
Group 2: Purchasing Apps

Group Lead

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Motivations

- **Don't re-invent the wheel**
 - More costly in \$\$\$?
 - More costly in time?
 - Analogy to automotive industry: don't build own parts
 - **Huge community to bootstrap from**
 - **License issues can entangle SimTk**
 - Important to have a monolithic Tk
 - Don't want users to hunt down all the dependencies
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Issues?

- **Interfere with company**
 - Breaks their business model
 - **Cost**
 - Millions?
 - Not cost effective?
 - **We need more than software**
 - Developers, support
 - Doesn't scale: we can't support
 - **Open source**
 - People don't want to change license
 - Dubious biomedical impact of open source software
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Counter proposal

- **Open API instead of Open source purchase**
 - Put in hooks and have people go directly to the vendor
 - Vanilla version of SimTk has limited functionality
 - Add on's (commercial or otherwise) add value
 - **Industrial affiliates**
 - Companies give *us* funds to integrate their software
 - **Use funds to encourage small companies to integrate**
 - We can help integration for small companies or academic researchers
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Proposed Strategy

- **Encourage people to integrate with SimTk**
 - They give a free one with limited functionality
 - SimTk can still be downloaded as a monolithic Tk
 - Full functionality at a cost?
 - **Industrial affiliates**
 - Get grants from companies to incorporate their software via API
 - They support the effort
 - They get more sales, we get more powerful kit
 - New market for them: biological market
 - Viral: we become the hub
 - **What packages to integrate first?**
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Shopping list (for integration)

■ Image based modeling

- Geometry kernels: Parasolid
- NA-MICS slicer
- Blender (OpenSource), Maya (closed)

■ Discretization methods

- Example: MeshSim

■ Finite Element

■ Molecular modeling

- APBS, Delphi?
 - Gromacs (OpenMM API?)
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We must be strategic for the future

■ What's our first targets?

- Question directly connected to our scientific goals
- Walmart vs Neiman? Me too vs real contributions to science?
- Focus on the best tools vs many tools?

■ What do we want to do?

- Concentrate on a few key areas
- What are our core technologies

■ What will we *not* do?

- We can't do everything and we have finite funds to do it
 - Better to do some things well than many things with mediocrity
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Software architecture

- **Code**
- **Kernel**
 - Plug-in
- **Separate stand alone**