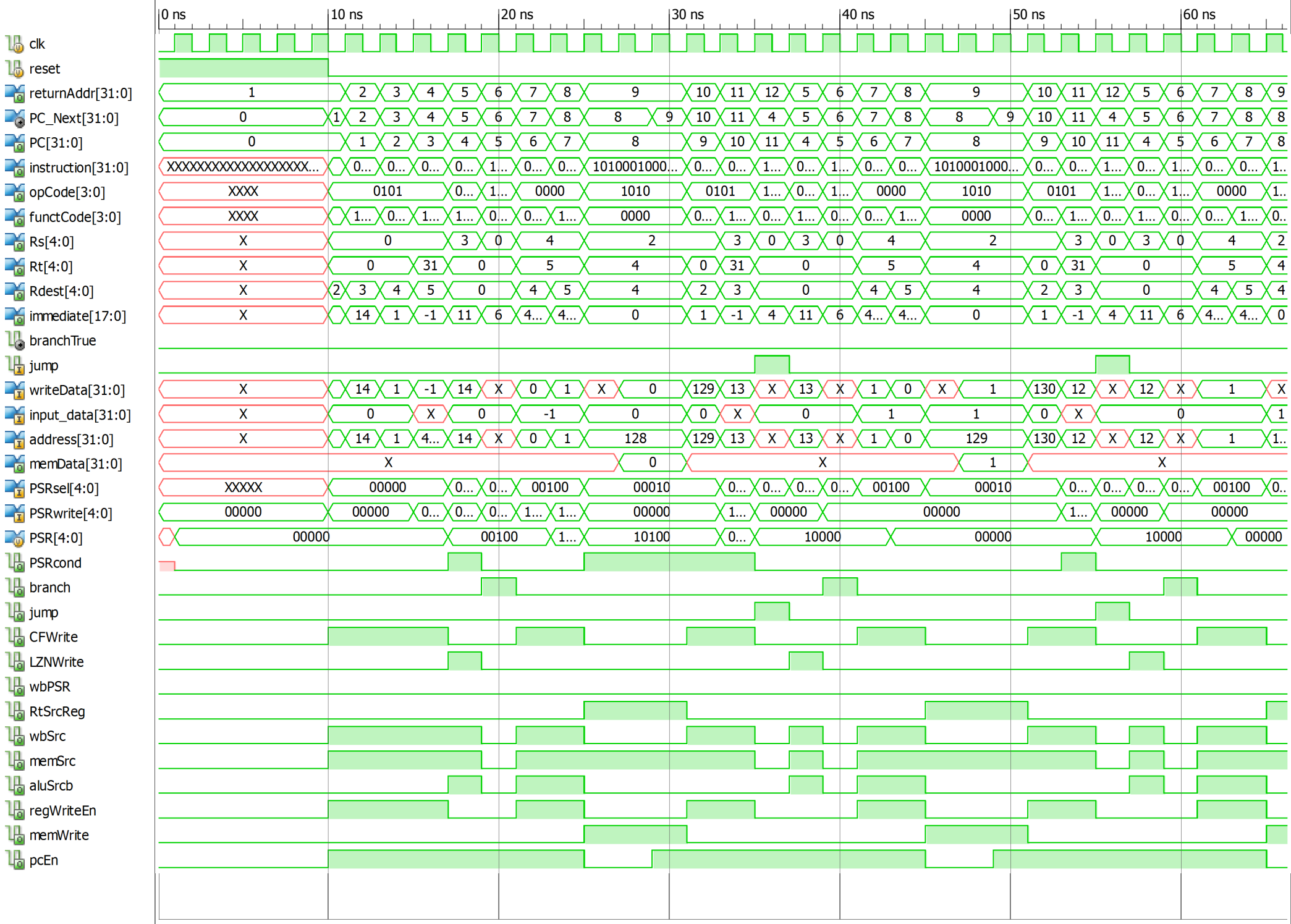
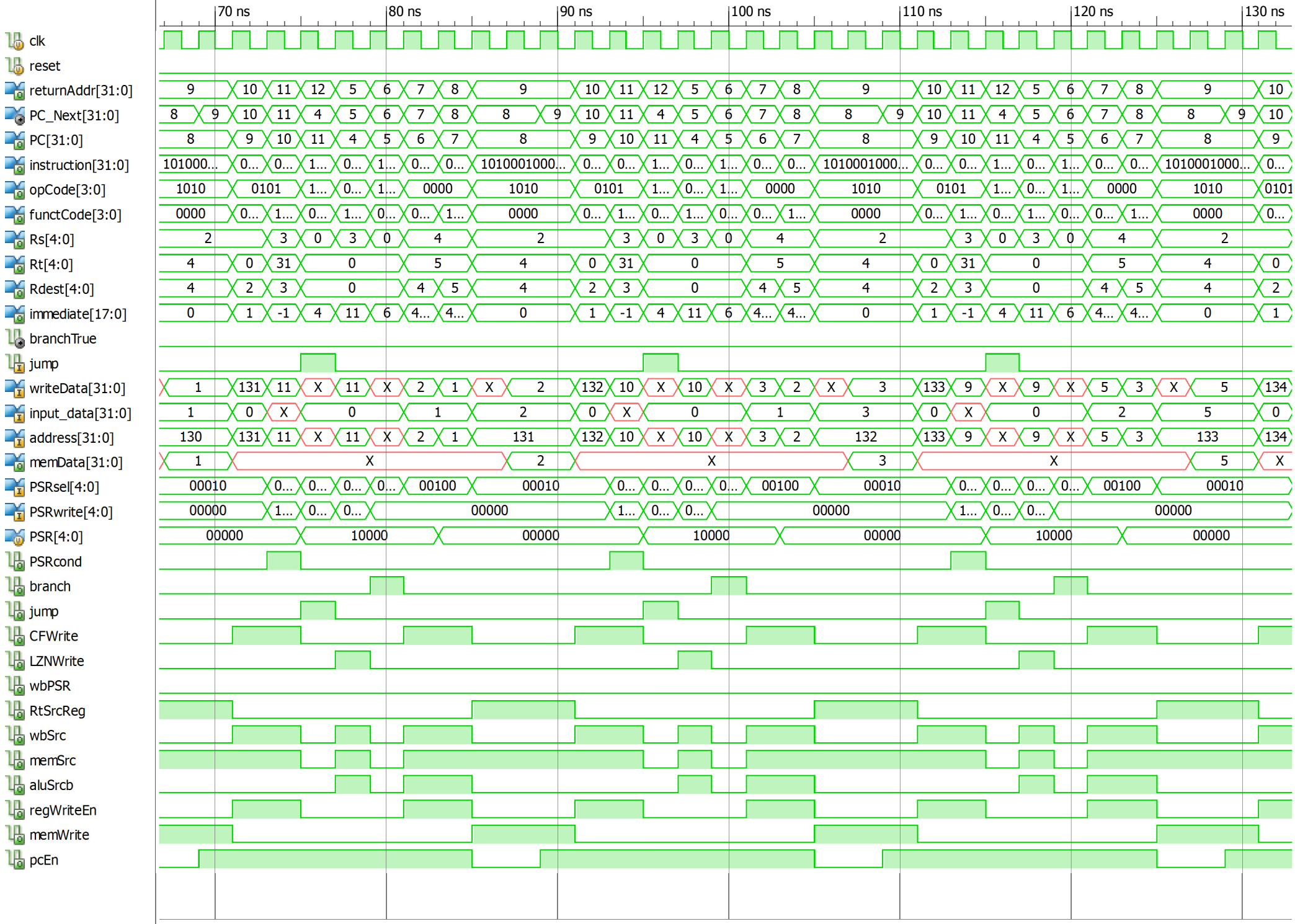
