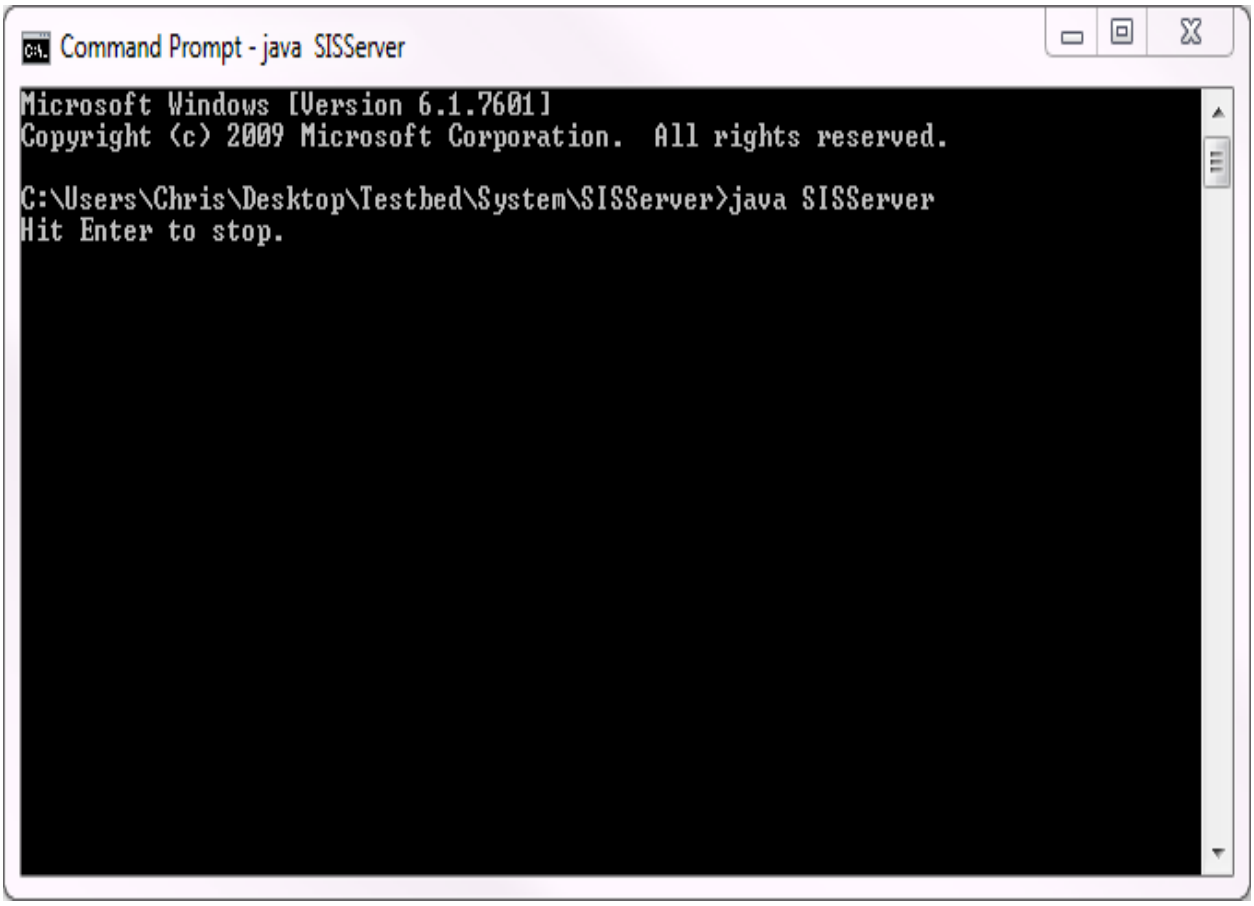
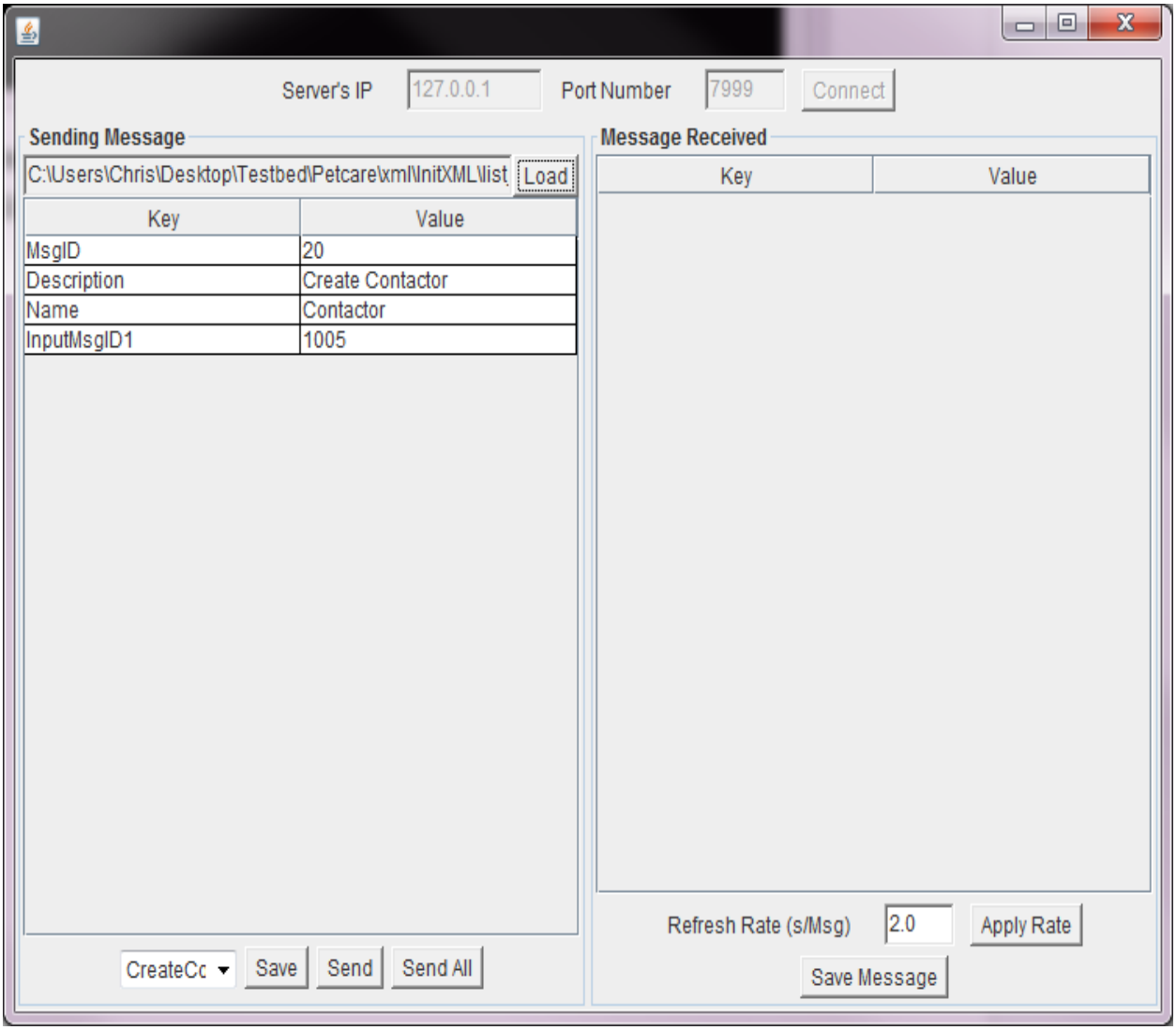
As you can see, the first step we perform is to create the SIS server on my machine by running java SISServer

