

Software Release Report

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This deliverable presents the plan of design and development of the OpenMinTeD infrastructure services for the next 12 months. At month 12 and 24 an update of this deliverable will be produced. Its intended use is mainly for technical partners to locate their software release duties in the wider context of the project software release, but also for the generic reader to get an overall picture and insight view of the technical activities.



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	Name	Organization	Date
From	Mark A. Greenwood	USFD	29/07/2016
Edited by	Mark A. Greenwood	USFD	10/08/2016
Reviewed by	Thomas Margoni	University of Glasgow	08/08/2016
	Matt Shardlow	UNIMAN	09/08/2016
Approved by	Matt Shardlow	UNIMAN	09/08/2016
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Acronyms

IE	Information Extraction
TDM	Text and Data Mining



Publishable Summary

Throughout the life of the OpenMinTeD project we are planning to release numerous versions of a number of core components that will enable interoperability between existing Text and Data Mining (TDM) frameworks. This report will be updated with these releases to provide a single reference document to point interested users to the relevant components. Our current release plan will see the first official OpenMinTeD software become available at the end of September 2016 and so this version of the report focuses on related software development.

Many, if not all, of the components we are planning to release are being developed in public and this report also gives a brief overview of this work and pointers to where to look for more information.

Alongside software developed specifically for OpenMinTeD, a number of partners are involved in the development of related TDM software. Some of this software has seen recent development inspired by work in OpenMinTeD and this report outlines that work as well for the interested reader.



1. OpenMinTeD Software Releases

The first formal software release from OpenMinTeD is scheduled for the end of September 2016. As such this section of the report is currently a place-holder for the documentation of future releases.

This is the current snapshot of the timeline for releases of the OpenMinTeD platform components and applications. The master timeline is hosted on the Redmine project management system, and is updated as the project's needs and architecture plans are clarified, and as they further evolve. Any proposed changes to the timeline will be discussed in the technical work packages (i.e. WP5-WP8).

Each release will follow a two-month cycle of pilot → testing → integration → deployment, so for a release target date at the end of one month the release cycle starts at the beginning of the preceding month.

Start of Release Cycle	Release Date	Month	Milestone	Type	Title
30/07/2016	30/09/2016	16	MS30	Component	Registry
31/08/2016	31/10/2016	17	MS31	Platform	Platform V1
30/11/2016	31/01/2017	20	MS36	Component	User and accounting services V1
30/11/2016	31/01/2017	20	MS37	Applications	1 st Community Driven Applications
31/03/2017	31/05/2017	24	MS42	Component	Data interoperability APIs and toolkit V1
31/05/2017	31/07/2017	26	MS45	Component	User and accounting services V2
31/05/2017	31/07/2017	26	MS46	Component	Workflow service
31/05/2017	31/07/2017	26	MS47	Component	Annotation presentation service

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31/05/2017	31/07/2017	26	MS48	Platform	Platform V2
31/07/2017	31/08/2017	27	MS49	Applications	2 nd Community Driven Applications
30/11/2017	31/01/2018	32	MS54	Component	Annotation editing service and crowd-sourcing plugins
30/11/2017	31/01/2018	32	MS55	Component	Data interoperability APIs and toolkit V2
31/12/2017	28/02/2018	33	MS56	Platform	Platform V3
31/01/2018	28/02/2018	33	MS57	Applications	3 rd Community Driven Applications



2. Ongoing Public Development

As discussed in the previous section, the OpenMinTeD project has not yet reached a point where it is ready to formally release any of the software being developed. It is worth noting, however, that much of the software is being developed in public and this brief section details the main development work currently taking place.

2.1 Interoperability Scenario Descriptions and Requirement Specifications

In this repository (<https://github.com/openminted/interoperability-spec>), we host the interoperability scenario descriptions and the interoperability requirements specification. While the scenarios are now largely stable, the interoperability requirements are still being continuously updated. This not only includes textual descriptions but also scripts that process the requirements information to generate different kinds of overviews and reports. A version is planned to be frozen and released as part of deliverable D5.2.

