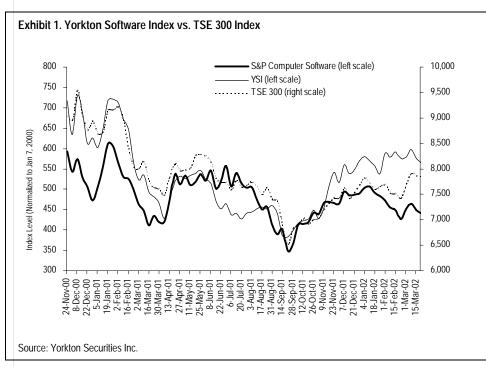




# SOFTWARE OUTLOOK Q2/2002

### Second Half Comeback?



#### **HIGHLIGHTS**:

- The Yorkton Software Index was down 3% in Q1/02.
- The CIO Index is turning positive.
- Predictions for next quarter for our covered companies.
- Revised estimates and/or targets for Hummingbird and Pivotal.

#### **FEATURE ARTICLES:**

- Software on Sale:
   Discounting in the Software Industry
- Follow-up on "Government Sector Provides a Hedge in Tough Economic Times"

	3/29/02	/29/02 52 Week			hange	% Change			
Index	Level	High	Low	High	Low	1 Month	3 Months	6 Months	1 Year
Yorkton Software	550.6	597.6	383.3	-8%	44%	-4%	-3%	38%	18%
S&P Computer Software	439.5	556.9	349.3	-21%	26%	3%	-10%	20%	5%
NASDAQ	1,845.4	2,251.0	1,423.2	-18%	30%	7%	-7%	23%	0%
TSE300	7,851.5	8,292.8	6,513.1	-5%	21%	6%	2%	15%	3%

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		_		Shares		Share	F0.14		Market		FD/					-			D: /		lonth
Company	Symbol	Recom- mendation	Analyst	O.S. (mm)	Float (mm)	Price _ 25-Mar	52-W High	Low	Cap. (\$mm)	2000	2001E	2002E	2003E	2000	2001E	/E 2002E	2003E	Book Value	Price/ Book	Price	rget Returr
724 Solutions (US\$)	SVNX	4	FS	58.4	25.7	\$1.18	\$12.56	\$1.04	\$68.9	(\$0.90)	(\$1.09)	(0.70)	(\$0.17)	NMF	NMF	NMF	NMF	\$1.86	0.6	\$1.50	279
A.L.I. Technologies	ALT	2	FS	10.7	7.4	34.25	38.49	4.05	366.5	(0.33)	0.27	1.01	1.33	NMF	NMF	33.9	25.8	2.94	11.6	43.00	269
Absolute Software	ABT	2 (Spec.)	TL	20.3	14.8	0.40	0.69	0.31	8.1	(1.41)	(0.53)	(0.26)	(0.18)	NMF	NMF	NMF	NMF	0.52	0.8	1.00	1509
ccelio	LIO	(-1/	TL	24.9	20.6	4.38	4.53	1.50	109.1	(0.17)				NMF				2.16	2.0		NA
AD OPT Technologies	AOP	2	TL	11.2	6.8	4.26	5.15	1.80	47.7	0.05	0.11	0.19	0.32	85.2	85.2	22.4	13.3	2.17	2.0	6.25	479
Basis100 Corp.	BAS	2	TL	36.0	25.0	3.25	4.69	1.20	117.0	(0.40)	(80.0)	0.12	0.26	NMF	NMF	NMF	27.1	1.27	2.6	6.50	1009
BCE Emergis	IFM	4	FS	101.3	35.4	11.90	47.50	11.15	1,205.5	0.33	0.59	(0.48)	0.22	36.1	NMF	NMF	NMF	8.06	1.5	15.00	269
Bridges.com	BIT	2	PS	12.9	8.3	4.71	4.95	1.25	60.8	0.13	0.13	0.31	0.49	36.2	36.2	15.2	NA	1.25	3.8	6.00	27
Certicom (US\$)	CIC	2 (Spec.)	FS	31.5	28.0	2.50	17.34	1.68	78.8	(0.41)	(0.74)	(0.73)	(0.15)	NMF	NMF	NMF	NMF	1.36	1.8	4.25	709
Cognos (US\$)	COGN	3	PS	89.5	72.0	26.27	30.75	11.60	2,351.2	0.70	0.43	0.72	0.82	37.5	61.1	36.5	32.0	3.26	8.1	32.75	25
DataMirror Corp.	DMC	2	TL	11.6	8.2	11.25	13.50	4.52	130.5	(0.17)	0.38	0.42	0.62	NMF	29.6	NMF	18.1	5.13	2.2	15.50	38
Descartes (US\$)	DSGX	3	PS	52.1	48.7	4.26	24.15	3.81	221.9	(0.71)	(0.74)	(0.22)	NA	NMF	NMF	NMF		5.88	0.7	5.50	29
NGENUITY	EGY	4	TL	12.1	9.4	1.42	3.10	0.70	17.2	(0.09)	(0.28)	0.05	0.11	NMF	NMF	28.4	NA	1.66	0.6	2.20	55
Financial Models Co.	FMC	3	TL	11.9	3.3	6.25	9.60	3.00	74.4	0.03	(0.44)	(0.18)	0.28	NMF	NMF	NMF	22.3	3.29	1.9	6.25	0'
Geac	GAC	2 (Spec.)	PS	81.9	75.7	4.25	8.55	1.53	348.1	2.36	0.79	0.83	0.68	1.8	5.4	5.1	6.3	1.05	NMF	7.50	76
Hummingbird (US\$)	HUMC	3	PS	18.3	12.5	20.79	23.75	14.15	380.5	1.97	1.10	1.24	1.31	10.6	18.9	16.8	15.9	15.04	1.4	26.00	25
ntrinsyc Software	ICS	2	FS	38.3	36.4	2.40	3.34	1.12	91.9	(0.16)	(0.12)	0.00	0.10	NMF	NMF	NMF	24.0	0.70	3.4	3.60	509
.INMOR	LIR	2 (Spec.)	TL	132.0	107.0	0.21	0.44	0.10	27.7	(0.12)	(0.11)	(0.06)		NMF	NMF	NMF	NMF	0.04	5.3	0.35	67
MacDonald Dettwiler	MDA	2	TL	35.7	28.5	26.40	28.85	18.75	942.5	0.58	0.72	0.97	1.21	45.5	NMF	27.2	21.8	4.46	5.9	34.00	29
ИKS	MKX	2	TL	47.6	28.4	1.65	2.22	1.00	78.5	(0.01)	(1.29)	(0.07)	0.07	NMF	NMF	NMF	23.6	0.08	20.6	2.50	529
OnX Incorporated	ON	2 (Spec.)	FS	28.2	9.3	0.49	2.25	0.33	13.8	(0.11)	(0.74)	(0.43)	0.01	NMF	NMF	NMF	49.0	0.20	2.5	0.85	73
Open Text (US\$)	OTEX		PS	21.2	16.5	22.15	31.79	15.75	469.6	0.74				29.9				6.23	3.6		N.
Pivotal Corp. (US\$)	PVTL	3	PS	24.0	21.8	4.75	25.70	2.36	114.0		(0.25)	(0.90)	0.01		NMF	NMF	NMF	3.92	1.2	7.00	47
Rand	RND	4	CD	16.5	13.5	4.7	7.95	1.93	77.6	0.9	(0.6)	0.3	0.0	5.47	NMF	15.67	2.88	3.30	1.4	3.00	-36
SureFire Commerce	FIR	4	FS	105.3	86.6	0.43	3.62	0.42	45.3	NA	0.01	0.02	0.02	NA	43.0	21.5	21.5	0.50	0.9	0.60	40
Triple G Sytems Group	TGG	2	FS	19.1	11.8	2.60	3.00	0.95	49.7	(0.60)	(0.13)	0.02	0.13	(0.60)	NMF	130.0	20.0	0.23	11.3	3.50	35
Kenos Group	XNS	2 (Spec.)	FS	8.5	4.2	1.35	3.00	0.90	11.5	(1.19)	(1.06)	(0.06)	0.18	NMF	NMF	NMF	NMF	2.93	0.5	2.50	85

