



Meteor 4 DataServerAbstraction Implementation Guide

Version 1.0

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Revision History

Version	Revision Description	Author	Date
1.0	Initial document.	John Lazos	12/06/2011
1.1	Added Overview	John Lazos	12/19/2011

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1. Purpose

This document explains how to implement a DataServerAbstraction for use in the Data Provider software.

2. Overview

Implementations of the DataServerAbstraction interface are used by the Meteor Data Provider software to fetch and return the student loan data requested by another provider on the Meteor network. Version 4.0 of the Data Provider software provides the following built-in implementations of DataServerAbstraction (all in the package

`org.meteornetwork.meteor.provider.data`):

Class	Description
FileDataServer	Reads loan data from test XML files.
RemoteDataServer	Gets data from a remote resource using a simple HTTP GET request.
HPCDataServer	Gets data from a remote resource over HPC (for backwards compatibility with existing Data Provider installations)

If none of the above implementations satisfy the Data Provider organization's requirements, the Data Provider software can be configured to use a custom implementation of the DataServerAbstraction interface.

3. Requirements

3.1. Developer Skill Set

Developers of custom data providers must have the following skill set:

- Knowledge of the Java programming language
- Knowledge of how to access the backend data store that contains student loan information

3.2. Developer Tools

- Java Development Kit (1.5 or greater)
- Integrated Development Environment (e.g. Eclipse IDE)

3.3. Libraries

To implement a DataServerAbstraction, the following libraries are required on the build class path:

- Meteor Common Library (meteorlib-4.0.0.jar)
- Meteor SAML Library (meteorsaml-4.0.0.jar)

4. Implementation Instructions

1. Download required libraries:
 - Meteor Common library (meteorlib-4.0.0.jar)
 - Meteor SAML library (meteorsaml-4.0.0.jar)

The Meteor libraries can be downloaded from the [Meteor website](http://www.meteornetwork.org) (<http://www.meteornetwork.org>).

2. Create a new Java project that compiles into a JAR library. Add a class that implements `org.meteornetwork.meteor.common.abstraction.data.DataServerAbstraction`. Add this class to a package and note the fully qualified class name. It will be needed to configure the Data Provider software.
3. Implement the `getData ()` method.
4. Compile the project and package it in a JAR.
5. Edit `dataprovider.properties` (available in `WEB-INF/lib` in the Data Provider WAR). Change `default.data.server` to be the fully qualified class name of the `DataServerAbstraction` implementation.
6. Deploy the Data Provider software to the application server. Put the compiled JAR with the `DataServerAbstraction` implementation in the Data Provider's `WEB-INF/lib` directory.
7. Start the application server. The Data Provider will initialize the custom `DataServerAbstraction` implementation and use it handle requests for student loan data.