file_list allocations

- **Article Type:** General
- **Product:** Aleph
- **Product Version:** 16.02

Description:
What allocations/extent-sizes should we specify in the file_list (in each library's $data_root directory)?

Resolution:
There are three main things we are trying to accomplish here:
1) not exceeding the maximum number of extents for this table,
2) not wasting space, and
3) limiting fragmentation of the tablespace in which the table resides.
(Note: If you have "Locally Managed Tablespace", then the allocations in the ALEPH file_list are not going to be used. Check with your Oracle administrator.)
If the table has "maxextents unlimited", then you don't need to worry about the maximum being exceeded. Oracle 9 always has maxextents unlimited and ALEPH 16.02-up requires Oracle 9.
Therefore, this problem will not occur in ALEPH 16.02-up.
If you are pre-16.02 and the maximum is 505, then you will need to make sure it doesn't exceed the max.
There are different schools of thought as to how big extents should be: some knowledgeable sites have tables with a standard extent size of 1M where the tables have thousands of extents.
Others try (even aside from the Max extents problem) to limit the number of extents.
The *standardization* of extent sizes in each tablespace, in order to avoid fragmentation of freespace, may be the most important consideration.
Check with your Oracle person. You don't want the extent size to be so big that a lot of space is wasted. (If you have a secondary extent size of 100M, this will mean that, on average, 50M of space is going to be wasted.
Also, as freespace becomes fragmented, there may be a problem getting such a large extent.) 505 1M extents will accommodate a 500-meg file; 505 10M extents will accommodate a 5-gig file; 505 100M extents will accommodate a 50-gig file. (A database with fewer than 1 million bib records should not have any file bigger than 5-gig and should not need a secondary allocation bigger than 10M. And larger sites should have only a few files bigger than this.)
The distributed EXUnn file lists typically have 1M allocations which will in most cases need to be increased for databases with more than 100,000 records.
You can use util a/17/11 and util a/17/12 to monitor how many extents tables in a library have. Recent installations have been set up with perhaps 10 tablespaces, each containing files similar in size, growth rate, etc., so all the files in each tablespace have the same standard extent size.

Additional Information

file_list, allocations

- **Article last edited:** 10/8/2013