78.9	21.1	15.8	15.8	15.8
Game		14	57.1	7.1	85.7	0.0	21.4	7.1	7.1
Home/Hobby		17	58.8	5.9	88.2	5.9	17.6	11.8	5.9
Music/Video		9	22.2	11.1	55.6	11.1	11.1	33.3	0.0
Security Tools (for individual users)		6	66.7	33.3	100.0	0.0	16.7	0.0	0.0
Utility, etc		34	67.6	11.8	76.5	26.5	14.7	26.5	5.9

* As of FY2001, we separated “Internet Tool” from “Communications” and merged “Business Intelligence” into “DWH” Server, ETL Tool.” “PIM (excluding collaboration)” was integrated into “Utilities” as of FY 2002.

* For other items, refer to “III. Questionnaire.”

2) Trends by Category

(1) OS/Network OS

The “OS/Network OS” market for FY 2002 was 123.3 billion yen and the percentage for distribution was 17.0%, which is down 84.5% for the year.

The primary reason for the downturn was a decrease in PC hardware shipments. As a higher percentage of “OS” is shipped as a bundle product of PC, its sale is considerably influenced by the increase/decrease of PC shipments.

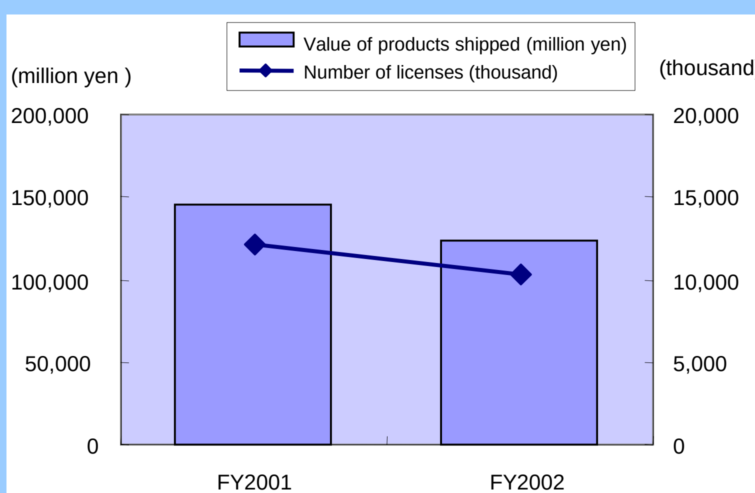
In addition, in FY 2002 there emerged no new products such as “Windows2000” or “WindowsXP”, and thus there was no impact on the market, which is one of the reasons for its sluggishness.

Although Windows-related products have maintained a monopoly in the OS market over the long term, signs of change can be seen. A larger number of businesses or autonomous bodies have adopted Linux as “OS” for servers. However, since most commercially available software is Windows-based, it is unlikely that individuals or corporate end users will make a quick switch and thus the current situation will not change drastically over a short period of time.

In the future, introduction of an innovative new product or recovery of the hardware market will be the key to expansion of the “OS” market.

OS/Network OS

	FY2001	FY2002
Value of products shipped (million yen)	145,910	123,293
Number of licenses (thousand)	12,141	10,259



* Data represents values for the fiscal year beginning in April and ending the following March

* Includes pre-installed, OEM shipment and products shipped through distribution channels

(2) Server-related(Integrated Server and Operation & Management)

The Integrated Server software market in FY 2002 was 2.8 billion yen, or 0.4% of the overall software market. Also, the "Operation & Management" software market was 19.7 billion yen, or 2.7% share of the market. "Integrated Server" was slightly up 105.5% for the year, and "Operation & Management" was 138.2%, which represents a high growth rate. Thus, overall, this is the favorable field.

Against this backdrop, there is Web computing development. Now that the broadband environment has been put in place, businesses use Internet-based information systems, and thus, needs for "Integrated Server" or "Operation and Management" have been on the rise. Compared with the days when many companies processed information mainly with host computers, the areas to be covered by "Operation & Management", such as system or network management, tend to expand because now, in most cases, servers are distributed on a department or business application basis.

Enterprises prefer to allocate more personnel to those areas that can directly yield profit rather than to operation and management tasks. Thus, software that supports operation and management of the system has become essential to many companies.

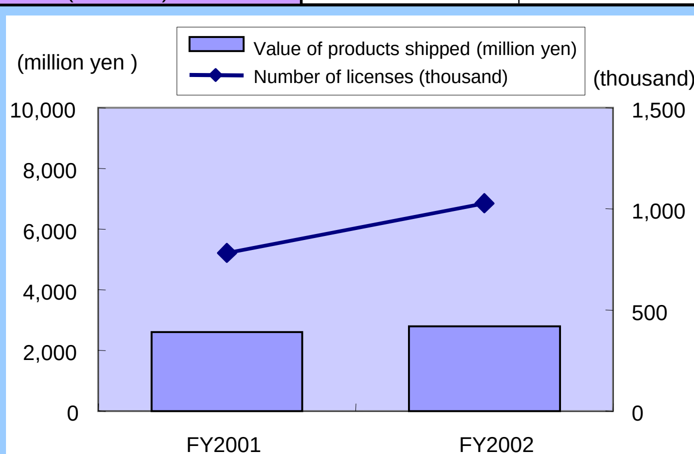
At the same time, the management keeps a strict eye on the investment effectiveness of computerization. To keep track of the effects of such investments, it would be useful to utilize "Operation & Management" software. As the demand for investment effectiveness increases, naturally, needs for more effective utilization of IT systems will also intensify. Thus, the role of operation management software that manages or evaluates operation of the entire system and that provides a measurement index for improvement is important.

Recently, IT asset management that manages system configuration on a network has been introduced and is coming into wide use. With this in mind, we can expect the fields of "Integrated Server" and "Operation & Management" to considerably expand in the future as well.

Market Trend by Category

Server Integration

	FY2001	FY2002
Value of products shipped (million yen)	2,635	2,779
Number of licenses (thousand)	782	1,026

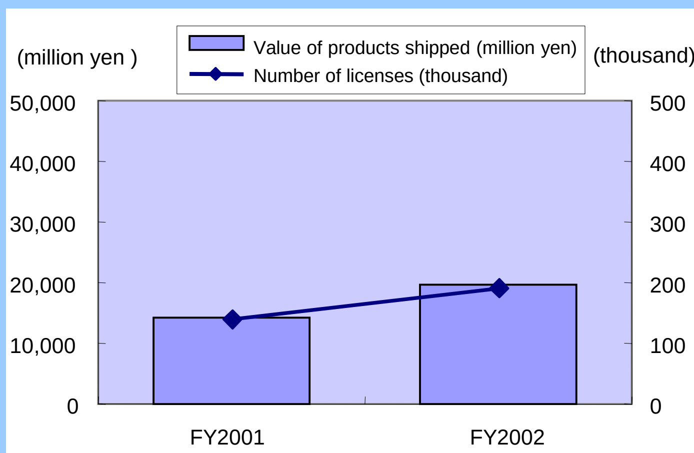


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels

Market Trend by Category

Operation & Management

	FY2001	FY2002
Value of products shipped (million yen)	14,285	19,742
Number of licenses (thousand)	138	191



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(3) Security Management

The Security Management software market in FY 2002 was 93.8 billion yen and constituted 12.9% of the overall software market. It is the largest share of the server-related software market, and it showed a dramatic increase of 147.8% over the previous year. "Security Management" can be divided into "Authentication", "Encryption", "Firewall", "IDS", and "Virus Detection/Destruction Software (for Servers, Licensed Packages for Businesses)".

Among these, we should watch for the advances of IDS (Intrusion Detection System) in the future. IDS, sometimes referred to as intrusion-sensing software, is the software that monitors communication lines, detects any intrusion to a network, and reports to an administrator. It analyzes packets transmitted over the network, detects packets suspected of illegal access, and then reports to an administrator. Compared with Firewall, the IDS system is equipped with more aggressive functions. It is characterized by the fact that it monitors a security area or public area and when it receives DoS attack (Denial of Service attack), it automatically defends itself or intercepts intrusions, by countercharging attacking packets or rewriting information in a workstation.

In the past several years, virus damages suffered by enterprises or autonomous communities, etc. have been increasing. In particular, viruses that cause ill-use of the security hall or that abuse e-mail functions are on a rampage and the Internet is always in danger. Moreover, recent viruses have become much more infectious, and thus, in some cases, updating of a virus definition file is not enough to stop damages.