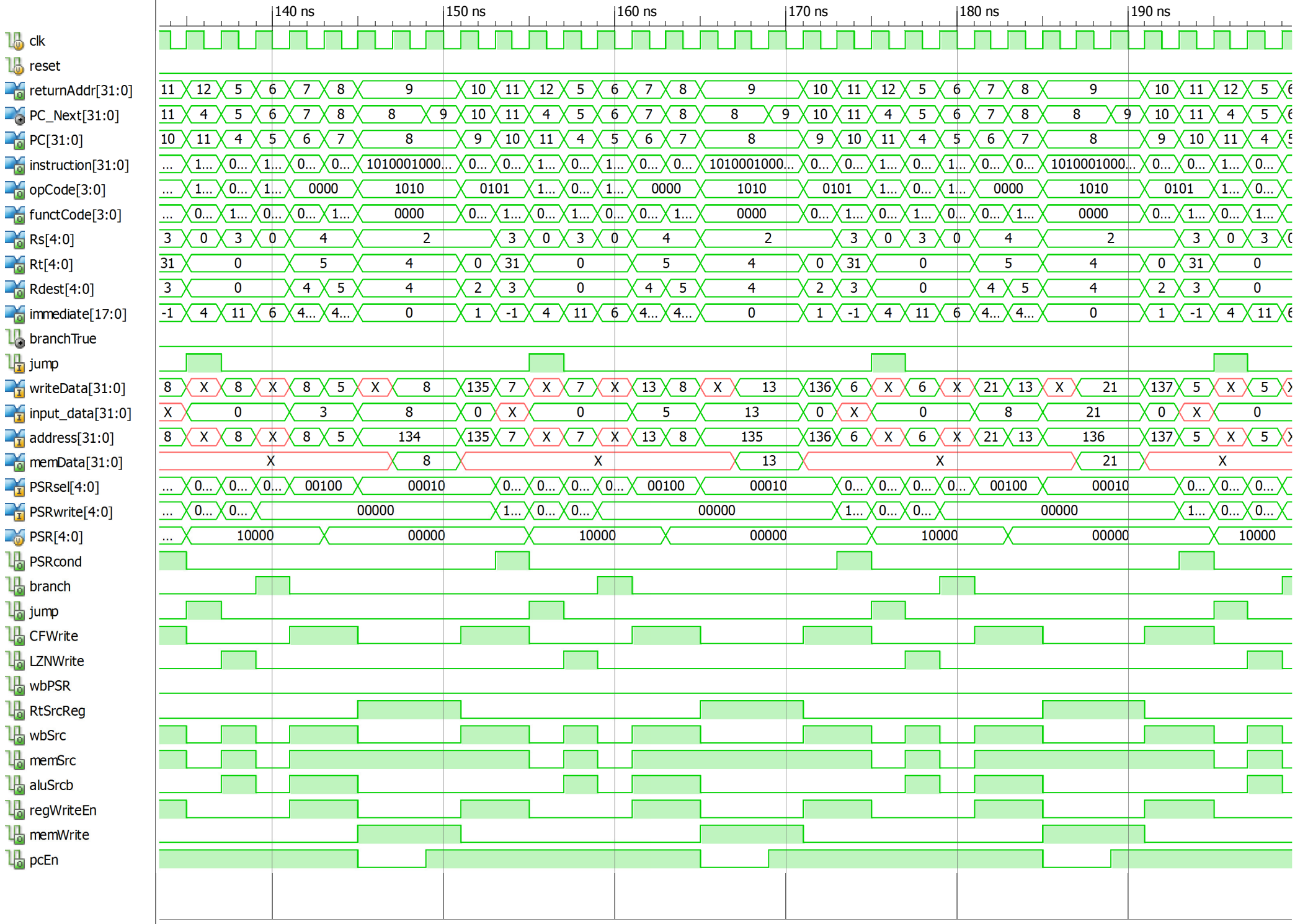
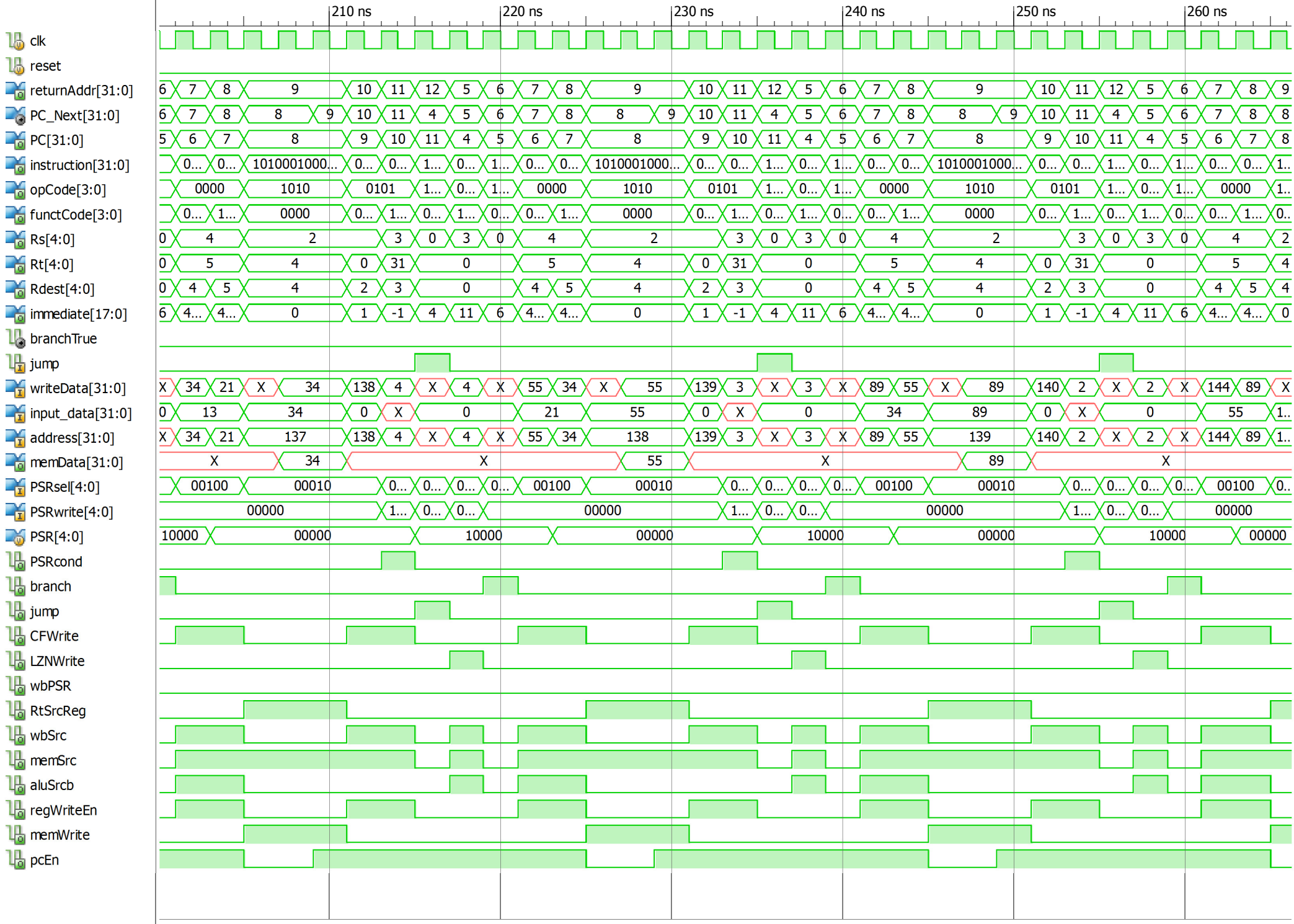
