

Guidance note one: The Space technical guidance

Introduction

The Space is an experimental digital arts media service that aims to transform the way people connect with and experience arts and culture online. The team behind the project are building a new platform that will deliver digital media including web pages, sound and video to audiences in the UK and elsewhere. These notes will help you understand how to prepare and deliver material for The Space so that your work appears in the right place and is easy for users to find and experience.

The Space builds on and extends the capabilities of the world wide web and in most cases you will not have to fund any website development yourself or host any material on your own servers. Where you do, we will work with you to make this as simple and cost-effective as possible.

Our technical philosophy

Where possible The Space is built around 'open web' technologies so that as many people as possible can experience your project on as wide a range of devices and browsers as possible.

We aim to support devices which support HTML5 and CSS3 features, augmenting this with jQuery, and degrading gracefully (in the case of visual features and interaction) or employing alternative display technologies such as Flash (in the case of audio and video playback), where needed. We opted for this approach in order to support the broadest range of devices without needing to create specific versions for each platform.

Doing this also allows us to generate the required web pages from a single source of information about each item, whether it is a video stream, an image or descriptive text, and requires less work at your end. However, in order for this to be effective you will need to follow the guidelines for all the material that you have been commissioned to provide under the funding agreement.

These guidelines

These guidelines are correct as of January 13 2012 but may change as the development of The Space platform progresses. Any substantial changes will be communicated to all shortlisted applicants, and any technical requirements will be discussed with applicants as part of the process of drawing up the final commissioning agreement.

How will people be able to see my project?

The Space is designed to be available on four 'screen sizes':

- smartphones and connected devices with a web browser (iPhone, Android phones, iPod touch)
- tablets with browser capabilities (iPad, Android tablets such as the Samsung Galaxy Tab or Kindle Fire)
- computers with browsers (Windows-based, Apple and Linux desktops and laptops)
- smart TVs (also known as 'Connected TVs') which have been connected to the internet

Hosting

The Space is hosted on 64-bit CentOS Linux virtual instances in Amazon's EC2 service.

Don't worry if you do not understand any of that - all it means is that for most commissions we will take care of hosting your work and delivering it to audiences. Where we cannot do that we will link to and embed your work in The Space so that audiences can reach it.

If your project is not being hosted on The Space then we will discuss your hosting provision. We may be able to advise on more cost effective scalable solutions and will need to ensure that integration requirements are met, including service level agreements, bandwidth limit and support.

Multimedia projects

For the majority of commissions where you are providing video, audio, image, text or document, you will be provided with access to a submission form where you will enter the details of your material.

This will create a unique code number which will be used to refer to that piece of content throughout the system, including at the point where you are uploading media prior to publication.

The information you supply will be used as the basis for the presentation of your content across all of the platforms targeted by The Space.

The Space team will be notified automatically when you have entered this information and will be able to see and review what you have created.

For most projects, the publication workflow is:

1. You enter information about your project (ie, the name of organisation, information about the project, contributors, location, etc) on to a web-based content management system.
2. Depending on files sizes, you can then either physically deliver your media to our intake facility in London or send it to us electronically. The media must be labelled

with the unique code number generated when your initial project data was submitted.

3. We will then link the information you have entered to the media you have sent us, and convert the media into the formats needed for publication.
4. The project data and material provided will be reviewed by The Space team.
5. We will provide you with the location of a preview page which will show your work as it will be seen by the audience.
6. On the scheduled publication date, your work will be made visible to the public for the agreed duration.

Native applications (apps)

Native applications written for tablets and smartphones (apps) will not be hosted directly on The Space platform but will be accessed through links to the Apple App Store, Android Marketplace or Amazon Appstore as required. You will still complete the submission form and project data as for simple multimedia commissions.

Please note that apps are built for specific platforms will only be available on those platforms - eg an iOS app made available through the Apple App Store will only be installable on Apple devices, while an Android app will only work on Android devices. This reduces the potential audience for your work.

You may want to consider whether a 'web-app' is able to deliver all or the most important of your creative ambitions.

In order for us to test your apps we will need access to developer releases. Any material in the app will be expected to conform to the general editorial guidelines for The Space.

Please also note that app stores have their own review and acceptance criteria and approval timetables: submission to the store does not guarantee availability on app stores in the required timetable.

We will discuss the details of linking to and embedding your app in The Space during the development phase.

Web-based projects

It is difficult to provide prescriptive requirements for projects which require separate web-based content that is not directly hosted on The Space platform - for example, microsites, interactive games and QR-code driven projects without compromising on flexibility. Given this, it is important that you discuss your project with us so that we can advise you on integration with The Space platform, as well as scaling to meet anticipated audience demand and technical considerations surrounding targeting multiple platforms simultaneously.

Any material on your website will be expected to conform to the general editorial guidelines for The Space.

APIs for native applications (apps) and web-based projects

The Space website will publish 'data views' for all of its pages, including each content item, which can be used by both native applications (apps) and web-based projects wishing to integrate with The Space.

These views will include JSON and RDF representations of the data with stable and persistent URLs. You will be able to access these views either through HTTP Content Negotiation or by explicitly appending a filename extension (such as .json) to the page that you wish to obtain machine-readable data for.

If you discuss your requirements with us, we will be able to provide you with guidance on making use of the data, as well as information about the URL patterns and data formats in use.

General audio/video quality requirements

Picture quality

- The picture must be well-lit and reasonably but not artificially sharp.
- The picture must be free of excessive noise, grain and digital compression artefacts.
- The picture must be free of excessive flare, reflections, lens dirt, markings and obstructions (eg lens hood) and lens aberrations.
- Movement must appear reasonably smooth and continuous, and must not give rise to distortions or break-up to moving objects, or cause large changes in resolution.
- The picture must be free of excessive black crushing and highlight compression. Hard clipping of highlights (eg by legalisers) must not cause visible artefacts on screen.
- There must be no noticeable horizontal or vertical aliasing, ie jagged lines, field or frame rate fluctuations in fine detail.
- Colour rendition, especially skin tones, must be consistent throughout, and a realistic representation of the scene portrayed unless it is altered as an editorially essential visual effect.
- The picture must be stable and continuous - ie no jumps, movements, shifts in level or position.
- There must be no visible contouring/artefacts caused by digital processing.
- Quantisation noise must not be apparent.
- There must be no noticeable spurious signals or artefacts eg streaking, ringing, smear, echoes, overshoots, moiré, hum, cross-talk etc.

Sound Quality

- Sound must be recorded with appropriately placed microphones, giving minimum background noise and without peak distortion.
- The audio must be free of spurious signals such as clicks, noise, hum and any analogue distortion.

- The audio must be reasonably continuous and smoothly mixed and edited.
- Audio levels must be appropriate to the scene portrayed and dynamic range must not be excessive. They must be suitable for the whole range of domestic listening situations.
- Stereo audio must be appropriately balanced and free from phase differences which cause audible cancellation in mono.
- The audio must not show dynamic and/or frequency response artefacts as a result of the action of noise reduction or low bit rate coding systems.