

# **PATENTING BY ORGANIZATIONS**

**2002**

March 2003

U.S. PATENT AND TRADEMARK OFFICE

OFFICE OF ELECTRONIC INFORMATION PRODUCTS / PTMD

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*A PTMD TAF DATABASE REPORT*

# Patenting By Organizations 2002

This report, prepared from the Technology Assessment and Forecast (TAF) database, profiles utility patents (i.e., patents for inventions) granted during **calendar year 2002**.

## **Part A1**

**Part A1** presents patent counts by origin, U.S. and foreign. Individual counts are also presented for each of the top 36 patenting countries. Patent origin is determined by the residence of the first-named inventor listed on a patent.

Patent ownership-category information reflects ownership at the time of patent grant and does not reflect subsequent changes in ownership. If more than one assignee (the entity, if any, to which the patent rights have been legally assigned) was declared at the time of grant, a patent is attributed to the ownership-category of the first-named assignee. The "U.S. Corporations" and "Foreign Corporations" ownership categories count predominantly corporate patents; however, patents assigned to other organizations such as small businesses, nonprofit organizations, universities, etc. are also included in these categories. While the "U.S. Government" ownership category includes only patents granted to the Federal Government, no such distinction is made for the "Foreign Government" ownership category. The "U.S. Individuals" and "Foreign Individuals" ownership categories include patents for which ownership was assigned to an individual as well as patents for which no assignment of ownership was made at the time of grant.

## **Part B1**

**Part B1** presents organizations that received 40 or more patents during the calendar year. Organizations are ranked based on their patent count. **Please note that because of the large number of organizations appearing in this report, the minimum number of annual patents received by a listed organization was raised from 30, for the 1997 report, to 40 for the 1998 and subsequent reports.**

Patent information included in **Part B1** of the report reflects patent ownership at the time of patent grant and does not reflect changes in ownership which may occur after the patent grant. Where more than one assignee exists, patents are attributed to the first-named assignee.

**No attempt has been made to combine data based on subsidiary relationships. However, where possible, spelling variations and variations based on name changes (e.g., ESSO to EXXON) have been merged into a single name. While every effort is made to accurately identify all organizational entities and report data by a single organizational name, achievement of a totally clean record is not expected, particularly in view of the many variations which may occur in corporate identifications.**

### **Please note:**

**Counts for "Hewlett-Packard Company", "Compaq Computer Corporation, Inc.", and "Compaq Information Technologies Group, L.P." were combined together under a single identifier for the report, "Preliminary List of Top Patenting Organizations, Calendar Year 2002." In this report, however, counts for these organizational identifiers are listed separately.**

## **Patenting By The U.S. Government 2002**

In **calendar year 2002**, the U.S. Government received 907 utility patents.

Under the section labeled "Ownership", **Part A1** presents the total count of patents received by the U.S. Government during the calendar year. Each of the separate U.S. Government agencies receiving 40 or more patents during the calendar year is listed in **Part B1**.

**Part A1**

**(Patent Grants as Distributed By Year of Patent Grant)**

Number of Utility Patents Granted By Year Of Patent Grant  
 (Granted: Jan 01, 2002 - Dec 31, 2002)

| <u>COUNTRY OF ORIGIN</u> | <u>2002</u> | <u>Total</u> |
|--------------------------|-------------|--------------|
| Total                    | 167334      | 167334       |
| U.S. Origin              | 86977       | 86977        |
| Foreign Origin           | 80357       | 80357        |
| JAPAN                    | 34859       | 34859        |
| GERMANY                  | 11277       | 11277        |
| TAIWAN                   | 5431        | 5431         |
| FRANCE                   | 4035        | 4035         |
| UNITED KINGDOM           | 3838        | 3838         |
| SOUTH KOREA              | 3786        | 3786         |
| CANADA                   | 3431        | 3431         |
| ITALY                    | 1750        | 1750         |
| SWEDEN                   | 1675        | 1675         |
| NETHERLANDS              | 1391        | 1391         |
| SWITZERLAND              | 1364        | 1364         |
| ISRAEL                   | 1040        | 1040         |
| AUSTRALIA                | 858         | 858          |
| FINLAND                  | 809         | 809          |
| BELGIUM                  | 722         | 722          |
| AUSTRIA                  | 530         | 530          |
| DENMARK                  | 426         | 426          |
| SINGAPORE                | 410         | 410          |
| SPAIN                    | 303         | 303          |
| CHINA P.REP.             | 289         | 289          |
| INDIA                    | 249         | 249          |
| NORWAY                   | 242         | 242          |
| CHINA,HONG KONG S.A.R    | 233         | 233          |
| RUSSIAN FEDERATION       | 200         | 200          |
| NEW ZEALAND              | 140         | 140          |
| IRELAND                  | 132         | 132          |
| SOUTH AFRICA             | 114         | 114          |
| BRAZIL                   | 96          | 96           |
| MEXICO                   | 94          | 94           |
| MALAYSIA                 | 55          | 55           |
| ARGENTINA                | 54          | 54           |
| HUNGARY                  | 48          | 48           |
| THAILAND                 | 44          | 44           |
| LUXEMBOURG               | 37          | 37           |
| VENEZUELA                | 30          | 30           |
| CZECH REPUBLIC           | 29          | 29           |
| Others ( 68 )            | 336         | 336          |
| Ownership:               |             |              |
| U.S. Corporations        | 74162       | 74162        |
| U.S. Government          | 907         | 907          |
| U.S. Individuals         | 14115       | 14115        |
| Foreign Corporations     | 71663       | 71663        |
| Foreign Government       | 112         | 112          |
| Foreign Individuals      | 6375        | 6375         |

Percent of Utility Patents Granted By Year Of Patent Grant  
 (Granted: Jan 01, 2002 - Dec 31, 2002)

| <u>COUNTRY OF ORIGIN</u> | <u>2002</u> | <u>Total</u> |
|--------------------------|-------------|--------------|
| Total                    | 100         | 100          |
| U.S. Origin              | 52          | 52           |
| Foreign Origin           | 48          | 48           |
| JAPAN                    | 21          | 21           |
| GERMANY                  | 7           | 7            |
| TAIWAN                   | 3           | 3            |
| FRANCE                   | 2           | 2            |
| UNITED KINGDOM           | 2           | 2            |
| SOUTH KOREA              | 2           | 2            |
| CANADA                   | 2           | 2            |
| ITALY                    | 1           | 1            |
| SWEDEN                   | 1           | 1            |
| NETHERLANDS              | 1           | 1            |
| SWITZERLAND              | 1           | 1            |
| ISRAEL                   | 1           | 1            |
| AUSTRALIA                | 1           | 1            |
| FINLAND                  |             | 0            |
| BELGIUM                  |             | 0            |
| AUSTRIA                  |             | 0            |
| DENMARK                  |             | 0            |
| SINGAPORE                |             | 0            |
| SPAIN                    |             | 0            |
| CHINA P.REP.             |             | 0            |
| INDIA                    |             | 0            |
| NORWAY                   |             | 0            |
| CHINA,HONG KONG S.A.R    |             | 0            |
| RUSSIAN FEDERATION       |             | 0            |
| NEW ZEALAND              |             | 0            |
| IRELAND                  |             | 0            |
| SOUTH AFRICA             |             | 0            |
| BRAZIL                   |             | 0            |
| MEXICO                   |             | 0            |
| MALAYSIA                 |             | 0            |
| ARGENTINA                |             | 0            |
| HUNGARY                  |             | 0            |
| THAILAND                 |             | 0            |
| LUXEMBOURG               |             | 0            |
| VENEZUELA                |             | 0            |
| CZECH REPUBLIC           |             | 0            |
| Others ( 68 )            |             | 0            |
| Ownership:               |             |              |
| U.S. Corporations        | 44          | 44           |
| U.S. Government          | 1           | 1            |
| U.S. Individuals         | 8           | 8            |
| Foreign Corporations     | 43          | 43           |
| Foreign Government       |             | 0            |
| Foreign Individuals      | 4           | 4            |