#### CHANGES TO RECOMMENDATIONS, TARGETS AND ESTIMATES

In the process of writing this report, we reviewed our models and valuations for all of our companies and have made the following adjustments:

Previous					Revised				
Company	Recommendation	Target	Estimates (current)	Estimates (next)	Recommendation	Target	Estimates (current)	Estimates (next)	
Hummingbird	3-Accumulate	US\$26.00	US\$1.24	US\$1.33	N/C	N/C	N/C	US\$1.31	
Pivotal	3-Accumulate	US\$7.50	US\$(0.89)	US\$0.06	N/C	US\$7.00	US\$(0.90)	US\$0.01	
Coverage Initia	ation								
Triple G System	าร				2-Buy	\$3.50	\$0.02	\$0.13	

#### **Hummingbird (Page 43)**

We are revising our revenue and EPS estimates for Hummingbird for F2003 based on our belief that software vendors are less likely to see a recovery in the back half of calendar 2002. Our revenue estimate goes from US\$246.6 million to US\$235.5 million and EPS moves from US\$1.33 to US\$1.31. We maintaining our 3-Accumulate recommendation and 12-month target price of US\$26.00.

#### Pivotal (Page 53)

We are revising our revenue and EPS estimates for Pivotal for F2002 and F2003 based on our belief that software vendors are less likely to see a recovery in the back half of calendar 2002. In F2002 our revenue estimate goes from US\$70.0 million to US\$68.8 million and EPS moves from US\$(0.89) to US\$(0.90). For F2003 our revenue estimate goes from US\$89.0 million to US\$85.2 million and our EPS moves from US\$0.06 to US\$0.01. We are maintaining our 3-Accumulate recommendation and lowering 12-month target price to US\$7.00 from US\$7.50.

