StarExec Web Interface

October 26, 2017

Contents

1 Introduction

1.1 Using the URLs

Except for noted exceptions, URLs documented in the functions below are suffixes of the following URL, which points to the secure resources of Starexec. `https://www.starexec.org/starexec/secure/`

The largest exception to this is that all URLs that begin with "services" do not have the "secure" prefix. So, any URL that begins with services/ is a suffix of the following URL. `https://www.starexec.org/starexec/`

Other exceptions are noted where applicable in the function documentation.

1.2 Logging In

To be able to access Starexec resources, you will need to log into Starexec and maintain a secure channel. Logging in is a multistep protocol, with 3 main steps. First, authorization works on a challenge-based system, which means you cannot log in until you request a secure resource. Next, you must provide your username and password, and finally, you will access a secure resource.

First Step – Requesting a Secure Resource

URL `index.jsp`

Method GET

Parameter Encoding N/A

Returns The login page

Return Cookies

JSESSIONID *Integer* – On success, contains a session ID that you will need to use in later steps.

Second Step – Providing Login Credentials

URL `j_security_check`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

j_username *String* – Your username

j_password *String* – Your password

cookieexists *Boolean* – Should be set to false for web API calls

Description Logs you into Starexec. You must provide the JSESSIONID you acquired in the previous steps.

Returns A jSON string containing a status object

Third Step – Accessing Secure Resources

URL `index.jsp`

Method GET

Parameter Encoding N/A

Returns The login page

Return Cookies

JSESSIONID *Integer* – On success, contains a new session ID. You must begin using this new session ID for all subsequent interactions.

1.3 Maintaining a Session

After you have logged in, you must maintain a session for as long as you want to make requests to the secure resources of Starexec. To maintain a session, your HTTP requests should have the following header keys with the appropriate values.

Cookie *String* – Should contain a string of the form “killmenothing; JSESSIONID=” + your JSESSIONID obtained when logging in.

Connection *String* – Should be “keep-alive”

Accept-Language *String* – Should be “en-US,en;q=0.5”

1.4 Permissions

Several functions below accept all of the following permissions parameters.

addBench *Boolean* – Whether default permissions for this space should include adding benchmarks

addJob *Boolean* – Whether default permissions for this space should include adding jobs

addSolver *Boolean* – Whether default permissions for this space should include adding solvers

addSpace *Boolean* – Whether default permissions for this space should include adding spaces

addUser *Boolean* – Whether default permissions for this space should include adding users

removeBench *Boolean* – Whether default permissions for this space should include removing benchmarks

removeJob *Boolean* – Whether default permissions for this space should include removing jobs

removeSolver *Boolean* – Whether default permissions for this space should include removing solvers

removeSpace *Boolean* – Whether default permissions for this space should include removing spaces

removeUser *Boolean* – Whether default permissions for this space should include removing users

isLeader *Boolean* – Whether the a user should be a leader or not.

2 Spaces

2.1 Add Space

URL add/space

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

parent *Integer* – The ID of the parent space of this new space.

name *String* – The new space name

desc *String* – The new space description

locked *Boolean* – Whether the space should be locked

users *Boolean* – True to inherit all users from the parent space and false otherwise.

sticky *Boolean* – Whether the new space should have sticky leaders set

+ **all permissions parameters except isLeader (see the permissions section)** Specifies the default permissions for new users being added to the space.

Description Creates a new space using the given attributes.

Returns An HTTP message with 200 status on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the ID of the newly created space.

STATUS_MESSAGE_STRING *Integer* – On failure, contains an error message.

2.2 Upload Space XML

URL `upload/space`

Method POST

Parameter Encoding multipart/form-data

Parameters

space *Integer* – The ID of the space to use as the parent space for the new upload

f *File* – The archive file containing the space XML.

Description Uploads a space XML file and creates new spaces based on the XML

Returns An HTTP redirect to the upload status page on success, and an HTTP message with an error status on failure.

Return Cookies

STATUS_MESSAGE_STRING *Integer* – On failure, contains an error message.

2.3 Download Space

URL `download`

Method GET

Parameter Encoding application/x-www-form-urlencoded

Parameters

type *String* – Should be “space”

id *Integer* – The ID of the space to download.

includesolvers *Boolean* – Whether to include solvers in the download.

includebenchmarks *Boolean* – Whether to include benchmarks in the download.

hierarchy *Boolean* – True to download the space hierarchy rooted at the given space, and false to download only the given space.

Description Makes a request to download an archive containing a directory representation of a space or space hierarchy, optionally including all the solvers and benchmarks in the spaces.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *Integer* – On failure, contains an error message.

2.4 Download Space XML

URL `download`

Method GET

Parameter Encoding application/x-www-form-urlencoded

Parameters

type *String* – Should be “spaceXML”

id *Integer* – The ID of the space to get the XML for.

includeattrs *Boolean* – Whether to include benchmark attributes in the XML.

updates *Boolean* – Whether to include benchmark update tags in the XML.

upid *Integer* – The ID of the update processor to include for all the update tags. Applies only if updates is true.

Description Makes a request to download an archive containing the XML representation of a space hierarchy.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *Integer* – On failure, contains an error message.

2.5 Copy Spaces

URL `services/spaces/{spaceId}/copySpace`

URL Variables

spaceId *Integer* – The ID of the space that you want to copy other spaces into

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds *Integer List* – A list of space IDs, where each space will be copied into the destination space

copyHierarchy *Boolean* – True to copy entire space hierarchies into the destination space. False to copy only the spaces in selectedIds without their hierarchies.