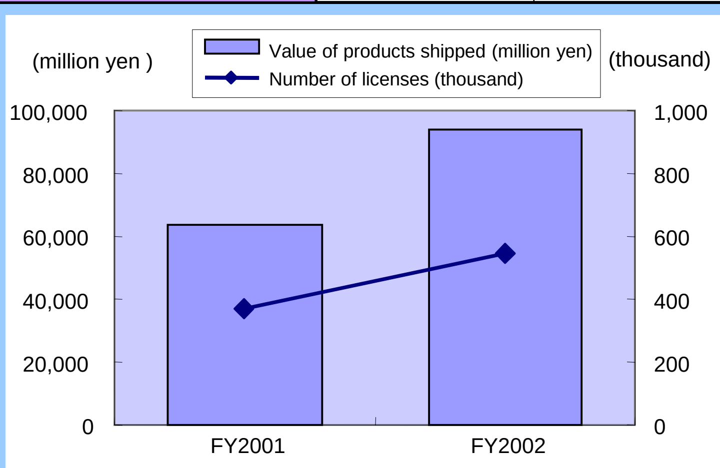
The fact that viruses become more malicious as "Security Management" software becomes more sophisticated is surely a vicious cycle. As demonstrated by recent permeation of security policies in enterprises, security measures have now become a critical issue for enterprises as well.

As described above, the market for "Security Management" software will also expand considerably in the future.

Market Trend by Category

Security Management

	FY2001	FY2002
Value of products shipped (million yen)	63,431	93,766
Number of licenses (thousand)	369	546



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through

(4) Server-related(DB Server, DWH Server, ETL Tool)

In the server-related software market for FY 2002, “Database Server” reached 19.5 billion yen, or 2.7% of the overall software market, and “DWH Server, ETL Tool” reached 2.3 billion yen, or 0.3% of the overall software market. While “Database Server” was up 116% from the year before, “DWH Server, ETL Tool” was down 62.4% from the previous year.

While the switch to client server systems and Web computing is making progress, the number of systems that link database servers separately from business applications is increasing.

Businesses have a strong need for the introduction of database servers, and are more often introducing dedicated database servers for supporting the customer information service in e-business or construction of CRM, independently of business applications. In this context, the “Database Server” software market will also expand in the future.

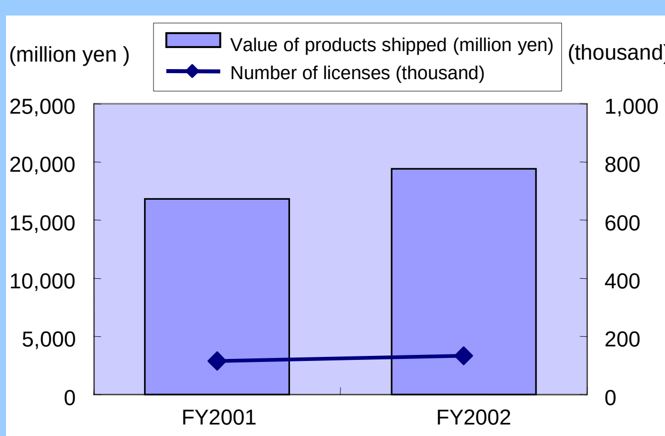
Many enterprises have now realized that information is an important management resource. It is therefore a challenge for them to find a way of analyzing/utilizing accumulated data and then transforming it into competitive advantages. In such cases, solutions such as “Data Warehouse”, “Data Mining”, or “OLAP” (Online Analytical Processing) will bring about a substantial result.

However, because software in this area is sophisticated and requires high expertise for its manipulation or utilization, naturally, the number of companies that introduce the software is limited. Consequently, the market has been sluggish, which remains a problem to be solved.

Market Trend by Category

Database server

	FY2001	FY2002
Value of products shipped (million yen)	16,829	19,455
Number of licenses (thousand)	117	135

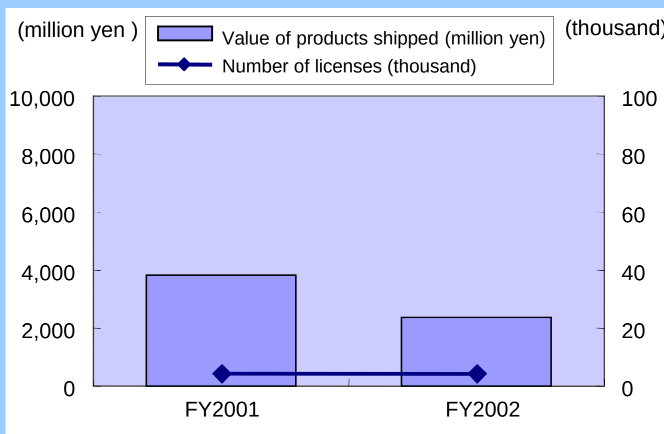


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

DWH Server , ETL Tool

	FY2001	FY2002
Value of products shipped (million yen)	3,817	2,382
Number of licenses (thousand)	4	4



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(5) Server-related(Web Server, Application Server)

The Web Server, Application Server market in FY 2002 was 17 billion yen, or 2.4% of the overall software market. The year to year growth was flat, namely 100%.

In Web systems, “Web Server” refers to software capable of transmitting Web information. It plays the role of accumulating information such as HTML documents or images, and transmitting the information by way of a network such as the Internet, in response to a request from such client software as a Web browser. Initially, the “Web Server” was only equipped with the capability of sending out files prepared in advance. However, after undergoing enhancement, it is now capable of processing a requested program, generating a dynamic page for sending results to a client, and processing a transaction linked with a database.

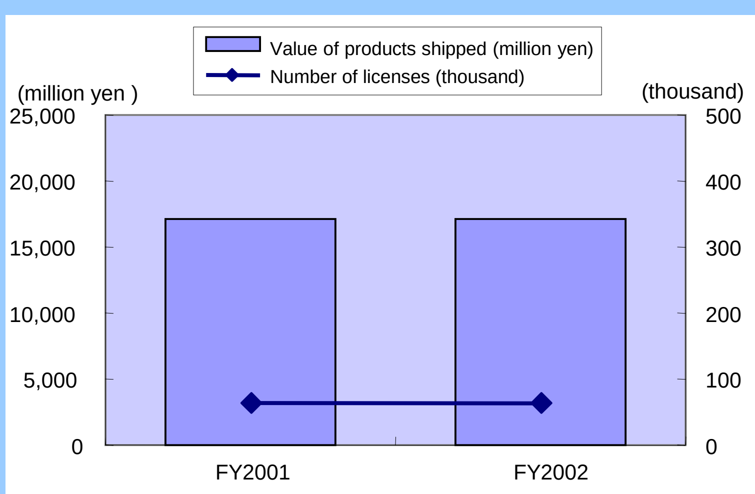
“Application Server” is middleware that is capable of receiving a request from a user and working as a bridge for the processing of a business system. In other words, it is positioned midway between a front office, such as the Web browser, that is used by users and the back office such as DBMS. It also supports the construction of a business system comprised of 3 hierarchies. It has the capabilities of connecting to a program execution environment or database, or of managing transactions that link more than one process, and it also controls the handling of jobs. Nowadays, Web application servers that use the Web browser as a client have become mainstream, and thus the term ‘application server’ usually means a Web application server.

“Web Server”, or “Application Server”, serves as a base in the construction of a Web computing system, and its market is also expected to grow in the future.

Market Trend by Category

Web Application Server

	FY2001	FY2002
Value of products shipped (million yen)	17,060	17,060
Number of licenses (thousand)	63	63



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(6) EAI(Enterprise Application Integration)Tool

The “EAI (Enterprise Application Integration)” market in FY 2002 was 500 million yen, or 0.1% of the overall software market. Despite its small market share, this represents a 151% year to year increase. Therefore, this is an area expected to grow in the future.

“EAI” refers to linking up various applications or packaged software scattered in an enterprise by utilizing Distributed Object Technology. The basic idea of “EAI” is to reduce as much new development work as possible through effective use of existing systems, thereby implementing a company-wide integrated system with the lowest cost possible.

EAI supports integration of distributed systems, linking of data, and sharing of businesses. It is aimed at achieving higher business efficiency or cutting maintenance costs. “EAI” is positioned as middleware, and comprised of the “adapter” capability of interfacing between respective systems, the “format conversion” capability of converting data formats or protocol systems, and/or the “routing” capability of collecting and delivering data from/to other systems, depending on its content.

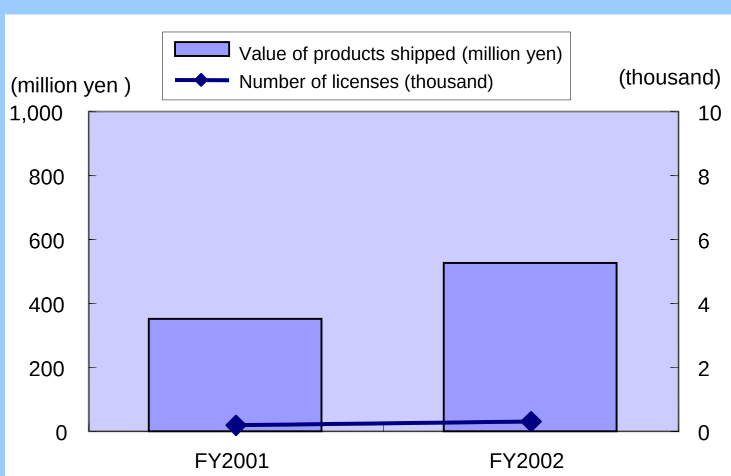
In the majority of enterprises thus far, systems have been built by the operation or department, plant or business office. Consequently, as a whole, systems are often implemented inconsistently as they use different OS or applications. Thus, looking at the company-wide picture, they often suffer from the following problems: smooth communication of information or data is inhibited, increased maintenance costs, and/or the addition of a new system is difficult because the connection becomes increasingly complicated as the system proliferates.

