## 命令模式

SPgr USCG | STandard | NOrmal | API 60 | API 15   | DEN 15
Specifies the specific gravity scale to use.

定义使用的比重规则。

SPgr
Reports the specific gravity scale which is currently in use (screen only).

屏幕显示当前使用的比重规则。

SPgr [(tank)] DELta
Adjusts the specific gravity in one or more tanks to bring about weight/displacement equilibrium.

调整一个或多个舱室的舱容物比重以使船舶重量和排水量平衡  。

## 参数说明

USCG
Causes the U.S. Coast Guard specific gravity scale to be used.

使用美国海岸警卫队比重规则。

STANDARD or NORMAL
Causes the standard specific gravity scale based on water at 39.2°F to be used.

使用基于 39.2°F 水的标准比重规则。

API 60 or API 15 or DEN 15
Causes the scale based on water at 60°F (15°C) to be used.

使用基于 60°F 水的比重规则。

(tank)
The name of a tank which is to have its specific gravity adjusted.   Tank may end in an asterisk to represent all tanks whose names have the same beginning.   If this parameter is omitted, the currently-selected tank is assumed.   (This parameter is used with DELTA only.)

被调整比重的舱室名称。舱室名称可以*号结尾表示名称有相同开头字母的所有舱室。如果省略此参数，那么默认选定当前的舱室。 (这个参数只和 DELTA 连用)。

DELTA
Indicates that the tank(s) is to be used to make up any difference between the vessel's weight and displacement at the current waterplane by adjusting its specific gravity.

表示通过调节选定舱室的比重以使船舶的重量和当前的排水量平衡。

Note:  See the CONTENTS command for changing the contents (including specific gravity) of a tank.

可以查看命令 CONTENTS 了解如何改变舱室的舱容物（包括比重）。

## Operation

## 操作

### Mode 1:

方式 1：

When the program begins, all specific gravity data is interpreted and displayed assuming a standard scale based on the maximum density of pure water (39.2°F.) as 1.000 specific gravity.   This yields, for fresh water, a 35.882 cubic foot long ton and a 1.000 cubic meter metric ton.

程序开始时，所有的比重规则数据都将被解释和显示，例如基于 39.2°F 纯水的最大密度为 1，那么，淡水的密度为 35.882 立方尺长吨或 1 吨每立方米。

An alternative scale, formerly recommended in U.S. Coast Guard Navigation and Vessel Inspection Circular No. 1-67 (now discontinued), has 1.000 specific gravity assigned to 35.96 cubic feet per long ton.   This yields 1.0022 cubic meters per metric ton at specific gravity 1.000.   The SPGR USCG command causes the program to interpret and report specific gravity according to the later scale.

另一可选规则，前面推荐的美国海岸警卫队比重规则比重为 1 的密度为 35.96 立方尺每长吨或 1.0022 立方米每公吨。命令 SPGR USCG 会使软件解释和报告最新采用的比重规则。

The keywords involving "15" and "60" assign 1.000 specific gravity to 35.918 cubic feet per long ton.   This yields 1.0010 cubic meters per metric ton at specific gravity 1.000.

涉及关键词"15"或"60"时，比重为 1 的密度为 35.918 立方尺每长吨，或 1.0010 立方米每公吨。

SPGR STANDARD shifts back to the standard scale.

命令 SPGR STANDAR 会恢复使用标准的比重规则。

Note that the actual densities of fluids in tanks or of the water environment are not affected by changing the scale; only the interpretation of specific gravity values during input and output is affected.   Therefore, the SPGR command in this mode will not cause a change in the draft of the vessel.

注意改变比重规则并不会影响舱室液体和船外水环境的密度，只是比重规则的说明不同。因此比重规则的改变并不会改变船舶吃水。

### Mode 2:

方式 2：

In a manner similar to the LOAD DELTA command, SPGR DELTA attempts to set the specific gravity in the tank(s) such that the difference between the vessel's weight and its displacement becomes zero.

和命令 LOAD DELTA 相似，SPGR DELTA 调节选定舱室的比重以使船舶重量和当前的排水量平衡。

All tanks involved will have the same final specific gravity, which is limited to being greater than zero and less than 9.999. Tank contents descriptions are not changed.

涉及到的舱室最后是相同的比重，比重限制在 0 到 9.999 之间。舱容物质名称不会改变。

## Display Output

## 显示输出

When the SPGR command is given without parameters, an indication of the current specific gravity scale is given (on the screen only).

当运行命令 SPGR 不附加任何的参数时，会屏幕显示当前使用的比重规则。

Whenever specific gravity appears in print and disk output, an appropriate indication of the scale appears if anything but the standard scale is in effect.

当报告输出显示比重信息时，如果不是标准比重规则，会显示对比重规则的解释说明。

## Nondisplay Output:

## 非显示输出

none.

无

## Examples

## 样例

Switching to U.S. Coast Guard scale:

使用美国海岸警卫队比重规则：

**SPGR USCG**

Switching to standard scale:

使用标准的比重规则：

**SPGR STANDARD**

Checking the scale in effect:

查看当前使用的比重规则：

**SPGR**

Finding the specific gravity of HOPPER cargo required for 18.5 draft:

调节 HOPPER 的舱容物比重以达到吃水 18.5：

**DRAFT 18.5 @ 0**

**SPGR(HOPPER) DELTA**