Prac 10 Design

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Initialisation:

• The size of the environment, number of turns left, and number of clues are specified via command line arguments.

• The clues are spread randomly throughout the environment. For every clue which is placed an additional two potential clues must be placed in the environment. You must check that there is enough space in the game world to accommodate this. Initially clues and poten-tial clues look the same

• The player is placed in a random row and column.

Moving:

• The player may move north (up), south (down), east (right), or west (left). The player may not move outside of the game area. The player may chose to investigate instead of moving.

• The player may not disturb the crime scene (they may not step on clues or potential clues).

• If the player chooses to investigate all of the potential clues in a one square radius disap-pear and those which were actually real clues are revealed (they are displayed as clues for the rest of the game).

End-game:

• The game ends in failure when the number of turns runs out and ends in victory when all of the clues are revealed.

Input and Output

Inputs	
W (Up)	Standard input Stream
S (Down)	Standard input Stream
A (Left)	Standard input Stream
D (Right)	Standard input Stream
S(Craft)	Standard input Stream
Output	
Character moves based on case	Standard output Stream

Data Format

Identifier	Data Type	Description
ChInput	Char	Player movements
ConvToInt	Integer	Converts arguments to integer
InitWorld	Void	Initialises the world
OutputWorld	Void	Outputs the World
GetRand	Integer	Generates random number
EndGame	Void	Checks if conditions are met to end the game

Pseudo Code

Structure tWorld

Array

NumRows

NumCols

PlayerRow

PlayerCol

NumTrees

NumBush

NumFlint

GameStatus

UML