INTRODUCTION

As an intermediate step in the assessment portion of the Virtual Image User Study (VIUS), the VIUS team organized two demonstrations on the Penn State University Park campus in March 2002 at which faculty were asked to evaluate MDID™, a digital imaging system created at James Madison University.

MDID™

MDID™ is a client/server application. As a content delivery system, MDID™ does not contain any images or catalog data (except for some demonstration images and data). The system includes utilities for integrating individuals’ images into the system in various ways -- for example, by scanning images at a respective campus or by licensing third-party image libraries. MDID™ includes tools that allow instructors and/or students to search images, prepare lectures, and generate, package and deliver presentations. There are several options such as magnifying images, reducing images, panning, and showing multiple images. Delivery can occur through several formats (for example, in-class or online). The package is also flexible in terms of its ability to work with third-party software such as Adobe Photoshop and others.

PARTICIPANTS

Participating in the sessions were 12 Penn State faculty members from a variety of disciplines. These individuals had mostly been identified through earlier work of the VIUS team as likely “intense users” of images in their teaching, research, and/or service work. Each 90-minute sessions included a demonstration of the MDID™ system; discussions were moderated by members of the VIUS project team and audiotaped. Most participants had been involved in previous VIUS focus groups, surveys, and/or listserve discussions.

WRITTEN SURVEY

After viewing the demonstrations of Luna Insight™ and JMU-MDID™, participants completed a one-page written survey. Participants in both sessions only completed one survey. Table 1 presents responses to that written survey. Because small samples such as this are not suitable for parametric statistical measures (mean, standard deviation, t-tests, and the like), only simple, descriptive, summary techniques are considered methodologically appropriate.

Any statistical interpretation of Table 1 should be very conservative, as only 13 of 26 participants (the total from both Insight and MDID™ sessions) completed and returned written survey forms.
Table 1  
Faculty Evaluation of LUNA INSIGHT™: Written Survey Responses (N=11)  

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree or Agree</th>
<th>Neutral</th>
<th>Disagree or Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1 I feel that it would be worth my time to familiarize myself with the integrated presentation tools that were demonstrated.</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q2. The inability to incorporate my own images into a presentation would be a serious enough drawback that I would not be able to use the integrated presentation software.</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Q 3. The inability to download images from the database to use with third-party software (e.g., PowerPoint) would be a serious drawback that would prevent my use of the system.</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Q 4. In general, if I had the choice of only one, I would prefer using integrated presentation software over third-party software (e.g., PowerPoint).</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Q 5. Being able to have my students view, outside the classroom, presentations that I have created using the integrated presentation tools would be valuable.</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Q 6. Even though I could use the integrated presentation software, I would still need to download images.</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q 7. I currently use, or plan to learn in the next year, one or more third-party presentation packages (e.g., PowerPoint).</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION OF ISSUES**

Faculty participants were asked to comment on what they saw as the strengths and weaknesses of the system.

**Speed**

As was the case in the Luna Insight demonstration, participants in the MDID™ session emphasized the importance of speed for classroom use. They were not as critical of MDID™ in this regard, however, and (perhaps because it runs from a local server, versus a server located out-of-state) MDID™ seemed to respond more quickly than Luna Insight™.

**Reliability and Control**

Faculty members continued to voice concerns about the necessity for Internet access to fully utilize presentation software. Reliability and ease of use for classroom and other presentation settings is a significant issue. Again, in this respect, MDID™ is preferred over Luna, although ideally faculty members would like to run store and run presentations completely from portable, permanent storage (such as a hard drive or zip disk). Clearly, it is very important to faculty members that they have portability and control of their presentations without relying on an online connection.

**Collection Availability**

The participants all seem to appreciate MDID’s capability to, at least theoretically, allow many faculty members to contribute to and eventually share in a large pool of images and metadata. There are questions about how, in practice, images will get moved into the database. The plan for the VIUS team to handle this during the prototype was received positively; some long-term consideration needs to be given as well.
Two faculty members pointed out that Penn State’s Instructional Resource Server (CAC) has several thousand images now available for academic use. Some thought should be given to how this collection will be maintained, and how it will be migrated to the collections to MDID™ (or whatever system Penn State adopts) provides access.

**Can Faculty Remove Images?**

As noted, participants basically like the idea that they and their colleagues can contribute images and then share in a collection or collections. However, there was an interesting question as to whether an image could later be removed by the contributing faculty member. It is not clear whether and how MDID™ allows this, but it would be a desirable feature to add (for example, if a faculty member contributes an image for which he or she owns the copyright, and later decides to restrict that image to some other use).

