**EDAM X12 EDI 834**

An Open-Source Initiative

EDAM (“Enterprise Data Asset Management”) Studio is an open-source project originally sponsored by Datovy. The initial conception of EDAM was in the form of a command-line console application that could take a schema (XSD, JSON Schema, and others) to be used to flatten into an EDAM Studio type specification. Given an X12 EDI transaction set specification such as those that follow, EDAM Studio could be used to derive other representations including (XSD, JSON Schema and others):

* 274 – Health Care Provider Information
* 820 – Payment Order / Remittance Advice
* **834 – Benefit Enrollment and Maintenance**
* 837 – Electronics Claims

# EDI Workbook

EDAM Studio uses an X12 EDI specification (Excel – OpenXML based) workbook that contains the following columns:

|  |  |
| --- | --- |
| SegmentName | Segment Name |
| EntityID | Entity ID |
| EntityName | Entity Name |
| EntityElementName | Entity Element Name |
| Position | Establish the position of the TAG Element |
| SegmentCode | Segment TAG Code (such as “ISA”, “NM1” or other) |
| SegmentRepeat | Occurrence of TAG (“0:1” (optional), “1:1” (required), “1:N” (unlimited)) |
| SegmentRequiredType | Such as “R” = Required, or “S” = Situational |
| SegmentReference | Segment Element identifier such as “ISA01”, “NM101” or other |
| ElementID | Element ID |
| ElementType | EDAM Studio Element Type such as “element”, “code” or other) |
| Element | Element Name |
| ElementDescription | Element Description |
| ElementRequiredType | Element Required Type (“M” mandatory, “O” optional) |
| DataType | Data Type such as “string”, “date”, “number” or other |
| MinimumLength | Minimum Length |
| MaxinumLength | Maximum Length |
| Loop | Loop Identification |
| Parent | Parent Loop Identification |

The “Entity” columns will be used to help in deriving a database representation of the EDI (not yet supported). Those in “brown” are critical for the proper generation of derived document structure.

# EDAM Studio EDI Project

To illustrate the use of the “EDI Workbook” by the EDAM Studio the “Datovy.EDI” project is provided in the “Edam.App.Data/Projects” folder (look it-up in the “Files” folder), there the “834” sample workbook will be found. The project will load the specification into an EDAM Studio flat representation of its document structure as illustrated in the provided screenshot and could be used to generate mapping specifications, data-dictionary, XSD, JSON Schema, and others that may provide a starting point for derive artifacts as those may be needed on particular situations. The screenshot shows the hierarchical structure, in this case, of the 834 document.

While selecting the generation of XSD’s EDAM Studio prepare 2 files, the first with the EDI common elements such as (complex) types that will include Elements like “ISA”, “GS”, “N1” and others as defined in the Workbook, and a second file with the particular message at hand and in this sample scenario particular to the “834” transaction set.

# X12 EDI Document Instance Processing

As of this writing Datovy is wrapping up additional work to allow the validation and processing of X12 EDI document instances initially based on XSD’s as generated by EDAM Studio.

## EDI 834 Code Sets

TAGs such as NM1 that may need an “Entity Code ID” based on a code-set has purposely kept out of the Workbook but all of those will be provided separately as “pipe” (“|”) delimited csv files. Understand that all the codes within a code-set may not apply to a particular transaction set and for this Datovy do have loop-up code resources for supported EDI documents that in conjunction with the csv files will be provided in a different GITHUB project.

# Final Thoughts

Hopefully other specifications will be added including 837, 274, and 820 (in that order) that provide the open-source community an alternative option to other existing commercial offerings.

GITHUB Open-Source Projects

You can access these projects through these links:

EDAM - <https://github.com/esobrino/Datovy.Edam> (EDAM Studio)

HC-DST - <https://github.com/esobrino/Datovy> (Health Care – Disease Surveillance)

Contribute to EDAM

If there is any interest in learning about EDAM and/or contributing to the projects, follow the above links and let us know.

Hope to hear your thoughts soon,

Eduardo

Graphical user interface, text, application

Description automatically generated with medium confidence

(EDI 834 Document - Screenshot)