

Backup Strategies and Table Space Management

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The background of the slide is a solid blue color. In the lower half, there are several decorative elements consisting of concentric white circles, resembling ripples in water. These ripples are of varying sizes and are scattered across the bottom portion of the slide.

Backup Strategies at Dartmouth College

- COEUS database resides on the institution's Storage Area Network (SAN)
- SAN vendor is EMC
- Nightly backups to tape
- Veritas Netbackup scheduled process
- Hot backup strategy

COEUS Tablespace Management

- DBAs monitor data file sizes in the table space
- DBAs add data files to the tablespace when data files grow beyond a threshold value
- Data file size – 1 GB
- Currently we have two datafiles of 1 GB max size
- Tablespace
 - Initial Extent – 64K
 - MAXEXTENTS 2147483645
 - Extent Growth as of now is system-managed
 - First 16 extents grow at 64K
 - Next ones grow at 1 MB increments

Dartmouth COEUS tablespaces

Name	Allocated Size (MB)	Space Used (MB)	Allocated Space Used (%)	Allocated Free Space (MB)	Datafiles	Type	Extent Mgmt.	Segment Mgmt.
COEUS-DATA	2,000.0	1,406.4	70.3	593.6	2	PERMANENT	LOCAL	MANUAL
COEUS-INDEXES	500.0	1.2	0.2	498.8	1	PERMANENT	LOCAL	MANUAL

DDL of a table

```
> CREATE TABLE COEUS.OSP$ABSTRACT_TYPE
> (
>   ABSTRACT_TYPE_CODE NUMBER(3)      NOT NULL,
>   DESCRIPTION     VARCHAR2(200 BYTE) NOT NULL,
>   UPDATE_TIMESTAMP DATE              NOT NULL,
>   UPDATE_USER     VARCHAR2(8 BYTE)  NOT NULL,
>   CONSTRAINT PK_ABSTRACT_TYPE
>   PRIMARY KEY
>   (ABSTRACT_TYPE_CODE)
>   USING INDEX
>   TABLESPACE COEUS_DATA
>   PCTFREE 10
>   INITRANS 2
>   MAXTRANS 255
>   STORAGE (
>     INITIAL      64K
>     MINEXTENTS  1
>     MAXEXTENTS  2147483645
>     PCTINCREASE  0
>     FREELISTS   1
>     FREELIST GROUPS 1
>   )
> )
> TABLESPACE COEUS_DATA
> PCTUSED 40
> PCTFREE 10
> INITRANS 1
> MAXTRANS 255
> STORAGE (
>   INITIAL      64K
>   MINEXTENTS  1
>   MAXEXTENTS  2147483645
>   PCTINCREASE  0
>   FREELISTS   1
>   FREELIST GROUPS 1
>   BUFFER_POOL  DEFAULT
> )
> LOGGING
> NOCOMPRESS
> NOCACHE
> NOPARALLEL
> MONITORING;
```