#### **QUARTERLY RECAP**

During the second quarter, the Yorkton Software Index (YSI) declined, by 3%, closing at 550.6, down from 569.6 last quarter (see Exhibit 1). We are making a number of adjusts to the YSI based on stock price movement over the past quarter. We are removing eNGENUITY Technologies (EGY, TSE) as it fell below our minimum price threshold for inclusion in the index and MGI Software, because it was delisted following its acquisition by Roxio Software. Companies that are making their first appearance in the YSI include MKS Inc. (MKS, TSE), SureFire Commerce (FIR, TSE) and Triple G Systems (TGG, CDNX).

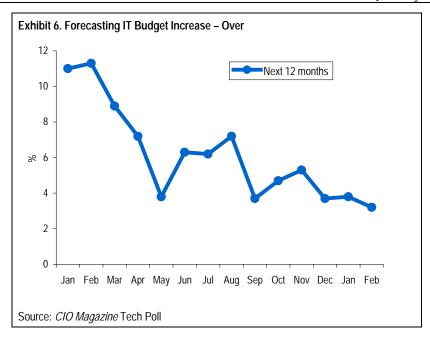
At the end of the first quarter, we witnessed a mixed environment, with the number of declining issues outweighing the number of advancing issues. Small-cap firms were the net winners during the quarter, while some of the larger-cap firms gave back gains recorded in the fourth quarter (see Exhibit 5).

Exhibit 5. Quarterly Summary		
Yorkton Software Index % Change		(3.0)%
Advances/Declines/Unchanged		9/13/0
Top Movers		
Advancers	Symbol	% change
A.L.I. Technologies	ALT	85.6%
AD OPT	AOP	63.2%
Accelio	LIO	50.0%
Bridges.com	BIT	32.3%
DataMirror Corp.	DMC	16.6%
Decliners		
BCE Emergis	IFM	(72.8%)
724 Solutions	SVN	(47.2%)
Descartes Systems Group	DSG	(40.6%)
SureFire Commerce	FIR	(39.0%)
Source: Yorkton Securities Inc.		

#### SECOND HALF RECOVERY?

General consensus surrounding IT spending over the past few months has been talk of a back half recovery in 2002. As we enter the second quarter, there is shrinking evidence that a significant recovery will happen that rapidly.

During February 2002, results from the *CIO Magazine* Tech Poll panel showed that IT spending growth expectations are for 3.2% growth over the next 12 months, down from 3.8% in January 2002. A year ago, expectations were for growth of 11.3% over the coming 12 months, which reflects the dramatic change in attitude toward IT spending over the past year. Our discussions with IT executives indicate that they continue to invest in technology projects that provide a rapid return on investment.



After the events of September 11, there has been a dramatic shift in the priorities for CIOs in relation to the transition in software spending. Of 326 CIOs interviewed, 58.2% plan to increase their company's security software investments. Expectations for improvement in this category declined sequentially in February, but only by 1.4%, from 59.6% in January; those that plan to decrease security spending increased from 4.9% to 6.1%.

Data from the survey also confirms recent negative sentiment toward the time frame in which to expect an IT spending recovery. While last quarter many analysts felt that spending was likely to increase by the second quarter of this year, 38.5% of survey respondents now feel that the pickup is not likely to occur until after the second quarter of 2002. This represents an increase of 15.2 percentage points, from 23.3% of respondents that felt this way in December. Further supporting this shift in perception, the percentage of respondents that felt IT spending would pick up in the first quarter of 2002 changed from 22.5% in December to 7.4% a month later in January.

Exhibit 7. Expected Pickup in IT Spendi	ng (February survey data)
	% of Respondents
Never slowed	21.6
Already picked up this year	10.6
First quarter 2002	4.0
Second quarter 2002	20.9
Beyond second quarter 2002	38.5
Total number of respondents	326
Source: CIO Magazine Tech Poll	

While profits may be stabilizing, investors should realize that a lag effect occurs between profit stability/improvement and a subsequent increase in IT spending. Historical analysis of these patterns indicates that the lag effect is approximately two quarters. The data in the following table also reveals that the median lag time effect is approximately two quarters.

Exhibit 8. Time Needed to Adjust IT Spendin	Exhibit 8. Time Needed to Adjust IT Spending Once Profits Improve							
	% of Respondents							
Within a month	10.4							
Within 3 months	28.2							
Within 6 months	27.2							
More than 6 months	16.1							
Unsure	18.1							
Total number of respondents	326							
Source: CIO Magazine Tech Poll								

#### RECOVERY OR NOT? — THE VIEW FROM INDUSTRY LEADERS

Over the past few months, we have seen various software executives provide differing views as to the timing of an IT spending recovery. Executives are divided on this issue between those who are confident that IT spending will increase as the economy shows signs of recovery and those that are less confident that we will see a near-term uptake in demand.

#### The Optimists

In recent weeks, several companies have made comments that reflect a positive outlook on future earnings and expectations for the next few quarters. On Siebel's last quarterly conference call, Tom Siebel commented that he was optimistic about the IT spending environment. "Right now, we are very optimistic about 2002, based on what we have been seeing," Mr. Siebel said, adding that his company's software remains a top spending priority among large business customers. Additionally, Steve Ballmer, CEO of Microsoft (MSFT, NASDAQ), announced at the CeBIT tradeshow that "economists are saying things are coming back, and when we have quarterly results that support it, you will know we agree. But for now we stand by all our current revenue projections."

