

IIS Joint Development and Implementation (JDI) Project Summary – DQA Tool: Governance, Support, DRAFT V3.6

This summary outlines the basic information needed for a joint development and Implementation (JDI) project supported by AIRA and IIS programs, IIS vendors/implementers, and invested partners.

AIRA’s primary objective for the JDI strategy is to develop and implement collaborative projects and services. For these projects, AIRA will provide, at minimum, project management and administrative support as needed. Project management will include leadership to address additional resource needs as feasible. Further project funding and in-kind support will be provided by participating parties as dictated by the project selected.

Basic Project Information	
Project Title	Data Quality Assurance Tool
Project Type <i>See project type list for definitions</i>	Tool: An application which <i>assists</i> an IIS in meeting a functional standard
Project Description and Output <i>A brief overview of the project</i>	<p>This project would support the broadly informed development of an existing DQA standalone tool. This open source tool can be installed locally by IIS to manage data quality of HL7 interoperability. The tool will accept either real-time or batch data feeds and produce data quality reports for each submitting provider. These data quality reports will be organized based on national standards for message structure, code sets, and data quality rules but will support customization as required by local policy and regulations. This tool will allow IIS to measure data quality quickly in a standardized way that will allow for comparisons across time, different submitters, and even different IIS.</p> <p>In addition to outputs above, the project would also produce community-updated requirements, a resource plan, a structure and framework for development, maintenance and sustainability of DQA code and materials, communication materials, strategies and materials to support implementation, and an evaluation plan.</p>
Background or Context <i>A summary of the problem(s) that the project is trying to solve</i>	<p>The Data Quality Assurance (DQA) tool was developed by Nathan Bunker, and is currently being enhanced by a consortium of volunteers consisting of California, Michigan and Minnesota. It is an open source product that can work with any IIS platform, although it does require skilled staff to install, test and support. DQA can be installed as a stand-alone or fully integrated product; that is, can be used to evaluate incoming batches of HL7 files before moving the files into the IIS or (with much more technical/configuration effort) be integrated within an IIS’s current real-time interface for a more automated analysis of the incoming files.</p> <p>Currently a major enhancement project is underway to upgrade the DQA to the latest standards and to allow rapid installation and configuration. The development team has made good progress but has not yet met all goals due to lack of time to technical staff. The project is expected to be completed, but additional resources and support would allow for a more complete solution that may be useful for a greater number of jurisdictions in a shorter amount of time. In addition, including this project as a JDI project would provide broader input to requirements and increased transparency</p>

Existing Standards or Guidance to Support the Project	HL7 v2 AIRA Data Validation Guides MIROW Data Quality Chapters
Existing Test Data or Testing Tools to Support the Project	AIRA MACAW Measurement and Improvement Initiative testing tools may be leveraged to support DQA testing.
Related Projects <i>Projects already in motion that may affect this project, and their anticipated impact</i>	Other Open Source and closed source products exist that provide this functionality, including HLN’s HL7 Data Quality Tool and other commercial offerings embedded in COTS IIS products.
Potential Participating Parties	Interested IIS programs and their implementing partners; AIRA (principally Nathan Bunker)
Potential Additional Stakeholders	CDC since the DQA supports current IIS priorities related to performance, standardization and sustainability. NIST who is currently using the DQA in their validation tool and plan to integrate the next version of DQA when it is complete.
Potential Platforms/Systems Benefiting from Project	All IIS programs and IIS vendors
Strengths of Selection as a JDI Project <i>A list of the reasons this project would be a stronger project if completed collaboratively rather than if completed by individual programs</i>	<ul style="list-style-type: none"> • A version of an open source product exists, and is currently being enhanced through a collaborative effort across three jurisdictions. • The project over time would include both joint development (enhancements) and joint implementation (support mechanisms, guidance). • The lessons learned would inform future software projects which require governance (how decisions are made) and management (how decisions are implemented). The community would likely learn a lot about how to maintain discipline as an open source community. • Data quality is a universal need and challenge, and DQA could likely provide value to any IIS program. • Contributes to all three CDC priorities of improved performance, improved quality, and sustainability.
Challenges of Selection as a JDI Project <i>A list of the reasons this project would be a challenge as a collaborative project rather than if completed by individual programs</i>	<ul style="list-style-type: none"> • Would need to create a smooth transition from the current three jurisdictions to a broader and ongoing governance structure. • May take up to a year to fully launch a governance structure/process, until which time JDI would need to maintain some involvement. • AIRA does NOT want to play a vendor role in this process, so care must be taken to ensure community ownership of this product for sustainability purposes. • Need to ensure that the additional structure does not detract from the nimble approach of this “found pilot.”
Perceived Funding Needs <i>How resource-intensive is this project likely to be?</i>	Moderate In-kind technical resources and manager commitments from participating sites Project management resources from AIRA Server space, etc. from AIRA
Potential Resources Available <i>Including financial resources and in-kind support</i>	Some human and financial resources will be made available through AIRA funded by Standards Cooperative Agreement.
High-Level Project Risks <i>Including financial, legal, contractual, or other</i>	<ul style="list-style-type: none"> • Support is a big issue – without a plan for support, Open Source products like this may have very limited uptake and fail to reach their full potential. • Current product requirements and specifications were not developed within a broad-based community of users

