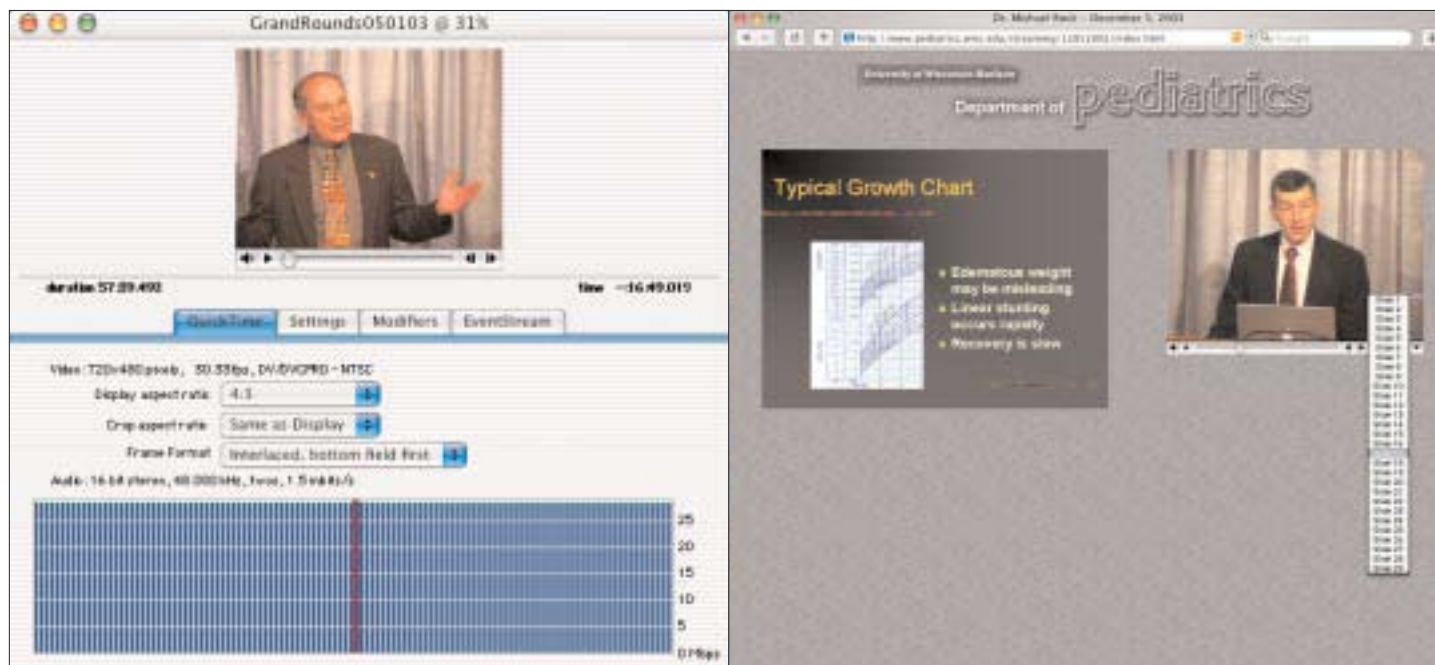


## University of Wisconsin-Madison Medical School

**cleaner™ 6**  
Autodesk®



### Medical school extends its educational reach with cleaner™ software

Colleges and universities bend over backwards to make their product—education—more readily available, offering evening and weekend classes, online learning, independent study, satellite campuses, and more. Medical schools that provide continuing medical education (CME) have reason to go even further. The stakes are high as medical residents and physicians seek to refresh or update vital knowledge and skills. And when CME credits are required for medical recertification, the stakes are higher still.

That prompted the Department of Pediatrics at the University of Wisconsin-Madison (UWM) Medical School to develop a web-based on-demand alternative to attending its “Grand Rounds” series of CME lectures. The Grand Rounds video presentations website (<http://www.pediatrics.wisc.edu/gr.html>) gives harried, overbooked, or simply out-of-town medical residents and physicians an “always on” ability to catch and repeatedly review critical hour-long CME classes—whether they’re using a 28K dial-up connection or a high-speed T1 line.