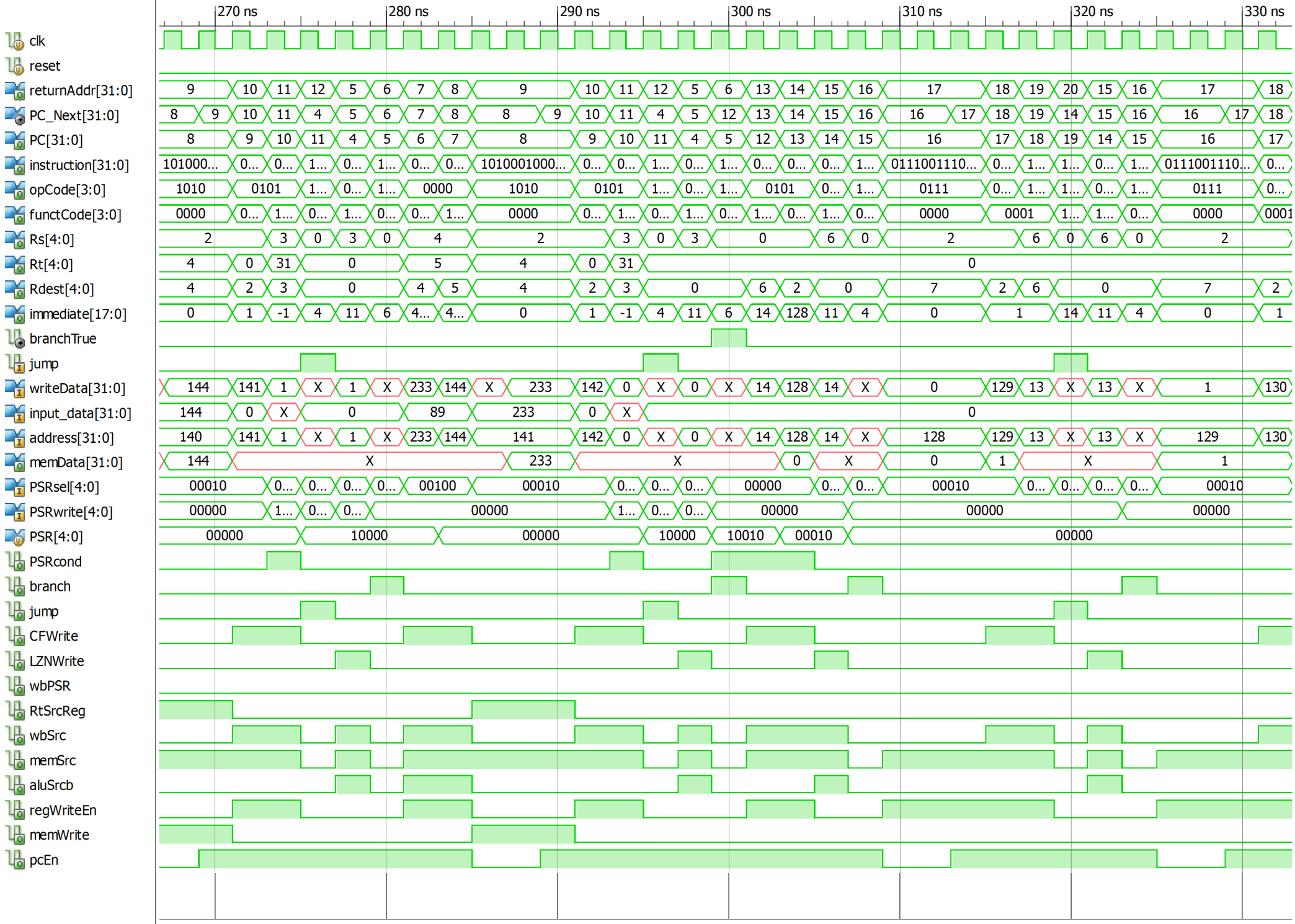
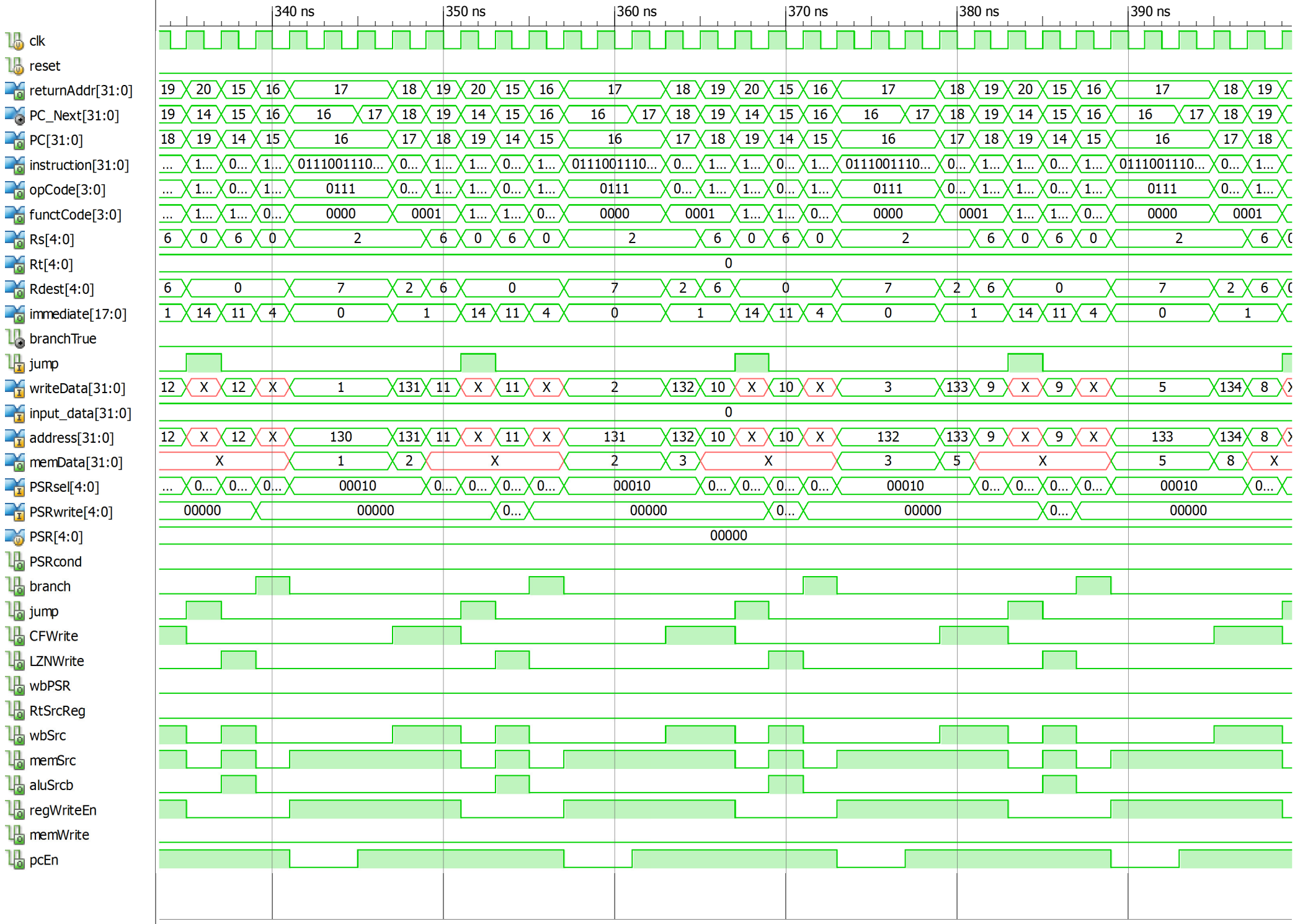

