

script—Copie—2-.R

mosta

2021-05-28

```
library(RJSONIO)
## Warning: package 'RJSONIO' was built under R version 4.0.3
library(lme4)
## Warning: package 'lme4' was built under R version 4.0.3
## Loading required package: Matrix
library(lmerTest)
## Warning: package 'lmerTest' was built under R version 4.0.3
##
## Attaching package: 'lmerTest'
## The following object is masked from 'package:lme4':
##
##     lmer
## The following object is masked from 'package:stats':
##
##     step
library(ggplot2)
## Warning: package 'ggplot2' was built under R version 4.0.5
library(mlmRev)
## Warning: package 'mlmRev' was built under R version 4.0.3
library(rjson)
## Warning: package 'rjson' was built under R version 4.0.3
##
## Attaching package: 'rjson'
## The following objects are masked from 'package:RJSONIO':
##
##     fromJSON, toJSON
library(jsonlite)
```

```

## Warning: package 'jsonlite' was built under R version 4.0.3
##
## Attaching package: 'jsonlite'
##
## The following objects are masked from 'package:rjson':
##
##   fromJSON, toJSON
##
## The following objects are masked from 'package:RJSONIO':
##
##   fromJSON, toJSON

library(foreign)
library(curl)

## Warning: package 'curl' was built under R version 4.0.3

library(mlmRev)
library(tidyverse)

## Warning: package 'tidyverse' was built under R version 4.0.5

## -- Attaching packages ----- tidyverse
1.3.1 --

## v tibble  3.0.4      v dplyr   1.0.6
## v tidyr   1.1.3      v stringr 1.4.0
## v readr   1.4.0      v forcats 0.5.1
## v purrr   0.3.4

## Warning: package 'tibble' was built under R version 4.0.3
## Warning: package 'tidyr' was built under R version 4.0.5
## Warning: package 'readr' was built under R version 4.0.3
## Warning: package 'purrr' was built under R version 4.0.3
## Warning: package 'dplyr' was built under R version 4.0.5
## Warning: package 'stringr' was built under R version 4.0.3
## Warning: package 'forcats' was built under R version 4.0.5

## -- Conflicts -----
tidyverse_conflicts() --
## x tidyr::expand()      masks Matrix::expand()
## x dplyr::filter()      masks stats::filter()
## x purrr::flatten()     masks jsonlite::flatten()
## x jsonlite::fromJSON() masks rjson::fromJSON(), RJSONIO::fromJSON()
## x dplyr::lag()         masks stats::lag()
## x tidyr::pack()        masks Matrix::pack()
## x readr::parse_date() masks curl::parse_date()

```

```

## x jsonlite::toJSON()   masks rjson::toJSON(), RJSONIO::toJSON()
## x tidyr::unpack()      masks Matrix::unpack()

library(purrr)
library(tidyr)
library(dplyr)
library(reshape2)

## Warning: package 'reshape2' was built under R version 4.0.3

##
## Attaching package: 'reshape2'

## The following object is masked from 'package:tidyr':
##
##      smiths

library(RColorBrewer)

## Warning: package 'RColorBrewer' was built under R version 4.0.3

part1 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-12-07-32-08.json")))
part2 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-13-19-27-50.json" )))
part3 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-13-20-10-26.json")))
part4 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-13-22-24-49.json")))
part5 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-16-15-14-26.json")))
part6 = data.frame(as.list(fromJSON(txt = "https://rafael.laboissiere.net/m1-
miashs-2021/Wax9le/data/2021-05-16-19-23-07.json")))

#met tous les data frames des participants dans un seul dataframe
tousPart = rbind(part1, part2, part3, part4, part5, part6)
##

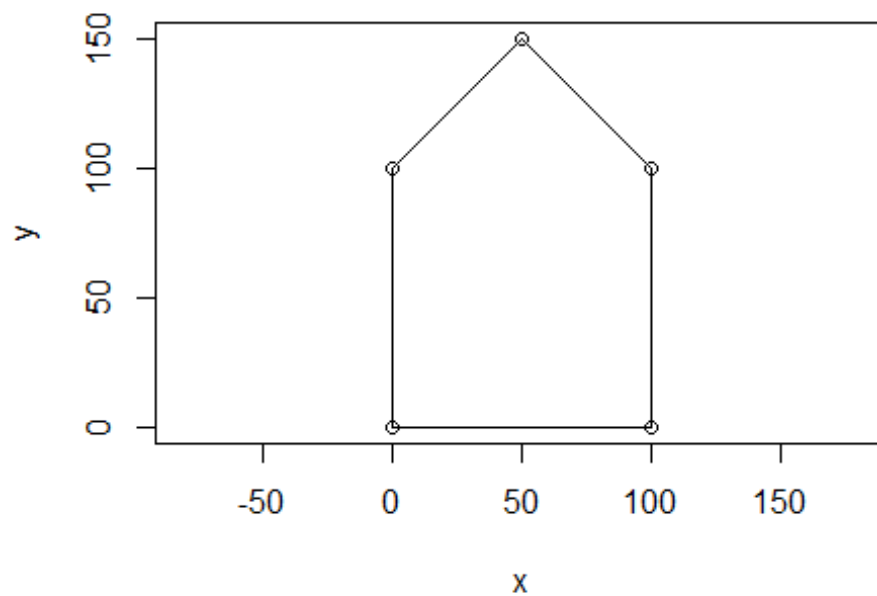
##creation d'un data frame

subject <- c(tousPart$id)
frequency <- c(2)
congruency <- c(tousPart$essais.congruent)
MT <- c(tousPart$essais.reactionTime)
AUC <- c()
erreurs <- c(tousPart$essais.erreur)
IT <- c(tousPart$essais.tempsInit)
groupe <- c(tousPart$groupe)

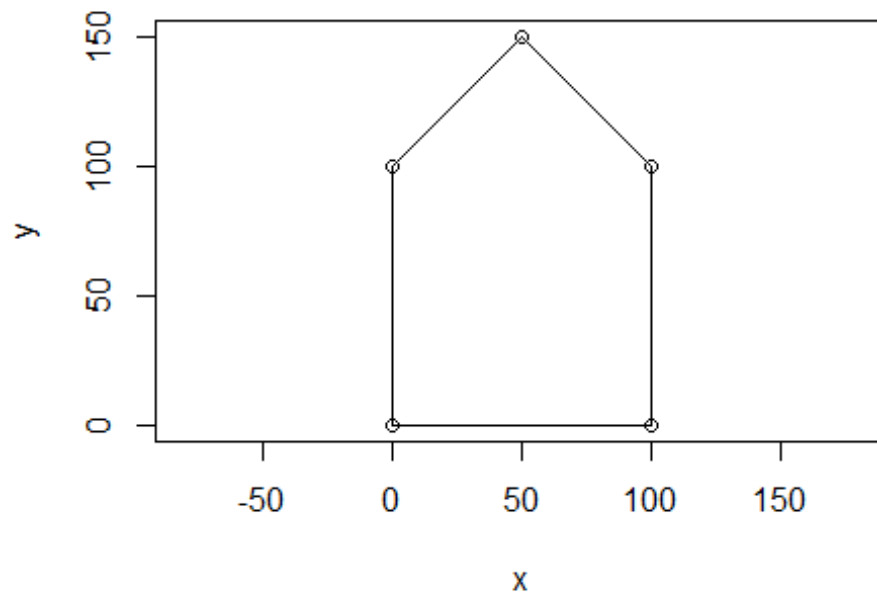
```

```
#####  
## fonction pour calculer l'aire sous la courbe
```

```
polyarea <- function (x, y) {  
  n <- length (x)  
  return (abs (sum (x [1 : (n - 1)] * y [2 : n] - y [1 : (n - 1)] * x [2 :  
n])) / 2)  
}  
x <- c (0, 0, 50, 100, 100, 0)  
y <- c (0, 100, 150, 100, 0, 0)  
plot (x, y, asp = 1)  
lines (x, y)
```



```
polyarea (x, y)  
## [1] 12500  
x <- c (0, 0, 50, 100, 100, 0)  
y <- c (0, 100, 150, 100, 0, 0)  
plot (x, y, asp = 1)  
lines (x, y)
```



```
polyarea (x, y)
## [1] 12500

#####

#####
#boucle qui affiche tous les courbes et calcule l'aires sous la courbe de
chaque essais

xa <- c()
yb <- c()
loop <- tousPart

for(i in 1:nrow(loop)) {      # for-loop over rows

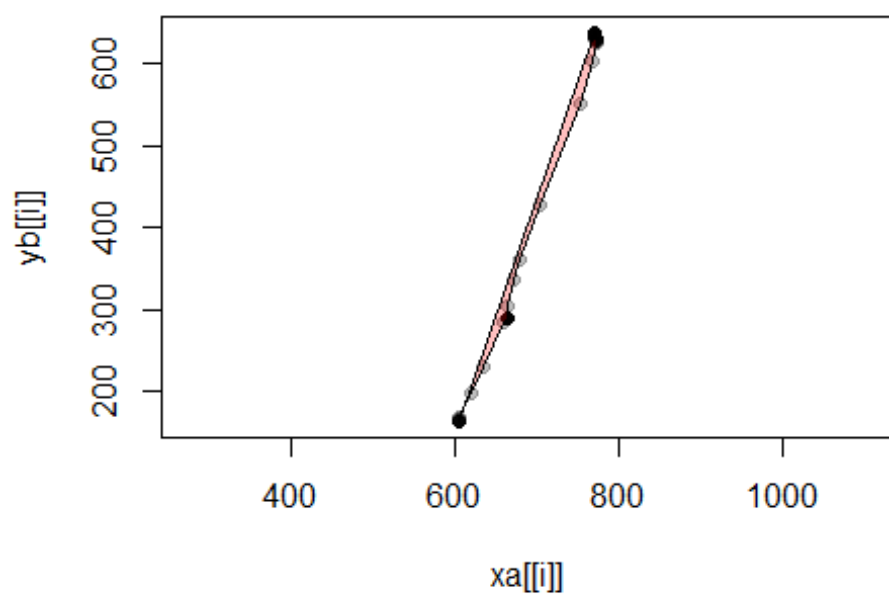
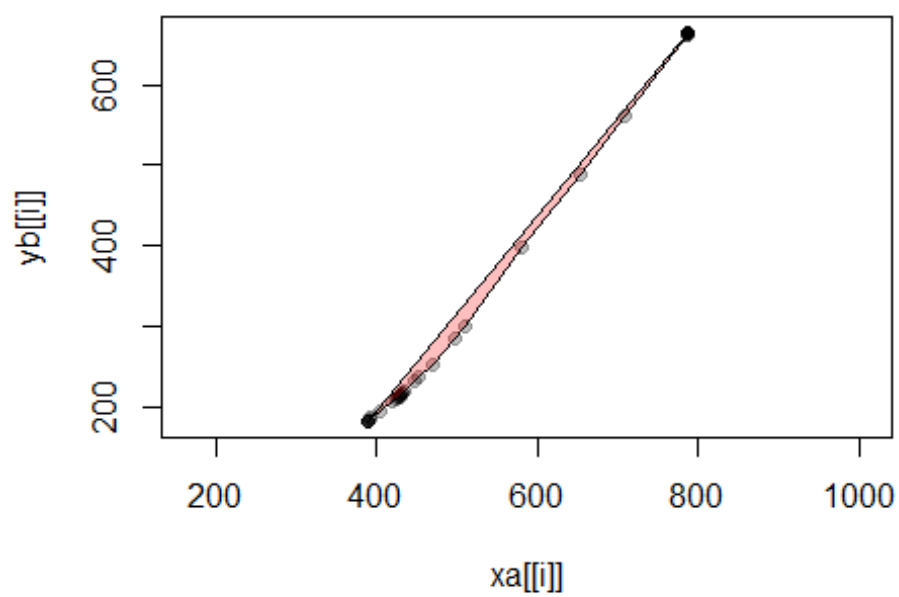
  xa[i] <- loop[i, 8]
  yb[i] <- loop[i, 9]

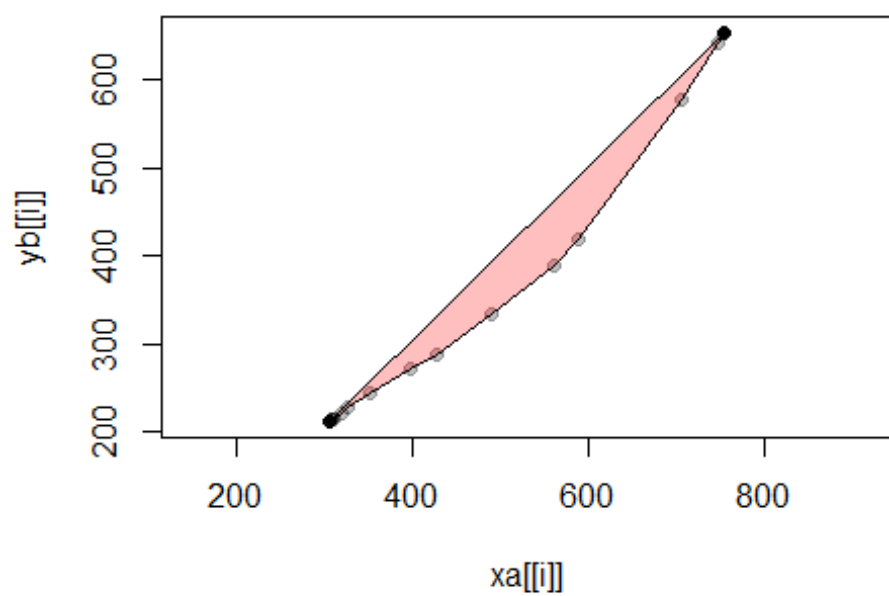
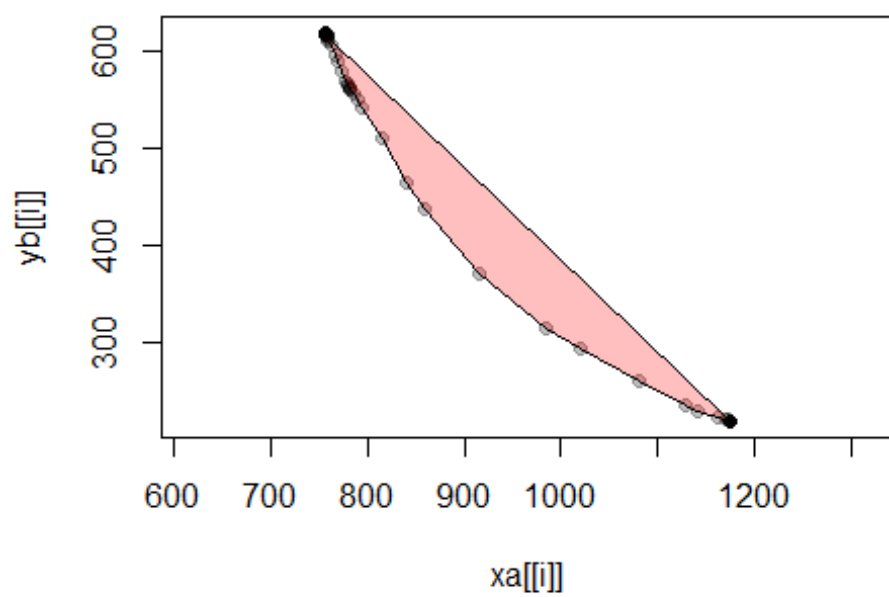
  plot (xa[[i]], yb[[i]], pch = 19, col = "#00000040", asp = 1)

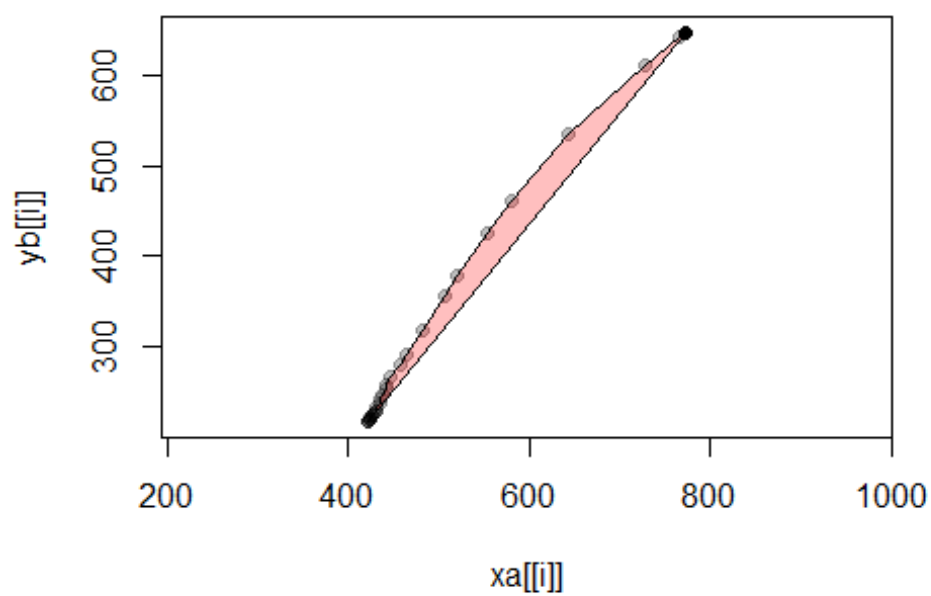
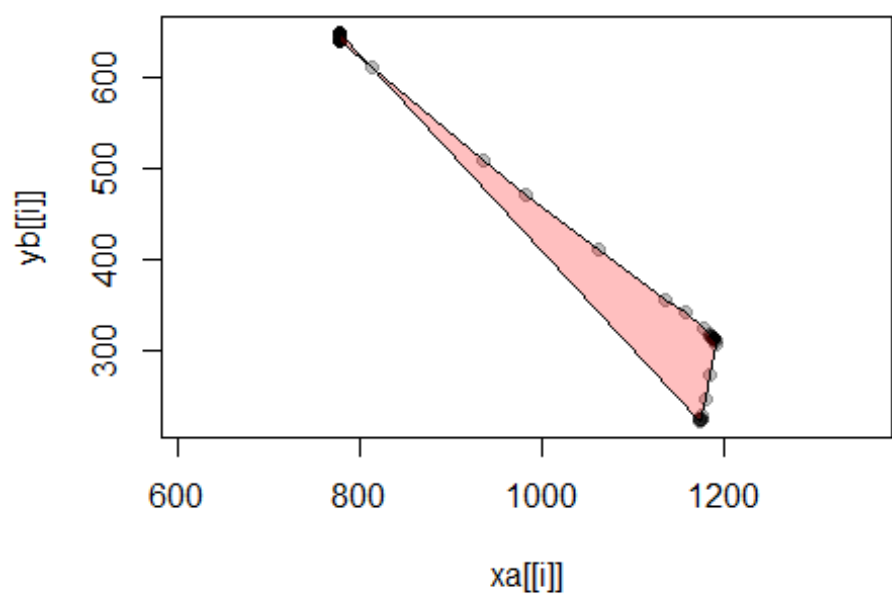
  xa[[i]] <- c (xa[[i]], xa[[i]][1])
  yb[[i]] <- c (yb[[i]], yb[[i]][1])

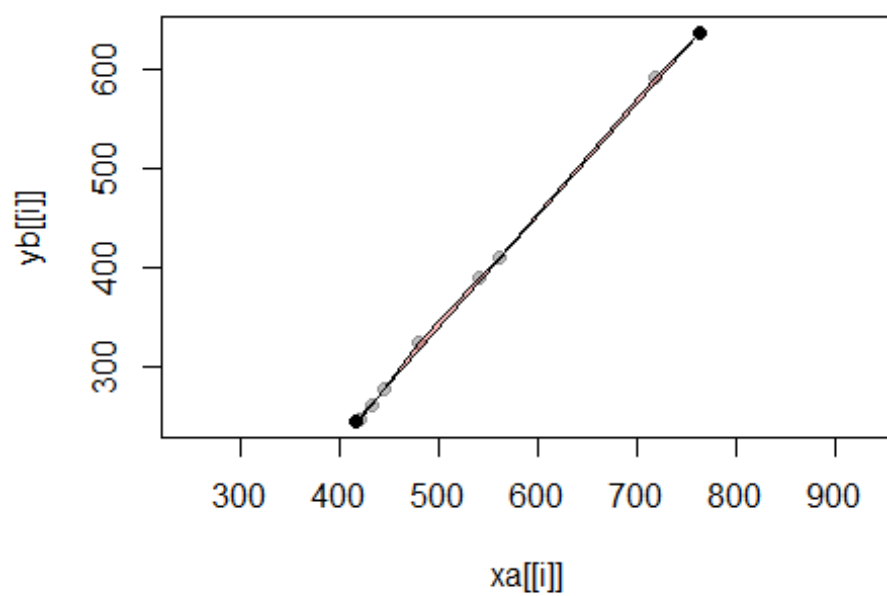
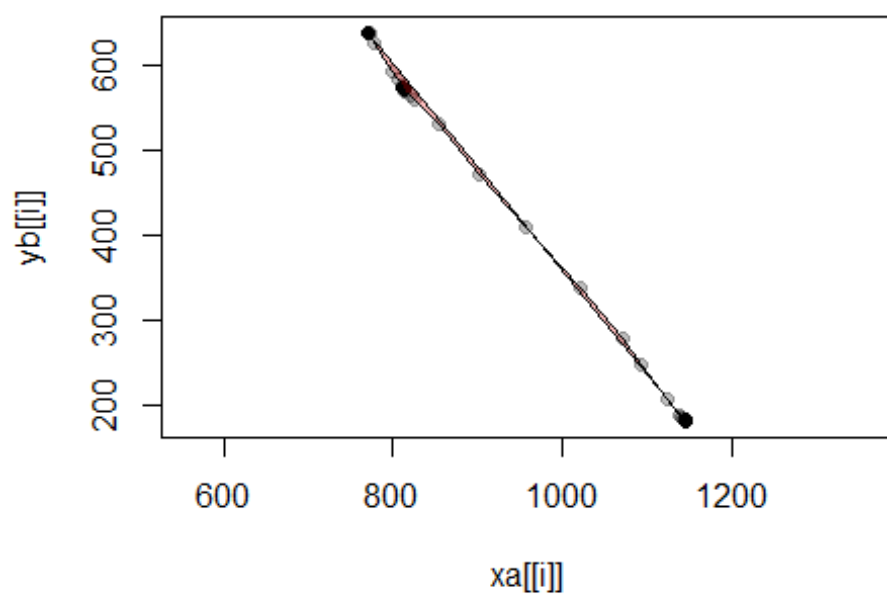
  lines (xa[[i]], yb[[i]])
```

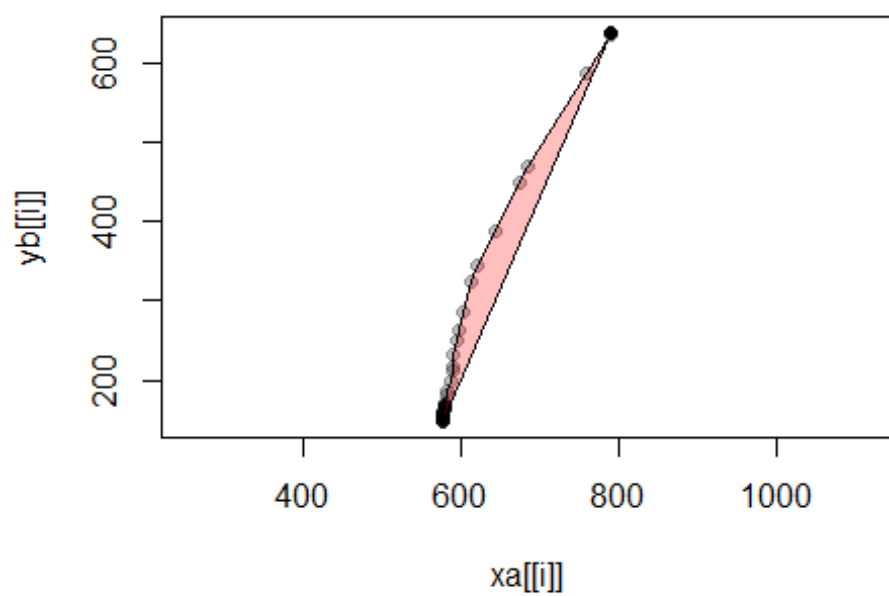
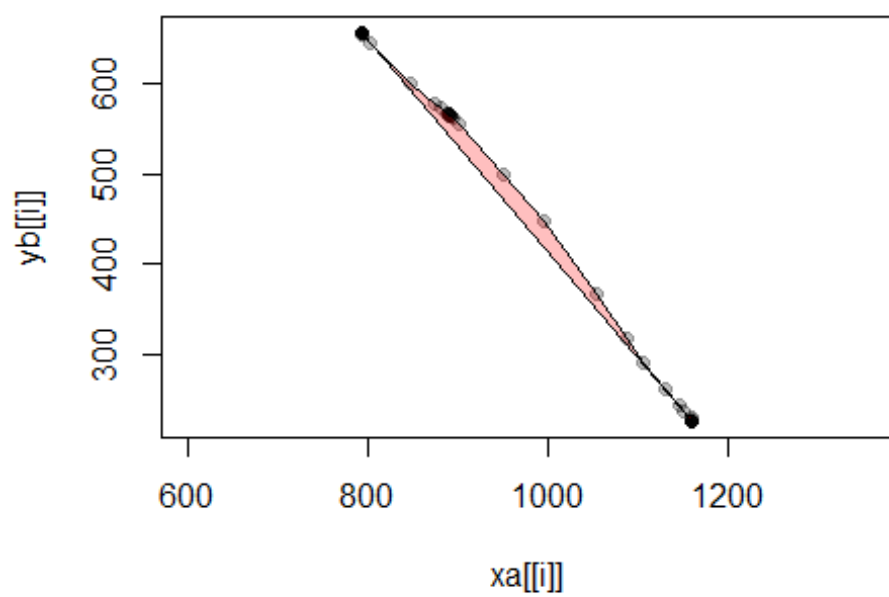
```
AUC[i] <- polyarea (xa[[i]], yb[[i]])  
  
polygon (xa[[i]], yb[[i]], col = "#ff000040")  
  
}
```

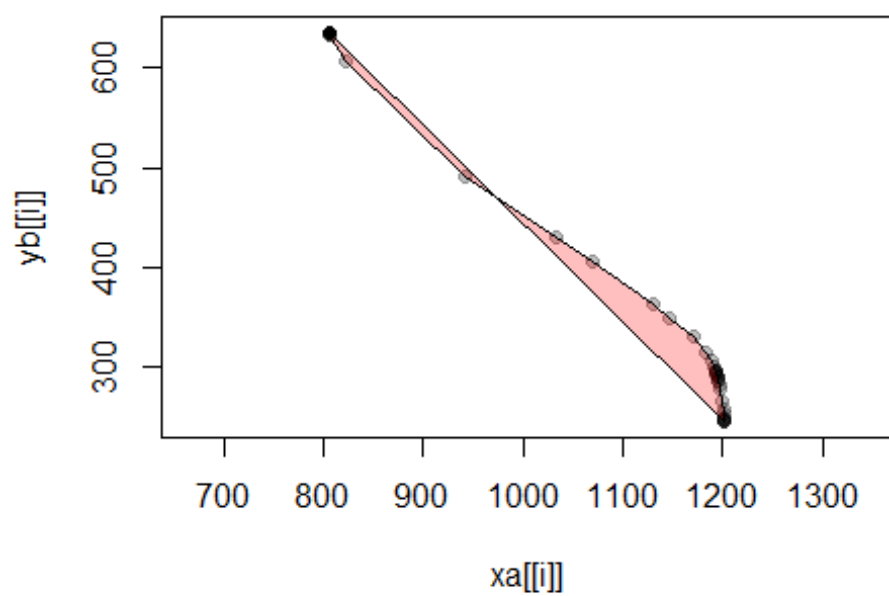
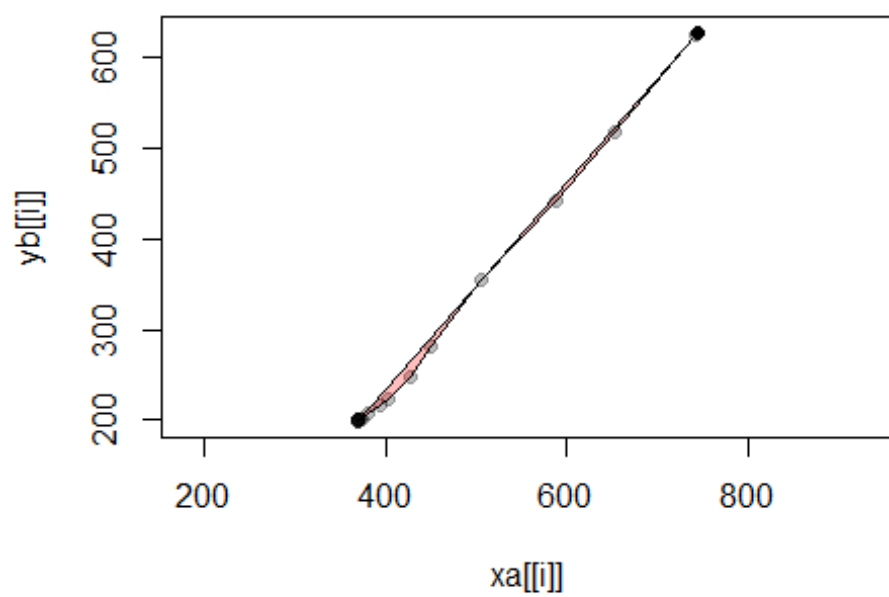


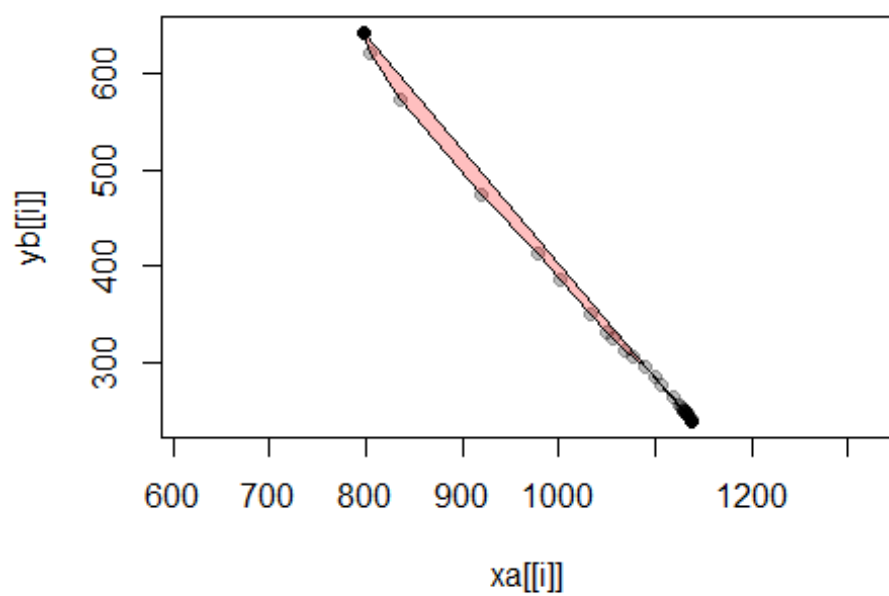
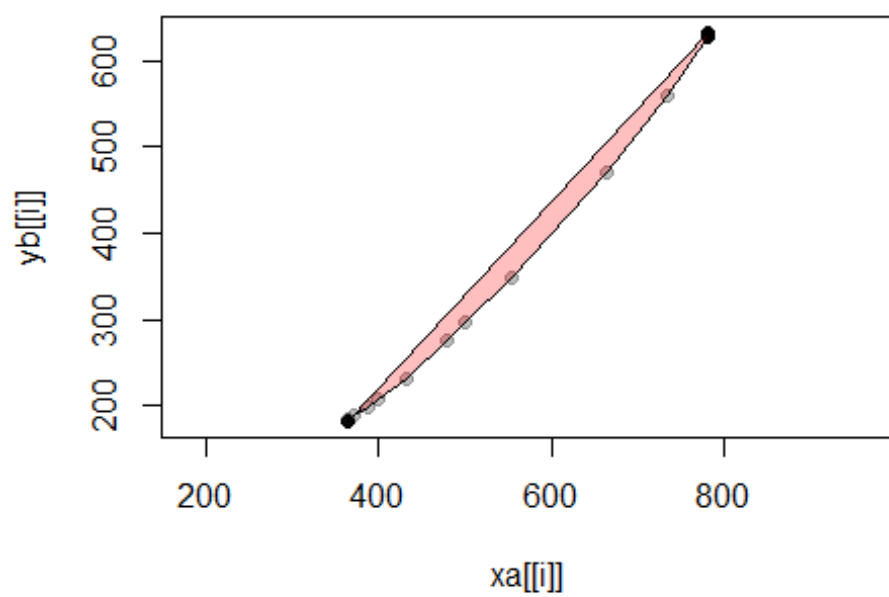


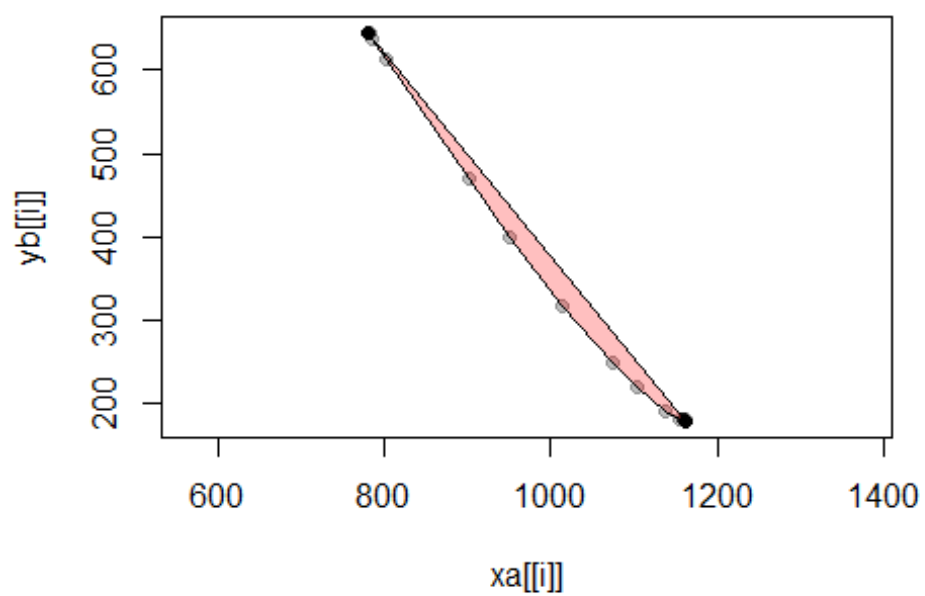
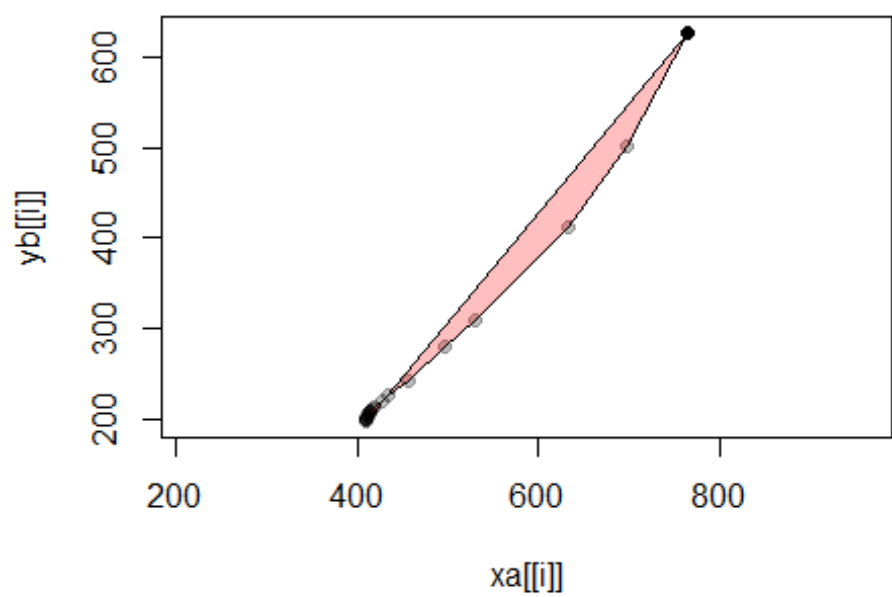


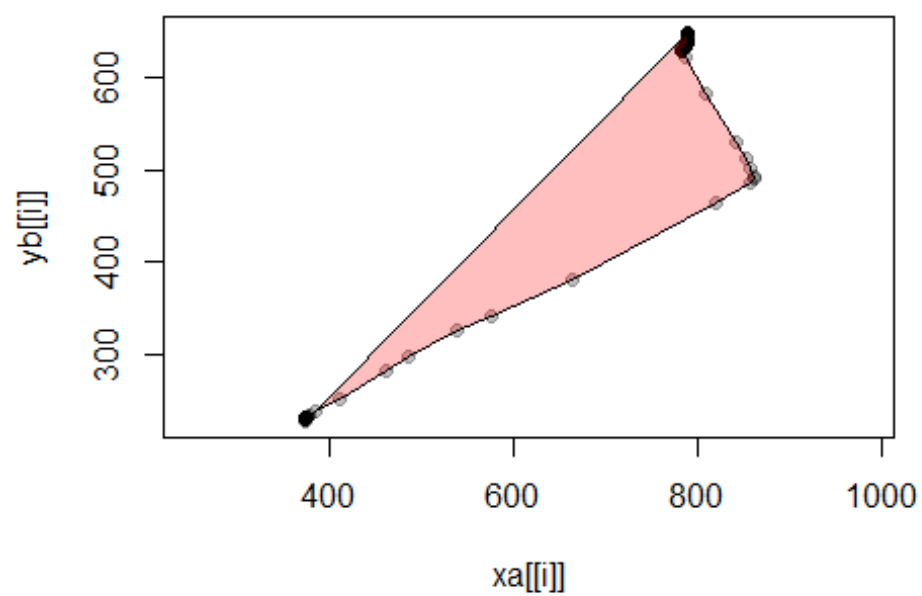
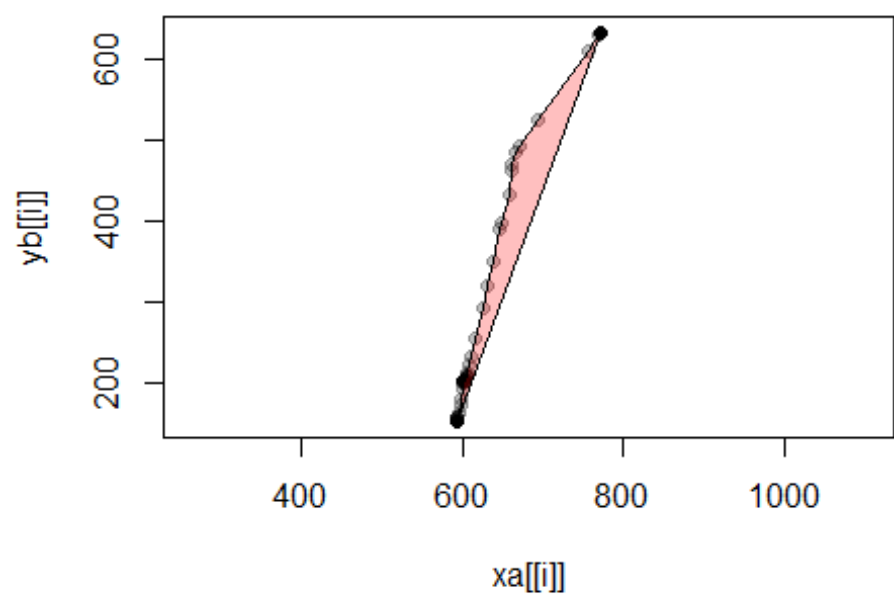


