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SUBJ: DRI Competitive Analysis

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DRI COMPETITIVE ANALYSIS

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**DRI Competitive Analysis
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DRI Competitive Analysis Executive Summary

DRI's Strategy

Prior to the introduction of DR-DOS 5.0, DRI's strategy was not well defined. Historically, DRI has introduced a variety of applications and systems products, most of which have failed to achieve a high penetration in their respective categories. DRI has developed a reputation in the industry for not marketing their products effectively. This may soon change. With the acceptance of DR-DOS 5.0 among many users, DRI is focusing on what it knows best: developing operating systems, namely DR-DOS. From the business perspective, DRI's strategy is to target OEMs selling into the mass merchant channel as well as to offer the product via dealers to endusers.

Novell's acquisition of DRI now provides DRI with the marketing and distribution arm to penetrate corporate accounts. Novell's strategy is aimed at offering customers a tightly coupled network operating system. Thus it's conceivable that Novell would market a networked operating system as a solution for the corporate environment and continue to market a low end version, namely DR-DOS, without the networking support, to the mass merchant channel which requires only vanilla DOS.

History of DR-DOS

DR-DOS was first introduced in 1988. The first release was DR-DOS 3.3 followed by DR-DOS 3.41. After DR-DOS 3.41 DRI introduced DR-DOS 5.0 in June 1990. Prior to DR-DOS 5.0, IDC estimates DR-DOS had an installed base of approximately 3.5M users worldwide. Most sales of DR-DOS prior to DR-DOS 5.0 were probably targeted at the embedded market: hand-held data collection, industrial control, etc.

Operating System Products

Product	Installed Base (Cumulative Units)
DR-DOS	5,000,000
FlexOS	300,000
Multuser DOS	NA

NA= Not Available

DR-DOS: source IDC

FlexOS: source DRI

The number that IDC provides is an aggressive estimate. To determine a more conservative estimate of DR-DOS' installed base for 1990 I made the following assumptions:

- DR-DOS sales comprise 45% of DRI's total revenue
- SRP for DR-DOS is \$199
- DRI's profit by selling the product through the retail channel is approximately \$60
- DRI licenses DR-DOS for \$15/copy

I calculate that the units sold in 1990 for DR-DOS total about 640,000 units worldwide. Thus I would estimate conservatively that the installed base for DR-DOS in 1990 is approximately 4.1M.

For 1991, by including a few additional assumptions:

- DRI's profit by selling the product through the retail channel for the special price of \$79 is \$25.
- DRI's total estimated revenue: \$45M

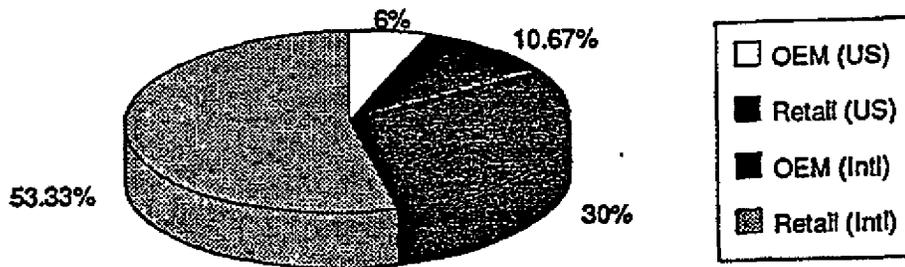
I calculate units sold in the first half of 1991 total about 390,000 units worldwide. This increases DR-DOS' installed base to 4.4M units worldwide.

Note that I will use the installed base figure provided by IDC, 5M for 1990, for consistency in this analysis.

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Of the 5M users worldwide using DR-DOS today, the following provides a breakdown of OEM versus retail sales:

DR-DOS INSTALLED BASE FOR 1990



source: IDC

Outside of the US, DR-DOS is sold primarily in Europe. DRI offers DR-DOS in the following languages:

- French
- German
- Spanish
- Italian
- Kanji
- Chinese

Application Products

Product	Installed Base (Cumulative Units)
Presentation Team	50,000
Artline	27,000
Draw Plus	220,000

source: IDC

Financial Summary

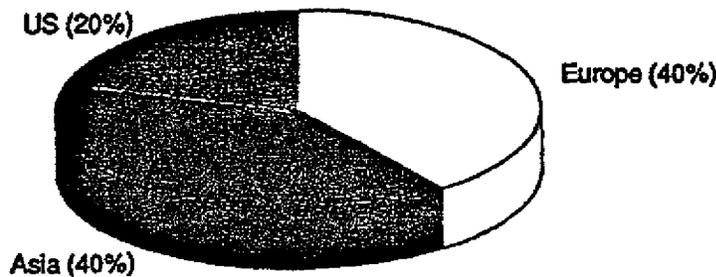
Note that fiscal years for DRI end in August.

