

For every cycle of update:

Damage level of each road is updated as

If (Damage=0)

{

    Damage=2;

}

Else if (Damage =1)

{

    Damage=0;

}

Else {

    Damage=1;

}

Amount of resources available at places are updated as :

// note: I is position of the location in initial

input

// k is total number of locations

If (resources at I<sup>th</sup> location is > Threshold+k)

{

    New resources at I<sup>th</sup> location = abs(resources before at I<sup>th</sup> location – 10\*(k % I));

}

Else If (resources at I<sup>th</sup> location is < Threshold+k && resources at I<sup>th</sup> location is > Threshold)

{

    New resources at I<sup>th</sup> location = abs (resources before at I<sup>th</sup> location – 10\*I);

}

Else{

    New resources at I<sup>th</sup> location = Threshold+5\*I; }

Amount of resources available at resource centers are updated as :

// here resources indicate before cycle of update;

If (  $8 * \text{threshold} > \text{resources} \&\& \text{resources} > \text{threshold}$  ) {

    New resources = resources + threshold;

}

Else if ( resources  $\geq 8 * \text{threshold}$  ) {

    New resources = resources – threshold;

}

Else{

    New resources = resources +  $8 * \text{threshold}$

}