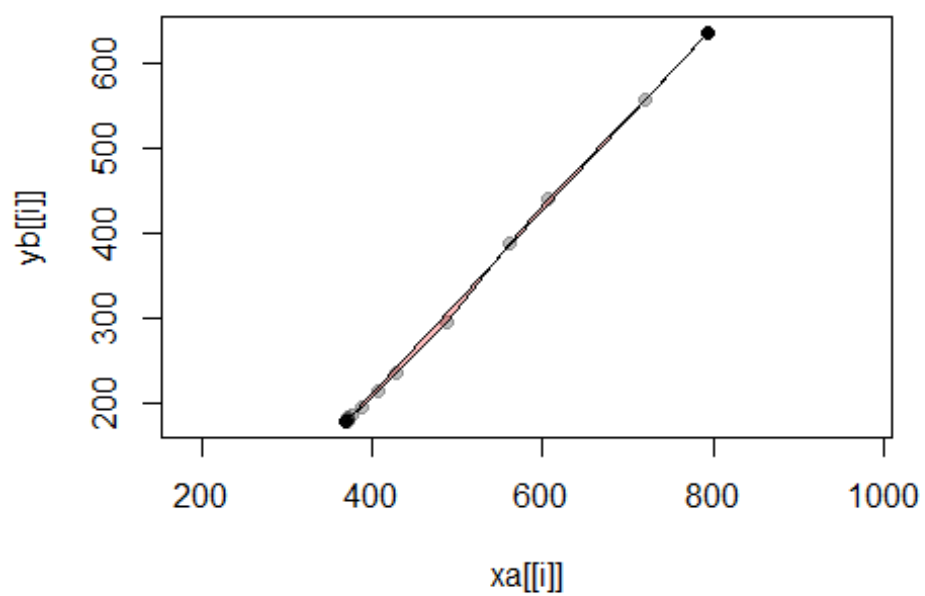
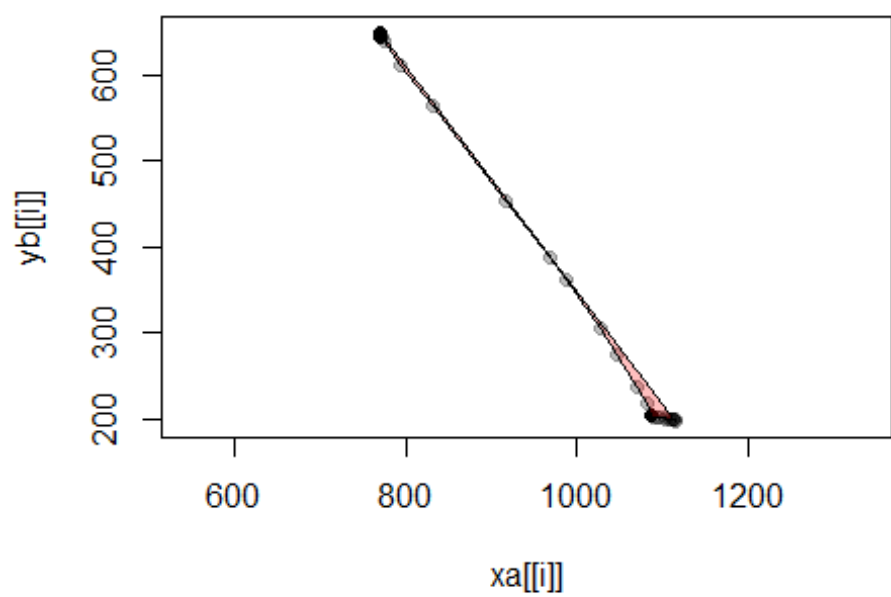


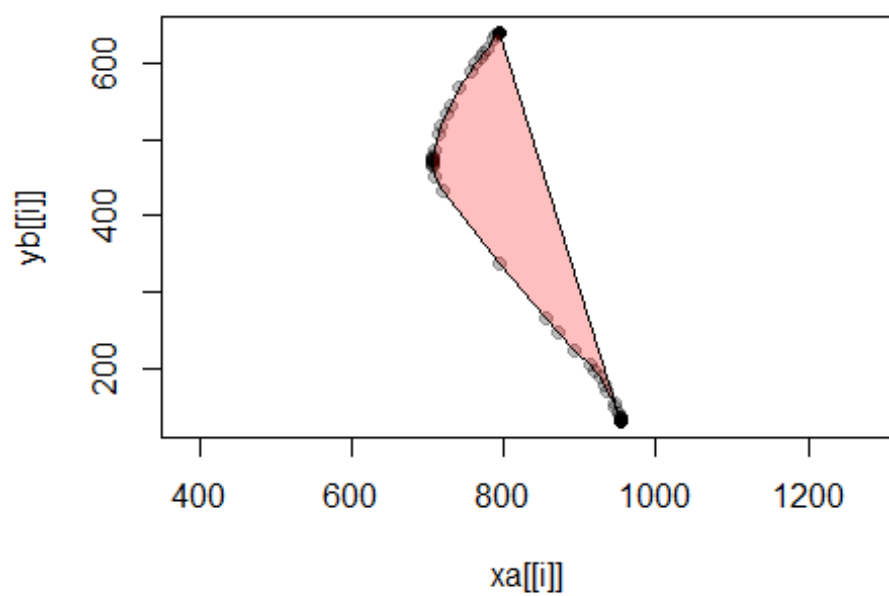
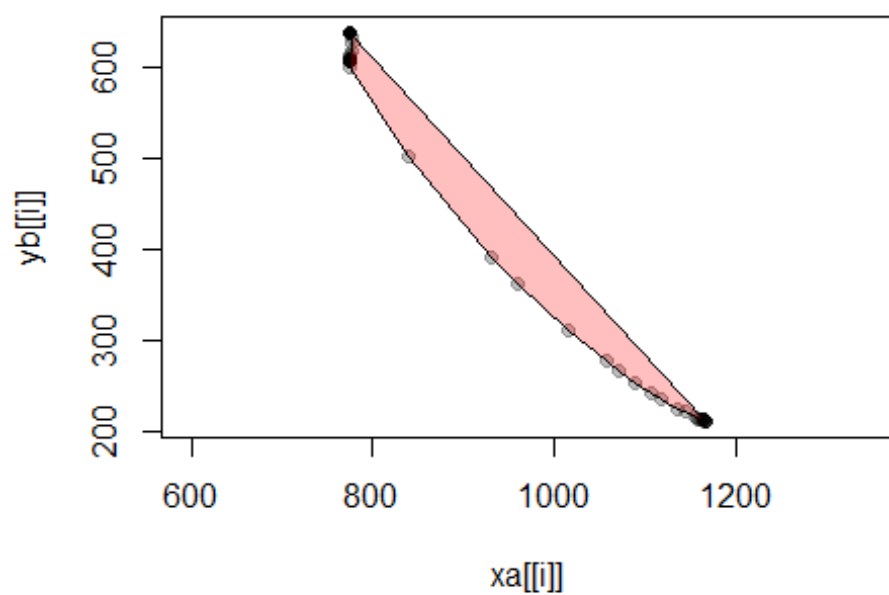


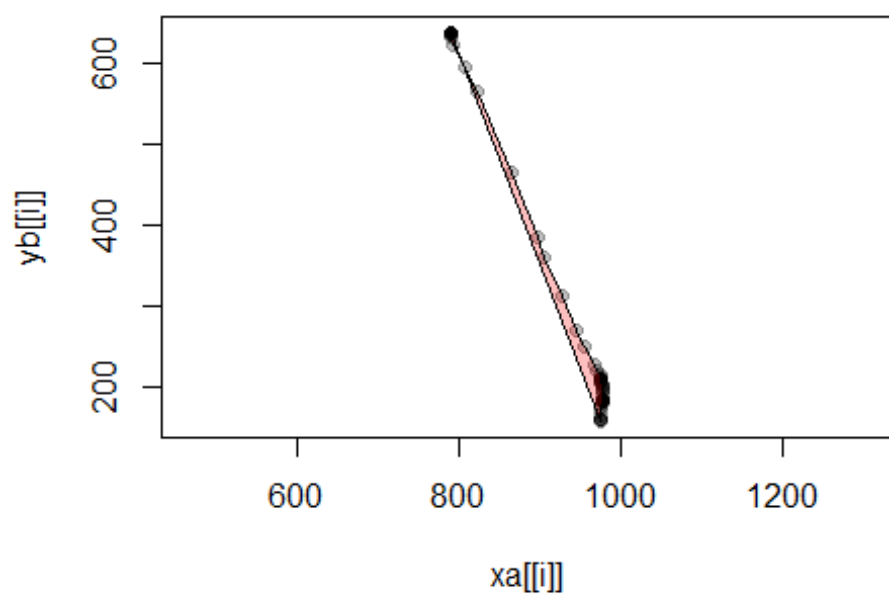
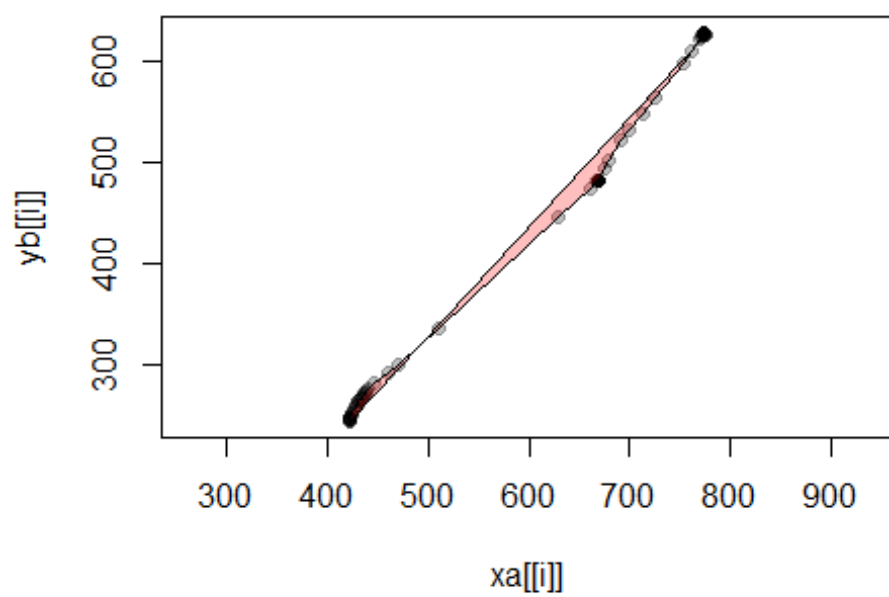


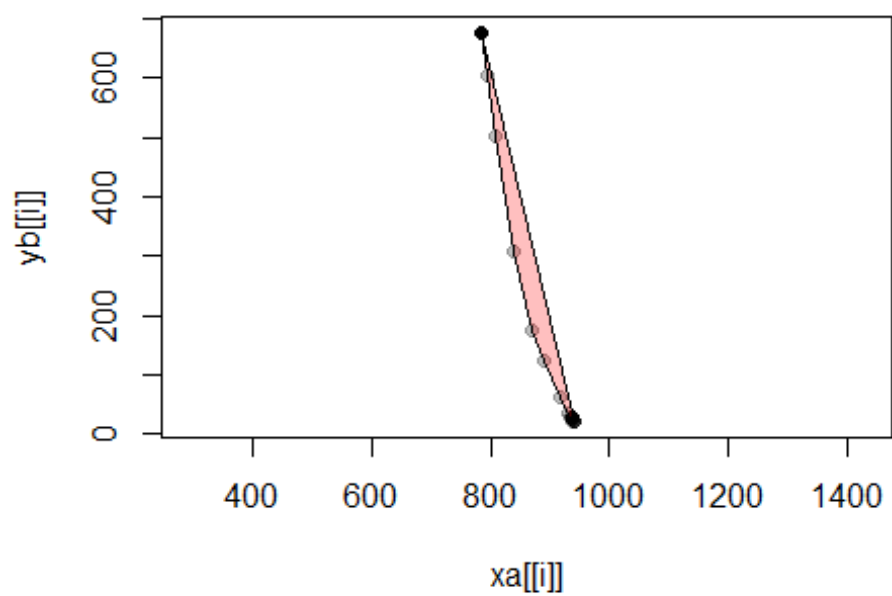
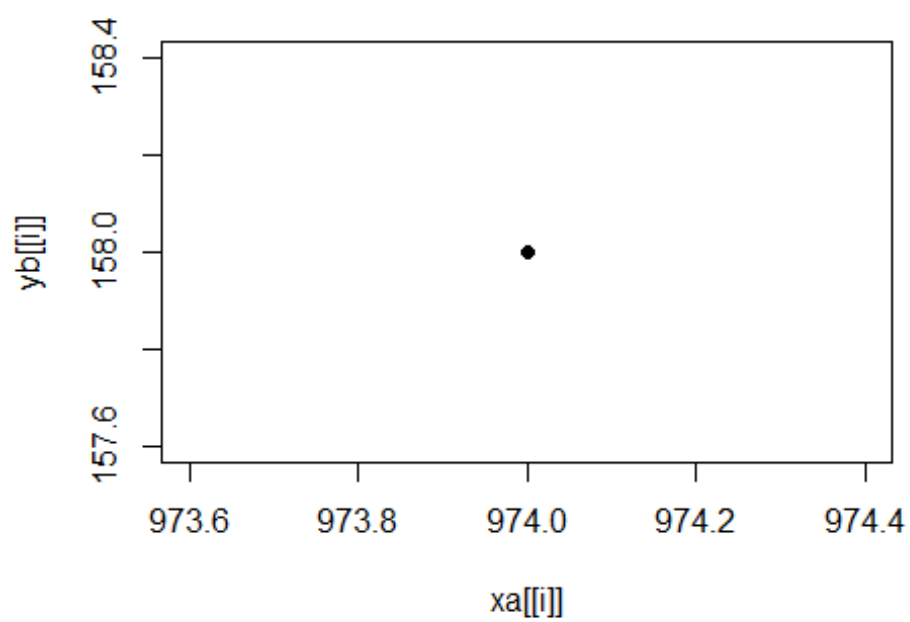


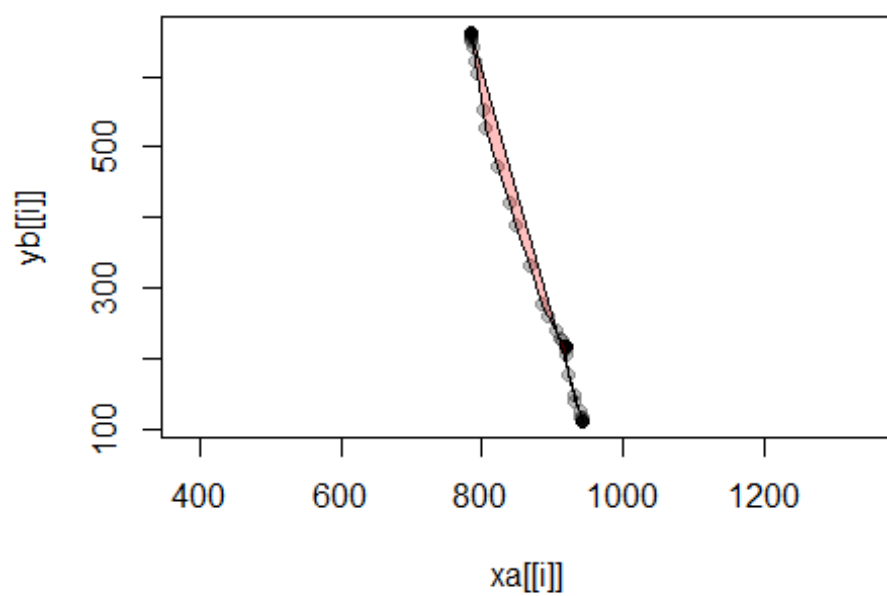
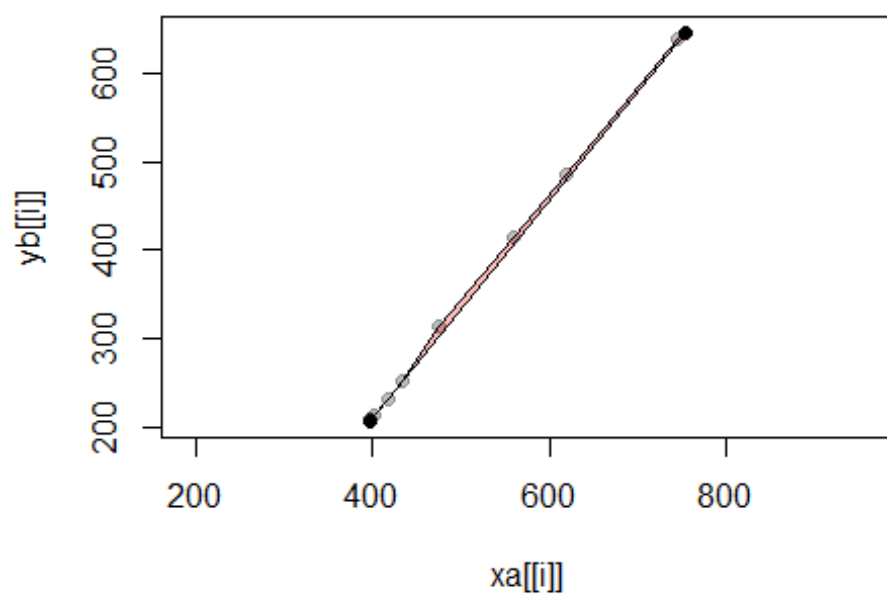


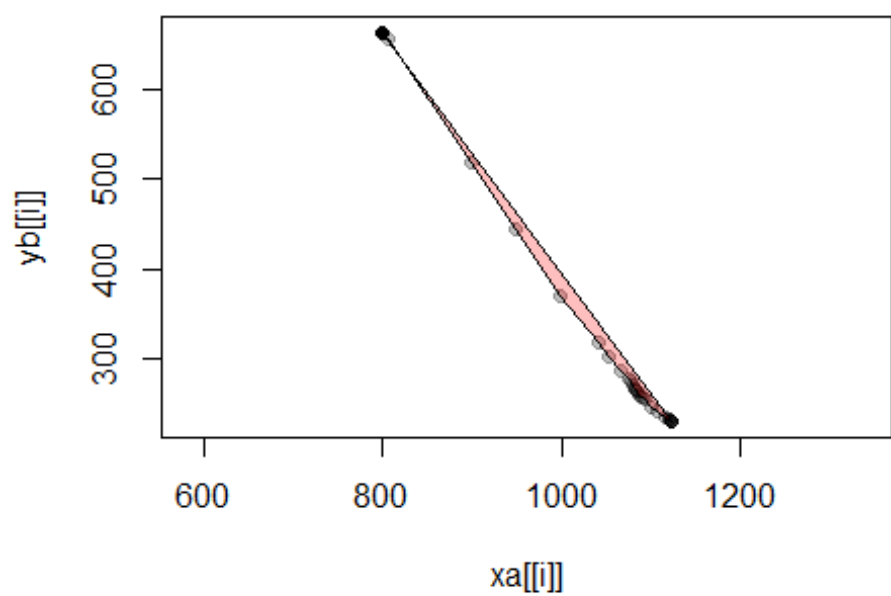
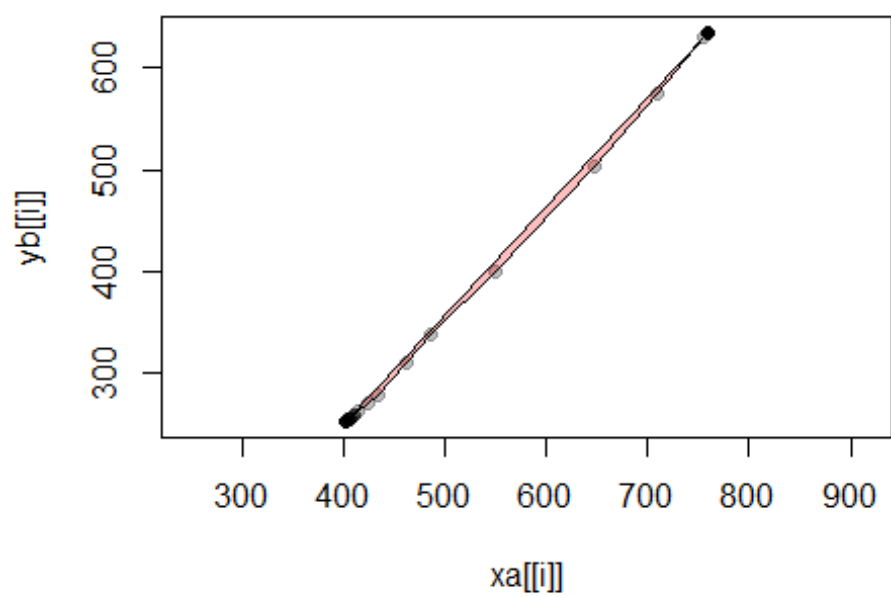


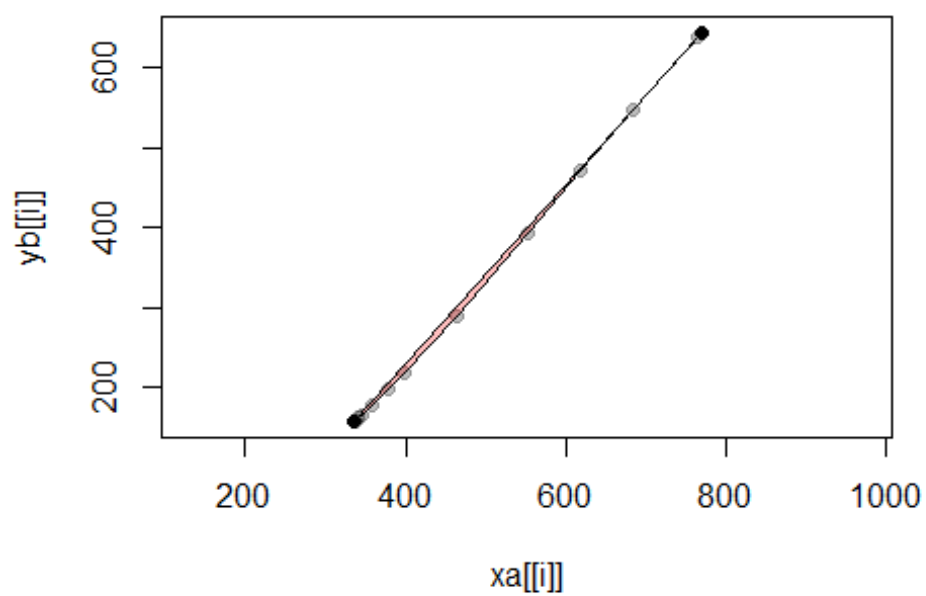
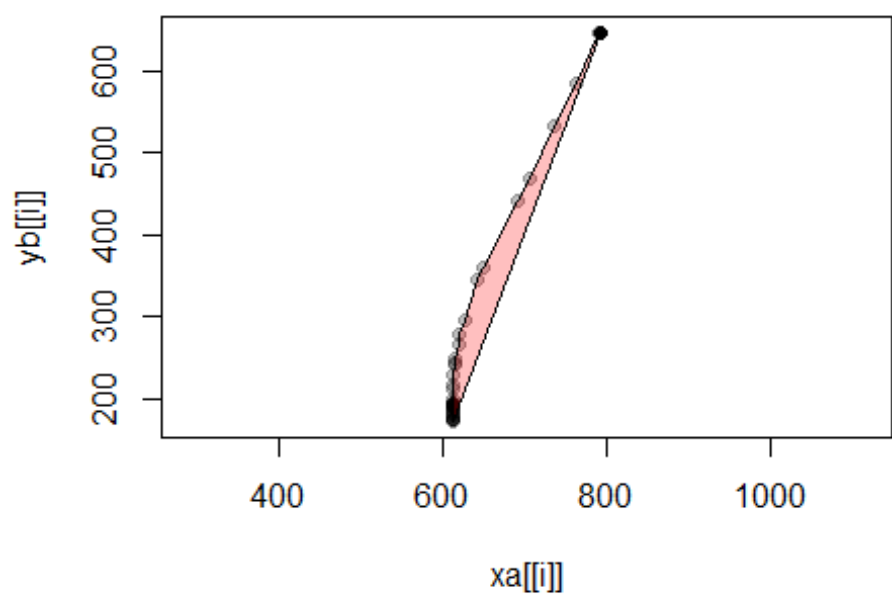


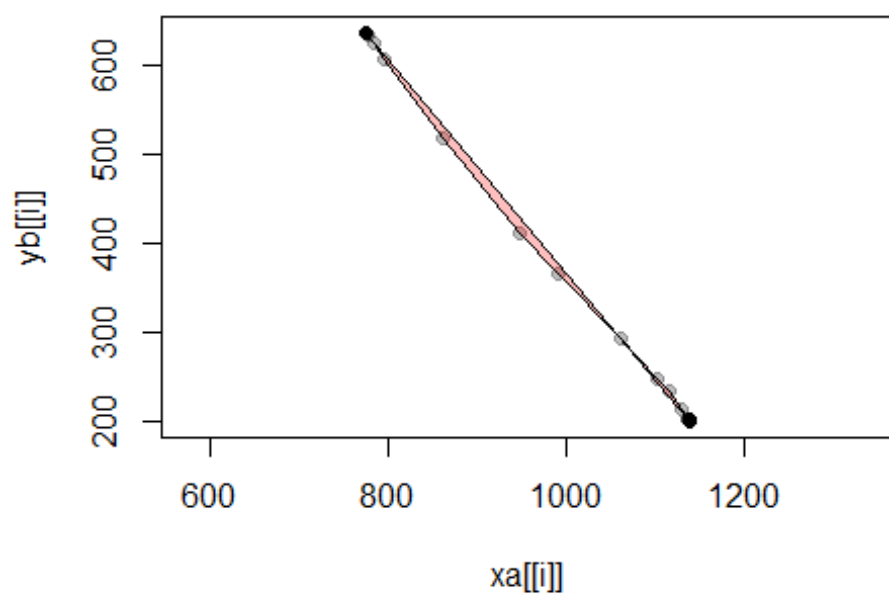
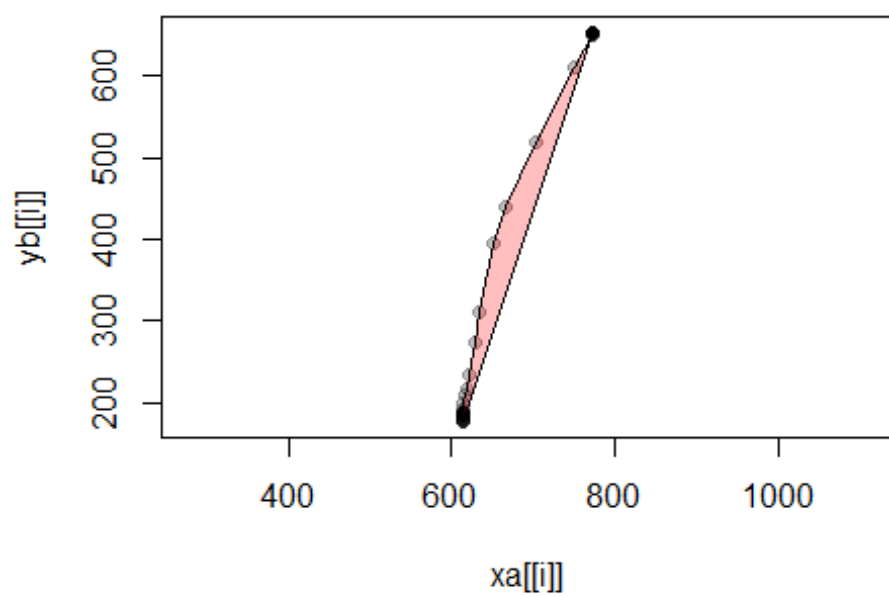


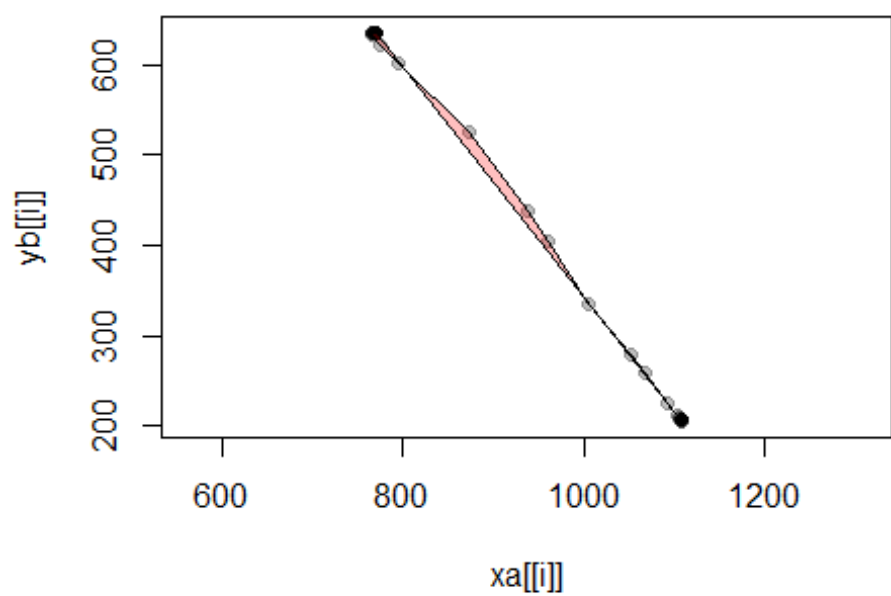
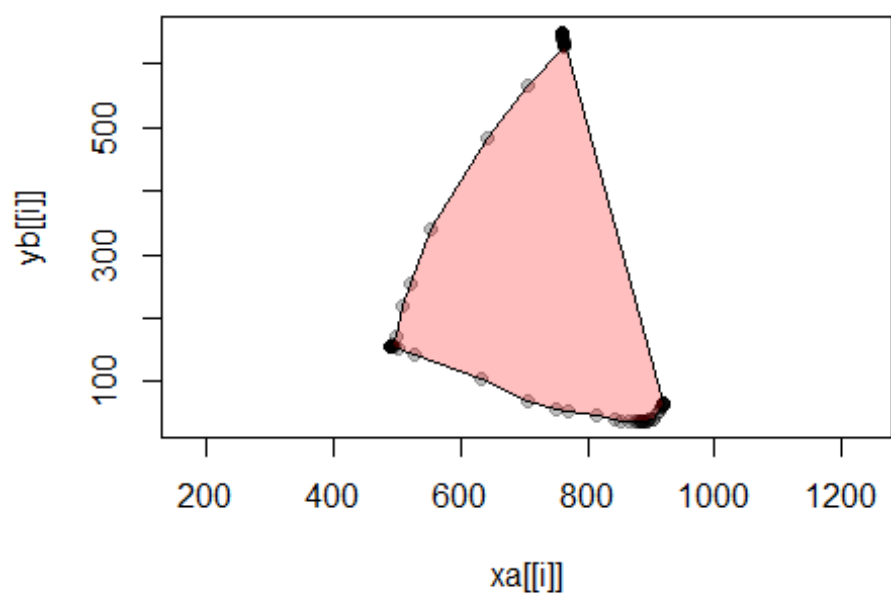


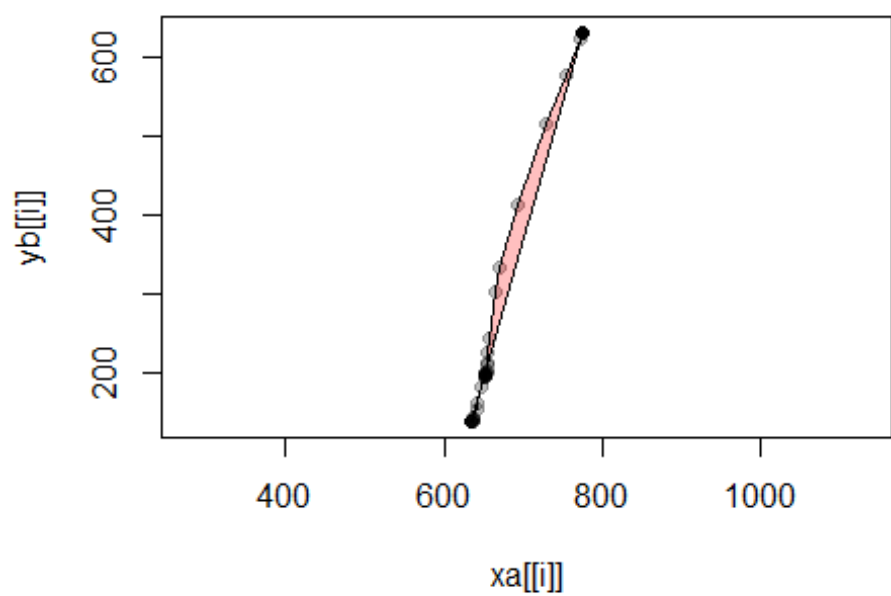
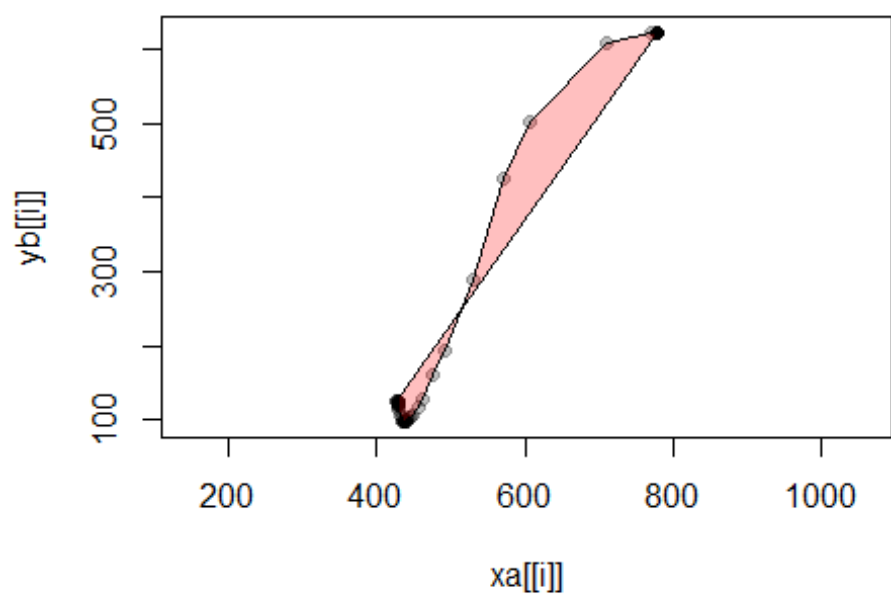


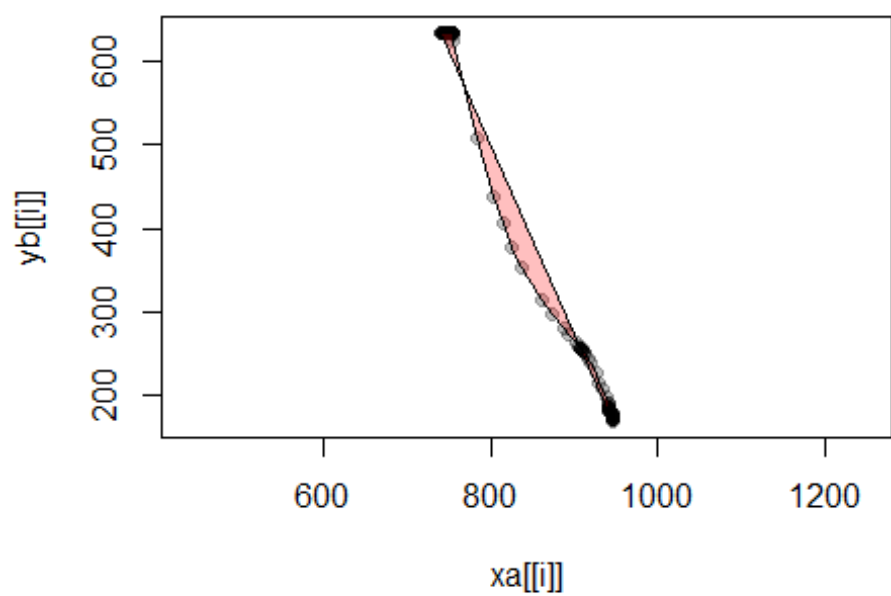
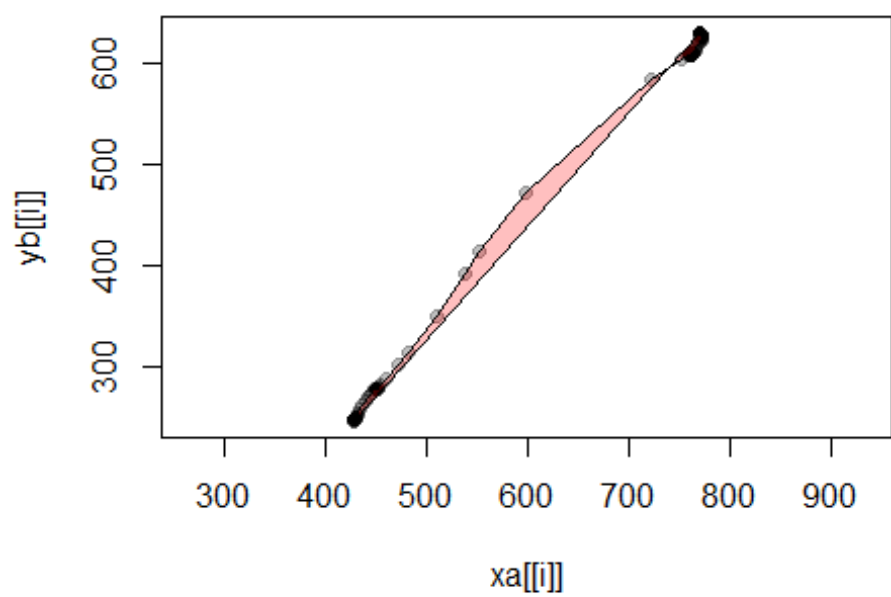


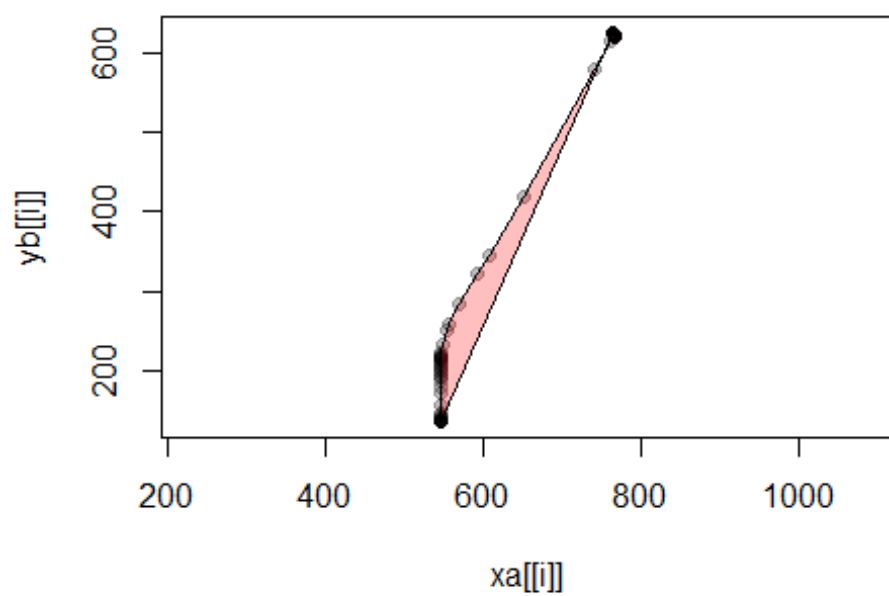
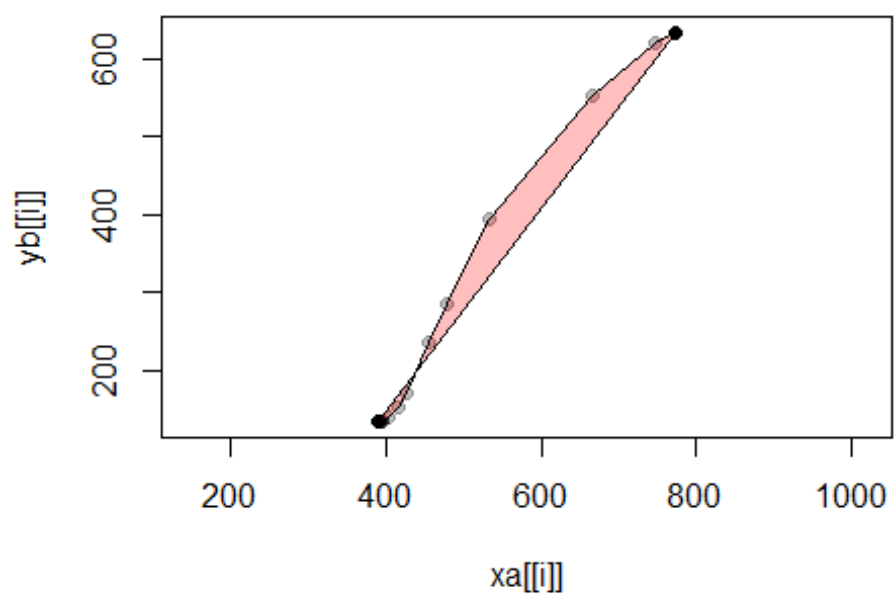


