

# GoldenGate

## GoldenGate terminology?

### Extract

A process that extracts data from a database into a trail file

### Pump

A type of extract process configured to pump the above trail files to a remote host if required

### Replicat

A process that applies data from the trail files to the database at the destination

### Manager

A process that governs any extract, or replicat processes in the configuration

## GoldenGate architecture?

### Source

MGR process: Autostarts other processes and passes environment variables etc.

EXTRACT process: Reads redo logs and writes to local trail files

PUMP process: Reads local trail files and writes to remote trail files

### Target

MGR process: Autostarts other processes and passes environment variables etc.

REPLICAT process: Reads local trail files and writes to database

It's possible for both source and target to exist on one server, in which case there may be one shared trail filesystem and no pump process.

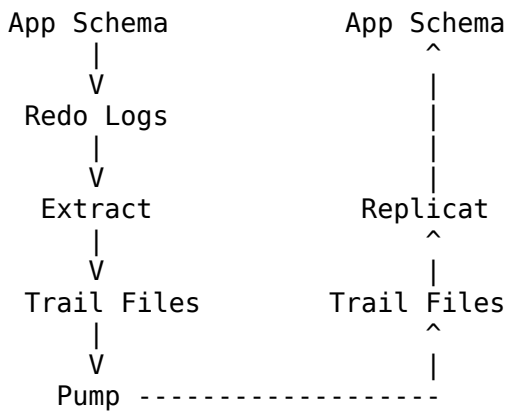
## What is the basic workflow in GoldenGate?

1. Application schema changes are captured by the Extract process using the redo logs and if necessary the archive logs. The GGEXTRACT database user is used to query various system views and must also be able to select from any tables in the replication configuration.
2. Extract writes the changes to the trail files.
3. The Pump process tracks any changes to the files and copies the deltas over to the remote trail file destination
4. The Replicat process monitors the incoming trail data and applies any changes to the source schema via the GGREPLICAT database user, which needs full privileges on the target tables

The manager process is used to autostart any processes configured under it and also passes down various environment variables and other configuration parameters to the child processes.

### Workflow Overview

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## What is the command line utility for GoldenGate?

ggsci

## List some common commands for GGSCI?

```
# Start ggsci
cd $GG_HOME (the Goldengate software directory)
./ggsci
```

Some commands

info all

Show basic process status including the manager process and last checkpoint

info \*

Show more detailed status of all currently running extract or replicat processes.  
Also shows checkpoint and log read information as well as the trail filesystem in use

info exttrail \*

Show configuration of a trail filesystem on extract side only  
(path, max file size, assigned extract process,current position)

start/stop <process name>

Start or stop an extract or replicat process. Can use \* to start/stop all.

start/stop manager

Start or stop the manager process

## List some GoldenGate directories?

All the relevant Goldengate-specific directories can be found in the software home (\$GG\_HOME):

dirchk

Checkpoint files used to maintain the current point in time for processing. On the replicat side this information is also stored in the checkpoint table GGREPLICAT.GGS\_CHECKPOINT.

dirdef

Definitions files that inform Goldengate about table structures. Used when source and target are not identical.

dirpcs

Process status files that are maintained whilst a process is running.

dirprm

Configuration files for each process that are referenced on startup.

dirrpt

Log files for each process.

dirtmp

Temporary files.

## **How do you trouble shoot GoldenGate?**

Check the log files

```
$GG_HOME/ggserr.log  
$GG_HOME/<process_name>*.rpt
```

e.g.:

```
$GG_HOME/ELNWSL01*.rpt  
$GG_HOME/RLNWSGA1*.rpt
```

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