

Wall Street View of Eclipse ... for the Eclipse Members' Meeting

Brent Williams Director, Technology Equity Research KeyBanc Capital Markets (a division of McDonald Investments, Inc.)

bcw@keybanccm.com

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary



What We'll Cover

- Necessary (but hopefully not too boring) introduction
- What does Wall Street want? Why?
- What's going on in the world?
- What's happening in technology?
- Putting it together: How Eclipse helps reward members
- Where are the sand traps and pitfalls in taking Eclipse to the next level?



Introduction

- How to Keep Lawyers Wealthy and Analysts Out of Jail
- Who am I?
 - A modest history
- Who is KeyBanc Capital Markets?
 - A mercifully brief commercial



Disclaimers & Legal Stuff...the bad news

- Analysts are Presumed Guilty...
 - McDonald Investments Inc. makes a market in the stocks of several members of the Eclipse Foundation.
 - McDonald Investments Inc. and affiliated firms have and may seek business relationships with various Eclipse Foundation members, including providing capital markets services such as execution of stock buybacks.
 - McDonald Investments Inc. has performed financial services (including commercial and investment banking transations) for members of the Eclipse Foundation within the last 12 months and will continue to seek to perform these services in the future.
 - Full written disclosures are provided as handouts.



Disclaimers & Legal Stuff...the good news

- ...Despite Some Signs of Innocence
 - Neither my family members nor I own shares in any Eclipse Foundation member or any other software company mentioned.
 - Neither my firm nor I are being paid directly for this presentation
 - This presentation reflects my research; the Eclipse Foundation nor its members did not specify its content
 - Opinions are substantially consistent with my prior published research



"But Enough About You"

- The Paleolithic Past: Vertical Business Applications (1978-1985)
 - MRP/ERP/Financial application software
 - Clinical medical data collection/artificial intelligence for mobile computers
- The Infrastructure Software Era (1985-1992)
 - Ingres. Engineer and sales/marketing guy when Oracle was a \$50 million startup
 - Cooperative Solutions. First application server vendor for commodity hardware.
- Punditry and Paranoia (1992-1996)
 - *IDC:* Director, PC Software Research.
 - *Gartner Group.* Software development tools, including Progress.
 - Consulting clients included: Microsoft, IBM, HP, Powersoft, Oracle.
- Capitalism Central (1997-)
 - Wall Street Analyst covering infrastructure software
 - Wall Street Journal All-Star Award for Stock Picking, 1999



Plug for KeyBanc Capital Markets

- 82 years of focus on small and mid-sized companies
- Full range of services including equity research, trading, investment banking, fixed income
- High quality research, measured by objective independent metrics including Wall Street Journal All-Star ratings
- KeyBanc Capital Markets (a division of McDonald Investments, Inc.) is owned by KeyCorp, a financial holding company with consolidated total assets of \$93 billion.