Description Copies spaces into a single destination space. All benchmarks, solvers, and jobs will be linked into the newly created spaces.

Returns A jSON string containing a status object.

Return Cookies

New_ID *Integer* – A comma-separated list of the new space IDs.

2.6 Link all Orphaned Primitives to Space

URL `services/linkAllOrphaned/{userId}/{spaceId}`

URL Variables

userId *Integer* – Your user ID

spaceId *Integer* – The ID of the space to place all of the orphaned primitives into.

Method POST

Description Links all “orphaned” solvers, benchmarks, and jobs that you own in the given space.

Returns A jSON string containing a status object.

2.7 Edit Space Attributes

URL `services/edit/space/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The new space name

description *String* – The new space description

locked *Boolean* – Whether the space should be locked

sticky *Boolean* – Whether the new space should have sticky leaders set

+ **all permissions parameters except isLeader (see the permissions section)** Specifies the default permissions for new users being added to the space.

Description Edits an existing space by providing a new values for all space attributes

Returns A jSON string containing a status object.

2.8 Edit Single Space Attribute

URL `services/edit/space/{attr}/{spaceId}`

URL Variables

attr *String* – The attribute to edit. Can be "name" or "description"

spaceId *Integer* – The ID of the space to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

val *String* – The new value to use for the given attribute

Description Edits an existing space by providing a new value for the given attribute

Returns A jSON string containing a status object.

2.9 View Space Visibility

URL `services/space/isSpacePublic/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to check visibility of.

Method POST

Description Checks whether the given space is public or private.

Returns A jSON string containing 1 if the space is public and 0 otherwise.

2.10 Edit Space Visibility

URL `services/space/changePublic/{spaceId}/{hierarchy}/{makePublic}`

URL Variables

spaceId *Integer* – The ID of the space to edit.

hierarchy *Boolean* – True to edit the entire space hierarchy and false to edit the single space.

makePublic *Boolean* – True to make spaces public and false to make them private

Method POST

Description Sets the given space, and optionally the full space hierarchy rooted there, to either public or private.

Returns A jSON string containing a status object.

2.11 Remove Spaces

URL `services/remove/subspace`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of space IDs to use

recyclePrims *Boolean* – If true, all solvers and benchmarks located anywhere in any space hierarchy being removed will be recycled. Only solvers and benchmarks that you have permission to edit will be recycled.

Description Removes all the given spaces, including their full space hierarchies.

Returns A jSON string containing a status object.

2.12 Move Spaces

URL `services/move/space`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

parent *Integer* – The ID of the parent space where the spaces will be moved to. Moved spaces will become subspaces of this space.

selectedIds[] *Integer List* – The list of space IDs of spaces that will be moved.

Description Moves all the given spaces, including their full space hierarchies, to the space represented by parent

Returns A jSON string containing a status object.

3 Solvers

3.1 Upload Solver Archive

URL upload/solvers

Method POST

Parameter Encoding multipart/form-data

Parameters

space *Integer* – The ID of the space to upload the solver to.

sn *String* – The name to give the solver.

descMethod *String* – Describes the method that the solver description is being uploaded. Can be "text", "file", or "upload". If "text" is used, then the string "desc" parameter should provide the description. If "file" is used, then the file object parameter "d" should be a text file containing the description. If "upload", then the description will be taken from the uploaded archive.

desc *String* – The string description for the solver. Applies only if descMethod is "text".

upMethod *String* – Can be "local" or "URL". If URL, means benchmarks are being uploaded from a URL. Otherwise, means a file is being uploaded directly.

f *File* – If a file is being uploaded, this is the file object.

url *String* – If the upload is from a URL, gives the URL pointing to the solver archive.

dlable *Boolean* – True if the solver should be downloadable and false otherwise.

runTestJob *Boolean* – Whether to immediately start a new job using this solver as a test. Defaults to false.

setting *Integer* – The ID of a setting profile to use for the test job creation. Applies only if runTestJob is true.

type *Integer* – The type to give the new solver. See the help page documentation on solvers to see the solver type codes.

Description Uploads a new solver. Also optionally creates a test job for the solver, which is a job with one job pair per configuration in the new solver. Test jobs are created using parameters from an existing settings profile.

Returns An HTTP redirect to the spaces page on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the upload ID for this archive upload.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

3.2 Upload Configuration

URL `upload/jobXML`

Method POST

Parameter Encoding multipart/form-data

Parameters

solverId *Integer* – The ID of the solver to attach this configuration to.

file *File* – The file containing the configuration.

uploadConfigName *String* – The name to give to the configuration.

uploadConfigDesc *String* – The deescription to give to the configuration.

Description Uploads a new configuration file to an existing solver.

Returns An HTTP redirect to the solver details page on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the ID of the new configuration.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

3.3 Add Configuration

URL save/configurations

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

solverId *Integer* – The ID of the solver to attach this configuration to.

saveConfigContents *String* – The new configuration as a string.

saveConfigName *String* – The name to give to the configuration.

saveConfigDesc *String* – The description to give to the configuration.

Description Adds a new configuration to an existing solver.

Returns An HTTP redirect to the solver details page on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the ID of the new configuration.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

3.4 Download Solver

URL `download`

Method GET

Parameter Encoding application/x-www-form-urlencoded

Parameters

type *String* – Should be "solver"

id *Integer* – The ID of the solver to download.

reupload *Boolean* – If true, solver will be downloaded in the format required for an upload to Starexec. Defaults to false.

