Measure Authoring Tool (MAT) Overview

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The Measure Authoring Tool (Beta version) was originally released in January of 2011, under a contract with the National Quality Forum.

In September of 2013, CMS assumed ownership for the MAT and Telligen and NIC provide support and maintenance for the MAT, under HCIS.

- Public Facing Website
- MAT Application
- Support Center Team
- Open Source Repository
The Measure Authoring Tool (MAT) is a web-based application that allows Measure Developers to author eCQMs using a standardized data model and expression language. It exports a machine readable file.

- Publicly available Tool and Website
- One tool included in a larger ecosystem of eCQI tools
  - MAT, Bonnie, Value Set Authority Center, Cypress, etc.
- The MAT provides functionality that allows users to document metadata about each measure, identify the data elements needed for the clinical concepts, apply value sets to those elements and express the relationship between those elements (logic).
The MAT is a software project that follows an agile methodology and the CMS XLC processes.

The MAT releases 2-3 times a year, usually one major release and minor releases as necessary.

The MAT priorities and releases are managed by the MAT Change Control Board (MCCB).

MCCB is a multi-agency governing board that oversees QDM approvals and MAT functionality.
• The MAT uses several inputs to design the GUI and databases:
  – Quality Data Model (data elements/clinical concepts)
  – Health Quality Measure Format (HQMF) provides the structure
  – Measure Blueprint
  – SimpleXML (Internal representation of the measure, in a simplified XML format)

• Connected to the Value Set Authority Center through an API (Application Programming Interface) connection
  – Provides seamless access to curated and under development value sets and codes
  – VSAC (UMLS) credentials required
  – Access/ownership to value sets in VSAC managed by NLM
Measure Authoring Tool - Export Files

<table>
<thead>
<tr>
<th>Artifact/Export</th>
<th>Published?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Readable HTML File</td>
<td>Yes</td>
</tr>
<tr>
<td>SimpleXML</td>
<td>Yes</td>
</tr>
<tr>
<td>HQMF 2.1 XML File</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Set Excel Spreadsheet</td>
<td>No</td>
</tr>
</tbody>
</table>
Measure Authoring Tool – Looking Ahead

• Focus on supporting robust measure development
  – Composite Measures, Measure Logic Re-use

• Evolution of user requirements and standards
  – HQMF, QDM, CQL, ELM

• Currently in month 9 of a 12-month User Acceptance Testing cycle for CQL
Measure Authoring Tool Overview

The Measure Authoring Tool (MAT) is a web-based tool that enables measure developers to author electronic Clinical Quality Measures (cCQM) using the Quality Data Model (QDM). The tool provides the capability to express complex measure logic and support measures in several formats, including a human-readable document that can be viewed in a web browser, the fundamental green cCQM XML syntax (SimpXML), and an eCQM HQMF XML document format for integration with EMRs. The data expressed in the tool by users serves as the input for the

Announcements

Measure Authoring Tool August Scheduled Downtime Notification
CICF Data Downtime Notification - 05/02/2017
Measure Authoring Tool Planned Downtime Notification

Under contract with the National Quality Forum, a Beta version of the tool was initially developed and released in January 2011. The Beta version of the tool was released in September 2011, followed by the Enhanced version in January 2012. Effective January 2013, the Centers for Medicare & Medicaid Services assumed ownership of the MAT and has contracted with Health Care Innovation Services (HCIS), a Joint Venture between Teligent and Health-Integrated Consulting (NIC) for the ongoing development, maintenance, and support.

CMS.gov
A federal government website managed by the Centers for Medicare & Medicaid Services
1500 Security Boulevard, Baltimore, MD 21235
Measure Authoring Tool - Resources

• Measure Authoring Tool Public Website
  • https://www.emasuretool.cms.gov
    – Training, User Guide, Downtime and Release notices
    – Link to Open Source Community Resources
    – Get Started and FAQ topics
• Support Center – Contact Us Page
  – Email & Phone
• GitHub – Open Source Community