The World of Wall Street

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary



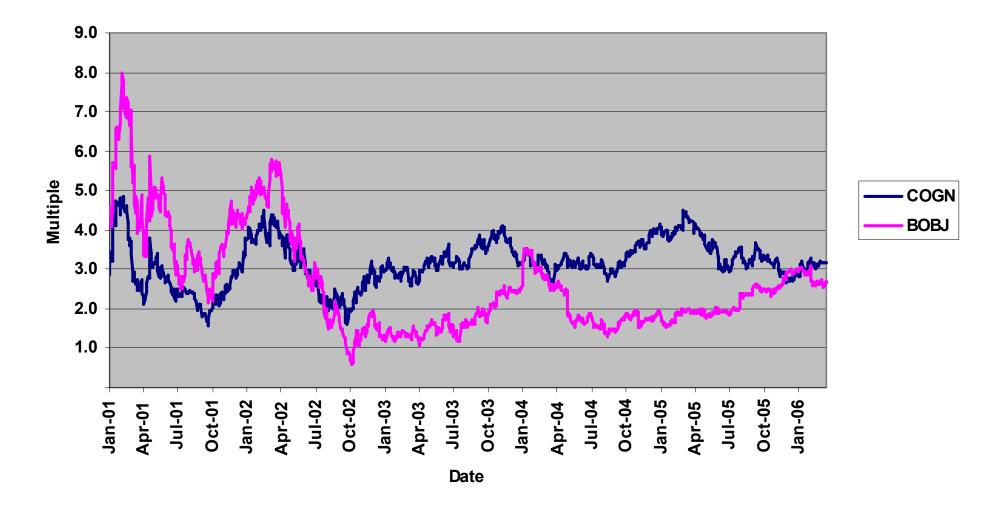
What Wall Street Wants

- Beat the numbers
 - Be in a large, growing addressable market.
 - Pick up market share in that market.
 - Deliver consistent, predictable top line growth.
 - Grow profits faster than revenue.
- Expand the multiples investors pay for those numbers
 - Ideally, create and define a new market
 - Be the leader in the market you serve (fight the battle on your terms)
 - At least expand the addressable markets you serve.
 - Show credible potential for growth upside beyond "proven" business.

...Eclipse can help with most of these.

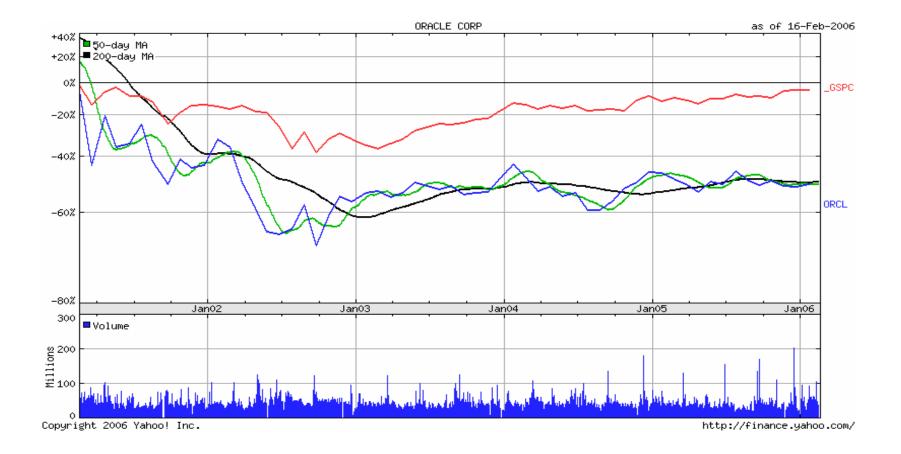


Historical Relative Enterprise Value/Revenue Multiples



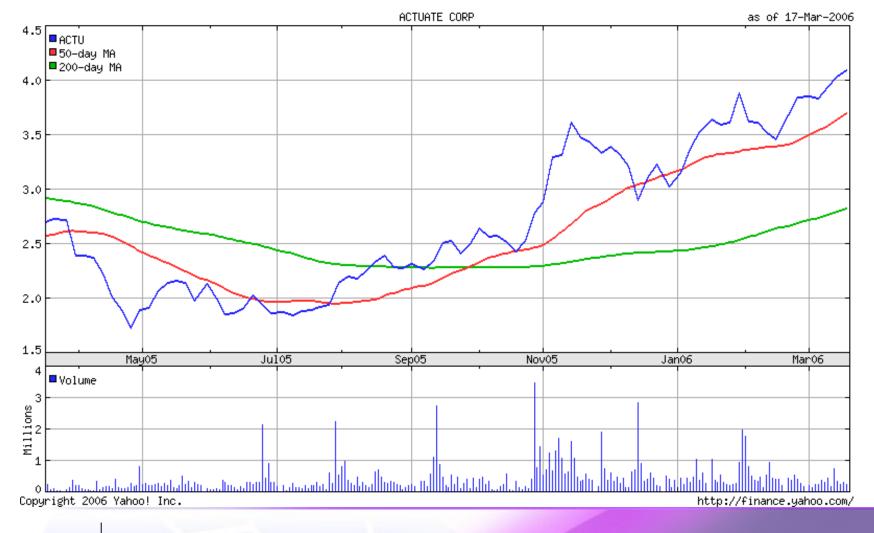


Relative Performance: ORCL





ACTU: Getting Paid for Eclipse



Presentation Title | Presentation Subtitle | © 2006 by «Author»; made available under the EPL v1.0