<p>Anticipated High-Level Timeline</p>	<p>Note: Some activities will run simultaneously -</p> <ul style="list-style-type: none"> • By end of month 1: <ul style="list-style-type: none"> ○ Form a JDI subgroup within the JDI Advisory Workgroup that is tasked with furthering the DQA project ○ Meet with current DQA Management Group to fully document and understand progress to date • By end of month 3: <ul style="list-style-type: none"> ○ Review, update, and prioritize requirements for the DQA tool for initial community version for release (include community input) ○ Form a small group to support research and publication of vaccine code set metadata to support DQA tool • By end of month 4: <ul style="list-style-type: none"> ○ Review and approve/update a project plan and schedule with clearly articulated financial and in-kind resources, both currently available and needed, and address any outstanding resource needs • By end of month 6: <ul style="list-style-type: none"> ○ Review and approve/update a structure and framework for development, maintenance and sustainability of DQA code and materials • By end of month 8: <ul style="list-style-type: none"> ○ Develop any needed support materials (user guide, etc.) for the DQA tool ○ Develop a communication plan to ensure visibility and availability of the DQA tool for the IIS community • By end of month 9: <ul style="list-style-type: none"> ○ Document strategy to support implementation of DQA tool • By end of month 10: <ul style="list-style-type: none"> ○ Test and release a version of the DQA tool in alignment with prioritized enhancements in alignment with agile sprints, and make available to the IIS community • By end of month 12: <ul style="list-style-type: none"> ○ Complete process evaluation of DQA development and implementation efforts • By end of month 18: <ul style="list-style-type: none"> ○ Complete outcome/impact evaluation of DQA tool
<p>Anticipated Project Disposition <i>Will project outputs be available to other IIS programs? Will there be costs or licensing fees?</i></p>	<p>Project outputs will reside in open source marketplace, and are anticipated to be available to all IIS programs and vendors. No licensing fees are anticipated. Associated structure and framework as referenced above will need to be developed as well to support the product.</p>
<p>Perceived Need/Urgency <i>Is this a high priority for the community?</i></p>	<p><input type="checkbox"/> High X Medium <input type="checkbox"/> Low</p>
<p>Viability as a Joint Development Project</p>	<p>X High <input type="checkbox"/> Medium <input type="checkbox"/> Low</p>

<p>Additional Information</p>	
<p><i>Use this space to provide any additional information about the project not addressed above.</i></p>	
<ul style="list-style-type: none"> • Consider early development of a “RACI” chart to clarify responsibilities and decision-making authority across partners. • Note that it will be important to maintain current agile development approach, and to not fall into more of a waterfall development style. 	