# ExperimentStorageProxy

The Experiment Storage Service (ESS) provides iLab services and clients the ability to save, access and query experiment results. Experiments are always created by the ServiceBroker, and administrative information is managed by the ServiceBroker.

The following operations are supported. For a formal definition, please review the **Service Description**.

# AddAttributes

Adds the specified RecordAttributes to an ExperimentRecord

#### AddBlobToRecord

Associates the BLOB with the specified ExperimentRecord

#### AddRecord

Adds a new ExperimentRecord to a pre-existing Experiment object

#### AddRecords

Adds ExperimentRecords to a pre-existing Experiment object

#### CancelBlobStorage

Cancels the download of binary data associated with a BLOB or deletes the corrupt data of an attempted download

### • CloseExperiment

Closes an Experiment on the ESS so that no further ExperimentRecords or BLOBs can be written to it; BLOBs that have been created for this Experiment but have not been associated with an ExperimentRecord are deleted by this method. Should be called via the ServiceBroker.

#### CreateBlob

Creates a new BLOB record on the ESS

### DeleteExperiment

Deletes an experiment object and all its associated ExperimentRecords and BLOBs on the ESS

# • DeleteRecordAttributes

Deletes the specified RecordAttributes of an ExperimentRecord

# • GetBlobAssociation

Reports on the association of the BLOB record

# • GetBlobExperiment

Reports the Experiment that owns the BLOB

### GetBlobStatus

Reports on the download status of the BLOB record

### GetBlobs

Retrieves the BLOB records associated with a particular ExperimentRecord

# GetBlobsForRecord

Retrieves the BLOB records associated with a particular ExperimentRecord

### GetExperiment

Returns the specified Experiment including the array of associated ExperimentRecords

# GetExperimentIDs

Returns an array of ExperimentIDs from the specified set which match the criterian. Criterian are AND'ed together experiments returned must match all criteria.

### GetExperimentStatus

Gets the Experiment's status

### • GetIdleTime

Returns the number of minutes since the last "write action" to the Experiment

#### GetRecord

Returns the specified ExperimentRecord

### • GetRecordAttributes

Retrieves the specified RecordAttributes of an ExperimentRecord

# • GetRecordAttributesByName

Retrieves the IDs of the specified RecordAttributes of an ExperimentRecord

#### GetRecords

Returns the specified ExperimentRecords Criterian are OR'ed together records returned match any criteria.

# • GetSupportedBlobExportProtocols

Lists the protocols that a process agent can use to retrieve a BLOB from the ESS

# • GetSupportedBlobImportProtocols

Lists the protocols that the ESS can use to retrieve a BLOB from a source

# • GetSupportedChecksumAlgorithms

Lists the checksum algorithms that a process agent can use to store a BLOB on the ESS

### • OpenExperiment

Opens an Experiment on the ESS so that ExperimentRecords and BLOBs can be written to it. Duration specifies the amount of time (in seconds) before the experiment may be automaticly closed. Should be called via the ServiceBroker.

### • RequestBlobAccess

Requests a URL from which the specified BLOB data can be downloaded

# RequestBlobStorage

## • <u>SetExperimentStatus</u>

Sets the Experiment's status, returns the resulting status. StatusCode should be one of a defined set, depending on the status action may be performed on the experiment.