Hence, needs for EAI will further grow in the future. It is expected to occupy an important position in the creation of not only intra-company but also inter-company information networks such as construction of supply chain management.

Market Trend by Category

EAI Tool

	FY2001	FY2002
Value of products shipped (million yen)	351	530
Number of licenses (thousand)	0.2	0.3



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey

(7) Integrated Business Application

The Integrated Business Application software market in FY 2002 was 19.4 billion yen, or 2.7% of the overall software market. This was up 100.8% for the year, meaning that the market was almost flat. The category includes applications such as “ERP”, “CRM/SFA”, “SCM”, “CTI”, “Call Center”, etc.

Even now when corporate investments in computerization are stagnating, “Integrated Business Application” software market maintains stable shipments. Despite the conditions, many enterprises are indeed tackling organizational restructuring or reviewing business processes in spite of the continuing severe business environment. Those enterprises have now become aware that “ERP” is a means of restructuring their operations to their best (good job handling process). ERP is software that manages basic operation in an integrated manner, and not by the department, in order to utilize corporate management resources and increase business efficiency. Periodic enhancement or version upgrading of ERP is also necessary.

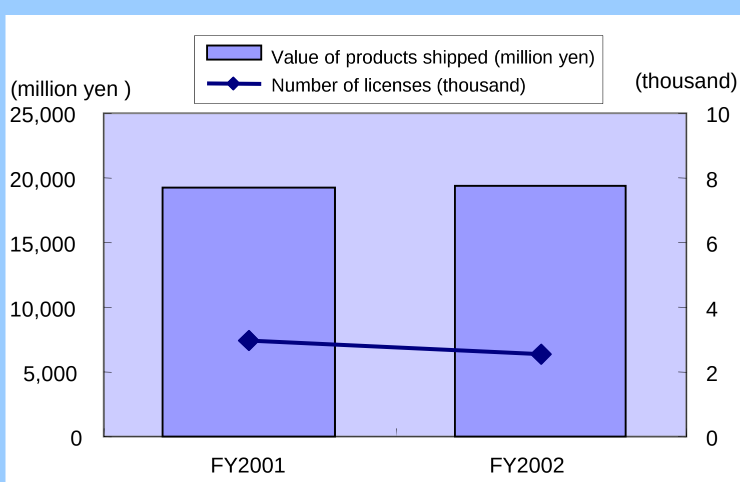
In addition, recently, in order to achieve higher business efficiency, enterprises are required to make IT investments that focus on sharpening their competitive edge. To be specific, it has become important to increase profits by strengthening customer services and improving customers’ satisfaction. Thus, stable growth is anticipated in software markets such as “CRM” which manages customer information and supports increasing repeated orders, “SFA” which supports operating activities, “CTI” which assists handling of calls from customers or ordering/support, and “Call Center”.

To stimulate strategic IT investments, the national government has also been actively involved in the educational campaign for management through the e-Japan strategy and the ITSSP project (IT Solution Square Project), etc. In addition, it is expected that the IT investment promotion tax system set up in FY 2003 will give businesses an incentive to invest in IT.

Market Trend by Category

Integrated Business Application

	FY2001	FY2002
Value of products shipped (million yen)	19,287	19,444
Number of licenses (thousand)	3	3



* Data represents values for the fiscal year beginning in April and ending the following March

* Includes pre-installed, OEM shipment and products shipped through distribution channels

(8) Integrated Office

The Integrated Office software market in FY 2002 was 138.1 billion yen, or 19% of the overall software market. This represents a 104.1% year to year increase. Although its growth rate seems to be slowing down these days, it still commands the highest share of the PC software market.

The "Integrated Office" is composed of "Word Processing", "Spreadsheet/Graph", "Database" and "Presentation" software. The software has now become essential not only for corporate business use but also for individual users. Because, in most cases, they are shipped bundled together with OS hardware, performance of hardware shipments has had an impact on them. A look at the breakdown of "Integrated Office" shows that "Word Processing" bundled with hardware and "Spreadsheet/Graph" were respectively down 83.0% and 92.6% since the year before, while "Database" and "Presentation" were respectively up 103% and 133.3% since the previous year, which means that "Database" and "Presentation" have pushed up the entire category of "Integrated Office" software.

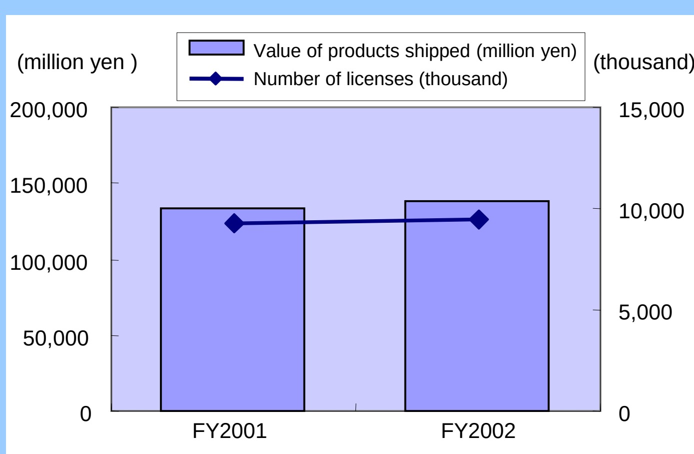
Although users tend to periodically upgrade or replace "Integrated Office" software, the cycle has become extended as is the case with PC hardware. Hence, the key is whether it is possible to bring an attractive product to the market.

As "Integrated Office" software serves as the core of PC, we expect that the market will undergo a stable transition.

Market Trend by Category

Integrated Office

	FY2001	FY2002
Value of products shipped (million yen)	132,767	138,149
Number of licenses (thousand)	9,305	9,428

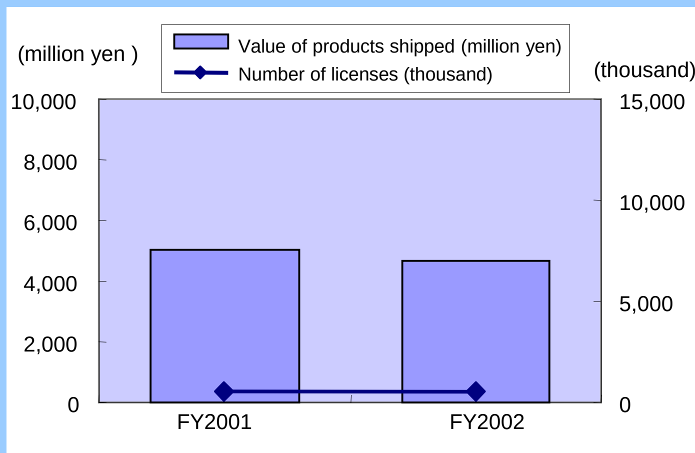


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

Spreadsheet/graph

	FY2001	FY2002
Value of products shipped (million yen)	5,022	4,651
Number of licenses (thousand)	541	501

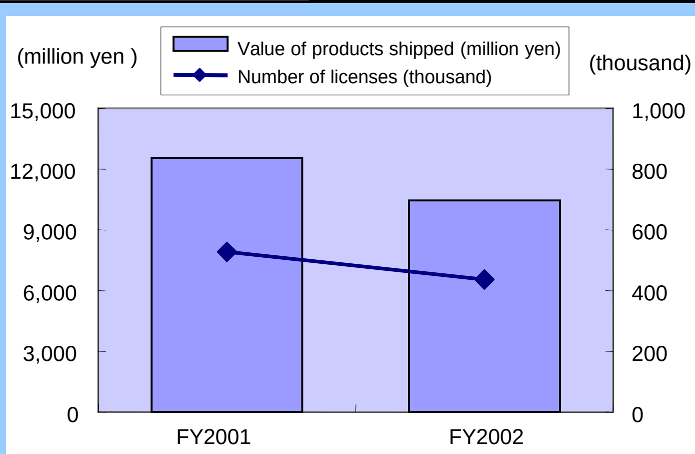


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

Word Processing

	FY2001	FY2002
Value of products shipped (million yen)	12,561	10,423
Number of licenses (thousand)	525	436