Technology Trends (From a Wall Street point of view)

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary



Vista-driven Chaos Is Once-In-A-Decade Opportunity

- What's different from Windows 95, the last big Windows release?
 - MSFT no longer seen as "low-cost provider."
 - People *not* rushing to embrace a single strategic vendor
- WinFX API <u>5x</u> as complex as old .NET framework API
 - Do customers want <u>more</u> complexity?
- Fractured adoption patterns with slow migration
 - Uptake rate for Vista very different among key populations: corporate, small business, consumers, international, ...
 - Gartner tells corporate users not to even look at Vista until 2008
 - Extinguishes benefit of single desktop environment
- Open source offers more flexibility in migration, evolution, etc.



Next Platform Emerging

- And it's about time, too!
 - Platform waves typically every 10-15 years.
- Formerly, platforms driven by one vendor:
 - IBM, Digital, Cisco, Intel, Microsoft, ...
- Platforms need to demonstrate killer economics to get people to switch.
 - Previously focused on cost of computing cycles or user productivity
 - Now cost of change comes to the fore
- Next platform can be driven by consortium
 - ... but only if can deliver velocity at or above single vendor platform
 - Will need much broader reach than any other platform



SOA

- Enterprise Level Capabilities
 - Bad news: nobody's going to "go" SOA like they "went" Internet.
 - Good news: eventually, it all goes SOA.
 - Customers starting to discover that SOA isn't easy.
- The Other Half of the SOA Opportunity
 - POX, REST, Ajax, etc. giving simple (mostly non-transactional) services
 - End user developers influence IT strategy and architecture selection
- Enterprises can either plan to do both or find out they already are



Rich Internet Apps, In General

- AJAX
 - Comes at the perfect time, just as Microsoft says next generation UI requires more complexity (WPF/Avalon)
 - But declarative UI's are nice, and AJAX tools could help
 - Marketing nirvana to draw focus back to client development
 - Great for content-oriented stuff (RSS, structured documents, BI reports, etc.)
 - Not so good (yet?!) for transaction-type documents
 - Need to avoid temptation to get too complex
- Need to provide layer to integrate between "applications," like RCP applications (i.e., cut and paste)



Next-Generation Rich Client Apps

- Favorable trend: new application projects redirect investment to client-side software
- Eclipse has advantage in adaptability of user interface to native operating system
 - Need to consider Vista-like features, esp. those in Office 2007
 - Declarative Ul's again
- Marketing Message As Important as Technology
 - Comparison: when to use RCP and when to use RIA?
 - May need educational material on why Rich Clients aren't dead (for business decision makers)
 - Roadmap for commonality and potential migration from RIA ← → RCP, integration of RIA and RCP applications easily



Data Management Starts to Evolve

- Increased focus on problems relational databases can't solve well.
 - New data types emerging: spatial, streams, media
 - RFID is back. We really mean it this time
 - Opportunity to define open architecture for next-generation data, integrating client/app side and database side
- Increased focus on mainframe integration
 - Most easy standalone problems have already been solved
- Metadata Wars, Round 2 on the horizon
 - Customer hubs
 - Need for good metadata with consistent semantics to enable EII and effective federation
 - Will never be an effective single corporate-wide repository a la AD/Cycle need to consider "publishing" style architecture.