**Part B1**

**(Ranked Listing of Organizations with  
Patent Grants Distributed By Year of Patent Grant)**

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| INTERNATIONAL BUSINESS MACHINES CORPORATION<br>Patents By Year of Grant: | 3288        | 3288         |
| CANON KABUSHIKI KAISHA<br>Patents By Year of Grant:                      | 1893        | 1893         |
| MICRON TECHNOLOGY, INC.<br>Patents By Year of Grant:                     | 1833        | 1833         |
| NEC CORPORATION<br>Patents By Year of Grant:                             | 1821        | 1821         |
| HITACHI, LTD<br>Patents By Year of Grant:                                | 1601        | 1601         |
| MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.<br>Patents By Year of Grant:    | 1544        | 1544         |
| SONY CORPORATION<br>Patents By Year of Grant:                            | 1434        | 1434         |
| GENERAL ELECTRIC COMPANY<br>Patents By Year of Grant:                    | 1416        | 1416         |
| mitsubishi denki kabushiki kaisha<br>Patents By Year of Grant:           | 1373        | 1373         |
| SAMSUNG ELECTRONICS CO., LTD.<br>Patents By Year of Grant:               | 1328        | 1328         |
| FUJITSU LIMITED<br>Patents By Year of Grant:                             | 1211        | 1211         |
| ADVANCED MICRO DEVICES, INC.<br>Patents By Year of Grant:                | 1154        | 1154         |
| TOSHIBA CORPORATION<br>Patents By Year of Grant:                         | 1130        | 1130         |
| INTEL CORPORATION<br>Patents By Year of Grant:                           | 1077        | 1077         |
| HEWLETT-PACKARD COMPANY<br>Patents By Year of Grant:                     | 1061        | 1061         |
| KONINKLIJKE PHILIPS ELECTRONICS N.V.<br>Patents By Year of Grant:        | 842         | 842          |
| TEXAS INSTRUMENTS, INCORPORATED<br>Patents By Year of Grant:             | 717         | 717          |
| MOTOROLA, INC.<br>Patents By Year of Grant:                              | 712         | 712          |
| EASTMAN KODAK COMPANY<br>Patents By Year of Grant:                       | 694         | 694          |
| XEROX CORPORATION<br>Patents By Year of Grant:                           | 693         | 693          |
| FUJI PHOTO FILM CO., LTD<br>Patents By Year of Grant:                    | 687         | 687          |
| ROBERT BOSCH GMBH<br>Patents By Year of Grant:                           | 679         | 679          |



Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| SIEMENS AKTIENGESELLSCHAFT<br>Patents By Year of Grant:                                 | 674         | 674          |
| LUCENT TECHNOLOGIES INC.<br>Patents By Year of Grant:                                   | 662         | 662          |
| HONDA GIKEN KOGYO KABUSHIKI KAISHA (HONDA MOTOR CO., LTD.)<br>Patents By Year of Grant: | 653         | 653          |
| DELPHI TECHNOLOGIES, INC.<br>Patents By Year of Grant:                                  | 640         | 640          |
| SEIKO EPSON CORPORATION<br>Patents By Year of Grant:                                    | 618         | 618          |
| SHARP KABUSHIKI KAISHA (SHARP CORPORATION)<br>Patents By Year of Grant:                 | 534         | 534          |
| 3M INNOVATIVE PROPERTIES COMPANY<br>Patents By Year of Grant:                           | 529         | 529          |
| TELEFONAKTIEBOLAGET LM ERICSSON<br>Patents By Year of Grant:                            | 510         | 510          |
| APPLIED MATERIALS, INC.<br>Patents By Year of Grant:                                    | 503         | 503          |
| SUN MICROSYSTEMS, INC.<br>Patents By Year of Grant:                                     | 502         | 502          |
| MICROSOFT CORPORATION<br>Patents By Year of Grant:                                      | 499         | 499          |
| DENSO CORPORATION<br>Patents By Year of Grant:  | 482         | 482          |
| BASF AKTIENGESELLSCHAFT<br>Patents By Year of Grant:                                    | 473         | 473          |
| INFINEON TECHNOLOGIES AG<br>Patents By Year of Grant:                                   | 451         | 451          |
| TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.<br>Patents By Year of Grant:               | 447         | 447          |
| MURATA MANUFACTURING CO., LTD.<br>Patents By Year of Grant:                             | 444         | 444          |
| PROCTER + GAMBLE COMPANY<br>Patents By Year of Grant:                                   | 433         | 433          |
| UNIVERSITY OF CALIFORNIA, THE REGENTS OF<br>Patents By Year of Grant:                   | 430         | 430          |
| NORTEL NETWORKS CORPORATION<br>Patents By Year of Grant:                                | 413         | 413          |
| BAYER AKTIENGESELLSCHAFT<br>Patents By Year of Grant:                                   | 398         | 398          |
| HON HAI PRECISION IND. CO., LTD.<br>Patents By Year of Grant:                           | 392         | 392          |
| HYUNDAI ELECTRONICS INDUSTRIES CO., LTD.<br>Patents By Year of Grant:                   | 391         | 391          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| FORD GLOBAL TECHNOLOGIES, INC.<br>Patents By Year of Grant:       | 389         | 389          |
| UNITED STATES OF AMERICA, NAVY<br>Patents By Year of Grant:       | 378         | 378          |
| SANYO ELECTRIC CO., LTD.<br>Patents By Year of Grant:             | 367         | 367          |
| AGERE SYSTEMS GUARDIAN CORP.<br>Patents By Year of Grant:         | 350         | 350          |
| HONEYWELL INTERNATIONAL INC.<br>Patents By Year of Grant:         | 342         | 342          |
| LG ELECTRONICS INC.<br>Patents By Year of Grant:                  | 340         | 340          |
| RICOH COMPANY, LTD.<br>Patents By Year of Grant:                  | 326         | 326          |
| OKI ELECTRIC INDUSTRY CO., LTD.<br>Patents By Year of Grant:      | 324         | 324          |
| SEAGATE TECHNOLOGY, LLC<br>Patents By Year of Grant:              | 323         | 323          |
| AGILENT TECHNOLOGIES, INC.<br>Patents By Year of Grant:           | 312         | 312          |
| E. I. DU PONT DE NEMOURS AND COMPANY<br>Patents By Year of Grant: | 312         | 312          |
| YAZAKI CORP.<br>Patents By Year of Grant:                         | 311         | 311          |
| LSI LOGIC CORPORATION<br>Patents By Year of Grant:                | 308         | 308          |
| DAIMLER-CHRYSLER AKTIENGESELLSCHAFT<br>Patents By Year of Grant:  | 304         | 304          |
| TOYOTA JIDOSHA K.K.<br>Patents By Year of Grant:                  | 296         | 296          |
| AT&T CORP.<br>Patents By Year of Grant:                           | 284         | 284          |
| L'OREAL S.A.<br>Patents By Year of Grant:                         | 280         | 280          |
| ALCATEL<br>Patents By Year of Grant:                              | 277         | 277          |
| UNITED MICROELECTRONICS CORPORATION<br>Patents By Year of Grant:  | 277         | 277          |
| STMICROELECTRONICS S.R.L.<br>Patents By Year of Grant:            | 265         | 265          |
| OLYMPUS OPTICAL CO., LTD.<br>Patents By Year of Grant:            | 260         | 260          |
| TDK CORPORATION<br>Patents By Year of Grant:                      | 258         | 258          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| U.S. PHILIPS CORPORATION<br>Patents By Year of Grant:                         | 253         | 253          |
| ERICSSON, INC.<br>Patents By Year of Grant:                                   | 251         | 251          |
| NISSAN MOTOR COMPANY, LIMITED<br>Patents By Year of Grant:                    | 249         | 249          |
| CORNING INCORPORATED<br>Patents By Year of Grant:                             | 247         | 247          |
| KIMBERLY-CLARK WORLDWIDE, INC.<br>Patents By Year of Grant:                   | 247         | 247          |
| ASAHI KOGAKU KOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:              | 246         | 246          |
| CATERPILLAR INC.<br>Patents By Year of Grant:                                 | 246         | 246          |
| SEMICONDUCTOR ENERGY LABORATORY CO., LTD.<br>Patents By Year of Grant:        | 246         | 246          |
| NIKON CORPORATION<br>Patents By Year of Grant:                                | 245         | 245          |
| MINOLTA CAMERA CO., LTD.<br>Patents By Year of Grant:                         | 240         | 240          |
| TOKYO ELECTRON LIMITED<br>Patents By Year of Grant:                           | 237         | 237          |
| TRW INC.<br>Patents By Year of Grant:   | 227         | 227          |
| CISCO TECHNOLOGY, INC.<br>Patents By Year of Grant:                           | 223         | 223          |
| SCI-MED LIFE SYSTEMS, INC.<br>Patents By Year of Grant:                       | 221         | 221          |
| INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE, TAIWAN<br>Patents By Year of Grant: | 217         | 217          |
| ALPS ELECTRIC CO., LTD.<br>Patents By Year of Grant:                          | 210         | 210          |
| NATIONAL SEMICONDUCTOR CORPORATION<br>Patents By Year of Grant:               | 208         | 208          |
| NOKIA MOBILE PHONES LTD.<br>Patents By Year of Grant:                         | 207         | 207          |
| SMITHKLINE BEECHAM CORPORATION<br>Patents By Year of Grant:                   | 206         | 206          |
| BOEING COMPANY<br>Patents By Year of Grant:                                   | 199         | 199          |
| QUALCOMM, INC.<br>Patents By Year of Grant:                                   | 196         | 196          |
| GOODYEAR TIRE + RUBBER COMPANY<br>Patents By Year of Grant:                   | 192         | 192          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| LOCKHEED MARTIN CORPORATION<br>Patents By Year of Grant:                       | 192         | 192          |
| GENERAL MOTORS CORPORATION<br>Patents By Year of Grant:                        | 190         | 190          |
| SUMITOMO WIRING SYSTEMS, LTD., CO.<br>Patents By Year of Grant:                | 190         | 190          |
| 3COM CORPORATION<br>Patents By Year of Grant:                                  | 188         | 188          |
| PFIZER INC.<br>Patents By Year of Grant:                                       | 187         | 187          |
| SUMITOMO CHEMICAL COMPANY, LIMITED<br>Patents By Year of Grant:                | 187         | 187          |
| VISTEON GLOBAL TECHNOLOGIES, INC.<br>Patents By Year of Grant:                 | 185         | 185          |
| SEIKO INSTRUMENTS INC.<br>Patents By Year of Grant:                            | 183         | 183          |
| FUJI XEROX CO., LTD.<br>Patents By Year of Grant:                              | 182         | 182          |
| KONICA CORPORATION<br>Patents By Year of Grant:                                | 177         | 177          |
| SCHLUMBERGER TECHNOLOGY CORPORATION<br>Patents By Year of Grant:               | 177         | 177          |
| MERCK + CO., INC.<br>Patents By Year of Grant:                                 | 174         | 174          |
| GE MEDICAL SYSTEMS GLOBAL TECHNOLOGY COMPANY, LLC<br>Patents By Year of Grant: | 173         | 173          |
| MEDTRONIC INC.<br>Patents By Year of Grant:                                    | 171         | 171          |
| SUMITOMO ELECTRIC INDUSTRIES CO., LTD.<br>Patents By Year of Grant:            | 170         | 170          |
| HALLIBURTON ENERGY SERVICES, INC.<br>Patents By Year of Grant:                 | 167         | 167          |
| COMPAQ INFORMATION TECHNOLOGIES GROUP, L.P.<br>Patents By Year of Grant:       | 165         | 165          |
| NCR CORPORATION<br>Patents By Year of Grant:                                   | 161         | 161          |
| NGK INSULATORS LTD.<br>Patents By Year of Grant:                               | 161         | 161          |
| COMPAQ COMPUTER CORPORATION, INC.<br>Patents By Year of Grant:                 | 159         | 159          |
| HEIDELBERGER DRUCKMASCHINEN AG<br>Patents By Year of Grant:                    | 157         | 157          |
| RAYTHEON COMPANY<br>Patents By Year of Grant:                                  | 157         | 157          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| EATON CORPORATION<br>Patents By Year of Grant:  | 156         | 156          |
| ROHM COMPANY LIMITED<br>Patents By Year of Grant:   | 150         | 150          |
| LG. PHILIPS LCD CO., LTD.<br>Patents By Year of Grant:                                    | 149         | 149          |
| UNILEVER HOME & PERSONAL CARE USA, DIVISION OF CONOPCO, INC.<br>Patents By Year of Grant: | 149         | 149          |
| HUGHES ELECTRONICS CORP.<br>Patents By Year of Grant:                                     | 147         | 147          |
| ILLINOIS TOOL WORKS INC.<br>Patents By Year of Grant:                                     | 147         | 147          |
| HYUNDAI MOTOR CO., LTD.<br>Patents By Year of Grant:                                      | 145         | 145          |
| UNITED STATES OF AMERICA, ARMY<br>Patents By Year of Grant:                               | 145         | 145          |
| XILINK, INC.<br>Patents By Year of Grant:   | 145         | 145          |
| CHARTERED SEMICONDUCTOR MANUFACTURING PTE LTD<br>Patents By Year of Grant:                | 142         | 142          |
| CIBA SPECIALTY CHEMICALS CORPORATION<br>Patents By Year of Grant:                         | 142         | 142          |
| STMICROELECTRONICS S.A.<br>Patents By Year of Grant:                                      | 139         | 139          |
| BAKER HUGHES INCORPORATED<br>Patents By Year of Grant:                                    | 138         | 138          |
| CONEXANT SYSTEMS, INC.<br>Patents By Year of Grant:                                       | 138         | 138          |
| MITSUBISHI HEAVY INDUSTRIES CO., LTD.<br>Patents By Year of Grant:                        | 138         | 138          |
| BRIDGESTONE CORPORATION<br>Patents By Year of Grant:                                      | 137         | 137          |
| THOMSON LICENSING S.A.<br>Patents By Year of Grant:                                       | 136         | 136          |
| DAIMLERCHRYSLER CORPORATION<br>Patents By Year of Grant:                                  | 135         | 135          |
| MASSACHUSETTS INSTITUTE OF TECHNOLOGY<br>Patents By Year of Grant:                        | 135         | 135          |
| TOYODA JIDOSHOKKI SEISAKUSHO KABUSHIKI KAISHA<br>Patents By Year of Grant:                | 135         | 135          |
| SHIN ETSU CHEMICAL CO., LTD.<br>Patents By Year of Grant:                                 | 134         | 134          |
| MANNESMANN VDO AG<br>Patents By Year of Grant:  | 132         | 132          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>                           | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| PIONEER CORPORATION                           |             |              |
| Patents By Year of Grant:                     | 131         | 131          |
| TOSHIBA TEC KABUSHIKI KAISHA                  |             |              |
| Patents By Year of Grant:                     | 130         | 130          |
| YAMAHA CORPORATION                            |             |              |
| Patents By Year of Grant:                     | 130         | 130          |
| AVAYA TECHNOLOGY CORP.                        |             |              |
| Patents By Year of Grant:                     | 128         | 128          |
| AISIN SEIKI KABUSHIKI KAISHA                  |             |              |
| Patents By Year of Grant:                     | 127         | 127          |
| EXXONMOBIL CHEMICAL PATENTS INC.              |             |              |
| Patents By Year of Grant:                     | 126         | 126          |
| FUJI PHOTO OPTICAL CO. LTD.                   |             |              |
| Patents By Year of Grant:                     | 126         | 126          |
| ADVANTEST CORP.                               |             |              |
| Patents By Year of Grant:                     | 123         | 123          |
| EBARA CORPORATION                             |             |              |
| Patents By Year of Grant:                     | 123         | 123          |
| MACRONIX INTERNATIONAL CO., LTD.              |             |              |
| Patents By Year of Grant:                     | 123         | 123          |
| CYPRESS SEMICONDUCTOR CORP.                   |             |              |
| Patents By Year of Grant:                     | 122         | 122          |
| COLGATE-PALMOLIVE COMPANY                     |             |              |
| Patents By Year of Grant:                     | 121         | 121          |
| SILVERBROOK RESEARCH PTY. LTD                 |             |              |
| Patents By Year of Grant:                     | 121         | 121          |
| COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH |             |              |
| Patents By Year of Grant:                     | 120         | 120          |
| DEERE + COMPANY                               |             |              |
| Patents By Year of Grant:                     | 119         | 119          |
| DOW CHEMICAL COMPANY                          |             |              |
| Patents By Year of Grant:                     | 118         | 118          |
| INSTITUT FRANCAIS DU PETROLE                  |             |              |
| Patents By Year of Grant:                     | 118         | 118          |
| UNISYS CORPORATION                            |             |              |
| Patents By Year of Grant:                     | 118         | 118          |
| WINBOND ELECTRONICS CORP.                     |             |              |
| Patents By Year of Grant:                     | 118         | 118          |
| NSK LIMITED                                   |             |              |
| Patents By Year of Grant:                     | 117         | 117          |
| ELI LILLY AND COMPANY                         |             |              |
| Patents By Year of Grant:                     | 116         | 116          |
| SOUTHPAC TRUST INTERNATIONAL, INC.            |             |              |
| Patents By Year of Grant:                     | 116         | 116          |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| ABBOTT LABORATORIES<br>Patents By Year of Grant:  | 115         | 115          |
| BROTHER KOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:                               | 115         | 115          |
| LEXMARK INTERNATIONAL, INC.<br>Patents By Year of Grant:                                  | 115         | 115          |
| BAYER CORPORATION<br>Patents By Year of Grant:  | 110         | 110          |
| CALIFORNIA INSTITUTE OF TECHNOLOGY<br>Patents By Year of Grant:                           | 110         | 110          |
| ISIS PHARMACEUTICALS, INC.<br>Patents By Year of Grant:                                   | 110         | 110          |
| DELL PRODUCTS, L.P.<br>Patents By Year of Grant:  | 109         | 109          |
| SAMSUNG SDI CO., LTD.<br>Patents By Year of Grant:  | 108         | 108          |
| LAM RESEARCH CORPORATION<br>Patents By Year of Grant:                                     | 107         | 107          |
| MERCK PATENT GESELLSCHAFT MIT BESCHRANKTER HAFTUNG<br>Patents By Year of Grant:           | 107         | 107          |
| AGFA-GEVAERT N.V.<br>Patents By Year of Grant:  | 104         | 104          |
| MITSUI CHEMICALS, INCORPORATED<br>Patents By Year of Grant:                               | 104         | 104          |
| STANFORD UNIVERSITY, LELAND JUNIOR, THE BOARD OF TRUSTEES OF<br>Patents By Year of Grant: | 102         | 102          |
| BRISTOL-MYERS SQUIBB COMPANY<br>Patents By Year of Grant:                                 | 101         | 101          |
| EMC CORPORATION<br>Patents By Year of Grant:  | 101         | 101          |
| SANDIA CORPORATION<br>Patents By Year of Grant:   | 100         | 100          |
| HYNIX SEMICONDUCTOR INC.<br>Patents By Year of Grant:                                     | 99          | 99           |
| NIPPON SHOKUBAI CO., LTD.<br>Patents By Year of Grant:                                    | 98          | 98           |
| ADVANCED CARDIOVASCULAR SYSTEMS, INC.<br>Patents By Year of Grant:                        | 96          | 96           |
| EASTMAN CHEMICAL CO., LTD.<br>Patents By Year of Grant:                                   | 96          | 96           |
| NORTHROP GRUMMAN CORPORATION<br>Patents By Year of Grant:                                 | 96          | 96           |
| NOVARTIS AG (FORMERLY SANDOZ LTD.)<br>Patents By Year of Grant:                           | 95          | 95           |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| UOP   |             |              |
| Patents By Year of Grant:   | 95          | 95           |
| AKZO NOBEL NV   |             |              |
| Patents By Year of Grant:   | 94          | 94           |
| CARDIAC PACEMAKERS, INC.  |             |              |
| Patents By Year of Grant:   | 94          | 94           |
| NOKIA TELECOMMUNICATIONS OY   |             |              |
| Patents By Year of Grant:   | 94          | 94           |
| KAO KABUSHIKI KAISHA (KAO CORPORATION)                              |             |              |
| Patents By Year of Grant:   | 92          | 92           |
| FRAUNHOFER-GESELLSCHAFT ZUR FORDERUNG DER ANGEWANTEN FORSCHUNG E.V. |             |              |
| Patents By Year of Grant:   | 91          | 91           |
| UNIVERSITY OF TEXAS   |             |              |
| Patents By Year of Grant:   | 91          | 91           |
| MILLENNIUM PHARMACEUTICALS, INC.                                    |             |              |
| Patents By Year of Grant:   | 90          | 90           |
| SHIMANO INC.  |             |              |
| Patents By Year of Grant:   | 90          | 90           |
| UNITED STATES OF AMERICA, HEALTH & HUMAN SERVICES                   |             |              |
| Patents By Year of Grant:   | 90          | 90           |
| ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE               |             |              |
| Patents By Year of Grant:   | 89          | 89           |
| STMICROELECTRONICS, INC.  |             |              |
| Patents By Year of Grant:   | 89          | 89           |
| ALTERA CORPORATION  |             |              |
| Patents By Year of Grant:   | 87          | 87           |
| COMMISSARIAT A L'ENERGIE ATOMIQUE                                   |             |              |
| Patents By Year of Grant:   | 86          | 86           |
| DEGUSSA AKTIENGESELLSCHAFT  |             |              |
| Patents By Year of Grant:   | 86          | 86           |
| HUMAN GENOME SCIENCES, INC.   |             |              |
| Patents By Year of Grant:   | 86          | 86           |
| NOKIA NETWORKS OY   |             |              |
| Patents By Year of Grant:   | 86          | 86           |
| FURUKAWA ELECTRIC CO., LTD.   |             |              |
| Patents By Year of Grant:   | 85          | 85           |
| ORACLE CORPORATION  |             |              |
| Patents By Year of Grant:   | 85          | 85           |
| SHOWA DENKO KABUSHIKI KAISHA  |             |              |
| Patents By Year of Grant:   | 85          | 85           |
| CIRRUS LOGIC, INC.  |             |              |
| Patents By Year of Grant:   | 84          | 84           |
| KANEKA CORPORATION  |             |              |
| Patents By Year of Grant:   | 84          | 84           |



