



InterSystems IRIS Connector for Power BI

Version 2019.4
2020-01-28

InterSystems IRIS Connector for Power BI

InterSystems IRIS Data Platform Version 2019.4 2020-01-28

Copyright © 2020 InterSystems Corporation

All rights reserved.

InterSystems, InterSystems IRIS, InterSystems Caché, InterSystems Ensemble, and InterSystems HealthShare are registered trademarks of InterSystems Corporation.

All other brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

This document contains trade secret and confidential information which is the property of InterSystems Corporation, One Memorial Drive, Cambridge, MA 02142, or its affiliates, and is furnished for the sole purpose of the operation and maintenance of the products of InterSystems Corporation. No part of this publication is to be used for any other purpose, and this publication is not to be reproduced, copied, disclosed, transmitted, stored in a retrieval system or translated into any human or computer language, in any form, by any means, in whole or in part, without the express prior written consent of InterSystems Corporation.

The copying, use and disposition of this document and the software programs described herein is prohibited except to the limited extent set forth in the standard software license agreement(s) of InterSystems Corporation covering such programs and related documentation. InterSystems Corporation makes no representations and warranties concerning such software programs other than those set forth in such standard software license agreement(s). In addition, the liability of InterSystems Corporation for any losses or damages relating to or arising out of the use of such software programs is limited in the manner set forth in such standard software license agreement(s).

THE FOREGOING IS A GENERAL SUMMARY OF THE RESTRICTIONS AND LIMITATIONS IMPOSED BY INTERSYSTEMS CORPORATION ON THE USE OF, AND LIABILITY ARISING FROM, ITS COMPUTER SOFTWARE. FOR COMPLETE INFORMATION REFERENCE SHOULD BE MADE TO THE STANDARD SOFTWARE LICENSE AGREEMENT(S) OF INTERSYSTEMS CORPORATION, COPIES OF WHICH WILL BE MADE AVAILABLE UPON REQUEST.

InterSystems Corporation disclaims responsibility for errors which may appear in this document, and it reserves the right, in its sole discretion and without notice, to make substitutions and modifications in the products and practices described in this document.

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

InterSystems IRIS Connector for Power BI.....	1
1 Introduction to the Connector	1
2 Connecting to InterSystems IRIS	1
3 Browse Your Data	2
4 Troubleshooting the Connector	2
4.1 Missing Tables	2
4.2 Missing Cubes	2
4.3 Dimension Hierarchy Won't Show Up in the Report Designer	2
4.4 Multilevel Dimension Hierarchy Not Functioning Correctly	3

InterSystems IRIS Connector for Power BI

This article describes how to work with the InterSystems IRIS Connector for Power BI. It contains these sections:

- [Introduction to the Connector](#)
- [Connecting to InterSystems IRIS](#)
- [Browse Your Data](#)
- [Troubleshooting the Connector](#)

1 Introduction to the Connector

The InterSystems IRIS Connector for Power BI is a custom connector for InterSystems IRIS® data platform. The InterSystems IRIS Connector for Power BI allows you to access and create reports on regular relational tables as well as InterSystems IRIS Business Intelligence cube data from Microsoft Power BI, and includes full DirectQuery support when querying either type of data. The Connector is included with Power BI Desktop, starting with Microsoft's April 2019 release of Power BI Desktop.

2 Connecting to InterSystems IRIS

Prior to connecting to InterSystems IRIS from Power BI Desktop, ensure that you have an [InterSystems IRIS ODBC driver](#) installed on your system.

In order to connect to InterSystems IRIS from Power BI Desktop, do the following:

1. Open Power BI Desktop and click **Get Data > More... > InterSystems IRIS (Beta)**.
2. Click **Connect**.
3. Enter connection information for your InterSystems IRIS instance. Here, **Host (IP Address)** is the IP address of the host for your InterSystems IRIS instance, **Port** is the instance's superserver port, and **Namespace** is the namespace where your Business Intelligence data is located. Accept all other options as default.
4. Upon your first connection to an instance of InterSystems IRIS, an authentication dialog will appear. Choose **Basic** and enter your InterSystems IRIS credentials.

3 Browse Your Data

If you have successfully connected to InterSystems IRIS, Power BI will display the database **Navigator** dialog. You can browse relational tables by selecting **Tables**. You can expand packages in the left pane to select tables and/or views that you want to include in your Power BI report.

Alternatively, you can view available InterSystems IRIS BI cubes by selecting **Cubes** in the left pane. Expanding the **Cubes** option lists all available InterSystems IRIS Business Intelligence cubes in the current namespace. Note that cubes or subject areas with certain features that cannot be supported through SQL access, such as programmatic filters, are excluded from the list.

When you expand a cube, you will see the star schema representation of the cube, including regular dimensions and a fact table with all regular measures for the cube. Note that some columns with internal identifiers are removed.

4 Troubleshooting the Connector

4.1 Missing Tables

4.1.1 Symptom

There are missing tables in the Navigator.

4.1.2 Diagnosis

The InterSystems IRIS Connector for Power BI excludes system tables and tables associated with InterSystems IRIS Business Intelligence cubes from the regular **Tables** menu. Scrubbed and annotated versions of the latter are available through the **Cubes** menu. If you need access to a table or a field not listed in the Navigator, you can add it manually with a [custom query](#) or use Power BI's generic ODBC connector.

4.2 Missing Cubes

4.2.1 Symptom

There are missing cubes in the Navigator.

4.2.2 Diagnosis

The InterSystems IRIS Connector for Power BI leverages the relational projects of InterSystems Business Intelligence cubes to make them available for use in Power BI. Some cube features, like programmatic filters, cannot be supported through these projections and are therefore left out of the list. Please contact the WRC if you encounter a cube where this behavior is not appropriate.

4.3 Dimension Hierarchy Won't Show Up in the Report Designer

4.3.1 Symptom

A dimension hierarchy is not showing up in the report designer.

4.3.2 Diagnosis

Power BI does not currently allow seeding dimension information from a connector.

4.4 Multilevel Dimension Hierarchy Not Functioning Correctly

4.4.1 Symptom

A multilevel dimension hierarchy is not functioning correctly.

4.4.2 Diagnosis

When a dimension has multiple levels, these levels are usually represented by separate dimension tables (snowflake schema). While foreign key relationships exist between the fact table and each dimension level and between the different levels of the dimension, Power BI can only choose one path from a fact table to a higher dimension level as the “active relationship”, and may choose the wrong one, leading to unexpected query results. To fix the active relationship, click **Manage Relationships** in Power BI Desktop and de-activate the direct links between a fact table and higher-level dimension tables. Then, activate the correct relationships one by one. For more information, see the Microsoft [documentation](#).

