Slurm API(3)   Slurm suspend, resume and requeue functions   Slurm API(3)

NAME

slurm_suspend, slurm_suspend2, slurm_resume, slurm_resume2, slurm_requeue, slurm_requeue2, slurm_free_job_array_resp – Slurm suspend, resume and requeue functions

SYNTAX

#include <slurm/slurm.h>

int **slurm_suspend** (
        uint32_t *job_id*
);

int **slurm_suspend2** (
        char * *job_id_str*,
        job_array_resp_msg_t **resp
);

int **slurm_resume** (
        uint32_t *job_id*
);

int **slurm_resume2** (
        char * *job_id_str*,
        job_array_resp_msg_t **resp
);

int **slurm_requeue** (
        uint32_t *job_id*,
        uint32_t *state*
);

int **slurm_requeue2** (
        char * *job_id_str*,
        uint32_t *state*,
        job_array_resp_msg_t **resp
);

void **slurm_free_job_array_resp** (
        job_array_resp_msg_t *resp
);

ARGUMENTS

job_id   Slurm job ID to perform the operation upon in numeric form.

job_id_str
        Slurm job ID to perform the operation upon in string form. This is intended to be a single job.
        For job arrays, the job ID may be followed by an underscore and task ID values. For example:
        "123", "123_4", "123_4−6", "123_4,6,8", and "123_4−6,18". The functions using this option
        are designed primarily for use with job arrays so that separate error codes can be returned for
        each task of the job array.

resp   Array of error codes and job IDs. Always use the **slurm_free_job_array_resp** function to
        release the memory allocated to hold the error codes.

state   The state in which the job should be requeued valid values are:

        "0"   If the job has to be requeued in JOB_PENDING state.

        "JOB_SPECIAL_EXIT"
                                    If the job has to be requeued in the special exit state and be held.

        "JOB_REQUEUE_HOLD"
                                    If the job has to be requeued in "JOB_PENDING" and held state.

DESCRIPTION

slurm_suspend	Suspend the specified job.
slurm_suspend2	Suspend the specified job or job array. Call the function **slurm_free_job_array_resp** to release memory allocated for the response array.
slurm_resume	Resume execution of a previously suspended job.
slurm_resume2	Resume execution of a previously suspended job or job array. Call the function **slurm_free_job_array_resp** to release memory allocated for the response array.
slurm_requeue	Requeue a running or pending Slurm batch job. The job script will be restarted from its beginning, ignoring any previous checkpoint.
slurm_requeue2	Requeue a running or pending Slurm batch job or job array. The job script will be restarted from its beginning, ignoring any previous checkpoint. Call the function **slurm_free_job_array_resp** to release memory allocated for the response array.
slurm_free_job_array_resp	
	Release memory allocated by the **slurm_suspend2**, **slurm_resume2**, **slurm_requeue2**, and **slurm_update_job2** functions.

RETURN VALUE

Zero is returned upon success. On error, −1 is returned, and the Slurm error code is set appropriately. Functions **slurm_suspend2**, **slurm_resume2**, and **slurm_requeue2** return zero if the *resp* array is filled, in which the that array should be examined to determine the error codes for individual tasks of a job array. Then call the function **slurm_free_job_array_resp** to release memory allocated for the response array.

ERRORS

ESLURM_DISABLED the operation is currently disabled (e.g. attempt to suspend a job that is not running, resume a job that is not currently suspended, or requeue a job on which the operation has been disabled).

ESLURM_INVALID_JOB_ID the requested job id does not exist.

ESLURM_ACCESS_DENIED the requesting user lacks authorization for the requested action (e.g. not user root or SlurmUser).

ESLURM_JOB_PENDING the requested job is still pending.

ESLURM_ALREADY_DONE the requested job has already completed.

ESLURM_NOT_SUPPORTED the requested operation is not supported on this system.

NOTE

These functions are included in the libslurm library, which must be linked to your process for use (e.g. "cc −lslurm myprog.c").

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SEE ALSO
      scontrol(1)