#### The Pessimists

John Chen, CEO of Sybase (SY, NYSE), provides a counterpoint, "we all read the same reports. We all talk to the same customers... People think it is going to pick up in the second half. I am somewhat skeptical of that." The market has yet to restore itself to the employment levels seen prior to the events of September 11, thus inhibiting license demand. "A lot of tech spending is based on headcount. One has to assume that demand will come back slowly," said Chen.

Jeff Henley, CFO of Oracle (ORCL, NASDAQ), stated on the company's third quarter conference call that, "as far as we can tell, tech spending for enterprise hardware and software remains very soft and does not yet appear to be improving. So, despite the fact that economic data suggesting that the U.S. economy is starting to improve, it appears to us that improvement in tech spending will continue to lag the overall recovery."

It should be noted that both Sybase and Oracle have a number of company specific issues that should be considered when weighing their comments.

#### Yorkton's View

Overall, we remain cautious about the prospects for a strong back half recovery in IT spending. In reviewing the estimates for a number of leading software companies, we believe that consensus revenue and EPS estimates continue to depend on the assumption that software firms will see a strong uptake in demand in the third and fourth quarters of calendar 2002. Based on our discussions with customers, systems integrators and public/private software companies, we believe that a return in IT spending will be more muted than the optimists.

We see signs of strength in IT spending within the healthcare, retail and government verticals; however, key verticals, such as financial services, utilities and telecommunication, and manufacturing, still continue to be very challenging selling environments. Among the application markets, we see strength in security/IT infrastructure, document management/workflow and business intelligence; however, the outlook for several application areas, such as enterprise resource planning (ERP), supply chain management (SCM) and customer relationship management (CRM), are expected to remain difficult in the near term.

#### **Indicators for a Recovery**

We are monitoring a number of key metrics in an effort to predict a recovery in IT spending.

#### Stabilization of Corporate Profits

Over the past six months, companies in a wide range of industries have undertaken restructuring initiatives in an effort to improve profitability. We would view companies beginning to show stability and even modest improvement in corporate profits as a precursor to any significant uptake in IT spending. As noted previously, there is a lag of at least two quarters before a rebound in corporate profits begins to show up in IT spending. We are especially focused on stabilization in the telecommunications and financial services verticals, the traditional leaders in IT spending.

#### Pickup in Consulting Engagements

When activity with large systems integrators and consulting firms begins to return, we can expect a subsequent pickup in software license spending.

#### Uptick in Large Deal Sizes

Over the past year, we have seen the number of large multimillion-dollar license deals fall to near zero. Based on recent quarterly results, it appears that this indicator has bottomed, and we expect to see a moderate pickup in this indicator over the next two quarters. Corporations are focused on staged deployments due to reduced budgets. Once corporations develop confidence in near-term profit projections, we should start to see an uptick in the number of large deals being signed, which should help to drive overall IT spending.

#### Software Market Consolidation

Although mergers and acquisitions (M&A) activity has picked up significantly over the past six months, we believe there is significantly more room for consolidation in a number of sectors (e.g., ERP and CRM). We believe that leading software vendors being confident enough to increase the level of M&A activity will signal returning stability in the market.

#### What to Do

We believe that the IT spending recovery will be slower than the current consensus viewpoint. We maintain that investors should hold positions in companies outlined under the "Slowed Recovery" scenario (see Exhibit 9). Each of the firms highlighted under this scenario meet the characteristics we believe are necessary to survive the remainder of this spending slowdown. We also provide a group of companies that we believe could beat general market trends based on individual situations or are well positioned in a recovery scenario.

Exhibit 9. Altern Large/Mid Cap	ate Economic Scenarios for 2002 Accelerated Recovery Cognos, Descartes	Slowed Recovery Cognos, Hummingbird, MacDonald Dettwiler
Small Cap	Basis100, Intrinsyc Software, LINMOR, MKS, Pivotal	AD OPT, ALI Technologies, DataMirror, Triple G Systems Group
Characteristics	Significant potential upside in license revenue if large deals pickup Highest potential for multiple expansion as sentiment improves Unique market position	Revenue visibility above average  Strong customer base (thus, strong maintenance revenue base, easier to sell to existing customers)  Cash flow positive or at least neutral  Strong balance sheet

#### **Our Second Half Forecasts**

The table below summarizes the expected revenue growth for the majority of our coverage universe. For the most part, our revenue forecasts are consistent with our belief that a broad-based back half recovery in IT spending is unlikely to occur. Companies that have above-average revenue growth assumptions also have a number of company-specific factors, including revenue from recent acquisitions and vendors targeting less affected vertical markets.

