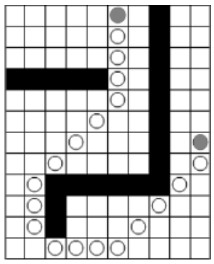
svetlana_curls@mail.ru



[illegible], T_D - [illegible] [illegible]

[illegible] 3D-[illegible] [8].

[illegible] S, [illegible] $P_{[illegible]}$ [illegible] $P_{[illegible]}$. [illegible]:

1. [illegible] $\phi_{[illegible]}$ [illegible].

   $\phi_{[illegible]} = \{A_i$, [illegible] p_i Í p_i' [illegible] q_i Í $q_i'\}$ (5), [illegible] p_i, q_i ï [illegible] A_i, [illegible] p_i', q_i' ï [illegible].

2. [illegible]

3. [illegible] $\phi_{[illegible]}$ [illegible]

4. [illegible]

5. [illegible] P [illegible] bounding box [illegible] [1].

   $P = \{P_i$, [illegible] $P_i \in S$ [illegible] j, k [illegible] $P_i \in R_j$, $R_j \in A_k\}$ (6).

6. [illegible] 1 [illegible] < [illegible] P [illegible] P1 - [illegible] P':

   P' = P U P1 (7).

7. [illegible] P_s.

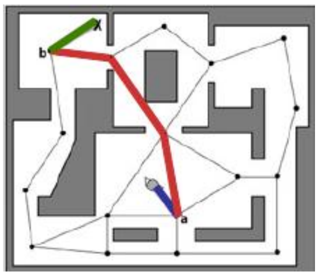
   $P_s = \{P_i$, [illegible] $D(P_i, P_{[illegible]}) < D(P_i + 1, P_{[illegible]})$ [illegible] $i \in 1..Np - 1\}$ (8),

   [illegible] D(A, B) ï [illegible] ϕ [illegible] B, Np ï [illegible] P.

8. [illegible] P_{sk}, [illegible]

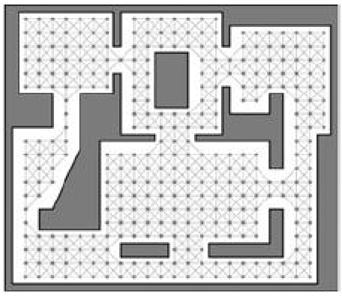
   $P_{sk} = \{P_i$, [illegible] $P_i \in P_s$, [illegible] $P_i \in A_k$, $P_{i+1} \in A_k$ [illegible] $i \in 1..Np - 1\}$ (9).

9. [illegible]



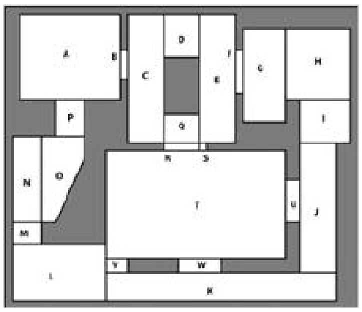
[illegible] 2: [illegible].

[illegible] [3] [illegible] 3D-[illegible].



[illegible] 3: [illegible].

[illegible] navigation mesh [4] [illegible] 3D-[illegible] ([illegible] 4). [illegible]



[illegible] 4: [illegible] navigation mesh.

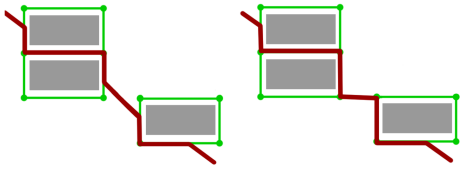
3. [illegible]

[illegible] 3D-[illegible] $\phi = \{A_i, i = 1..n\}$ (1), [illegible] $A_i = \{V, R\}$ (2) ï [illegible] V [illegible] $R = \{R_j, j = 1..m\}$ (3), [illegible] $R_j = \{V_{j1} \in V, V_{j2} \in V$, T_ϕ, T_D, j1 Í j2$\}$ (4), $T_A \in \{0,1\}$ ï [illegible]

fnjsj нcdzw lsfny tfcvdz dz tslstqj l£tsdz 1 tcf 1 1 ədlzlstcf tsndasctslλ tcGfnjnjGstcfəO lsfny əOtcfGdlsr :