It’s no surprise the Pediatrics department relies on Discreet’s **cleaner™ 6** for Apple® Macintosh®. “We live by cleaner,” says Chris Lange, Director of Computer Services. “When you’re a small university IS department, you look for solutions that pack a punch but don’t require much in the way of hardware, software, and staff resources.”

### Making the "Grand Rounds" available to all

Grand Rounds occur on most Thursday mornings in Madison during the academic year. The straightforward format involves a guest speaker who explores a Pediatrics specialty or research topic while running through an accompanying PowerPoint® slide show.

To bring this experience to the web, the Computer Services group first digitally videotapes and then carefully times the presentation. That timing data, reflecting how long the speaker spends on each PowerPoint slide, is captured in a Microsoft® Word® document.

Less than a day later, the videotape and PowerPoint slides are combined with the timing file to create a fully synchronized, two-frame website production. The right-hand frame offers video and audio via a QuickTime® stream, while the PowerPoint slides in the left-hand frame advance in lockstep with the discussion. QuickTime also enables viewers to jump directly to any slide and pick up the speaker's address from that point forward.

Computer Services uses **cleaner 6** software to ensure each Grand Rounds website visitor, including those technological reprobates logging in on a borrowed 28-baud modem connection, get the most out of each presentation.

### The nitty-gritty: putting it all together

Once the event is shot, Computer Services downloads the video to a Macintosh G4 machine, edits the file, then drops it onto a watch folder on the Apple Xserve® that hosts **cleaner 6** software and the streaming website. The video's arrival launches **cleaner**, which runs a series of department presets that automatically batch code the video and audio for four variable bandwidths:

- low bandwidth, which receive just the audio and PowerPoint portions
- medium speeds get low-resolution video
- LAN, high-speed cable, T1, etc. enjoy full video and audio quality
- Kinoma™ Player software, so handheld users can get in on the action (all medical residents will soon be issued Palm® devices)

Next, Computer Services runs a custom-created Apple OS X script that first exports the PowerPoint slides to individual image (JPEG) files and then merges the images, video, and timing file into a single streaming presentation for the web. "Apple scripts handle all the backend work, like parsing the PowerPoint files into JPEGs, integrating with all the web stuff," Lange says.

Finally, a Grand Rounds web page link is created to the streamed presentation folder created by the Apple OS X script.

### cleaner software and Xserve: the dynamic duo

"**cleaner** software's main virtue is its ease of use, the way it batches workflow," Lange notes. "No baby-sitting! And we don't have to know all the craziness behind the compression and encoding. We just say here's our video, and here are the three or four bit rates we want. Without **cleaner**," Lange continues, "we'd need five different machines each rendering at a different bit rate, and we'd have to continually nurse them. There's nothing else like **cleaner** on the market today. We click 'Go' and it does it all itself."

Lange also appreciates the way **cleaner 6** software works with QuickTime. "We're Apple developers, and we've been working with QuickTime forever. It would be a real problem if **cleaner** weren't integrated so fully."

**cleaner 6** also gets high marks for its Xserve performance. "Xserves are great because they've got all that horsepower and disk space," says Lange. "That saves us a ton of time in rendering."

Lange foresees building on the same technologies to introduce live streaming within the next few months. "We're looking at a couple of products, also fully implemented with QuickTime, that can stream a lecture live and enable moderated interaction so remote participants can ask the speaker questions in real-time."

"**cleaner** is the tool for streaming anything to any platform," concludes Lange.

Images courtesy of University of Wisconsin-Madison, Department of Pediatrics

### Additional Information

To obtain more information about Discreet cleaner software, visit the Discreet website at [www.discreet.com](http://www.discreet.com) or email [product\\_info@discreet.com](mailto:product_info@discreet.com)

Contact your local reseller for sales information. Resellers are listed on the Discreet website at [www.discreet.com](http://www.discreet.com).

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