# Extraction of personal data

**Clients are responsible for ensuring their own compliance with various laws and regulations, including the European Union General Data Protection Regulation. Clients are solely responsible for obtaining advice of competent legal counsel as to the identification and interpretation of any relevant laws and regulations that may affect the clients' business and any actions the clients may need to take to comply with such laws and regulations. The products, services, and other capabilities described herein are not suitable for all client situations and may have restricted availability. Merative does not provide legal, accounting or auditing advice or represent or warrant that its services or products will ensure that clients are in compliance with any law or regulation.**

This document is intended to provide guidance to help you in your preparations for GDPR readiness. It provides information about features of this offering, and aspects of the product's capabilities, that may help your organisation with GDPR requirements. This information is not an exhaustive list, due to the many ways that clients can choose and configure features, and the large variety of ways that the product can be used in itself and with third-party applications and systems.

## The GDPR and extraction of personal data

The following are some of the key points that relate to data subject access to personal data in Article 15 of the GDPR:

> "The data subject shall have the right to obtain from the controller confirmation as to whether or not personal data concerning him or her are being processed, and, where that is the case, access to the personal data…"

> "The controller shall provide a copy of the personal data undergoing processing…Where the data subject makes the request by electronic means, and unless otherwise requested by the data subject, the information shall be provided in a commonly used electronic form…The right to obtain a copy referred to in paragraph 3 shall not adversely affect the rights and freedoms of others."

A concept related to data access is the concept of data portability, which is covered by Article 20 of the GDPR:

> "The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and

machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where:

(a) the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and

(b) the processing is carried out by automated means…"

Article 15 builds on "Recital 63 Right of access" and "Recital 64 Identity verification".

Article 20 builds on "Recital 68 Right of data portability".

Refer to the GDPR for the full text of these articles and the related recitals.

## Social Program Management (SPM) and extraction of personal data

SPM provides the following resources that customers can use for the analysis and development of a data extraction solution.

**Note**: Refer to the SPM data subject access rights and transparency document for additional information that relates to the provision of access to a data subject, including the ability for clients to update a subset of their own personal information.

## Identifying the database tables that store data and the Java APIs to call to read from them

### Cúram Development Environment

Customers can use the Cúram Development Environment to view the artifacts that model the SPM database and to navigate the modelled relationships between the SPM database tables. Customers can also use the Cúram Development Environment to view the documentation about modelled façade operations. For more information, see Cúram Development Environment in the Knowledge Centre.

Customers can use the Cúram Analysis Documentation Tooling (CADT) to obtain information about the following Cúram artifacts:

- Application views and tabs
- Database tables
- Pages
- Domain definitions
- Code tables
- Message files
- Application properties
- Workflows
- Rule sets
- Dynamic evidence
- IEG scripts
- Datastore schemas
- Page flows

For more information about CADT, see the Cúram Analysis Documentation Tooling technote.

Customers can use CADT to identify the Java external APIs that are called by the server-side presentation layer in SPM, to read client data and the database tables that are read by the APIs. The CADT provides links to the Javadoc for the referenced APIs and to the documentation for the referenced tables. A data extraction solution implementation can either call the APIs or read from the tables

Customers can also use CADT to navigate through the documentation for the screens of Intelligent Evidence Gathering (IEG) scripts that are used either in SPM or in Universal Access. Customers can also navigate from the documentation for an IEG script to the documentation for the data store, where the client data that the script captures is persisted

After customers have identified the data store schema and the data store entities that are contained within it, customers can read client data in the data store by using the Data Store API. Refer to How to Properly Access Datastores in the Knowledge Centre for details on how to use this API.

Refer to the CADT Guide that is packaged with the tool for further information about how to use CADT.

Note: CADT currently supports navigation from SPM application views, but it does not currently support navigation from Universal Access Page Player pages.

The Javadoc for all external APIs in SPM, including APIs that are not called directly by the presentation layer, is delivered with SPM. Refer to External APIs in the Knowledge Centre for more information about the Javadoc

The usage of external APIs is described in the Approaches to extracting personal data section later in this document.

## Additional considerations in relation to data store data

Note the following points in relation to the data store and the extraction of client data.

1) The purpose of capturing data in a data store is to map that data to case evidence* where it is used by case processing. However, there may be scenarios where captured personal data exists in the data store, but the data has not been mapped to evidence entities, as shown in the following examples:
   o Applications from clients on the Universal Access citizen portal that have been started but not submitted.
   o Life Events updates from Citizen Account holders that have been captured in the data store but have not been submitted.

   Note: The data store is a repository of captured personal data which, in some cases, is not replicated elsewhere.

   * Refer to Understanding Data Mapping in the Knowledge Centre for more information about data mapping,

2) Data store data is transient. The data can be deleted and therefore, it is not considered to be permanent.

   SPM provides the following purge batch jobs that delete classes of personal data that are stored in the data store:
   - CitizenWorkspacePurgeOldDataProcess purges data in the data store that is older than a specified date and matches specific criteria. Refer to CitizenWorkspacePurgeOldDataProcess for the description of this criteria.
   - CitizenWorkspacePurgeDataProcess purges data that is created by users who are not registered on the system, for example, users who do not have an account. Refer to CitizenWorkspacePurgeDataProcess for more information.

   - CitizenWorkspacePurgeNonReferencedDataProcess purges unlinked or unreachable data in the data store. Refer to CitizenWorkspacePurgeNonReferencedDataProcess for the definition of unlinked and unreachable data.

   Note: The data store copy of the data is irretrievable if it is purged.