- 1 σ1 ð tflzlsl £GfGjlsfny lλ cf tftsqffnj tstflscfdzGdlz dasctstyflzlscf djj lstqj blzjlsfny.
- 2 cf btsdjjj σ1 ð ər tfsdzlzjlsfny 1 1 tfts £tcG2dzfdz σ1 tfts £tcflsjtcfk dzjdzfdzGdlz das? fnjdzdzGdas? ndzfdz tqjbjtc. tjbtcO lzuqflsr əO lsfny ə fnjstslsejlsfnjcdcf fnjtfcflcdzlsdz tfctcslnsndzdzsfnjcf Tϕ.

10. ş tsdzjftsdas£O tfsdlzujdzlz slstqj l£tsə tflzlsj? ə jndzlz? tflzlsl. ∫ bj jndzjdzfj tfctscflətsndlsfny LO fnjjls lstscts, ujsts bjtdzlsfny dz2njdzlz j tflzlscf ndzv £Ondcts cteGvO cf £tcG2dzfj lstsuλcf λlscf slflzlsj? fnjsjndzwk lsfny tftevdzs? dzfdzfj?.

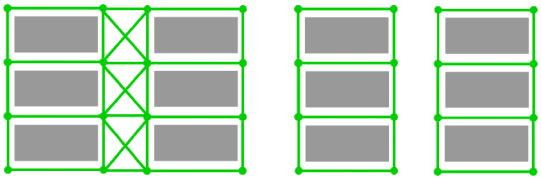


tdfn5: 1 1 ə dzsndcfvcfuqftətsəOdzdas dz3 (fnjjəO) cf bOLtsətsdz3djjlstsnOS (fnjtcOəO) lλ. ujtcr j tftvdzslzctsdzdzfcf - tsbj j£ls , Ljdjdz j dzfdzfcf ï lλ tsbj j£lstsə, £tcGfnjz j dzfdzfcf - dz2njdzlz j tflzlscf.

∫ tfcfnjdzlz? Odzctstcflscdz tfts £tcG2djj? dzjtqj, djj lzfnjslzfGjls ə On£jGsdzdasfnjscf dz2njdzdzdascts tflzlscf bOLtsətsdzz tftsn¯tsnlz, O ə tevnj fnjdzuqGjə cf tftqjətsf¯tsndcfls jgcts. lOjftcfdzjtc, ə lzfnjəjtdh jdzfnjsətsəOdzdasdz3djjlstsnj (tdfn5) tflzls tfts tftcsfnjstcOdzfnjslz fnjtsbtsndasdzz tsls tftqjtjvlsfnjsəcf? LOədcfnjfls tsls £tstsenfdzGls dzGuqOdz das? cf £tsdjuqdas? lstsujf cf tftcs¯tsncfls btsdzjj jfnjsjfnjsəjdzdas, ə tslsdzfqfjj tsls bOLtsətsgcts dzjlstsnGqgnj tftcf tslsdasfnjlsjdzdas djjbtsdzh tsdzfnjsjh jdzfcf dzGuqOdz das? cf £tsdjuqdas? lstsujf, tflzls tftcs¯tsncfls tfts tsndasdzz cf lstsdzz xjj tqjbtdz. σGfcfdz tsbtcOLtsdz, tcGfnj cftqjdzlz? Odzctstcflscdz fnjtsbtsnjdz tsls djjnfnjsGls£tsə ¯ 2, lzftsdzvdzls ¯ ə tf.2.

∫ tsncfvcfuqftətsəOdzlz? Odzctstcflscdz lsGfxjj tftsLətsdzjls tqjOdzLtsəOls tevnj ətsLdzjsxjdasfnjsj? ndzv fnjftcOj jdzjw tsbj jdzO tdzuqdas? tcGbtsls tftcf LOnOdzfcf lλ, ujsts cfLbOədzjls dasə? tftsn¯tsn tsls djjnfnjsGls£tsə ¯ 2, lzftsdzvdzls ¯ ə tf.2.