0 ns
10 ns
20 ns
30 ns
40 ns
50 ns
60 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

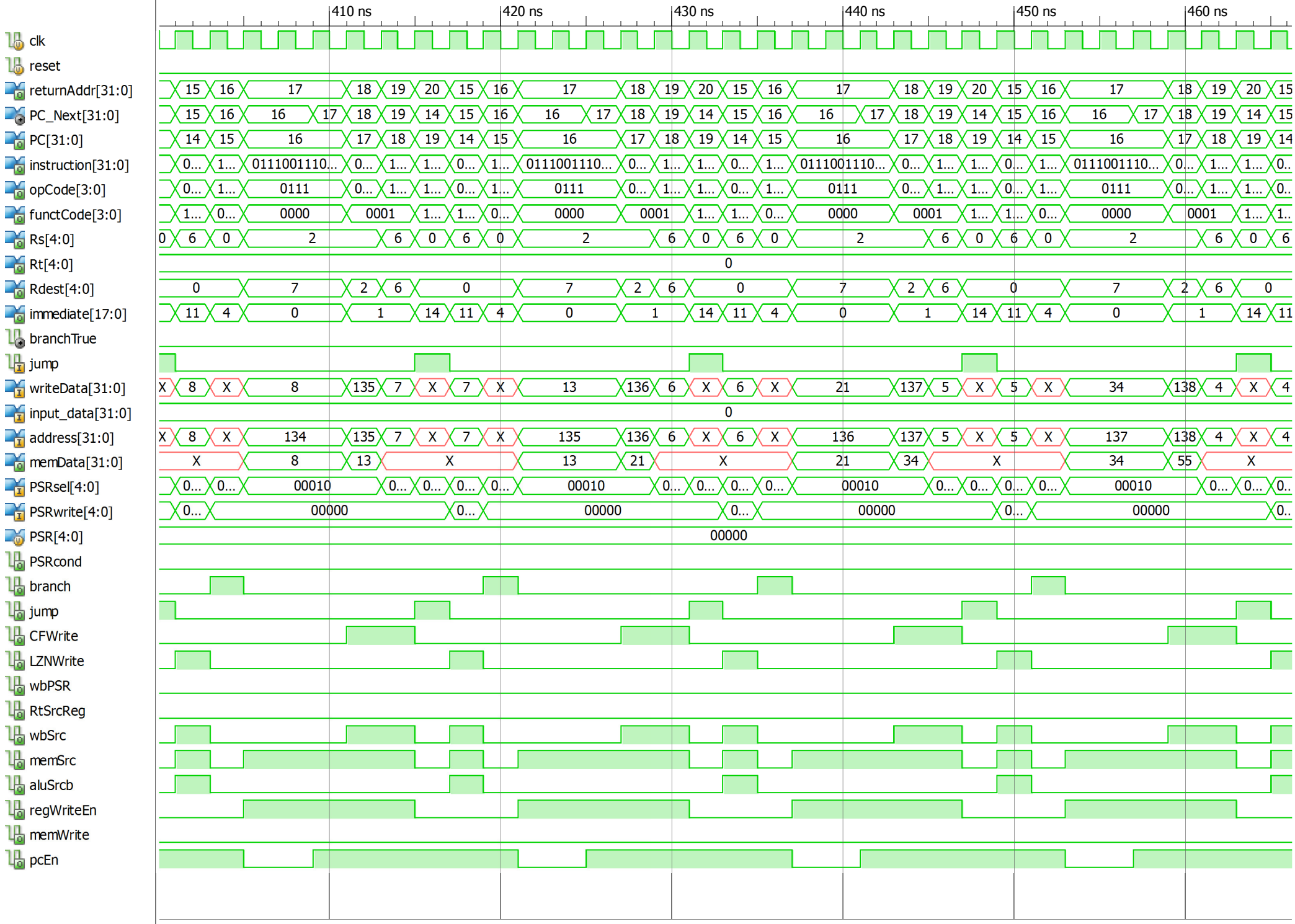

70 ns
80 ns
90 ns
100 ns
110 ns
120 ns
130 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

