Introductions

With the people around you
- Your name and role
- Goals for session
- Existing challenges
Survey: Interest

- Fundamentals of GAAP
- Categorizing activities
- Avoiding time-tracking
- Collaborating with finance people
- Converting a company to a new approach

Approach for Success

- Base your work on GAAP and tax fundamentals
  - FASB guidance is based on waterfall

- Collaborate to gain agreement
  - Involve Finance, Engineering, Project

- Automate
  - Preparing for quarterly audits can be simple
Why society capitalizes

- Encourage citizens to build buildings, 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
  - Create happier auditors and stakeholders
- Hire more developers
  - Depends on corporate policy
- Stabilize employment for asset developers
GAAP Principles

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.

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.
GAAP Principles

- Conservatism
- Objectivity
- Matching
- Consistency
- Materiality

Capitalization
P&L with/without depreciation

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, property must be
- Something you own
- Used in business or income production
- Have a finite useful life beyond one year
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
Software Development Lifecycle

PRELIMINARY / DEFINITION

- Inception
- Ideation
- Customer Discovery
- Feasibility Analysis
- Planning

DEVELOPMENT + PRODUCTION RELEASE

- Elaboration
- Construction
- Sprint
- Sprint
- Sprint
- Deploy

POST RELEASE

- Transition
- Maint
- Admin
- Operations
- Support

Expense ➔ Capitalize or Expense

Classification Rules

- Review FASB ASC 350-40 or ASC 985-20
- Review Citrix approach

- To succeed, get agreement:
  - Finance, Engineering, Execs
  - Achieve everyone’s goals

- Exploit verifiability (“Objectivity Principle”)

Copyright 2015, Senex Rex LLC
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.

Capitalization: Who and What?
Whose work can be capitalized?

- Developers
- Quality Assurance
- ScrumMasters / Project Managers
- 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 or version
- Reports used for the long-term
- Changing the database schema and code interacting with the database to enable new functionality
- Internationalization (maybe localization)
- Fixing a "non-regression bug"
Capital Assets: 2 of 2

- New User Interface (UI) or User Flows
- Preparing for new functionality development
  - Refactoring code
  - Adding automated regression testing
- Operability improvements
  - Throughput, capacity, performance
  - Fault-tolerance
  - Disaster recovery
  - Deployability
  - Configuration

Operational Expenses

- Non-reusable customizations
- Technology feasibility “spikes”
- Fixing regression bugs
- OS minor-version bugs
- Localization (maybe)
- Operational costs
- Training costs
- Administrative activities
- Routine security reviews
Tracking Labor

Dedicated Teams

● 100% CapEx
  ● New features and capabilities only

● 100% OpEx
  ● Bug Fixes, Maintenance, etc

● Do you see any challenges?
Tracking Hours

• The “obvious approach” to tracking labor
• May force unneeded task breakdowns
• Interrupts productivity if accurate
• Produces inaccuracy when it doesn’t interrupt
• Higher overhead in administration & tooling

Story Points

• Story Points correlate with actual effort
• Scrum teams improve their correlation
• Scrum naturally captures data
• Auditors can verify reports easily
• Results satisfy GAAP objectivity
Collaborate with finance and accounting

- Establish categorization rules
- Determine the cost basis for teams
- Allocate team labor proportionally
- Create mock sprints and reports

Track the details

- Stories, story points, sprints, team members
- Use tags or labels to indicate opex/capex
- Add fields or enhance workflow for more rigor
- Export story level data to spreadsheet for reporting
Story Points Tool Examples

Team
- 1 PO
- 3 Dev
- 2 QA

Sprint
- 2 Week

Story Points Example
Expense Defect

Capitalizable Defect
Sample Reports

<table>
<thead>
<tr>
<th>Cap/Exp Summary</th>
<th>Story Points</th>
<th>Cap / Exp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap</td>
<td>277</td>
<td>$ 173,009</td>
</tr>
<tr>
<td>Exp</td>
<td>28</td>
<td>$ 17,686</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>305</strong></td>
<td><strong>$ 190,694</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cap/Exp by Team</th>
<th>Story Points</th>
<th>Cap / Exp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap</td>
<td>277</td>
<td>$ 173,009</td>
</tr>
<tr>
<td>team1</td>
<td>20</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>team2</td>
<td>29</td>
<td>$ 26,929</td>
</tr>
<tr>
<td>team3</td>
<td>54</td>
<td>$ 74,480</td>
</tr>
<tr>
<td>team4</td>
<td>96</td>
<td>$ 4,800</td>
</tr>
<tr>
<td>team5</td>
<td>29</td>
<td>$ 17,400</td>
</tr>
<tr>
<td>team6</td>
<td>49</td>
<td>$ 29,400</td>
</tr>
<tr>
<td>Exp</td>
<td>28</td>
<td>$ 17,686</td>
</tr>
<tr>
<td>team1</td>
<td>2</td>
<td>$ 2,000</td>
</tr>
<tr>
<td>team2</td>
<td>3</td>
<td>$ 2,786</td>
</tr>
<tr>
<td>team3</td>
<td>5</td>
<td>$ 7,600</td>
</tr>
<tr>
<td>team4</td>
<td>10</td>
<td>$ 500</td>
</tr>
<tr>
<td>team5</td>
<td>3</td>
<td>$ 1,800</td>
</tr>
<tr>
<td>team6</td>
<td>5</td>
<td>$ 3,000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>305</strong></td>
<td><strong>$ 190,694</strong></td>
</tr>
</tbody>
</table>

Capitalized v Expensed

Convert your company
Executive Sponsorship

- Identify executives that benefit
  - Higher headcount?
  - 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
- Capitalization history
  - Number of corrections in past audits
  - Past impairments, if any
  - Accountable staff members
  - Objectivity: 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 Criteria
- 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 and classification guidance
- Send guidance to auditors
- Coach CTO, CFO, finance, project mgmt
- Meet with auditors to finalize

- CFO: Announce change to shareholders

Closing
Help if you Want It

- Bulletproof fundamentals and understanding
  Technology, Finance, Business
- Published agile capitalization case study
- Some unpublished work also
- Strong references

Dan: dan@senexrex.com, +1(415)754-8311
John: john@senexrex.com, +1(805)252-4965

Q&A / Please provide feedback

https://submissions.agilealliance.org/feedback/2572

4:45–5:00 PM