More Data Management Stuff to Think About

• Web 2.0

- Microformats
- Folksonomies, Wiki/E-Mail/Blog Entry Standards
- Distributed Web Clipboard (MSFT demonstrated recently)
- XML Handling Capabilities (XML for Dummies)

WinFS Equivalent

- Open source can build extensible architecture faster than Microsoft
- RSS
 - Data source for many productivity applications
 - Microsoft has RSS "vision"; open source stuck in building more newsreaders.



Software Development Matters Again

- New ways of building software needed
 - Process, orchestration, component assembly, data transformation,
- Multiple languages and multiple programming models
 - Enterprise languages
 - Orchestration languages
 - Scripting languages
 - Domain-specific languages hit their stride

... "Multiple programming models" points to Eclipse



Computer-Mediated Community

- Eclipse as Hub for User Community
 - Not just the community of people interested in building/improving Eclipse
 - Areas for companies that sponsor projects to tie to their own Eclipse-based offerings
- MSFT trying to use "community" & MSDN to offset perceived open source advantage
 - Not sufficient to have separate communities for each vendor must be integrated.
 - Eclipse.org may be natural point for integration. Technology could vary but needs to have single point of contact.



Future Trends

- Verticalization of System Software
- Open source content management applications grow
 - Not just wiki's and blogs
 - Content application platforms: Jotspot, Backpackit.com
 - Enabler for AJAX, WebDAV, portals, ... (all sold by Eclipse members)
- New ways to process the data:
 - New development methodologies, new languages, new tools. Domainspecific languages.
- User-driven integration, not just IT-driven integration (mashups)

Interestingly, open source can be <u>the</u> innovator, not an imitator



Business Trends

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary



Characteristics of Current Expansion: What's Different This Time?

- It's product driven growth the healthiest kind!
 - Mature markets not participating in growth
- Customers buying *capability* not *capacity*
 - Deals still project level, but expanding
 - Few all-you-can-eat licenses sold today...
- Product cycles accelerating (sometimes) even as code bases age
 - MSFT trying to "reset" development processes
 - Platform/feature paired release strategy may be emerging for large products
- Architecture becomes important again
 - Customer deployment architecture AJAX, RIA, RCP, …
 - Product internal architecture also important to customers (ex: BOBJ vs COGN)
- System Software regains focus after applications wave subsides



Strategic Impact of Open Source

- Broaden addressable markets
 - ... so <u>that's</u> why all those big companies invest so much in software they just give away.
- Enable agility: smaller competitors releasing more often can:
 - Improve competitive position more rapidly than larger competitors suffering from "physics issues."
 - Can incorporate other open source components in applications and service offerings without protracted negotiations
- Make segment boundaries flexible, enabling attacks on entrenched competitors
 - Re-think: "what is a database?"



Financial Impact of Open Source

- Collaborative development leverages much larger industry-wide R&D investment in projects
 - Red Hat spends around \$40 million on R&D (our estimate for FY06) and taps into \$1 billion (our estimate) of global R&D on Linux
- Open source model is more efficient at building products because security/bug fixing costs lower
 - Microsoft claims it's spending \$2 billion of \$5 billion R&D budget on security (is this a bug or a feature?)
- Hooking up to a successful project reduces marketing costs.
 - You: "Our product works on Linux." Customer: "Great."
 - You: "Our product works on BeOS." Customer: "Who?"
- ... in other words, higher profit margins, higher EPS, more money to fuel future growth, tighter virtuous circle, ...



Strategic Impact of Eclipse

- Neutral organization levels playing field for all members
 - Can become leading place for competing commercial vendors to develop shared platform resources.
 - Size-independent: ecosystem not tilted towards large players or to early entrants into member base.
- Flexible architecture includes broad range of hardware platforms
 - Unification with embedded devices important, since wireless ecosystem is poised for next stage of critical mass
- Eclipse Consumer
 - Potentially cheapest way to deliver veneer of common user interface for system software vendors to unify disparate product lines



Financial Impact of Eclipse

Improves existing business models & enables new ones!