FY	1988	1989	1990	1991 (est)
REVENUE	\$31,678,660	\$36,492,696	\$40,899,078	\$45,000,000
%CHANGE		15.2%	12.1%	10%
NET INC	\$256,442	\$1,101,320	\$734,977	\$900,000
%CHANGE		329%	(34%)	22%

source: D&B

In 1990, the breakdown for the company of domestic vs. international by revenue and units includes:

FY90 Revenue and Unit by Region



source: IDC

Note that the revenue is consistent with sales of DR-DOS: over 80% of DR-DOS is sold into Europe and the Far East.

What follows is an analysis of DRI's business segments as well as their financial performance.

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Corporate Profile

DRI offers both system software and applications to endusers. DRI's strategy is focused on DR-DOS and DRI is positioned as the low-cost alternative DOS targeting OEMs selling into the mass merchant channel. In addition, DRI will continue offering DR-DOS through the retail channel.

Operating Systems

DRI's strength lies in their systems' products. Currently they have an installed base of 5M units or approximately 8% of the DOS market with DR-DOS. Because DRI has been unsuccessful in penetrating key OEMs selling into corporations, they seem to be focusing very aggressively with the second tier OEMs that sell primarily to endusers. DRI is coming in as the low-cost alternative, a similar strategy adopted by ALR, Packard Bell and others in the PC market as a means to compete selling into the mass merchant channel.

In this market which Novell knows very little about, I would not expect Novell to focus their future operating systems development for selling DOS to the mass merchant channel. Novell's strategy is to dominate the networking software industry. Thus I would argue that Novell will focus on what it does best and offer an operating system which incorporates full networking support which complements Windows very well. The challenge for Microsoft, then, is to provide Novell's installed base with a future DOS/Windows product which preserves Novell as a network vendor choice while giving users no reason to buy DR-DOS and offers a strong reason to consider buying our DOS/Windows and networking solution.

Two systems' products, Multiuser DOS and FlexOS, are targeted primarily at vertical markets.

Applications

DRI's applications strategy is not well-defined. DRI spends very little effort marketing their applications products. After checking with an analyst at IDC who tracks DRI closely, DRI confirmed with her that they do not spend any advertising dollars promoting their applications products. The products offered to endusers include:

- Artline 2.0
- Draw Plus 2.01
- Presentation Team 2.0

Presently, Artline 2.0 runs under the Windows environment. Presentation Team and Draw Plus run as DOS applications. However, DRI is developing a second Windows application. DRI would not offer any details about this application. However, of the three listed above, I would expect Artline 2.0 to be a leading candidate primarily because it has been received well by both the press and users. After speaking with an analyst at IDC, she informs me that they expect the release to be available later in 1991.

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Financial Summary

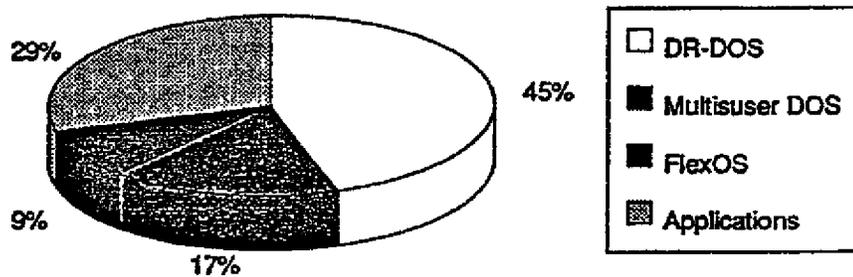
Note that fiscal years for DRI end in August.