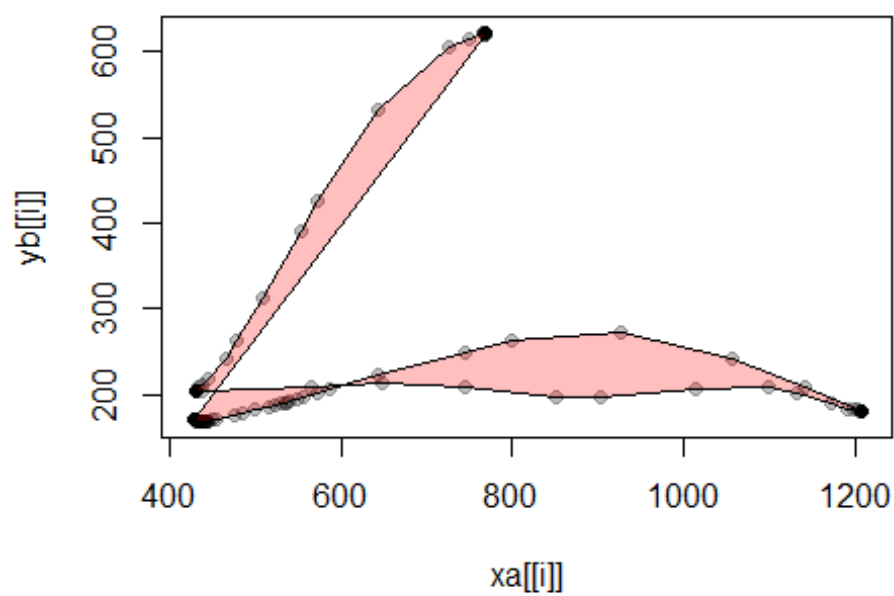
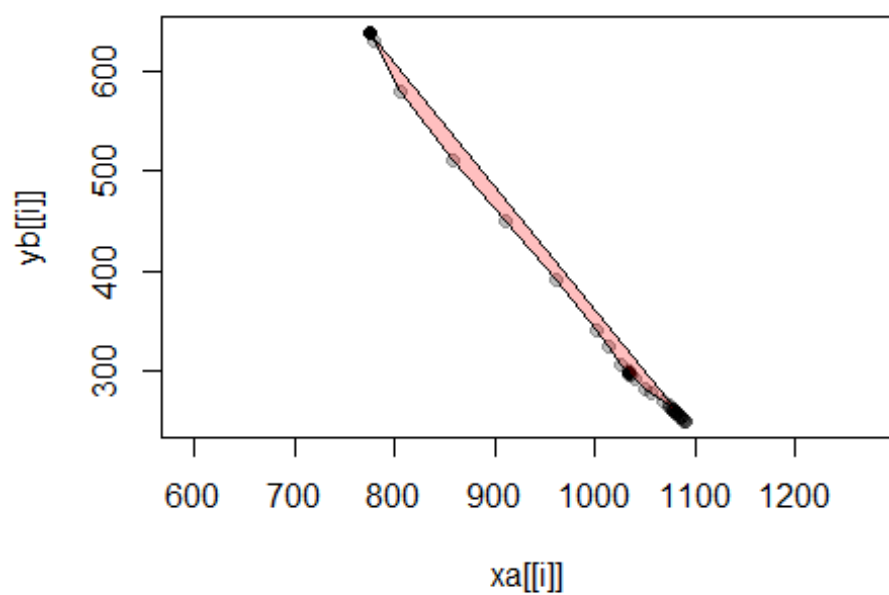


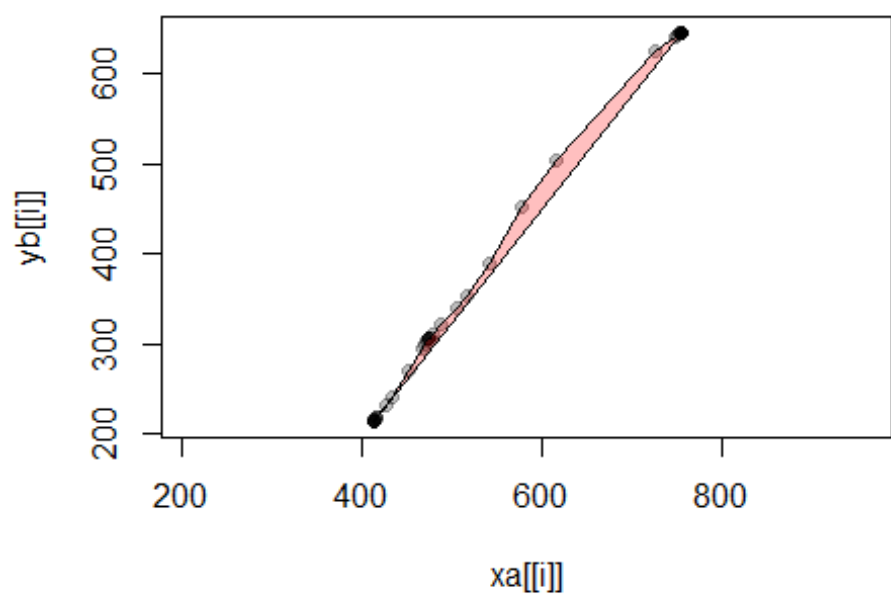
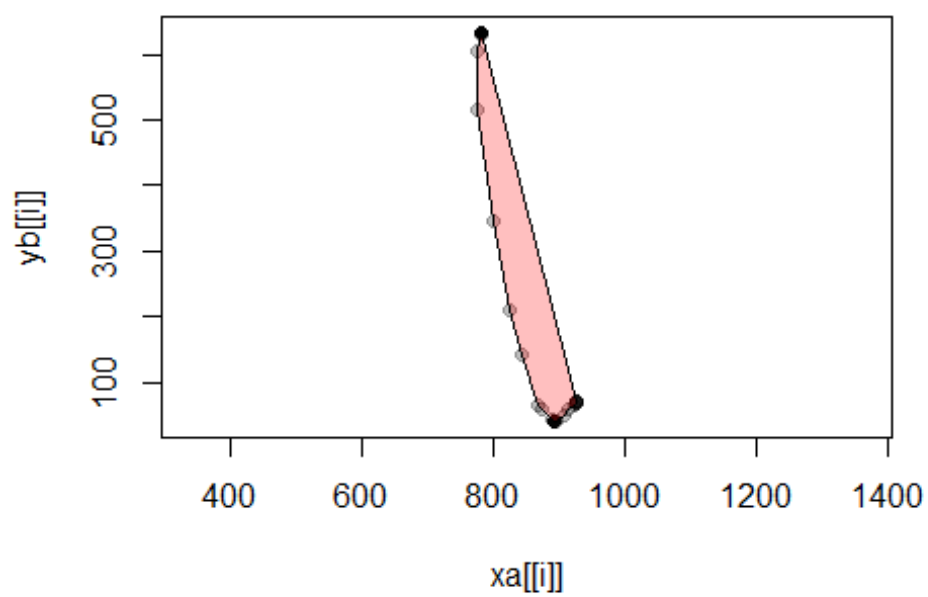


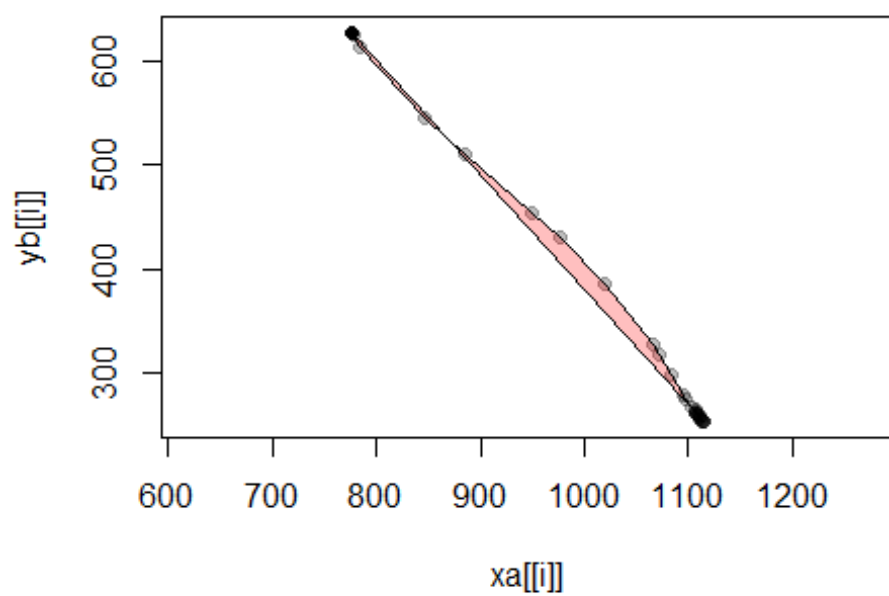
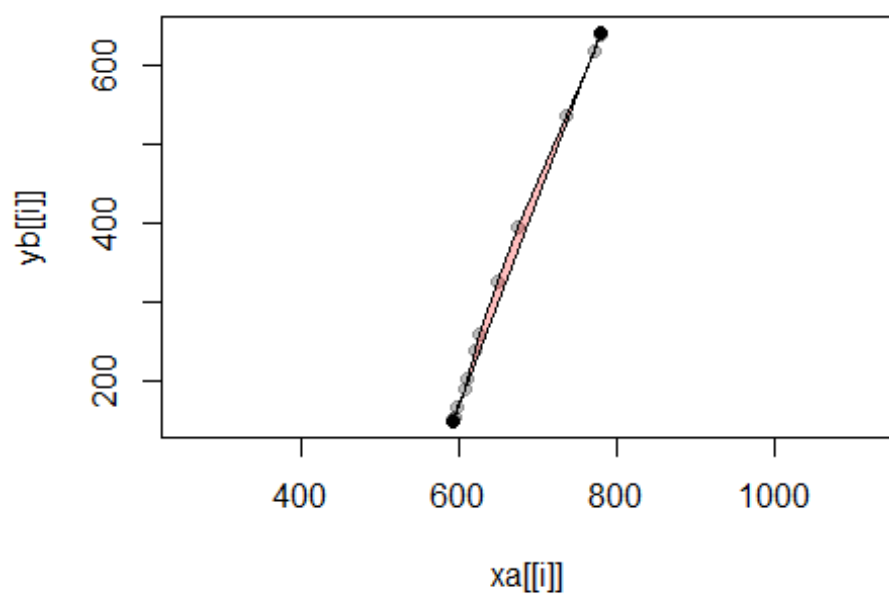


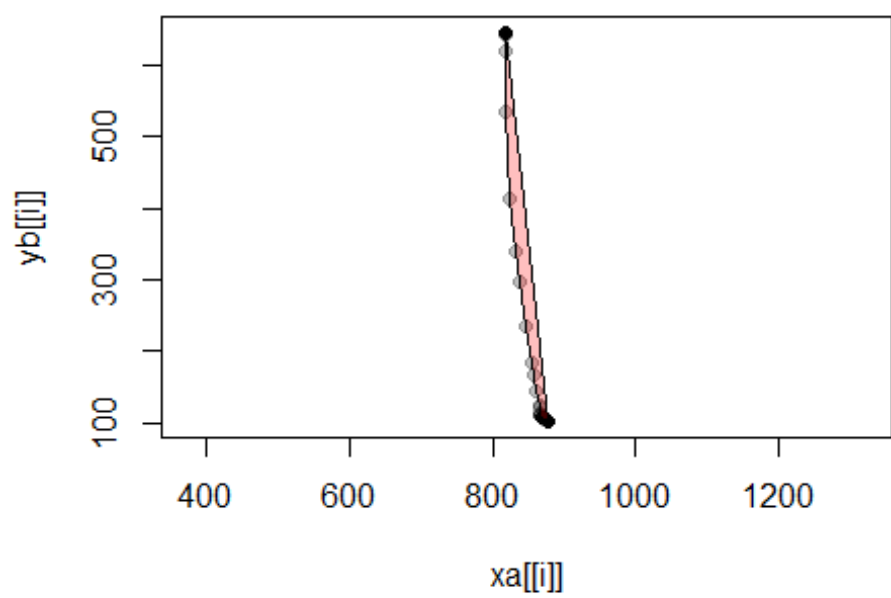
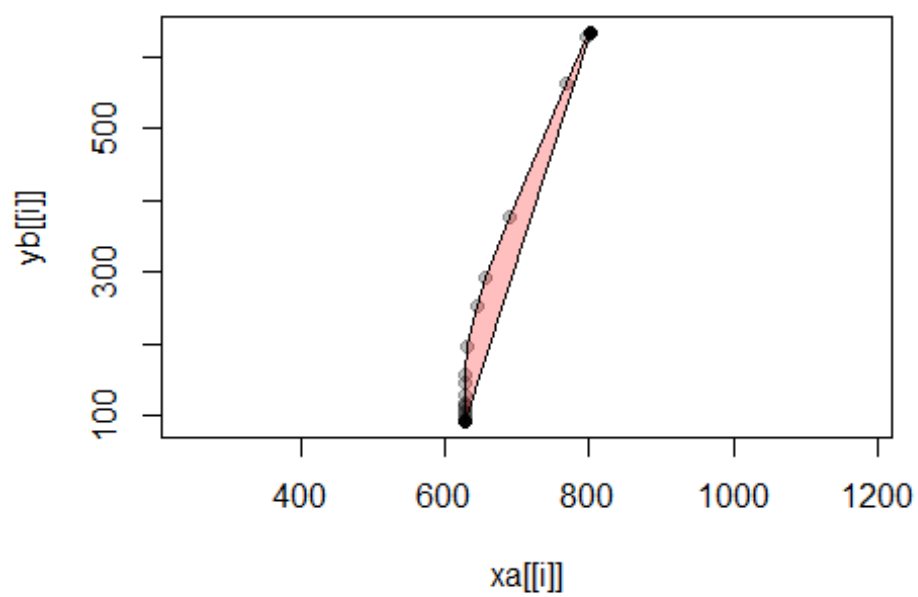


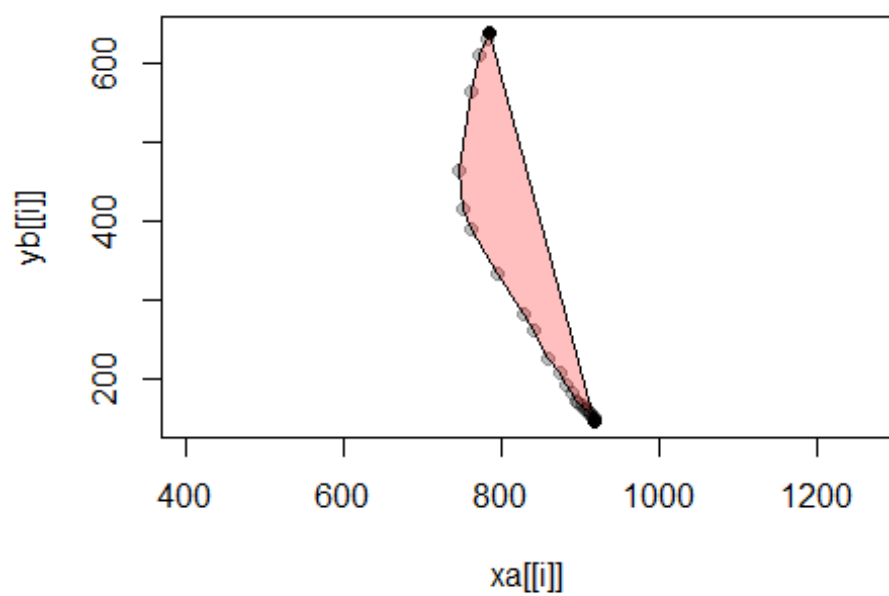
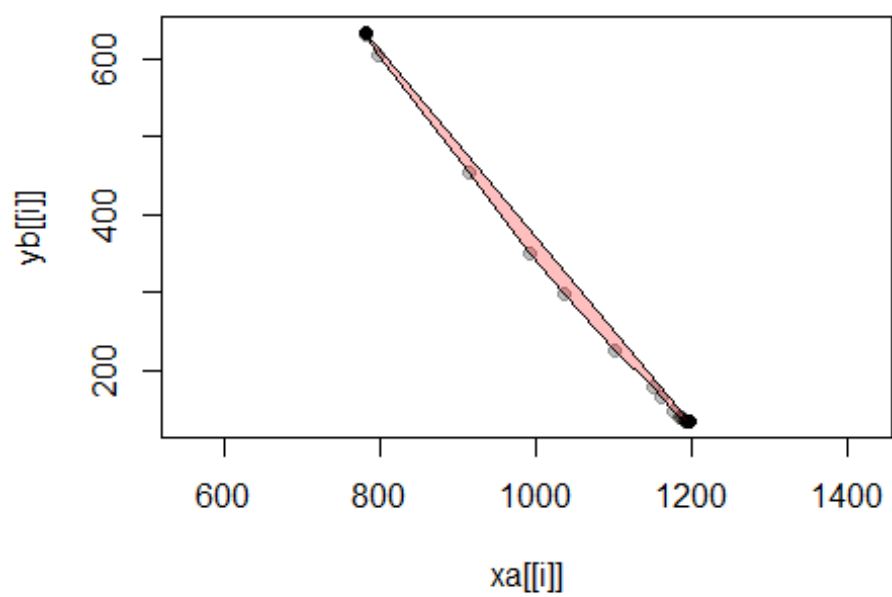


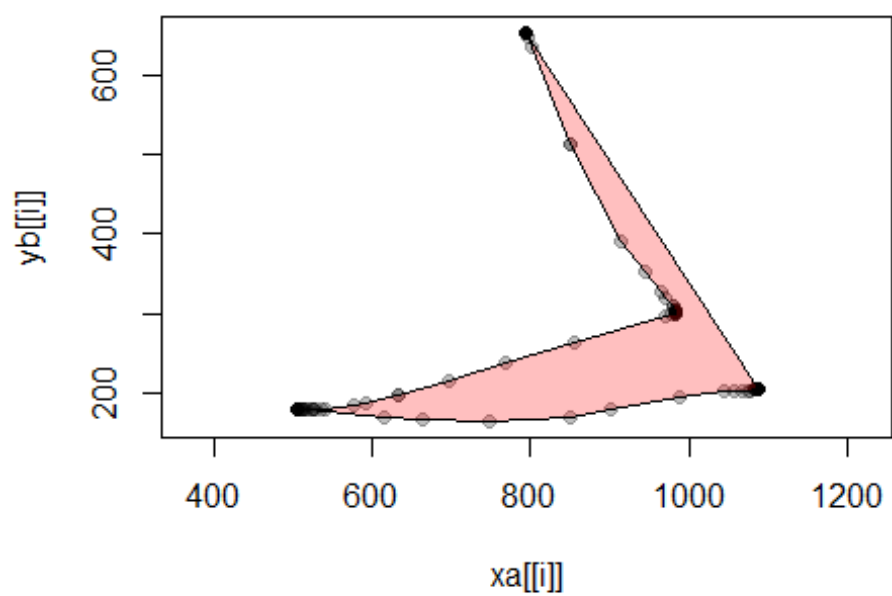
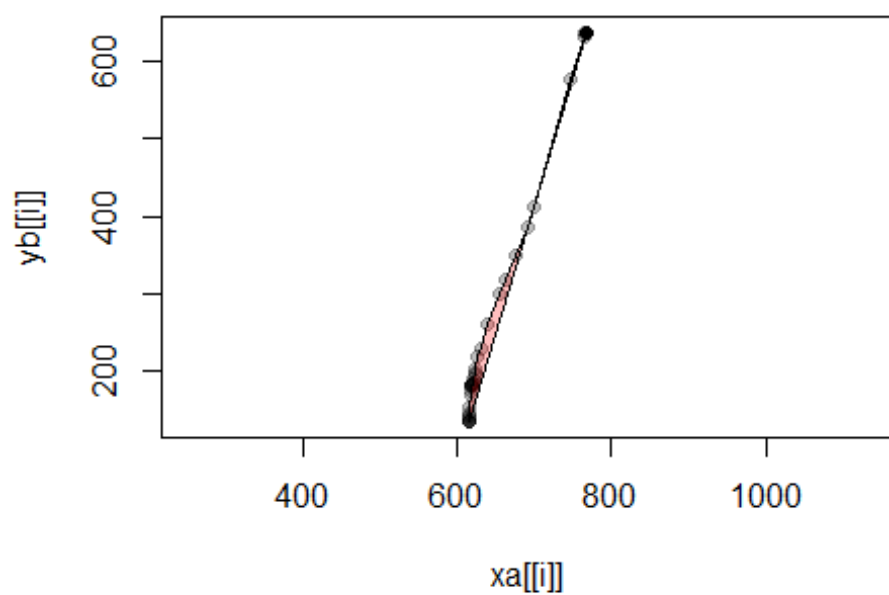


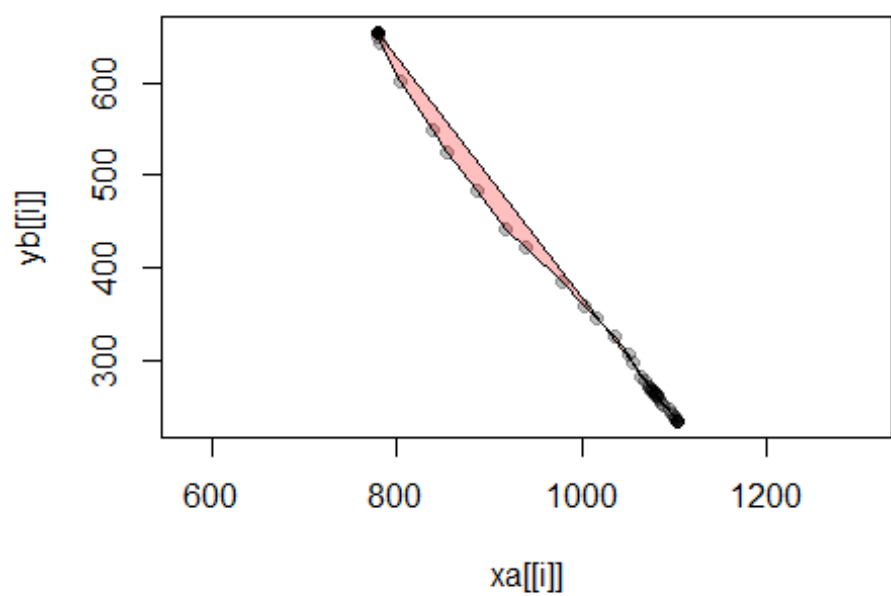
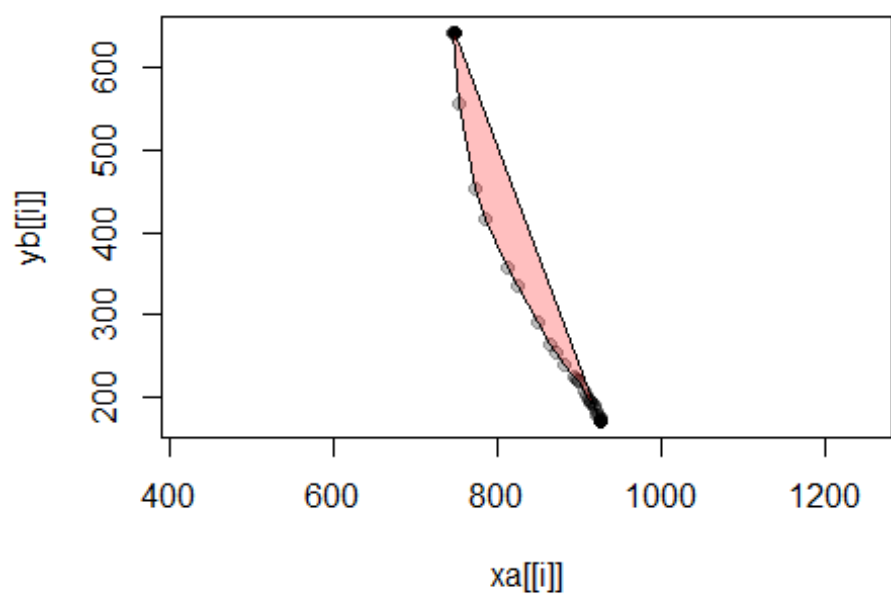


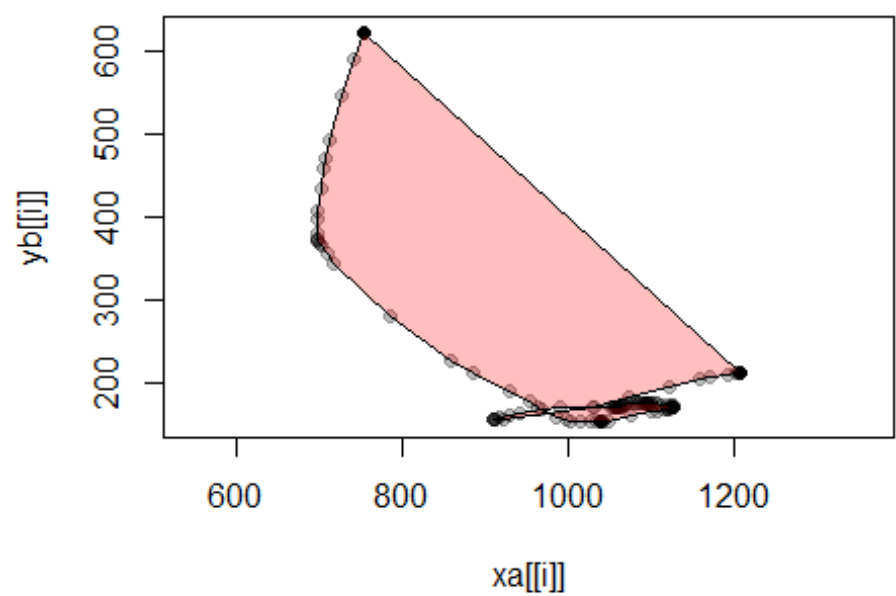
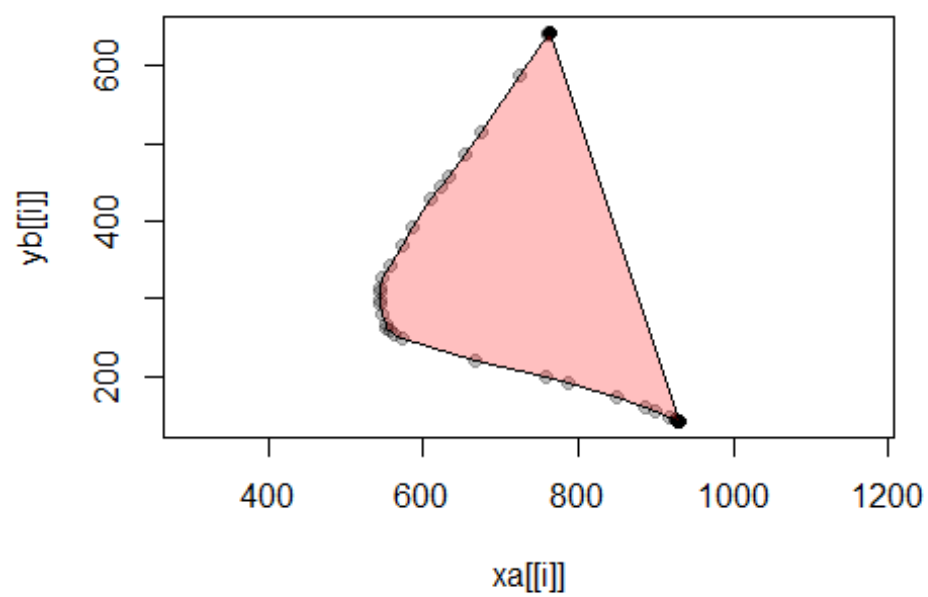


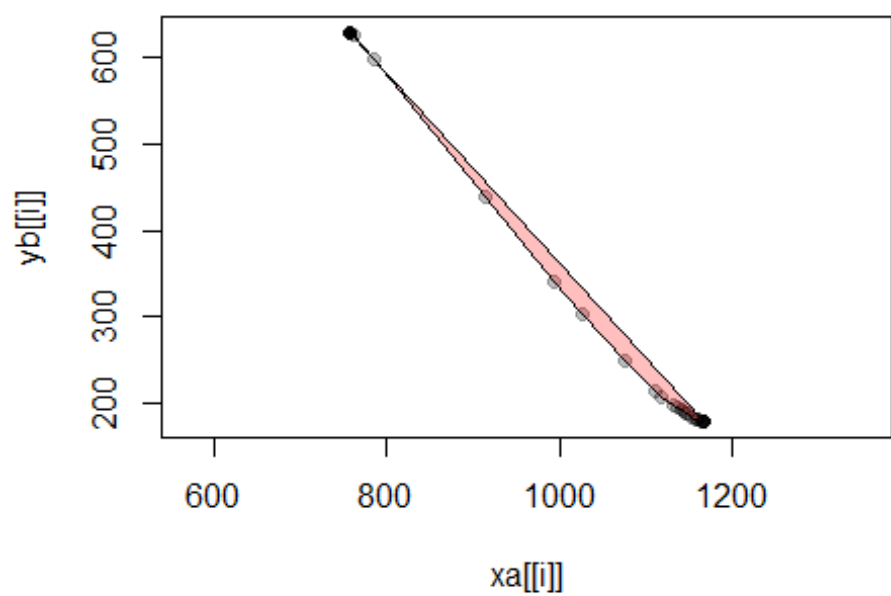
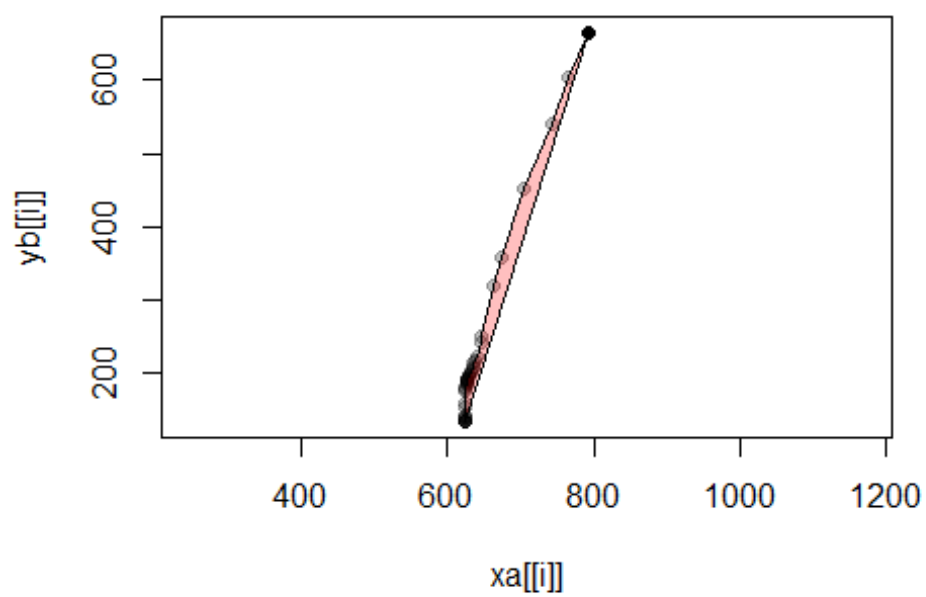


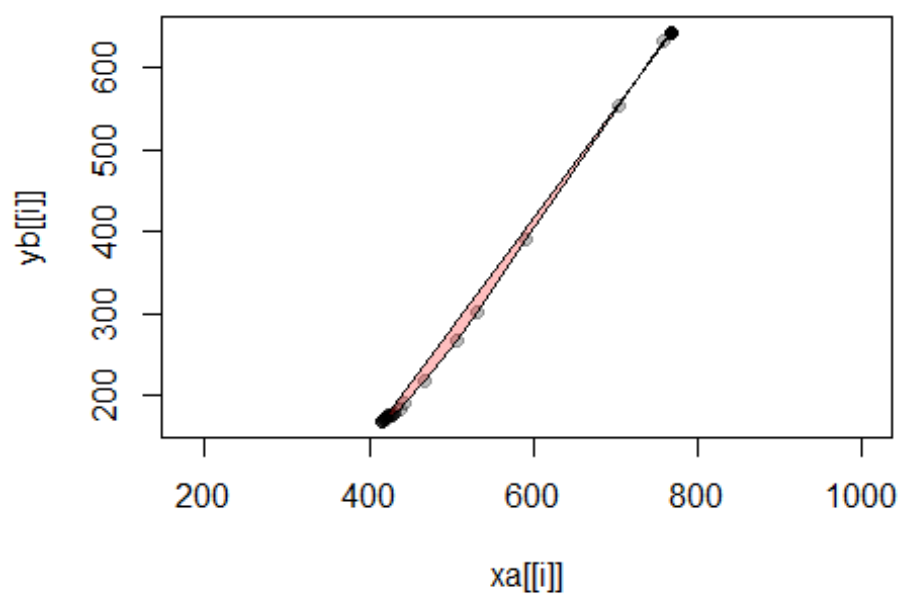
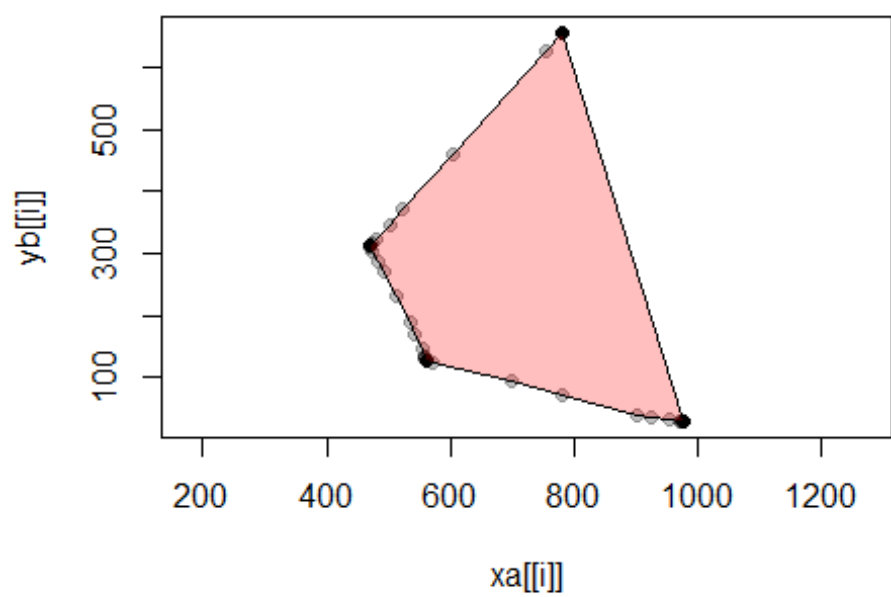


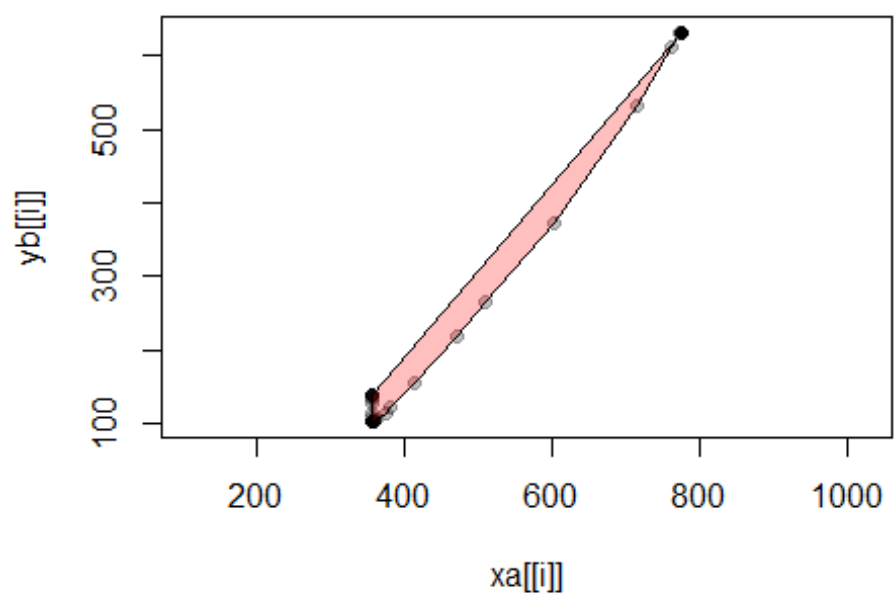
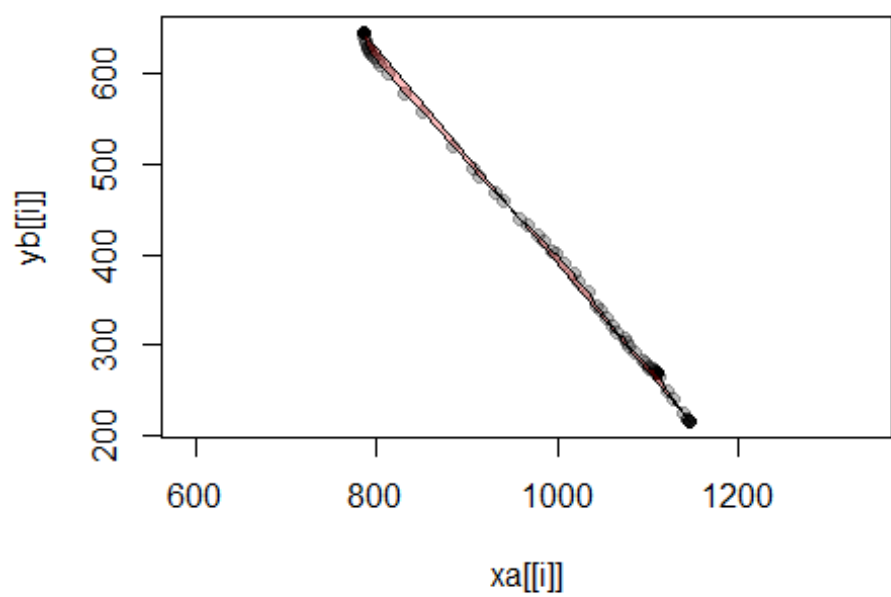


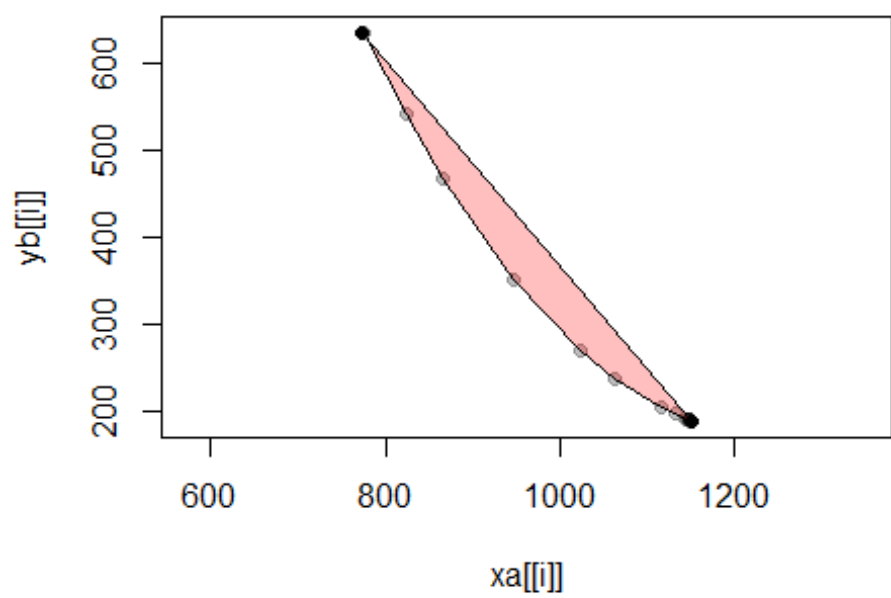
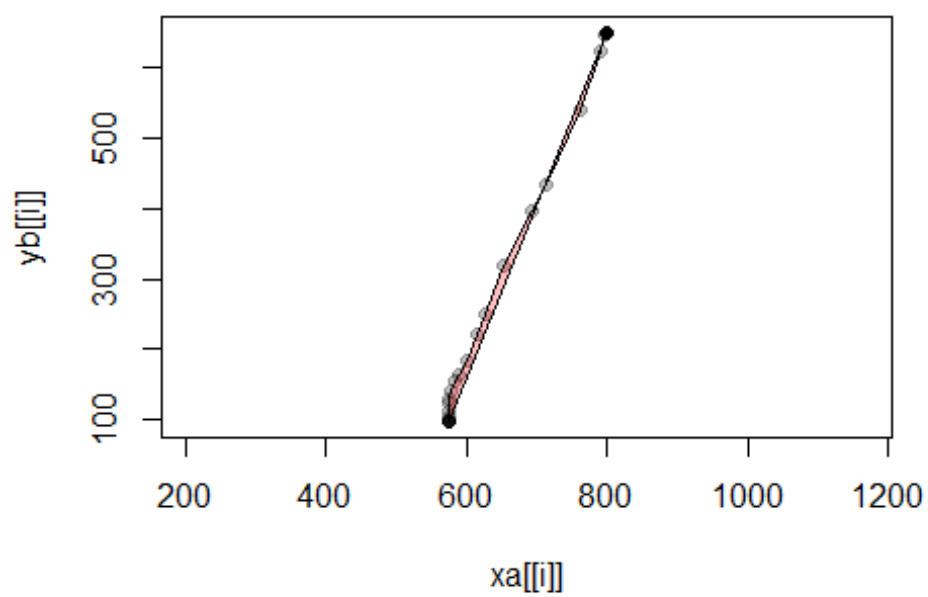