Description Makes a request to download an archive containing the given solver.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

3.5 Get Build Standard Output

URL `services/solvers/{id}/buildoutput`

URL Variables

id *Integer* – The ID of the solver to get the build output for

Method GET

Parameter Encoding multipart/form-data

Description Retrieves the standard output of the build script used when the solver was uploaded

Returns A plaintext string containing the standard output of the build script. Returns "not available" if no build script was used for this solver, if the output could not be found, or if you do not have permission to view the build output.

3.6 Linking / Copying Solvers to a Space

URL `services/spaces/{spaceId}/add/solver`

URL Variables

spaceId *Integer* – The ID of the space to put the solvers in

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

copy *Boolean* – If true, deep copies of all the given solvers are made first, and then the new solvers are referenced in the given space. If false, solvers are simply referenced in the new space without being copied.

copyToSubspaces *Boolean* – If true, solvers will be associated with every space in the hierarchy rooted at the given space. Otherwise, they will be associated only with the given space.

fromSpace *Integer* – If not null, then this is the ID of a space containing all the solvers in selectedIds[] that you have permission to copy solvers out of. If null, so such space is used, and you must be the owner of the solvers to have permission to use them.

Description Given a list of solvers, places the benchmarks into the given space. If copy is true, the benchmarks are first copied. Otherwise, the benchmarks are just linked into the new space.

Returns A jSON string containing a status object.

Return Cookies

New_ID *Integer* – If the operation is a copy, this is a comma-separated list of the new solver IDs. Otherwise, this cookie is not present.

3.7 Remove Solvers From Space

URL `services/remove/solver/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to remove solvers from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

hierarchy *Boolean* – If true, removes the given solvers from the entire space hierarchy. Otherwise, just removes them from the given space.

Description Removes all of the given solvers from the given space or space hierarchy, depending on the value of the hierarchy parameter. Note that the solvers are not recycled or deleted by this function

Returns A jSON string containing a status object.

3.8 Simultaneously Recycle and Remove Solvers From a Space

URL `services/recycleandremove/solver/{spaceID}`

URL Variables

spaceId *Integer* – The ID of the space to remove solvers from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

Description Simultaneously recycles all of the given solvers and removes them from the given space.

Returns A jSON string containing a status object.

3.9 Edit Solver

URL `services/edit/solver/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the solver to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The new name to give the solver

description *String* – The new description to give the solver

downloadable *Boolean* – Whether other users should be able to download the solver

Description Modifies the given solver, giving it a new name, description, and downloadable status.

Returns A jSON string containing a status object.

3.10 Edit Configuration

URL `services/edit/configuration/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the configuration to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The new name to give the configuration

description *String* – The new description to give the configuration

Description Modifies the given configuration, giving it a new name and description.

Returns A jSON string containing a status object.

3.11 Recycle Solvers

URL `services/recycle/solver`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

Description Recycles all of the given solvers. Note that the solvers will not be removed from any spaces they are currently associated with.

Returns A jSON string containing a status object.

3.12 Recycle Orphaned Solvers

URL `services/recycleOrphaned/solver/{userId}`

URL Variables

userId *Integer* – Your user ID

Method POST

Parameter Encoding N/A

Description Recycles all "orphaned" solvers that you own

Returns A jSON string containing a status object.

3.13 Restore Solvers

URL `services/restore/solver`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

Description Restores all of the given solvers, removing them from the recycle bin.

Returns A jSON string containing a status object.

3.14 Restore Recycled Solvers

URL `services/restorerecycled/solvers`

Method POST

Parameter Encoding N/A

Description Restores all the solvers in your recycle bin, removing them from the recycle bin.

Returns A jSON string containing a status object.

3.15 Delete Solvers

URL `services/delete/solver`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of solver IDs to use

Description Permanently deletes all of the given solvers on disk. Note that the solvers will not be removed from any spaces they are currently associated with.

Returns A jSON string containing a status object.

3.16 Delete Recycled Solvers

URL `services/deleterecycled/solvers`

Method POST

Parameter Encoding N/A

Description Permanently deletes all the solvers in your recycle bin.

Returns A jSON string containing a status object.

3.17 Delete Configurations

URL `services/delete/configuration`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of configuration IDs to use

Description Permanently deletes all of the given configurations on disk and removes them from their associated solvers.

Returns A jSON string containing a status object.

4 Processors

4.1 Add Processor

URL `processors/manager`

Method POST

Parameter Encoding multipart/form-data

Parameters

name *String* – The new name to give the processor

desc *String* – The new description to give the processor

file *File* – The archive containing the processor

com *Integer* – The ID of the community to put the solver in.

action *String* – Should be "add" for a new processor

type *String* – Describes the type of the processor. Should be "bench", "pre", "post", or "update". Description: Modifies the given processor, giving it a new name and description.

Description Modifies the given processor, giving it a new name and description.

Returns A jSON string containing a status object.

Return Cookies

New_ID *Integer* – On success, the ID given to the new processor.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

4.2 Edit Processor

URL `services/edit/processor/{procId}`

URL Variables

procId *Integer* – The ID of the processor to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The new name to give the processor

desc *String* – The new description to give the processor

Description Modifies the given processor, giving it a new name and description.

Returns A jSON string containing a status object.