FY	1988	1989	1990	1991
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%CHANGE		15.2%	12.1%	10%
NET INC	\$256,442	\$1,101,320	\$734,977	\$900,000 (est)
%CHANGE		329%	(34%)	22%

D&B DRI Report for FY90

SALES (\$M)	\$40,899,078
GROSS PROFIT	\$32,707,009
OPERATING EXP	\$31,152,579
NET INCOME	\$734,977
TOTAL ASSETS	\$24,796,502
TOTAL LIABILITIES	\$12,083,842
TOTAL EQUITY	\$12,712,660
ROE	5.78%
ROA	2.96%
RET ON SALES	1.80%
OPERATING EXP (%SALES)	76.17%
EMPLOYEES	275
REV/EMPLOYEE	\$148,724

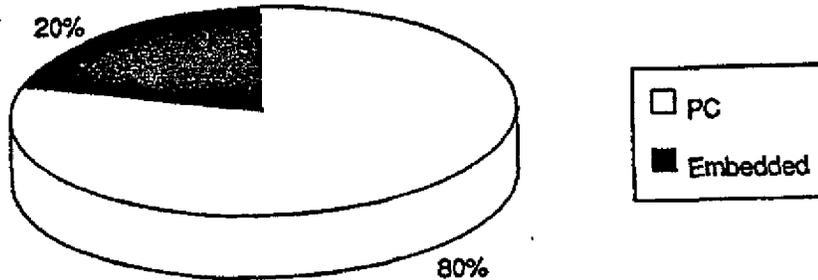
FY90 Revenue by product



source: IDC

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Of the revenue generated by DR-DOS, the following is the breakdown by target market:



source: IDC

Geographic Locations

DRI does all of their development for operating systems in the UK. However, DR-DOS is supported out of their Monterey, CA location.

North America

Monterey, CA
Santa Clara, CA
Dallas, TX
Waban, MA
Los Angeles, CA
Chicago, IL
San Francisco, CA

Europe

Digital Research UK, Newberry/Berkshire, United Kingdom
Digital Research GMBH, Munich, Germany
Digital Research SA, Velizy, France

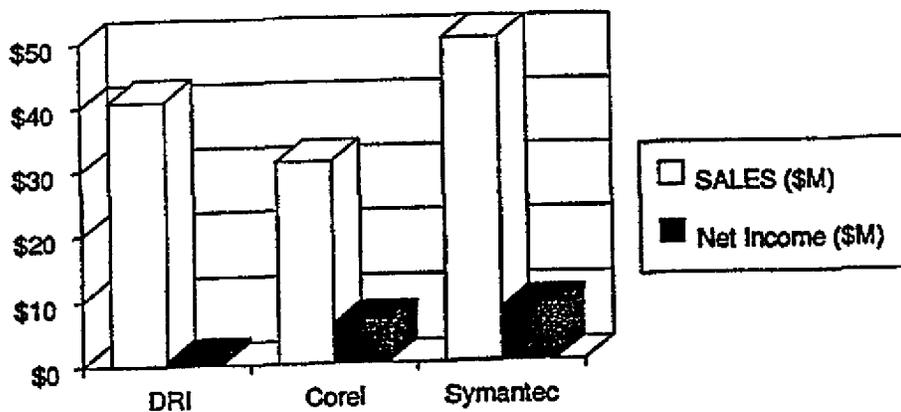
Asia/Pacific

Digital Research Taiwan
Digital Research Japan

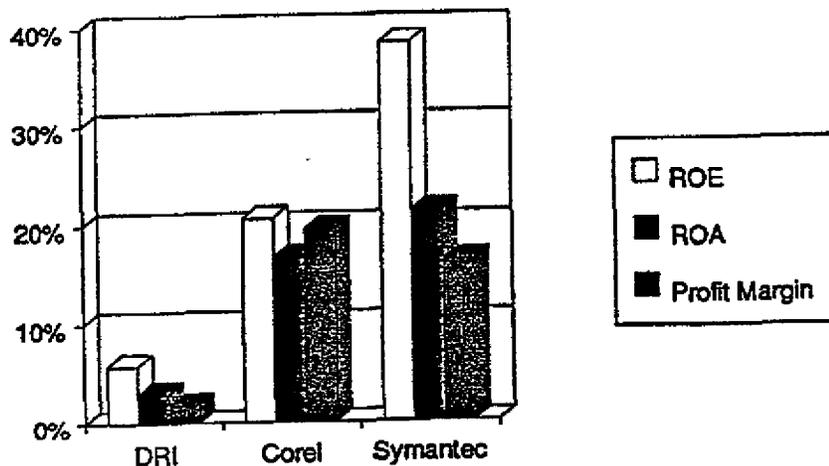
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If we compare DRI's profitability to two other software vendors, one which sells a competing applications product to DRI's Arline 2.0, Corel, and another which offers utilities to the DOS market, Symantec, note the following:

Sales and Net Income for FY90



Profitability Ratios for FY90



On revenue comparable to Corel and Symantec, DRI's returns are low. Their lack of direction is evident in their profitability. However, Novell's acquisition of DRI suggests that Novell will probably liquidate the company of any dogs and keep DRI's mission more focused than ever before.

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Business Segment

Operating Systems Software

Geographically, DRI is focusing in Europe and Japan with DR-DOS. However, DRI is pursuing quietly opportunities in the US. Recently DRI announced an agreement with Premier Innovations, Inc. which markets their systems to endusers via the mass merchant channel. Based on IDC research, this channel is becoming a key source for selling PCs. In 1991, the mass merchant channel accounted for 12.1% of all new systems shipped, approximately 1,200,000. In 1994, IDC expects this to increase to 17.4%, approximately 2,107,000, second only to the dealer channel while other channels like direct, VAR, and mail order remain flat or shrink as seen in the table:

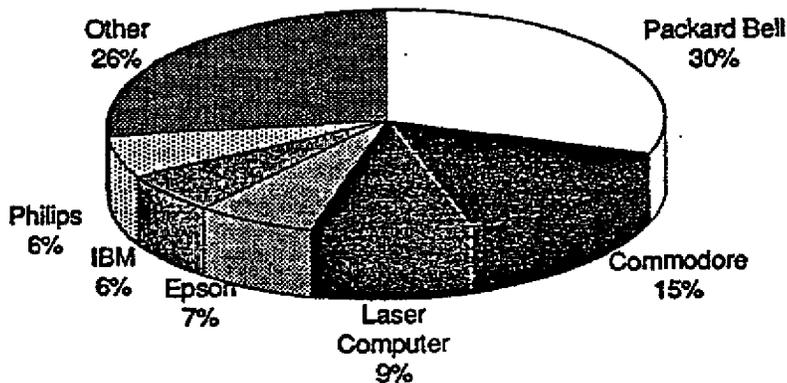
**PC Market by Distribution Channel
%of Total Market**

	Direct	Dealer	VAR	Consumer	Mail Order	Other
1991	7.00	60.60	13.90	12.10	6.30	0.10
1992	7.10	58.00	14.00	14.30	6.40	0.20
1993	7.30	55.10	14.10	16.60	6.70	0.20
1994	7.50	54.00	14.20	17.40	6.80	0.10

Source: IDC

The PC OEMs which have a major stake shipping into the mass merchant channel include: Packard Bell, Epson, Commodore, Laser Computer, Phillips and IBM. Their corresponding market shares for units shipped in 1990 are seen in the chart:

**PC OEMs
Primary Distribution: Mass Merchant Channel**



Total Units for 1990: 981,000

Source: IDC

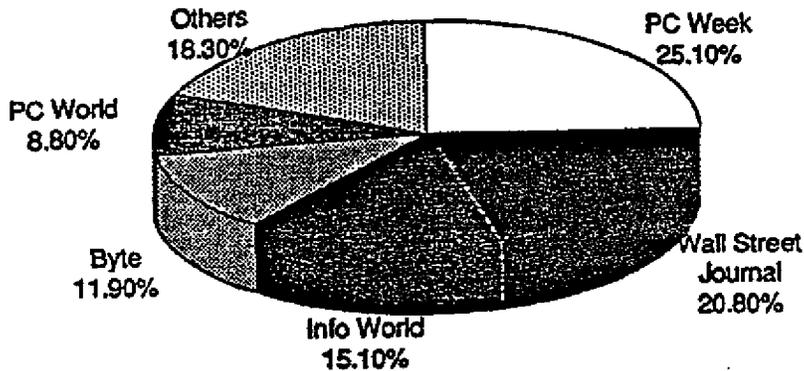
Note that Others account for over 25% of all units shipped through this channel! There seems to be a significant opportunity for DRI to penetrate this market by signing up OEMs like Premier Innovations to sell systems bundled with DR-DOS and various applications into the mass merchant channel.