Business models matter because:

- They tilt the rules in your favor, like 0 and 00 on roulette wheels
- Give sustainable structural advantage
 - A monopoly is the most powerful form of structural advantage
- Help drive virtuous circles
 - People buy from leaders which increases their leadership, ...
- Helps investors figure out how to allocate money to the sector versus other sectors
- ... ultimately this drives the price-to-earnings and the price-to-sales multiple that determine stock prices



Pat Yourselves on the Back

- Eclipse Foundation increasingly seen as best practices prototype for collaborative R&D between corporate entities
 - Different from "hippie commune" model or "accidental" project model.
- Unique organizational design, with intentional hybrid open source/commercial model from day one
- Perceived among vendor top management mostly as R&D cost savings on IDE development
 - "Everybody knows you can't make money in tools"
- Opportunity still not fully realized for members or customers.
 - Some members harnessing brand identity effectively, some using platform comprehensively.
 - Others not doing enough.



Eclipse & Existing Business Models

Strategic Developer:

- Broadens addressable market, changes competitive dynamics
- Inexpensive multi-pronged attack into marketplace
- Strategic Consumer:
 - Allows influence over system software platform evolution a first!
- Add-in Provider:
 - Allows focus on core competency, not reinventing wheel
 - Avoids trap of Microsoft's add-in provider model ("you get the scraps!")
 - Allows smaller vendors to layer in capability over time



Eclipse & New Types of Partners

ISV's:

- Reduces R&D cost on user interface rewrite to get common look & feel, integrating product lines more effectively
- Can help decompose product boundaries, allowing customers to "mash up" existing products
- Spreads virally across product line accelerate this!
- New Types of Hosting Providers:
 - Add "sticky" new capabilities like Web cut & paste, content storage
- Web Site as Platform:
 - Google, Amazon, eBay, Yahoo! trying to become a Web platform, like Microsoft is a PC platform
 - They need integration beyond simple POX or REST interfaces



How to Win Deals and Influence Investors

Putting it together: Turning Eclipse into Competitive Advantage

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary



Maxims for the Future

- When Something Works, Do More of It
- Agility: Speed kills, but whom?
- Architecture:
 - It's back in fashion again
 - Detonate the Monolith
- Remember the Little Guy
- Mobile: Just a Small Matter of Availability
- Content versus Transactions: Boundaries Will Blur
- Manage the Chaos: No More One-Vendor Strategies
- Revolt Against Complexity



When Something Works, Do More of It

- Proliferate Eclipse, on a tactical basis if can't do strategically
 - Get somebody who can help you get management on board
 - Key to selling management is how it benefits corporate level
- Your products now belong to a larger ecosystem
 - Not just about what you can build yourself
 - People presume integration even if there isn't much
 - So take advantage of it



Agility: Speed kills, but whom?

- The other guys:
 - SQL Server 2005: 5+ years
 - Windows Vista: 5+ years
 - Visual Studio 2005: 5+ years
- Why?
 - Aging monolithic code base
 - Need to integrate exclusively with *all* products to maximize growth
 - Contentious governance structure between teams slows design decisions, inhibits code reuse
- More times at bat = more chances to score
- Trick is to "release big, release often"



Architecture: Back in Fashion Again

- Increased opportunity to sell "product line architecture," not just features.
- Only happens when buyers looking forward a little bit and are optimistic about IT spending environment
- Companies that can play "architecture card" will beat companies that can't over the long term
- Architecture can lead to sustained premium multiples on valuation, per the Cognos/Business Objects study



Architecture: Detonate the Monolith

- Redefine product boundaries to attack mature segments with dominant player
 - The more mature the market, the more set the boundaries are
 - Change the rules of the game to redraw product boundaries
 - Example: 3-tier architecture detonated link between presentation logic and business logic; created market for application server
 - Look for boundaries where XML can be standardized to connect
- Detonate your own product boundaries
 - Example: business intelligence tools going forward ("mashup")
 - Side benefit: gets you an architecture story



