### Imagine Cup

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- Create a software product that can solve a large world problem and get help forming your own company!
- To find out more about the Software Design category:
  - http://bit.ly/ucsbimaginecup
  - (url is case sensitive)
- Critical dates:
  - Team Formation
  - Simple Project Template completed and turned in by Feb. 15,
     2011 (USC, UCR, UCSD, UCI teams have already done this), about
     30 minutes
  - Working Prototype ("Alpha level") Software, Completed Project Template, 3 to 5 minute video turned in by March 14, 2010

### UCSD grads win at tackling world's problems

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About the
LifeLens Team from
UCSD



## Super SuccessFul Student Server, S<sup>4</sup>

As a participant in the Imagine Cup you will receive access to:

- A virtual server accessed via terminal services
- Upload and save student code/work
- Connects to internet
- Applications include:
  - SQL Server 2008
  - VS 2010 Architect
  - Team Foundation Server
  - Office 2010 (All)
  - Web Matrix
  - Expression 4
  - Sharepoint Foundation



All of the Microsoft products you need are up and running!

Software Versioning and control using Team Foundation Server



You Keep Your Intellectual Property

#### Limitations

- Availability:
  - Limited number
- <u>Does not run</u>: XNA or Phone Emulator

# Station Q: Leading edge of Computer Science

- The StationQ effort would be:
  - Innovate a Windows Presentation Framework project that would perform
    - Monte Carlo simulation of physic processes, processes to be defined by StationQ researchers
    - Monte Carlo simulation would utilize the ALPS (Algorithm and Libraries for Physics Simulation) currently running on the UCSB Beowolf cluster
    - Work with UCSB Videographers to tell the world about your work
    - Perform an analysis of moving the calculation process to Azure Cloud
    - Students keep all intellectual properties per Imagine Cup Rules

## Digital Spectrometer using Windows Phone: Use it to perform community based science

- Innovate a Windows Phone application that would:
  - Implement a simple system of digital spectrometry that would utilize inexpensive red laser diodes to determine CO2 content in the atmosphere
  - (recommend that this be done using a Windows Phone, like the UCSD students did with LifeLens)
  - Implement a web based system to collect the data (or utilize an existing system with modifications)
  - Implement a web based system for provenance of research (or utilize an existing system)
- Students keep all Intellectual Property under the rules of the Imagine Cup.