The **GRAVITY ACCELERATION HISTORY** command

**Synopsis**

The **GRAVITY ACCELERATION HISTORY** command is used to specify the history function associated with the gravitational acceleration.

**Syntax**

The following syntax is associated with the **GRAVITY ACCELERATION HISTORY** command:

```
GRAvity ACCeleration HIStory #
```

**Explanatory Notes**

- The gravitational acceleration is used to compute body forces of the materials being analyzed.

- Using the **GRAVITY ACCELERATION HISTORY** command, a pre-existing gravity loading of a field deposit can be modeled by initializing the stresses and pore pressure to their proper values (refer to the **INITIAL** commands) and setting **GRAVITY ACCELERATION HISTORY** and **GRAVITY ANGLE HISTORY** equal to -3. The history of the effective gravity loading on a centrifuge model during "spin-up" can be modeled by describing, via the **FUNCTION** commands, a history function corresponding to the centrifuge velocity for the test; in the case of a fixed bucket, both the gravitational acceleration and its line of action would vary with time, while for a "swing-up" bucket only the acceleration would vary.

- The **default** gravitational acceleration history is equal to -2.

**Example of Command Usage**

To specify a gravitational acceleration history function number 3, enter the following commands:

```
grav accel his 3
```