Remember the Little Guy

- Scripting languages proliferating inside corporations
 - PHP support is a great first step for Eclipse
 - Harbinger of willingness to re-consider old platform definitions
- Departmental development reappearing
 - Helped by interest in Web 2.0, and portals
- Need to surface capabilities for Web 2.0 developers
 - They will become (some of) tomorrow's enterprise applications
 - Nobody thought e-mail was a mission critical application in 1990.
- Avoid the "IEF" trap! There is such a thing as "too much enterprise."



Mobile: Just a Small Matter of Availability

- Key fundamental change is network availability
 - Low bandwidth or high cost-per-byte
 - Intermittent availability failures are not a disaster, just have to do something
- Mobile requirements drive technology in new directions even for non-mobile development
 - Mobile replication similar to edge caching of master data
 - Mobile development similar to mashup development; could accelerate XML demand overall, in parallel with emergence of mashups and service providers.



Content versus Transactions: Boundaries Will Blur

- Transactions and content formerly opposite ends of the scale.
- Several factors combine to suggest some unification likely
 - Mobile
 - Rich client interfaces (XAML, AJAX, etc.)
 - Adobe Acrobat "smart" PDF documents
- Need to look for some unification between these worlds
 - High-end "enterprise XML" (BPEL, SOAP)
 - Low end "content XML" (REST, POX, POJO)



Manage the Chaos: No More One-Vendor Strategies

- Customers no longer lulled into "one vendor will save us money" fantasy
- Pendulum not likely to swing all the way back to best-of-breed rests somewhere in the middle.
- Ergo, multiple vendor <u>strategy</u> now the norm, even in smaller shops
- Vendors who can align under respected umbrella "proving" federation will face lower proof requirements to demonstrate integration, and thus can gain toehold easier.

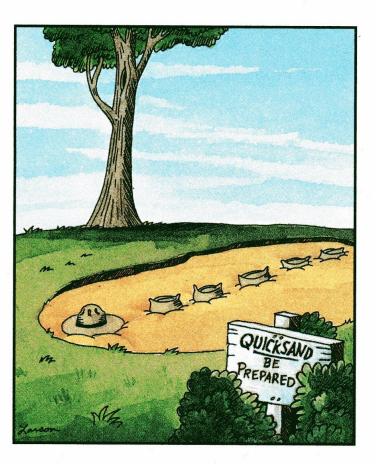


Revolt Against Complexity

- Entropy can decrease on localized basis, but must increase overall (thermodynamics)
- Need to look at complexity of your product lines, of integration, etc.
- Other guys getting more complex by the minute.
- Eclipse can help (gently) to reduce product line complexity, integration, ancillary complexity



What Quicksand Looks Like





What Quicksand Looks Like

- An open source silo is as bad as any other.
 - Don't start deeper integration too late in the game.
- Inclusiveness versus Vision: complexity versus picking winners
- Organizational issues: Have to be good at organizing as you go, for both flexibility and consistency.
 - Think about the standards process. How standard is "standard enough?"
- Process Management: Don't compromise on quality or speed
- Armor-plating the butterfly: "More enterprise" doesn't always equal "more coolness"



Conclusions

- 2006 is a pivotal year for Eclipse, due to Vista breaking loose pieces of a formerly atomic market
- Other tech trends also strongly favorable to Eclipse but must be harnessed now.
- Investors and customers more receptive than ever to an Eclipse value proposition.
- Eclipse Foundation doing a great job so far, and members doing great stuff with the technology
- But there's lots more to do, and soon!

... There is a very real payday for rising to the challenge.



Brent Williams Director, Technology Equity Research KeyBanc Capital Markets (a division of McDonald Investments, Inc.)

bcw@keybanccm.com

© 2006 by «Author»; made available under the EPL v1.0 | Date | Other Information, if necessary