	First Half	Second Half	Second Half	% Difference	% Difference
Company	Year Rev.	Year Rev.	Last Year	First/Second	Year/Year
724 Solutions (US\$)	8.1	10.4	15.9	28%	-35%
A.L.I. Technologies	35.0	41.8	28.0	19%	49%
Absolute Software	2.8	3.1	2.4	11%	29%
AD OPT Technologies	7.6	10.9	10.5	43%	4%
Basis100 Corp.	27.7	33.7	16.6	22%	103%
BCE Emergis	262.8	282.1	354.4	7%	-20%
Bridges.com	7.9	18.8	12.9	138%	46%
Certicom (US\$)*	8.0	10.5	5.9	31%	78%
Cognos (US\$)	262.8	282.1	354.4	7%	-20%
DataMirror Corp.	30.0	33.5	28.5	12%	18%
Descartes (US\$)	36.0	41.2	38.0	14%	8%
NGENUITY	13.0	11.7	11.5	-10%	2%
Financial Models Co.	40.4	43.1	38.2	7%	13%
Geac	348.0	354.0	363.4	2%	-3%
Hummingbird (US\$)	100.3	117.4	93.0	17%	26%
ntrinsyc Software	7.9	11.3	7.2	43%	57%
INMOR	5.8	6.6	2.7	14%	144%
MacDonald Dettwiler	254.8	300.3	249.0	18%	21%
MKS	15.2	16.9	13.9	11%	22%
Pivotal Corp. (US\$)	37.5	41.5	32.5	11%	28%
Rand	187.0	191.9		3%	
SureFire Commerce	28.8	27.9	38.9	-3%	-28%
Friple G Systems	11.2	11.6	9.9	4%	17%
Certicom changed its reve	nuo rocomitios		je Changes:	20%	25%

# UPDATE FROM Q1/2002 SOFTWARE OUTLOOK: GOVERNMENT INTERVENTION

In the last issue of software outlook we addressed the question as to whether or not the government sector provides a good hedge for software firms in poor economic times. Over the past quarter, a number of noteworthy events (e.g., accelerated depreciation for U.S. companies and several IPOs) have occurred in the government sector that affect software vendors. We believe these events reaffirm our thesis that software vendors that have exposure to the government sector have a solid source of revenue stability.

In an effort to boost declining IT expenditures since the events of September 11, the U.S. government has enacted an economic stimulus package that includes a depreciation bonus for those firms that invest in information technology. The bill, signed on March 9, will offer a 30% depreciation bonus for three years on capital equipment plus the amount of the normal depreciation schedule, which has typically been five years, retroactive to September 10, 2001, and ending September 11, 2004. IDC estimates that IT spending will increase this year by 4.6% and that, with the stimulus bill in effect, this figure may grow an additional 1%.

The passing of this bill is beneficial to the software industry as it provides financial savings to potential software customers; however, we do not feel that this alone will have a material impact on IT spending. In an IDC report, it was estimated that IT spending in 2000 was US\$444 billion, declining 1.8% in 2001 to US\$436 billion. We believe the decline is a matter of widespread economic weakness characterized by a fall in corporate profits and internal monetary policies of cash preservation. Thus, for the expected recovery, companies need to invest wisely with their cash with a set return on investment goal and not just because they may depreciate their investment more favourably.

Further government intervention includes an actual increase in government IT spending to improve its security. The U.S. House of Representatives approved a bill on February 7 that offers US\$880 million in funding to government agencies for researching ways to improve computer and network security. The bill, H.R. 3394, was approved by a vote of 400-12, and the funds will be split between the National Science Foundation and the National Institute of Standards and Technology for use in cyber-security research efforts. Another example of government activity within the software sector is the development of the firstgov.gov Web site, which will allow Americans access to government services using a simplistic interface. Once completed, the site will allow American citizens to check laws and regulations, apply for student loans and jobs, renew drivers' licenses, buy stamps, and file trademarks and patents.

The increase in government IT spending has even led to the IPO of an IT services and solutions company, Mantech (MANT, NASDAQ). Mantech designs, develops, implements and maintains enterprise information technology and communication systems and infrastructures for federal government customers in the United States and 28 countries worldwide.