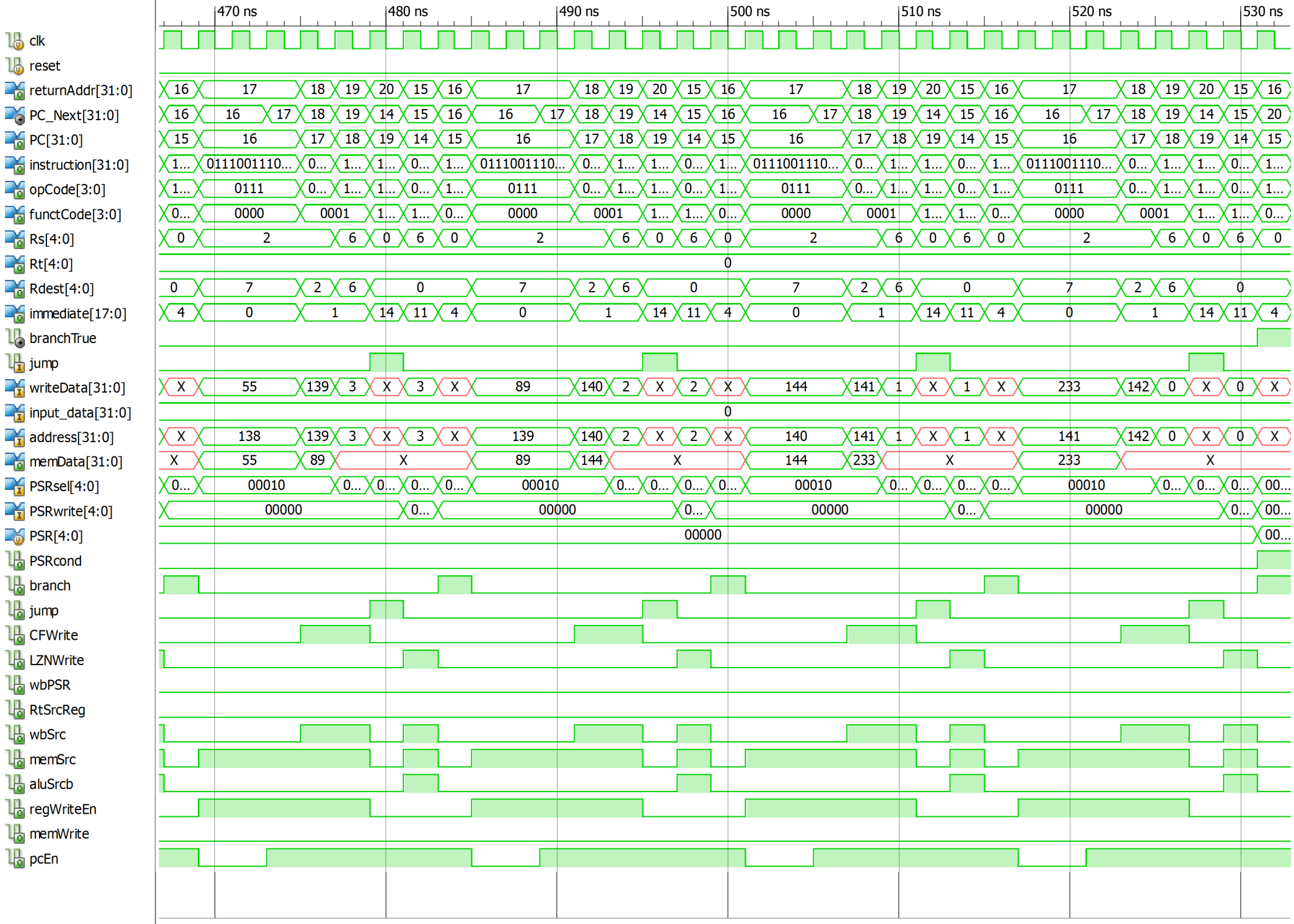

140 ns
150 ns
160 ns
170 ns
180 ns
190 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

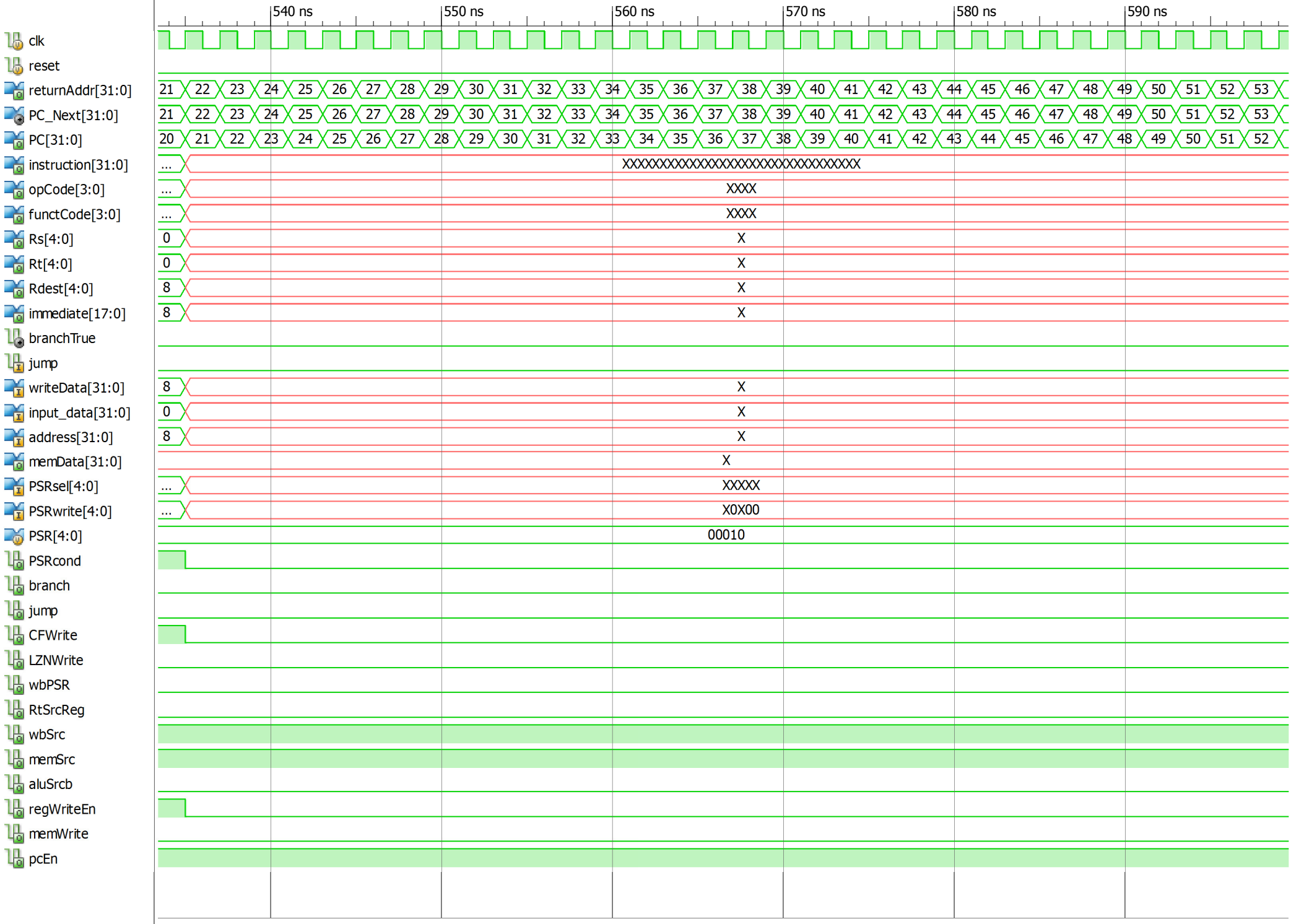

210 ns
220 ns
230 ns
240 ns
250 ns
260 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