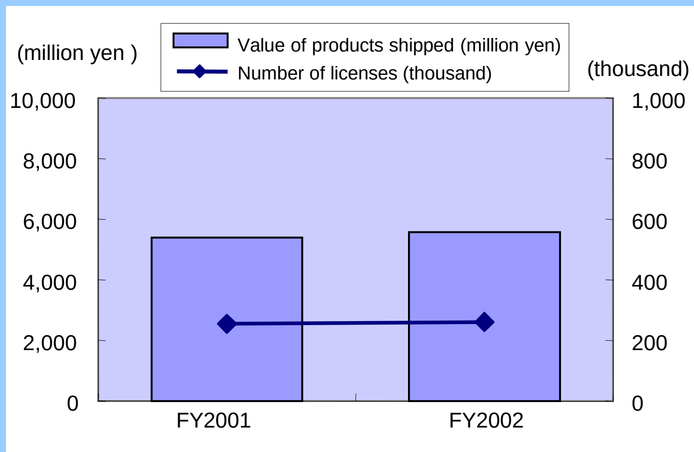


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

Database

	FY2001	FY2002
Value of products shipped (million yen)	5,383	5,547
Number of licenses (thousand)	255	263

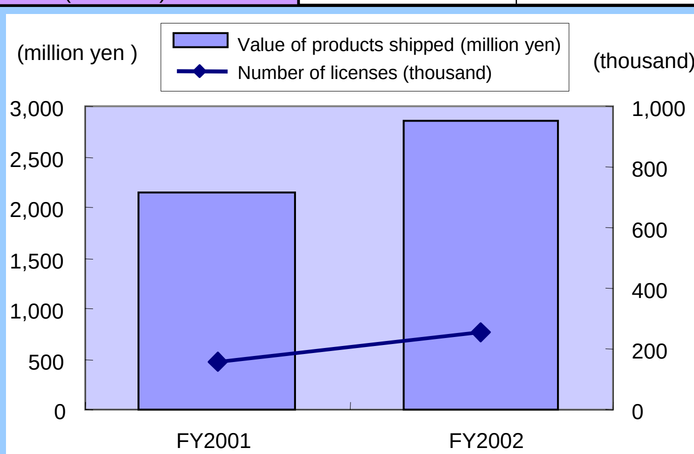


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

Presentation

	FY2001	FY2002
Value of products shipped (million yen)	2,145	2,860
Number of licenses (thousand)	157	253



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels

(9) Collaboration

The collaboration software market in FY 2002 was 52.9 billion yen, or 7.3% of the overall software market, and this was down 88.2% on the year. Although the value of shipments decreased, its market share is still high and the fact that it occupies an important position remains unchanged. The collaboration category includes “e-mail”, “Groupware”, “Work Flow”, “Personal-type Information Management Software”, etc.

Collaboration refers to many people working together in a coordinated manner while using a computer system. In particular, it is an important factor for successful sharing of data or communications with remote areas through the use of networks on the Internet. The concept of “Collaboration” has drawn much attention in corporate management as well as in the IT world. “Collaboration” is now extensively used at different levels, from worldwide projects to collaborative work within a specific department of a company.

Together with the rapidly expanding broadband environment on the Internet, the concept of “ubiquitous computing” is also attracting attention. This Latin word “ubiquitous” means “being everywhere at the same time”. In other words, it refers to the environment where computers exist in every aspect of life or society and support our daily life by linking together through the Internet network. The concept has further evolved to “mobile computing” which allows processing or sharing of information by utilizing mobile devices when one is away from his/her home or office.

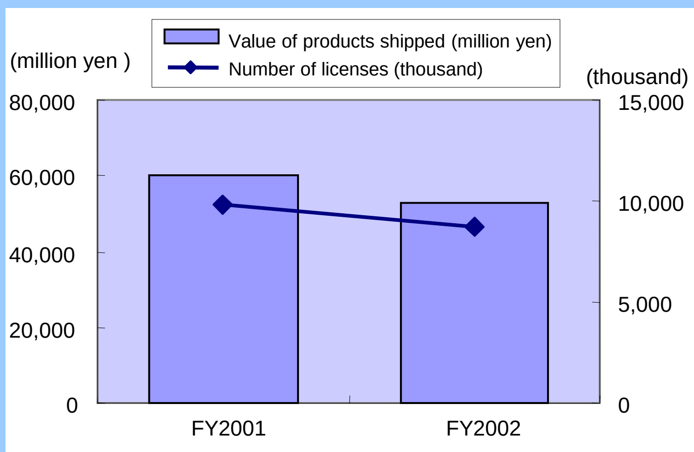
Coupled with the broadband environment, development of portable information terminals such as a notebook-sized personal computer, a PDA, or a mobile phone and “Collaboration” software will form the foundation of the ubiquitous society. In this context, in the future “Collaboration” software will expand its area of coverage in the future from traditional personal computers to such mobile devices a portable phones or PDAs and even to intelligent home appliances.

In addition, characterized by “Groupware” or software that supports sharing of information, “Collaboration” involves a number of services offered in the form of ASP. Incorporation of higher or composite functions has progressed and cost is reduced. Thus, in the future it will also spread to medium and small sized enterprises or owners of personal businesses who work on a freelance base.

Market Trend by Category

Collaboration

	FY2001	FY2002
Value of products shipped (million yen)	59,893	52,854
Number of licenses (thousand)	9,840	8,683



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(10) Collaboration

The “Development Tool/Language” software market in FY 2002 was 11.8 billion yen, or 1.6% of the overall software market, which represents a 109% year to year increase.This category includes “Screen Editor,” “Text Editing” such as debugging and software used for debugging, “Design Tool,” “Bookkeeping Screen Design Tool,” “CASE,” “Authoring,” “Non-procedural language such as C++ or BASIC, etc. ,” “4GL,” “AI languages and library,” “Java language,” “www-Specific Development Tool,” “Bookkeeping Tool,” and “Software Parts. ”

“Editor” is the tool for editing text or image, etc., in the computer and is divided into a text editor, a graphic editor, and a sound editor. “Screen Editor” enables a text, etc. to be edited in a two-dimensional space by using the full screen of a console or a specific window.

“CASE” stands for Computer Aided Software Engineering. It is distributed as a tool for supporting system development and offered integrated together with the development methodology of a software vendor. The software is mainly designed to increase the efficiency of system development undertaken by a computer maker, software house, etc.. “CASE” is divided into ‘upstream CASE’ that supports upstream processes of software development such as analysis/designing, and ‘downstream CASE’ that supports downstream processes such as system development/testing/maintenance. In addition, a tool that handles upstream to downstream processes in a consistent manner is referred to as integrated CASE. As with the manufacturing style of the Japanese manufacturing industry which has lost cost competitiveness and contributed to increased outsourcing of production to China, for instance, software development also faces the issue of system development at low cost and high quality in China or India. Hence, there is a demand for facilitation of automation of software development and increase of cost competitiveness using “CASE”.

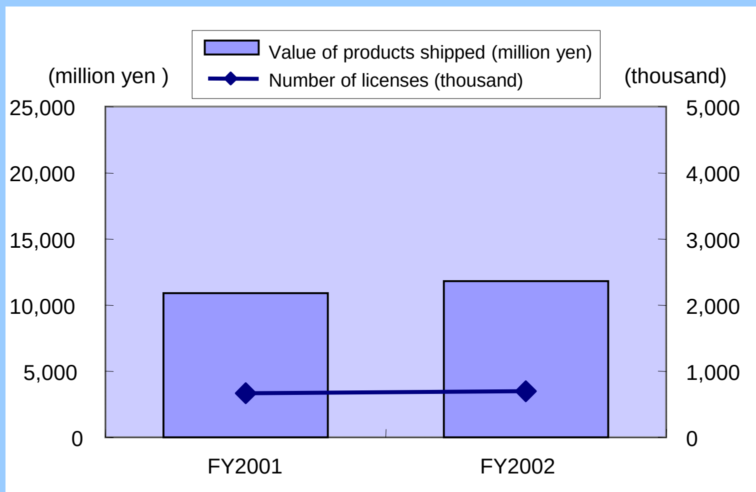
“Authoring” is a tool that assists generation of software by editing data such as characters, images, audio or moving pictures, etc. It has now become widely used in areas from business to education and hobby, because of advanced personal computers. In addition, as the Internet/broadband environment is improved, the needs for “WWW Dedicated Development Tool”, “Java Language”, etc. will further grow in the future.

As for “Development Tool/Language” software, technologies are rapidly advancing, and new techniques or methodology and tools are being created one after another. Therefore, this market will also expand on a certain scale in the future.

Market Trend by Category

Development Tool/Language

	FY2001	FY2002
Value of products shipped (million yen)	10,837	11,814
Number of licenses (thousand)	667	705



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(11) Business Application(Standalone)

The “Business Application (Standalone)” software market in FY 2002 was 14.6 billion yen, or 2.0% of the overall software market. The figure represents a slight decrease from last year (92.8%).

The “Business Application (Standalone)” does not include “Integrated Business Application” software, so-called “ERP”, but refers to standalone type software. The category includes “Finance/Accounting Management”, “Tax Management”, “Personnel Affairs/Wage Management”, “Sales/Purchasing/Inventory/Client Management”, “Business Operation Related”, “Business Translation Support”, “Electronic Forms”, etc.

The “Business Application (Standalone)” serves as a starting step for medium and small sized enterprises to introduce IT for the first time. Introduction of “Integrated Business” that centers on ERP would be difficult without any staff capable of promoting the introduction of and operating/managing of the system. Thus, in many cases, medium and small sized enterprises first introduce “Finance/Accounting Management” or “”Sales Management” independently.