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Advertising Expenditures

DRI spends almost their entire advertising budget on DR-DOS. For the period of June 1990-March 1991 DRI spent \$1.25M on advertising. After checking with an analyst at IDC, she was told by DRI that they do not advertise their applications. DRI offers a competing product to Powerpoint, Presentation Team 2.0, so I verified with our Powerpoint Group and they confirmed that DRI's applications are not advertised. The publications and percentage of the advertising budget that DRI spends is listed below:

DRI Advertising Budget FY91: \$1.25M
Period: 6/90-3/91



Source: Campbell Graves Associates, Inc.

After researching to determine if DRI advertised either Multiuser DOS or FlexOS in these same publications, I found nothing. Note that WSJ campaign launched the "Toss your DOS" ad. Recall that the "Toss your DOS" ad campaign was introduced early in 1991 offering DR-DOS for the special price of \$79.

DRI Licensees

To date, DRI has the following OEMs as licensees by market:

PC	Industrial Control	Point-of-Sale Terminals	Transaction Processing
Premier Innovation	GE Fanuc	Tokyo Electric	Reuters
Emerald	Siemens	IBM	Nixdorf
Sun Moon Star	Nixdorf	Fujitsu	
Brother	Johnson Controls	Samsung	
ALR		Nixdorf	
Vobis			
Printaform			

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Of the PC OEMs licensing DR-DOS, they sell into the following markets:

PC OEM	Market
Emerald	Far East
Premier Innovation	US
Sun Moon Star	US
Brother	UK
ALR	US, Far East
Vobis	Germany
Printaform	Mexico

DRI's products targeted for each of the markets includes:

	DR-DOS	FlexOS
<i>PC</i>	X	
<i>Industrial Control</i>		X
<i>Point of Sale Terminals</i>		X
<i>Transaction Processing</i>		X

Public Relations

From a PR perspective, DRI is perceived as the underdog. The recent article in Infoworld by Brett Glass characterizes the type of press that DR-DOS 5.0 has received since its introduction: DR-DOS 5.0 is now an alternative to MS-DOS.

I would expect DRI to leverage the compatibility rating of "Excellent" they received compared to ours, "Very Good", as reported by Infoworld in future PR campaigns. We are working with Infoworld to demonstrate the scoring inconsistencies in the review of MS-DOS 5.

Product Descriptions

DR-DOS 5

The following is a product comparison of both DR-DOS 5 and MS-DOS 5:

Features in DR DOS 5.0 not present in MS-DOS 5.0

- File password protection
- Config.sys commands: Chain, echo, ?
- Ability to load drivers and TSRs into the UMBs on NEATset/LEAPset-based 80286 machines.

Features in MS-DOS 5.0 not present in DR-DOS 5.0

- Task swapper (based on the Windows 3.0 real mode task switcher)
- Support for 2.88 mb floppy disks and drives on machines that have 2.88 mb floppy drives (these drives will start shipping with certain new PCs after DOS 5 is announced)
- Undelete (from Central Point Software)
- Unformat, Quick Format (from Central Point Software)
- Mouse-usable, full-screen editor with pull-down menus
- Command-line macro capability
- Setver and a configurable "file table"
- QBasic (Quick Basic 4.5 interpreter)
- Dir command sorting capability (by name, date, extension, size)

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Memory Usage

Memory Usage between 0-1MB:

MS-DOS 5.0 24.8K	DR-DOS 5.0 71.4K
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Why are we so much better?

DR-DOS loads their EMM drivers, Command.Com and buffers into high memory, the same area where free memory blocks reside for loading TSRs, device drivers and network drivers. Because of loading EMM, Command.Com and buffers into high memory, DR-DOS occupies more available high memory while in our product, we load our EMM drivers, Command.Com and buffers above 1MB.

