More Flexsim Functions

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1 Practice 1

2 Practice 2

3 Practice 3

4 Practice 4

5 Practice 5

Flexsim Data Types and Functions

Data Type

- int: ex. int i-row; int j-column
- double: ex. double enter-queue-time
- string: ex. string labelname = ”enter-queue-time”
- treenode: ex. treenode involved = item

Flexsim Functions, See MM1 Note

- getoutput(current)
- getinput(current)
- getlabelnum(item,”labelname”)
- setlabelnum(item,”labelname”,time())
- gettabelnum(”tablename”, i-row, j-column)
- settabelnum(”tablename”, i-row, j-column, enter-queue-time)

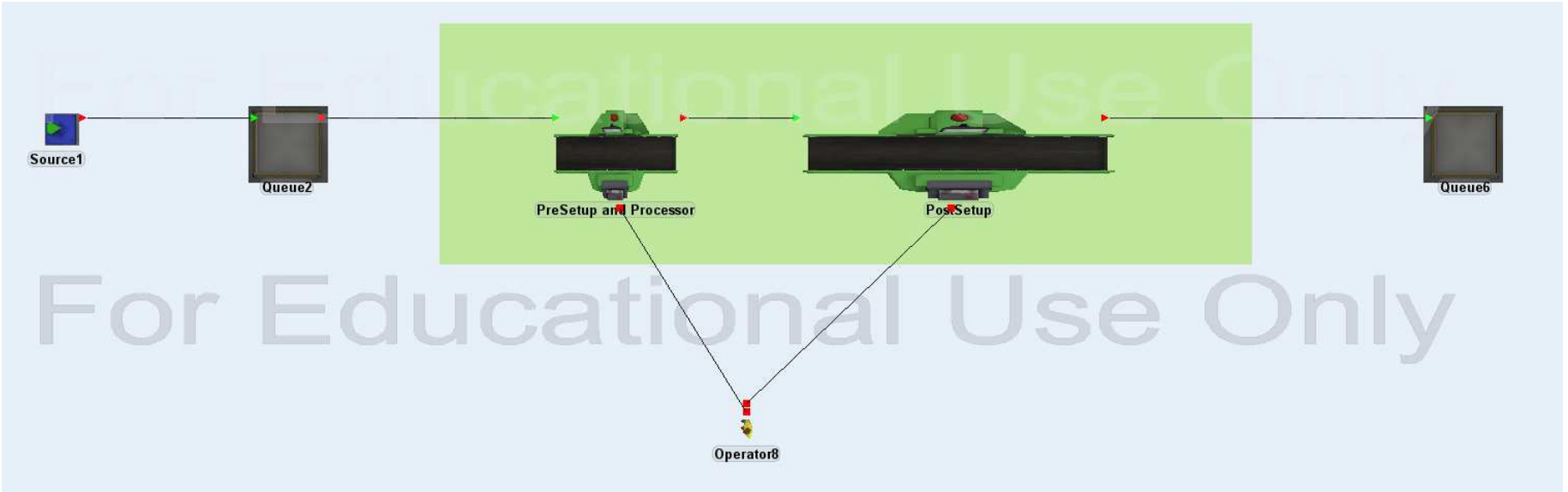
More Flexsim Functions

Recall help > Commands

Flexsim Functions about treenodes

- inobject(current,1)
- node("/Processor3",model())
- setnodenum(spatialsx(current),10)
- getnodenum(spatialsx(current))
- setnodenum(rank(variables(centerobject(current,1)),6),5)
- getnodenum(rank(variables(centerobject(current,1)),6))
- setnodenum(label(item, "XRay_Label"), 1)
- getnodenum(label(item, "XRay_Label"))
- label(item, "XRay_Label")

EX: Model Overview



For Educational Use Only

Practices

- 1. The ”whole process” include pre-setup (2 min.), process (20 min.) and post-setup (2 min.)
- 2. A new item is allowed to enter pre-setup only if the whole process is completed (ie. until the post-setup is completed)
- 3. Let “spatialsx=1 cm” when an item enters post-setup, “spatialsx=10 cm” when the item departs post-setup
- 4. Speed for the operator: 5 meter/cm when item enters pre-setup, 100 when item departs post-setup
- 5. Replace the flexsim object by sketchup image

Practice 1

- The "whole process" include pre-setup(2 min.),process(20 min.) and post-setup(2 min.)
  - 1.PreSetup and Processor > Processor > Setup Time:2 and Choose Use Operator(s) to Setup
  - 2.PreSetup and Processor > Processor > Process:20
  - 3.PostSetup > Processor > Setup Time:2 and Choose Use Operator(s) to Setup