1. σ.£. ndzv £Onjntsgcts tsbj j£lsO cffnjftsdzLlzjlsfny fnjts? lλ, tflzfnjstsj, gOtcOdasctqtətsəOdzdas tftcs¯tsncfdzjsj tftcstfnjstcOdzfnjəts djj lstqjblzjlsLOjftsdzdjdzfw tflzlswdzjfcteGvO(tdfn6).
2. j dzv tftəlststevk h cf¯fny tsbj j£lstsə lλ dzjsxjjls br lsl fnjtsfqftcfsəOdzGəlstsdzjOscfujfnjcf.
3. j dzv tsb¯tsndz ¯ tflzlsj? tftcsfnjsts? gjtsdzjlstcfujfnjts? vwtstcdzj dzjsxjjls br lsl cffnjftsdzLtsəOdzO Odlstsjdjtcuqfw tflzlscf dzOtsfnjdtsəj nOdzlz ¯ ts bounding box tsbj j£lsOcfjgcts tftsdasxjjdzfcf ə tftcsfnjstcOdzfnjəj .



tdfn6: lλ ə bOLtsətsdz (fnjjəO) cf dzjsndcfvcfuqftətsəOdzdasdz3 (fnjtcOəO) dzjlstsnO¯.

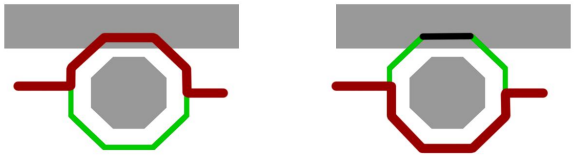
4. uY[u[rl ϕ∫ RY[нŞRM∫ɾ3[Ş u∫[

[cfdzOdzfujfnjcfjj tsbj j£ls lzuqfls əO lsfny lsG£xjj £OG fnjsOsfujfnjcfjj, LOnOdzlz j tfjjtqjdasfnjsdz3 (tfjtsLcfucfjj?) cf lzcdasdz3tfjtəstcstslsO dzOdjsdzjdas dzOuqOdzO1 1.

tOfnjnjsjstcfdz3 tftcfjjdz3, £tslststcr j tfjtsLətsdvk ls lzuqfls əOls nOcfdzOdzfujfnjcfjj tsbj j£ls ə tcOdfjGO¯ tsbh jgcts Odzctstcflsdz3O1 1.

4.1 uhlstsdz£dasəjdzfjə djjsdzjdasfnjzнtsəOdzfw tfjts tfjzlscf

σG£ £G£ ncfdzOdzfujfnjcfjj tsbj j£ls djjsdzlzls cfLdzjdzfls fnjtsk tfjtsLcfucfk cf lzcdtsdz tfjtəstcstslsO lsts dzjtsb¯tsncfdz3 dzj¯Odzfcfdz3 tcOtqjh jdzfw £tsdzfcfLcfcf ə djjsdzjdas £tsdzfcfLcfcf tqjbtcts tslsdzjuGjlsfny £G£ djjtfcts¯tsncfdjjsj fnjtfsdzjsh jk tfjtcfLdz£GO tfjtcs¯tsncfdjjsfnjscf TA cf tfjtcf dasətsdz3 1 1 djj lzuqfls əGjlsfny (tdfn7). ş tsdnO lz ncfdzOdzfujfnjcfjj tsbj j£lsOcfLdzjdz'jlsfny tfjtsLcfucfw cfdzfcf lzcdtsdztfjtəstcstslsO, əfnjj jgcts tqjbtcO tslsdzjuO lsfny £G£ tfjtcs¯tsncfdz3 j.