		Quarter	_	Yorkton Est	timates	Yorkton	Consensus E	stimates
Company	Ticker	Reporting	Date	Revenue	EPS	Analyst	Revenue	EPS
724 Solutions	SVNX	Q2 F2002	25-Apr	3.8	(0.21)	Syed	\$4.8	(\$0.20)
Accelio Corporation	ACLO	Q4 2002	21-Jun			Liston	33.3	(0.14)
Actuate Corporation	ACTU	Q1 2002	23-Apr				28.8	0.19
Adobe Systems	ADBE	Q2 2002	15-Jun				318.1	0.25
AD OPT Technologies	AOP	Q1 F2002	15-May	3.5	(0.04)	Liston	4.1	-
Aether Systems	AETH	Q1 2002	8-May				25.1	(0.84)
A.L.I. Technologies	ALT	Q2 F2002	1-May	17.0	0.35	Syed	17.4	0.34
Basis100	BAS	Q1 F2002	9-May	13.1	0.00	Liston	-	-
BCE Emergis	IFM	Q1 2002	24-Apr	128.2	(0.33)	Syed	-	(0.06)
BEA Systems	BEAS	Q1 2003	14-May		, ,	,	223.3	0.06
Bridges.com	BIT	Q1 F2002	Late June	4.5	0.01	Steep		
Business Objects SA	BOBJ	Q1 2002	17-Apr				107.9	0.16
Certicom	CERT	Q4 2002	4-Jun	3.7	(0.10)	Syed	-	(0.10)
Cognos	COGN	Q4 2002	10-Apr	144.0	0.23	Steep	143.3	0.22
DataMirror	DMC	Q1 F2003	30-May	14.5	0.07	Liston	. 10.0	0.06
Descartes	DSGX	Q1 F2003	23-May	17.9	(0.07)	Steep	7.8	(0.07)
Documentum	DCTM	Q1 2002	15-Apr	17.7	(0.07)	Отоор	48.5	(0.10)
eNGENUITY	EGY	Q2 F2002	19-Jul	6.5	0.02	Liston	40.5	- (0.10)
E.Piphany	EPNY	Q4 2001	15-Apr	0.5	0.02	LISTOIT	28.4	(0.14)
EXE Technologies, Inc	EXEE	Q1 2002	8-Feb				18.1	(0.14)
Filenet	FILE	Q1 2002 Q1 2002	15-Apr				86.0	0.10)
Financial Models	FMC	Q4 F2002	-	20.5	0.08	Liston	00.0	0.01
Geac	GAC	Q4 F2002 Q4 F2002	26-Apr 24-Jun	20.5 176.2	0.08	Steep		0.21
Hummingbird	HUMC	Q2 2002	24-3un 25-Apr	47.5	0.17	•	47.9	0.21
i2 Technologies	ITWO	Q2 2002 Q1 2002	25-Apr 16-Apr	47.5	0.51	Steep	184.2	(0.08)
=	IWOV	Q1 2002 Q1 2002					42.7	, ,
Interwoven	ICS		15-Apr	4.5	0.00	Cund	42.7	(0.04)
Intrinsyc Software		Q2 F2002	3-Apr	4.5	0.00	Syed	211 5	(0.01)
J.D. Edwards	JDEC	Q2 2002	20-May	120 /	0.10	Linton	211.5	0.04
Macdonald Dettwiler & Ass.	MDA	Q1 2002	30-Apr	120.6	0.18	Liston	132.7	0.23
Manhattan Associates	MANH	Q1 2002	22-Apr				40.0	0.18
Manugistics	MANU	Q4 2002	26-Mar				74.0	(0.02)
Micromuse	MUSE	Q2 2002	22-Apr	-	-	-	44.2	0.05
Microsoft	MSFT	Q3 2002	18-Apr				7,647.5	0.51
Microstrategy	MSTR	Q1 2002	22-Apr				41.9	0.01
Open Text	OTEX	Q2 2002	24-Apr			Steep	42.4	0.22
Openwave Systems	OPWV	Q3 2002	23-Apr				88.3	(0.04)
PeopleSoft	PSFT	Q1 2002	22-Apr				512.0	0.15
Pivotal	PVTL	Q3 2002	19-Apr	18.0	(0.08)	Steep	24.2	(0.10)
RAND	RND	Q1 2002	25-Apr	93.0	(0.01)	Dennis	NA	NA
Rational Software	RATL	Q4 2002	18-Apr				179.1	0.09
RSA Security	RSAS	Q1 2002	11-Apr				64.6	0.02
SAP A.G.	SAP	Q1 2002	15-Apr				1,486.2	0.10
Siebel Systems	SEBL	Q1 2002	15-Apr				467.2	0.12
SureFire Commerce	FIR	Q4 F2002	9-May	15.0	(0.06)	Syed	-	-
Triple G Systems	TGG	Q1 F2002	Mid-May	4.9	0.00	Syed		
Verisign	VRSN	Q1/2002	25-Apr				337.7	0.21
Verisign  otes: AMC = After Market Close		Q1/2002	25-Apr				337.7	0.2

#### FEATURE ARTICLE:

#### SOFTWARE ON SALE? DISCOUNTING IN THE SOFTWARE INDUSTRY

While discounting on the sale of software licenses has been an issue in the software industry since its inception, it has increased in importance over recent years. As corporate information technology spending has tightened mid-2001 to the present, we have noticed a rise in the incidence of vendor discounting on licenses. Discounting is not confined to one specific market or series of vendors, it is endemic to the entire industry in that software companies face the issue every day. We note that, depending on the phase in the IT lifecycle, vendors in various markets will report varying degrees of discounting. At the moment, we continue to hear a variety of stories from vendors regarding aggressive pricing and deal incentives in the CRM market as various ERP vendors attempt to expand their market coverage. For instance, we have heard of Peoplesoft (PSFT, NASDAQ) selling user licenses of its CRM application for as low as US\$90 per user license to its existing ERP customers (note typical CRM licenses range from US\$500 to US\$1,000 per user seat). Stories of exaggerated or significant discounts by vendors in order to win deals continue to arrive on our desks.