Practice 2

- A new item is allowed to enter pre-setup only if the whole process is completed (ie. until the post-setup is completed)
  - PreSetup and Processor > Triggers > OnEntry > Custom Code >

    closeinput(current);
  - PostSetup > Triggers > OnExit > Custom Code >

    treenode previous = inobject(current,1);

    or

    treenode previous = node("/PreSetup and Processor",model());

    openinput(previous);
- We prefer "inobject(current,1)" because it does not depence on the process name

Practice 3

- Let “spatialsx=1 cm” when an item enters post-setup, “spatialsx=10 cm” when the item departs post-setup
  - PostSetup > Triggers > OnEntry > Custom Code >

    setnodenum(spatialsx(current),1);
  - PostSetup > Triggers > OnExit > Custom Code >

    setnodenum(spatialsx(current),10);

Practice 4

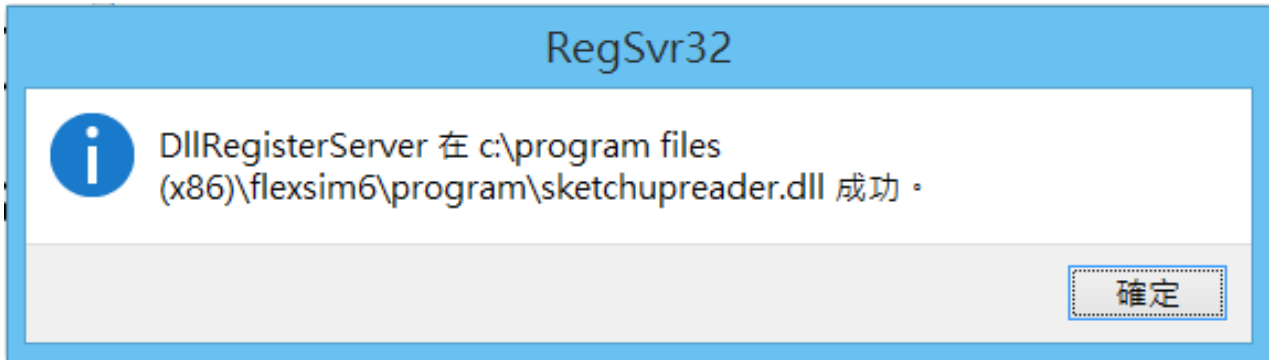
- Speed for the operator: 5 meter/cm when item enters pre-setup, 100 when item departs post-setup
  - PreSetup and Processor > Triggers > OnEntry > Custom Code >

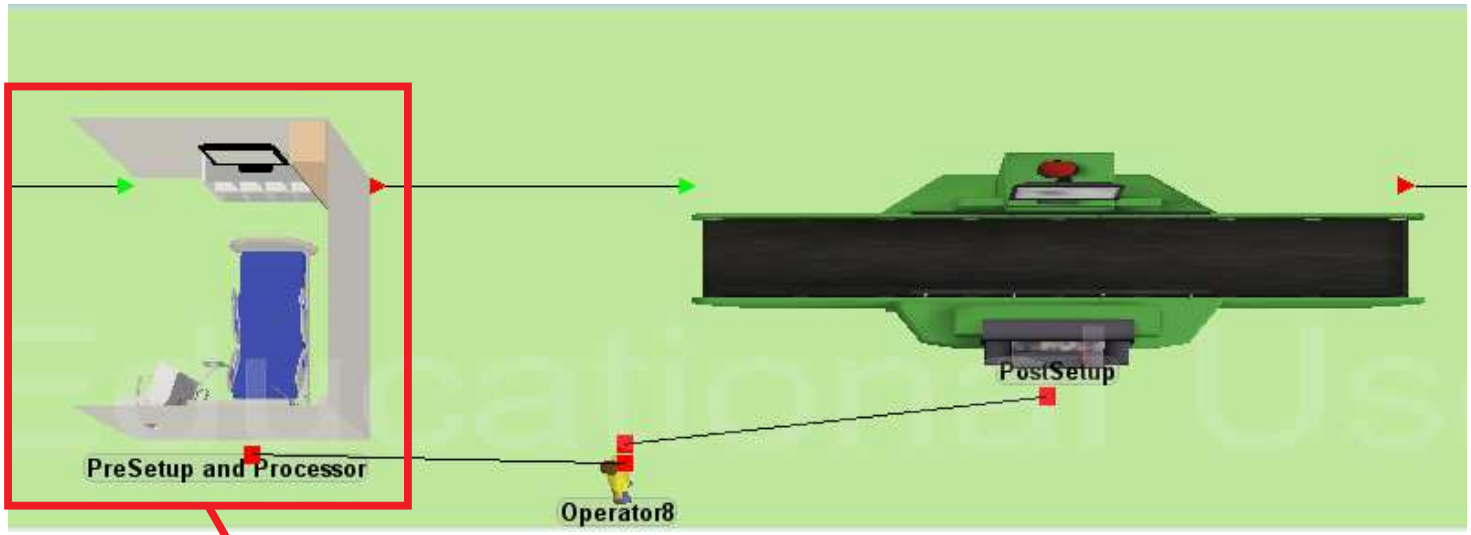
    setnodenum(rank(variables(centerobject(current,1)),6),5);
  - PostSetup > Triggers > OnExit > Custom Code >