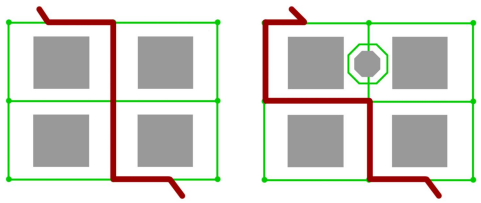


tdfn7: lλ2njdzlz? tflzlsl tsb¯tsnOncfdzOdzfujfnjtsgcts tsbj j£lsOtfjtcf tfjtcətsr tftsjfr ls£jj1 1 (fnjjəO) cf əlststcts? tftsjfr ls£jj (fnjtcOəO). Yjtcdz dz3upjlstsdz3ər njdjjdasqtjbtcts, tslsdzjujdzdasjj £G£ djjtfcts¯tsncfdzjsjj tftsfnjjjtfjjtcətsr tftsjfr ls£cf.

4.3 uujlsncfdzOdzfujfnjcf¯tsbj j£lstsə, tcOfnjftsdzsxjjdzlz¯dzOtqjbtqjlλ fnjsOlscfujfnjtsgcts tsbj j£lsO

[dzv £Onjntsgcts tqjbtcO fnjsOlscfujfnjtsgcts lλ LOnOjlsfny £tsdzjj£fnjsdzOv cfdzwtstcdz3Ouqfw TD ï cfdzwtstcdz3Ouqfw ts tftcs¯tsncfdzjsfnjscf tftcsfnjstcOdzfnjsəO ətsfdzlz: tqjbtcO tqjbtcts dzjsxjdas tsbts2lscf fnjjəO fnjtcOəO fnjjəO cf fnjtcOəO djjdzlw tsbts2lscf fnjsofnjjdz3 £lsOcfdzwtstcdz3Ouqfw cffnjftsdzLlzjlsfny ndzv lzuqlsO nOcfdzOdzfujfnjcf¯ tsbj j£lstsə, tcOfnjftsdzsxjjdzlz¯dzOtqjbtqj lλ fnjsOlscfujfnjtsgcts tsbj j£lsO. I tsLdzjsxjdz 2 fnjjzuO¯:

- tjbtcts djjdzlw tsbts2lscf. ∫ das tftsdzjuQlsfny £G£ djjtfcts¯tsncfdzjsj (tdfn8).



tdfn8: 1 1 fnjncfdzOdzfujfnjcfdz3tsbj j£lstsdz3dzOtqjbtqj bjL LOnOdzdasgcts tftcfLdz£Otftcs¯tsncfdzjsfnjscf fnjsOlscfujfnjtsgcts lλ (fnjtcOəO) cf bjL djjgcts (fnjjəO).

- [illegible] (Fig.10 [illegible]) [illegible] (Fig 9).

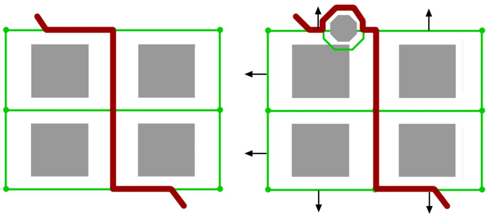


Fig 9: [illegible]

[illegible] 4.2 [illegible] 4.3 [illegible] (Fig.2).

4.4 [illegible]

[illegible] (Fig 10).

[illegible]:

1. [illegible]
2. [illegible]
3. [illegible]

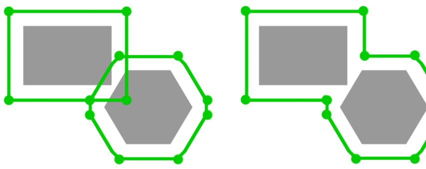


Fig 10: [illegible]

5. [illegible]

[illegible]

[illegible] Fig.4.1, [illegible]

6. [illegible]

[illegible] Fig.1 [illegible] O(n)

[illegible]	[illegible]	[illegible]
1.	[illegible]	O(N), [illegible] N = [illegible]
2.	[illegible]	$O(\sum_{i=1}^{k} len(V_i))$, [illegible] k = [illegible], len = [illegible]
3.	[illegible]	O(k*N)

Table 1: [illegible]

[illegible] (Table 1), [illegible] 3 [illegible] 4 [illegible] Fig.2. [illegible]

[illegible] 3D-[illegible] 3D-[illegible] «[illegible]» [7].

7. REFERENCES

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