Compatibility

We hired an independent testing lab, NSTL, to evaluate the compatibility of DR-DOS 5.0 using a variety of PCs connected to several networks. In addition we tested DR-DOS 5 with 34 applications including Windows 3.0 in a networked environment. DR-DOS 5.0 was tested with the latest versions of the following network software:

- Novell Netware 286, version 2.15
- Novell Netware 386, version 3.10
- Banyan Vines 4.0
- OS/2 Lan Manager
- Lantastic

Both Lan Manager and Lantastic were found *incompatible* with DR-DOS 5. Digital Research technical documents confirmed test results that DR-DOS 5 was incompatible with both of these networks.

We also tested DR-DOS 5 with 34 applications running in a networked environment using AST, IBM, and Compaq PCs. Among those applications tested included: Windows 3.0, Lotus 123 3.1, 386 to the Max, QEMM, and Crosstalk XVI. NSTL reported that DR-DOS 5 is incompatible with the following applications running with a specific network operating system:

APPLICATION	NOVELL 286	NOVELL 386	BANYAN VINES
dBase IV with Lan Pack 1.1	N	N	Y
AutoCAD 386	N	N	N
Sidekick Plus 1.01C	N	N	N
Software Carousel 4.0	N	N	N
PC-KWIK Power Pak 1.55	N	N	N
QDOS	Y	Y	N

N=Incompatible

Y=Compatible

Note that we are working with PR to get this information to the press.

ROMmable DR-DOS

This version of DR-DOS is targeted primarily at palmtop and vertical markets such as hand-held data collection, dedicated word processors and the embedded systems applications. There exists high potential with DOS in ROM in both the palmtop and dedicated word processor markets. OEMs developing products for these markets are looking for DOS compatibility to enable these products to connect to PCs smoothly. The following table shows estimates for both markets:

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Total Units Shipped WW

	1990	1992
Dedicated Word Processors	3.0M	4.2M
Handheld PCs	0.2M	1.5M

Dedicated Word Processors: source MSKK

Handheld PCs: source Dataquest

These products are sold direct to consumers via the retail channel and once again DRI is aggressive in this market with OEMs manufacturing products for these markets. Dedicated word processors are sold primarily in Japan. The handheld segment is an emerging market and Dataquest expects this segment to mushroom with products in the next three years.

Key OEMs developing either dedicated word processors or palmtop PCs include:

Dedicated Word Processors	Palmtop PCs
Sharp	HP
Toshiba	Commodore
NEC	Olivetti
Matsushita	Atari
Canon	

To date none of these OEMs are offering DR-DOS with their products.

Product Comparisons

We have also conducted an analysis of DR-DOS in ROM and comparing the sizes of MS-DOS to DR-DOS in ROM we note the following:

	MS-DOS	DR-DOS
Kemel	45K	40K
BIOS	33K	22K
Command.Com	48K	36K
Total ROM Size	126K	97K

This is the code needed to provide full DOS compatibility in a notebook or palmtop PC. For embedded or dedicated systems which do not require full DOS compatibility, we are modifying MS-DOS 5 ROM in the following manner:

- Mini-Command.Com: used for launching applications
- Remove Config.Sys processing
- Provide source to DOS BIOS and Mini-Command.Com

With the additions above the size of MS-DOS 5 ROM version can now be reduced to as low as 70K. DRI provides minimal source for their BIOS, leaves it up to the OEM to develop a new Command.Com and does not remove Config.Sys processing. Thus DRI's code can be reduced further by about 12K for a minimum ROM size of about 86K.

Features offered in DR-DOS 5 ROM version:

- Fully ROM-executable
- Battery Max - a power management driver
- File Transfer utility
- Source for a skeletal BIOS

MS-DOS 5 ROM version, available this Fall, will contain the following features:

- Fully ROM-executable
- Power Management driver

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- ROM Disk utility
- File Transfer utility
- PCMCIA Memory Card driver

Microsoft's areas of strength

Power Management

We are developing a Power Management specification with Intel and IBM to enable PC OEMs to build support for power management in the ROM BIOS using a defined function call. Our objective is to make this specification a standard among PC OEMs designing products from palmtops to complete 386-based notebook PCs. The specification complements strongly the Intel SL platform. However the specification is not dependent on any one CPU so an OEM designing a system using Intel, AMD, NEC or any other vendors' CPUs can take full advantage of the specification to extend the battery life of a system.