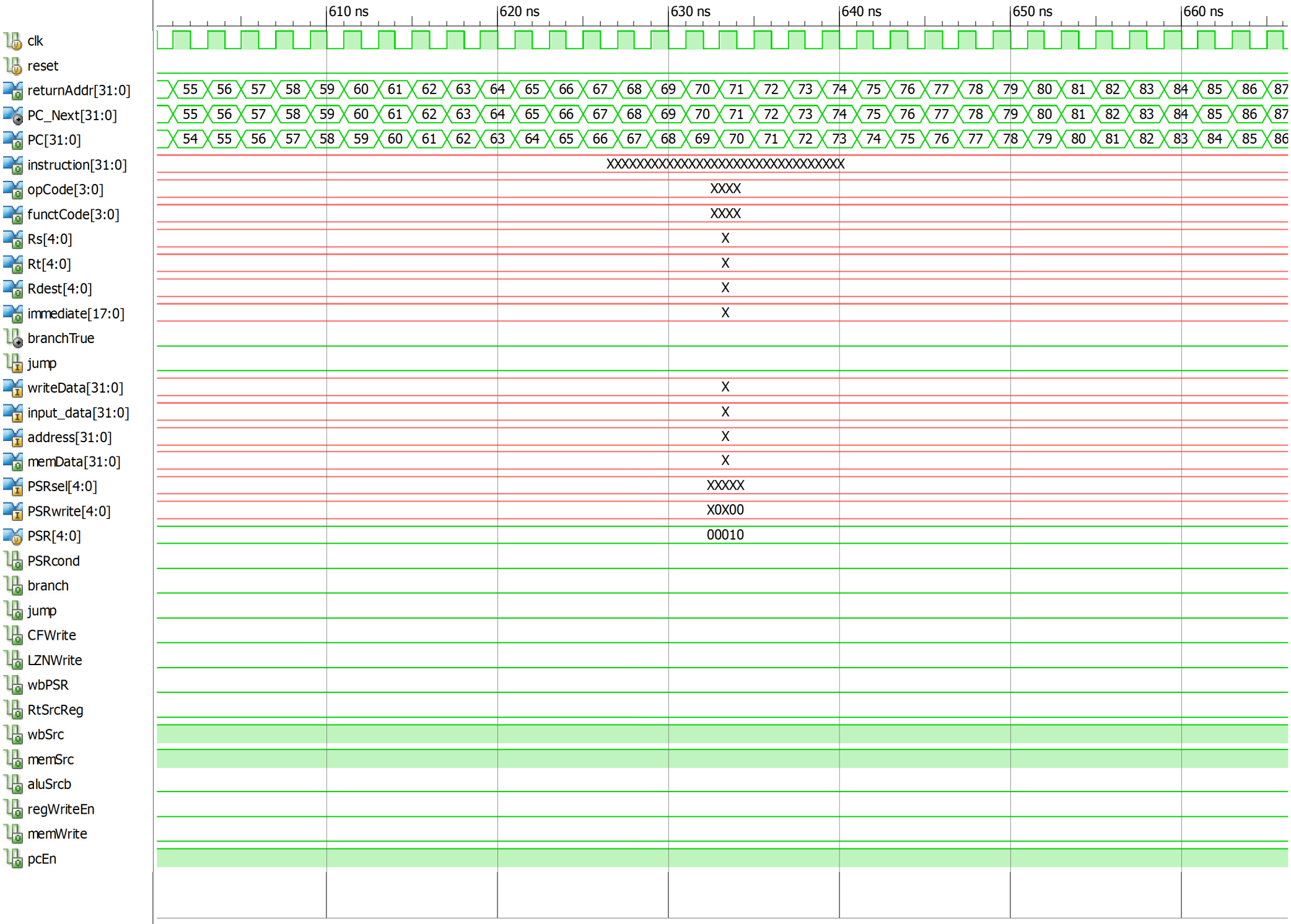

270 ns
280 ns
290 ns
300 ns
310 ns
320 ns
330 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

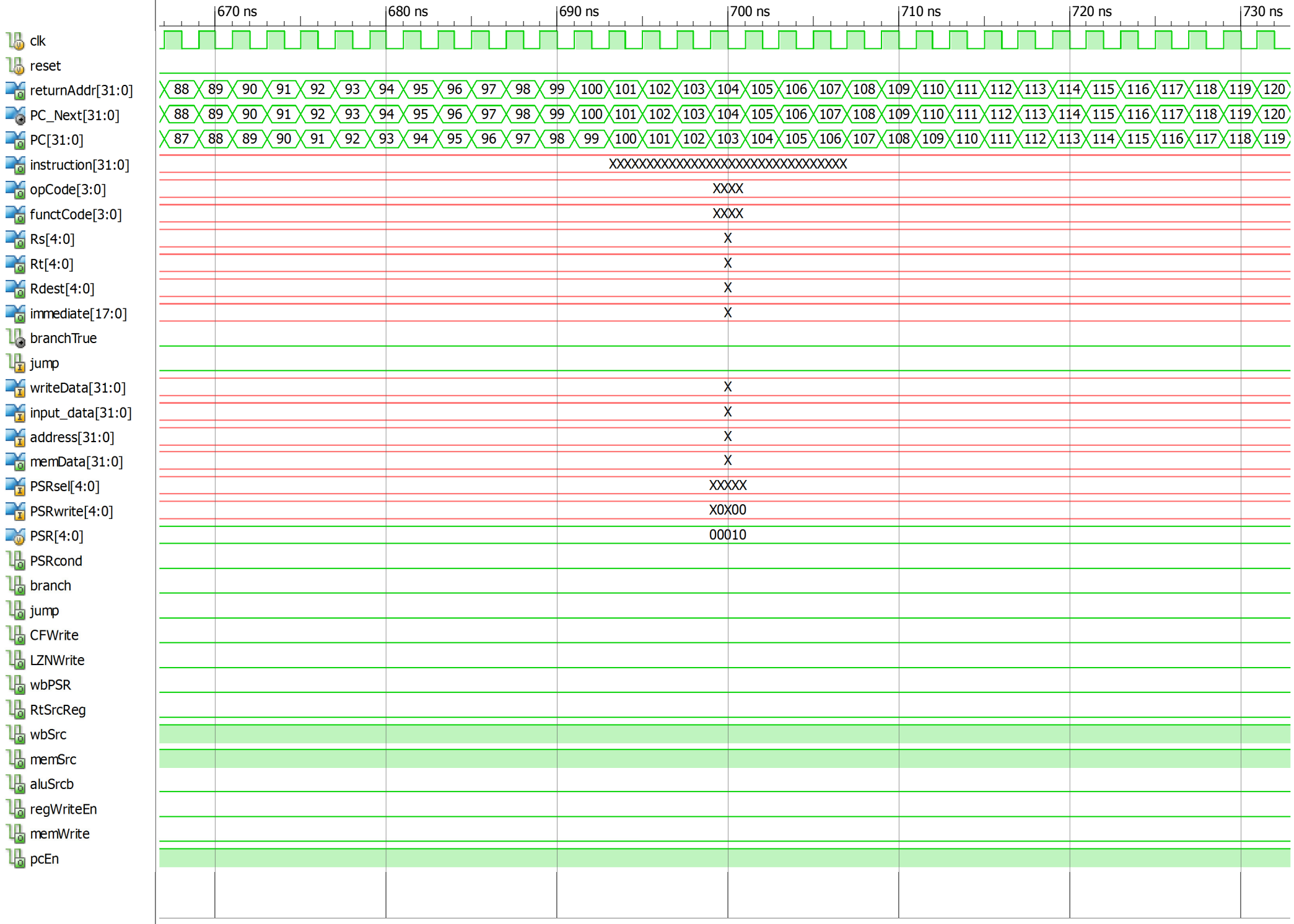

340 ns
350 ns
360 ns
370 ns
380 ns
390 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