2.2 Interoperability Mapping Conversions

In this repository (<https://github.com/openminted/interoperability-mapping-conversion>), we host software to automatically aggregate and compare type systems and component descriptions. The software is regularly updated as new features are added, e.g. the crawling of metadata directly from repositories that host components. This is considered experimental software/proof-of-concept software and there is presently no release schedule. However, it is expected that parts of the code will be picked up/adapted by the task force working on the component registry.

2.3 The OpenMinTeD Registry

As detailed in the previous section, the first software release from the OpenMinTeD project will be the registry. Development of this component has already started, although it has not yet been moved into the OpenMinTeD GitHub repository. As per the original development and testing plan, the code is being built automatically via the project's Jenkins installation (<https://builds.openminted.eu>) and snapshots are being automatically deployed to our Nexus repository (<https://repo.openminted.eu>).



2.4 Information Extraction for Viticulture Researchers

Agroknow recently coordinated a hackathon which produced an API endpoint for extracting text from PDF files which could then be annotated by other endpoints. The goal is to provide end-users with an intuitive way to annotate their bibliographical resources. To this end, the FREME API (an endpoint used for entity recognition and interlinking), the AgroPortal annotator (used for the recognition and interlinking of entities against selected ontologies) and a custom SPARQL endpoint (with information about grape varieties) were used. It is envisaged that this work may be included into one of the OpenMinTeD usecase demonstrators.

See <https://github.com/agroportal/1stAgroHackathon/tree/master/hack-14> for more details.



3. Recent Related Releases

Outside the OpenMinTeD project itself there have recently been a number of software releases that are worth mentioning as they impact upon the project in some sense. The two releases mentioned in this version of the report are of TDM frameworks developed by project partners which will be closely integrated with the final OpenMinTeD platform.

3.1 GATE 8.2

While not directly related to OpenMinTeD, GATE 8.2 has recently been released. This release sees numerous new features, and new plugins, many of which will in time be made available through the OpenMinTeD registry. More importantly, however, this release has allowed development focus to move to the next major release of GATE. There is currently no release date scheduled but most of the planned features are, in some way or another, related to OpenMinTeD. This includes changes to component metadata to allow use with the OpenMinTeD registry and a move to distributing plugins via Maven to aid automatic construction of workflows.

Development is currently taking place in the public GATE source code repository which can be found at <http://svn.code.sf.net/p/gate/code/gate/branches/sawdust2/>

3.2 DKPro Core 1.8.0

The recent release of DKPro Core 1.8.0 includes several improvements that were prompted by discussion in OpenMinTeD WP 5.2 and implemented by UKP-TUDA. The new release includes a comprehensive reference documentation that is generated automatically from all kinds of sources of metadata within DKPro Core, including typesystem descriptions, component descriptions, etc. As part of this reference documentation, linkings to other type systems (GATE ANNIE, LAPPS Grid, ISOCat) were introduced as suggested in WP 5.2 WG 2. Also following a suggestion by WP 5.2 WG 2 types received a URI by which they can be linked to from type mappings. The aggregated information that is the basis for the reference documentation is also the basis for the generation of metadata according to the upcoming OpenMinTeD specification from WP 5.1 WG 1 and has certainly contributed to the process of developing this specification.

DKPro Core can be found at <https://dkpro.github.io/dkpro-core/>



3.3 Argo

The Argo workflow management and execution system already has a number of desirable features, which make it a powerful tool for fostering interoperability amongst developers and user communities. Built on top of the OASIS Unstructured Information Management Architecture (UIMA), Argo can easily integrate other TDM tools which use the same technology. Argo workflows can be used to perform a variety of TDM tasks and workflows can be shared across users to facilitate re-use. Argo contains an internal component registry, many of which will be exposed to the OpenMinTeD registry. Argo will also be able to draw components from the project's registry when it is available. Argo also has its own internal annotation editor and the OpenMinTeD annotation editor will be integrated with Argo's systems. Further to this, New developments in Argo contain several features which are relevant to the OpenMinTeD project. These include: improvements to the stability of the execution engine, component license management and aggregation, distributed execution supporting a number of cloud services and improved integration with web services.

Argo (available from <http://argo.nactem.ac.uk/>) is currently in beta with new features appearing frequently.