4.3 Download Processors of Class

URL `download`

Method GET

Parameter Encoding URL Encoded

Parameters

type *String* – Should be “proc”

id *Integer* – The ID of the community that owns the processors to download.

procClass *Integer* – The type of processor to download. Can be “post”, “pre”, or “bench” to download post processors, pre processors, and benchmark processors respectively.

Description Makes a request to download an archive containing every benchmark of the given type that the given community owns.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

4.4 Delete Processors

URL `services/delete/processor`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of processor IDs to delete

Description Permanently deletes the given processors

Returns a jSON string containing a status object.

5 Benchmarks

5.1 Upload Benchmark Archive

URL `upload/benchmarks`

Method POST

Parameter Encoding multipart/form-data

Parameters

space *Integer* – The ID of the space to upload benchmarks to.

localOrUrl *String* – Can be “local” or “URL”. If URL, means benchmarks are being uploaded from a URL. Otherwise, means a file is being uploaded directly.

benchFile *File* – If a benchmark file is being uploaded, this is the file object.

url *String* – If the upload is from a URL, gives the URL pointing to the benchmark archive.

upMethod *String* – Can be either “convert” or “dump.” “Convert” means create a space hierarchy that mirrors the directory structure of the uploaded benchmarks, and “dump” means to simply dump all the benchmarks directly into the given space.

benchType *Integer* – The ID of the benchmark processor that should be used to process the benchmarks.

download *Boolean* – True if the benchmarks should be downloadable and false otherwise.

dependency *Boolean* – True if these benchmarks have dependencies, and false otherwise.

depRoot *Integer* – The ID of the space in which the benchmark dependencies are rooted, assuming dependency is true. Otherwise not necessary.

linked *Boolean* – If dependency is true, then true if the first directory in path corresponds to dependent bench space.

+ **all permissions parameters except isLeader (see the permissions section)** Specifies the default permissions for new users being added to the space.

Description Uploads a new archive of benchmarks.

Returns An HTTP redirect to the upload status page on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the upload ID for this archive upload.

STATUS_MESSAGE_STRING *String* – On error, this is the error message string.

5.2 Getting Benchmark Upload Status

URL `services/benchmarks/uploadDescription/{statusId}`

URL Variables

statusId *Integer* – The ID of the benchmark upload status object

Method GET

Parameter Encoding N/A

Description Retrieves a string description of a benchmark archive upload.

Returns A jSON string containing a status object. If the status is successful, the message contained in the status object will be the upload description.

5.3 Download Benchmark

URL `download`

Method GET

Parameter Encoding URL Encoded

Parameters

> **type** *String* – Should be “bench”
>
> **id** *Integer* – The ID of the benchmark to download.

Description Makes a request to download an archive containing the given benchmark.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

> **STATUS_MESSAGE_STRING** *String* – On failure, contains an error message.

5.4 View Benchmark Contents

URL `services/benchmarks/{id}/contents`

URL Variables

> **id** *Integer* – The ID of the benchmark to get the contents of

Method GET

Parameter Encoding N/A

Description Retrieves the file contents of a single benchmark.

Returns A plaintext string containing the benchmark contents for the given benchmark. Returns “not available” if the benchmark could not be found or if you do not have permission to see the given benchmark

5.5 Linking / Copying Benchmarks to a Space

URL `services/spaces/{spaceId}/add/benchmark`

URL Variables

spaceId *Integer* – The ID of the space to put the new benchmarks in

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

copy *Boolean* – If true, benchmarks are first copied, and then the new benchmarks are referenced in the given space. If false, benchmarks are simply referenced in the new space without being copied.

fromSpace *integer* – If not null, then this is the ID of a space containing all the benchmarks in selectedIds[] that you have permission to copy benchmarks out of. If null, so such space is used, and you must be the owner of the benchmarks to have permission to use them.

Description Given a list of benchmarks, places the benchmarks into the given space. If copy is true, the benchmarks are first copied. Otherwise, the benchmarks are just linked into the new space.

Returns A jSON string containing a status object.

Return Cookies

New_ID *Integer* – – If the operation is a copy, this is a comma-separated list of the new benchmark IDs. Otherwise, this cookie does not exist.

5.6 Removing Benchmarks From a Space

URL `services/remove/benchmark/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to remove benchmarks from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

Description Given a list of benchmarks and a space, removes all the given benchmarks from the given space. Note that this does not either recycle or delete any of the given benchmarks.

Returns A jSON string containing a status object.

5.7 Simultaneously Recycle and Remove Benchmarks From a Space

URL `services/recycleandremove/benchmark/{spaceID}`

URL Variables

spaceId *Integer* – The ID of the space to remove benchmarks from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

Description Simultaneously recycles all of the given benchmarks and removes them from the given space.

Returns A jSON string containing a status object.

5.8 Edit Benchmark

URL `services/edit/benchmark/{id}`

URL Variables

id *Integer* – The ID of the benchmark to edit

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The new name to give the benchmark.

description *String* – The new description to give the benchmark.

downloadable *Boolean* – Whether other users should be able to download the benchmark

type *Integer* – The ID of the benchmark processor to apply to the benchmark.

Description Modifies the given benchmark, assigning it all the given attributes.

Returns A jSON string containing a status object.

5.9 Reprocess Benchmarks in Space

URL `process/benchmarks`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

pid *Integer* – The ID of the benchmark processor to use

sid *Integer* – The ID of the space to reprocess benchmarks in.

hier *Boolean* – True to reprocess all the benchmarks in the hierarchy rooted at the given space, and false to do only the single given space.

clear *Boolean* – True to delete all old benchmark attributes, and false to only delete old attributes when there is a key conflict with the new attributes being created.