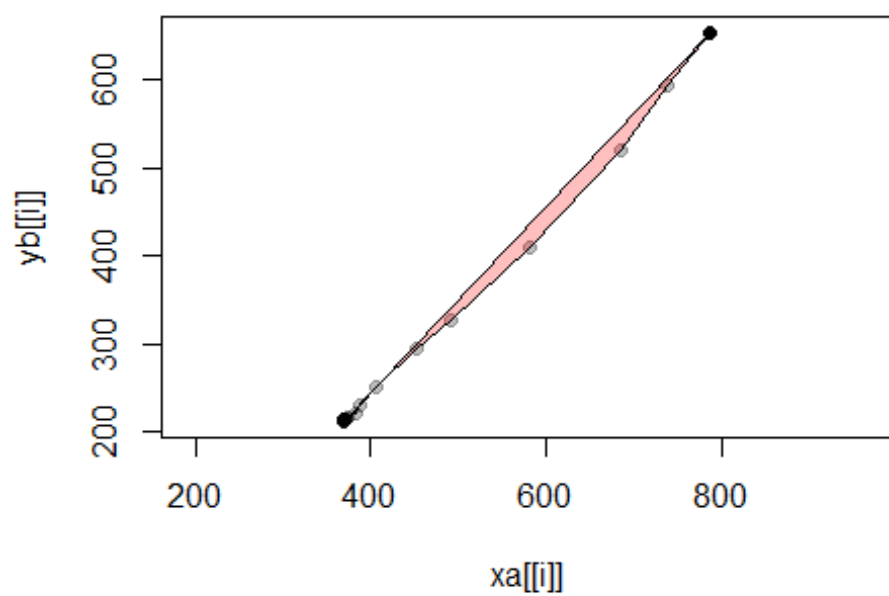
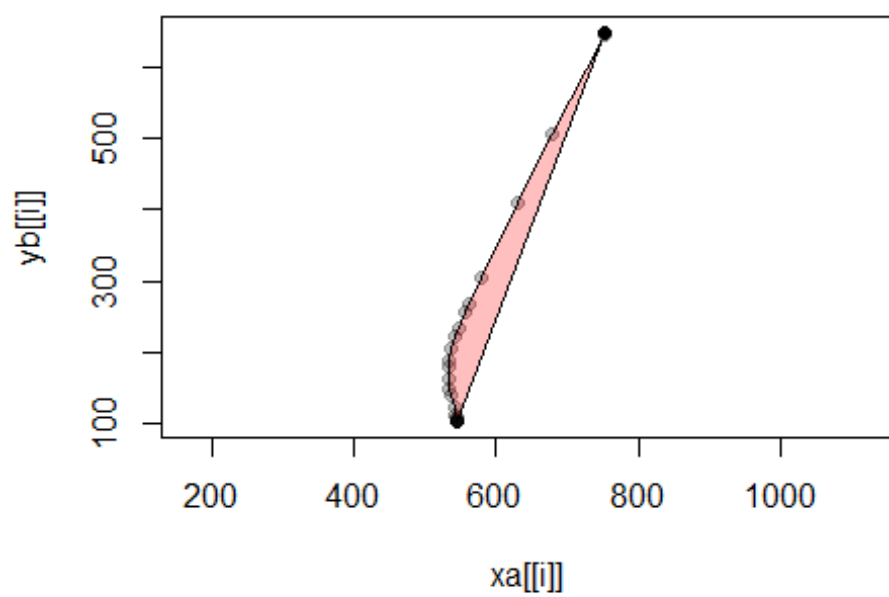


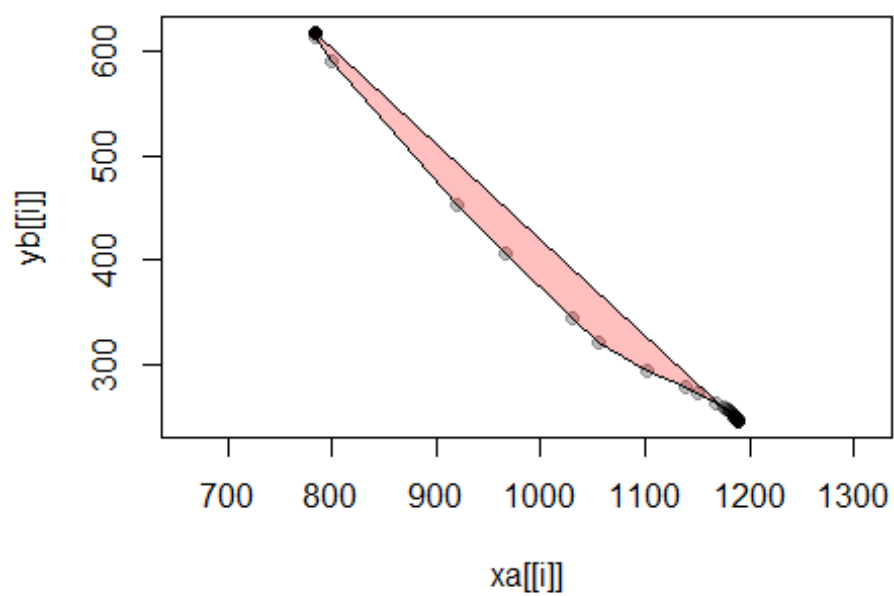
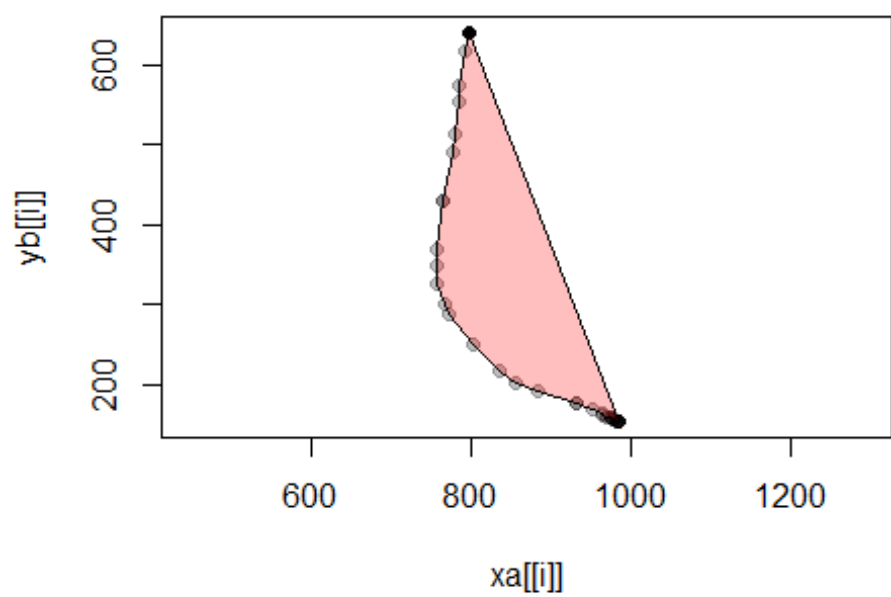


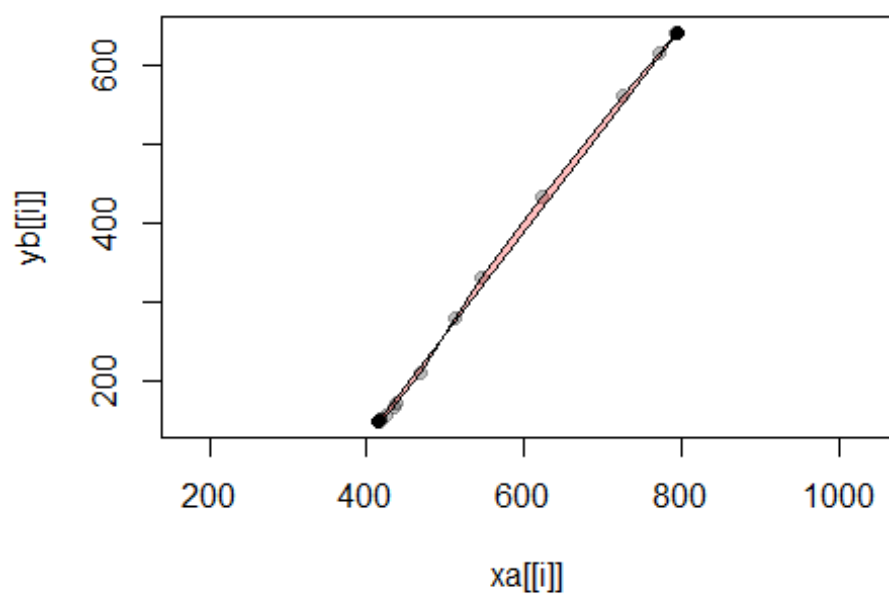
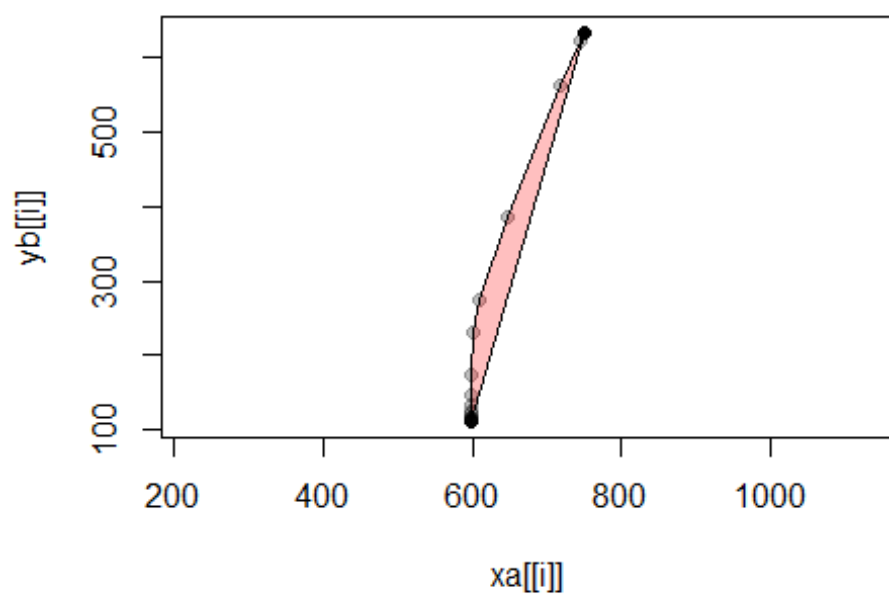


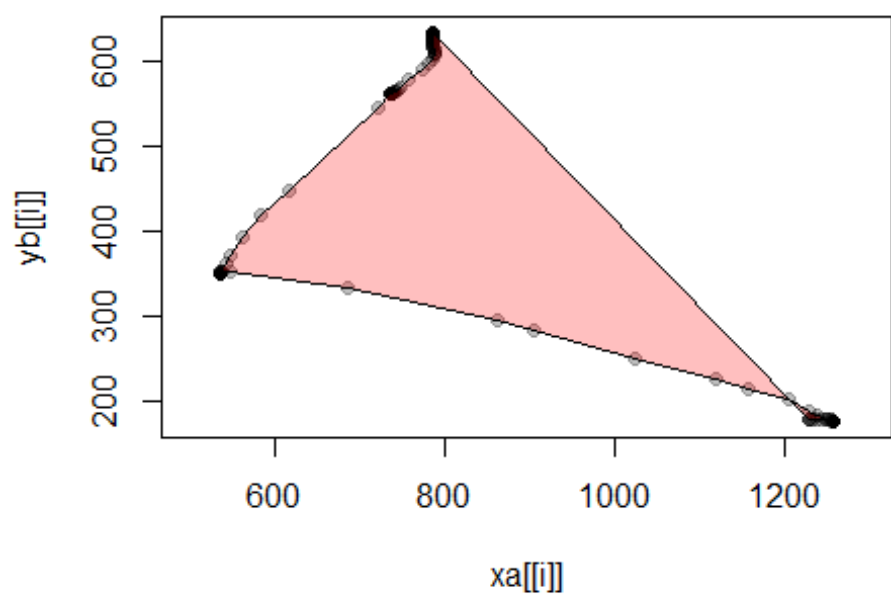
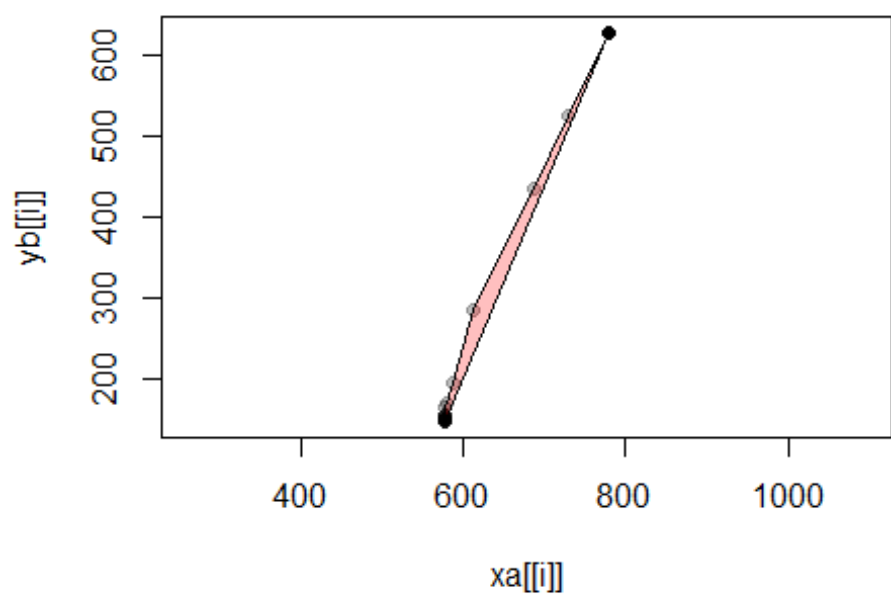


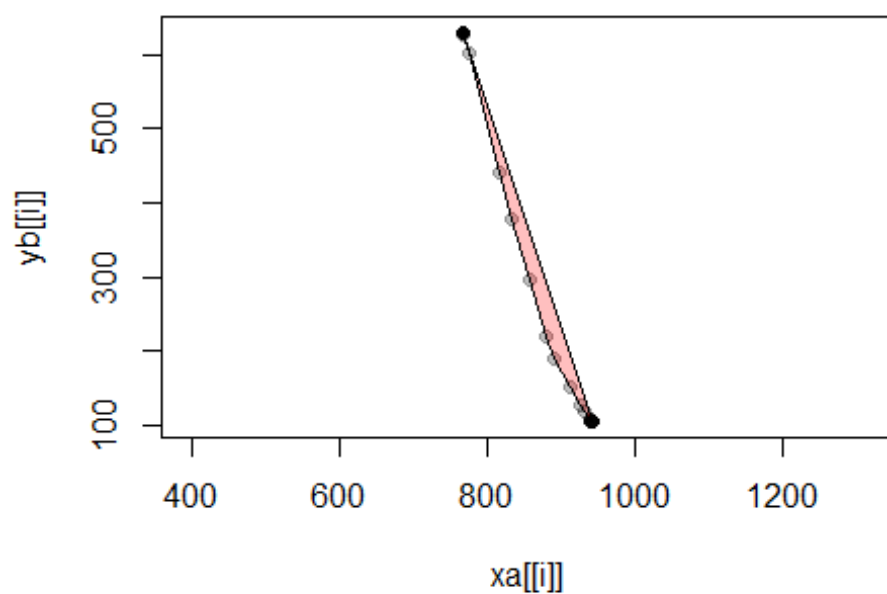
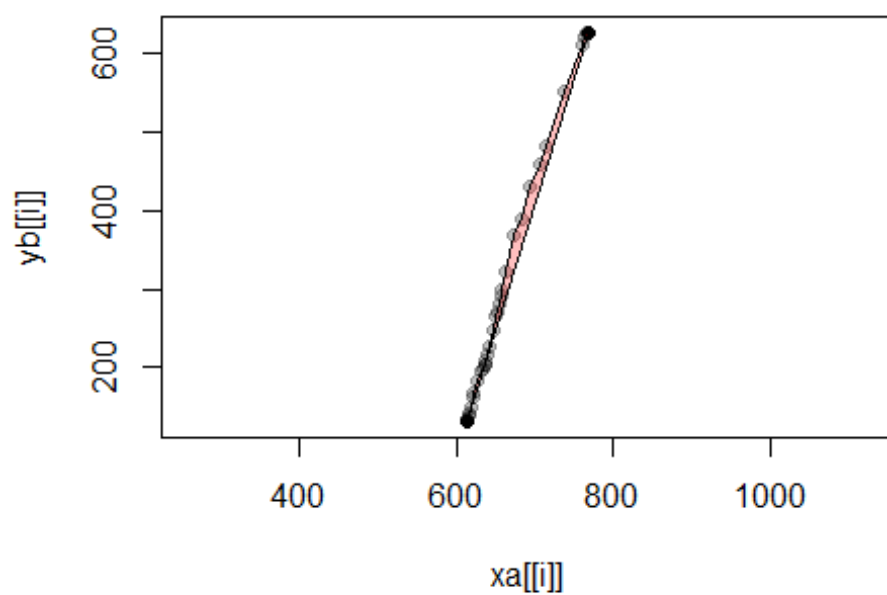


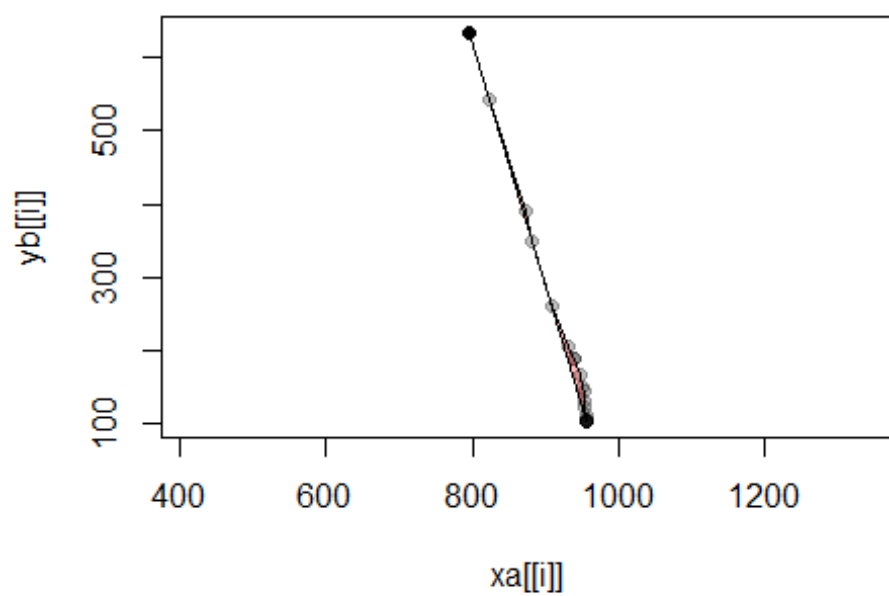
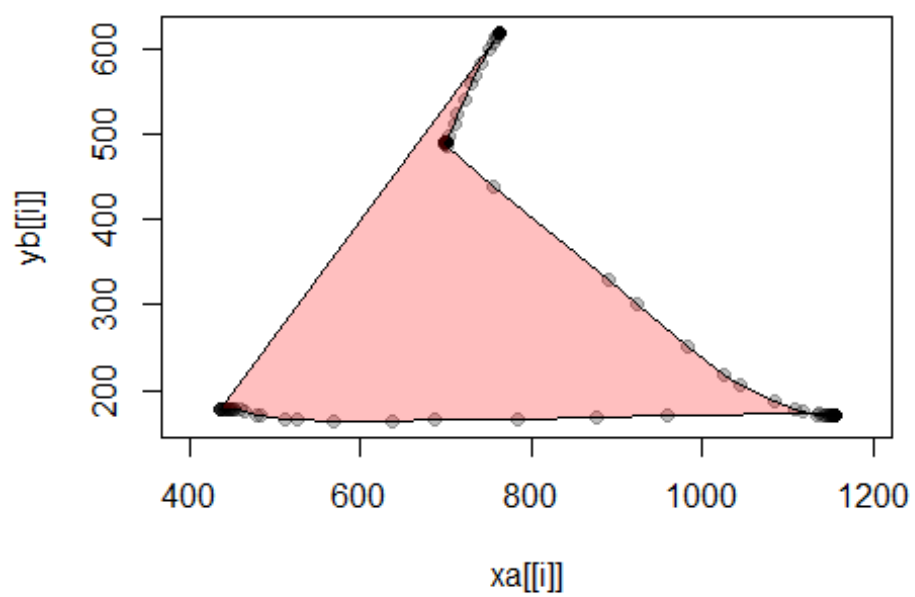


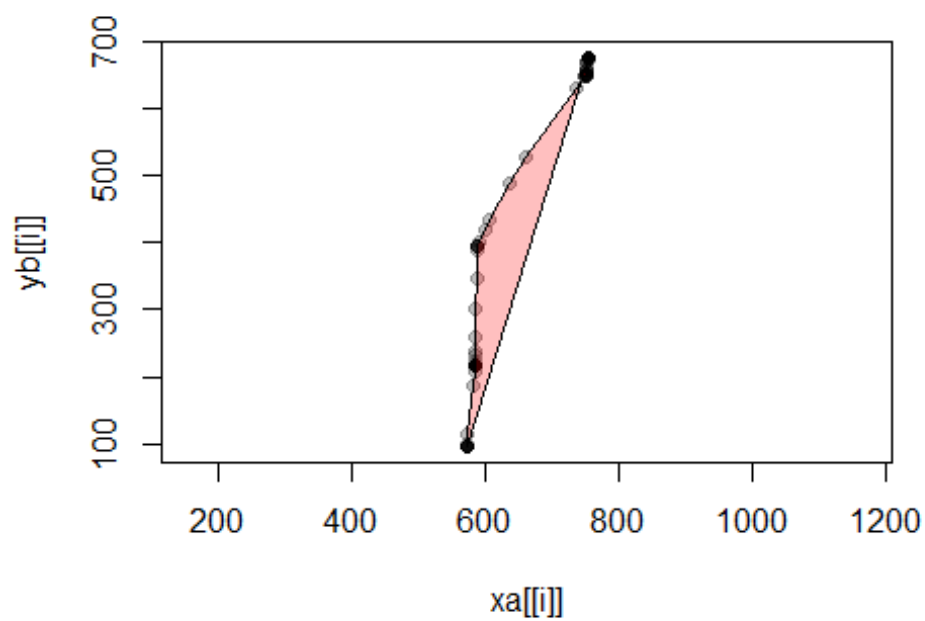
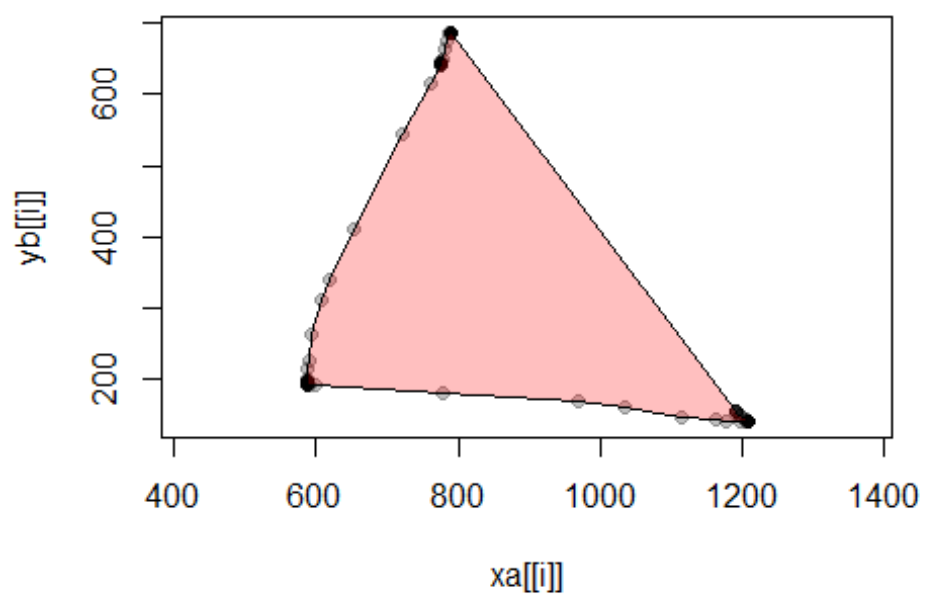


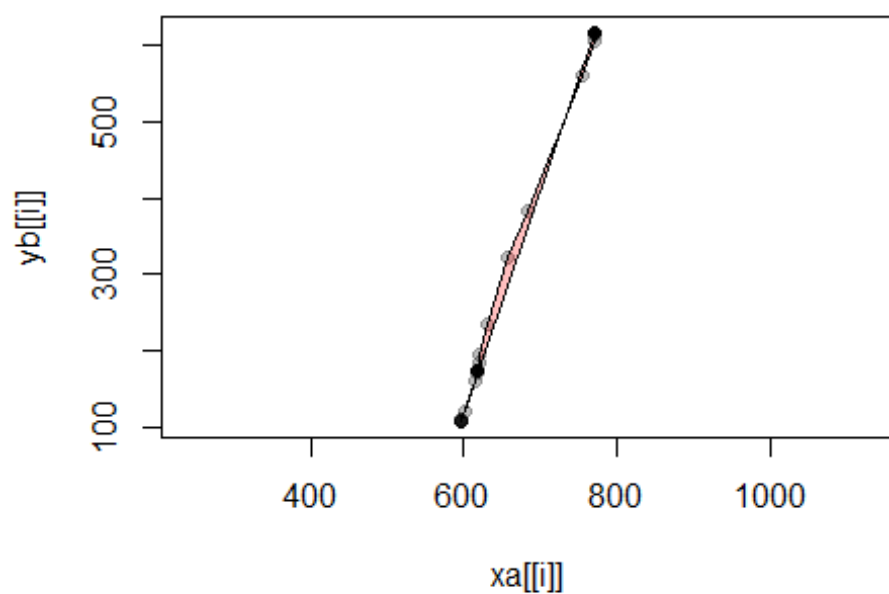
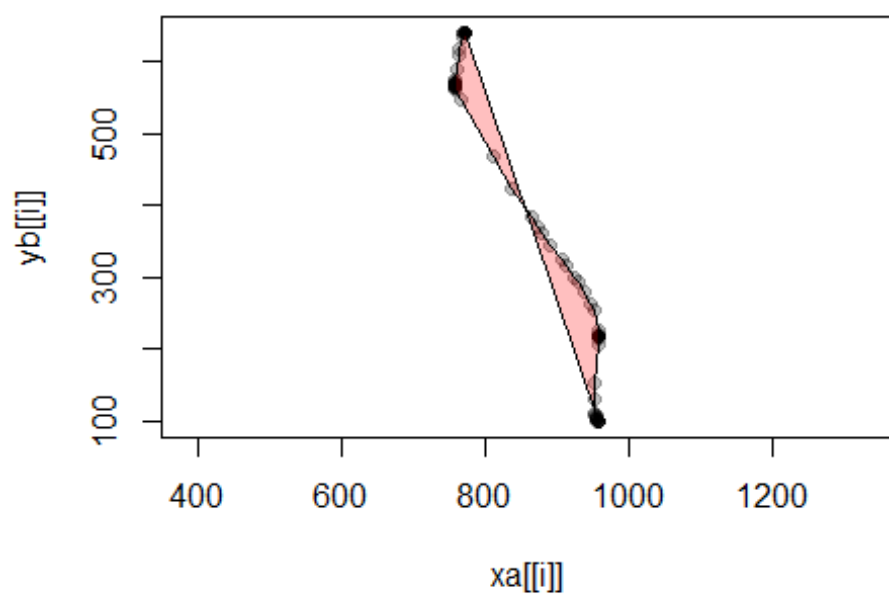


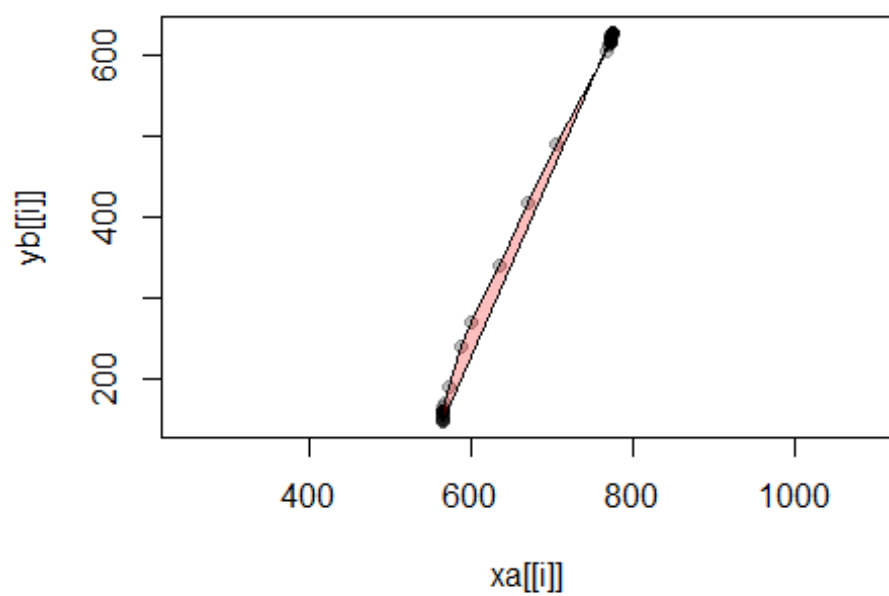
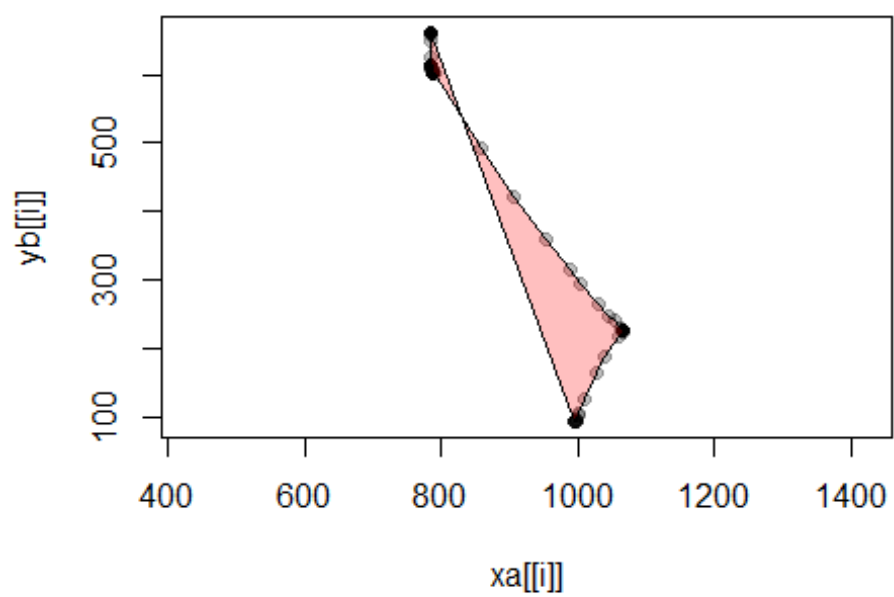


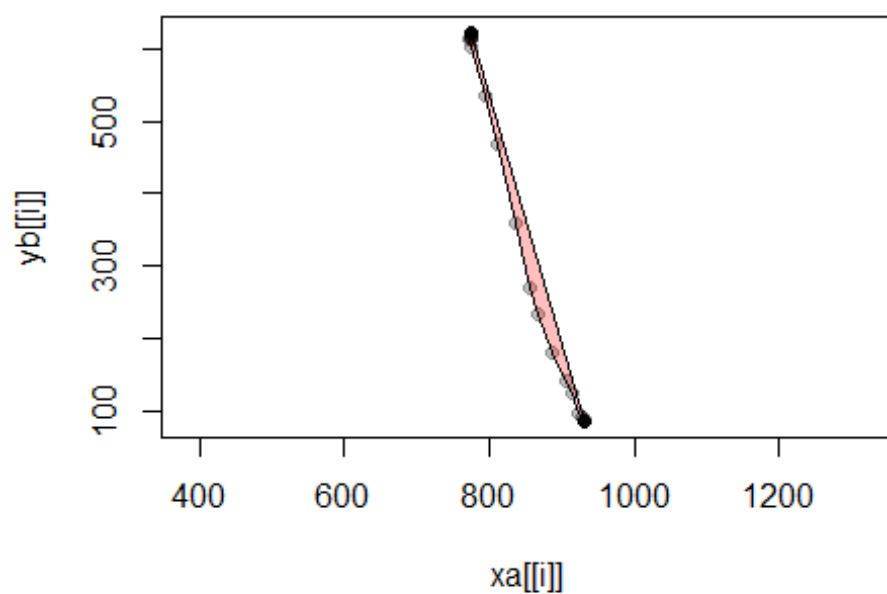
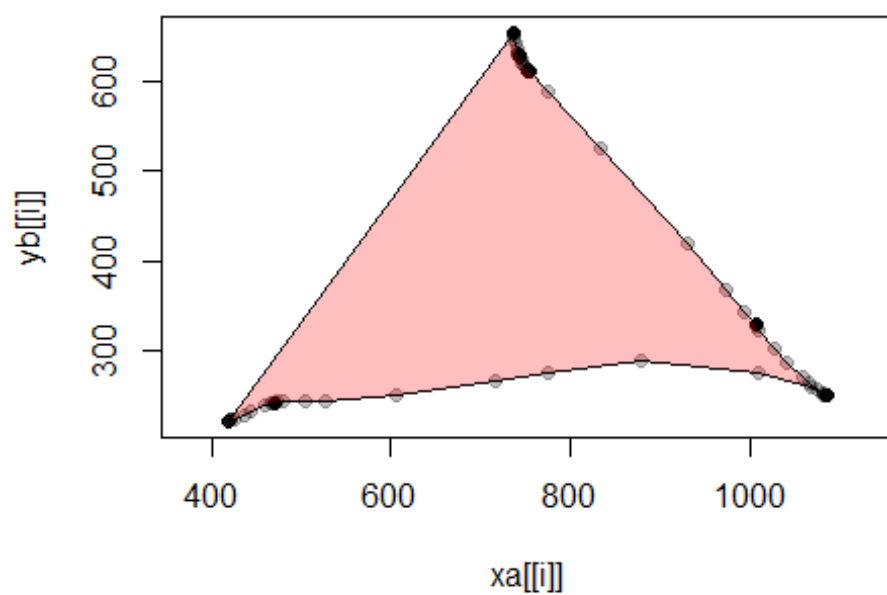


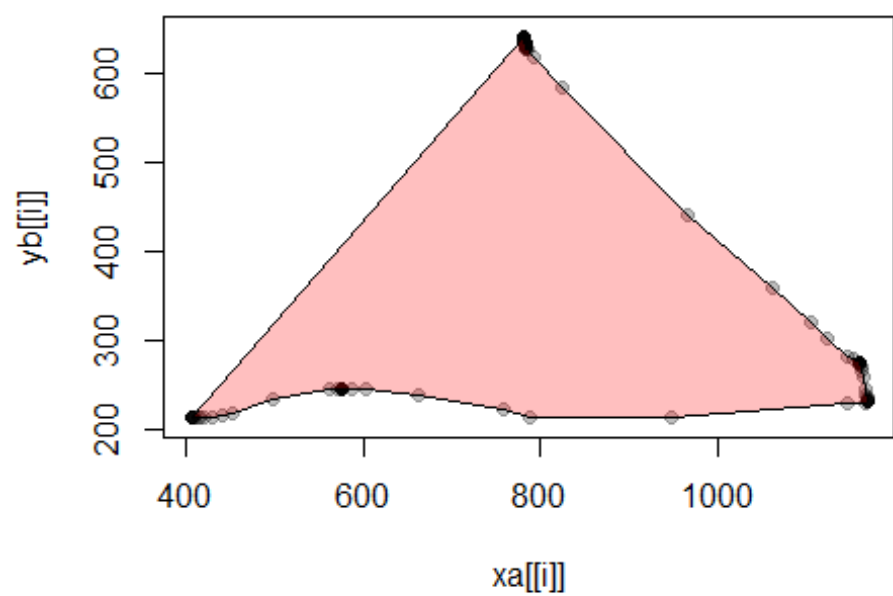
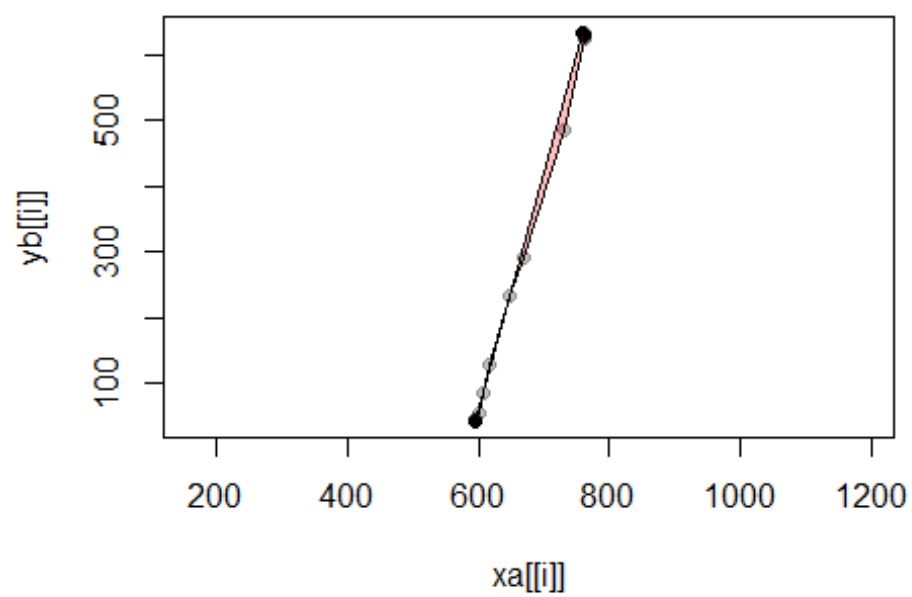


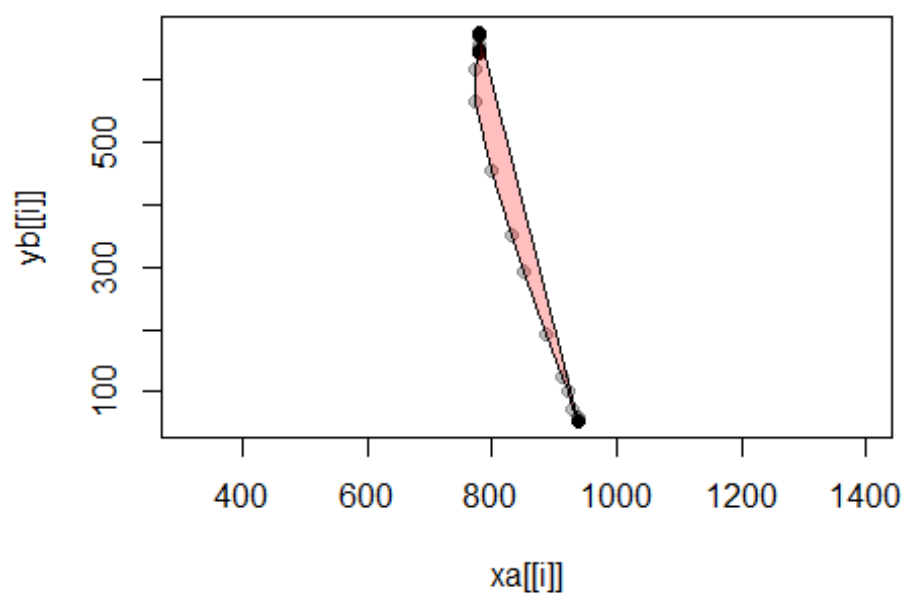
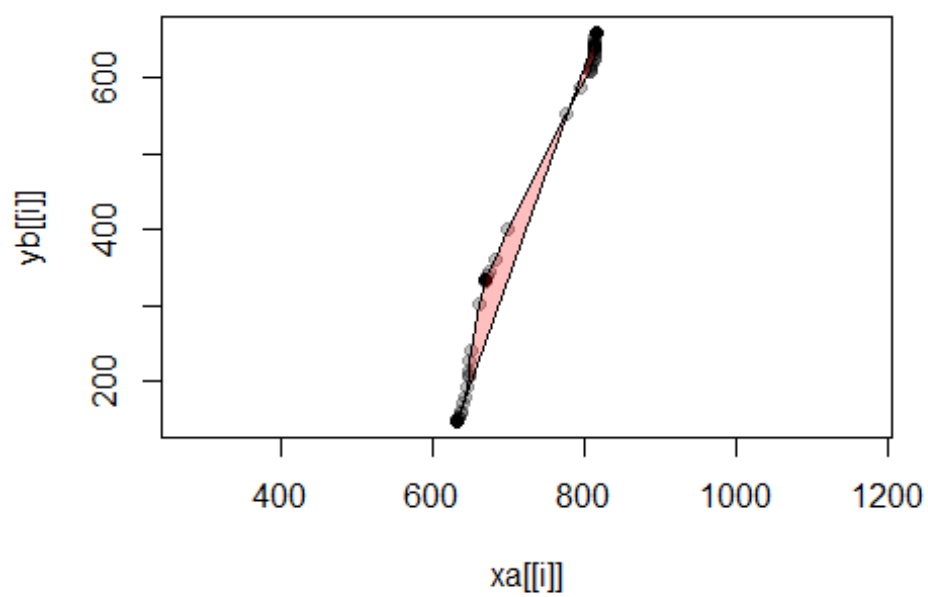