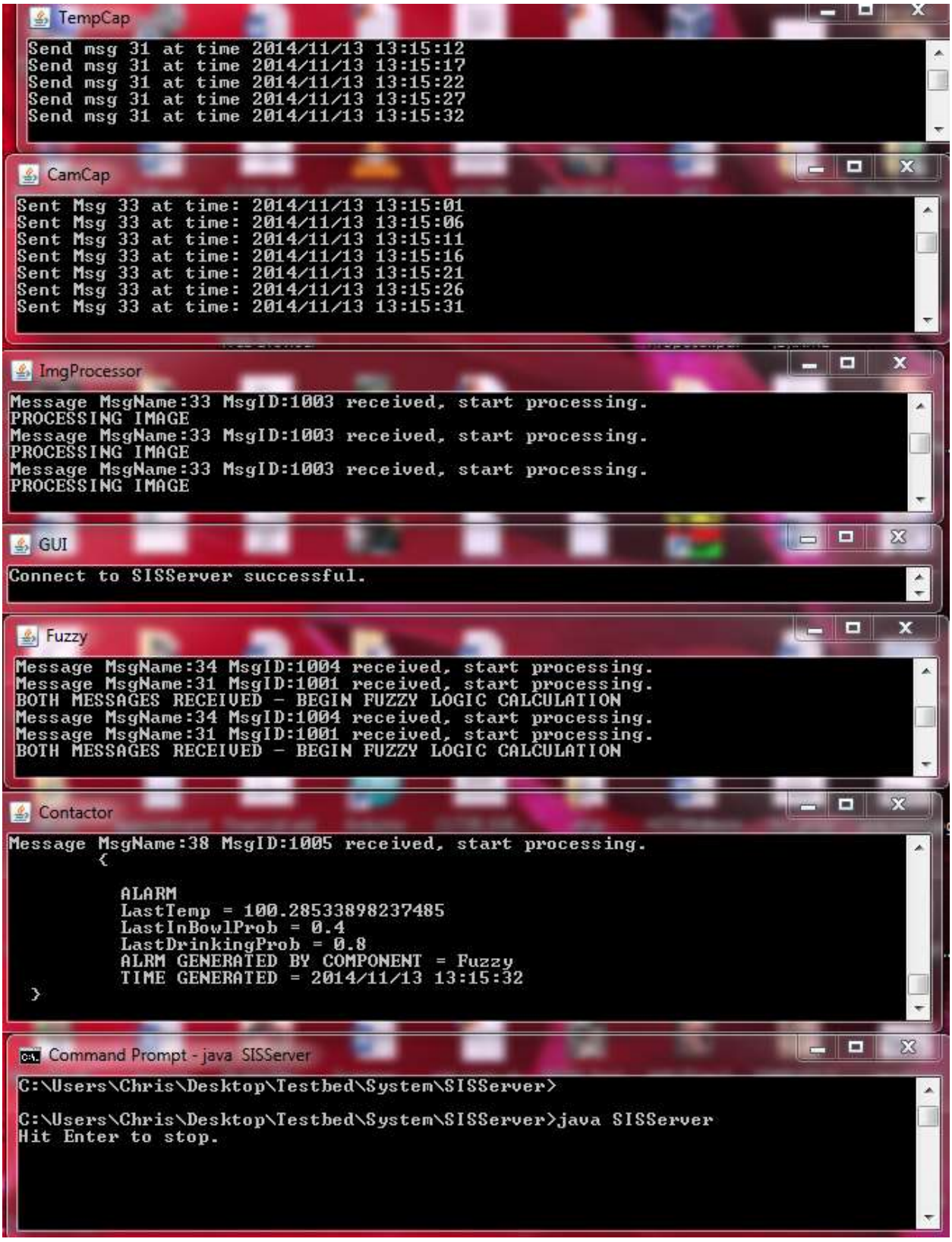


The SIS server is now listening. We then start PRJRemote.jar and make a connection to the SIS server. We load all the initialization XML files as shown and click the SEND ALL button to send the messages to SIS to initialize the components.



Once the Send ALL button has send all the initialization messages, the system is ready to run the components. The RUN components script file runs all the components and connects them to the server.

The component ensemble has been initialized and connected to the SIS system. The system begins reading input and processing data.


TempCap
Send msg 31 at time 2014/11/13 13:15:12
Send msg 31 at time 2014/11/13 13:15:17
Send msg 31 at time 2014/11/13 13:15:22
Send msg 31 at time 2014/11/13 13:15:27
Send msg 31 at time 2014/11/13 13:15:32
CamCap
Sent Msg 33 at time: 2014/11/13 13:15:01
Sent Msg 33 at time: 2014/11/13 13:15:06
Sent Msg 33 at time: 2014/11/13 13:15:11
Sent Msg 33 at time: 2014/11/13 13:15:16
Sent Msg 33 at time: 2014/11/13 13:15:21
Sent Msg 33 at time: 2014/11/13 13:15:26
Sent Msg 33 at time: 2014/11/13 13:15:31
ImgProcessor
Message MsgName:33 MsgID:1003 received, start processing.
PROCESSING IMAGE
Message MsgName:33 MsgID:1003 received, start processing.
PROCESSING IMAGE
Message MsgName:33 MsgID:1003 received, start processing.
PROCESSING IMAGE
GUI
Connect to SISServer successful.
Fuzzy
Message MsgName:34 MsgID:1004 received, start processing.
Message MsgName:31 MsgID:1001 received, start processing.
BOTH MESSAGES RECEIVED - BEGIN FUZZY LOGIC CALCULATION
Message MsgName:34 MsgID:1004 received, start processing.
Message MsgName:31 MsgID:1001 received, start processing.
BOTH MESSAGES RECEIVED - BEGIN FUZZY LOGIC CALCULATION
Contactor
Message MsgName:38 MsgID:1005 received, start processing.
{
ALARM
LastTemp = 100.28533898237485
LastInBowlProb = 0.4
LastDrinkingProb = 0.8
ALRM GENERATED BY COMPONENT = Fuzzy
TIME GENERATED = 2014/11/13 13:15:32
}
Command Prompt - java SISServer
C:\Users\Chris\Desktop\Testbed\System\SISServer>
C:\Users\Chris\Desktop\Testbed\System\SISServer>java SISServer
Hit Enter to stop.

Above, we see that TempCap has begun reading from the thermometer file and sending messages. The CamCap is reading from the webcam and sending notifications and sending the mssages. The Img Processor receives the notice of camera input and processes it. Then, the FUZZY component receives message 31 and 34 (from tempcap and imgproc) and performs a calculation. Finally, the contactor generates an alarm if it is over threshold.

Here are some messages generates:

Key	Value
MsgID	1001
Description	Temp Value
Temperature	100.93217411769584
DateTime	2014/11/13 13:15:37

Key	Value
MsgID	1003
Description	Cam Notification
FilePath	C:\ProgramData\im_tmp8851468713495860110.png
DateTime	2014/11/13 13:15:56

Key	Value
MsgID	1004
Description	Image Stats
DateTimeImg	2014/11/13 13:16:26
DateTime	2014/11/13 13:16:26
InBowlProb	0.4
DrinkingProb	0.8

Key	Value
MsgID	1005
Description	Fuzzy Logic SIG_ALARM
DateTime	2014/11/13 13:16:07
Name	Fuzzy
LastInBowlProb	0.4
LastDrinkingProb	0.8
LastTemp	100.34497850365607