We believe that several factors have led to discounting becoming a widespread problem for the software industry. Our view is that software vendors themselves are the number one cause of the discounting phenomenon. Given the back end—loaded nature of the quarterly results of software vendors, the last two weeks of every quarter has vendors scrambling to close deals in order to make their quarterly financial projections. Over time it has become common knowledge among customers that vendors become more willing to negotiate on software license sales if customers wait until the end of a quarter. The software industry, in an attempt to make financial projections provided to the investing community, have become hooked on the discounting drug and are now slaves to the typical end of quarter rush to book as much business as possible even if this requires some deep discounting. Industry analysts such as Gartner Group (IT, NYSE) and Meta Group are also responsible for encouraging customers to pressure software vendors for discounts. Research from industry analysts highlights various ways in which customers can achieve discounts on licenses and customer services.

There are a number of reasons vendors participate in discounting:

- a vendor may discount software licenses to get consulting services work or
- it may discount consulting services to win the sale of licenses.

The level of discounting that a customer can expect depends on several factors:

- the number of weeks left until the end of the guarter; and
- where the sales representative is relative to meeting their quota.

#### **Red Flags to Watch For**

In examining a company's financial statements there are a number of metrics that investors can monitor to determine the level of discounting that the firm is engaging in. Metrics that can be symptomatic of discounting are:

• A declining average selling price (calculated by dividing the total license and services revenue by the total number of deals signed during the period).

- Declining gross margins on license or services business.
- Increasing accounts receivable days sales outstanding (may indicate that the vendor is providing extended credit terms in lieu of or in addition to direct price discounts).
- Feedback from channel partners or customers regarding discounts.

It is difficult to ascertain the exact level and degree of discounting for a software vendor given that management judgement plays a key role in the presentation of financial statements under GAPP and the creativeness of software sales executives in signing deals may also distort the actual level of discounting. Many software vendors put a gag clause in their contracts in an effort to prevent customers from discussing pricing and discounts obtained.

#### **Cash Burn**

Although the financing environment for software companies has improved over the past three months, the capital markets remain an extremely challenging place for firms to raise funds. As such, we continue to monitor cash-on-hand versus forecast cash burn rates for all of our companies (see Exhibit 12).

One company, LINMOR Inc., has obtained additional funding since the last reporting period. On February 28, LINMOR completed a private placement of unsecured, subordinated convertible debentures and common shares, resulting in gross proceeds of \$5.25 million (\$2.5 million of convertible debentures and \$2.75 million of common shares). LINMOR's cash burn has dropped significantly as the company has reduced staff twice over the past nine months. As well, a significant increase in partner activity has resulted in significant revenue growth. LINMOR's fourth quarter (ending March 31, 2002) is key because we are forecasting the company will be breakeven on an EBITDA basis.

Although 724 Solutions has announced two rounds of personnel and expense reductions, the company remains at about 270 personnel. First quarter burn incorporates some of the outlays for recent cuts. Management appears to be taking the strategy of retaining personnel in anticipation of a steeper sales ramp up in the back half of the year. Although we disagree with this strategy, the firm can afford this luxury given its US\$89 million in cash reserves. See 724 Solutions in our individual write-ups below for more details.

In evaluating Pivotal, investors should be aware that our forecast includes a decline in the firm's cash burn rate following the current quarter. In the past two quarters, the company has taken restructuring charges related to severance costs, office consolidations and penalties for exiting partner relationships. We anticipate that Pivotal's restructuring efforts will result in reduced cash burn over the coming quarters.

Exhibit 12. Cash versus Cash Burn Rates

Company Name	Last Reported Quarter	Curr.	Net Cash on Hand (mm)		ation (Burn) Next Quarter Forecast	Q's left of cash based on Net Cash / Forecasted Burn
724 Solutions	31-Dec	US\$	\$89.1	(16.8)	(16.4)	5.4
A.L.I. Technologies	31-Dec	C\$	17.0	3.0	3.3	Cash flow positive
Absolute Software	31-Dec	C\$	14.7	(0.4)	(1.4)	10.5
AD OPT	31-Dec	C\$	21.8	0.6	1.5	Cash flow positive
Basis100	31-Dec	C\$	24.0	2.0	(1.6)	15.0
BCE Emergis	31-Dec	C\$	117.7	NMF	(7.9)	14.9
Bridges.com	30-Nov	C\$	7.0	2.0	(0.5)	13.1
Certicom	31-Jan	US\$	18.8	(10.4)	(7.1)	2.6
Cognos	30-Nov	US\$	268.1	22.7	11.8	Cash flow positive
DataMirror	31-Jan	C\$	37.3	3.5	2.3	Cash flow positive
Descartes	31-Jan	US\$	118.6	1.2	8.5	Cash flow positive
eNGENUITY	30-Nov	C\$	2.3	0.7	0.8	Cash flow positive
Financial Models	30-Nov	C\$	14.0	1.7	1.3	Cash flow positive
Geac	31-Jan	C\$	94.4	55.4	39.2	Cash flow positive
Hummingbird	31-Dec	US\$	91.2	(1.8)	(2.9)	31.4
Intrinsyc	30-Nov	C\$	15.9	(3.1)	3.0	Cash flow positive
LINMOR	31-Dec	C\$	3.1	(0.9)	(1.3)	2.4
MacDonald Dettwiler	31-Dec	C\$	17.1	13.1	13.9	Cash flow positive
MKS	31-Jan	US\$	8.6	(1.6)	1.5	Cash flow positive
Pivotal	31-Dec	US\$	47.8	(7.8)	(11.3)	4.2
Triple G Systems*	31-Dec	C\$	4.8	0.0	NA	Cash flow neutral

<sup>\*</sup> Triple G's figures are based on expectations for quarter ended December 31.

