Airport Navigator – PD4
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please also refer to video
tutorial inside pd4 folder

User Manual

global timer

Timer: 00 : 00 : 14

Mouse: (x: 0, y: 0)

Terminal T Map:

T1   T2   T3   T4   Starbucks

MCDonald's

Brookstone   Wendy's

                                  Train Station

          Bathroom

South Security   North Security

Baggage claim   Ride share

Current Destination: ...   Status: ...

Current Position: [-100000, -100000]

Direction to Travel: -1.0

NAVIGATION MENU
Directional Tone Key

CHOOSEDESTINATION ▾   START NAV SIM
T1
T2   RESET NAV SIM
T3
T4
SOUTH SECURITY
NORTH SECURITY
RIDE SHARE
STARBUCKS   NORTH
MCDONALD'S   SOUTH
TRAIN STATION   EAST
BROOKSTONE   WEST
WENDY'S
BATHROOM
BAGGAGECLAIM

LINE MENU

NORTH LINE   SOUTH LINE   CLEAR LINE   PRE-CHECK LINE
North Flag: ...   South Flag: ...   Clear Flag: ...   PreCheck Flag: ...
North Wait: -1 min   South Wait: -1 min   Clear Wait: -1 min   PreCheck Wait: -1 min

PLAY NORTH   PLAY SOUTH   PLAY CLEAR   PLAY PRECHECK
PAUSE NORTH   PLAUSE SOUTH   PLAUSE CLEAR   PAUSE PRECHECK

Select Mode Menu:

NAVIGATION

SECURITY TIME   50.00

BAG LOCATION

MASTER VOLUME SLIDER

BAG MENU
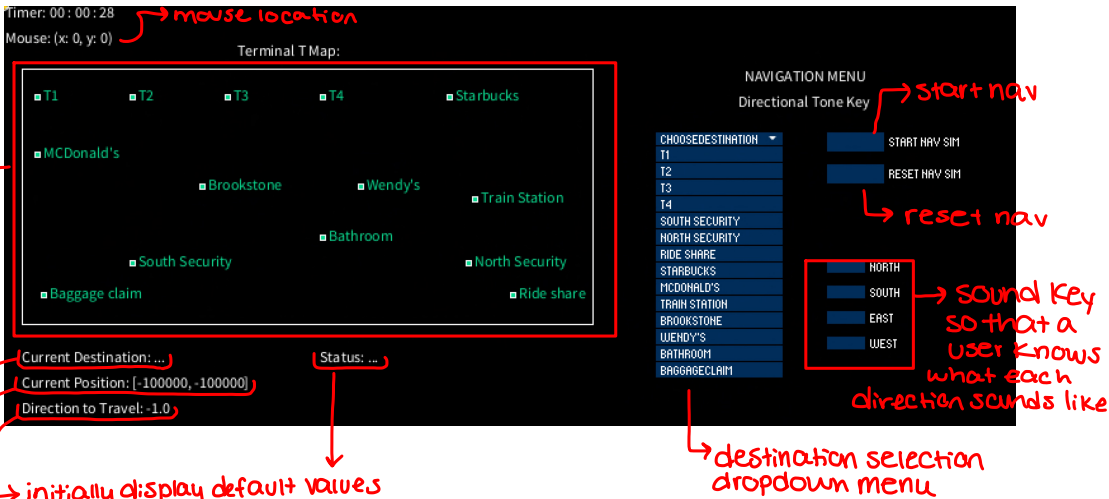
PLAY BAG LOCATION SOUNDS   PAUSE BAG LOCATION SOUNDS   Bag Distance: -1.0

Mode Selection Menu
  - 3 modes: Navigation, Security Time, Bag Location
  - Master volume slider
  - You must select the button for the mode that you want
    to use before being able to use the buttons associated
    with that mode
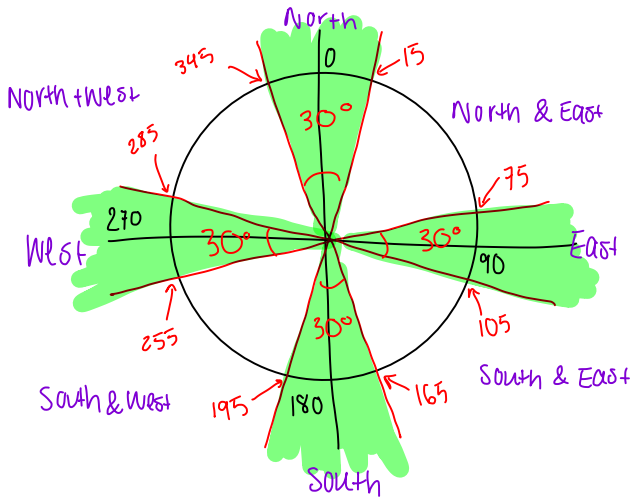 - Switching between modes resets the global timer

Navigation Mode

Timer: 00 : 00 : 28
Mouse: (x: 0, y: 0) → **mouse location**

Terminal T Map:

■T1   ■T2   ■T3   ■T4   ■Starbucks

■MCDonald's

            ■Brookstone   ■Wendy's
                                    ■Train Station
                ■Bathroom
        ■South Security   ■North Security
    ■Baggage claim   ■Ride share

Current Destination: ...   Status: ...
Current Position: [-100000, -100000]
Direction to Travel: -1.0

