



Introduction to Data Fabric Studio

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For Support questions about any InterSystems products, contact:

InterSystems Worldwide Response Center (WRC)

Tel: +1-617-621-0700

Tel: +44 (0) 844 854 2917

Email: support@InterSystems.com

Table of Contents

- Introduction to Data Fabric Studio..... 1
 - 1 Use Cases 1
 - 2 Design and Key Features 1
 - 3 Users and Where to Start 2
 - 4 See Also 2

Introduction to Data Fabric Studio

InterSystems® Data Fabric Studio™ is a [fully managed solution](#) that provides Business Intelligence analysis and reporting based on cataloged, curated, real-time data from multiple sources, so that your organization has a comprehensive composite view of what matters.

1 Use Cases

Data Fabric Studio enables your organization to have centralized access to data from multiple sources, with the ability to combine that data, and create Business Intelligence analysis cubes and reports as needed, using your choice of Business Intelligence tool.

This product was designed for a specific set of overlapping use cases, and you can tailor your solution to include any parts of these cases that apply to you. These use cases include:

- Developing a comprehensive view of data—refreshed daily (or more often if needed)—pulling together transaction records, customer profiles, market data, and more.
- Creating reports and dashboards to support better investment and business decisions, and to provide a fuller view of investment performance.
- Providing clean data to downstream applications, in an automated fashion, without replacing any infrastructure.
- Capturing historical data securely for auditability, ensuring compliance with financial regulations.
- Performing detailed historical analyses so that you can make informed decisions based on data changes over time. The product provides *bi-temporal modeling*, which captures data at specific points in time, each with full and accurate historical context.

2 Design and Key Features

The product supports a division of labor in which those who are familiar with the data sources can catalog, label, and describe the available data, so that others can create cubes and reports without requiring that deeper knowledge. This division of labor also means that the technical aspects of transforming, validating, and reconciling the data are automated by those who are knowledgeable with those specific requirements, so that others can readily and directly use the resulting data.

The product is also designed to automate all data processing operations, with detailed control over scheduling. Manual and test options are provided for use during development.

The product provides the following key features:

- The ability to define connections to data sources, including safely storing necessary credentials.
- The ability to define schemas or data structures and manage their versions. This includes specifying how data is to be extracted (such as whether only new data is extracted), specifying data types, and specifying default values.
- The ability to define recipes that extract data from these external data sources and update tables within Data Fabric Studio. A recipe can define which fields to extract, how to transform the fields if necessary, how to validate the values

in the fields, how to reconcile the values with alternative sources of the same data, and finally how to update a final table within Data Fabric Studio.

- The ability to automate and schedule the running of the recipes, following the appropriate business calendar.

To simplify scheduling, the product supports a hierarchical system of entities, each of which can have its own business calendar but can inherit calendar details from its parent. An entity can correspond to a business unit or can simply correspond to some external system or organization whose calendar is important to your organization.

- The ability to define Business Intelligence cubes based on the tables within Data Fabric Studio. The product provides a built-in analytics tool (InterSystems IRIS® Advanced Analytics), but other Business Intelligence systems can also be used.
- The ability to automate and schedule the building of Business Intelligence cubes.
- The ability to define snapshots of data for review by regulators or analysts. A snapshot can use one or more tables and it generally provides a flattened (de-normalized) view of the relevant data. As with other items, the product provides the ability to automate and schedule and generation of snapshots, so that you can accumulate a series of snapshots of the same data. And you can easily define Business Intelligence cubes based on them, for a longitudinal view of that data.

3 Users and Where to Start

The product has three general categories of users, each with a different starting place:

- *Administrators*, who perform a small set of administrative tasks, related to security, data sources (at a high level), and system defaults. A key first step is defining an initial set of users and data sources, so that others can start work. See [Welcome, System Administrators](#).
- *Data Engineers* or *Data Stewards*, who define the data pipeline—a generic phrase that refers to defining and cataloging the schemas to be used within the system, defining recipes that load data, and scheduling the recipes. See [Welcome, Data Engineers](#).
- *Data Analysts*, who use the data in the system to build cubes and connect reporting tools. See [Welcome, Data Analysts](#).

4 See Also

- Video: <https://learning.intersystems.com/course/view.php?name=ExploringDataFabricStudio>