

# CLULOCKSIZE : Size of the Global Lock Area

Parameter	Specify . . .	Minimum	Maximum	Default
<u>CLULOCKSIZE</u>	the size of the global lock area	128K	2G	none

## Note:

This parameter is effective only when CLUSTER=LOCAL and NUCID is a nonzero value.

The CLULOCKSIZE parameter specifies the amount of storage (that is, the size of the data space (memory pool for BS2000)) to be allocated for the Adabas Parallel Services global lock area that will service the Adabas Parallel Services cluster in which the current nucleus participates. ADACOM allocates all storage space above the 16-megabyte line.

If no value is specified, the global lock area is not allocated; there is no default.

The size of a lock entry is 128 bytes.

In addition, you need to plan space for lock names that are longer than 40 bytes and unique descriptor values that are longer than 32 bytes. For such unique descriptor value locks, a lock name element is allocated in the global lock area that is equal in length to the unique descriptor value. The value for the ADARUN LDEUQP parameter provides an upper limit for this estimate.

The global lock area size can be estimated using the formula

$$\begin{aligned} & \text{RND2 (RND2 (MAXFILES) * 4 + RND2 ( (LDEUQP / 16) * 2) \\ & \quad + RND2 (NH * 2) \\ & \quad + RND2 (NU * 2) * 2) * 4 + (MAXFILES * 4 + LDEUQP / 16 + NH + NU * 2) * 128 \end{aligned}$$

where 'RND2' means rounded up to the next power of 2. 'MAXFILES' is the maximum number of files in the database set in ADADEF or ADAORD. 'LDEUQP', 'NH', and 'NU' are Adabas ADARUN parameters.

Size may be specified in bytes, in kilobytes followed by a "K", in megabytes followed by an "M", or in gigabytes followed by a "G":

- the minimum size is 128000 bytes (or 128K);
- the maximum size is 2047475456 bytes (or 2047144K; or 2047M; or 2G); and
- there is no default for the global cache area. If a size is not specified, no cache area is allocated.

The value is always rounded up to the nearest 4-kilobyte boundary.

The Adabas session statistics or Adabas Online System can be used to tune this parameter for the next session.

**Example:**

With the nucleus parameters NH=4000, NU=200, LDEUQP=20000, and the maximum number of files in the database (MAXFILES) as 255:

```
RND2 (RND2 (255) * 4 + RND2 ( (20000 / 16) * 2) + RND2 (4000 * 2)
+ RND2 (200 * 2) * 2) * 4 + (255 * 4 + 20000 / 16 + 4000 + 200 * 2) * 128=
RND2 (1024 + 4096 + 8192 + 1024) * 4 + 6670 *
128=16384 * 4 + 853760=919296=circa 1 MB
```

To this value, add the LDEUQP parameter value (20000) for eventual unique descriptor values to arrive at the maximum size required for the global lock area:

```
ADARUN PROG=ADANUC,CLULOCKSIZE=1M
```