NAVIGATION MENU
Directional Tone Key

CHOOSE DESTINATION ▾
T1
T2
T3
T4
SOUTH SECURITY
NORTH SECURITY
RIDE SHARE
STARBUCKS
MCDONALD'S
TRAIN STATION
BROOKSTONE
WENDY'S
BATHROOM
BAGGAGE CLAIM

START NAV SIM → **start nav**
RESET NAV SIM → **reset nav**

NORTH
SOUTH
EAST
WEST
→ **Sound Key so that a user knows what each direction sounds like**

→ **destination selection dropdown menu**

→ **initially display default values**
 - **When navigation is reset, revert to default values.**
 - **When another mode is selected in the main selection menu, they also reset to default values**

→ **Navigation map**

① Select "Navigation" in the selection mode menu
② [optional] Click North, South, East, West buttons to familiarize yourself
   with what each direction sounds like.
③ Select the "Start Nav Sim" button
④ Select a destination in the "Choose destination" dropdown menu.
⑤ Once steps ①, ③, and ④ are complete, the simulator will enable
   recording mouse clicks in the map area.
⑥ Click in the map area to symbolize the starting location of the "user"
⑦ Click with the mouse to simulate where the user walks next.
   Each "click" is an event that re-calculates variables and sound
⑧ The variables bellow the map will also populate at this point.
   "Status" will be "traveling to destination".
   Direction and distance will determine the sonification.

⑨ Distance is encoded with play rate. The furthest distance that the user is from the
   destination will be speed 0.5, and right next to the destination is speed 2.
   The closer the user gets the faster the speed in the [0.5, 2] range

⑩ When the user gets within 10 pixels of the destination, they will hear a "bloop",
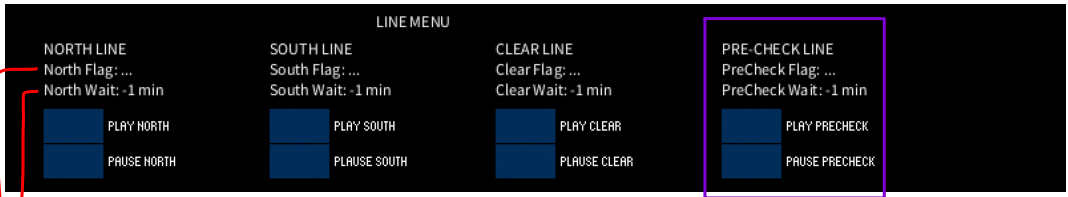   and the "status" variable will change to "arrived"

⑪ Encoding direction.
   - There is a designated seperate sound for North, South, East, West.
   - 0° is true North, 90° is true East, 180° is true South, 270° true west.
   - North, South, East, west ± 15° is considered as that direction.
   - The 60° window between cardinal directions is a mix of direction sounds: Northeast, Northwest, Southeast, Southwest.

North
345   0   15
North+West   North & East
      30°
285
         270
West   30°   30°   90   East
                          75
255
         30°   105
South & West 195 180 165   South & East
South

⑫ If you're in the northeast, northwest, southeast, southwest angle ranges, listen carefuly and actively for both sounds. Both should be audible.

⑬ Reseting the nav will clear the variables. Switching to another mode in the "selection mode menu" will also clear the nav variables.
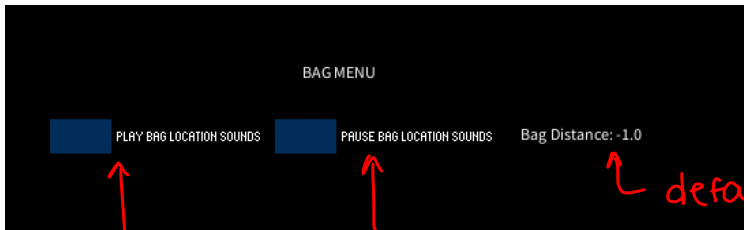
Security Time Mode

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                              LINE MENU

NORTH LINE              SOUTH LINE            CLEAR LINE           PRE-CHECK LINE
North Flag: ...         South Flag: ...       Clear Flag: ...      PreCheck Flag: ...
North Wait: -1 min      South Wait: -1 min    Clear Wait: -1 min   PreCheck Wait: -1 min

      [ ] PLAY NORTH          [ ] PLAY SOUTH        [ ] PLAY CLEAR        [ ] PLAY PRECHECK

      [ ] PAUSE NORTH         [ ] PLAUSE SOUTH      [ ] PLAUSE CLEAR      [ ] PAUSE PRECHECK
```

→ wait time in minutes

*note, im having a UI error where the pre-check buttons are sometimes not clickable, I haven't solved the issue yet.

→ Flag for wait time. Fast (under 15 min), Medium (15-30 min), Slow (30+ min)

① Select "security line" in the selection mode menu.
② Play rate (speed) encodes wait time
③ Security Line reports come every minute. (Kind of how weather updates are on-the-hour)
④ Click "play [Line-name]" to hear the noise.
⑤ Click "pause [Line-name]" or switch to another line to stop or hear another sound
⑥ When the Global timer reaches the next minute, the line data will be updated if you click the buttons again.
⑦ Switching to another mode will also stop the line sounds

Bag Location Mode

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                              BAG MENU

      [ ] PLAY BAG LOCATION SOUNDS    [ ] PAUSE BAG LOCATION SOUNDS    Bag Distance: -1.0
```

click to play sounds

Click to pause sound

↳ default value -1

① Click play
② Beeping play rate will increase as the bag gets closer
③ Beeping rate will be the fastest when the distance is 0.