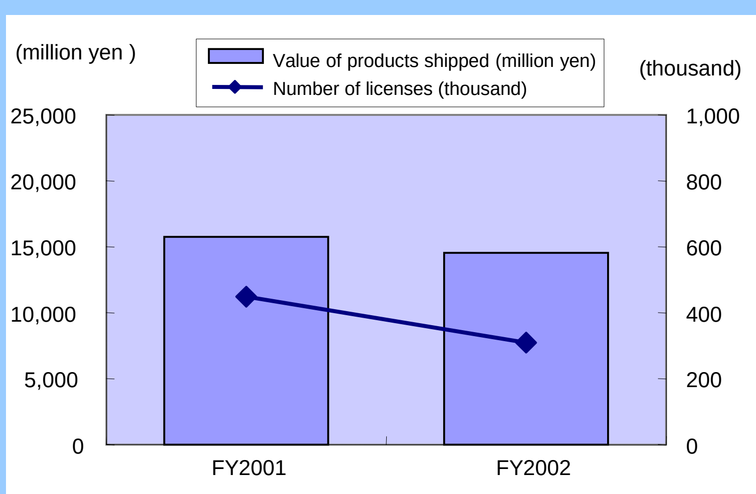
Although “Business Application (Standalone)” was on the decline in the past few years, software that is user-friendly and has support systems or supportive tools in place is experiencing good sales. For medium and small sized enterprises, low costs and easy introduction are prerequisites because they need to improve infrastructures such as PC and LAN environments before bringing in the business application.

Since investment in computerization of small businesses, the main target of this software category, has been stagnant due to recessions, “Business Application (Standalone)” has also experienced sluggish growth. However, since more small businesses have delayed computerization than large enterprises, there is a large potential market.

Market Trend by Category

Business Application (Standalone)

	FY2001	FY2002
Value of products shipped (million yen)	15,753	14,620
Number of licenses (thousand)	450	307



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(12) Specified Business Application

The “Specified Business Application” software market in FY 2002 was 12.9 billion yen, or 1.8% of the overall software market, which represents a 108.3% year to year increase. The “Specified Business Application” can be divided into “Software for Public Use”, “Software for Retailers/Wholesalers”, “Software for Service Industry”, and “Software for Manufacturers”.

When an enterprise plans to build a backbone information system based on packaged software, it should decide whether to select “Integrated Business” or “Business Application (Standalone)” software that enables general handling irrespective of what industry segment or line of business the enterprise belongs to, or “Specified Business Application” which enables handling that is unique to a specific industry segment or line of business.

In many Japanese businesses, there exists an industry specific order placement/order entry system (i.e.,form regulations or data formats), returned articles, or kickbacks. Thus, there are many cases that cannot be handled by general-purpose software only. Normally, although it would be desirable to review such old commercial customs and proceed with management reforms along with the introduction of IT as a springboard, in reality it is difficult to do so, due to relations with clients or customers. Thus, there is a strong need for “Specified Business Application” software that can carefully cope with commercial customs or job handling procedures specific to an industry segment or line of business.

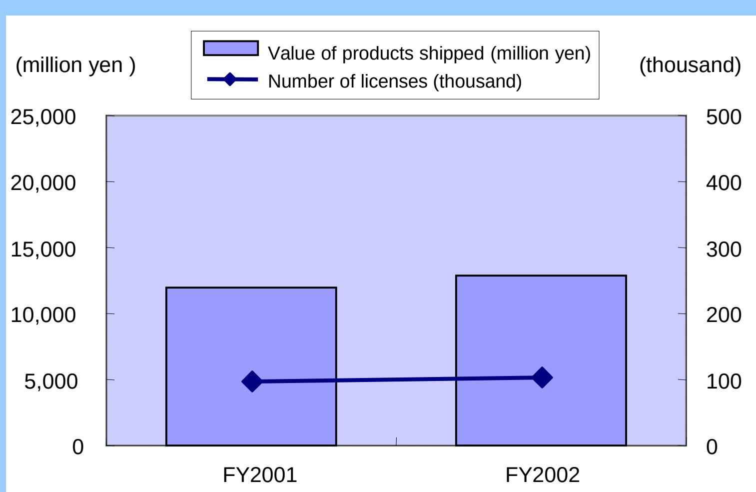
Since the national government is now pushing forward the e-Japan strategy and local public bodies to take a more active approach to an electronic government, shipments of the software for public offices or municipalities are expected to increase. Because schools or hospitals that tended to be behind in the introduction of IT are now considered a large prospective market, the scope of the “Software for Public Use” will expand.

Since the “Specified Business Application” occupies an important position as the software responsible for building the backbone ofs information system of Japanese businesses in the future, the market is expected to undergo a stable transition.

Market Trend by Category

Specified Business Application

	FY2001	FY2002
Value of products shipped (million yen)	11,927	12,918
Number of licenses (thousand)	96	104



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through

(13) CAD/CAM/CAE/AEC/GIS

The “CAD/CAM/CAE/AEC/GIS” software market in FY 2002 was 16.3 billion yen, or 2.2% of the overall software market. This was down 79.4% since the previous year. The value of shipments and share have been decreasing for the last few years. The “CAD/CAM/CAE/AEC/GIS” category is mainly composed of CAD groupings such as “General CAD,” “Machinery CAD,” “Electric/Electronic CAD” and “Architecture/Civil Engineering CAD.”

“CAD” stands for Computer Aided Design that literally means “design with the help of computers”. The software is important because it is indispensable to the creation or designing of industrial commodities. The software that automatically generates a three-dimensional image by entering height into two-dimensional drawing information is called three-dimensional CAD. In addition, “CAM” stands for Computer Aided Manufacturing, meaning “production with the help of computers”. CAM is software that automates control of machine tools based on three-dimensional feature data. “CAE” stands for Computer Aided Engineering, meaning “analysis with the help of computers”. It is the software that supports analysis of status or capability of production lines.

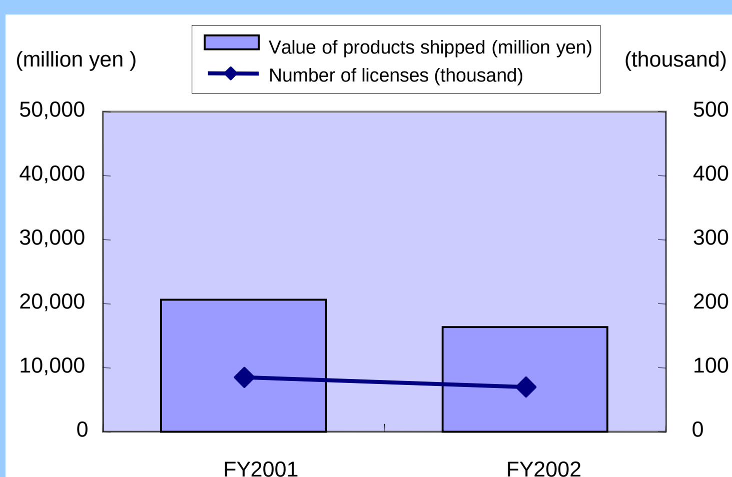
This market has had a tendency to shrink because a cycle of introduction of CAD related software has almost been completed, and the construction and manufacturing industry are reluctant to make investments. Also, the “CAD” software market is not expected to grow substantially in the future.

“GIS” is a new area that is anticipated for the future which draws some attention. “GIS” stands for Geographic Information System, and is the software that completely handles digitalized map data as well as data related to positions of statistic data or attribute information, etc. Introduction to various industry segments such as the electronic autonomous body or area marketing and the property market, etc. is expected.

Market Trend by Category

CAD/CAM/CAE/AEC/GIS

	FY2001	FY2002
Value of products shipped (million yen)	20,526	16,304
Number of licenses (thousand)	86	68



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels

(14) Technical Calculation/AI

The “Technical Calculation/AI” software market in FY 2002 was 300 million yen. Although it was up 104.9% from the previous year, the share did not even reach 0.1%.

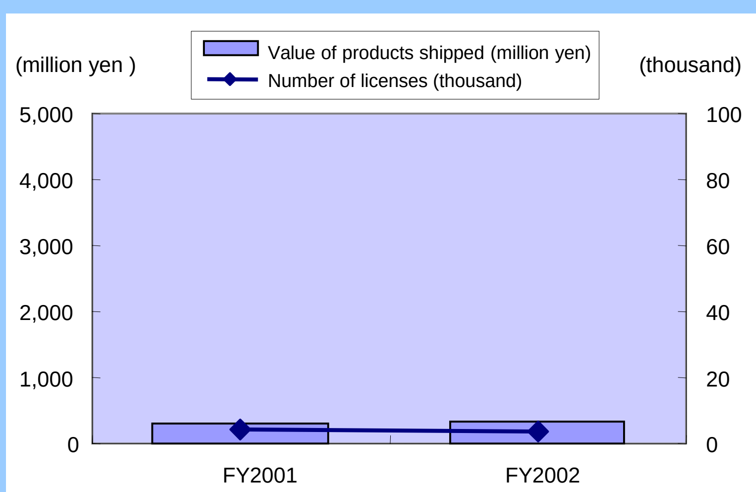
This category includes software for “Calculation for Scientific/Chemical Technologies,” ”Specialized Technical Calculation Such as Fluid Calculation,” “Statistics/Analysis,” “Image Processing,” “Expert System Design Tools,” and “Expert Systems”. AI stands for Artificial Intelligence, and refers to the replacement of human intellectual endeavor by computers. The software makes the computer understand natural language used by humans, execute logical reasoning, and learn from experiences. Specifically, there are “Expert System” that solves a problem based on an expert’s knowledge or experience in a specific area, a machine translation system that assists automation of translation, an image understanding system that understands what an image means, and a speech understanding system that understands the meaning of a speech.