Description Runs a new benchmark processor on all benchmarks in the given space (or hierarchy). Benchmark types are changed to the new processor, and all new benchmark attributes are saved. Old attributes may be optionally deleted; however, if there are any name conflicts between old and new attributes (for example, like having two "starexec-expected-results" attributes), then the old version will be deleted in every case.

Returns An HTTP redirect to the upload status page on success, and an HTTP message with an error status on failure.

Return Cookies

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

5.10 Recycle Benchmarks

URL `services/recycle/benchmark`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

Description Recycles all of the given benchmarks. Note that the benchmarks will not be removed from any spaces they are currently associated with.

Returns A jSON string containing a status object.

5.11 Recycle Orphaned Benchmarks

URL `services/recycleOrphaned/benchmark/{userId}`

URL Variables

userId *Integer* – Your user ID

Method POST

Parameter Encoding N/A

Description Recycles all "orphaned" benchmarks that you own.

Returns A jSON string containing a status object.

5.12 Restore Benchmarks

URL `services/restore/benchmark`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

Description Restores all of the given benchmarks, removing them from the recycle bin.

Returns A jSON string containing a status object.

5.13 Restore All Recycled Benchmarks

URL `services/restorerecycled/benchmarks`

Method POST

Parameter Encoding N/A

Description Restores all the benchmarks in your recycle bin, removing them from the recycle bin.

Returns A jSON string containing a status object.

5.14 Delete Benchmarks

URL `services/delete/benchmark`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of benchmark IDs to use

Description Permanently deletes all of the given benchmarks on disk. Note that the benchmarks will not be removed from any spaces they are currently associated with.

Returns A jSON string containing a status object.

5.15 Delete Recycled Benchmarks

URL `services/deleterecycled/benchmarks`

Method POST

Parameter Encoding N/A

Description Permanently deletes all the benchmarks in your recycle bin.

Returns A jSON string containing a status object.

6 Jobs

6.1 Create Job

URL add/job

Method POST

Parameter Encoding multipart/form-data

Parameters

name *String* – The name to give the job

desc *String* – The description to give the job.

preProcess *Integer* – The ID of the pre processor to use. Can be excluded.

seed *Integer* – A number that will be passed into the pre processor for every pair.

postProcess *Integer* – The ID of the post processor to use. Can be excluded.

queue *Integer* – The ID of the queue to run the job on.

spaceId *Integer* – The ID of the space to put the job in.

cpuTimeout *Integer* – The CPU timeout, in seconds, to enforce.

wallclockTimeout *Integer* – The wallclock timeout, in seconds, to enforce.

maxMem *Float* – The maximum memory limit, in gigabytes.

pause *Boolean* – If true, job will start out paused. If false, job will start upon creation.

runChoice *String* – Controls how job pairs are created, and can be either “keepHierarchy” or “choose”. In “keepHierarchy”, a job is run using all benchmarks that are in the space hierarchy rooted at the spot that the job was created, and every benchmark is executed by every solver configuration of every solver in the same space. In “quickJob,” a single job pair is created, using the given solver and the given text to use as a new benchmark. In “choose”, a list of configurations is provided to use in the job.

configs *Integer* – – The list of configurations to use in the job. Only applies if runChoice is “choose”

benchChoice *String* – Only applies if runChoice is “choose”. Describes how to select benchmarks for the job. Must be one of “runAllBenchInSpace”, “runAllBenchInHierarchy”, “runChosenFromSpace”. If “runAllBenchInSpace”, all benchmarks in the space the job is being uploaded to will be used. If "runAllBenchInHierarchy", all benchmarks in the entire hierarchy will be used. If "runChosenFromSpace", then benchmarks must be provided.

bench *Integer List* – The list of benchmarks to use in the job. Only applies if benchChoice is "runChosenFromSpace".

traversal *String* – Controls the order in which job pairs are executed. Can be either “depth” or “robin.” With “depth,” all the job pairs in a single space will be executed before moving onto another space. With “robin,” each space in the job will have a single pair executed before any space has a second pair executed, and so on.

Description Creates a new job with the given parameters.

Returns An HTTP redirect to the spaces page on success, and an HTTP message with an error code and error message on failure.

Return Cookies

New_ID *Integer* – On success, contains the ID of the new job.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

6.2 Create Quick Job

URL `add/job`

Method POST

Parameter Encoding multipart/form-data

Parameters

name *String* – The name to give the job

desc *String* – The description to give the job.

preProcess *Integer* – The ID of the pre processor to use. Can be excluded.

seed *Integer* – A number that will be passed into the pre processor for every pair.

postProcess *Integer* – The ID of the post processor to use. Can be excluded.

queue *Integer* – The ID of the queue to run the job on.

spaceId *Integer* – The ID of the space to put the job in.

cpuTimeout *Integer* – The CPU timeout, in seconds, to enforce.

wallclockTimeout *Integer* – The wallclock timeout, in seconds, to enforce.

maxMem *Float* – The maximum memory limit, in gigabytes.

pause *Boolean* – If true, job will start out paused. If false, job will start upon creation.

runChoice *String* – Should be "quickJob"

bench *String* – The benchmark to use as a string.

benchProcess *Integer* – The ID of the benchmark processor to process the new benchmark with.

benchName *String* – The name to give the new benchmark.

solver *Integer* – The ID of the solver to use.