Source: Company Reports

INTRINSYC SOFTWARE I	NC. (ICS \$2.40, TSE)	Previous Day's Volume 12-Month High-Low	20,800 \$3.34- \$1.12
		Shares Outstanding	37 million
Recommendation:	2-BUY	Market Capitalization	\$89 million
	_	Float	36.4 million
12-Month Target:	\$3.60	Float Value	\$87 million
		Index Member	None
Farhan H. Syed, CFA (416)	864-3689; fsyed@yorkton.com	Full Report Issued	November 2000

**Recent Events:** The company reported its Q2/F02 results recently and generated revenue of \$3.4 million versus the previous quarter revenue of \$3.1 million. The company incurred a loss of \$0.02 per share versus the Q1/F02 loss per share of \$0.01. Although results were below our forecast, we maintained our estimates for the remainder of the year and are bullish about Intrinsyc based on both macro and microanalysis described below.

#### **Expectations**

Product: Intrinsyc introduced the commercial version of its Ja.NET, which complements its bi-directional JAVA-COM bridge J-Integra. Ja.NET allows .NET clients to access Java objects such as Enterprise Java Beans as though they were written in C#. and Java clients to transparently access .NET components. We believe that embedded Web services will play an increasingly important role in Intrinsyc's growth strategy.

Competitive Environment: We believe that the connected device and pervasive computing markets are accelerating across enterprises in a variety of verticals, including healthcare, industrial automation and telematics. Companies seeking to provide device and network level connectivity for consumers or enterprises 6 to 24 months from now must act in the 3- to 12-month time frame. Companies that provide solutions that accelerate time-to-market will be in demand and Intrinsyc is among the leaders with proven solutions.

Financial: We expect Intrinsyc to deliver approximately \$10 million in revenue in the second half of fiscal 2002 relative to approximately \$6.5 million in the first half. We believe this is achievable given recently announced contracts and what we perceive as an acceleration in the device market described above. We believe that Intrinsyc's channels, such as Avnet in North America and Asahi in Japan, will play a meaningful role in company growth in F2003.

**Upcoming Events:** Intrinsyc will be represented at both the upcoming IBM WebSphere and Microsoft Windows Embedded Technical Seminar Tour. We believe both conferences reflect the firm's push to enter and help to define the embedded Web services market as it evolves.

**Conclusion:** We have a 2-Buy recommendation and \$3.60 target on Intrinsyc.

Intrinsyc Software Inc.					
Income Statement					
(\$000)	Year end August 31				
	1999	2000	2001	2002E	2003E
Revenues	\$2,232	\$2,974	\$10,940	\$16,448	\$26,171
Cost of revenues	\$2,232 1,249	1,574	4,722	6,379	9,265
Cost of revenues	\$983	\$1,400	\$6,218	\$10,069	\$16,906
Expenses	Ψ703	ΨΙ,ΨΟΟ	ψ0,210	Ψ10,007	ψ10,700
Administration	1,278	2.036	2,927	1,659	1,862
Marketing and sales	1,178	2,036	4,421	4,603	6,328
Research and development (net)	513	919	2,825	3,779	4,185
Other	83	-	-	-	-
Total expenses	3.052	4.991	10.174	10.042	12.375
Operating income/(loss)	(2,069)	(3,590)	(3,955)	27	4,531
Interest income	19	192	824	450	685
Foreign exchange gain/loss and amortization	-	-	603	1,300	1,357
Earnings(loss) before tax	(2,051)	(3,398)	(3,734)	(824)	3,859
Income taxes (reversal)	-	-	-	48	-
Net earnings	(\$2,051)	(\$3,398)	(\$3,734)	(\$872)	\$3,859
Earnings (losses) per share	(\$0.11)	(\$0.16)	(\$0.12)	(\$0.02)	\$0.10
Earnings (losses) per share-fd	(\$0.11)	(\$0.16)	(\$0.12)	(\$0.02)	\$0.10
Sales growth y/y		33%	268%	50%	59%
As a % of sales					
Gross margin	44%	47%	57%	61%	65%
Marketing and sales	53%	68%	40%	28%	24%
Administration	57%	68%	27%	10%	7%
Research and development (net)	23%	31%	26%	23%	16%
Net profit (loss) margin	-92%	-114%	-34%	-5%	15%
Book value per share	\$0.04	\$0.30	\$0.60	\$0.84	\$0.96
Cash per share	\$0.01	\$0.26	\$0.46	\$0.70	\$0.83
Days sales outstanding	124	83	51	60	63
Cash flow from operations	(\$0.10)	(\$0.14)	(\$0.04)	(\$0.03)	\$0.14