This category is highly specialized and typically more suited to super computers or UNIX machines than PC. The market is limited for PC software, and thus it is believed that rapid market growth is difficult.

Market Trend by Category

Technical Calculation/AI

	FY2001	FY2002
Value of products shipped (million yen)	310	325
Number of licenses (thousand)	4	4



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(15) Communications

The “Communications” software market in FY 2002 was 18.9 billion yen, or 2.6% of the overall software market. It was down 97.9%, a slight decrease from last year. This category includes software for “PC Communications,” “Fax Communications,” “Communications Emulator,” “Remote Access,” “Communications Procedures,” “Image/Audio Processing,” and “Autopilot Tool. ”

For the past few years, infrastructure of the communication environment has changed drastically. Now even individual users make active use of the Internet, and can exchange information on a daily basis. Previously, it was common that data communications required users to introduce specialized software. For instance, they had to purchase specialized software for conducting “personal computer communications.” In contrast, main communications are now enabled by software bundled with PC hardware.

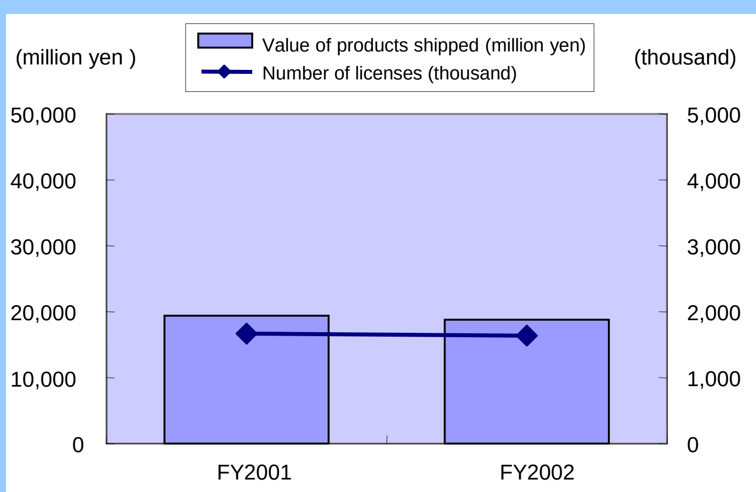
A certain demand for the communications software, “Communications Emulator” or “Remote Access” in particular, can be anticipated in the building of a corporate communications network. It is believed, however, that “Communications” software as a whole will lose its importance.

Market Trend by Category

Communications

* “Communications” are divided into “Communications” and “Internet Tool” and summarized Since FY2002

	FY2001	FY2002
Value of products shipped (million yen)	19,343	18,932
Number of licenses (thousand)	1,666	1,631



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(16) Internet Tool

The “Internet Tool” software market in FY 2002 was 15.3 billion yen, or 2.1% of the overall software market. This represents a 116.2% year to year increase as the market expanded since the previous year.

This category includes software for “Home Page Creation,” “Internet Search,” “Web Page Management,” “Internet Fast Usage Tool,” “Download Tool,” “Internet Phone,” and “Internet Translation Support Tool. ”

Internet use has a large part in the motivation for individual users’ purchase of PCs. In particular, improvement of the broadband environment such as ADSL or CATV, optic fibers, etc. in recent years has made a great contribution. Even in general households, use of Internet is a daily sight.

According to White Paper on Telecommunications of FY 2003, the population which uses the Internet in Japan was 69.42 million at the end of FY 2002. This was up 124.1% from the year before and Internet users increased by 13.49 million in a single year. The proportion of ownership to the population was 54.5%, exceeding the majority for the first time, which means that now one out of two people in Japan are using the Internet. The proportion of ownership of Internet to the number of households rapidly increased from 60.5% at the end of FY 2001 to 81.4% at the end of FY 2002, and Internet is used in more than 80% of the total households. In addition, the proportion of ownership to the number of enterprises reached 98.4%, which means that the greater majority of businesses are using the internet.

With this rapidly growing ownership rate as the backdrop, more often than ever, individual users as well as businesses are creating Web sites by means of “homepage creation” software or are purchasing software that supports a comfortable operating environment on the Internet. In addition, with the popularization of the Internet, forms of telephone communication may be altered in the future. The “Internet Phone” software that enables conversation by way of Internet is expected to spread.

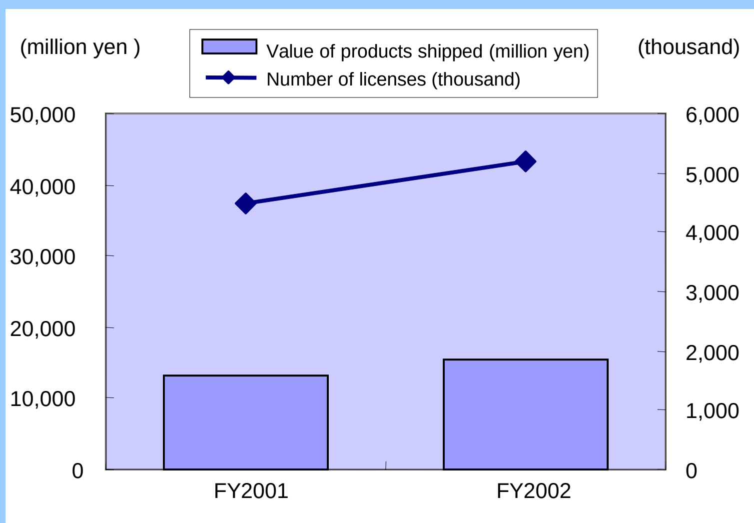
Taking the above into consideration, we expect that the “Internet Tool” software market will grow considerably in the future.

Market Trend by Category

Internet Tool

* “Communications” are divided into “Communications” and “Internet Tool” and summarized since FY2002

	FY2001	FY2002
Value of products shipped (million yen)	13,221	15,364
Number of licenses (thousand)	4,471	5,196



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(17) Design/graphics

The “Design/Graphics” software market in FY 2002 was 21.0 billion yen, or 2.9% of the overall software market. This was down 96.6%, a slight decrease from the previous year.

This category includes “Drawing,” “Painting,” “Photo Image Editing,” “Animation,” and “Graphic Software” such as ‘2D’, ‘3D’, etc.. The “Design/Graphics” software covers a wide area, and is often considered a part of “Computer Graphics”. In general, it refers to the software that generates or processes images by using a computer. “Design/Graphics” is divided into a two-dimensional and three-dimensional world, in terms of expression space, and into various genres such as still images or animation, etc. in terms of image format. In terms of process, it can also be categorized into modeling, which models the shape of an object, mapping, which gives an object texture or attributes, creation of animation, etc.

The “Design/Graphics” software is intended for both professional and individual users. The software is indispensable for professional areas, such film or game production, and there is a demand for software with more advanced functions.

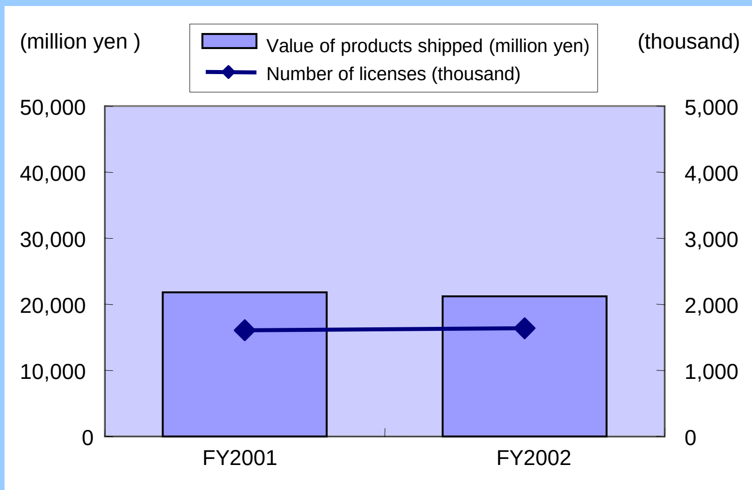
Nevertheless, overall, it is the individual users that are most likely to increase in the future. First, this is because the prevalence of peripherals that process images, such as a digital cameras or scanners, have enabled them to incorporate the software with ease. Secondly, the progress in the broadband environment of the Internet has facilitated exchange of large-volume image data. PC hardware that places emphasis on high performance of image processing has become popular among individual users.