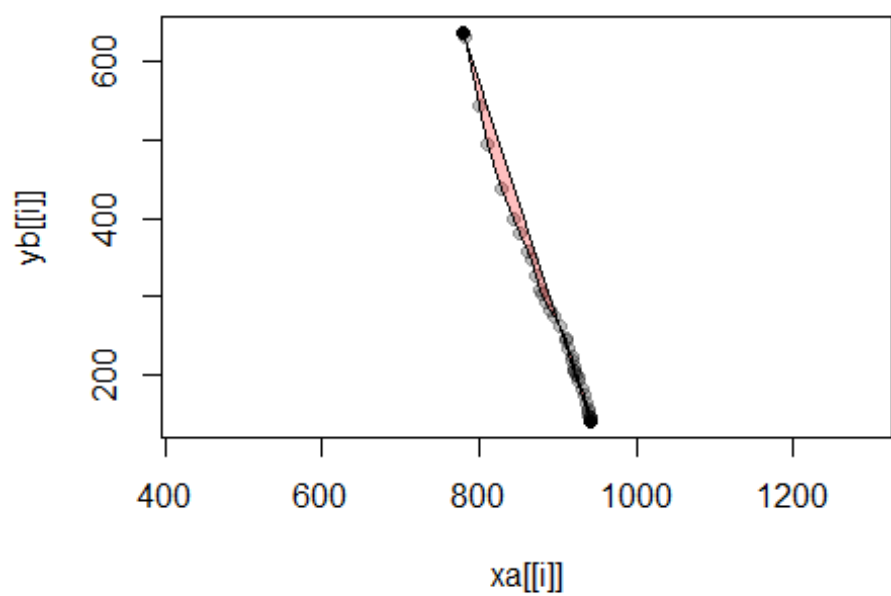
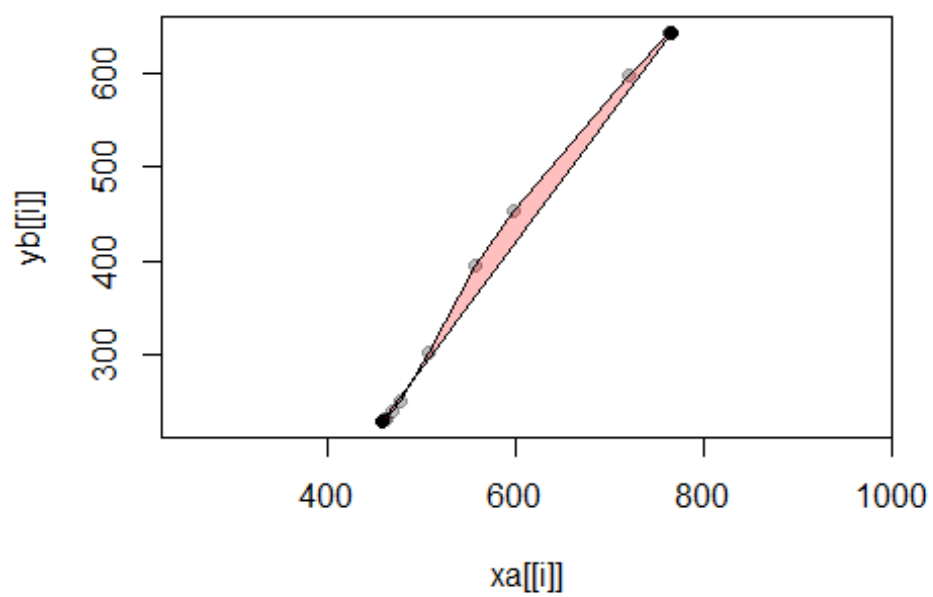


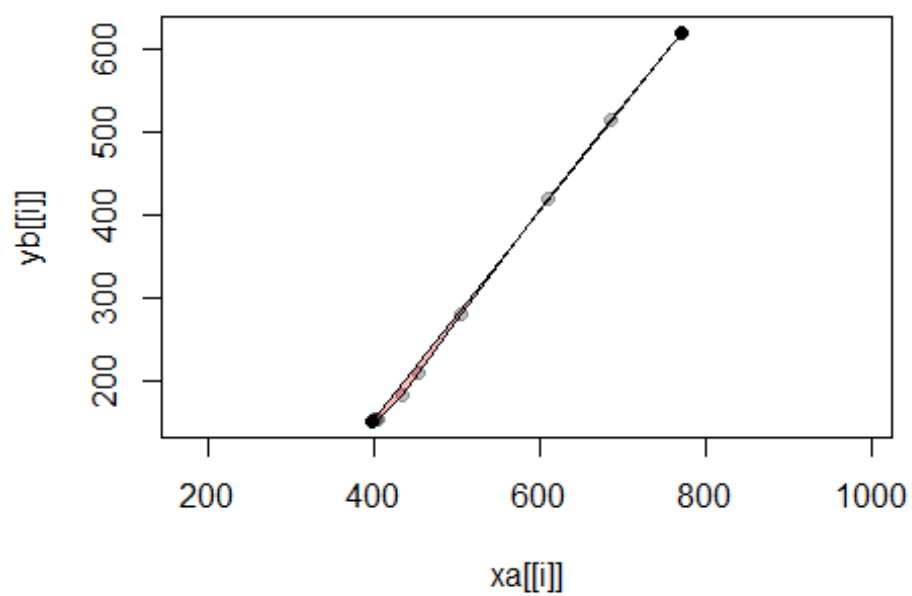
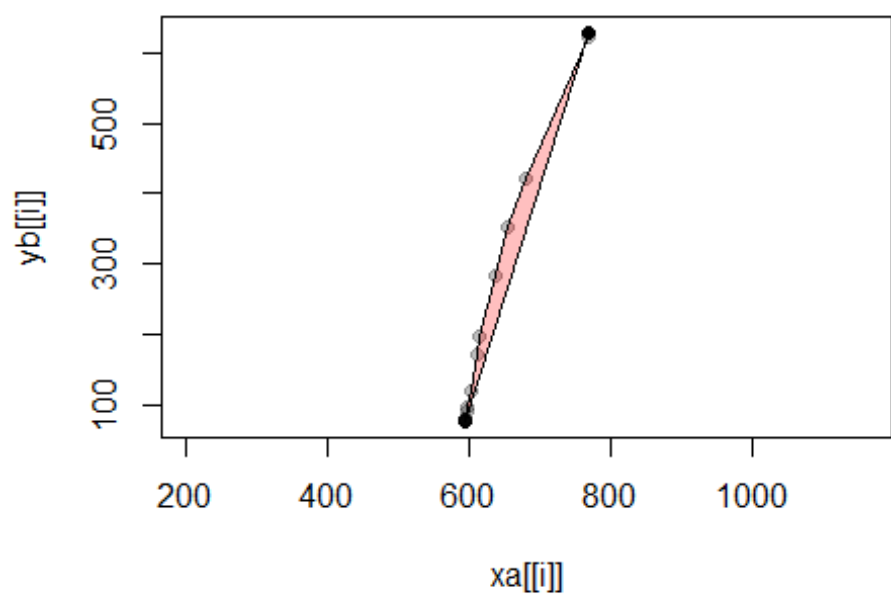


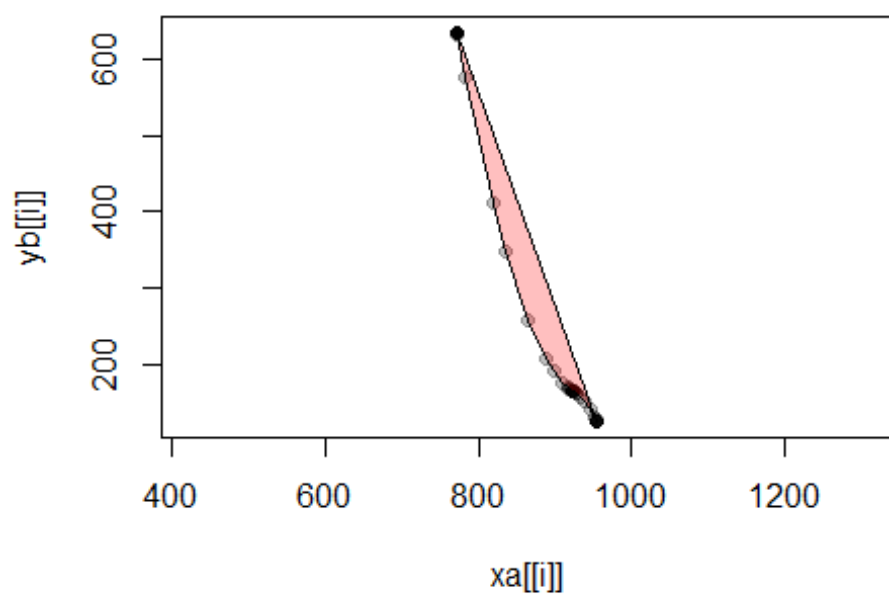
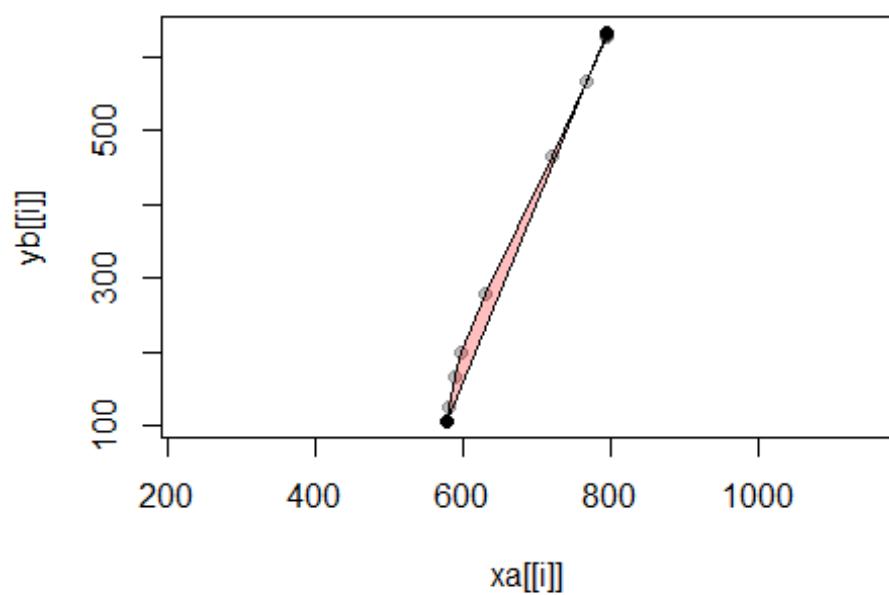


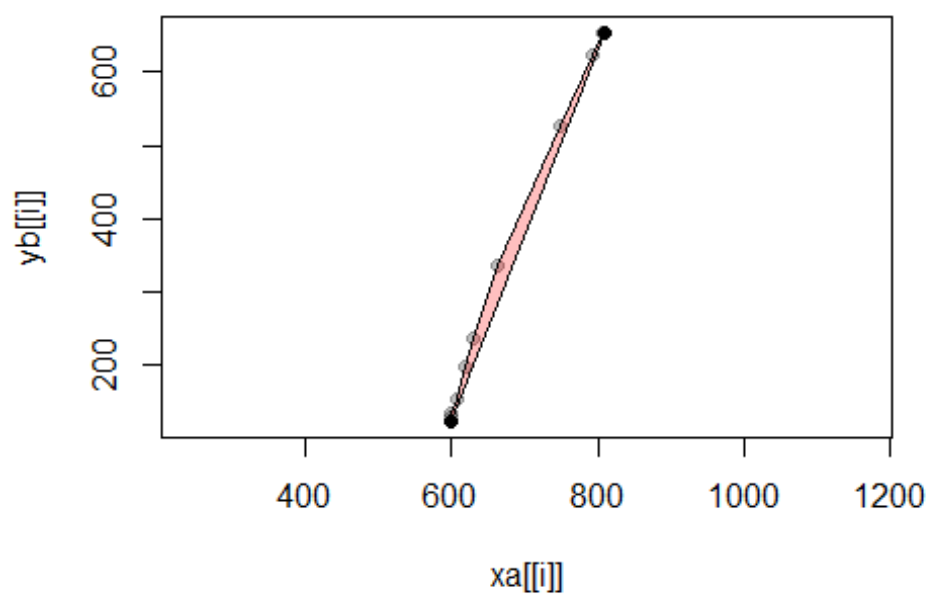
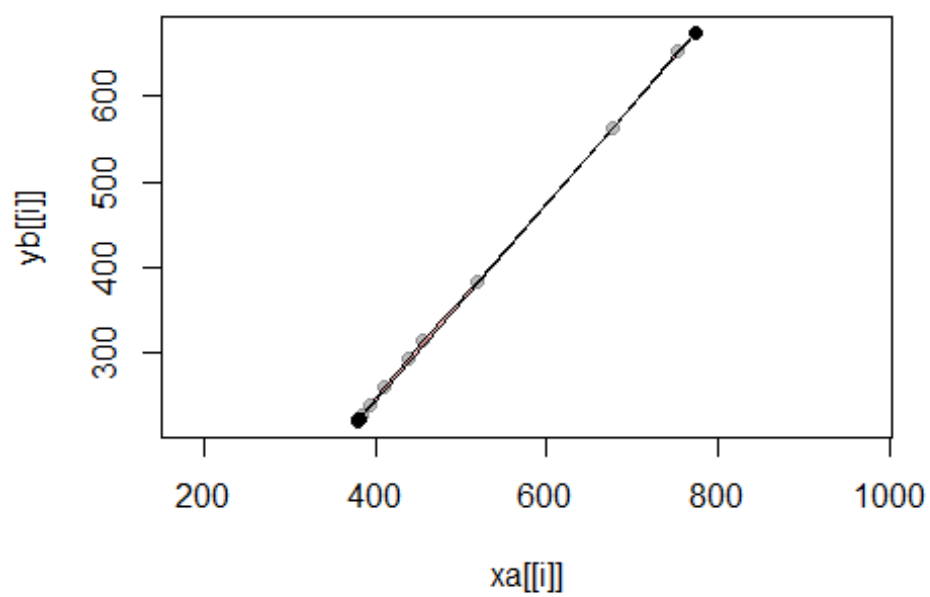


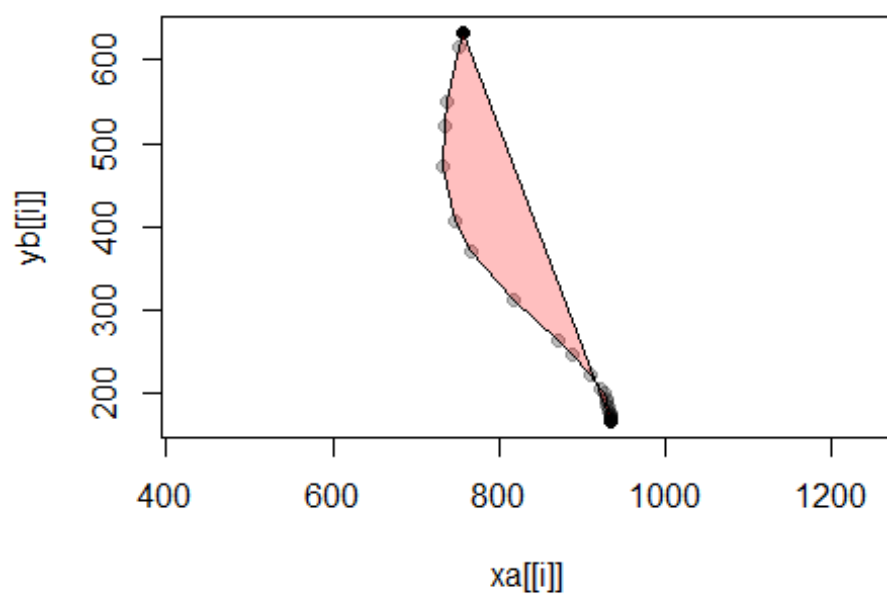
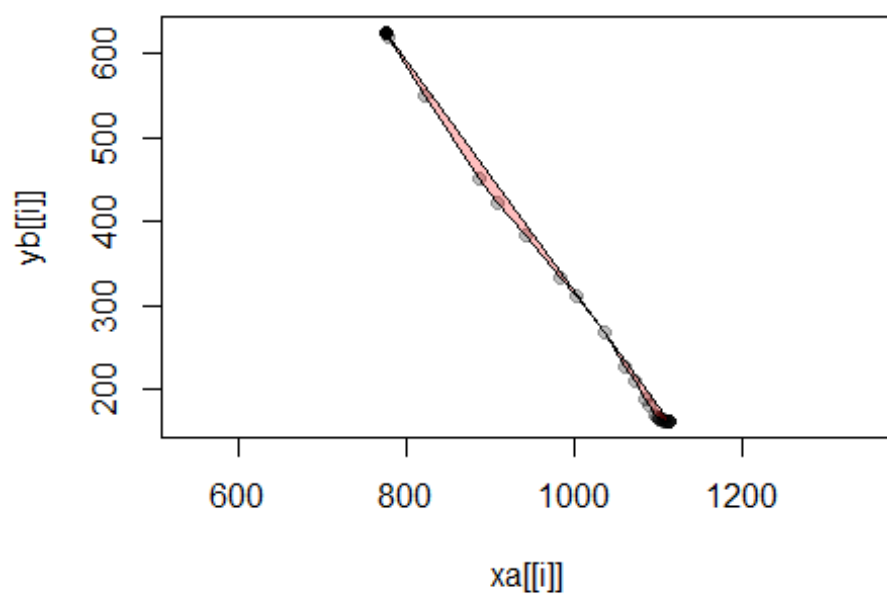


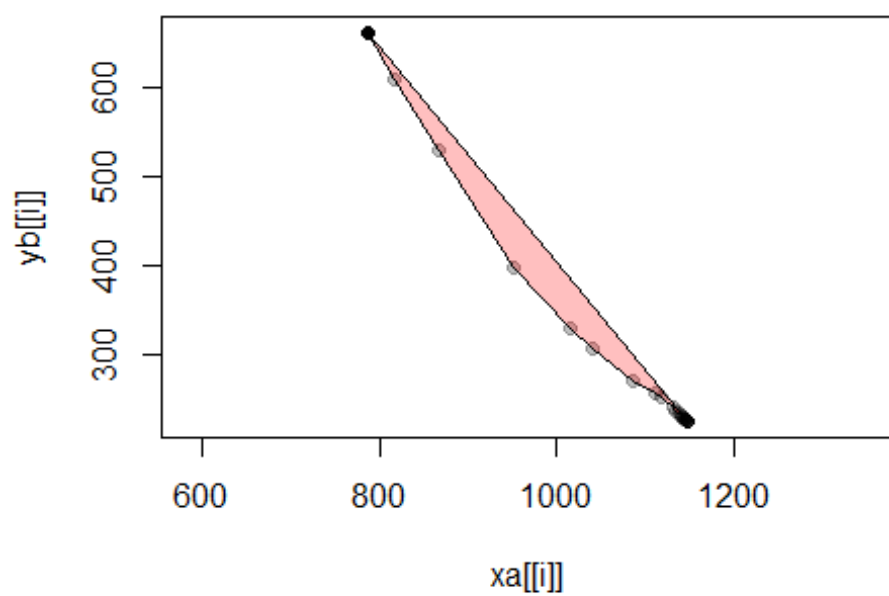
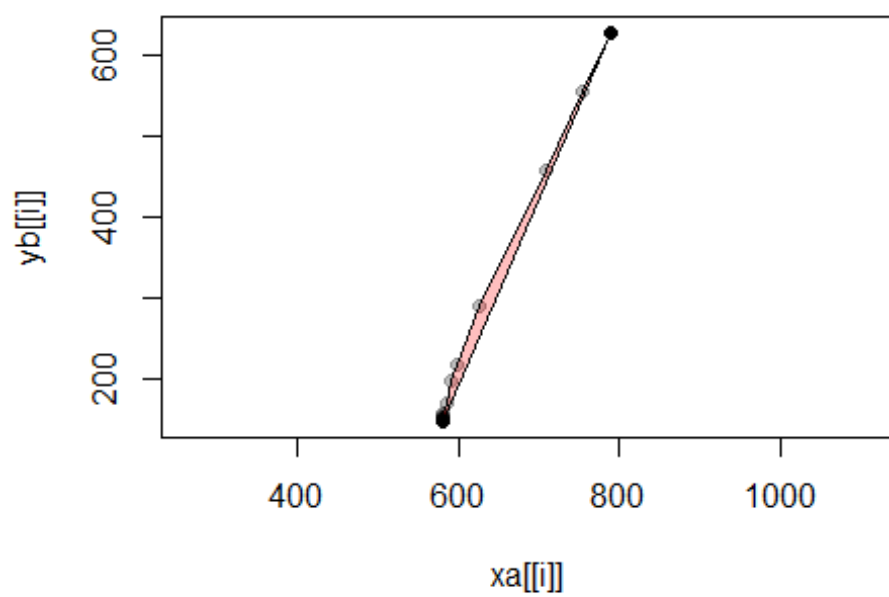


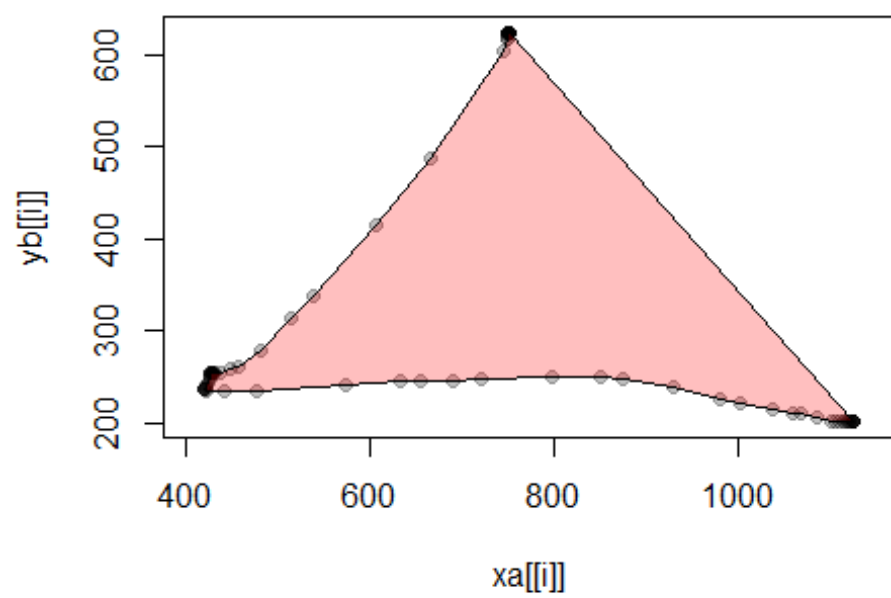
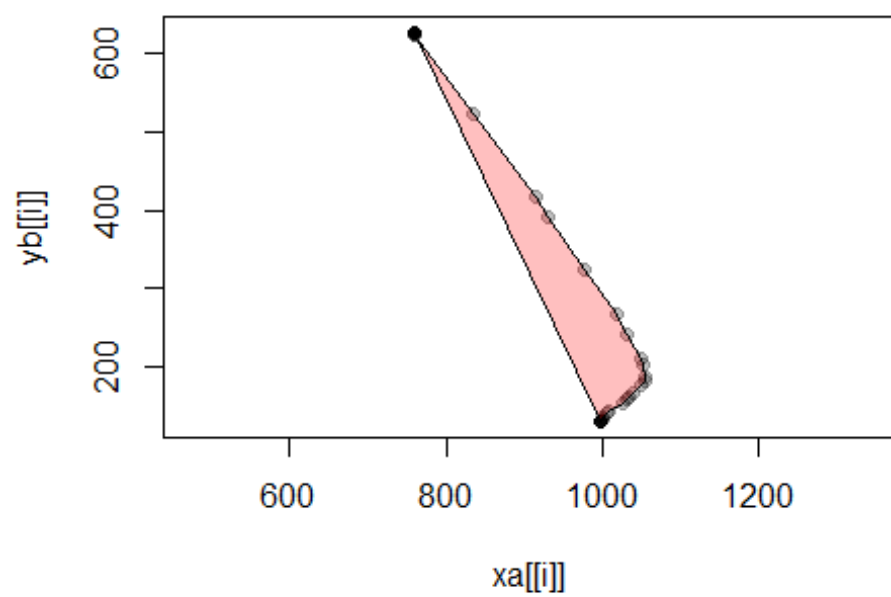


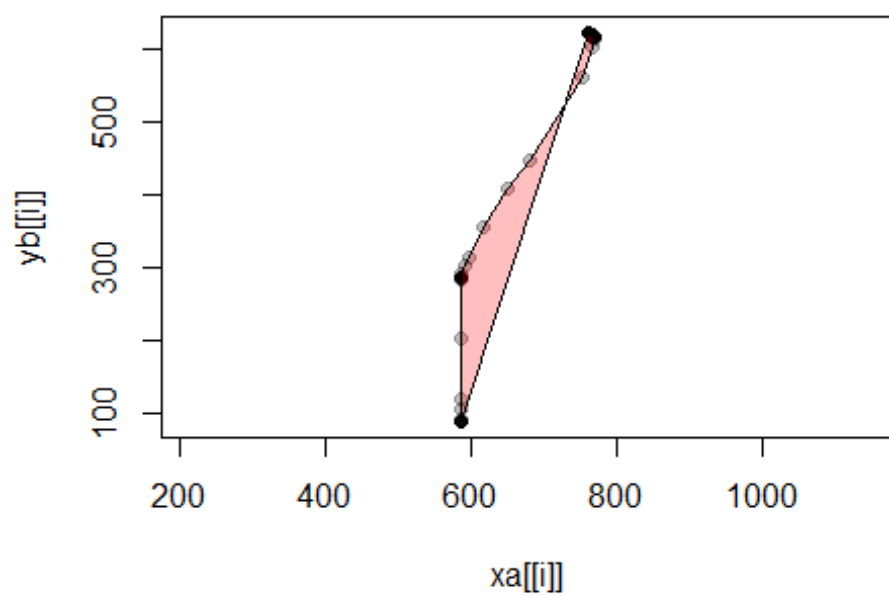
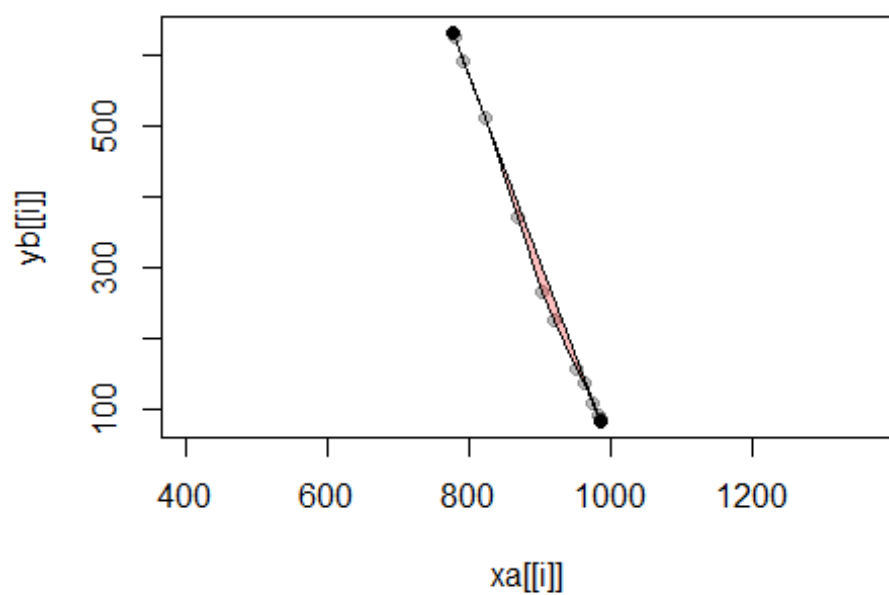


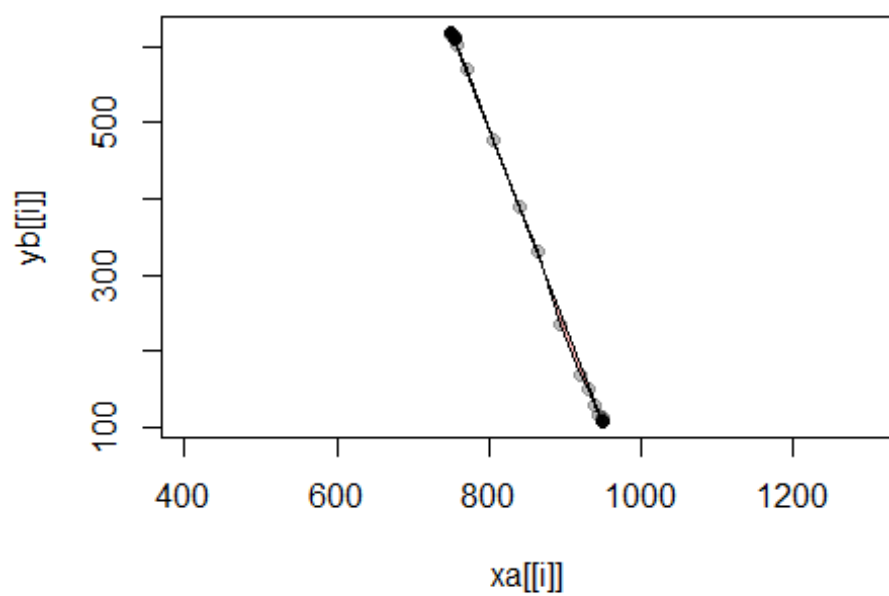
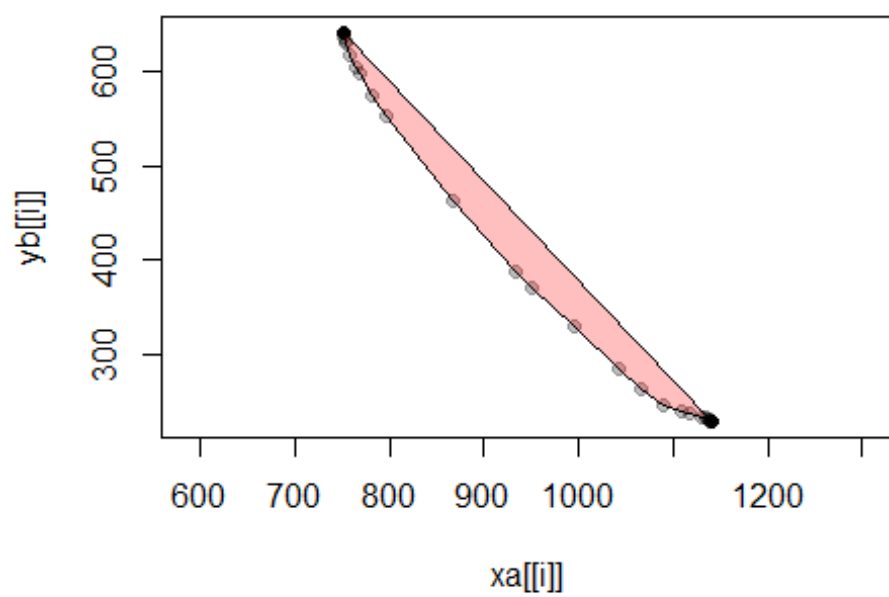


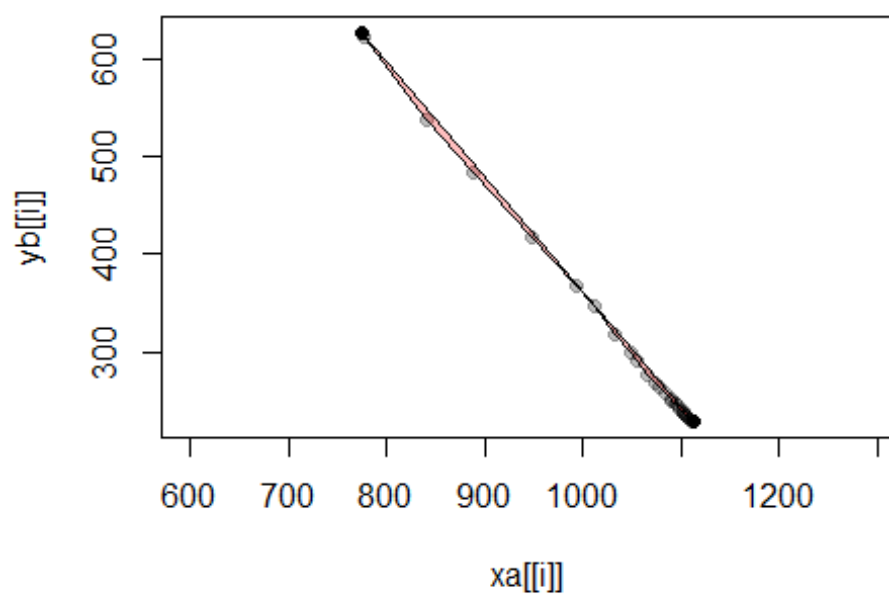
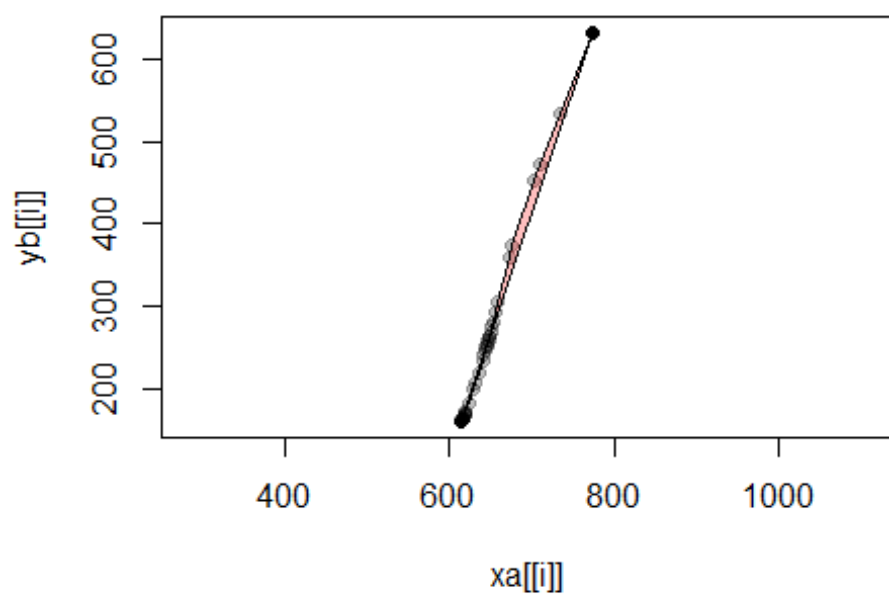


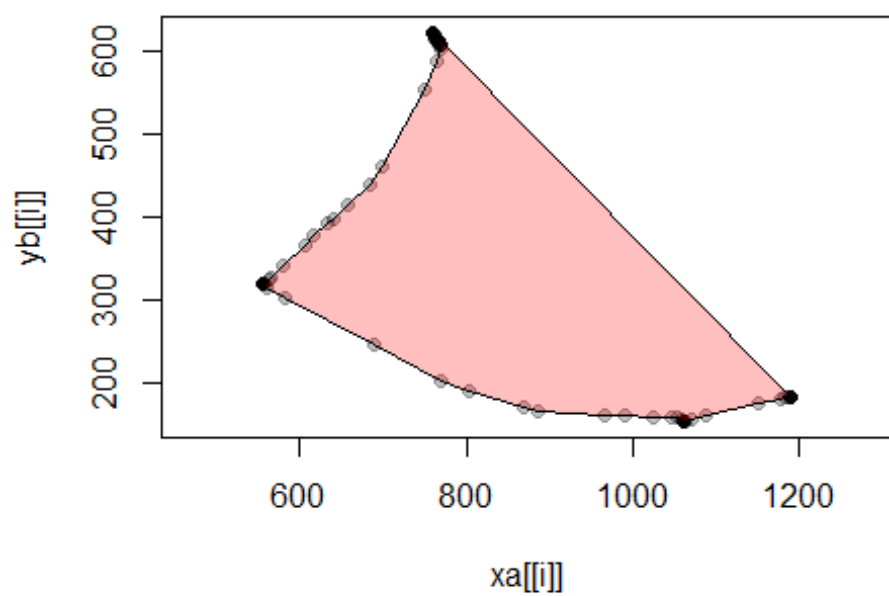
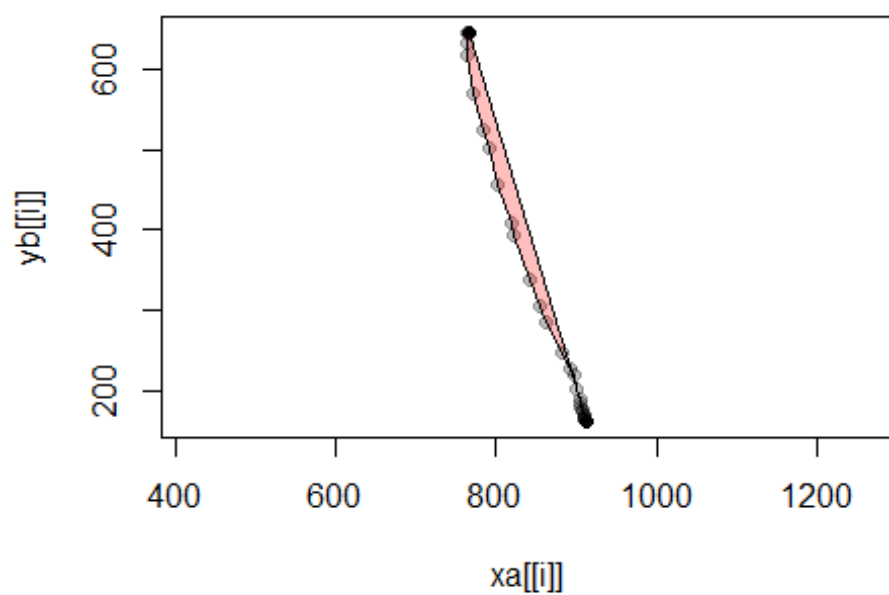


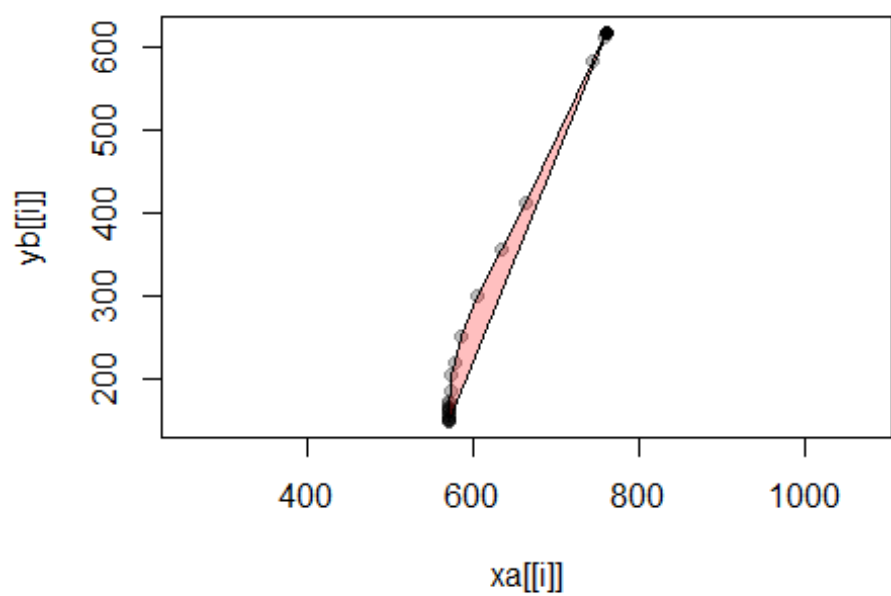
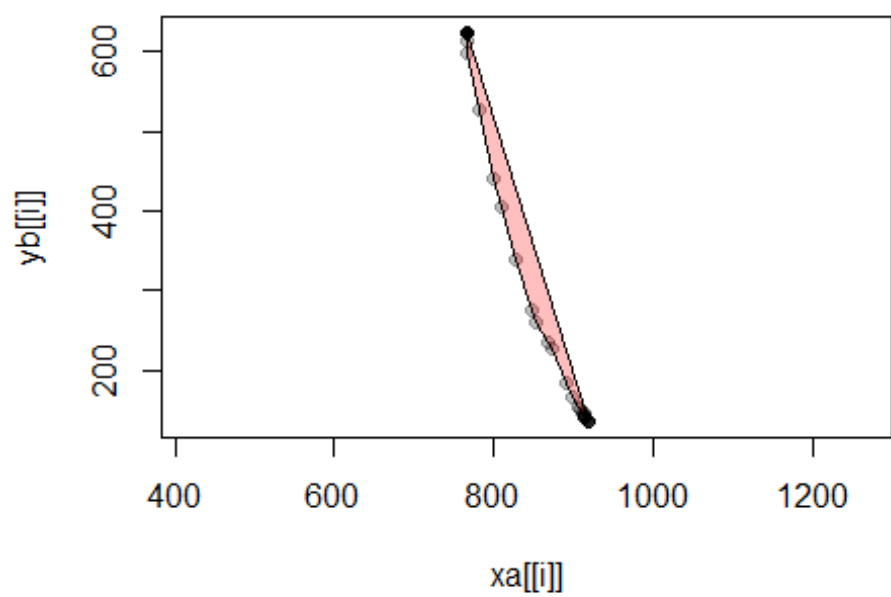