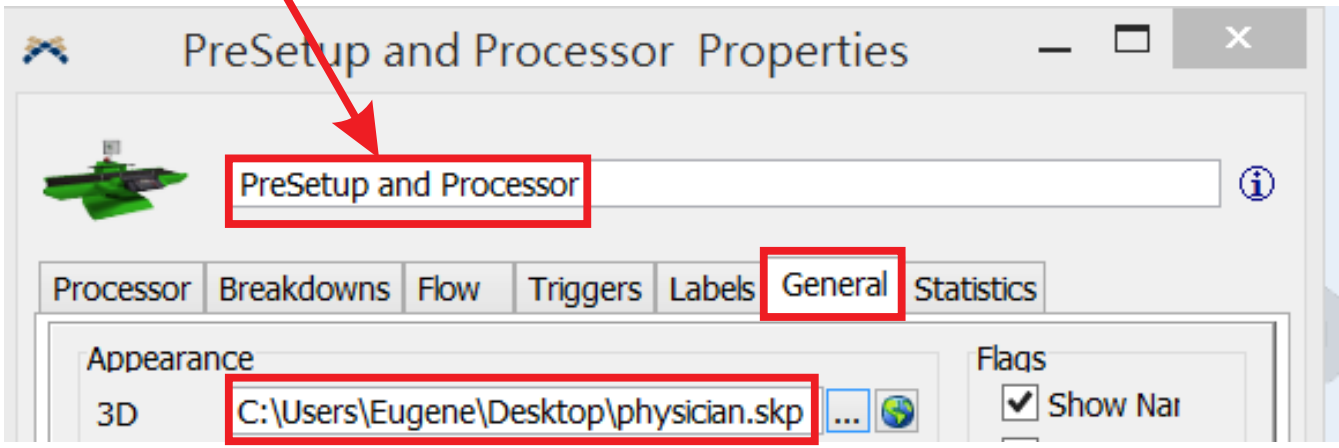
    setnodenum(rank(variables(centerobject(current,1)),6),100);

Practice 5

- Run the CMD(命令提示字元) as an Administrator
- Execute: regsvr32 "c:\program files (x86)\flexsim6\program\sketchupreader.dll" (Note: In one line. If command succeed, the image will show up. See figure below.)
- Go to https://3dwarehouse.sketchup.com/ and download a sketchup image
- Object > General > Appearance > 3D > load your sketchup image (See next page)




PreSetup and Processor
Operator8
PostSetup


PreSetup and Processor Properties
PreSetup and Processor
Processor
Breakdowns
Flow
Triggers
Labels
General
Statistics
Appearance
3D
C:\Users\Eugene\Desktop\physician.skp
Flags
Show Nar

getnodenum and getlabelnum

- In PE model,comparing two ways to get label number(see next page)
- XRay > Flow > Send to > Custom Code:
- 1.getnodenum(label(item,"XRay_Label"));
- 2.getlabelnum(item,"XRay_Label");

/XRay - Send To Port*

XRay - Send To Port*

```
/**Custom Code*/
treenode item = parnode(1);
treenode current = ownerobject(c);

//int xray=getnodenum(label(item,"XRay_Label"));
//int ultrasound=getnodenum(label(item,"Ultrasound_Label"));
//int electrocar=getnodenum(label(item,"Electrocar_Label"));

int xray=getlabelnum(item,"XRay_Label");
int ultrasound=getlabelnum(item,"Ultrasound_Label");
int electrocar=getlabelnum(item,"Electrocar_Label");

int value=xray+ultrasound+electrocar;

if(value==3)
{
    return 1;
}
else
```