PCMCIA and Flash Memory

As part of our effort to support new memory card technologies, by early next year we will provide to PC OEMs a driver which recognizes either PCMCIA memory cards or Flash Memory. The driver will enable DOS to treat either memory technology as a drive for storing data and applications.

Future Direction

DR-DOS

DRI will continue to focus heavily on DR-DOS. According to the June 10 issue of PC Week DR DOS 6.0 currently is in beta test with a release due in the Fall. In addition, PC Week reports that DR-DOS 6.0 will offer a high performance file system using Super PC-Kwik disk-caching technology, increased use of high memory, significant new security features, and at least some multitasking. DRI still hasn't decided between two beta versions, one which permits background processing on x86 machines while the other offers task switching only. Testers say version 6 is quicker and has tighter code (requires less memory) than DR DOS 5.0.

Impact of DR-DOS 6

Now that Novell owns DRI, I expect that Novell will focus their engineering efforts to develop a great operating system with networking support. This together with offering the product via corporations and OEMs can strengthen their ability to distribute the product to a broader audience. Novell now has an operating system that it could just give away to its installed base and position the product as the DOS which ensures 100% Novell Netware compatibility. However, Novell must provide its installed base with a compelling reason to adopt DR-DOS over MS-DOS. If customers are content with MS-DOS then the burden is with Novell to get them to adopt DR-DOS.

Multiuser DOS 5.0

This product is a low cost alternative to networking software. It is intended to be used strictly with 80386 or higher systems. Multiuser DOS links dumb terminals and PCs to a central CPU, thus getting LAN benefits at a fraction of the cost and effort required to install a LAN. The primary benefit is the ability of the users connected to the central CPU to run DOS applications. This configuration is primarily intended for environments which do not run processor-intensive applications such as computer-aided engineering or financial modeling. Currently DRI offers the ability to connect up to 16 users to a host PC.

A recent review by PC User magazine of Multiuser DOS 5.0 gives the product good marks for design, installation, documentation, and ease of use. DRI has developed a strong product in the area it knows the most about: operating systems.

Multiuser DOS 5.0 is also multitasking, enabling a user to run multiple DOS applications from a single station. Multiuser DOS is compatible with DOS 2.x, 3.x and 4.x applications. The SRP for Multiuser DOS is \$695.

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According to an article published in *Computerworld*, there is an estimated installed base of 300,000 domestic users running some variation of a Multiuser DOS by one of the vendors listed above. However, DRI is not the only software vendor offering a version of Multiuser DOS. Software vendors offering competing products to Multiuser DOS 5.0 include:

- Alloy Computer Products
- Bluebird Systems
- Concurrent Controls
- IGC
- Microdyne Corporation
- S&H Computer Systems
- The Software Link
- Starpath Systems
- Theos

Flex-OS: Real-time Operating System

Market Overview

The real-time market is highly fragmented with a host of vendors offering real-time kernels. The leaders in this market include Ready Systems with VRTX and Intel with RMX. Both Ready Systems and Intel are viewed as the premier real-time operating systems vendors in the real-time market. Ready Systems does not view DRI as a real threat. A typical high volume application for a manufacturer is approximately 1000 units.

Flex-OS

Flex-OS, is DRI's real-time, multitasking operating system targeted for high end applications such as industrial automation, point-of-sale, medical instrumentation, communications and banking. A summary of the features includes:

Real-time performance	DOS media support
Protected-mode operation	Self-hosted development environment
Multi-tasking, multiuser capabilities	Source code debugger
Open, modular architecture	Executable from ROM
DOS- and UNIX-like utilities	Low memory requirements
DOS 3.3 Application Environment	Optional networking
POSIX function support	Optional graphical user interface

According to DRI, the installed base for FlexOS is approximately 300,000 units worldwide. DRI also mentions that Flex-OS is used primarily in point-of-sale systems found in grocery and department store chains.

Application Software

DRI's application strategy is not at all well-defined. As early as last year applications comprised 40% of DRI's revenue. Today the number is about 30%. Regarding units shipped, 60% are sold overseas with the remainder sold in the US. Originally DRI's applications were designed with the GEM functionality. Now the GEM environment is not emphasized strongly and instead the applications are positioned as DOS applications. The lack of acceptance of the GEM environment has caused DRI to position their applications as DOS applications which can run under Windows as well. However, their products have not received favorable reviews, casting further doubt as to whether their applications will ever be widely accepted.