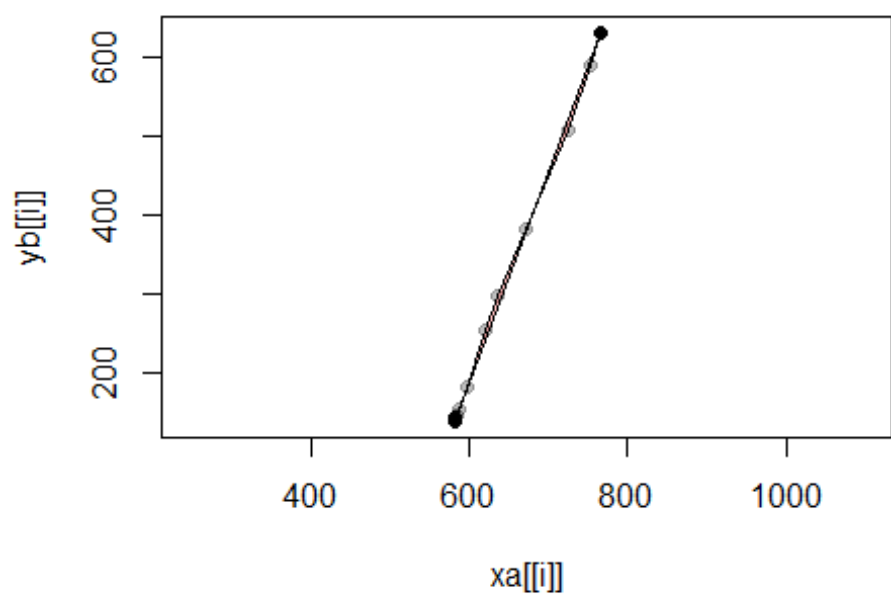
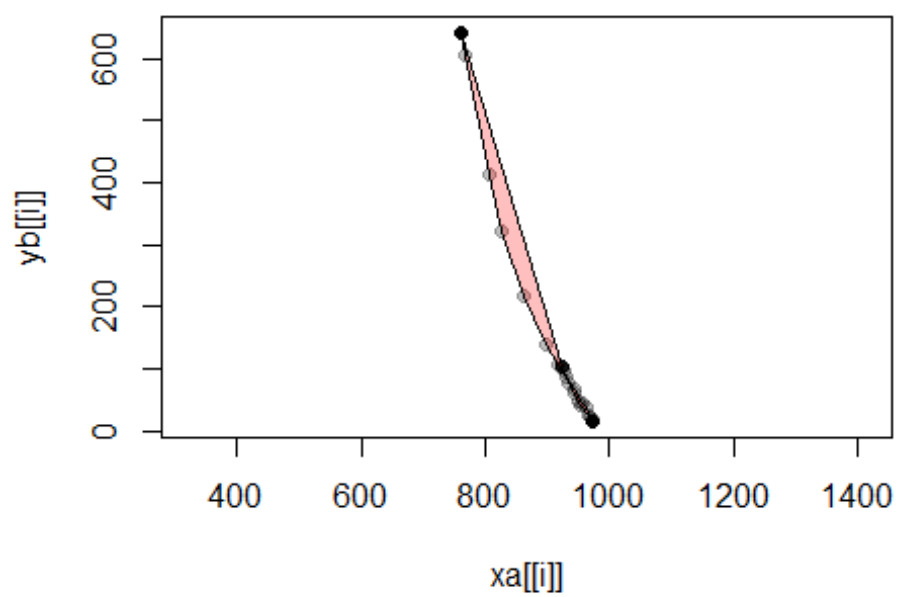


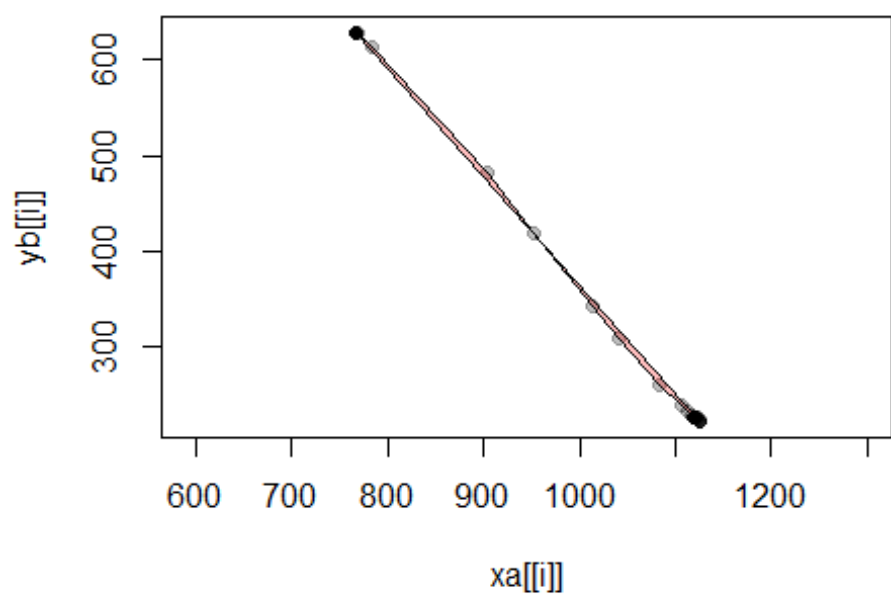
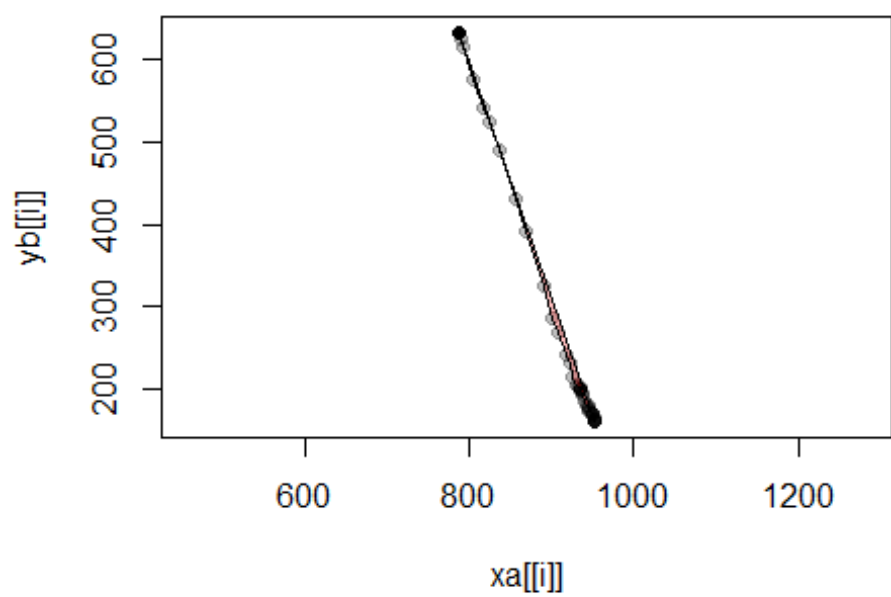


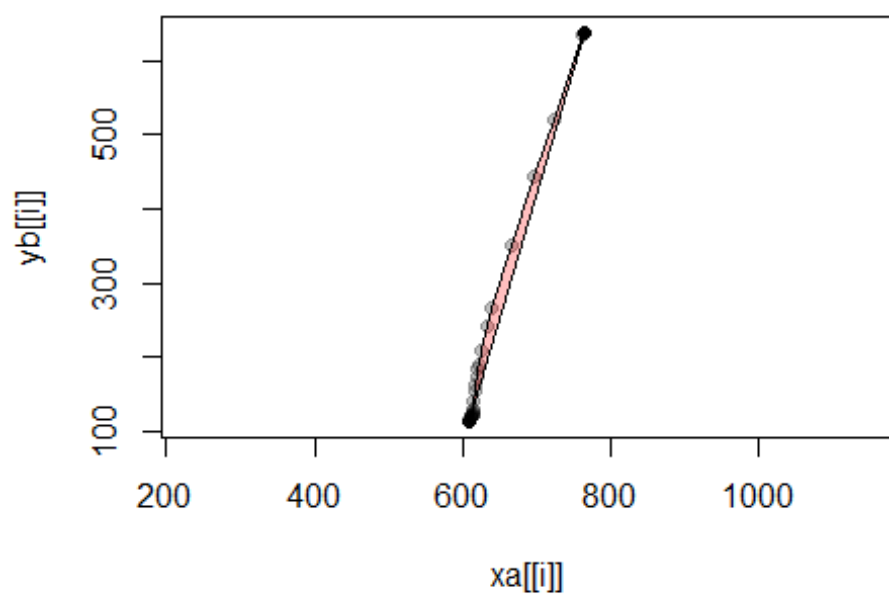
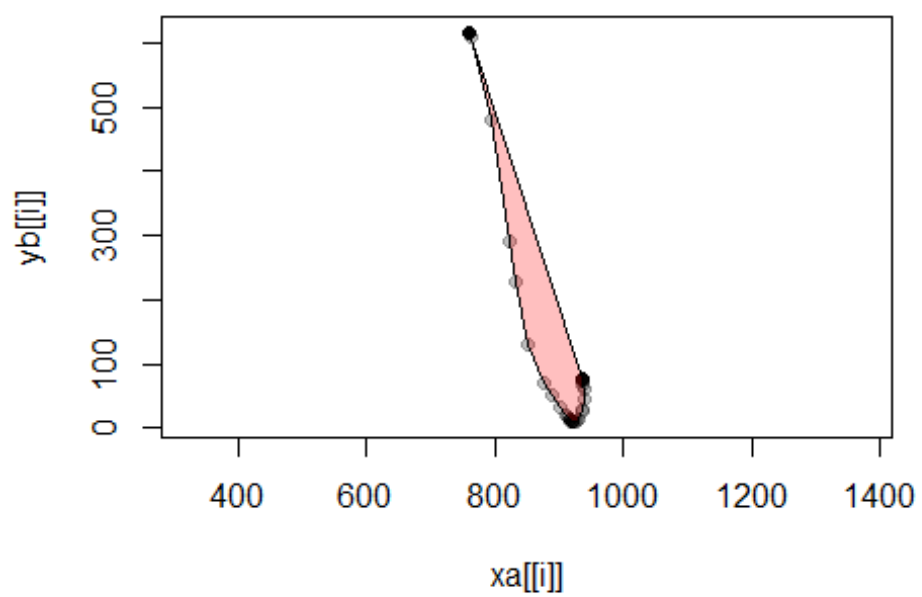


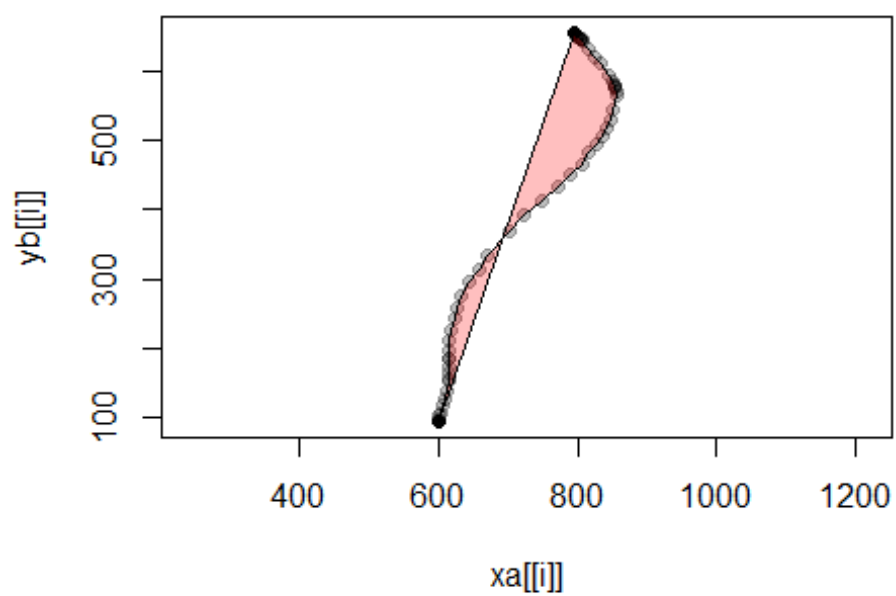
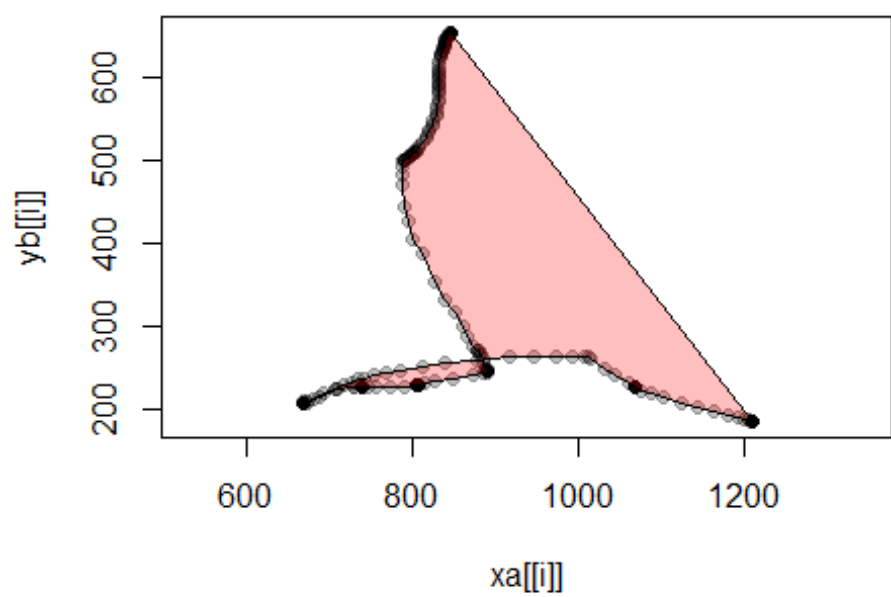


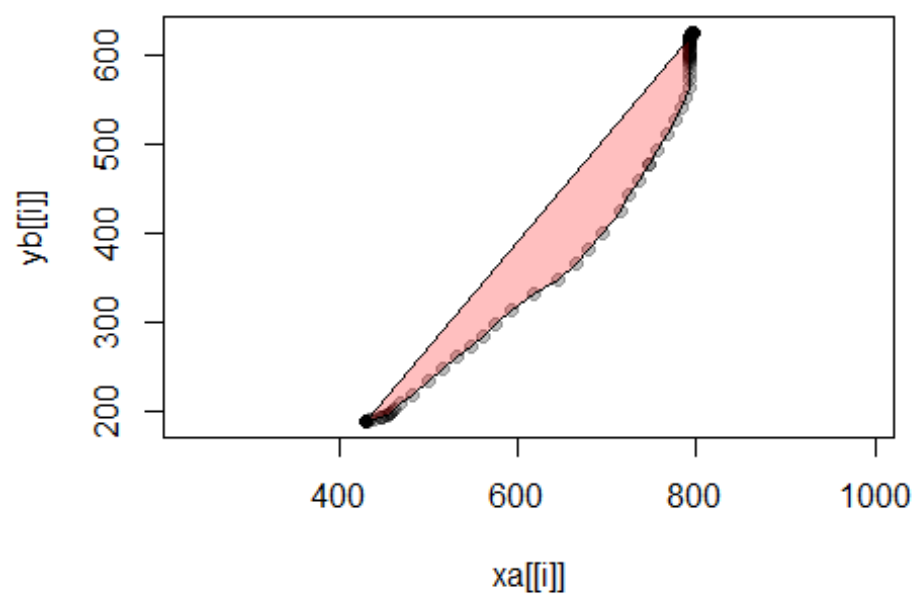
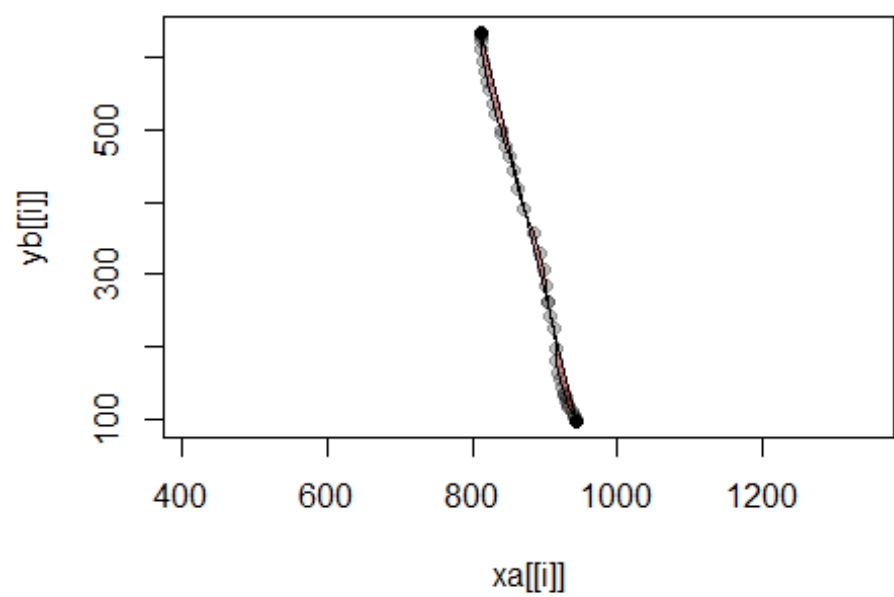


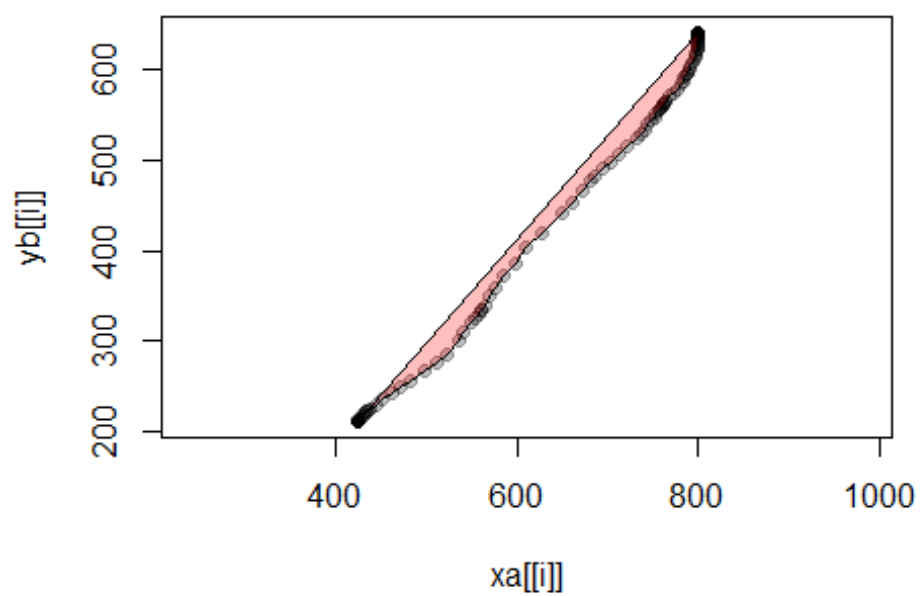
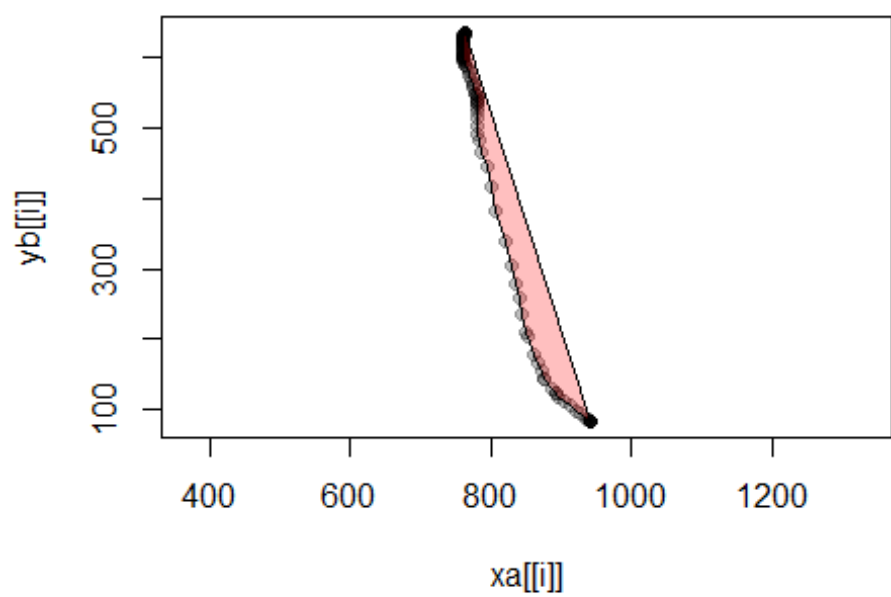


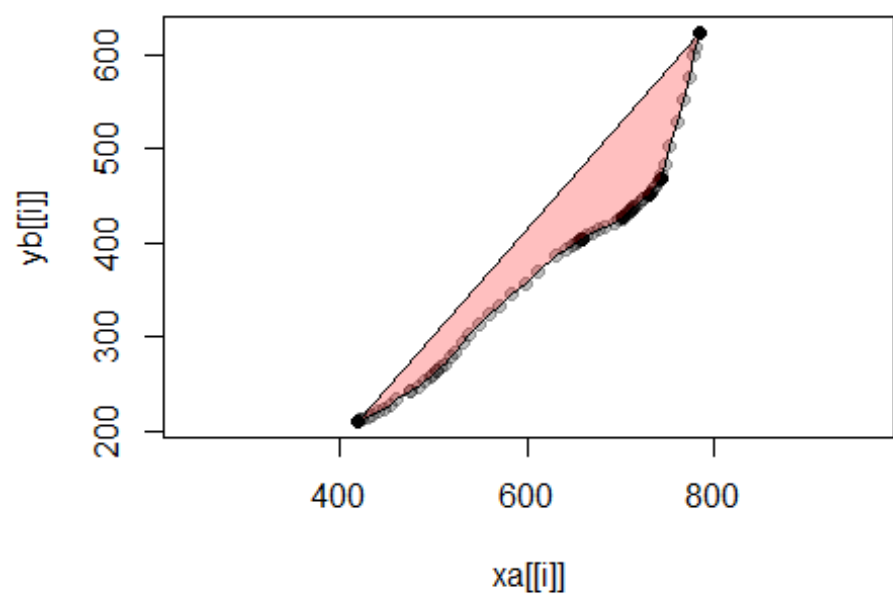
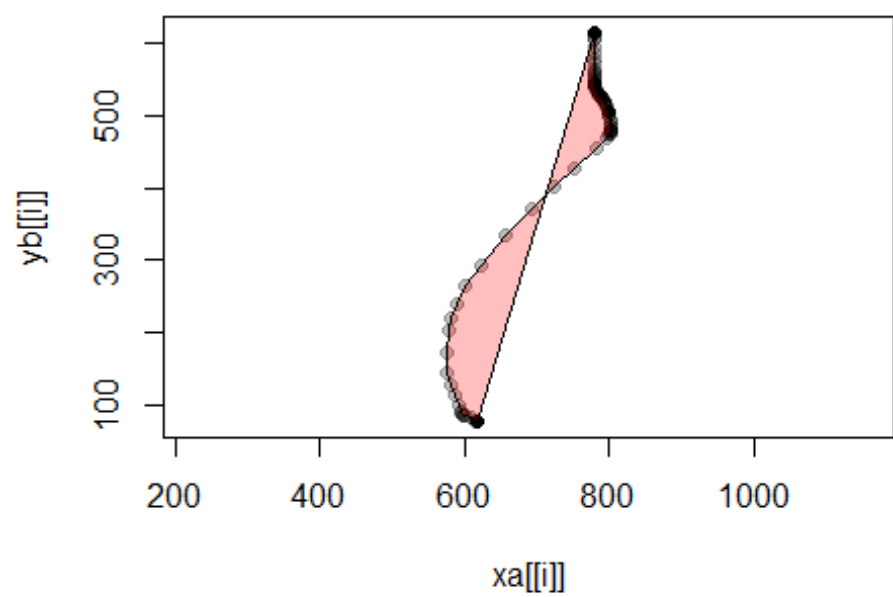


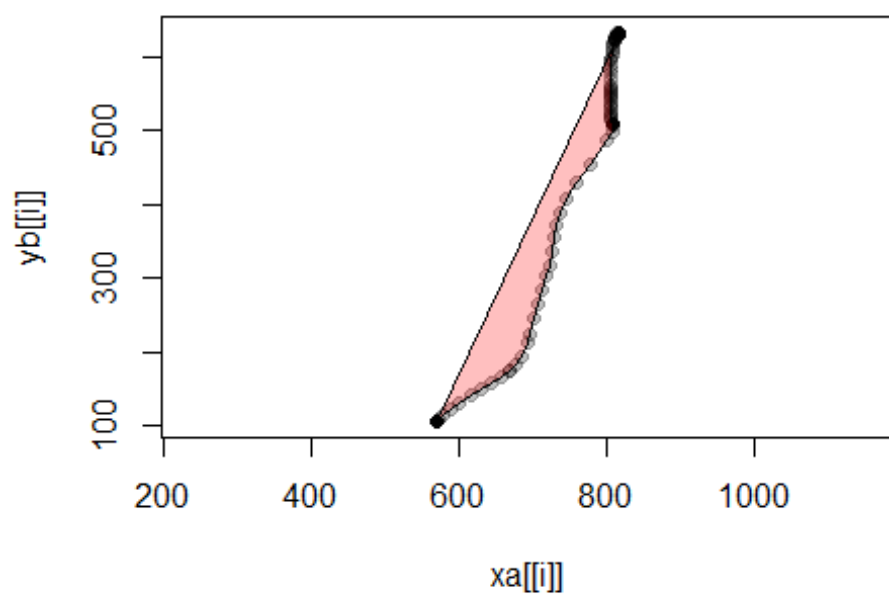
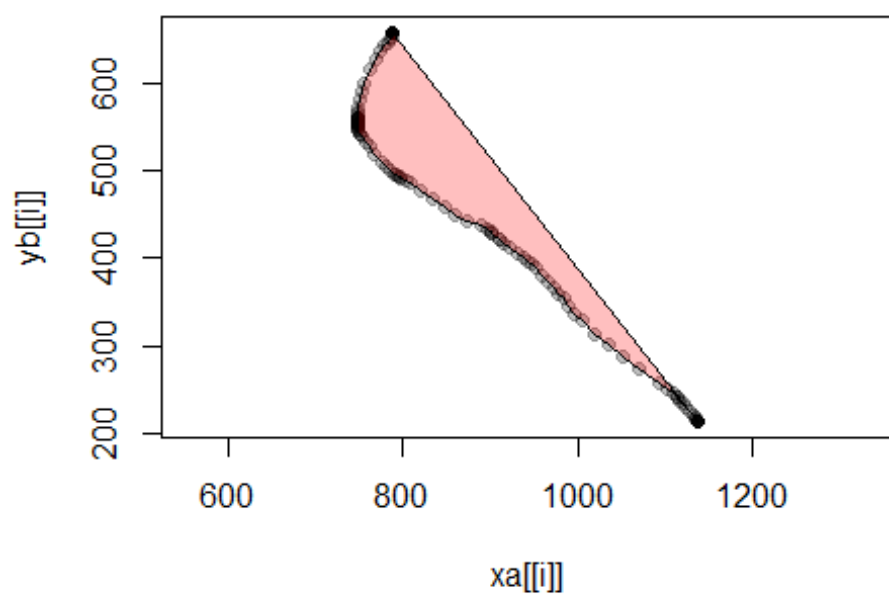


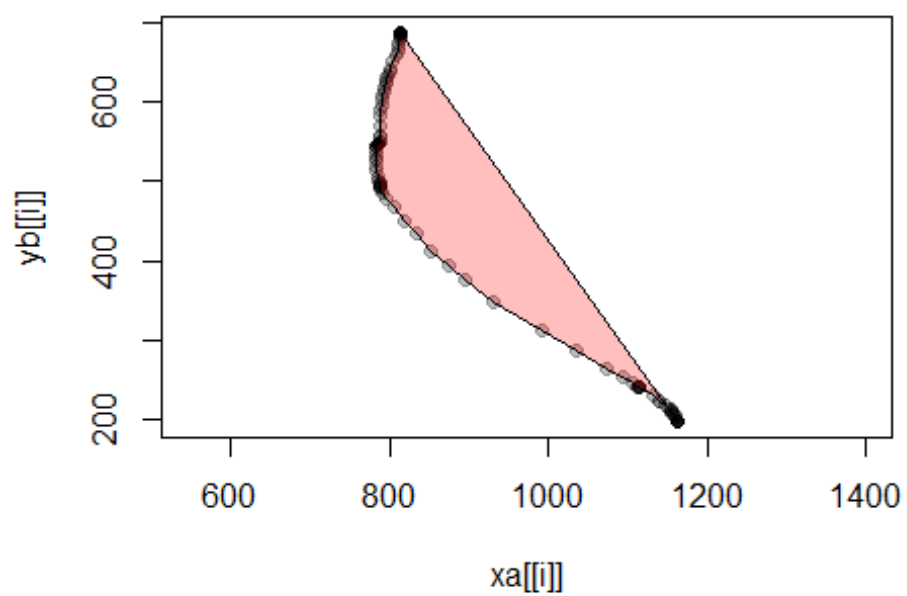
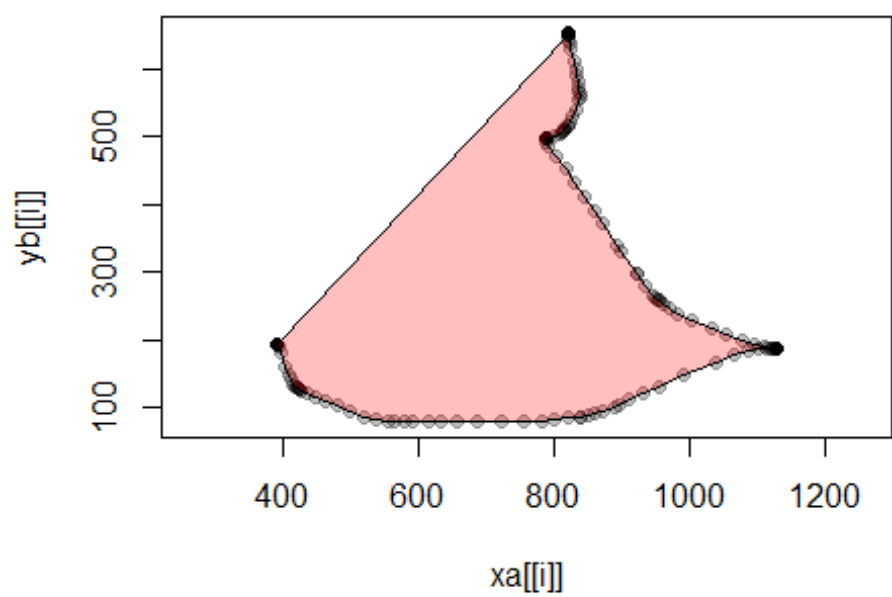


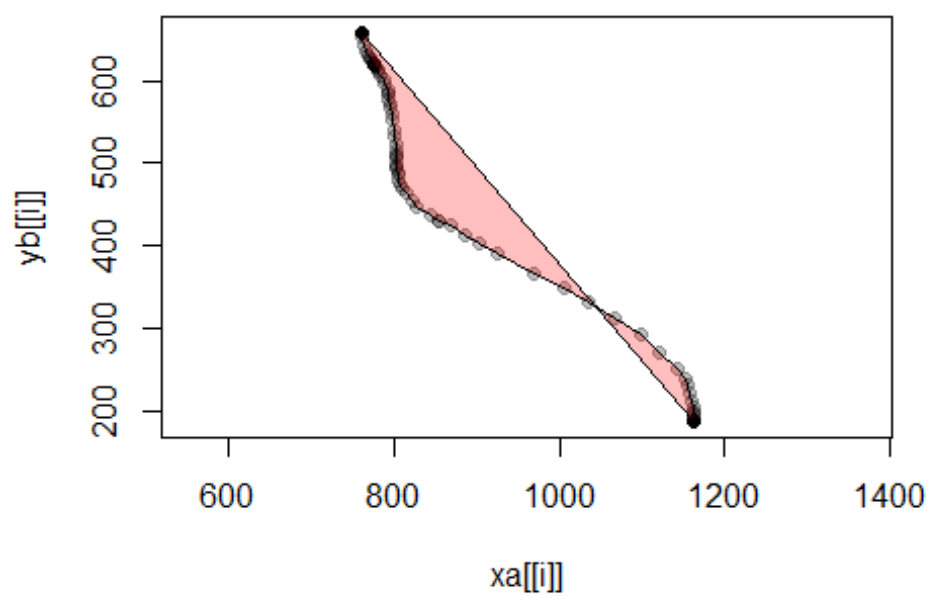
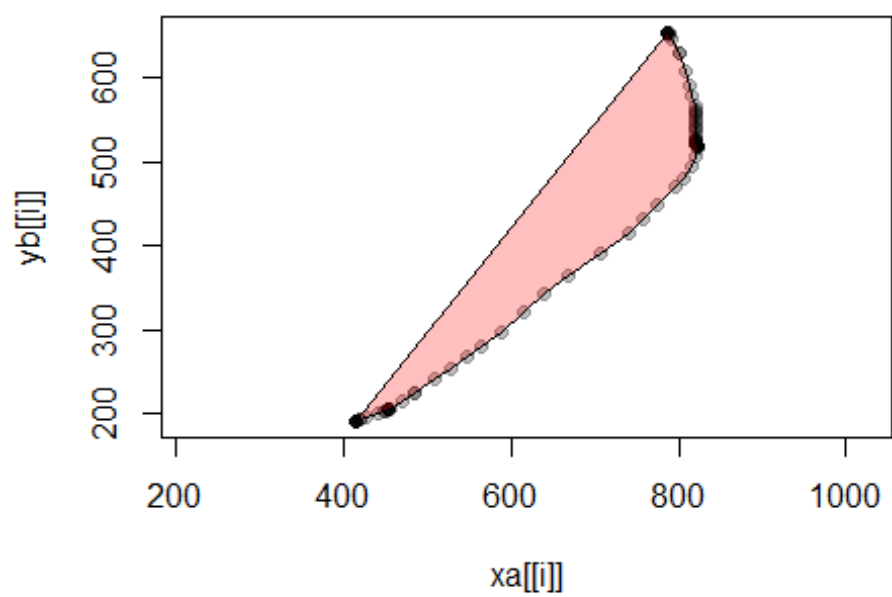


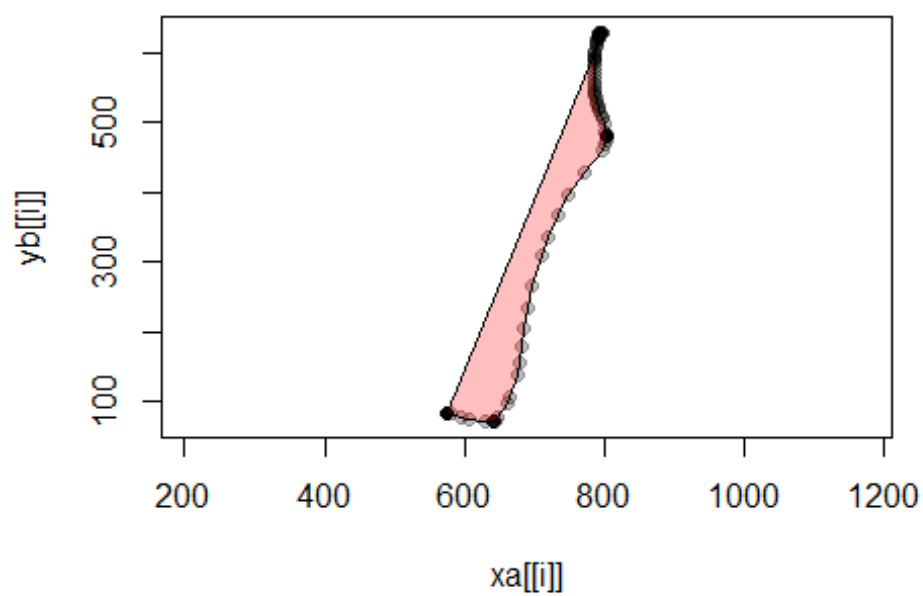
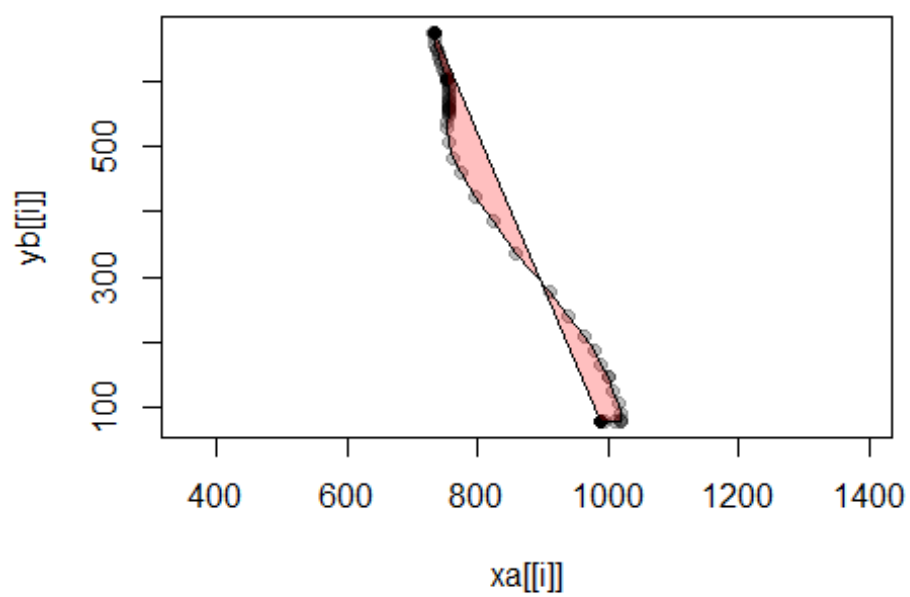