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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| KOITO MANUFACTURING COMPANY LIMITED<br>Patents By Year of Grant:   | 84          | 84           |
| KOMATSU LTD.<br>Patents By Year of Grant:  | 84          | 84           |
| TOYODA GOSEI KABUSHIKI KAISHA<br>Patents By Year of Grant:   | 84          | 84           |
| UNITED STATES OF AMERICA, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION<br>Patents By Year of Grant:                   | 84          | 84           |
| BASF CORP.<br>Patents By Year of Grant:  | 83          | 83           |
| MILLIKEN & COMPANY<br>Patents By Year of Grant:  | 83          | 83           |
| SUMITOMO RUBBER INDUSTRIES, LTD.<br>Patents By Year of Grant:  | 83          | 83           |
| HARRIS CORP.<br>Patents By Year of Grant:  | 82          | 82           |
| ITT MANUFACTURING ENTERPRISES, INC.<br>Patents By Year of Grant:   | 82          | 82           |
| ASAHI GLASS COMPANY, LTD.<br>Patents By Year of Grant:   | 81          | 81           |
| JOHNS HOPKINS UNIVERSITY<br>Patents By Year of Grant:  | 81          | 81           |
| L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE<br>Patents By Year of Grant: | 81          | 81           |
| SARNOFF CORPORATION & CO., LTD.<br>Patents By Year of Grant:   | 81          | 81           |
| VOITH SULZER PAPIERTECHNIK PATENT GMBH<br>Patents By Year of Grant:  | 81          | 81           |
| WISCONSIN ALUMNI RESEARCH FOUNDATION<br>Patents By Year of Grant:  | 81          | 81           |
| PHILLIPS PETROLEUM COMPANY<br>Patents By Year of Grant:  | 80          | 80           |
| UNI-CHARM CORPORATION<br>Patents By Year of Grant:   | 80          | 80           |
| CARRIER CORPORATION<br>Patents By Year of Grant:   | 79          | 79           |
| SHELL OIL COMPANY<br>Patents By Year of Grant:   | 79          | 79           |
| DAI NIPPON PRINTING CO. LTD<br>Patents By Year of Grant:   | 78          | 78           |
| PITNEY-BOWES, INC.<br>Patents By Year of Grant:  | 78          | 78           |
| ROCKWELL COLLINS, INC.<br>Patents By Year of Grant:  | 78          | 78           |