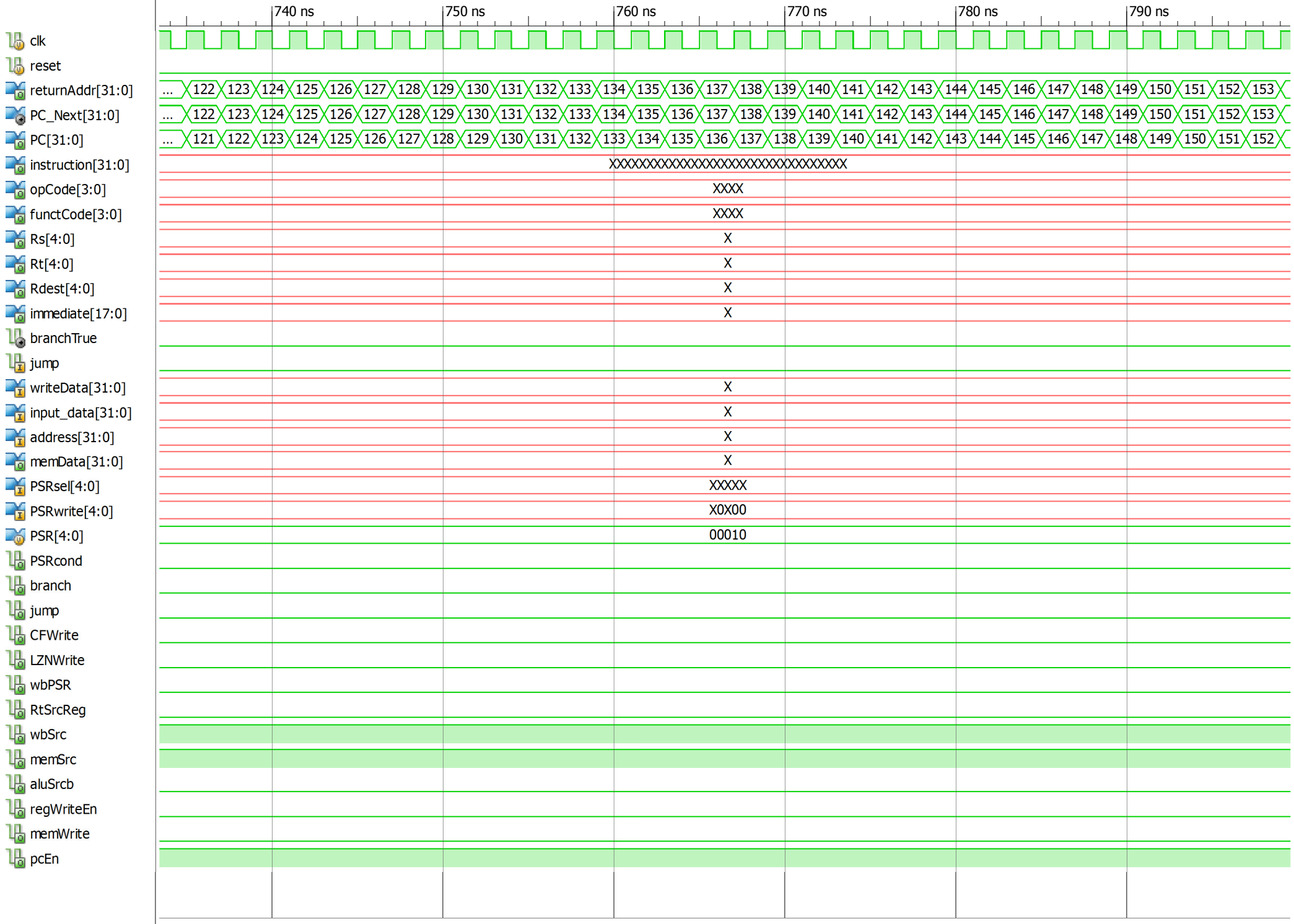

410 ns
420 ns
430 ns
440 ns
450 ns
460 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

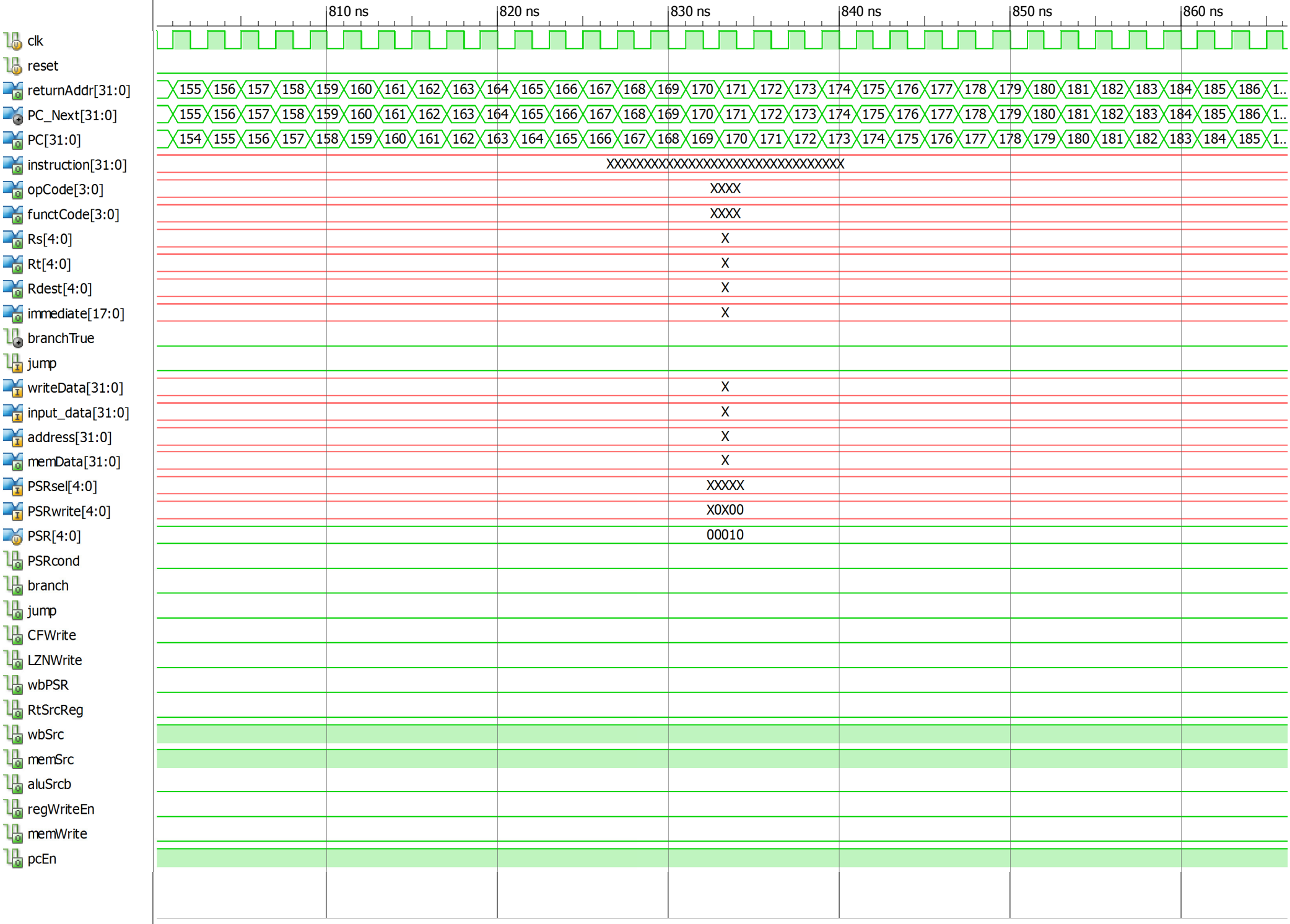

470 ns
480 ns
490 ns
500 ns
510 ns
520 ns
530 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

