



InterSystems IRIS for Health Overview

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InterSystems IRIS Data Platform Version 2020.3 2021-02-04

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InterSystems IRIS for Health Overview

InterSystems IRIS for Health™ is a complete healthcare platform, built around a high-performance database, that enables the rapid development and deployment of data-rich and mission-critical healthcare applications. It's a comprehensive platform spanning data management, interoperability, transaction processing, data normalization, and analytics. Building health information systems that deliver intelligent workflows with real-time analytics is just one possibility of what InterSystems IRIS for Health can do. Among its rich feature set, InterSystems IRIS for Health includes healthcare interoperability, FHIR® support, built-in data transformations, and a powerful data platform.

1 Healthcare Interoperability

Truly connected healthcare requires interchangeable information that flows across all sources, modern and legacy. Since InterSystems IRIS for Health supports every major healthcare interoperability standard, applications built with InterSystems IRIS for Health can rapidly ingest, normalize, and share information. InterSystems IRIS for Health supports the standards and profiles required for interoperability and document-based health information exchange with other healthcare organizations, clinicians, and public health agencies. Some of these standards and profiles include:

- FHIR®
- HL7v2 and HL7v3
- IHE Profiles, including XDS.b, XCA, PIX, PDQ, and MHD
- CDA/C-CDA Documents
- DICOM
- X12
- and more

2 FHIR Support

InterSystems IRIS for Health includes deep support for FHIR, providing the foundation for modern healthcare application development. InterSystems is actively involved in the evolution of the FHIR standard through employee contributions at the HL7 board level, standards-committee participation, and a strong commitment of internal resources. InterSystems IRIS for Health provides all the building blocks needed to rapidly develop FHIR applications including:

- Extensible FHIR resource repository that supports standard FHIR RESTful API.
- FHIR client and server components.
- Object models for all FHIR resources.
- Built-in data transformations that translate between FHIR and other healthcare interoperability standards such as HL7v2 and C-CDA.

InterSystems IRIS for Health can receive or send FHIR resources via the FHIR RESTful API in JSON or XML formats. This allows applications built on the latest technologies to use FHIR data — new or mapped from legacy systems — for patient care, value-based care, quality improvements, research, and other use cases.

For more details, see *FHIR Support in InterSystems Products*.

3 Data Transformations

While FHIR may be the future of healthcare applications, thousands of HL7v2, CDA, and other integrations form the backbone of interoperability and workflows in healthcare today. InterSystems IRIS for Health delivers pre-built extensible data transformations between various modern and legacy data representations, allowing you to focus on building your application without spending all your time converting healthcare data from one format to another. For example, using InterSystems IRIS for Health's built-in features, you can easily:

- Transform an HL7 v2 message from one schema version to another.
- Produce HL7 v2 messages from a CDA document.
- Send a portion of a C-CDA document out as a FHIR bundle.

For ease of use, InterSystems IRIS for Health uses its own clinical data format, SDA, as an intermediary between different healthcare formats. For example, InterSystems IRIS for Health provides built-in XSLTs that convert CDA documents to SDA and built-in DTLs that convert SDA to FHIR. Rather than having to map CDA to FHIR directly, you can use SDA as the intermediary format to simplify the process.

In certain use cases, especially when you only need to convert small pieces of a data representation, directly mapping from one format to another might make more sense. In these cases, you can use the intuitive DTL Editor to bypass SDA and transform one data format to another directly. The DTL Editor allows you to transform the data with a graphical user interface rather than writing custom code.

For an introduction to data transformations in InterSystems IRIS for Health, see [Data Transformations in InterSystems Healthcare Products](#).

4 Powerful Data Platform

InterSystems IRIS for Health comes with all of the development features of the InterSystems IRIS Data Platform™. You can rapidly build solutions using the tools and technologies that best suit your needs while integrating and deploying your applications in a variety of environments. InterSystems IRIS for Health can seamlessly handle multiple forms of data at high speed, with vertical and horizontal scalability. You can develop cutting-edge solutions using an open analytics platform, with your choice of embedded, standards-based, and best-of-breed analytics technologies for exploration, analysis, and prediction.

For an introduction to the data platform components of InterSystems IRIS for Health, see:

- [Welcome To the InterSystems IRIS Data Platform video](#)
- [InterSystems IRIS Overview](#)