**Metadata and Schemes**

In both sessions, faculty liked MDID’s basic approach to catalog data. However, in both sessions faculty also pointed out that as presented in the demo, the metadata scheme (with art history-oriented categories for culture, style, period, and so on) would not be sufficient to meet the needs of varying disciplines in, say, agriculture or meteorology. Each discipline needs to create its own metadata scheme, and a useful software system must accommodate those differences.

**Image Data Base versus Image Management Application**

A major difference between Insight and MDID™ is that Insight links image management to specific, controlled collections, while MDID™ is much more flexible. Participants strongly prefer the latter approach— that is, they like being able to divorce the image databases from the image management application.

**Flexibility in Using Other Software Tools**

Participants clearly want to be able to manage images and design presentations using tools of their own choice, such as PowerPoint, Photoshop, or ImageMaker. MDID™ appears to allow this flexibility in some ways already; it is desirable to keep and maximize that sort of openness.

**Building Shows versus Viewing Images**

Because MDID™ clearly provides different functions—a slideshow builder for searching the database, selecting slides, and so on, versus an image viewer for, say, in-class presentations—the demonstration very usefully highlighted and clarified one message in particular: Faculty are much less interested in, and have less need for, a university-level solution for image presentation. Presentation needs can be handled and handled pretty well by PowerPoint and other packages. Faculty are much more interested in, and see more value in, the database management aspects. That is, there is a greater need for a package (with related support) that uploads images and text, searches across a database and multiple databases, allows downloading images, and so forth.

**Copyright Issues**

As has happened in virtually every focus group the VIUS team has conducted, questions were asked about copyright. The MDID™ approach of placing decisions and responsibilities on image providers and image users seemed to be acceptable to the participants.
Suggested Enhancements to MDID™
The evaluation to MDID™ was fairly positive overall. Participants suggested several specific enhancements that could or should be made if MDID™ would be implemented at Penn State. (Some of the ideas listed below may actually be capabilities that already are in the package but are not known to this writer.)

- **Search Power.** MDID’s search function does not (at least as far as could be tested in the demonstration) appear to search all fields, including the notes fields. Searches must search all data associated with an image.

- **Presentation Cache.** The one-hour cache timeout for MDID™ presentations is preferable to total reliance on a live connection; nonetheless, it is seen as a handicap. It would be helpful if this could be eliminated or increased.

- **PC and Macintosh.** In both sessions, faculty pointed out the need to have fairly complete and easy PC and Mac compatibility.

- **Maximum Slideshow Size.** A question was asked about the maximum number of images allowed in a MDID™ slideshow. Apparently that limit is 50; if so, it is too low. It would be desirable to raise that limit to 120 at least (that is the size of a large slide tray).

- **Placing Text on Images.** It would be helpful to allow faculty members, while building a slideshow, to place text at specific places on an image.

- **Presentation Hot Keys.** A minor dissatisfaction with MDID™ is the presence of the command box and the “hand” on-screen during presentations. It would be helpful to program hot keys, or some other means, to hide this from the projection.

- **Text/Metadata Import Utility.** If Penn State adopts MDID™ or a similar package, it would be desirable to build an input utility to all the importation of existing metadata in various formats.

- **Student Access to Full-Screen Images?** It was not clear from the demo that students with viewer access can see full-screen images (as opposed to thumbnails). If in fact this is a limitation, it definitely needs to be changed.

- **Randomizing Images.** It would be useful if the student viewer module allowed randomization of images, for use by students as a study aid.

- **Levels of Access.** The capability already built in for different levels of access is important. It appears that currently there are only two levels – faculty and student. If this is the case, it could be a problem. For example, does this mean that any faculty member can edit any other faculty member’s images or metadata? If that is accurate, further restrictions are needed.

**Conclusion**
Although MDID™ as it currently exists is probably not the ultimate, ideal solution, the evaluation of MDID™ was relatively positive, and it was definitely more positive than the response to the Luna Insight system. Several of the concerns could probably be allayed with relatively minor programming modifications to the MDID™ software.
In response to a question as to whether faculty would use MDID™ or a similar package, the following response is typical:

“So far I haven’t seen anything that’s a lot better than what I do now – scan my images, or download using Google, and then create my own PowerPoint presentation. What would be better about MDID™ or something like it would be the ability to get into very large, shared databases; the ability to show multiple images; and the ability to do things like zoom in class.” Another participant added, “And a package could give us better metadata.”