



DISCUSS FRONT-END SURVEY FINDINGS

The White Oak Institute conducted a Front-End Survey in June and July 2008 in order to assess current attitudes among science museum professionals in the institutional side of the Giant Screen (GS) and IMAX® field toward the potential shift from analog to digital. 143 Mail-in surveys were sent, and 43 science center professionals responded (Response rate = 30%) to the 12-question survey (see attached cumulative results on a copy of the survey). The responses collectively represent 39 giant screen theaters, 29 of which are IMAX-branded, and 18 planetariums and fulldomes. Some managers oversee multiple theaters, and some institutions offered responses from both the director and the theater manager reflecting the sample intent. 27 Museum Directors and Departmental VPs responded, and 22 Theater and Planetarium Managers (5 of these are double counts of respondents who manage two or more theaters). The survey was intended to assess the current professional opinions of individuals, not an institution's official position on the matter.

Only museum professionals were surveyed, and at predominantly science-related institutions. One of the project's objectives is to heighten awareness of the potential for shared digital protocols and increase attitudes toward their adoption among informal science educators, and this survey provides benchmark data.

FINDINGS

The respondents believe that converting their GS theaters into digital is in their future, and yet they are unhappy with the solutions being offered. 95% of the science center professionals say "yes, we need to be proactive" and support the GS institutional community getting together to define shared standards for digital projection and distribution. This is the objective of the Digital Immersive Giant Screen Specifications (DIGSS) Initiative.

Timing: On a calculated average, the respondents felt their GS theater would **have** to convert to digital within 6.35 years. Actual responses showed a range from 0 to 3 to 12+ years, with the most significant clustering at 4 to 7 years. A subset indicated that they were considering alternate uses for their GS theater.

Change Motivator: There were a wide range of beliefs about when the GS theater **should** start its conversion process, which is best described by showing the results:

- 6 As soon as possible with whatever systems are available
- 6 As late as possible with whatever seems best at the time
- 0 When IMAX has any kind of digital projector available
- 17 When IMAX has a GS digital projector reasonably equivalent in size, brightness and resolution to our current analog system
- 6 After a number of other theaters have successfully converted to digital
- 8 We will convert to an alternate use when it looks better than continuing with GS programming
- 4 Not sure/haven't thought enough about it

Brand Loyalty: 42% want to continue with IMAX in some way, although two-thirds of these would prefer to do so under an ownership model with no use restrictions. 44% do not care about brand as much as other factors, and 14% were not sure or haven't thought enough about it.

Partial Screen Coverage: The majority of respondents (71%) would not support going with an IMAX MPX or digital projector that filled only part of their screens, for instance using the shorter MPX aspect ratio. 19%, on the other hand, would accept that format, and 10% were not sure.

Shared Standards: An overwhelming majority (95%) and all the upper managers believe that the GS institutional community needs to get together to define shared standards for digital projection distribution. Only two respondents felt that the marketplace would provide the solutions. This is the key finding for the DISCUSS proposal to the National Science Foundation as it indicates field-wide support for the objectives of the DIGSS Initiative and its first step, the DISCUSS Colloquium.

Fulldomes: As the process aspires to incorporate prior work from the fulldome field and share with them perspectives on the future of immersive learning media, a selection of North American planetarium and fulldome managers were also sent the survey. Within that group, 77.2% had digital fulldome capability or were planning on implementing it within five years. 18% however, intend to continue primarily as an optical planetarium. 47.5% say they are compliant with the IPS domemaster standard, or will try to become so in the future. However 43% will either follow their own standards, or were not aware of the domemaster standard, or had not thought about it. 52% believe their planetarium/fulldome should eventually be able to show digital GS-type films, yet 23.8% thought that planetariums/fulldomes should go in a different direction from GS theaters, with 5 of 21 respondents to that question not sure.