Thus, as a number of factors contribute to the expansion of the “Design/Graphics” software market, the market is expected to undergo a stable transition.

Market Trend by Category

Design/graphics

	FY2001	FY2002
Value of products shipped (million yen)	21,828	21,076
Number of licenses (thousand)	1,613	1,636



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(18) Data Library

The “Data Library” software market for FY 2002 was 10.1 billion yen, or 1.4% of the overall software market. It was down 72.5%, a drastic decrease from the year before. The figures of the past few years show that the “Data/Library” software has tended to decline.

This category includes “Clip Art,” “Font,” “Form,” “Boilerplate,” “Dictionary,” “Encyclopedia,” “Zip Code,” “Map software,” “Photographs/Images,” “Sound Data Library,” and “Timetable” software.

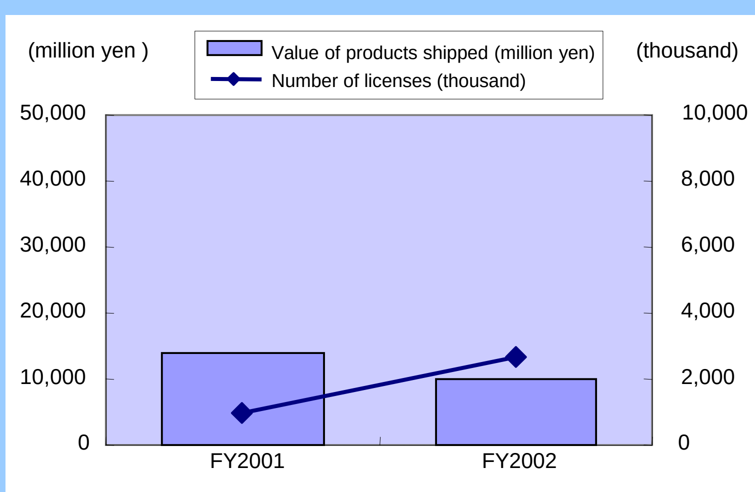
The “Data Library” software is offered in a variety of forms, and expansion of the market has become difficult year after year. For instance, for software such as “Dictionary”, “Map”, “Timetable”, etc., sufficient volume of information for personal use is included in sites for major search engines and is available for free. In addition, rather than being sold independently as “Data Library”, the software is more often contained in application, distributed with books as CD-ROM attachments, or offered as freeware without cost. Therefore, individual users purchase it on fewer occasions.

Thus, in order to expand distribution of the software, it seems necessary to improve/strengthen information that is useful for business. Also, the time has now come to explore a new method of distribution, such as ASP or charging only for what is actually used, etc. For this reason, this software market is not expected to grow in the future.

Market Trend by Category

Data Library

	FY2001	FY2002
Value of products shipped (million yen)	13,930	10,105
Number of licenses (thousand)	986	2,670



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(19) Education/Learning

The “Education/Learning” software market for FY 2002 was 7.2 billion yen, or 1.0% of the overall software market. It was down 91.6% since the year before, and declined for 2 years in a row.

This category includes “Education/Learning Software for Schools/Cram Schools,” “Education/Training Software for Businesses/Career Colleges,” “Software Application Descriptive Software,” “Computer Based Training,” “Edutainment Software,” and “e-Learning Contents”. According to the data published by the Advanced Learning Infrastructure Consortium (ALIC) every year, the size of the e-learning market for FY 2004 is estimated at 169.96 billion yen, and is forecast to quadruple in the next 7 years. Although growth in the e-leaning market is anticipated in the “Education/Learning” category, it is not necessarily connected with increased distribution of the software.

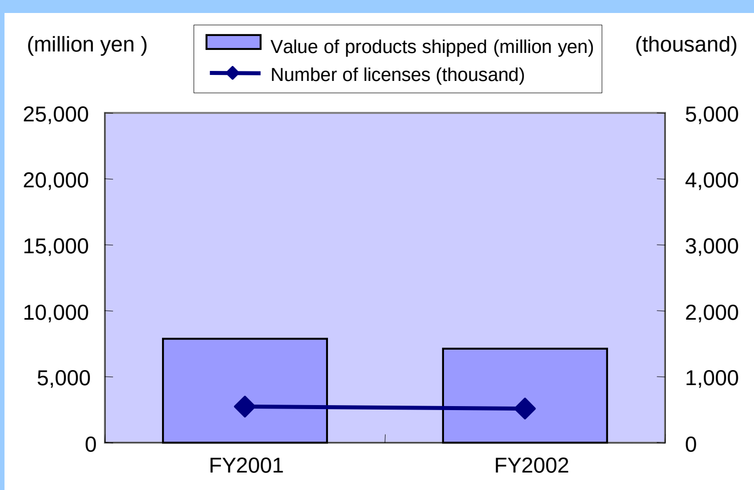
The reasons that the software market may be experiencing sluggish growth are as follows: There are still a number of learning software or contents that are being replaced based on materials of existing correspondence courses or textbooks of day schools, and there are only a few attractive products being offered with multimedia functions such as interaction (bi-directionality) - quality of e-learning - or images, animation, audio, etc..

With improvement of Internet/broadband environment advancing, training through e-learning tends to increase not only in businesses but also in schools. Therefore, there is a very large prospective market of “Education/Learning” software. In order to realize expansion of the market, it is expected that more software products created from the standpoint of students, that are capable of clearly resorting to educational results and merits, will be made available.

Market Trend by Category

Education/Learning

	FY2001	FY2002
Value of products shipped (million yen)	7,850	7,190
Number of licenses (thousand)	546	500



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* FY2001 data is also based on the JPSA survey.

(20) Game, Home, Hobby, Music, Video

The “Game” software market for FY 2002 was 5.4 billion yen, or 0.7% of the overall software market. It was down 81.7%, a drastic decline from the previous year, and the downward trend has continued for the past few years.

This is because a fewer number of users purchase PC for the purpose of “Game”, and ‘game maniacs’ tend to select specialized game equipment. In order to expand the market, development is anticipated of “Game“ software that has functions or qualities not available in specialized game equipment. Under the present conditions, however, it is almost impossible to excel sophisticated, inexpensive game machines. Therefore, for the time being, although the entire game market is growing, expansion of the “Game” software market on a large scale is not expected.

The “Home & Hobby” software market in FY 2002 was 3.4 billion yen, or 0.5% of the overall software market, which represents a drastic year to year decrease of 71.6%. This category includes software for “Cooking”, “Diet”, “Household Bookkeeping”, “Postcard”, “Sticker”, “Photo Album”, “Horse Race Prediction”, “Hobby Software such as Horoscope”, “Edutainment”, “Education/ Learning for Household Use”, “Home Banking”, “Typing”, and “Cellular Phone Memory & Ring Tone Editing”.

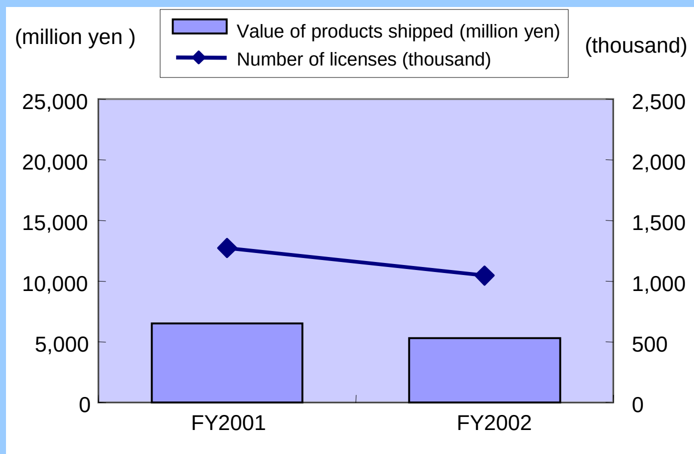
Although creation of postcards and hobbies ranked high on the list of purchasing incentives of PC for individual users before the Internet had become prevalent, they have now slid down the ranks. Thus, although dramatic growth of the market is not anticipated, the software market will undergo a transition as a stable market, accompanying the increased volume of shipments of PC that bundles basic software of “Home & Hobby” category and the widening base of PC users to housewives, elderly, children, etc.

The “Music & Video” software market for FY 2002 was 1.9 billion, or 0.3% of the overall software market. It was up 109.8% over the previous year. The category includes “MP3”, “DVD.Video.CD Replay Software”, and “Video Animation Editing/Creation”. The “Music & Video” category is now the category receiving the most attention. As demonstrated by Napster which restarted using a pay delivery service after having lost its case in the copyright infringement suit and stopped its activity, many problems related to business models or copyrights on the Internet have not yet been cleared. However, the value of shipments has been on the rise year by year, and thus once a business model of network delivery is established, the market may dramatically grow in the near future.