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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| UNITED TECHNOLOGIES CORPORATION<br>Patents By Year of Grant:         | 78          | 78           |
| ASAHI KASEI KOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:      | 77          | 77           |
| ASTRAZENECA AB<br>Patents By Year of Grant:                          | 77          | 77           |
| CALLAWAY GOLF COMPANY<br>Patents By Year of Grant:                   | 77          | 77           |
| DANA CORPORATION<br>Patents By Year of Grant:                        | 77          | 77           |
| KAWASAKI STEEL CORPORATION<br>Patents By Year of Grant:              | 77          | 77           |
| PACESETTER, INC.<br>Patents By Year of Grant:                        | 77          | 77           |
| SHARP LABORATORIES OF AMERICA, INC.<br>Patents By Year of Grant:     | 77          | 77           |
| APPLE COMPUTER, INC.<br>Patents By Year of Grant:                    | 76          | 76           |
| AVENTIS PHARMA DEUTSCHLAND GMBH<br>Patents By Year of Grant:         | 76          | 76           |
| AVENTIS PHARMA SA<br>Patents By Year of Grant:                       | 76          | 76           |
| ROHM AND HAAS COMPANY<br>Patents By Year of Grant:                   | 76          | 76           |
| NIPPON SHEET GLASS CO., LTD.<br>Patents By Year of Grant:            | 75          | 75           |
| PHILIPS ELECTRONICS NORTH AMERICA CORP.<br>Patents By Year of Grant: | 75          | 75           |
| AIR PRODUCTS AND CHEMICALS, INC.<br>Patents By Year of Grant:        | 74          | 74           |
| BROADCOM CORPORATION<br>Patents By Year of Grant:                    | 74          | 74           |
| CLARIANT GMBH<br>Patents By Year of Grant:                           | 74          | 74           |
| G. D. SEARLE & CO.<br>Patents By Year of Grant:                      | 74          | 74           |
| NITTO DENKO CORPORATION<br>Patents By Year of Grant:                 | 74          | 74           |
| ATI INTERNATIONAL SRL<br>Patents By Year of Grant:                   | 73          | 73           |
| DAICEL CHEMICAL INDUSTRIES LTD.<br>Patents By Year of Grant:         | 73          | 73           |
| HOFFMANN-LA ROCHE INC.<br>Patents By Year of Grant:                  | 73          | 73           |

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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| YAMAHA HATSUDOKI KABUSHIKI KAISHA, YAMAHA MOTOR CO., LTD.<br>Patents By Year of Grant: | 73          | 73           |
| PRAXAIR TECHNOLOGY, INC.<br>Patents By Year of Grant:                                  | 72          | 72           |
| WARNER-LAMBERT COMPANY<br>Patents By Year of Grant:                                    | 72          | 72           |
| AMKOR TECHNOLOGY, INC.<br>Patents By Year of Grant:                                    | 71          | 71           |
| HENKEL KOMMANDITGESELLSCHAFT AUF AKTIEN(HENKEL KGAA)<br>Patents By Year of Grant:      | 70          | 70           |
| MANNESMANN SACHS AG<br>Patents By Year of Grant:                                       | 70          | 70           |
| SANSHIN KOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:                            | 70          | 70           |
| GENENTECH, INC.<br>Patents By Year of Grant:   | 69          | 69           |
| INCYTE GENOMICS, INC.<br>Patents By Year of Grant:                                     | 69          | 69           |
| MOLEX INCORPORATED<br>Patents By Year of Grant:  | 69          | 69           |
| RHODIA CHIMIE<br>Patents By Year of Grant:   | 69          | 69           |
| ADC TELECOMMUNICATIONS, INC.<br>Patents By Year of Grant:                              | 68          | 68           |
| DAIKIN INDUSTRIES LIMITED<br>Patents By Year of Grant:                                 | 68          | 68           |
| ETHICON, INC.<br>Patents By Year of Grant:   | 68          | 68           |
| MAXTOR CORPORATION<br>Patents By Year of Grant:  | 68          | 68           |
| OTIS ELEVATOR COMPANY<br>Patents By Year of Grant:                                     | 68          | 68           |
| UNITED STATES OF AMERICA, AIR FORCE<br>Patents By Year of Grant:                       | 68          | 68           |
| ALLIED-SIGNAL INC.<br>Patents By Year of Grant:  | 67          | 67           |
| ANALOG DEVICES, INC.<br>Patents By Year of Grant:                                      | 67          | 67           |
| CONTINENTAL TEVES AG & CO., OHG<br>Patents By Year of Grant:                           | 67          | 67           |
| TYCO ELECTRONICS CORPORATION<br>Patents By Year of Grant:                              | 67          | 67           |
| BECTON, DICKINSON AND COMPANY<br>Patents By Year of Grant:                             | 66          | 66           |