Description Creates a new quick job, which is a job that uses every configuration of a single solver on a new benchmark, which is provided as a string.

Returns An HTTP redirect to the upload status page on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer* – On success, contains the ID of the new job.

6.3 Upload Job XML

URL `upload/jobXML`

Method POST

Parameter Encoding multipart/form-data

Parameters

space *Integer* – The ID of the space to place the new jobs into.

f *File* – The archive file containing the job XML.

Description Uploads a job XML file and creates new jobs based on the XML.

Returns An HTTP redirect to the space explorer on success, and an HTTP message with an error status on failure.

Return Cookies

New_ID *Integer List* – A list of IDs representing the newly created jobs.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

6.4 Linking Jobs in a New Space

URL `services/spaces/{spaceId}/add/job`

URL Variables

spaceId *Integer* – The ID of the space to put the jobs in

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of job IDs to use

fromSpace *integer* – If not null, then this is the ID of a space containing all the jobs in selectedIds that you have permission to copy jobs out of. If null, so such space is used, and you must be the owner of the jobs to have permission to link them.

Description Given a list of jobs, associates all the jobs with the given space.

Returns A jSON string containing a status object.

6.5 Remove Jobs From Space

URL `services/remove/job/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to remove jobs from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of job IDs to use

Description Removes all of the given jobs from the given space.

Returns A jSON string containing a status object.

6.6 Simultaneously Delete and Remove Jobs From a Space

URL `services/deleteandremove/job/{spaceID}`

URL Variables

spaceId *Integer* – The ID of the space to remove jobs from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of job IDs to use

Description Simultaneously deletes all of the given jobs and removes them from the given space.

Returns A jSON string containing a status object.

6.7 Download Job Output

URL `download`

Method GET

Parameter Encoding URL Encoded

Parameters

type *String* – Should be "j_outputs"

id *Integer* – The ID of the job.

since *Integer* – A "completion number" that says to retrieve only job pairs with a completion number greater than the given one. Can be excluded to retrieve all pairs.

Description Makes a request to download an archive containing the output files of all job pairs in this job, possibly with pairs that occurred before "since" excluded.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

Max-Completion *Integer* – If the parameter 'since' is included, this cookie contains the maximum completion ID found among all returned job pairs. Without 'since', this cookie is excluded.

Older-Pairs *Integer* – If the parameter 'since' is included, this cookie contains the number of pairs that were excluded because they completed before the ID given by 'since'. Without 'since', this cookie is excluded.

Pairs-Found *Integer* – If the parameter 'since' is included, this cookie contains the number of pairs that are included. Without 'since', this cookie is excluded.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

Total-Pairs *Integer* – If the parameter 'since' is included, this cookie contains the total number of pairs in the given job. Without 'since', this cookie is excluded.

6.8 Download Job CSV

URL `download`

Method GET

Parameter Encoding URL Encoded

Parameters

type *String* – Should be "job"

id *Integer* – The ID of the job.

since *Integer* – A "completion number" that says to retrieve only job pairs with a completion number greater than the given one. Can be excluded to retrieve all pairs.

returnids *Boolean* – If true, the CSV will include solver, configuration, and benchmark IDs.

getcompleted *Boolean* – If true, only completed job pairs will be included. Defaults to false.

Description Makes a request to download an archive containing the CSV representation of the given job.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

Max-Completion *Integer* – If the parameter 'since' is included, this cookie contains the maximum completion ID found among all returned job pairs. Without 'since', this cookie is excluded.

Older-Pairs *Integer* – If the parameter 'since' is included, this cookie contains the number of pairs that were excluded because they completed before the ID given by 'since'. Without 'since', this cookie is excluded.

Pairs-Found *Integer* – If the parameter 'since' is included, this cookie contains the number of pairs that are included. Without 'since', this cookie is excluded.

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

Total-Pairs *Integer* – If the parameter 'since' is included, this cookie contains the total number of pairs in the given job. Without 'since', this cookie is excluded.

6.9 Download Job XML

URL `download`

Method GET

Parameter Encoding URL Encoded

Parameters

type *String* – Should be “jobXML”

id *Integer* – The ID of the job.

Description Makes a request to download an archive containing the XML representation of the given job.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

6.10 Rerun Job Pairs

URL `services/jobs/rerunallpairs/{id}`

URL Variables

id *Integer* – The ID of the job that contains the pairs to be rerun Method: POST

Parameter Encoding N/A

Description Reruns every job pair in the given job. Returns: A jSON string containing a status object.

6.11 Rerun Job Pairs of a Status

URL `services/jobs/rerunpairs/{id}/{status}`

URL Variables

id *Integer* – The ID of the job that contains the pairs to be rerun

status *Integer* – The integer status code of the pairs to rerun

Method POST

Parameter Encoding N/A

Description Reruns all job pairs that are both in the given job and have the given status code.

Returns A jSON string containing a status object.

6.12 Rerun Job Pairs That Reported Incorrectly

URL `services/jobs/rerunpairs/{id}`

URL Variables

id *Integer* – The ID of the job that contains the pairs to be rerun

Method POST

Parameter Encoding N/A

Description Reruns all job pairs that have already completed, but have a CPU time or wallclock time of 0. Such pairs generally had some problem reporting back results after completing.

Returns A jSON string containing a status object.