## Approaches to extracting personal data

### 1) Client program for SPM external Java APIs or customer developed APIs

Note the following points in relation to the use of [External APIs.](#)

o   External APIs are, for the most part, façade layer APIs. However, there are some service layer and data access layer APIs that are also annotated as external.

o   Universal Access public APIs, which are documented in the WorkspacesServices and CitizenWorkspace components, are typically designed to be called by Citizen Account holders to access their data.

For example, the following method lists existing in-progress and submitted application details for a logged in user:

```
curam.citizenaccount.impl.MyApplications#listExistingApplications()
```

o   The APIs for non-Universal Access components, such as the APIs that are documented in the Core component, are typically designed to be called by internal users to access data that belongs to multiple clients. Users can call the APIs to execute queries that are scoped to different clients.

For example, the following API call lists all 'Active' evidences for a case, through filtering by participant and evidence type:

```
curam.core.facade.infrastructure.struct.ListAllActiveEVDInstanceWorkspaceD
tls#listAllActiveEVDInstanceWorkspaceDtls(curam.core.sl.struct.CaseIDParti
cipantIDEvidenceTypeKey key)
```

### [2)](#) Web-based APIs

SPM provides customers with the ability to build their own web-based APIs that build on top of the external APIs.

### 2.1) Cúram Web APIs

The [Developing Cúram Web APIs](#) section in the Knowledge Centre documents how customers can build their own Web APIs.

The [Web API accelerator](#) section in the Knowledge Centre gives a detailed example of how to develop a Web API from scratch to satisfy a business use case.

### 2.2) Cúram Web Services APIs

The [Integrating with External Applications through Web Services](#) section of the Knowledge Centre documents how a customer can build a Java web service API, including both inbound and outbound APIs.

## 3) Cúram Batch

An alternative solution could use Cúram Batch Processing to process data extraction requests asynchronously and in bulk. In this scenario, request handling and request fulfilment are executed in separate transactions. The custom batch process can either leverage the same external APIs that are discussed in previous sections, or call customer developed APIs that are written specifically for use by batch processes.

**Note:** The use of batch in this context refers to the offline extraction of data. Further development work would be required to fully automate the extraction request and response flow.

## Nonfunctional considerations

As with developing any custom process, consideration should be given to the nonfunctional requirements. Examples of nonfunctional requirements include but are not limited to security, performance and scalability.

### Security considerations

- How to identify the data subject making the data request.
- How to manage authorisation so that data subjects see only the data that they are authorised to see.
- The Citizen Account Security Considerations section of the Knowledge Centre is of particular relevance for solutions that leverage the Universal Access external APIs.
- Refer to the Security section of the Knowledge Centre for additional information about the security architecture of SPM.
- Refer to the Securing Universal Access section in the Knowledge Centre for additional information about how to secure Universal Access.
- **Note**: Because security requirements vary from customer to customer, customers will need to assess their own specific security requirements and identify all the additional code customisation that is needed to satisfy the requirements.

### Performance and scalability considerations

- How the solution impacts the load on the SPM server and backend database.
- Response time to web-based APIs when processing is synchronous, in which case request fulfilment is handled in the same transaction as request handling. This may be a factor when implementing an API that calls several external APIs and aggregates their results.
- Refer to the Tuning batch streaming performance for SPM batch processing performance guidelines
- Refer to the Performance Management Guidelines for Cúram Social Program Management for details on managing SPM performance overall.
- **Note**: Customers should evaluate the performance and scalability of their processes before deploying them to production.

## Further information

### The GDPR Text
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.119.01.0001.01.ENG&toc=OJ:L:2016:119:TOC

### SPM GDPR technotes
Social Program Management is in the process of releasing documents that cover various GDPR related topics. All documents will be attached to the following tech note:
https://www.merative.com/support/spm/news/gdpr-information

### Social Program Management Knowledge Centre links
Developing section
https://www.ibm.com/support/knowledgeCentre/en/SS8S5A_7.0.2/com.ibm.curam.nav.doc/common/t_ctr_develop.html

Cúram Server Developer Guide
https://www.ibm.com/support/knowledgeCentre/SS8S5A_7.0.2/com.ibm.curam.content.doc/ServerDeveloper/ctr_CuramServerDeveloperGuide.html

Cúram Data Store

https://www.ibm.com/support/knowledgeCentre/SS8S5A_7.0.2/com.ibm.curam.content.doc/UsingTheDataMappingEngine/c_DATAMAP_Mapping4UnderstandingHowDataStoredCds1.html

Cúram Data Mapping

https://www.ibm.com/support/knowledgeCentre/SS8S5A_7.0.2/com.ibm.curam.content.doc/UsingTheDataMappingEngine/c_DATAMAP_Mapping4UnderstandingDataMapping1.html

Cúram Web Client Reference

https://www.ibm.com/support/knowledgeCentre/SS8S5A_7.0.2/com.ibm.curam.content.doc/WebClientReference/ctr_CuramWebClientReferenceManual.html

External APIs
https://www.ibm.com/support/knowledgeCentre/en/SS8S5A_7.0.2/com.ibm.curam.content.doc/DevelopmentCompliancy/c_COMPDEV_Developing1ExternalApis1_605.html

Cúram Web APIs
https://www.ibm.com/support/knowledgeCentre/SS8S5A_7.0.2/com.ibm.curam.content.doc/RestfulAPI/Overview/c_RAPI_Dev_RestfulAPIOverview.html

Cúram Web Service APIs

https://www.ibm.com/support/knowledgeCentre/en/SS8S5A_7.0.2/com.ibm.curam.content.doc/WebServices/c_WEBSERV_Services1InboundWebServices1.html