Agile Capitalization

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Agenda

● Introductions
● GAAP Principles
● Capitalizing Software
● Waterfall vs Agile Development
● Classification Rules
● Collect, Classify, Report
● Converting your Company
Introductions

With peers
- Your name, role, goals for workshop
- Level of Agile experience? Type (Scrum, etc)
- Existing challenges?
- Corporate policies on dev classification? Minimums? Whose work counts?
- Does the same team build single-client features, and features for many clients?

GAAP Principles
Why society capitalizes

- We want citizens to build buildings, software, machines, etc.
  - They cost lots of money up front
  - They earn money over time
- Shareholders care about long-term profit

Conclusion:
- Spread investment’s cost over its useful life

Why companies capitalize

- Reduce future tax liability
  - Tax law is asymmetric for losses and gains
- Stabilize P&L statements
- Hire more asset developers
- Stabilize employment for asset developers
- Create happier auditors and stakeholders
- (story points) Stop tracking actual hours
GAAP Principles

- The Conservatism Principle
- The Objectivity Principle
- The Matching Principle
- The Consistency Principle
- The Materiality Principle

GAAP: Conservatism

- Accounting for a business should be fair and reasonable. Accountants make evaluations and estimates, deliver opinions, and select procedures. They should **neither overstate nor understate the affairs of the business or the results of operation.**
GAAP: Objectivity

- Records must be based on objective evidence. Objective evidence means different people looking at the evidence will arrive at the same values for the transaction shown in reports.

- The source document for a transaction is almost always the best objective evidence.

GAAP: Matching

- Extends the revenue recognition convention. Each expense related to revenue must be recorded in the same accounting period as the revenue it helped to earn. If this is not done, the financial statements will not measure the results of operations fairly.
GAAP: Consistency

- Accountants should apply the same methods from period to period. **When methods change, financial statements must clearly explain the change.** Readers assume consistent reporting if there is no statement to the contrary.

- This principle prevents people manipulating financial statements by changing methods.

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GAAP: Materiality

- Accountants must use generally accepted accounting principles except where it would be expensive or difficult, and where it makes no real difference if the rules are ignored. If a rule is temporarily ignored, the reported net income must not be significantly affected and the reader's ability to judge the financial statements must not be impaired.
Capitalization

Expensing asset development

- Violates the GAAP Matching Principle
- Results in additional tax liabilities (loss carry-forward limits)
- Confuses shareholders with choppy P&L statements
What can be capitalized?

To be depreciable (capitalized), property must meet all the following requirements.
- It must be property you own.
- It must be used in your business or income-producing activity.
- It must have a determinable useful life.
- It must have a useful life that extends substantially beyond the year you place it in service.

Software is Capital Investment

- Internal software
  - Automating work saves money year after year
- External software
  - Software can be sold year after year
- Tax authorities and shareholders want
  - Represent the truth about investments (Objectivity)
  - Spread investment cost over its lifetime (Matching)
  - Approximation over miscategorization (Materiality)
Life of a software investment

- Analysis
- Prototyping, Feasibility Testing
- Capitalization
- Depreciation
- Maintenance
- Impairment (book value vs fair market)
  - Agile and Lean Startup experiments can prevent this

Lower risk, greater value, harder

[Graph comparing Waterfall and Agile project management methods]

Image: Rallydev
Software Development Lifecycle

PRELIMINARY / DEFINITION
- Inception
- Ideation
- Customer Discovery
- Feasibility Analysis
- Planning
- Expense

DEVELOPMENT + PRODUCTION RELEASE
- Elaboration
- Construction
- Sprint
- Sprint
- Sprint
- Deploy

POST RELEASE
- Transition
- Maint
- Admin
- Operations
- Support

Classification Rules

- Review FASB ASC 350-40 or ASC 985-20
- Review Citrix approach
- Agree: Finance, Engineering, Execs
- Verifiability (“Objectivity Principle”)
Technical Feasibility/Prototype

Is a feature technically feasible?
- If uncertain, labor is not capitalizable

*However*
- Virtually all features are technically feasible

Why this rule? To avoid frequent impairments.