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| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| BREED AUTOMOTIVE TECHNOLOGY, INC.<br>Patents By Year of Grant:                | 66          | 66           |
| PPG INDUSTRIES OHIO INC.<br>Patents By Year of Grant:                         | 66          | 66           |
| HILL-ROM COMPANY, INC.<br>Patents By Year of Grant:                           | 65          | 65           |
| TORAY INDUSTRIES INC.<br>Patents By Year of Grant:                            | 65          | 65           |
| VANGUARD INTERNATIONAL SEMICONDUCTOR CORPORATION<br>Patents By Year of Grant: | 65          | 65           |
| AJINOMOTO COMPANY INCORPORATED<br>Patents By Year of Grant:                   | 64          | 64           |
| BAYERISCHE MOTOREN WERKE AG<br>Patents By Year of Grant:                      | 64          | 64           |
| BLACK & DECKER INC.<br>Patents By Year of Grant:                              | 64          | 64           |
| BOMBARDIER MOTOR CORPORATION OF AMERICA<br>Patents By Year of Grant:          | 64          | 64           |
| CASIO COMPUTER CO. LTD.<br>Patents By Year of Grant:                          | 64          | 64           |
| NESTEC, S.A.<br>Patents By Year of Grant:                                     | 64          | 64           |
| PIONEER ELECTRONIC CORPORATION<br>Patents By Year of Grant:                   | 64          | 64           |
| SIEMENS AUTOMOTIVE CORPORATION<br>Patents By Year of Grant:                   | 64          | 64           |
| TAKEDA CHEMICAL INDUSTRIES LTD.<br>Patents By Year of Grant:                  | 64          | 64           |
| DSM N.V.<br>Patents By Year of Grant:   | 63          | 63           |
| SILICONWARE PRECISION INDUSTRIES CO., LTD.<br>Patents By Year of Grant:       | 63          | 63           |
| JDS UNIPHASE CORPORATION<br>Patents By Year of Grant:                         | 62          | 62           |
| NIPPON STEEL CORP.<br>Patents By Year of Grant:                               | 62          | 62           |
| PIONEER HI-BRED INTERNATIONAL, INC.<br>Patents By Year of Grant:              | 62          | 62           |
| SCHERING CORP.<br>Patents By Year of Grant:                                   | 62          | 62           |
| ALSTOM (SWITZERLAND) LTD<br>Patents By Year of Grant:                         | 61          | 61           |
| AMERICAN HOME PRODUCTS CORPORATION<br>Patents By Year of Grant:               | 61          | 61           |

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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| CITIZEN WATCH CO., LTD.<br>Patents By Year of Grant:                     | 61          | 61           |
| MINEBEA KABUSHIKI-KAISHA (MINEBEA CO., LTD)<br>Patents By Year of Grant: | 61          | 61           |
| SPALDING SPORTS WORLDWIDE, INC.<br>Patents By Year of Grant:             | 61          | 61           |
| STORAGE TECHNOLOGY CORPORATION<br>Patents By Year of Grant:              | 61          | 61           |
| EMERSON ELECTRIC CO.<br>Patents By Year of Grant:                        | 60          | 60           |
| LEAR CORPORATION<br>Patents By Year of Grant:                            | 60          | 60           |
| TETRA LAVAL HOLDINGS & FINANCE S.A.<br>Patents By Year of Grant:         | 60          | 60           |
| UNISIA JECS CORPORATION<br>Patents By Year of Grant:                     | 60          | 60           |
| VICTOR COMPANY OF JAPAN, LIMITED<br>Patents By Year of Grant:            | 60          | 60           |
| WEATHERFORD/LAMB, INC.<br>Patents By Year of Grant:                      | 60          | 60           |
| HILTI AKTIENGESELLSCHAFT<br>Patents By Year of Grant:                    | 59          | 59           |
| NGK SPARK PLUG CO., LTD.<br>Patents By Year of Grant:                    | 59          | 59           |
| TEKTRONIX INC.<br>Patents By Year of Grant:                              | 59          | 59           |
| PHARMACIA & UPJOHN COMPANY<br>Patents By Year of Grant:                  | 58          | 58           |
| READ-RITE CORPORATION<br>Patents By Year of Grant:                       | 58          | 58           |
| ALSTOM<br>Patents By Year of Grant:                                      | 57          | 57           |
| FUJI ELECTRIC CO., LTD.<br>Patents By Year of Grant:                     | 57          | 57           |
| KYOCERA CORPORATION<br>Patents By Year of Grant:                         | 57          | 57           |
| TAKATA CORPORATION<br>Patents By Year of Grant:                          | 57          | 57           |
| TEIJIN LIMITED<br>Patents By Year of Grant:                              | 57          | 57           |
| AVERY DENNISON CORPORATION<br>Patents By Year of Grant:                  | 56          | 56           |
| BRITISH TELECOMMUNICATION, PLC<br>Patents By Year of Grant:              | 56          | 56           |

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| <u>ORGANIZATION</u>                                 | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| CABOT CORPORATION                                   |             |              |
| Patents By Year of Grant:                           | 56          | 56           |
| METSO PAPER, INC.                                   |             |              |
| Patents By Year of Grant:                           | 56          | 56           |
| NIPPON TELEGRAPH & TELEPHONE CORP.                  |             |              |
| Patents By Year of Grant:                           | 56          | 56           |
| AGENCY OF INDUSTRIAL SCIENCE & TECHNOLOGY           |             |              |
| Patents By Year of Grant:                           | 55          | 55           |
| FITEL U.S.A. CORP.                                  |             |              |
| Patents By Year of Grant:                           | 55          | 55           |
| PORSCHE AG  |             |              |
| Patents By Year of Grant:                           | 55          | 55           |
| ALLERGAN SALES, INC.                                |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| BAXTER INTERNATIONAL INC.                           |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| FAIRCHILD SEMICONDUCTOR CORPORATION                 |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| JOHNSON CONTROLS TECHNOLOGY COMPANY                 |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| mitsubishi chemical corporation                     |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK |             |              |
| Patents By Year of Grant:                           | 54          | 54           |
| ASEA BROWN BOVERI AB                                |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| DONNELLY CORPORATION                                |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| EXXONMOBIL RESEARCH AND ENGINEERING COMPANY         |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| RISO KAGAKU CORPORATION                             |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| SILICON GRAPHICS, INC.                              |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| STEELCASE DEVELOPMENT CORPORATION                   |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| SUZUKI MOTOR CORPORATION                            |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| WYETH   |             |              |
| Patents By Year of Grant:                           | 53          | 53           |
| ACUSHNET COMPANY                                    |             |              |
| Patents By Year of Grant:                           | 52          | 52           |
| AGERE SYSTEMS INC.                                  |             |              |
| Patents By Year of Grant:                           | 52          | 52           |

