Development Guidelines for the PVAC/ESSL Wordpress Hosting Service

The hosting service was initiated to host sites within the Faculties of PVAC and ESSL for Research Projects, Research Centres, Conferences and other events which required the production of small websites.

The service is built on a multisite installation of Wordpress, and includes a University of Leeds theme which is used on all leeds.ac.uk subdomains. Wordpress is configured to allow access to users with University of Leeds usernames and passwords via Active Directory, and utilises domain mapping exclusively for all network sites, i.e. all sites hosted in this service require a fully qualified domain name (FQDN).

If you have any questions about the service, please contact Tim Banks (t.banks@leeds.ac.uk) or Peter Edwards (p.l.edwards@leeds.ac.uk).

GENERAL CONSIDERATIONS

WORDPRESS VERSION

The version of Wordpress which this service uses is the **latest stable version** available from wordpress.org. There may be a time lag of up to 48 hours between a new release of the software being made available and the new release being deployed on this service, but we endeavour to keep the version of the software current at all times.

If a theme or plugin depends on parts of the Wordpress API which have been deprecated in the latest stable version, they may cease to operate correctly as these patches are applied.

CODING STANDARDS

All Themes and Plugins used in sites to be deployed in this service must be tested prior to deployment to ensure that basic coding errors are not present in them. Basic coding errors would include the generation of any PHP Notices or Warnings as well as any Javascript errors (whether benign or not). Any code developed by external suppliers must be fully documented to a sufficient level to allow it to be understood and supported by others.

The Wordpress Coding Standards should be followed in all custom development work:

- Wordpress Core Handbook: Coding Standards

DATA STORAGE

Storing data, either in theme options or in plugins, should be carried out using Wordpress API wherever possible (storing options in the options table, using the Wordpress Settings API, or using the postmeta table for posts and pages, for instance).

If additional database tables are required by a plugin or theme, this guidance in the Wordpress Codex must be followed to allow for the correct application of any updates, and the correct function of any activation and deactivation routines. Deactivation of a plugin or theme which adds tables to the Wordpress database should always result in the additional tables being dropped. Additional tables must also be prefixed correctly so they are specific to a site within a multisite network (and not global for the whole network).

DOMAIN NAME

Sites where the University is the main partner must normally use a leeds.ac.uk domain and must use the University Wordpress theme, or be developed in line with the web toolkit guidelines. Other sites must use an external domain name which must be acquired through ISS and must not use Leeds branding. All websites must comply fully with all relevant sections of the website regulations and in particular must have a valid privacy notice written specifically for the site.

CUSTOM THEME DEVELOPMENT

THEME DESIGN

All themes should ensure that the code they generate is valid HTML, and that the accessibility of the theme confirms to Web Content Accessibility Guidelines (Level AA) where appropriate.

Themes should employ a responsive design methodology to ensure the site works well on all target devices, and use progressive enhancement in any scripting to emphasise accessibility.

THEME UPDATES

Themes which are downloaded and used from the theme repository at wordpress.org are always updated as soon as the new version of the theme becomes available. Care should be taken to minimise the risk of any unexpected behaviour as a result of an update. Under no circumstances should theme files be modified in such a way that these modifications would be overwritten when an update is applied.

If a "premium" theme is used for a site, or a custom theme commissioned from an external supplier, any details of the contract with the theme supplier must be supplied so updates can be applied to the theme as they become available. Updates to themes and plugins should form part of a support contract with the theme vendor, and notifications of available updates sent to essl-pvac@leeds.ac.uk.

It is not acceptable to use a mechanism to prevent themes or plugins from being automatically updated, as this could leave the site vulnerable to attack from any subsequently discovered security flaws.

PLUGIN USAGE

If a theme is dependent on a set of Plugins to enable its operation, the full list of dependencies must be cited prior to any development work taking place. As the update policy for Plugins from the Wordpress plugin repository is the same as that for themes (i.e. all plugin updates will be applied as soon as they are released), care should be taken to minimise the possibility that any future updates will negatively impact on the functionality of the site. Any support contract for custom theme development should also ensure that the theme will still operate as planned when these updates to plugins are applied.

If any plugins are "adapted" from those available in the Wordpress plugin repository, the plugin header should be modified to ensure that any updates by the original author of the plugin are not applied to the modified plugin. In such cases, the provider of the "adapted" plugin should include details of how bugs or enhancements in the original plugin will be merged with their adapted codebase in their support contract.

We will not normally deploy any plugins or themes which are designed to suppress any of the default behaviour in Wordpress (suppressing updates in dependent plugins or changing the default Dashboard menus, for instance). If the functional specification cannot be met in any other way, then a case for their use must be presented by the developer for consideration by the Faculty web team.

CUSTOM PLUGIN DEVELOPMENT

AVAILABLE PLUGINS

A list of plugins currently available in this service is available on the Wordpress Plugins page on the PVAC/ESSL hosting site.

If the plugin you wish to use is not present on this list, please contact us so we can test the plugin and make sure it works within this installation. Some plugins may be incompatible with others which are already in use on other sites in this installation.

PLUGIN UPDATES

Plugins which are downloaded and used from the plugin repository at wordpress.org are always updated as soon as the new version of them becomes available. This may cause unexpected behaviour under some circumstances.

If a custom plugin is developed by an external supplier, the support contract from the supplier must include the provision of updates for the software.

CHANGES TO THESE GUIDELINES

Any changes to these guidelines will be reflected on the PVAC/ESSL Wordpress hosting service site at:

http://www.pvac.leeds.ac.uk/hosting/