6.13 Reprocess Job Pairs

URL `services/postprocess/job/{jobId}/{procId}/{stageNumber}`

URL Variables

jobId *Integer* – The ID of the job to reprocess pairs in

procId *Integer* – The ID of the post processor to use

stageNumber *Integer* – Which stage of the job to reprocess. If the job did not use solver pipelines, this should always be 1.

Method POST

Parameter Encoding N/A

Description Runs a new post processor on all pairs from the job. The job must be finished to run a new post processor.

Returns A jSON string containing a status object.

6.14 Pause Job

URL `services/pause/job/{id}`

URL Variables

id *Integer* – The ID of the job to pause.

Method POST

Parameter Encoding N/A

Description Pauses the given job.

Returns A jSON string containing a status object.

6.15 Resume Job

URL `services/resume/job/{id}`

URL Variables

id *Integer* – The ID of the job to resume.

Method POST

Parameter Encoding N/A

Description Resumes the given paused job. Returns: A jSON string containing a status object.

6.16 Change Job Queue

URL `services/changeQueue/job/{id}/{queueid}`

URL Variables

id *Integer* – The ID of the job that is changing queues

queueid *Integer* – The ID of the new queue to use Method: POST

Parameter Encoding N/A

Description Moves the job to a new queue, so that all subsequent job pairs will run on the new queue.

Returns A jSON string containing a status object.

6.17 View Qstat Output

URL `services/cluster/qstat`

Method GET

Parameter Encoding N/A

Description Executes `qstat -f` on the Starexec grid engine and gets the standard output. Used to determine the cluster status.

Returns A plaintext string containing the results of qstat.

6.18 View Queue Load

URL `services/cluster/loads/{queueId}`

URL Variables

queueId *Integer* – The ID of the queue to view.

Method GET

Parameter Encoding N/A

Description Gets a representation of the LoadBalanceMonitor for the given queue.

Returns A plaintext string that shows the load values for the given queue.

6.19 Delete Jobs

URL `services/delete/job`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of job IDs to use

Description Permanently deletes all of the given jobs, including the deletion of all job data on disk.

Returns A jSON string containing a status object.

7 Job Pairs

7.1 Download Single Job Pair Output

URL download

Method GET

Parameter Encoding URL Encoded

Parameters

type *String* – Should be “jp_output”

id *Integer* – The ID of the job pair.

Description Makes a request to download an archive containing the output of the given job pair.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

7.2 Download Multiple Job Pair Outputs

URL download

Method GET

Parameter Encoding URL Encoded

Parameters

- **type** *String* – Should be “jp_outputs”
- **id[]** *Integer List* – The IDs of all the job pairs to get output of.

Description Makes a request to download an archive containing the output files for all of the given job pairs.

Returns An HTTP response with an output stream for the request archive on success. On failure, the response will contain an HTTP error code and a page with an error message.

Return Cookies

- **STATUS_MESSAGE_STRING** *String* – On failure, contains an error message.

7.3 Rerun Single Job Pair

URL `services/jobs/pairs/rerun/{pairid}`

URL Variables

- **pairid** *Integer* – The ID of the job pair that needs to be rerun

Method POST

Parameter Encoding N/A

Description Reruns the given job pair

Returns A jSON string containing a status object.

7.4 View Job Pair Output

URL `services/jobs/pairs/{id}/stdout/{stageNumber}`

URL Variables

id *Integer* – The ID of the job pair to get the output of

stageNumber *Integer* – Which stage number of the pair to get the results of. If the pair was not created with a solver pipeline, then this should be 1. If it was created with a solver pipeline, then it is the relevant stage number to retrieve.

Method GET

Parameter Encoding N/A

Description Retrieves the job pair output of a single stage of the given job pair

Returns A plaintext string containing the output of the given pair. Returns "not available" if the output could not be found or if you do not have permission to view the given pair.

7.5 View Job Pair Log

URL `services/jobs/pairs/{id}/log`

URL Variables

id *Integer* – The ID of the job pair to get the log of

Method GET

Parameter Encoding N/A

Description Retrieves the job pair log of the single job pair given.

Returns A plaintext string containing the job pair log of the given pair. Returns "not available" if the log could not be found or if you do not have permission to view the log of the given pair.

8 Websites

8.1 Add a New Website

URL `services/website/add/{type}/{id}`

URL Variables

type *String* – The type of primitive to add a website to. Can be "user", "space", or "solver"

id *Integer* – The ID of the primitive to add a website too

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

name *String* – The name of the website

url *String* – The URL to the website

Description Associates the given website with the specified primitive

Returns A jSON string containing a status object

8.2 Delete a Website

URL `services/websites/delete/{websiteId}`

URL Variables

websiteId *Integer* – The ID of the website

Method POST

Parameter Encoding N/A

Description Deletes the website with the given ID

Returns A jSON string containing a status object

9 Users

9.1 Add Users to Space

URL `services/spaces/spaceId/add/user`

URL Variables

spaceId *Integer* – The ID of the destination space for all the users

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of user IDs to use

copyToSubspaces *Boolean* – Whether to copy the users to every space in the hierarchy rooted at the given space.

Description Associates all of the given users with the given space

Returns A jSON string containing a status object.

9.2 Remove Users From Space

URL `services/remove/user/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to remove users from

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

selectedIds[] *Integer List* – The list of user IDs to use

hierarchy *Boolean* – If true, removes the given users from the entire space hierarchy. Otherwise, just removes them from the given space.

Description Removes all of the given users from the given space or space hierarchy, depending on the value of the hierarchy parameter.