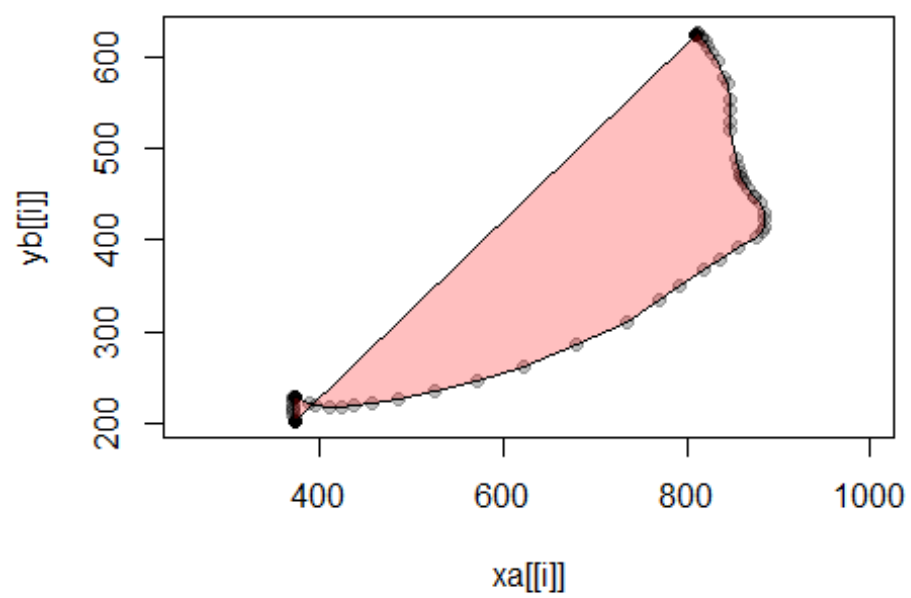
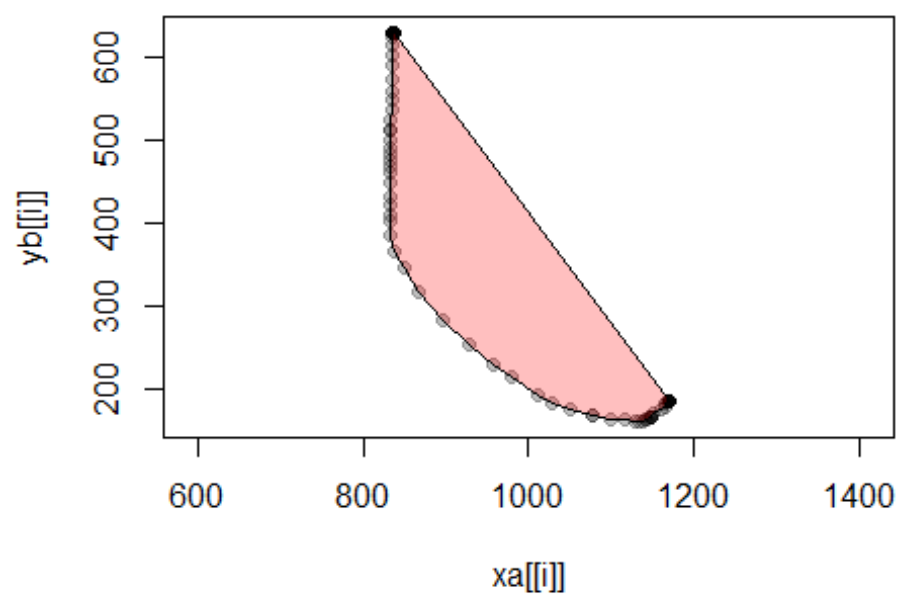


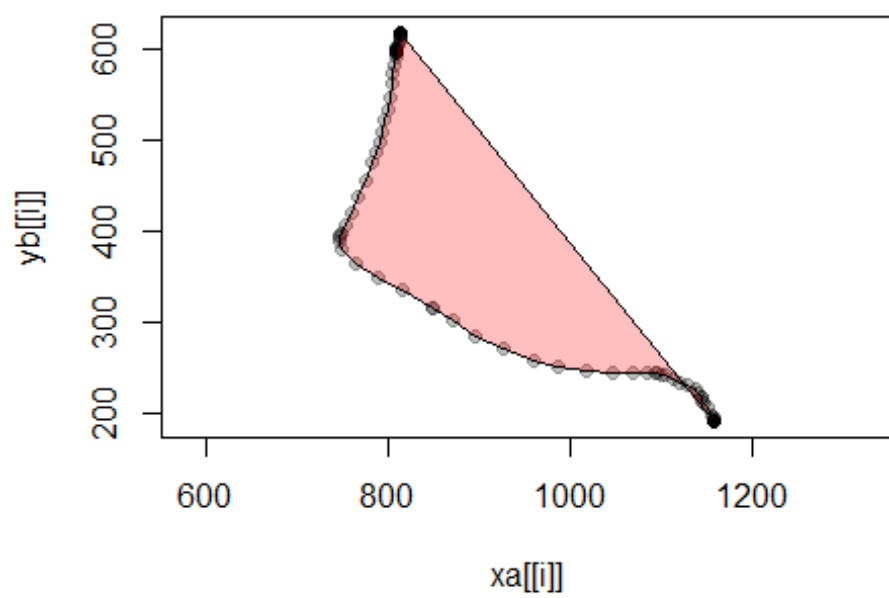
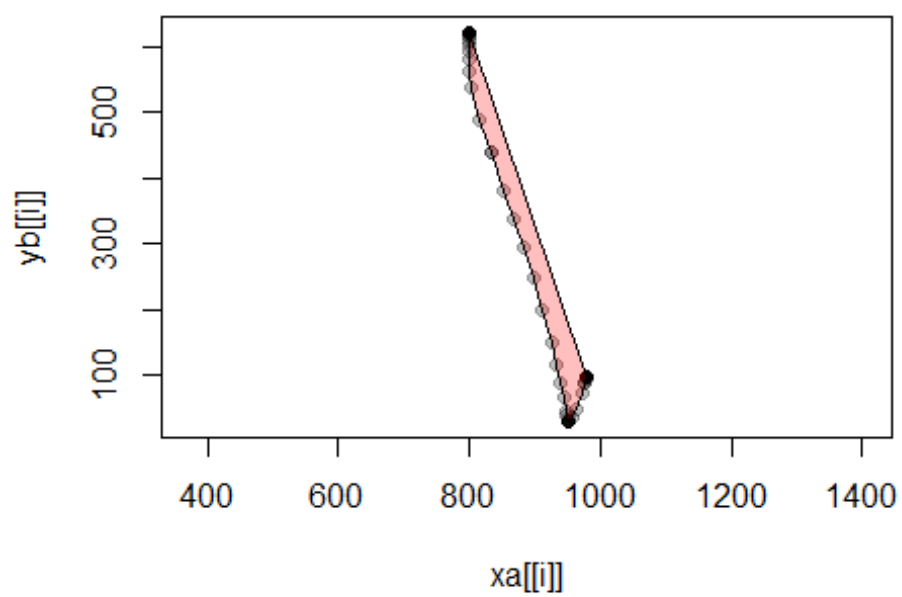


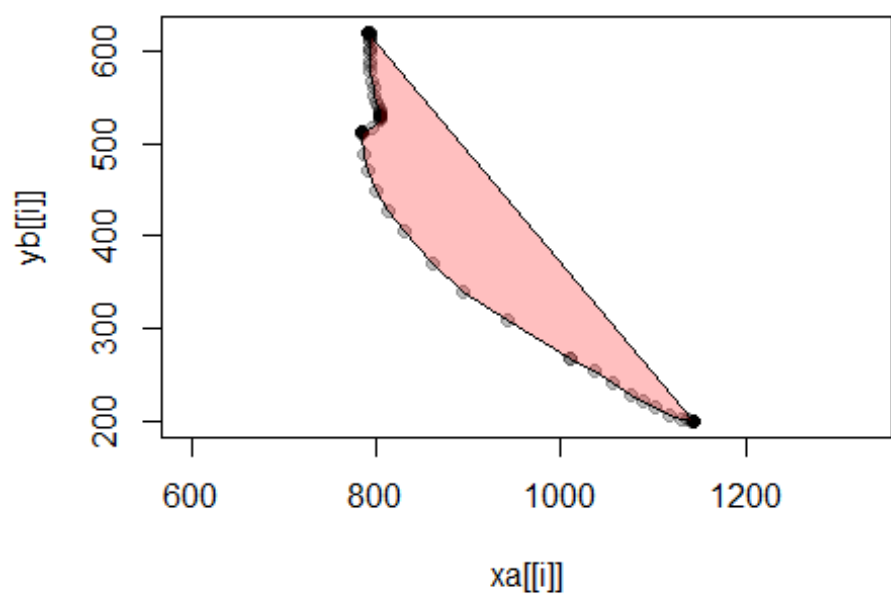
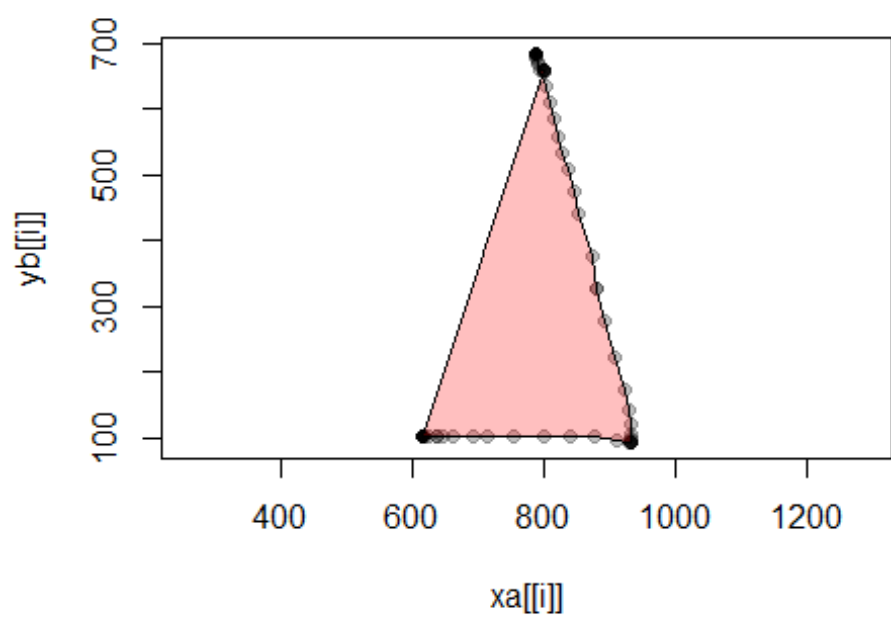


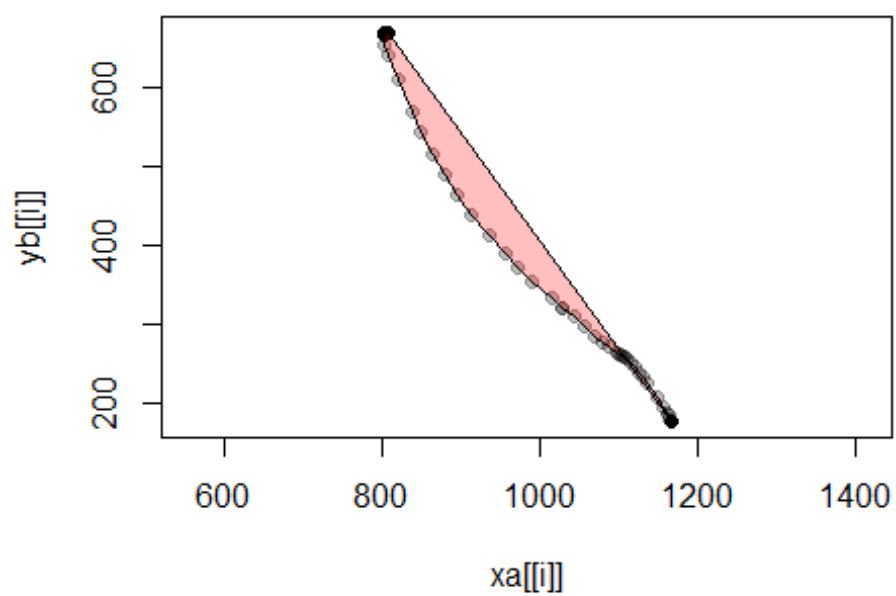
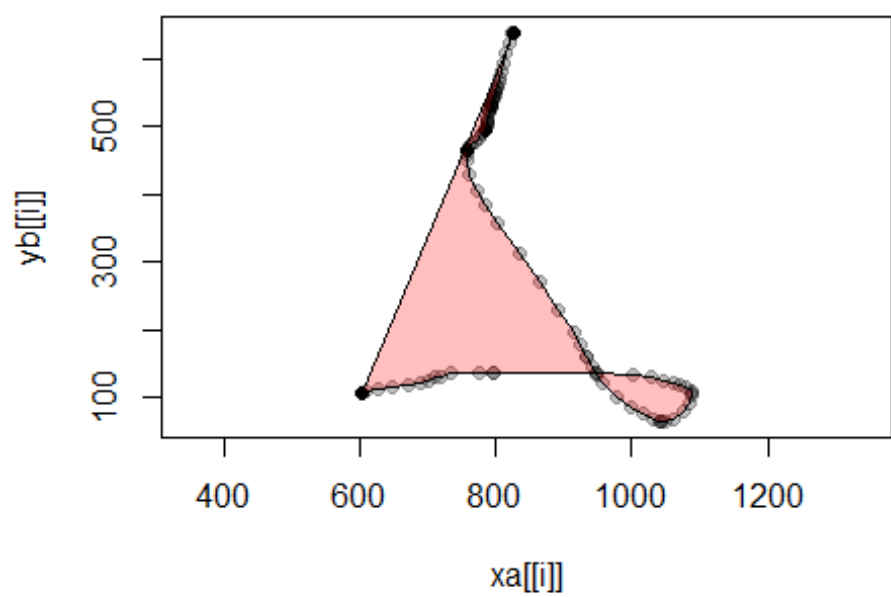


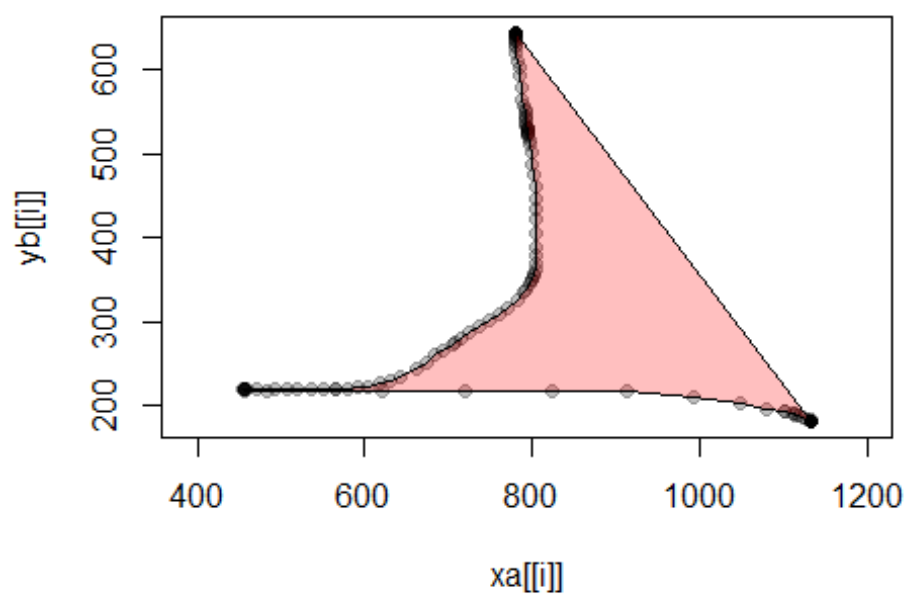
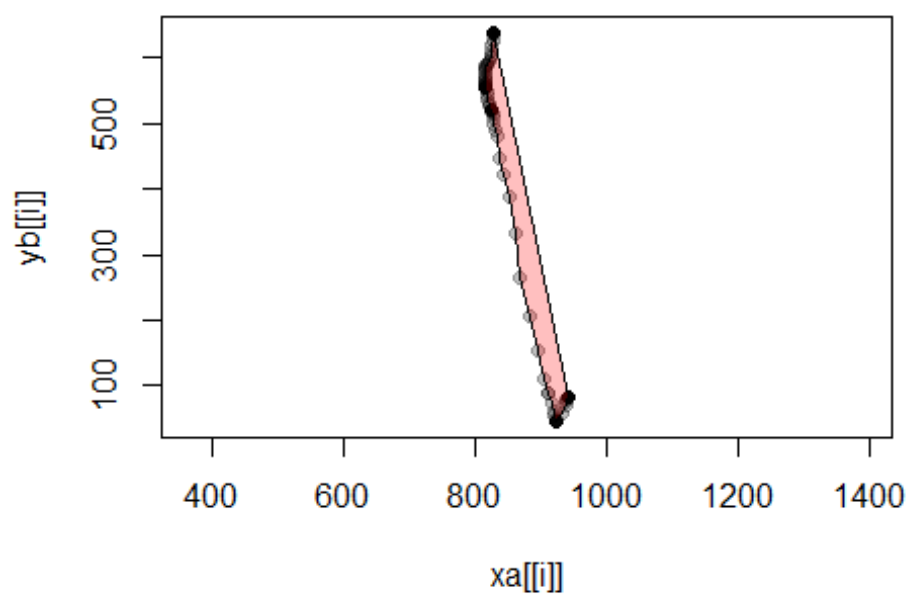


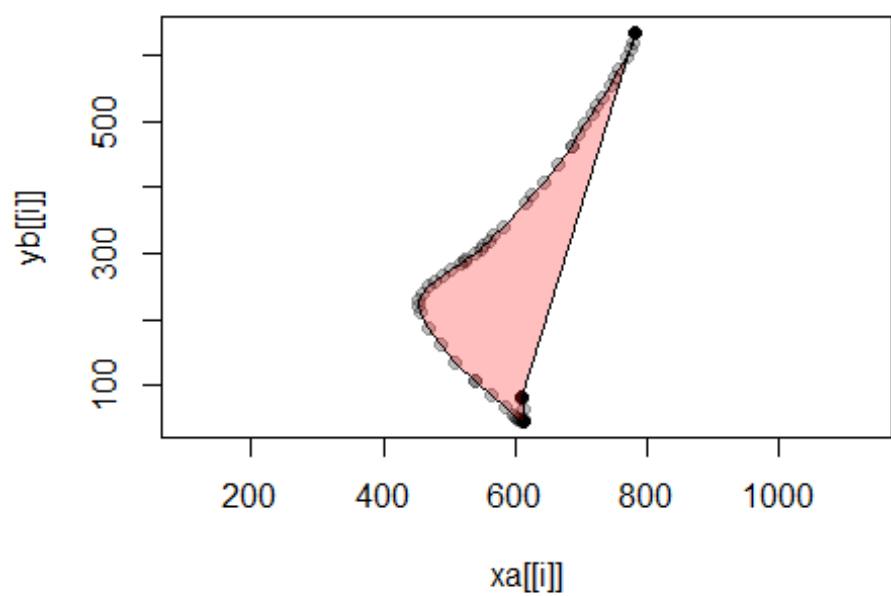
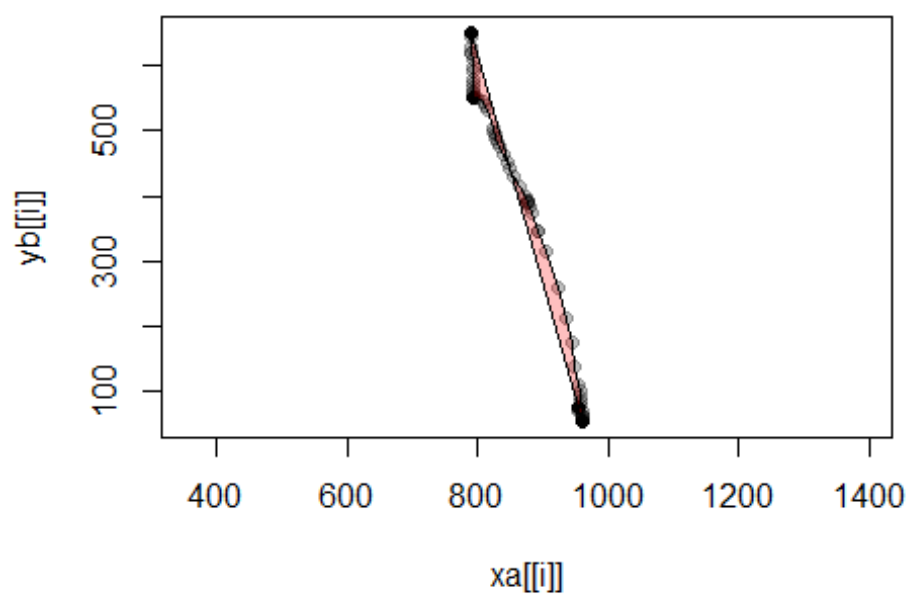


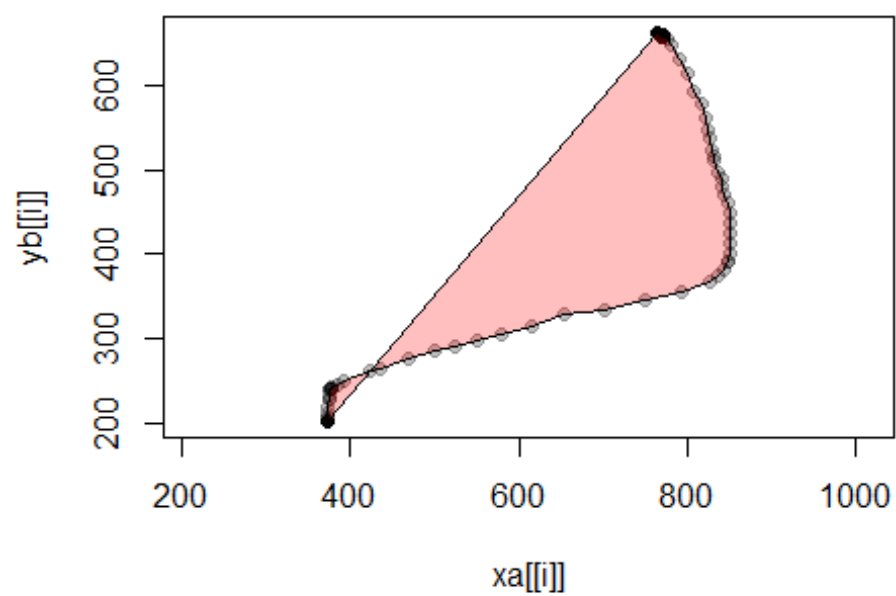
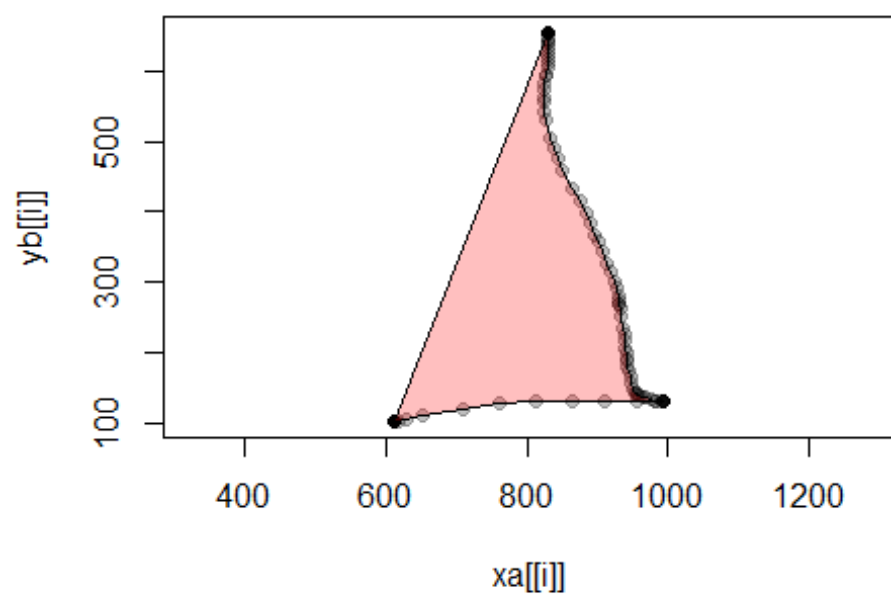


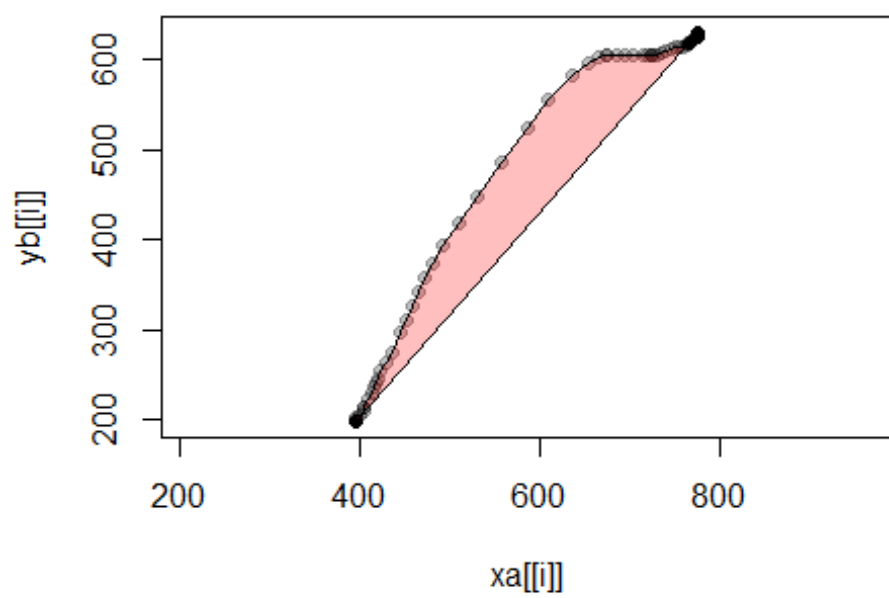
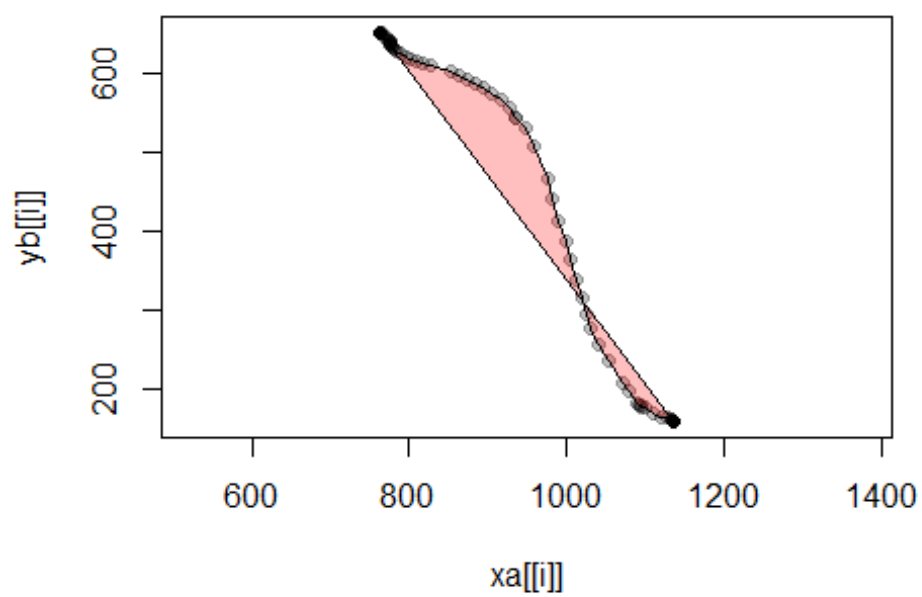


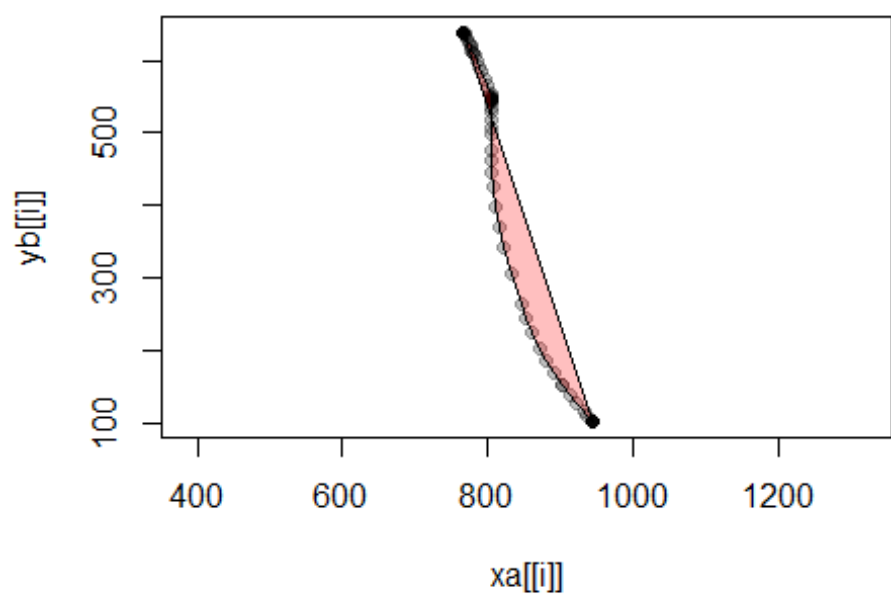
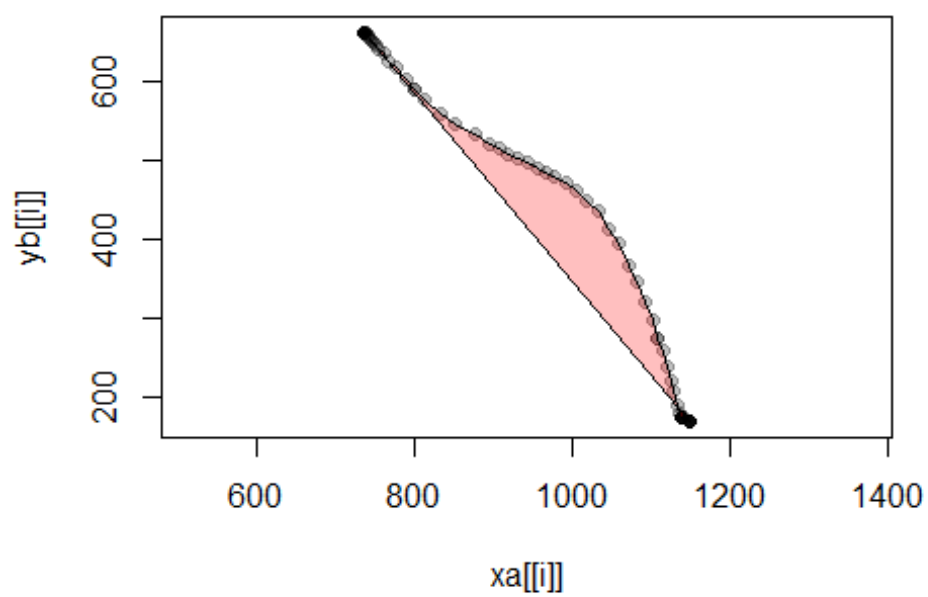


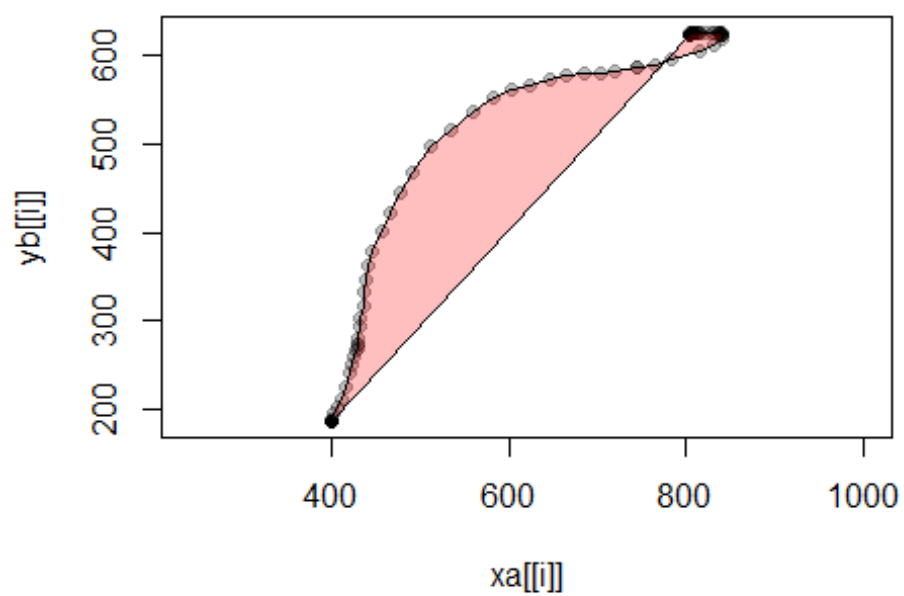
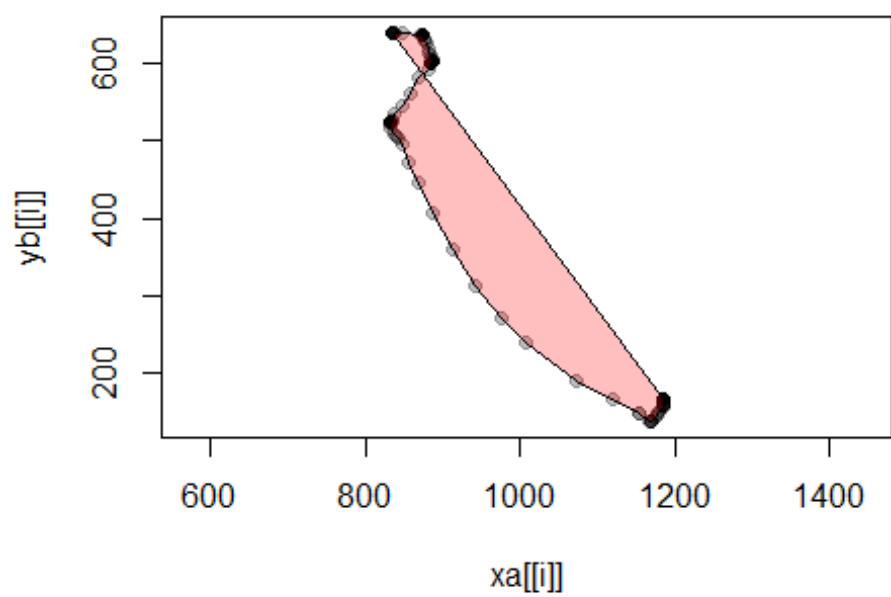


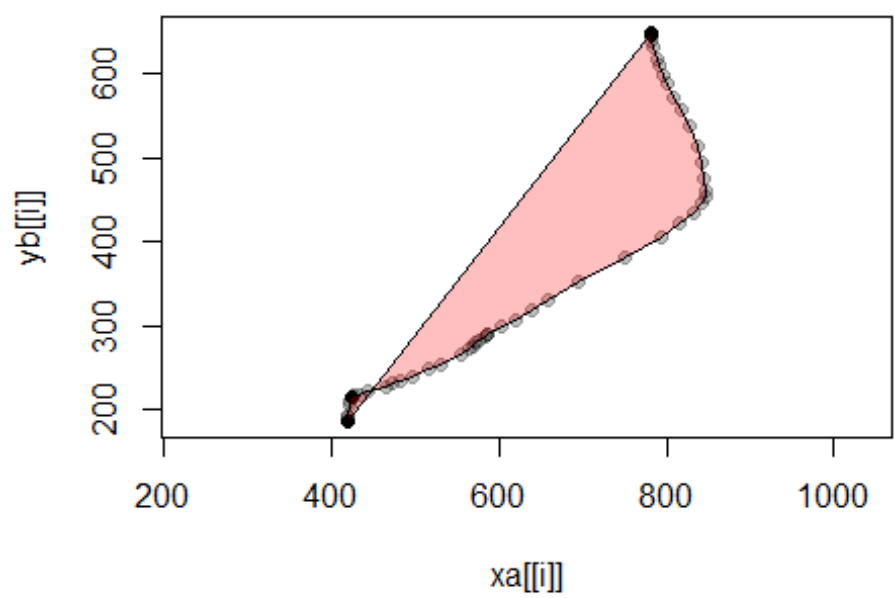
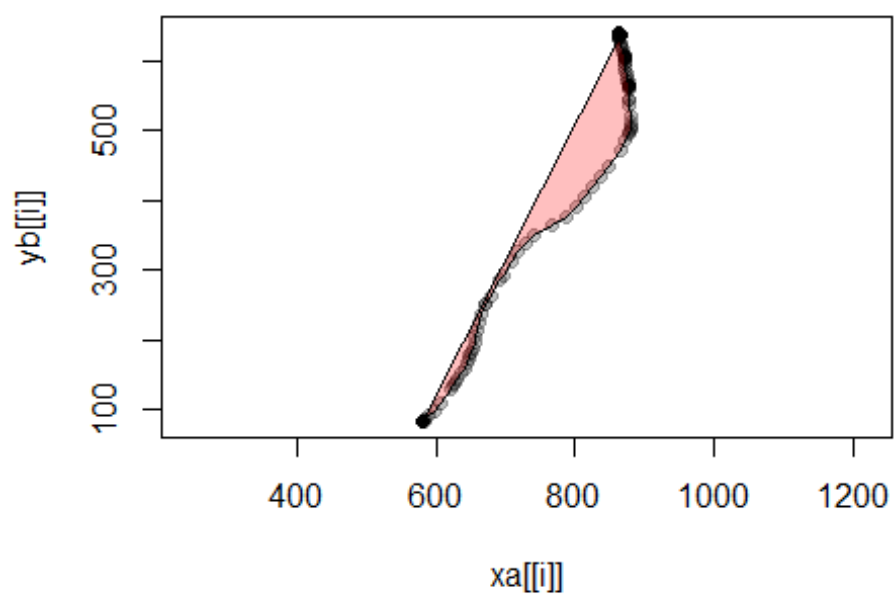


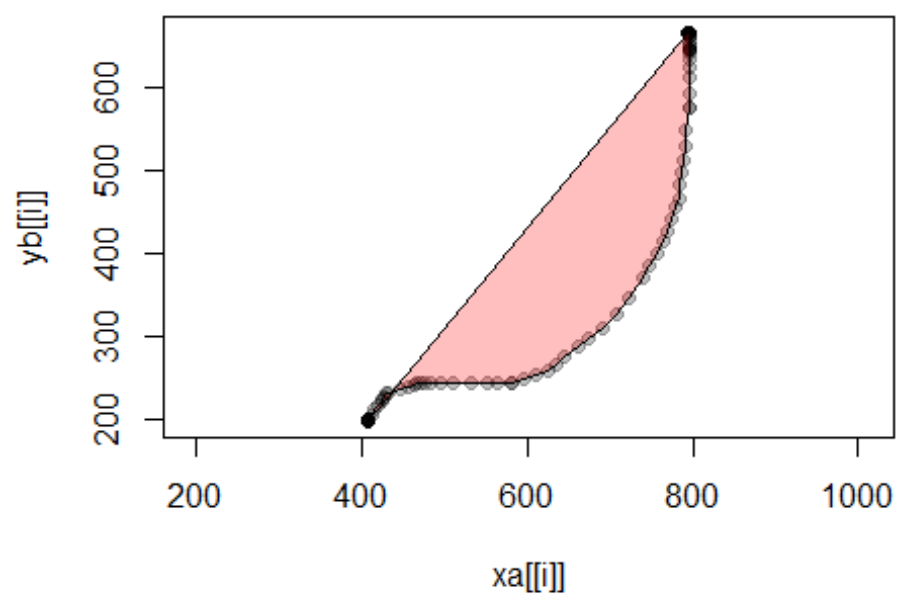
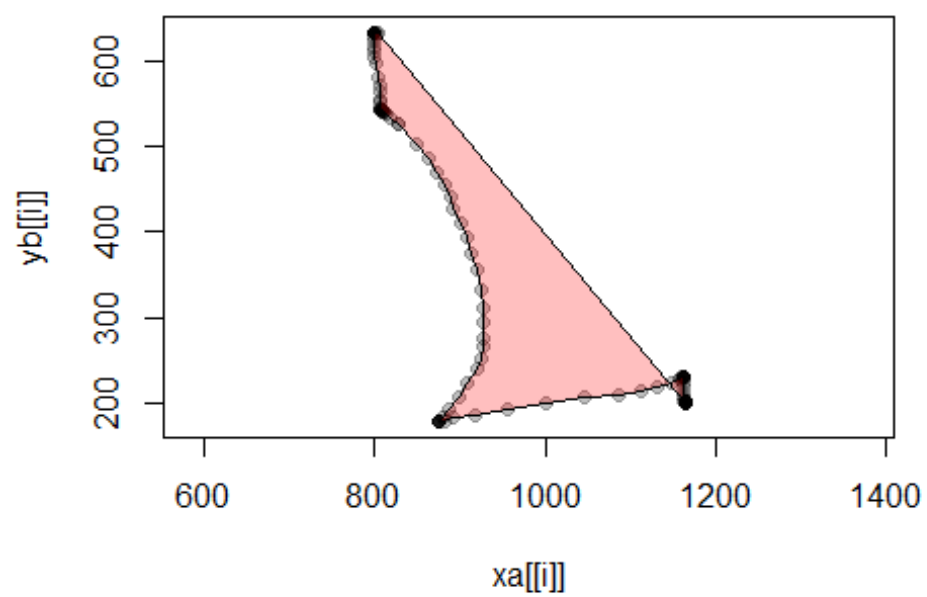