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| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION, INC.<br>Patents By Year of Grant: | 52          | 52           |
| CHIRON CORPORATION<br>Patents By Year of Grant:   | 52          | 52           |
| NATIONAL SCIENCE COUNCIL<br>Patents By Year of Grant:   | 52          | 52           |
| NTN CORPORATION<br>Patents By Year of Grant:  | 52          | 52           |
| ROCKWELL AUTOMATION TECHNOLOGIES, INC.<br>Patents By Year of Grant:                           | 52          | 52           |
| SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC<br>Patents By Year of Grant:                         | 52          | 52           |
| SONY COMPUTER ENTERTAINMENT INC.<br>Patents By Year of Grant:                                 | 52          | 52           |
| UT-BATELLE, LLC<br>Patents By Year of Grant:  | 52          | 52           |
| ACUSON CORPORATION<br>Patents By Year of Grant:   | 51          | 51           |
| ANDO ELECTRIC CO., LTD.<br>Patents By Year of Grant:  | 51          | 51           |
| BRUNSWICK CORPORATION<br>Patents By Year of Grant:  | 51          | 51           |
| CASE CORPORATION<br>Patents By Year of Grant:   | 51          | 51           |
| CORNING CABLE SYSTEMS LLC<br>Patents By Year of Grant:  | 51          | 51           |
| DOW CORNING CORPORATION<br>Patents By Year of Grant:  | 51          | 51           |
| FCI AMERICAS TECHNOLOGY, INC.<br>Patents By Year of Grant:                                    | 51          | 51           |
| HUBBELL INCORPORATED<br>Patents By Year of Grant:   | 51          | 51           |
| MOSEL VITELIC, INCORPORATED<br>Patents By Year of Grant:                                      | 51          | 51           |
| BELLSOUTH INTELLECTUAL PROPERTY MANAGMENT CORPORATION<br>Patents By Year of Grant:            | 50          | 50           |
| CALIPER TECHNOLOGIES CORP.<br>Patents By Year of Grant:                                       | 50          | 50           |
| FUJI JUKOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:                                    | 50          | 50           |
| INA WALZLAGER SCHAEFFLER OHG<br>Patents By Year of Grant:                                     | 50          | 50           |
| KOYO SEIKO COMPANY, LTD.<br>Patents By Year of Grant:   | 50          | 50           |

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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| KURARAY CO., LTD.<br>Patents By Year of Grant:                                     | 50          | 50           |
| PE CORPORATION<br>Patents By Year of Grant:  | 50          | 50           |
| TOKAI RIKA DENKI SEISAKUSHO K.K.<br>Patents By Year of Grant:                      | 50          | 50           |
| DELTA ELECTRONICS INC.<br>Patents By Year of Grant:                                | 49          | 49           |
| GATEWAY 2000, INC.<br>Patents By Year of Grant:                                    | 49          | 49           |
| IDEMITSU PETROCHEMICAL COMPANY LTD.<br>Patents By Year of Grant:                   | 49          | 49           |
| KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY<br>Patents By Year of Grant:             | 49          | 49           |
| MICHIGAN STATE UNIVERSITY<br>Patents By Year of Grant:                             | 49          | 49           |
| NOVOZYMES A/S<br>Patents By Year of Grant:   | 49          | 49           |
| ROCHE DIAGNOSTICS GMBH<br>Patents By Year of Grant:                                | 49          | 49           |
| SEPRACOR INC.<br>Patents By Year of Grant:   | 49          | 49           |
| SIEMENS INFORMATION AND COMMUNICATIONS NETWORKS, INC.<br>Patents By Year of Grant: | 49          | 49           |
| TESSERA, INC.<br>Patents By Year of Grant:   | 49          | 49           |
| TRW OCCUPANY RESTRAINT SYSTEMS GMBH & CO., KG<br>Patents By Year of Grant:         | 49          | 49           |
| YKK CORPORATION<br>Patents By Year of Grant:                                       | 49          | 49           |
| ADVANCED TECHNOLOGY MATERIALS, INC.<br>Patents By Year of Grant:                   | 48          | 48           |
| GENERAL HOSPITAL CORPORATION<br>Patents By Year of Grant:                          | 48          | 48           |
| HARVARD COLLEGE, PRESIDENT AND FELLOWS<br>Patents By Year of Grant:                | 48          | 48           |
| KODAK POLYCHROME GRAPHICS, LLC<br>Patents By Year of Grant:                        | 48          | 48           |
| MATSUSHITA ELECTRIC WORKS, LTD.<br>Patents By Year of Grant:                       | 48          | 48           |
| MITSUBISHI GAS-CHEMICAL COMPANY, INC.<br>Patents By Year of Grant:                 | 48          | 48           |
| ORTHO-MCNEIL PHARMACEUTICAL, INC.<br>Patents By Year of Grant:                     | 48          | 48           |