Returns A jSON string containing a status object.

9.3 Leave Space

URL `services/leave/space/{spaceId}`

URL Variables

spaceId *Integer* – The ID of the space to leave

Method POST

Parameter Encoding N/A

Description Removes you from the given space and all of its subspaces.

Returns A jSON string containing a status object.

9.4 Edit User Permissions in a Space

URL `services/space/{spaceId}/edit/perm/{userId}`

URL Variables

spaceId *Integer* – The ID of the relevant space

userId *Integer* – The ID of the user to change permissions for

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

+ **all permissions parameters except isLeader (see the permissions section)** Specifies the default permissions for new users being added to the space.

Description Updates the permissions of the given user in a space.

Returns A jSON string containing a status object.

9.5 Edit User Permissions in a Space Hierarchy

URL `services/space/{spaceId}/edit/perm/hier/{userId}`

URL Variables

spaceId *Integer* – The ID of the space that is at the root of the relevant hierarchy

userId *Integer* – The ID of the user to change permissions for,

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

+ **all permissions parameters except isLeader (see the permissions section)** Specifies the default permissions for new users being added to the space.

Description Updates the permissions of the given user in a space hierarchy rooted at the given space.

Returns A jSON string containing a status object.

10 Account

10.1 Logout

URL services/session/logout

Method POST

Parameter Encoding N/A

Description Logs the requesting user out of the system

Returns A jSON string containing a status object.

10.2 Request to Join Community

URL add/to_community/request

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

cm *Integer* – ID of the community (the space ID).

msg *String* – Message explaining your motivation for joining the community.

Description Sends a request to join a new community to the leaders of that community.

Returns A redirect to a new webpage stating whether your message was sent.

Return Cookie

STATUS_MESSAGE_STRING *String* – On failure, contains an error message.

10.3 Edit Account Data

URL `services/edit/user/{attr}/{userId}/{val}`

URL Variables

attr *String* – The type of attribute to update. Can be “firstname” “lastname” “institution”, “pagesize”

userId *Integer* – Your user ID

val *String, Integer, depending on attr* – The new value to set

Method POST

Parameter Encoding N/A

Description Updates a field of profile information (like first name, last name, and so on). Note that the “pagesize” attribute refers to the default number of rows that will be displayed in the data tables displayed on Starexec.

Returns A jSON string containing a status object.

10.4 Change Password

URL `services/edit/user/password/{userId}`

URL Variables

userId *Integer* – Your user ID

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

current *String* – Your current password.

newPass *String* – The new password you want.

Confirm *String* – The new password you want, repeated for security

Description Changes the password you use to log into Starexec

Returns A jSON string containing a status object.

Return Cookie

JSESSIONID *String* – The session ID for the log in. Note that you will need to include this unique key for all transmissions to the secure parts of Starexec.

10.5 Get User ID

URL `services/users/getid`

Method POST

Parameter Encoding N/A

Description Retrieves your user ID.

Returns A jSON string containing your user ID.

10.6 Create or Modify Default Settings Profile

URL `add/profile`

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

postp *Integer* – The ID of the post processor to use in the settings. -1 to indicate none.

prep *Integer* – The ID of the pre processor to use in the settings. -1 to indicate none.

benchp *Integer* – The ID of the benchmark processor to use in the settings. -1 to indicate none.

solver *Integer* – The ID of the solver to use in the settings. -1 to indicate none.

bench *Integer* – The ID of the benchmark to use in the settings. -1 to indicate none.

cpu *Integer* – The cpu timeout for the profile.

wall *Integer* – the wallclock timeout for the profile.

mem *Float* – The maximum memory for the profile, in gigabytes.

dep *Boolean* – Whether to enable dependencies by default in the profile

+ exactly 1 of the following two parameters

name *String* – The name of the new setting profile. Use to create a new profile.

settingId *Integer* – The ID of an existing settings profile that you own. Use to modify the profile with new values.

Description Given a set of settings for a profile, either creates a new profile with those settings (if name is given) or modifies an existing profile with new values (if settingId is given).

Returns An HTTP message with 200 status on success, and an HTTP message with an error status on failure.

10.7 Set Default Settings Profile

URL `services/set/defaultSettings/{id}`

URL Variables

id *Integer* – The ID of the settings profile to use

Method POST

Parameter Encoding N/A

Description Sets the given settings profile as your default profile, meaning the one that is loaded automatically upon visiting pages like the job creation page.

Returns A jSON string containing a status object.

10.8 Edit Default Settings Profile

URL `services/edit/defaultSettings/{attr}/{id}`

URL Variables

id *Integer* – The ID of the settings profile to edit

attr *String* – The attribute to edit. Can be “PostProcess”, “BenchProcess”, “CpuTimeout”, “ClockTimeout”, “DependenciesEnabled”, “defaultbenchmark”, “defaultsolver”, “MaxMem”, “PreProcess”

Method POST

Parameter Encoding application/x-www-form-urlencoded

Parameters

val *String or Int, depending on choice of {attr}* – The new value to use for the given attribute

Description Edits an existing settings profile by using the given new value for the given attribute

Returns A jSON string containing a status object.

10.9 Delete Default Settings Profile

URL `services/delete/defaultSettings/{id}`

URL Variables

id *Integer* – The ID of the settings profile to delete

Method POST

Parameter Encoding N/A

Description Deletes the settings profile with the given ID

Returns A jSON string containing a status object.