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Whose work can be capitalized?

- Developers
- Quality Assurance
- Architects
- Product Management
- User Experience / Graphical Design

No:
- Administrative Management
- Training
Capital Assets: 1 of 2

- New products or features not previously seen
- The same functionality on a different platform
- New types of internal or external reports for a product, if it involves database schema changes or software development.
- Fixing a "non-regression bug"
- Changing the database schema and code interacting with the database to enable new functionality
- Internationalization (not localization)

Capital Assets: 2 of 2

- New User Interface (UI) or User Flows
- Preparing for new functionality development
  - Refactoring code
  - Adding automated regression testing
- Major API changes
- Porting software to a different OS or major revision if market expands.
- Operability improvements
- Development for fault-tolerance, disaster recovery, deployability and operability
Operational Expenses

- Customization for a client (?)
- Technology feasibility “spikes”
- Fixing regression bugs
- OS minor-version bugs (?)
- Localization (?)
- Operational costs
- Training costs
- Administrative activities
- Routine security reviews or upgrades

Collect, Categorize and Report

- Challenge: How to efficiently track work?
- 100% teams
- Story points versus tracking hours
- Simple, defensible data collection techniques that overlay or enhance your existing practices
Simplest (but expensive) Solution

- Designate different teams for asset or maintenance development
- Discuss: Any problems with this?
## Tracking Hours

- **Default approach** to tracking labor
- May **forces unneeded task breakdowns**
- **Slows productivity** via frequent interruption
- Weekly time tracking has **poor accuracy**
- **Higher overhead** in administration & tooling

## Story Points

- Story Points are **correlated** with effort
- Scrum teams **continuously improve correlation** between estimated and actual
- Scrum practices and tooling **naturally capture data** for proportional allocation of labor
- Reports **easily traceable** to individual effort
- Satisfies **GAAP objectivity property**
Story Points Example

Team
- 1 PO
- 3 Dev
- 2 QA

Sprint
- 2 Week

Expense Defect

As a site member, I can see a news list on Safari which used to work but I don’t have to install Chrome or Firefox.
Capitalizable Defect

Convert Your Company

- Executive Sponsorship
- Collect existing process guidance and data
- Propose a rough approach
- Team up
- Run a quarter
- Decide for the future
Executive Sponsorship

- Identify executives that benefit
  - Engineering VPs may get higher headcount
  - Finance VPs will likely get more stable P&L
  - Fewer boom-bust hiring/firing cycles
- Get your boss to agree to support your work
  - You may spend 50% time for 2 months exploring
- See if your CFO is willing to explore the idea
  - Needn’t be a cheerleader, but must be curious
  - May be a material change: blame agile

Assemble Existing Processes, Data

- Current classification guidance
- Number of corrections in typical audits
- Past impairments, if any
- Accountable, responsible staff members
- Verifiability: When do we guesstimate?
  - By engineer in filling out time sheets?
  - By project manager in estimating work?
  - If auditor asks 12 mons later, will answer be same?
Propose Revisions

- Start with GAAP, then FASB: justify with law
- How will agile capitalization differ?
- Costs, benefits?
- What staff will be involved and how?
  - Limit impact on finance group
- Incorporate classification into Ready & Done
- Write it up clearly and give to CFO, finance

Team with stakeholders, auditors

- Identify stakeholders, representatives
- Plan how to notify shareholders
- Run one quarter with old and new processes
Finish a Quarter

- Compute with new and old processes
- Revise process description and classification guidance
- Send guidance to auditors
- Coach CTO, CFO, finance, project mgmt
- Meet with auditors to finalize
- CFO: Announce change to shareholders

Help if you Want It

Senex Rex team
- Bulletproof fundamentals and understanding Technology, Finance, Business
- Published agile capitalization case study
- Strong references
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Issues We’d Like Resolved

- Expand this work to non-US situations
- Case studies from other companies
- Help finance departments use agile methods

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