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| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| SANDVIK AKTIEBOLAG<br>Patents By Year of Grant:  | 48          | 48           |
| AMERITECH CORPORATION<br>Patents By Year of Grant:                                       | 47          | 47           |
| CHISSO CORPORATION<br>Patents By Year of Grant:  | 47          | 47           |
| MITSUMI ELECTRIC CO., LTD.<br>Patents By Year of Grant:                                  | 47          | 47           |
| SCA HYGIENE PRODUCTS AB<br>Patents By Year of Grant:                                     | 47          | 47           |
| SHIMADZU CORPORATION<br>Patents By Year of Grant:  | 47          | 47           |
| SUMITOMO SPECIAL METAL COMPANY LIMITED<br>Patents By Year of Grant:                      | 47          | 47           |
| SYMYX TECHNOLOGIES, INC.<br>Patents By Year of Grant:                                    | 47          | 47           |
| TRIMBLE NAVIGATION, LTD.<br>Patents By Year of Grant:                                    | 47          | 47           |
| UNIVERSITY OF MICHIGAN<br>Patents By Year of Grant:                                      | 47          | 47           |
| CALSONIC KANSEI CORPORATION<br>Patents By Year of Grant:                                 | 46          | 46           |
| FMC CORPORATION<br>Patents By Year of Grant:   | 46          | 46           |
| FUJISAWA PHARMACEUTICAL CO., LTD.<br>Patents By Year of Grant:                           | 46          | 46           |
| KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY<br>Patents By Year of Grant:          | 46          | 46           |
| MITUTOYO CORPORATION<br>Patents By Year of Grant:  | 46          | 46           |
| OWENS-CORNING FIBERGLAS CORPORATION<br>Patents By Year of Grant:                         | 46          | 46           |
| PATENT-TREUHAND-GESELLSCHAFT FUR ELEKTRISCHE GLUHLAMPEN MBH<br>Patents By Year of Grant: | 46          | 46           |
| SIEMENS WESTINGHOUSE POWER CORPORATION<br>Patents By Year of Grant:                      | 46          | 46           |
| THOMSON-CSF<br>Patents By Year of Grant:   | 46          | 46           |
| AFFYMETRIX, INC.<br>Patents By Year of Grant:  | 45          | 45           |
| AUTONETWORKS TECHNOLOGIES, LTD.<br>Patents By Year of Grant:                             | 45          | 45           |
| BORGWARNER INC.<br>Patents By Year of Grant:   | 45          | 45           |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| COLUMBIA UNIVERSITY   |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| GILLETTE COMPANY  |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| NATIONAL STARCH AND CHEMICAL INVESTMENT HOLDING CORPORATION |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| NORDSON CORPORATION   |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| PENN STATE RESEARCH FOUNDATION, INC.                        |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| SAMSUNG ELECTRO-MECHANICS CO., LTD.                         |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| SEMITOOL, INC.  |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| UNITED STATES OF AMERICA, DEPARTMENT OF ENERGY              |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| UNIVERSITY OF PENNSYLVANIA                                  |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| ZAHNRADFABRIK FRIEDRICHSHAFEN AG                            |             |              |
| Patents By Year of Grant:                                   | 45          | 45           |
| ALCATEL USA SOURCING, L.P.                                  |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| BRIDGESTONE SPORTS CO., LTD.                                |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| ECOLAB INC.   |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| KOBE STEEL LTD.   |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| MAZDA MOTOR CORPORATION                                     |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| NISSHINBO INDUSTRIES, INC.                                  |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| OMRON CORPORATION   |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| S. C. JOHNSON + SON, INC.                                   |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION   |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| WEBASTO VEHICLE SYSTEMS INTERNATIONAL GMBH                  |             |              |
| Patents By Year of Grant:                                   | 44          | 44           |
| ADAPTEC, INC.   |             |              |
| Patents By Year of Grant:                                   | 43          | 43           |
| ATT WIRELESS SERVICES INC                                   |             |              |
| Patents By Year of Grant:                                   | 43          | 43           |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>  | <u>2002</u> | <u>TOTAL</u> |
|--|-------------|--------------|
| BATTELLE MEMORIAL INSTITUTE<br>Patents By Year of Grant:                         | 43          | 43           |
| CYTOKINETICS, INC.<br>Patents By Year of Grant:                                  | 43          | 43           |
| DEGUSSA-HUELS AKTIENGESELLSCHAFT<br>Patents By Year of Grant:                    | 43          | 43           |
| ENGELHARD CORPORATION<br>Patents By Year of Grant:                               | 43          | 43           |
| KONAMI CO., LTD.<br>Patents By Year of Grant:                                    | 43          | 43           |
| LUCAS INDUSTRIES PUBLIC LTD. COMPANY<br>Patents By Year of Grant:                | 43          | 43           |
| MARCONI COMMUNICATIONS, INC.<br>Patents By Year of Grant:                        | 43          | 43           |
| MCI COMMUNICATIONS CORP.<br>Patents By Year of Grant:                            | 43          | 43           |
| RAMBUS, INC.<br>Patents By Year of Grant:  | 43          | 43           |
| SUMITOMO METAL INDUSTRIES CO., LTD.<br>Patents By Year of Grant:                 | 43          | 43           |
| UNITED STATES OF AMERICA, DEPARTMENT OF AGRICULTURE<br>Patents By Year of Grant: | 43          | 43           |
| CLARIANT FINANCE (BVI) LIMITED<br>Patents By Year of Grant:                      | 42          | 42           |
| FOXCONN PRECISION COMPONENTS, CO., LTD.<br>Patents By Year of Grant:             | 42          | 42           |
| INTERNATIONAL RECTIFIER CORPORATION<br>Patents By Year of Grant:                 | 42          | 42           |
| LITTON SYSTEMS INC.<br>Patents By Year of Grant:                                 | 42          | 42           |
| ROLLS-ROYCE PLC<br>Patents By Year of Grant:                                     | 42          | 42           |
| SMITHKLINE BEECHAM PLC<br>Patents By Year of Grant:                              | 42          | 42           |
| SPRINT COMMUNICATIONS COMPANY L.P.<br>Patents By Year of Grant:                  | 42          | 42           |
| VIA TECHNOLOGIES, INC.<br>Patents By Year of Grant:                              | 42          | 42           |
| BP CHEMICALS LIMITED<br>Patents By Year of Grant:                                | 41          | 41           |
| BRISTOL-MYERS SQUIBB PHARMA COMPANY<br>Patents By Year of Grant:                 | 41          | 41           |
| DOW CORNING TORAY SILICONE COMPANY LIMITED<br>Patents By Year of Grant:          | 41          | 41           |

Organizational Patenting (Granted: Jan 01, 2002 - Dec 31, 2002)  
Ranked List of Organizations with 40 or More Utility Patents Received in CY2002

| <u>ORGANIZATION</u>   | <u>2002</u> | <u>TOTAL</u> |
|---|-------------|--------------|
| FILTERWERK MANN + HUMMEL GMBH<br>Patents By Year of Grant:            | 41          | 41           |
| HENKEL CORPORATION<br>Patents By Year of Grant:                       | 41          | 41           |
| MATTEL INC.<br>Patents By Year of Grant:                              | 41          | 41           |
| MAYTAG CORPORATION<br>Patents By Year of Grant:                       | 41          | 41           |
| NEXPRESS SOLUTIONS LLC<br>Patents By Year of Grant:                   | 41          | 41           |
| NOKIA CORPORATION<br>Patents By Year of Grant:                        | 41          | 41           |
| PARKER-HANNIFIN CORPORATION<br>Patents By Year of Grant:              | 41          | 41           |
| SEGA ENTERPRISES, LTD.<br>Patents By Year of Grant:                   | 41          | 41           |
| UNIVERSITY OF MINNESOTA, THE REGENTS OF<br>Patents By Year of Grant:  | 41          | 41           |
| UNIVERSITY OF WASHINGTON<br>Patents By Year of Grant:                 | 41          | 41           |
| ADVANCED SEMICONDUCTOR ENGINEERING, INC.<br>Patents By Year of Grant: | 40          | 40           |
| FUNAI ELECTRIC CO., LTD.<br>Patents By Year of Grant:                 | 40          | 40           |
| INTERDIGITAL TECHNOLOGY CORPORATION<br>Patents By Year of Grant:      | 40          | 40           |
| KAWASAKI JUKOGYO KABUSHIKI KAISHA<br>Patents By Year of Grant:        | 40          | 40           |
| MAGNECOMP CORP.<br>Patents By Year of Grant:                          | 40          | 40           |
| SCROLL TECHNOLOGIES, INC.<br>Patents By Year of Grant:                | 40          | 40           |
| SMITH INTERNATIONAL INC.<br>Patents By Year of Grant:                 | 40          | 40           |
| SPACE SYSTEMS/LORAL, INC.<br>Patents By Year of Grant:                | 40          | 40           |
| TOKAI RUBBER INDUSTRIES, LTD.<br>Patents By Year of Grant:            | 40          | 40           |
| TRW VEHICLE SAFETY SYSTEMS, INC.<br>Patents By Year of Grant:         | 40          | 40           |
| Other Organizations (25922)<br>Patents By Year of Grant:              | 66995       | 66995        |