
Algorithm 1: Path computation

Data: $Packet(P_s, P_d)$
Result: Op_x, Op_y, prf
 $\Delta x \leftarrow P_d.x - P_s.x;$
 $\Delta y \leftarrow P_d.y - P_s.y;$
 $t \leftarrow abs(abs(\Delta x) - abs(\Delta y));$
if $\Delta x \geq 0$ **then**
 $Op_x \leftarrow 0;$
else
 $Op_x \leftarrow 1;$
end
if $\Delta y \geq 0$ **then**
 $Op_y \leftarrow 0;$
else
 $Op_y \leftarrow 1;$
end
if $abs(\Delta x) \geq abs(\Delta y)$ **then**
 $flipbit \leftarrow 0;$
else
 $flipbit \leftarrow 1;$
end
while $True$ **do**
 $outportdirn \leftarrow getoutportdirn();$
end
 $return;$

Algorithm 2: getoutportdirection()

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if  $t \geq 1$  then
  if (flipbit) then
    |  $outportdirn \leftarrow Op_y$ ;
  else
    |  $outportdirn \leftarrow Op_x$ ;
  end
   $t \leftarrow t - 1$ ;
else
  if (flipbit) then
    |  $outportdirn \leftarrow Op_y$ ;
  else
    |  $outportdirn \leftarrow Op_x$ ;
  end
   $flipbit \leftarrow \sim flipbit$ ;
end
return  $outportdirn$ ;
```