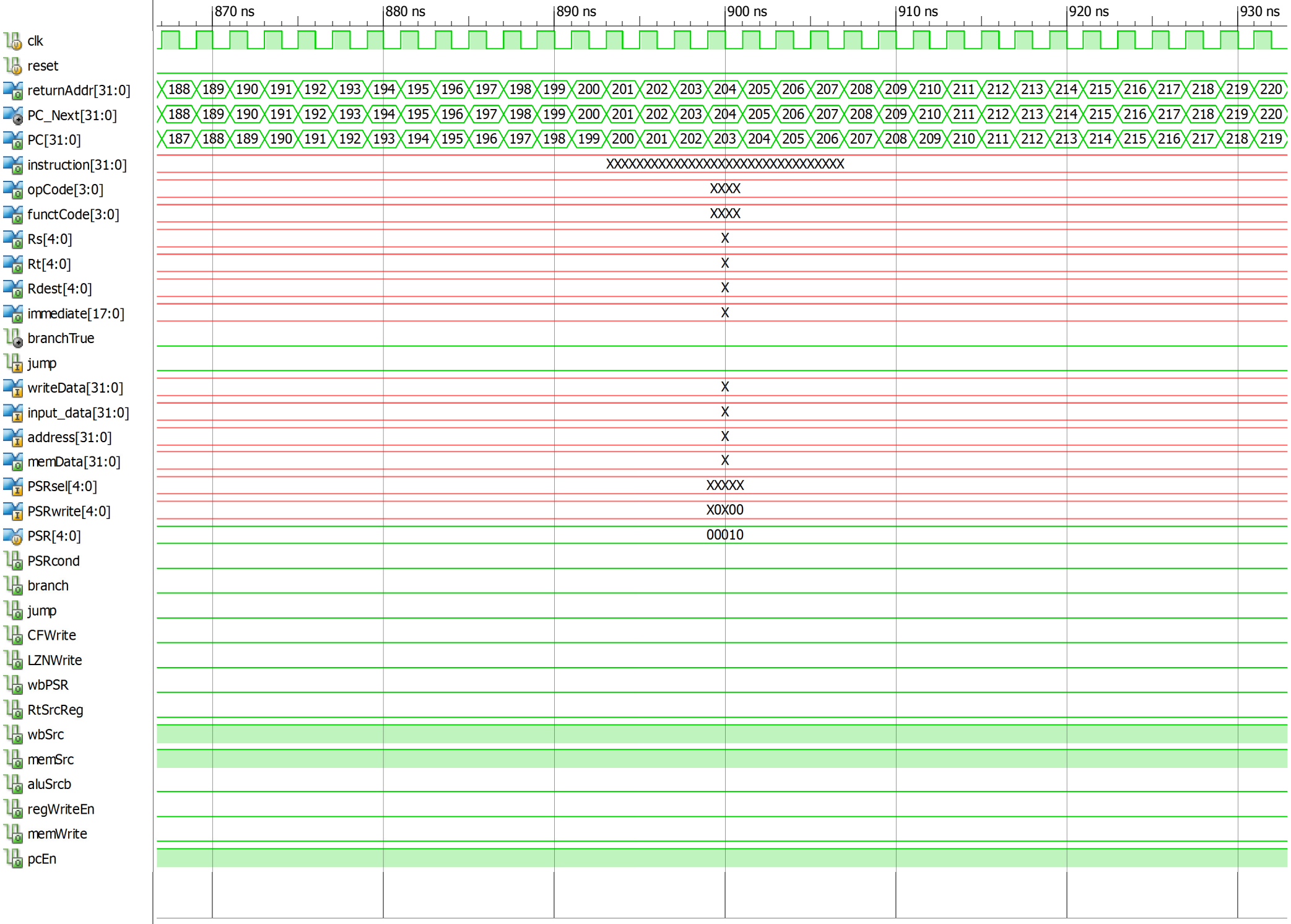

540 ns
550 ns
560 ns
570 ns
580 ns
590 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn


610 ns
620 ns
630 ns
640 ns
650 ns
660 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn
55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87
55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87
54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXX
XXXX
X
X
X
X
X
X
X
X
XXXXX
X0X00
00010


670 ns
680 ns
690 ns
700 ns
710 ns
720 ns
730 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn


740 ns
750 ns
760 ns
770 ns
780 ns
790 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn
... 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153
... 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153
... 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXX
XXXX
X
X
X
X
X
X
X
X
XXXXX
X0X00
00010


810 ns
820 ns
830 ns
840 ns
850 ns
860 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn
155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 1..
155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 1..
154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 1..
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXX
XXXX
X
X
X
X
X
X
X
X
XXXXX
X0X00
00010


870 ns
880 ns
890 ns
900 ns
910 ns
920 ns
930 ns
clk
reset
returnAddr[31:0]
PC_Next[31:0]
PC[31:0]
instruction[31:0]
opCode[3:0]
functCode[3:0]
Rs[4:0]
Rt[4:0]
Rdest[4:0]
immediate[17:0]
branchTrue
jump
writeData[31:0]
input_data[31:0]
address[31:0]
memData[31:0]
PSRsel[4:0]
PSRwrite[4:0]
PSR[4:0]
PSRcond
branch
jump
CFWrite
LZNWrite
wbPSR
RtSrcReg
wbSrc
memSrc
aluSrcb
regWriteEn
memWrite
pcEn

940 ns | 950 ns | 960 ns | 970 ns | 980 ns | 990 ns

clk																															
reset																															
returnAddr[31:0]	...	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253
PC_Next[31:0]	...	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253
PC[31:0]	...	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252
instruction[31:0]	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX																																
opCode[3:0]	XXXX																																
functCode[3:0]	XXXX																																
Rs[4:0]	X																																
Rt[4:0]	X																																
Rdest[4:0]	X																																
immediate[17:0]	X																																
branchTrue																																	
jump																																	
writeData[31:0]	X																																
input_data[31:0]	X																																
address[31:0]	X																																
memData[31:0]	X																																
PSRsel[4:0]	XXXXX																																
PSRwrite[4:0]	X0X00																																
PSR[4:0]	00010																																
PSRcond																																	
branch																																	
jump																																	
CFWrite																																	
LZNWrite																																	
wbPSR																																	
RtSrcReg																																	
wbSrc																																	
memSrc																																	
aluSrcb																																	
regWriteEn																																	
memWrite																																	
pcEn																																	