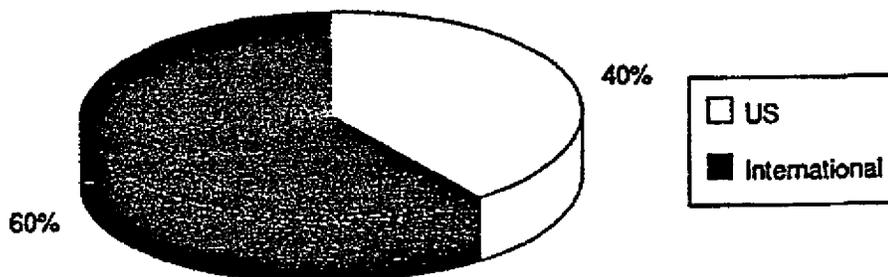
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The table below provides a summary of the products' acceptance:

Product	WW Market Share in CY1990 (Units)	WW Installed Base (Cumulative Units)	WW Units Shipped CY1990
Presentation Team 2.0	1.5%	50K	15K
Artline 2.0	6%	27K	15K
Draw Plus	10%	220K	25K

A breakdown of domestic vs. international units shipped in 1990 includes:

Distribution of Applications: US vs. International



Outside of the US, DRI's applications are sold primarily in Europe.

Presentation Team 2.0

A presentation graphics product, Presentation Team 2.0 competes head to head with the likes of Ashton-Tate's Applause II 1.5, Micrografx' Charisma 2.01 and our own Powerpoint for Windows. The strengths of the product lie in ease of use and its compatibility with other DRI applications.

PC Week's evaluation of presentation graphics software which included Presentation Team 2.0 revealed the following:

	Ashton-Tate <i>Applause II 1.5</i>	DRI <i>Presentation Team 2.0</i>	Micrografx Inc. <i>Charisma 2.01</i>	Microsoft <i>Powerpoint for Windows 2.0</i>
Presentation design capabilities	satisfactory	needs improvement	satisfactory	good
Presentation creation & editing	good	satisfactory	good	good
Presentation control features	good	needs improvement	good	satisfactory
Import capabilities	satisfactory	needs improvement	good	good
Presentation aids	needs improvement	satisfactory	satisfactory	good

Our Powerpoint for Windows was the analyst's choice.

Artline 2.0

Artline 2.0 is a free-hand drawing DOS application which can run under either Windows 3.0 or GEM. Artline 2.0 first became available to endusers in 1989. PC Week found that Artline performs well on a 286-based PC for simple tasks and for editing without color. Displaying complex, multilayer color drawings impacted the performance of the software. While Artline is generally easy to use and understand, the most noteworthy drawback is its complete lack of on-line help. What saves an enduser from giving up on the product is the well-written documentation that accompanies Artline 2.0.

Competing products to Artline 2.0 include:

Vendor	Product
Computer Support	Arts & Letters 3.0
Corel Systems	Corel Draw 1.21
Micro Systems Engineering	Mass-11 Draw 6.0
Micrografx	Designer 3.01
Wordperfect	Drawperfect 1.1

Draw Plus 2.01

This product is the low end version of Artline 2.0. It has been difficult obtaining information about this product. I do know that DAK currently offers this product along with a variety of other applications when an enduser purchases a system from DAK. From a marketing perspective, DRI does not push aggressively the product into the channel.

The competing product to DRI's Draw Plus is Micrografx' Draw Plus.

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Applications Software Summary

DRI's strength lies in operating systems. However, applications due contribute 30% of the company's revenue. An analyst at IDC confirmed with DRI that they are developing a Windows application. Currently their applications run as character-based DOS applications but competitive pressure by Corel Systems, Micrografix and ourselves is pressuring DRI to develop applications for the Windows environment.

DRI's major weakness in applications is its inability to market its products effectively as well as its inability to develop great products. Until this changes and they develop applications which offer superior features to their competitors' products, endusers will not find a compelling reason to switch to DRI's applications. There is the likelihood that Novell could offer DRI's applications, though I emphasize my earlier point which is that Novell will focus on what it does best: sell networking software. Novell is no expert at marketing applications and they can't leverage any of DRI's expertise because DRI has performed poorly in this category as well.

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