ETF MODEL ACCESS+

feature

 $m: ETF_MODEL$ once create Result.make end

invariant

m = m

ETF_MODEL+

ETF MODEL+

```
feature -- { ETF_MODEL_ACCESS }
 make
feature -- model operations
put\_number(num, row, col: INTEGER\_32)
Require
game_started: game_started = T
valid_row_number: \forall x: 1<= x <= 4
valid_column_number: \forall x \ 1 \le x \le 4
cell_not_filled: s[x,y] \sim 0
number_not_in_row: \exists x \forall y : s[x,y] /\sim num
number_not_in_column: \exists x \forall y : s[y,x] /\sim num
y2 \le y \le y^2 + 1. s[x,y] / \sim num
set\_number(num,row,col:INTEGER\_32)
Require
game_started: game_started = F
valid_row_number: \forall x: 1<= x <= 4
```

valid_column_number: $\forall x \ 1 \le x \le 4$ cell_not_filled: $s[x,y] \sim 0$ number_not_in_row: $\exists x \forall y : s[x,y] /\sim num$ number_not_in_column: $\exists x \forall y : s[y,x] /\sim num$ $number_not_in_subgrid: \ \forall x,y: x<=2: x2=1 \ | \ x>=3: x2=3 \ . \ y<=2: y2=1 \ | \ y>=3: y=2 \ . \ x2<=x<=x2+1 \ .$ $y2 \le y \le y^{-1}$. $s[x,y] / \sim num$

reset

start_game

Require

game_not_started: game_started = F