Datacasting V3.0

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Datacasting V3.0 provides an RSS-based feed mechanism for publishing the availability of Earth science data records in real time. It also provides a utility for subscribing to these feeds and sifting through all the items in an automatic manner to identify and download the data records that are required for a specific application.

Datacasting is a method by which multiple data providers can publish the availability of new Earth science data and users download those files that meet a predefined need; for example, to only download data files related to a specific earthquake or region on the globe.

Datacasting is a server-client architecture. The server-side software is used by data providers to create and publish the metadata about recently available data according to the Datacasting RSS (Really Simple Syndication) specification. The client software subscribes to the Datacasting RSS and other RSS-based feeds. By configuring filters associated with feeds, data consumers can use the client to identify and automatically download files that meet a specific need.

On the client side, a Datacasting feed reader monitors the server for new feeds. The feed reader will be tuned by the user, via a graphical user interface (GUI), to examine the content of the feeds and initiate a data pull after some criteria are satisfied. The criteria might be, for example, to download sea surface temperature data for a particular region that has cloud cover less than 50% and during daylight hours. After the granule is downloaded to the client, the user will have the ability to visualize the data in the GUI.

Based on the popular concept of podcasting, which gives listeners the capability to download only those MP3 files that match their preference, Earth science Datacasting will give users a method to download only the Earth science data files that are required for a particular application.

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