DISCUSS FRONT-END SURVEY RESPONSES

1. **My Name/Institution** **43 informal science professionals managing GS and/or Fulldome theaters in museum settings.**

2. **Our Institution Has:** (Check all that apply)

- | | | | |
|----|-------------------------|----|--|
| 15 | IMAX Flat Screen | 6 | Non-IMAX GS Dome Screen |
| 14 | IMAX Dome Screen | 6 | Planetarium with primarily an optical star field |
| 4 | Non-IMAX GS Flat Screen | 12 | Planetarium/Fulldome including video/digital projection covering most or all of the dome |

3. **Please tell us your role at the science center/museum** (please check those that most apply, more than one responsibility is possible):

- 19 Museum CEO/Director/Manager
- 8 Departmental VP/Manager
- 18 GS Theater Director/Manager
- 4 Planetarium/Fulldome Director/Manager

The next questions are seeking your current individual professional opinion, not your institution's official position. If you have a GS Theater, please proceed with the next questions; if only a Planetarium/Fulldome, please skip to Q10.

4. **When do you believe your GS Theater will have to convert to digital because a sufficient number of analog films will no longer be available** (Please check only one):

- | | | | | | | | |
|---|--|----|--|----|-------------------|---|-----------|
| 7 | Within 0-3 years | 21 | Within 4-7 years | 10 | Within 8-12 years | 2 | 12+ Years |
| 0 | Never | 3 | Not Sure/haven't thought enough about it | | | | |
| 3 | We are considering alternate uses for our GS theater | | | | | | |

5. **When do you believe your GS Theater should start the conversion process** (if more than one apply, please indicate your priority, with 1 being highest.)

- 6 As soon as possible with whatever systems are available
- 6 As late as possible with whatever seems best at the time
- 0 When IMAX has any kind of digital projector available
- 17 When IMAX has a GS digital projector reasonably equivalent in size, brightness and resolution to our current analog system
- 6 After a number of other theaters have successfully converted to digital
- 8 We will convert to an alternate use when it looks better than continuing with GS programming
- 4 Not sure/haven't thought enough about it

6. Do you want your future digital theater to be:
- 6 IMAX branded under a similar business model to what they currently offer
 - 12 IMAX branded under an ownership model with no use restrictions
 - 19 I don't care about brand as long as it:
 - 14 serves our own specific needs, even if those are shared by only a few other digital GS theaters
 - 5 is like many other digital GS theaters
 - 6 Not sure/haven't thought enough about it
7. Would you support going with an IMAX or other digital projector that filled only part of your screen, for instance, using the shorter MPX aspect ratio?
- 8 Yes 29 No 4 Not sure, haven't though enough about it
8. Would you support using lenses or resizing or other digital processes to adjust a shorter image to fill your screen if it could be done with minimal distortion?
- 11 Yes 7 No 9 Not sure, haven't though enough about it
 - 17 I doubt such adjustments can be made without problematical distortion
9. Do you believe the GS institutional community needs to get together to define shared standards for digital projection and distribution?
- 40 Yes, we need to be pro-active
 - 1 No, IMAX will develop solutions which we will adopt when ready
 - 1 No, the marketplace will present alternative solutions and we will choose what works best for us
 - 0 Not sure/haven't thought enough about it

If you do not have or do not manage a Planetarium/Fulldome, skip the next questions.

10. Our Planetarium/Fulldome:

- 8 Converted to all digital in _____
- 10 Plans to convert to all-dome digital in _____
- 4 Will remain primarily an optical planetarium for the foreseeable future
- Not sure/haven't thought enough about it

11. Our Planetarium/Fulldome:

- 7 Is compliant with the IPS "Domemaster" standard for fulldomes
- 4 Will try to become compliant with the IPS standards for fulldomes
- 5 Will follow standards specific to our needs
- 5 Is not aware of the IPS standards for fulldomes
- 2 Not sure/haven't thought enough about it

12. I believe our Planetarium/Fulldome, while retaining the abilities to show interactive star fields, computer graphics and the library of fulldome productions:

- 11 Should eventually be able to also show digital GS-type films
- 5 Should go in a different direction from GS dome theaters
- 5 Not sure/haven't thought enough about it