

<b>Title</b>	Developing Locale-Aware Support for DMPonline version 4
<b>Description</b>	<p>DMPonline is increasingly being used to support data management planning by users at work in different national contexts. This note scopes out the functionality required to support localisation in DMPonline version 4, and outlines technical issues in developing these locale-aware services.</p> <p>This note forms part of the deliverables for the May 2015 incremental release of DMPonline version 4 as identified in our development roadmap for 2015.</p>
<b>Date of Issue</b>	18 May 2015

**This technical note is provided for descriptive purposes.  
To clarify any of the issues covered, please contact the DMPonline team by email at [dmponline@dcc.ac.uk](mailto:dmponline@dcc.ac.uk)**

### Scope

Enabling use of DMPonline version 4, the data management planning service developed by the DCC, across a range of national contexts requires localisation support. The need for this functionality stems from increasing diversity in the DMPonline user community, particularly the increasing range of international users. To reflect this, the design and implementation of localisation support is one of the themes in the DMPonline development roadmap for 2015.

Localisation, in this context, includes tailoring not only the language used to display text to the user but also the range of other features needed to align DMPonline for the user community within a specific locale. National contexts represent one key set of locales for DMPonline. We could also consider other types of locale such as EU research consortia.

This note proposes:

- The range of features to be configured in order to tailor the DMPonline service to any specific locale;
- The mechanism by which users can select their required locale when using the DMPonline service;
- The technical platforms that will be used to develop localisation support within the DMPonline software code base.

### Related Documents

ISO (2006). *ISO 3166-1 Codes for the representation of names of countries and their subdivisions – Part 1: Country Codes*, International Standards Organization [available at [http://www.iso.org/iso/country\\_codes](http://www.iso.org/iso/country_codes), accessed 17 May 2015]

W3C (2004). *Web service internationalization usage scenarios - W3C Working Group Note 20*, World-Wide Web Consortium [available at <http://www.w3c.org/TR/ws-i18n-scenarios>, accessed 17 May 2015]

W3C (2012). *Web service internationalization (WS-I18N) - W3C Working Group Note 22*, World-Wide Web Consortium [available at <http://www.w3c.org/TR/ws-i18n>, accessed 17 May 2015]

## Locale-Specific Features

The features that need to be configured within the DMPonline service for each locale are listed in the Table 1.

Feature	Description
<b>UI Language</b>	The language used for the text presented on the DMPonline user interface (UI). <i>This includes the text presented on DMPonline menus, forms, buttons, status messages, etc.</i>
<b>DMP Language</b>	The language used for the content created in data management plans (DMPs). <i>DMPonline users may want to generate plan content in a range of languages dependent on funder requirements, so we should support plan content creation/editing in multiple languages within each locale.</i>
<b>Date and Time Conventions</b>	The dates, times and related information presented via the DMPonline user interface and stored in DMPs created using DMPonline. <i>This includes date/time formatting options and the selection of an appropriate time zone.</i>
<b>Data Format Conventions</b>	The formatting and layout conventions used for culturally dependent information such as postal addresses, currency, etc.
<b>Institution List</b>	The list of institutions relevant to the given locale. <i>It is likely that some institutions may be relevant to all locales (locale-neutral), whilst other institutions will be locale-specific. For example, UK universities are relevant to UK users of DMPonline, whilst pan-European institutions such as the European Bioinformatics Institute may be relevant across multiple locales.</i>
<b>Funder List</b>	The list of funders relevant to the given locale. <i>It is likely that some funders may be relevant to all locales (locale-neutral), whilst other funders will be locale-specific. For example, DMPonline users based in the Netherlands may not require access to UK funders, but users in both the Netherlands and the UK will have access to EU funder streams.</i>

Feature	Description
<b>DMP Templates</b>	The list of DMP templates relevant to the given locale. <i>In line with the list of funders, it is likely that some DMP templates may be relevant to all locales (locale-neutral), whilst other DMP templates will be locale-specific. For example, DMPonline users based in the Netherlands may not require access to UK funder templates, but users in both the Netherlands and the UK will have access to EU funder templates.</i>
<b>User Authentication Procedure</b>	The identification scheme used to authenticate HEI users of DMPonline in a given locale. <i>For example, the UK Access Management Federation for Education and Research acts as a point of authentication for UK users of DMPonline. Different federations act on behalf of other jurisdictions.</i>

**Table 1: Summary of locale-specific features to be configured in DMPonline**

## Requesting a Locale

We propose delivering the locale-specific DMPonline service in line with the **Service-Determined** pattern defined by the W3C (2004, 2012). In particular, we propose separate URL bindings for DMPonline based on the locale as illustrated in Table 2. For national locales, the designator for the locale-specific binding of DMPonline will use the relevant ISO country code (ISO 2006). The default locale of the service hosted by the DCC will be set to the UK national context. For project-based locales, the designator for the locale-specific binding will use the project name.

Locale	URL Binding
<b>Default Locale</b>	<code>http://www.dmponline.dcc.ac.uk</code>
<b>Locale for UK National Context</b>	<code>http://www.dmponline.dcc.ac.uk/gb</code>
<b>Locale for Netherlands National Context</b>	<code>http://www.dmponline.dcc.ac.uk/nl</code>
<b>Locale for Project-Based Context for Elixir-EUROPE Research Consortium</b>	<code>http://www.dmponline.dcc.ac.uk/elixir-europe</code>

**Table 2: Example locale-specific bindings for the DMPonline service**

## Technical Considerations

The features necessary to configure the DMPonline service for each locale will be developed using the technical approaches listed in Table 3.

Feature	Description
<b>UI Language</b>	<p>Conform the DMPonline software to the Rails internationalization (I18n) API.</p> <p>Publish the set of resource strings for which translations are required via GitHub wiki.</p> <p>Provide translation files for the supported set of languages in locale-specific configuration files.</p>
<b>DMP Language</b>	<p>Conform the DMPonline software to the internationalization (I18n) API for tinymce as defined by the tinymce-rails gem.</p>
<b>Date and Time Conventions</b>	<p>Conform the DMPonline software to the Rails internationalization (I18n) API.</p>
<b>Data Format Conventions</b>	<p>Conform the DMPonline software to the Rails internationalization (I18n) API.</p>
<b>Institution List</b>	<p>Provide locale-specific seed files defining an initial set of institutions.</p>
<b>Funder List</b>	<p>Provide locale-specific seed files defining an initial set of funders.</p>
<b>DMP Templates</b>	<p>Provide locale-specific seed files defining an initial set of DMP templates.</p>
<b>User Authentication Procedure</b>	<p>Conform the user authentication workflow within DMPonline to the SAML 2.0 protocol.</p> <p>Define the respective <i>Identity Provider</i> for the SAML 2.0 protocol in a locale-specific configuration file.</p>

**Table 3: Summary of locale-specific features to be configured in DMPonline**

### Feedback

We welcome your feedback on this technical note. Please report any comments/problems directly to the DMPonline team by email to [dmponline@dcc.ac.uk](mailto:dmponline@dcc.ac.uk). DMPonline has an active community of users, including researchers, institutional RDM support staff, funders, data curators and developers. We strive to engage more directly with all our users, and invite you to join the DMPonline user group. This user group provides a forum for discussion, and an opportunity to feedback on issues such as those covered by this technical note to help shape the future direction of the tool. To join the user group, please visit [www.jiscmail.ac.uk/DMPONLINE-USER-GROUP](http://www.jiscmail.ac.uk/DMPONLINE-USER-GROUP).