Market Trend by Category

Game

	FY2001	FY2002
Value of products shipped (million yen)	6,569	5,364
Number of licenses (thousand)	1,277	1,043

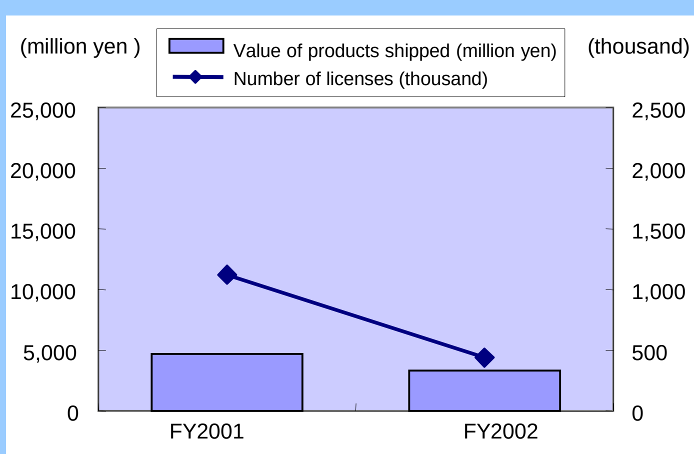


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

Market Trend by Category

Home/Hobby

	FY2001	FY2002
Value of products shipped (million yen)	4,717	3,379
Number of licenses (thousand)	1,118	446

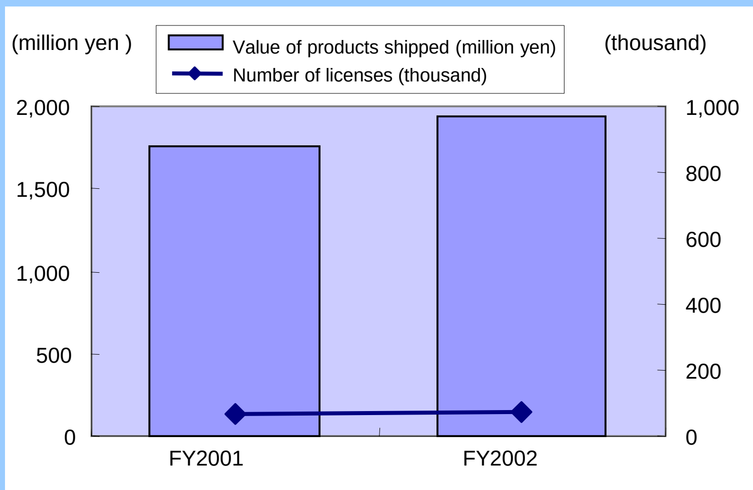


* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA

Market Trend by Category

Music/Video

	FY2001	FY2002
Value of products shipped (million yen)	1,763	1,936
Number of licenses (thousand)	64	71



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(21) Security Tool (for Individuals)

Starting with the survey of FY 2002, “Security Tool (for Individuals)” was separated from the category “Utility”. The “Security Tool (for Individuals)” software market of FY 2002 was 51.8 billion yen, or 7.1% of the overall software market. It was up 149.8% from the year before, and the market dramatically expanded.

The category includes “Virus Detection/Destruction Software (for Individuals)” and “Personal Firewall”. In particular, the “Virus Detection/Destruction Software (for Individuals)” market has been growing exponentially.

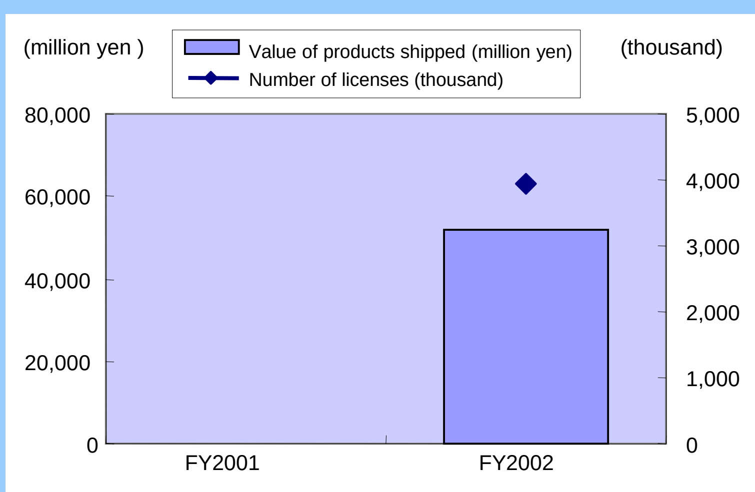
Since the main objective of PC use has now shifted to use of Internet or e-mail, the “Virus Detection/Destruction Software (for Individuals)” is essential for individual users. Recently, it is more often shipped and bundled with the PC hardware. In addition, even after “Virus Detection/Destruction Software (for Individuals)” is introduced, in most cases, a renewal contract of a virus definition file will be concluded or software will be upgraded to a higher version, as necessary.

The market of “Personal Firewall” software that not only provides a countermeasure against computer virus but also covers Internet security as a whole, such as prevention of illegal intrusion by hackers or protection of privacy will also grow dramatically in the future.

Market Trend by Category

Security Tool (for Individuals)

	FY2001	FY2002
Value of products shipped (million yen)		51,794
Number of licenses (thousand)		3,953



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

(22) Utility

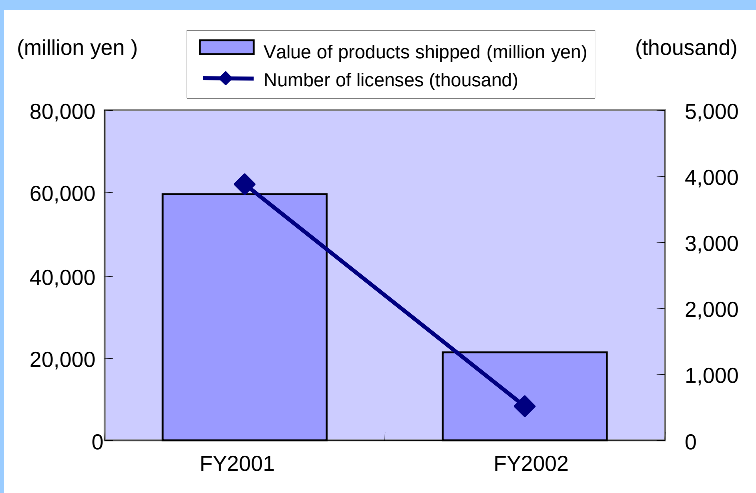
The “Utility” software market of FY 2002 was 21.2 billion yen, or 3.0% of the overall software market. The category includes software for “File Converter”, “Print Utility”, “Screen Saver”, “Hardware/Memory Management”, “Disk Management”, “Voice Recognition”, “OCR”, “Document Management Software”, etc. Note that it also includes any software that is not applicable to the categories described so far.

The “Utility” software is designed for a specific purpose, and is positioned as software that complements functions of the OS or other application software, such as “File Compression”, “Memory Management”, “Screen Saver, etc., and enhances functions, performance, or operability. Thus, although the software does not take center stage in the PC software market, it will also be a stable market in the future.

Market Trend by Category

Utility,etc

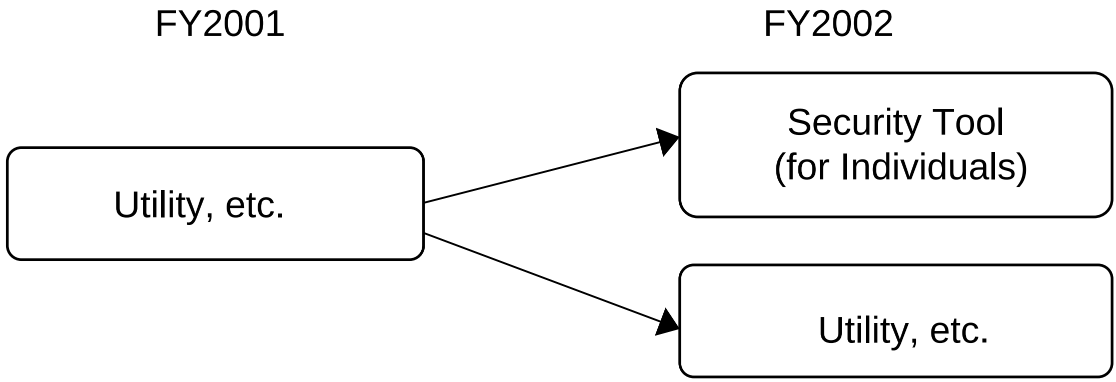
	FY2001	FY2002
Value of products shipped (million yen)	59,491	21,164
Number of licenses (thousand)	3,874	503



* Data represents values for the fiscal year beginning in April and ending the following March
* Includes pre-installed, OEM shipment and products shipped through distribution channels
* FY2001 data is also based on the JPSA survey.

* The last year’s figure included the figures for “Security Tool (for Individuals)” on the previous page.

III. Questionnaire


FY2001
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Security Tool
(for Individuals)
Utility, etc.
Utility, etc.

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