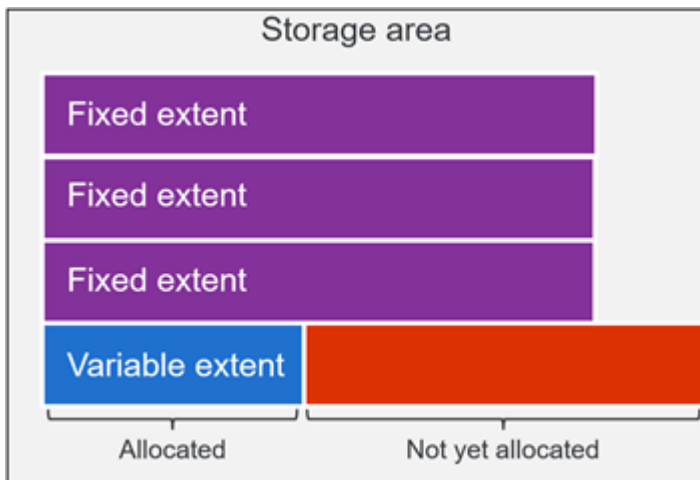


Extents

An extent is a member of a storage area that exists as a physical file on a disk. Extents contain the blocks that make up your database. In Type II storage areas, these blocks are organized into clusters, which helps optimize database performance. You specify the size, type, and location of extents using a database .st file.



There are two types of extents: fixed and variable.

- **Fixed extents**—Fixed extents are allocated and defined in the .st file. Properly allocated fixed extents are an important part of an optimized database. Determining the best size for a fixed extent is a complex process, but you can use this formula as a starting point:

$$\text{Number of blocks in extent} \times \text{Database block size} = \text{Extent size}$$

Monitor and adjust the extent as needed.

- **Variable extents**—Variable extents grow dynamically as data is written until the extent reaches the maximum file size permitted by your OS or uses up an entire disk or file system. The benefit of a variable extent is that it prevents the unexpected events that occur when a database no longer has space for new data, but the continuous allocation and formatting of space for new data degrades database performance.

Best practices:

- Define application storage areas so they consist of a series of fixed extents followed by a single variable extent.
- Size fixed extents in powers of 2, such as 2,048K, 4,096K, or 262,144K.
- Enable large file support for extents larger than 2GB.