– what is the role of EmptySprite?

The role of EmptySprite is to give the user the notion that the animation has "ended". EmptySprite is at the end of every non-looping animation.

– what is the role of MOVE_INTERVAL and INTERVAL_VARIATION?

MOVE_INTERVAL determines the base rate at which a unit in the game moves. INTERVAL_VARIATION is the "random" element of movement added such that each unit may end up moving at not-so-consistent rates. This is determined by retrieving a random number from 0 to INTERVAL_VARIATION, and adding MOVE_INTERVAL to find the rate at which the unit will move.

– if you wanted to add a fruit, which files would you need to change?

Within the "level" folder, I would add a file called "fruits", which would look like pellets, and has the information necessary to define a fruit. I would then add the appropriate interactions between player and fruit in the PlayerCollisions and DefaultPlayerInteractionsMap files. To generate the fruits, I would add the appropriate methods in LevelFactory. Finally, I would add the methods to "draw" the fruits in the PacManSprites file.