

## SDE Loading

- Part One: Loading tiles
- Part Two: Loading export files

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## Part One

### Benefits of SDE

- Seamless Data
- Faster Access
- Compression
  - Total size in SDE about 50% of raw file (including pyramids) – about a 20:1 compression.

## SDE Part One

- Is there a tradeoff between quality and size?
  - Is JPEG worth it?

## Compression Results

Raw – 32.7 Mb

JPEG 50% - 1.5 Mb



## Compression

- Compression to 60% provides 25:1 compression ratio.
- No apparent loss in quality
- DEFINITELY worth it!

## Scripts

- Run from the command line as batch (.bat) files
- Fast, robust loading
- Easier to recover from errors.
- Split into two parts:
  - Data Loading
  - Pyramids and statistics

## Script 1: Loading

```
set source=d:\emerge\1foot
set table_name=EMERGE1F
set connection=-s gismapdb -i esri_sde -D EMERGE -u EMERGE -p EMERGE
set first_one_loaded=false

for /R %source% %%f in (*.tif) do call :block %%f
:block
if %first_one_loaded%==false (
  sderaster -o import -l %table_name%,image -G 102645 -f %1 -c JPEG -q 60 -q
  %connection% -L 0 -l bilinear
  set first_one_loaded=true
) else (
  sderaster -o mosaic -l %table_name%,image -v 1 -f %1 %connection% -L 0
)
goto :eof
:endblock

echo %TIME%
```

## To use this script

- Open a text editor like notepad.
- Copy the text
- Edit the source location (this batch file reads below it recursively)
- Edit the name of the output raster file - here it is EMERGE1F - this is the name you will see in ArcCatalog
- Edit the connection parameters to match your server and connection information. We use SQL Server, which requires the -D (database name) parameter
- Edit the compression parameter - in this script, we use JPEG (-c JPEG) compression with a quality of 60 (-q 60)
- Rename the .txt file to .bat - this turns this into a batch file.
- Note the -L 0 - this tells SDE **not** to build pyramids - otherwise SDE will build a pyramid after every addition, making this load untenable.

**I suggest pushing results to command line**

## Demo

- Load Demo (if possible)

## Script 2: Pyramids and Statistics

```
set table_name=EMERGE1F
set connection=-s gismapdb -i esri_sde -D EMERGE -u EMERGE -p EMERGE
echo %TIME%

sderaster -o pyramid -l %table_name%,image -v 1 -L -1 %connection% -l bilinear
echo %TIME%

sderaster -o stats -l %table_name%,image -v 1 %connection%
echo %TIME%

sdetable -o update_dbms_stats -m "with fullscan" -t %table_name% %connection%
```

## Final Thoughts on Loading

- No one can access the data while loading or building pyramids
- Scripts available at LA County Enterprise GIS: <http://gis.lacounty.gov/eGIS>

## LAR-IAC 2 – SDE Export

- LAR-IAC2 will provide four formats to enhance distribution
  - raw .tif files
  - JPEG2000
  - MrSID
  - SDE Export or file geodatabase

## Plan for it!

- SDE will be pre-compressed
  - Command to run
    - `sdeimport -o create -I LARIAC1F_NF,image -f lariat2_pilot -s GISMAPDB1 -D AERIAL -u EMERGE -p EMERGE -i 5152`
- This will load data into SDE without reading files and will speed loading.
- You will need to run the statistics command afterwards.
  - `sderaster -o stats -I LARIAC1F_NF,image -s GISMAPDB1 -D AERIAL -u EMERGE -p EMERGE -i 5152 -v 1`

## File Access

- More info at <http://gis.lacounty.gov/eGIS>