



The Challenge

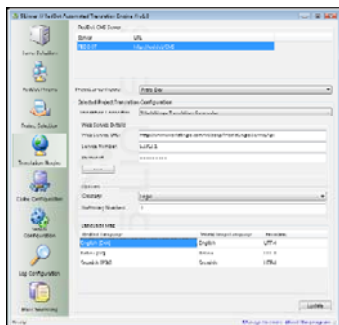
Creating and managing multi-language web sites requires specialist resources that bill by the word and by the hour. Managing the costs of multi-language web sites means maximising their efficiencies and that means focussing their attention on the task of translating the content.

The Goals

- Minimise the cost of translation
- Minimise design and development rework
- Maximise speed to market

The Solution

Prato Translation Engine for RedDot CMS works silently in the background automatically translating pages as they are released from draft. Whilst machine-based translation is not production-ready it does provide each page in a near-production state and will save upwards of 30% of the cost of translating an average page.



Prato Translation Engine for RedDot CMS

The 5 Limes Prato Translation Engine provides access to batch and near real-time automated translations, greatly reducing the manual effort and cost associated with creating and maintaining a multi-language web site. The system has been designed with very specific goals including:

- Minimise the impact on RedDot administration and editing environments
- Support multiple RedDot CMS versions simultaneously
- Support multiple machine-based translation engines simultaneously
- Provide flexible licensing arrangements for web site owners and commercial content houses
- Robust platform that can cope with disconnections and outages
- Maximises the throughput by only updating altered content

Machine-Based Translation

By introducing machine-based translation as the first pass in the translation process it has two dramatic effects straight away: the cost associated with engaging the Translation Service will typically be halved; and pages will be translated in near real-time.

The quality of machine-based translation has been steadily improving over the last few years and development is ongoing. The Prato Translation Engine utilises a plug-in model that allows the utilisation of any machine-based translation service. The product is supplied with a connector to WorldLingo – an acknowledged leader in the field – and utilises their web service to perform the actual translations. All of the features of the WorldLingo service are made available through the Prato Configuration Utility, including tuning parameters to specify context and the utilisation of custom dictionaries.

Human Review Process

The machine-based translation system is a great start, but it's not perfect. It is sensible to schedule some additional time for the review process, but the increased cost associated with the review will be far less than the savings made on the initial translations, resulting in a significant saving on the overall process.

To further streamline the process we have developed features to facilitate a human review process. The Prato Translation Engine contains features that allow translations to be exported and imported from a project en masse as that the exported translations can be easily edited in a number of packages including Microsoft Office Excel®, removing the need for translators to be trained in, or have access to, the RedDot CMS system.

Technology

The Prato Integration Engine comprises several components:

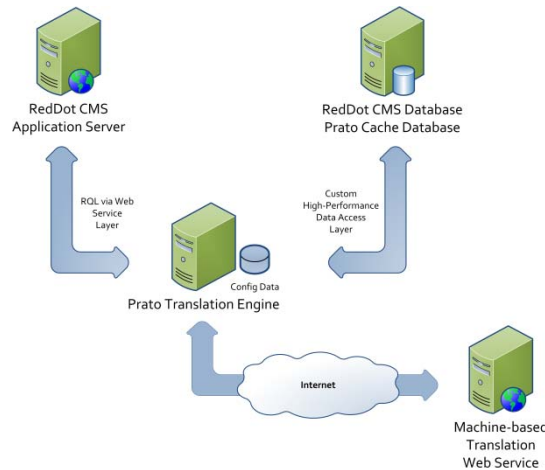
- The Prato Integration Engine
- Configuration Utility
- Configuration Database
- Prato Cache Database

All components are built on the Microsoft .Net Framework v2.0 and operate at this time only RedDot CMS installations running on SQL Server 2000 and above are supported, as the Prato Cache Database runs alongside the RedDot CMS database.

Batch Processing Capability

To maximise the efficiency of the Translation Service the Prato Translation Engine provides several batch editing capabilities including batch submission to a machine-based translation service and batch import and export. The batch import and export can be used to facilitate editing of translations in applications such as Microsoft Office Excel®.

No alterations are made to the RedDot installation and integration is achieved using RedDot RQL API over web services whilst the Prato Translation Engine receives notifications of page changes using RedDot CMS's Export Page workflow action.



To enable translations, configure the Prato Translation Engine is configured for project, language and machine-translation settings and creates a global workflow in the primary language variant and sets the Export Page reaction to deliver notification to the engine. During the translation processing it is possible to start and stop the engine at any time as processing is queued, persisted and suspended as required.

Physical Application Model

The Physical Application Model diagram above depicts a typical RedDot CMS / Prato Translation Engine deployment scenario. While a smaller deployment scenario might combine all of these functions on a single physical server, the architecture of the platform has been designed to allow for significant scalability when it is required.

Logical Application Model

The Logical Application Model diagram below depicts the distribution of functions across the solution. The mauve elements are native to RedDot CMS, the blue to the Prato Translation Engine, and the olive represent external adapters to machine-based translation services and alternate editing environments such as Microsoft Office Excel®.

