Using Projectors and Screens in your Church

Why use projected text and images?

The printed word is no longer the most familiar means of communication for the majority of people in the community. Video projection offers an economical way of selecting from the wide choice of graphical and textual materials available as visual aids for the liturgy. It also provides a means of illustrating and explaining the concepts and ceremonies of worship. Projection also allows for a wider range of hymns and songs to be introduced into worship.

Churches left open during the day can use projected images to welcome visitors, provide texts for reflection or details of services and events.

Things to bear in mind from the start

Before embarking on a project to bring such equipment into the church, it is essential to gain some background information. Suggested people to contact are:

- Your church architect or surveyor
- Audio-visual experts familiar with church building requirements (if possible)
- Potential suppliers of the audio-visual equipment

It is extremely important to be aware of the architectural importance of the building, and of the tradition that church furnishings should as far as possible enhance the building through the quality of their design.

Permanence of Fixture

Generally computer equipment will be brought in as necessary but not stored in the building. Do not treat the projector and screen as permanent fixtures either. With presentation technology (as well as styles of liturgy) developing so rapidly, it is necessary to look at the proposal as something which could well be overtaken by other styles or methods in the coming years or otherwise fall from favour. Therefore, it is important that the proposal should be capable of removal from the church without detriment to the fabric.

First, experiment with moveable projection screens. If possible, introduce the projector and screen only when they are in use and remove them at other times. The screens should be designed and placed to minimise their intrusion into the visual composition of the building. Other matters to consider are the impact of a screen (whether in use or not) in the context of a wedding or funeral and the effect of other light sources, particularly sunlit windows. If a floor standing arrangement is used for a screen, it may be necessary to fix a single retaining bolt into the adjacent wall for stability. Although such a fixture is not strictly reversible, effective restoration should be possible.

Guidance prepared by Edinburgh University and UCL on the audio visual elements for lecture theatres contains similar advice on the maximum viewing distance from screen according to content and screen size. This guidance indicates that the maximum viewing distance from screen to audience is about 6 times the diagonal of the screen.
After experimenting, if it is not feasible to have a removable screen, you will need to consider the following factors in positioning a screen permanently:

(i) **The screen in the Chancel arch position**
- The visibility of the screen when it is not in use
- The relationship of the screen with the east window
- Any problem of light behind the screen
- Any sense of intrusion in services focused at the chancel steps

(ii) **The screen floor or wall mounted or on a column**
- Screens can be mounted on columns and fixed permanently to the floor or wall, with a single fixing to a column or pier.

(iii) **Positioning of the projector**
- A projector can also be mounted on a column or a wall or pier.
- There could also be the possibility of a suspended fixing for example, from the top of a capital.
- The projector and its support should not be visible from the majority of seats either in the nave or the aisles. Its casing should be coloured to match its background.
- The route of wiring for the projector and any associated computer equipment should be as unobtrusive as possible and determined in consultation with the church architect or surveyor

(iv) **Making the screen unobtrusive**
- The colour of the screen case and fixings should match the background.
- When not in use, the projection screen should be hinged or rolled away so that it cannot be seen from the nave.

**Monitors**

In some cases it may be more appropriate to look at installing monitors to display the feed from a data projector or other device. This can be particularly helpful if the church is very light, making it difficult to see an image on a large screen. The position, size and number of monitors should be carefully considered for aesthetic and security reasons, as well as to ensure appropriate “coverage”.

(i) Generally it will not be appropriate to fix monitors to historic wooden screens or to the columns between nave and aisles. It may be possible to have monitors on posts fixed to the floor along the line of the aisle arcade. Floor sockets would allow the monitors and posts to be removed on occasions, without leaving attached cables.

(ii) A monitor or monitors fixed to the chancel walls could be on a bracket so that the monitor can be swung out when in use.

**Other alternatives**

**Smart glass for visual display**
- Switchable smart glass supports HD rear projection in frosted (high contrast) or transparent (holographic) modes. This has been used in a church context to allow
a screen to be positioned centrally in the chancel, whilst still allowing a view through to the sanctuary when the glass is “at rest”.

Projection onto a wall
This can provide a simple and effective way to display projected images/words without the visual clutter of a framed screen on a plain wall. If the wall is not entirely smooth, proprietary Projector Paints are available to provide a smooth reflective surface, but the church architect or surveyor should be consulted to ensure such paint is not applied to a historic wall surface.

Security
A permanently installed projector and screen, together with any computer equipment, need to be fixed and preferably hidden when not in use. This type of equipment is a particular security issue for churches open to the public during the day. It should be noted that the presence of a screen implies to an outsider, the presence a projector, which in turn implies a computer.

Permissions
The introduction of fixed screens, projectors, computers and wiring will require authorisation by faculty. You will also need to notify your insurance company. The introduction of portable AV equipment can be authorised by an Archdeacon’s Letter under the Minor Matters – List B provisions. For all proposals, the advice of the DAC is needed as a first stage.

Listed Churches
For Grade I or II* churches, Historic England will need to approve any fixings or permanent installations as well as a faculty being required.

Content/use of copyright material
The brief for any liturgical material and for material supplementary to the liturgy should be prepared by the ministerial team. The preparation of the visual material can be in the hands of lay members of the congregation. Non-liturgical use of the screens should always be subject to ministerial oversight. The need for permission to use material under copyright and performing rights legislation should always be checked in advance. Separate advice is available from the Diocesan Office on this matter.

DAC Visits
Members of the Diocesan Advisory Committee (DAC) are always willing to advise on particular schemes and to visit the church to discuss proposals at an early stage.

Additional information and advice is available from the DAC team:
dac@stalbans.anglican.org

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April 2005
Revised January 2014
Revised November 2016