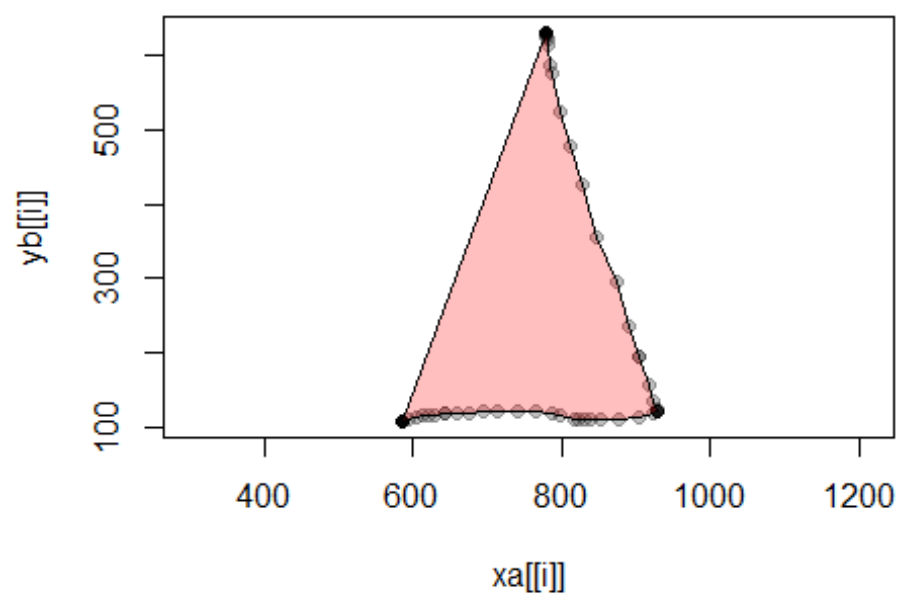
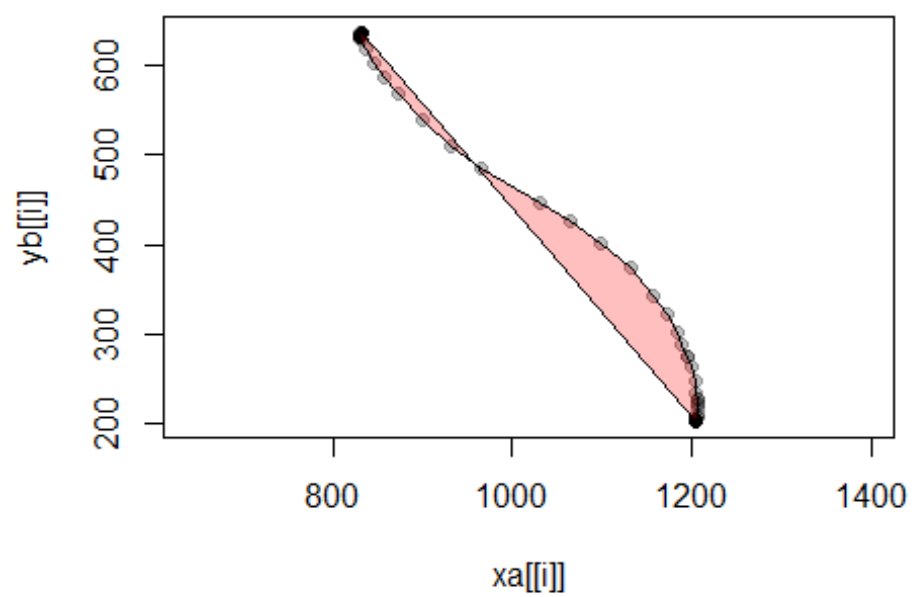


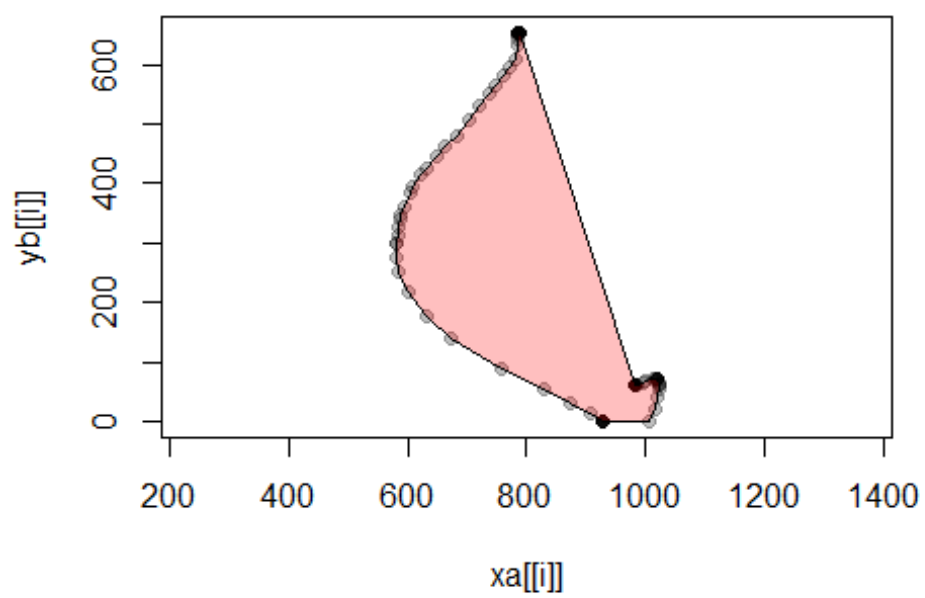
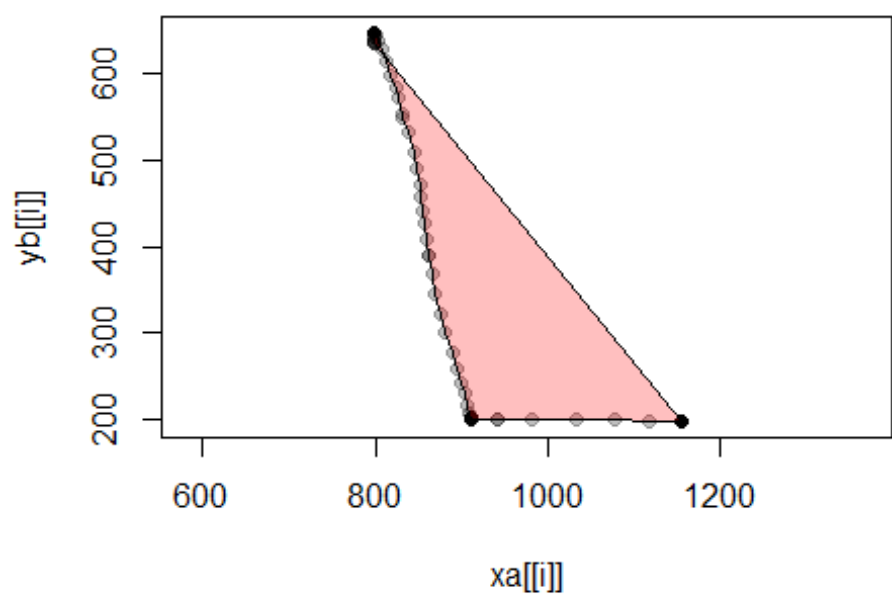


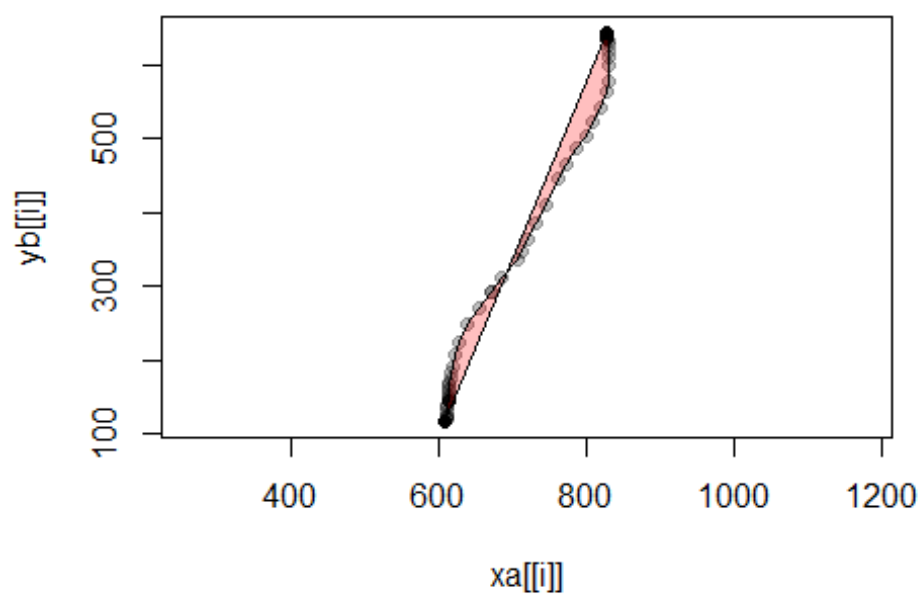
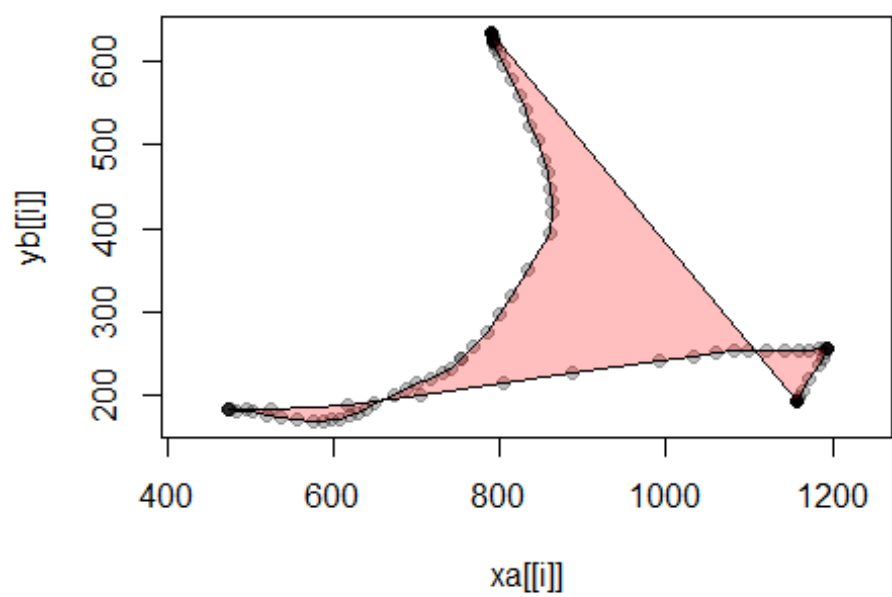


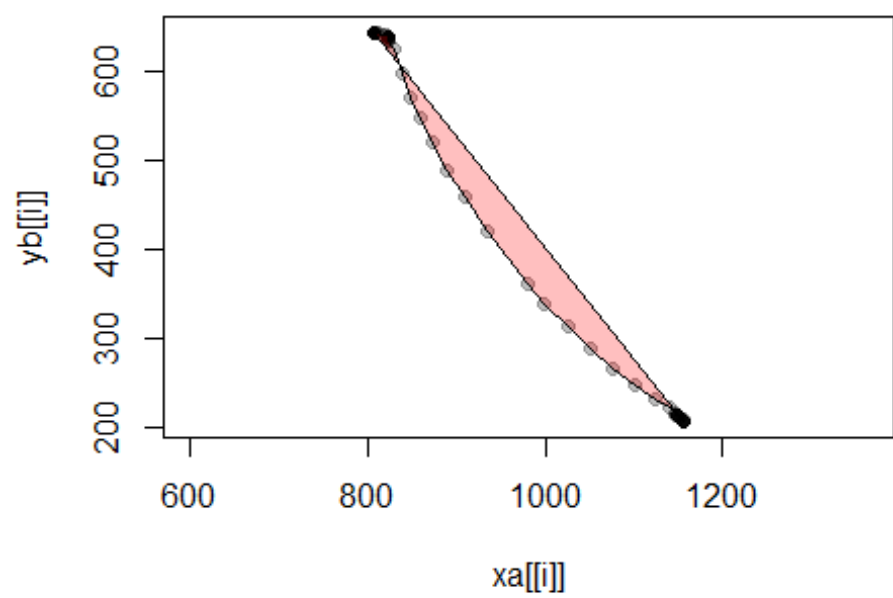
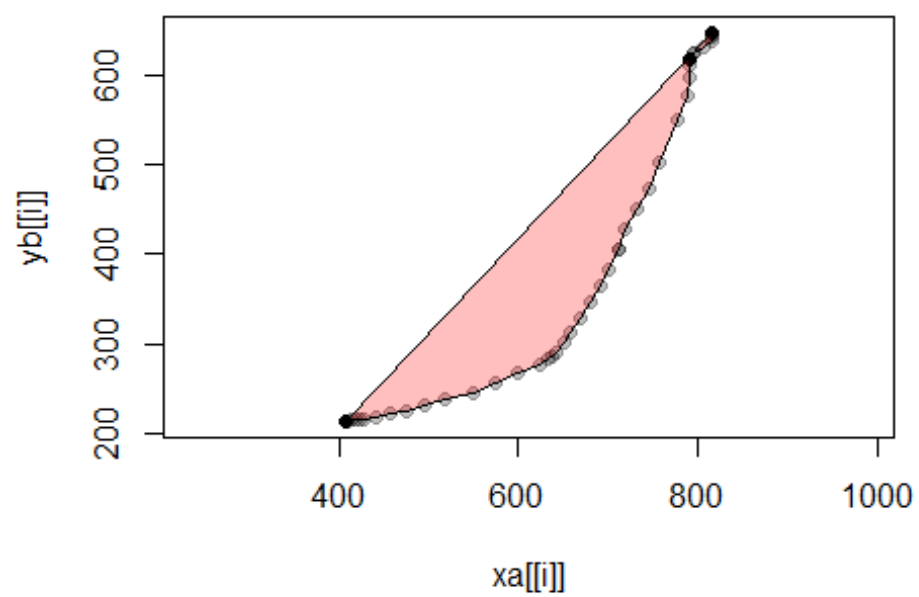


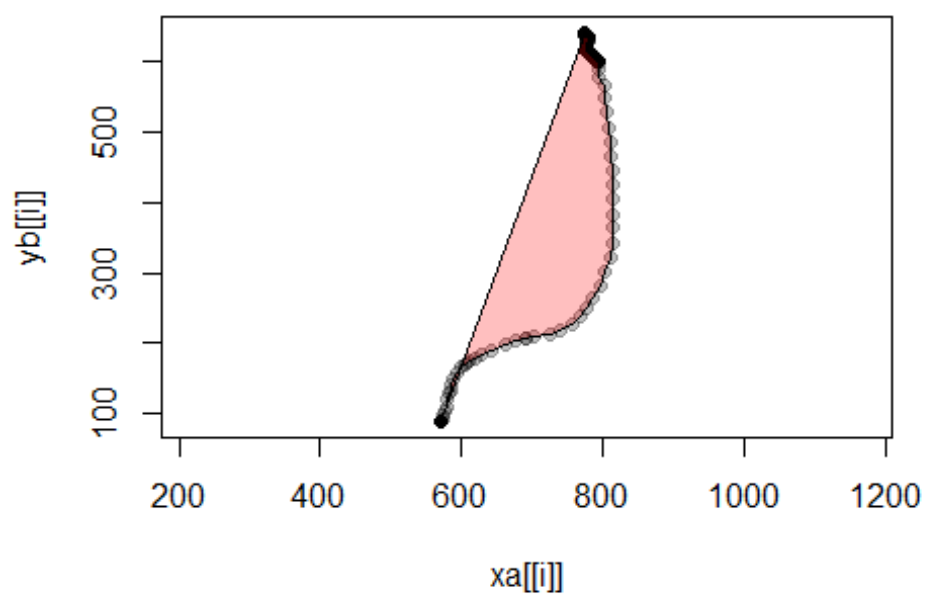
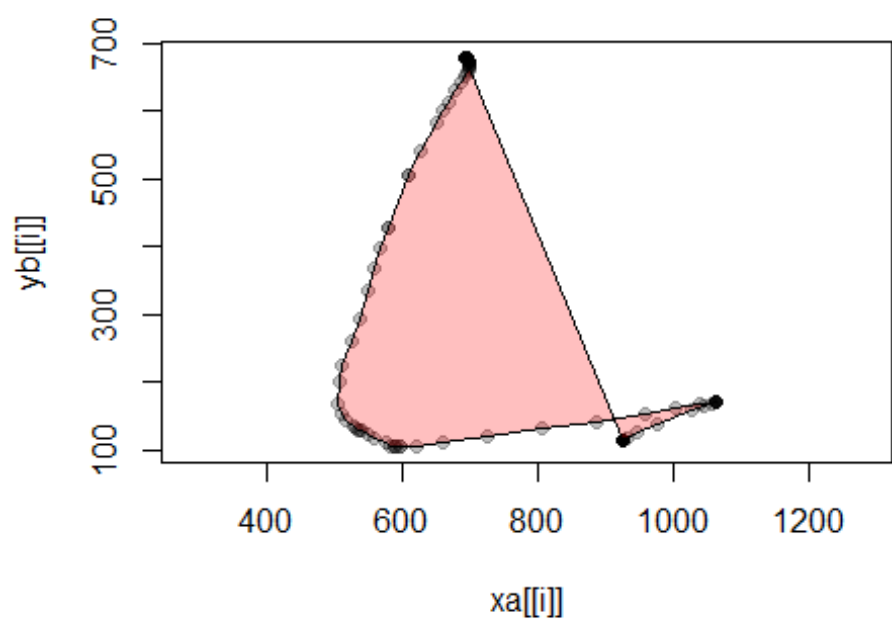


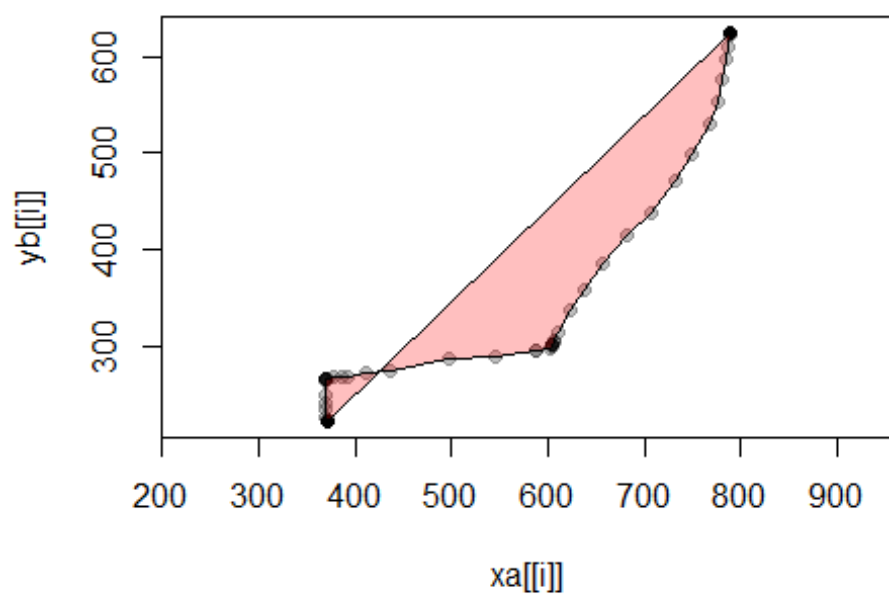
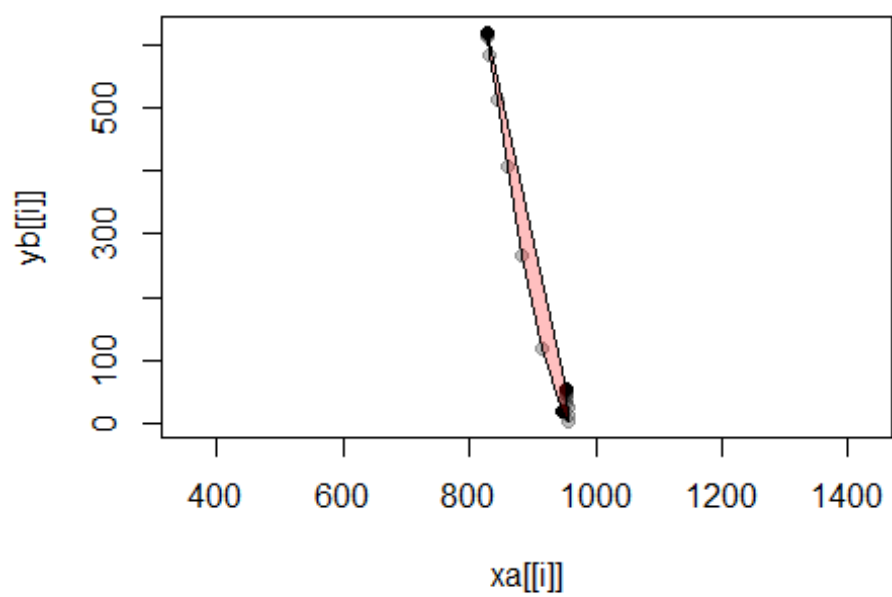


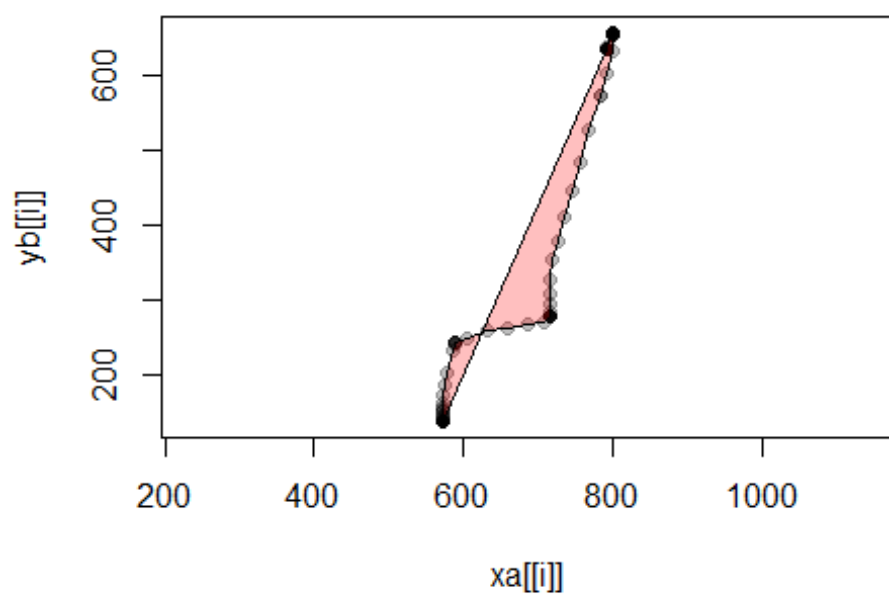
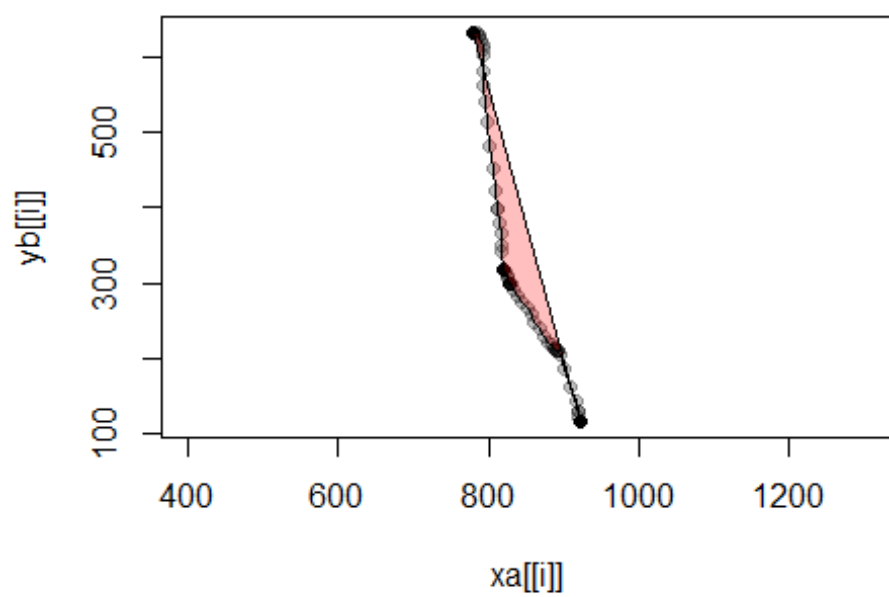


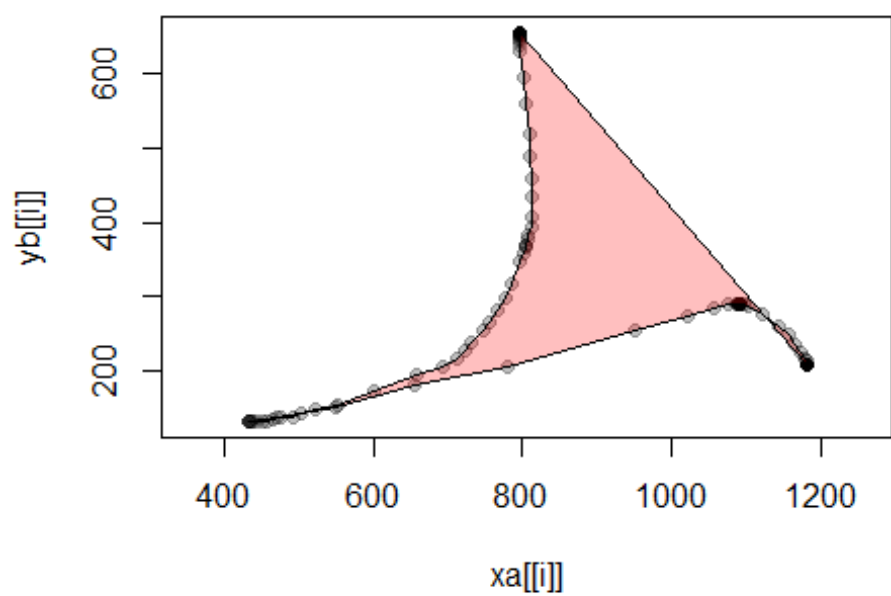
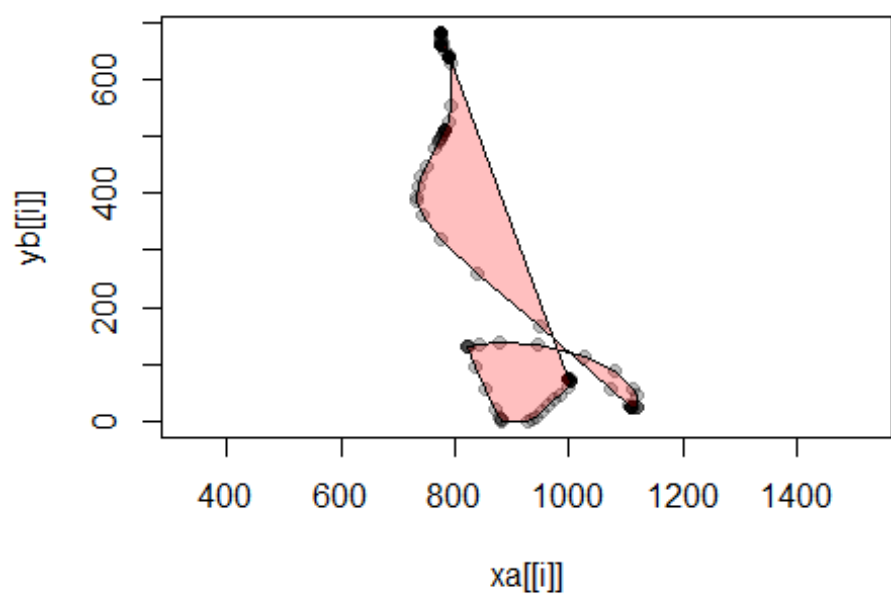


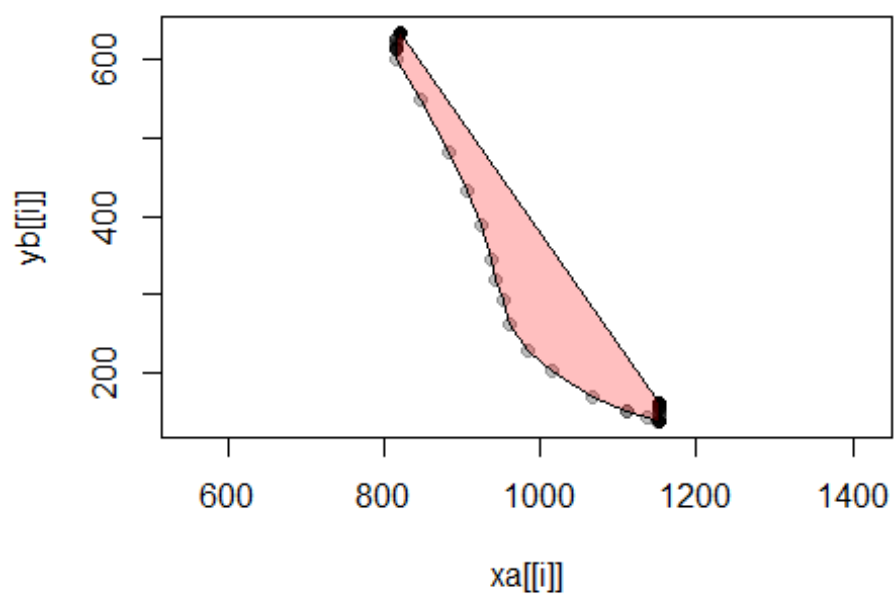
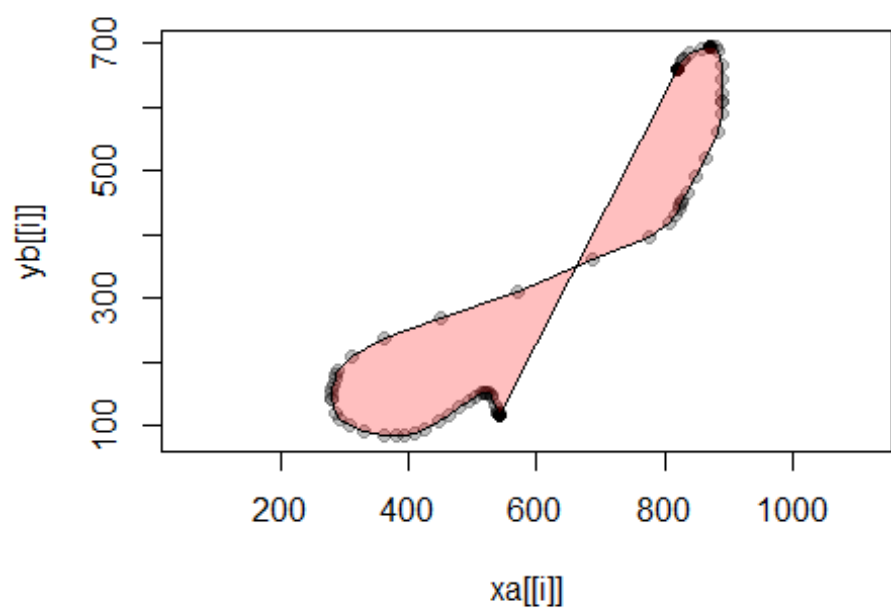


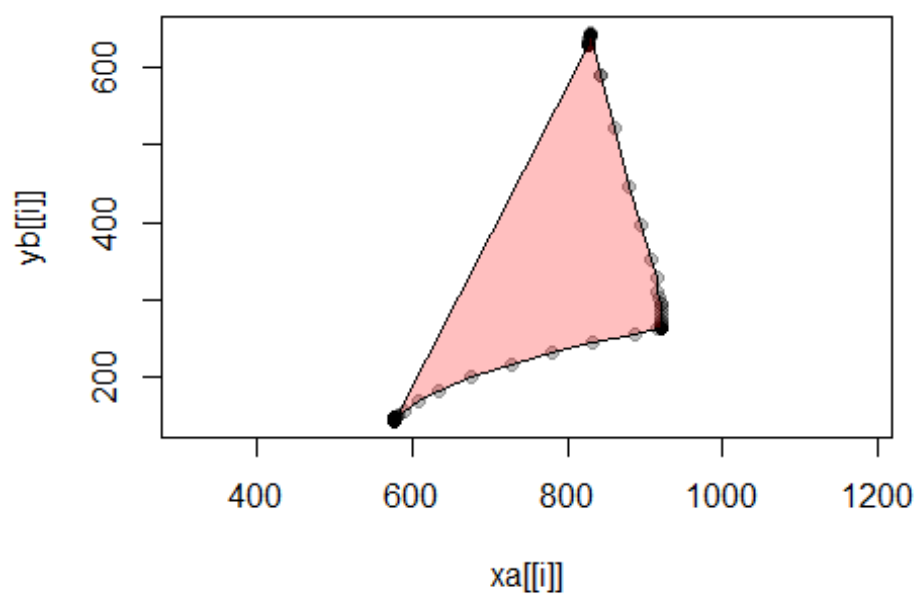
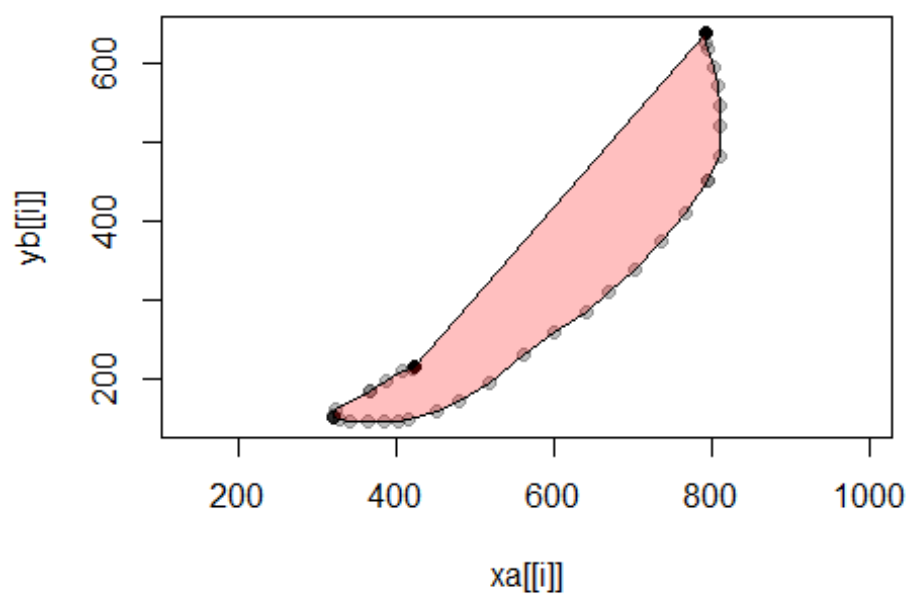


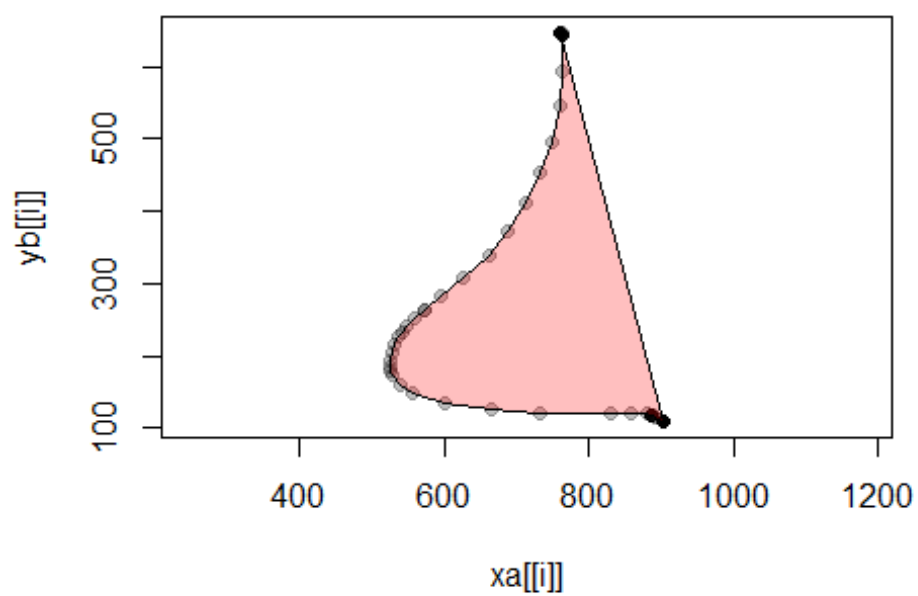
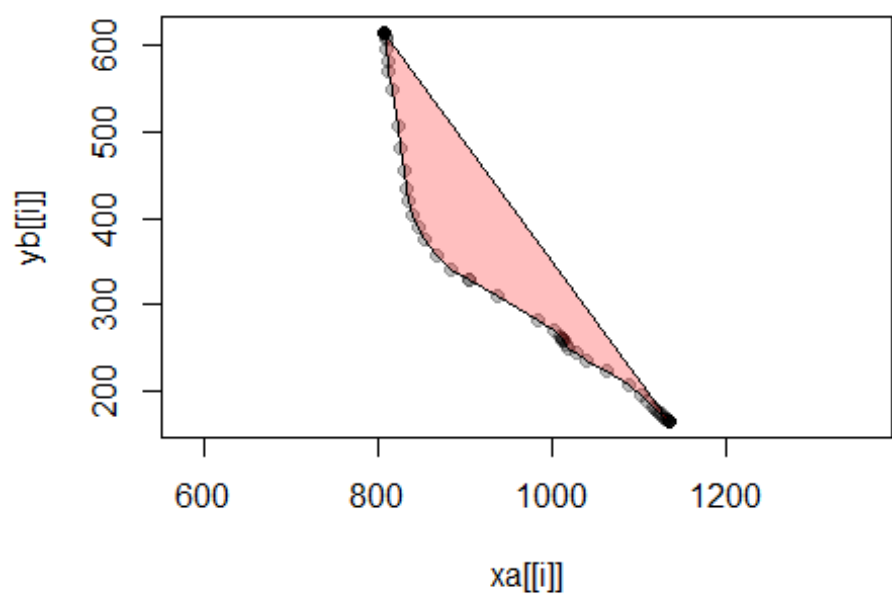


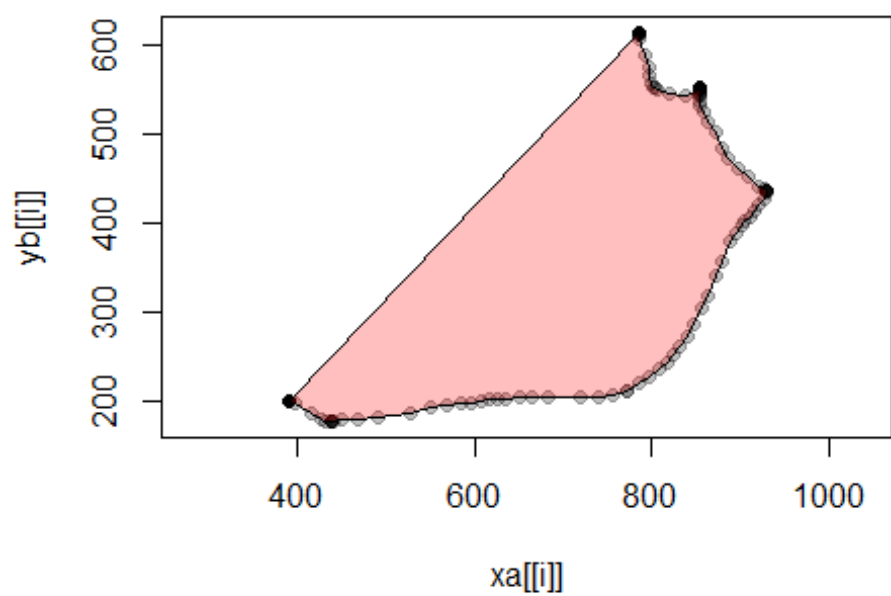
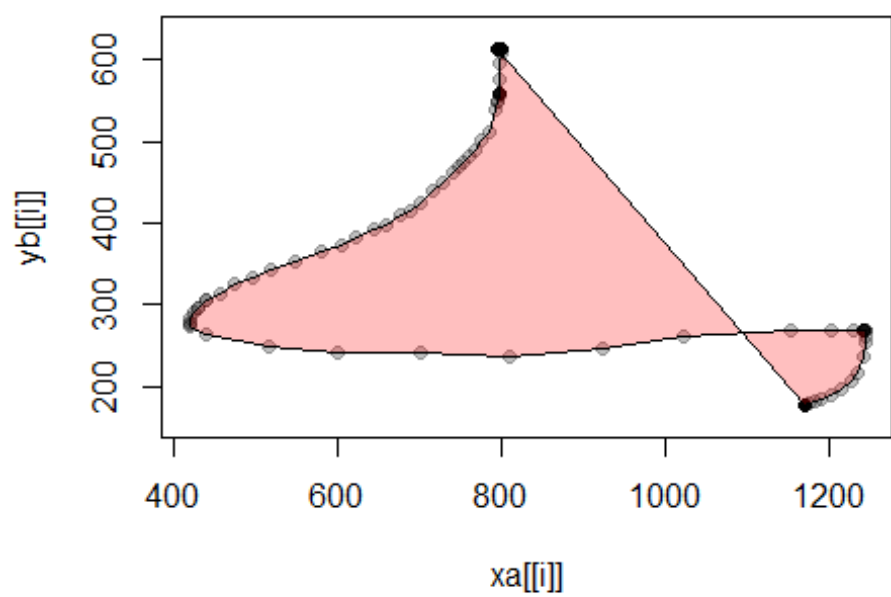


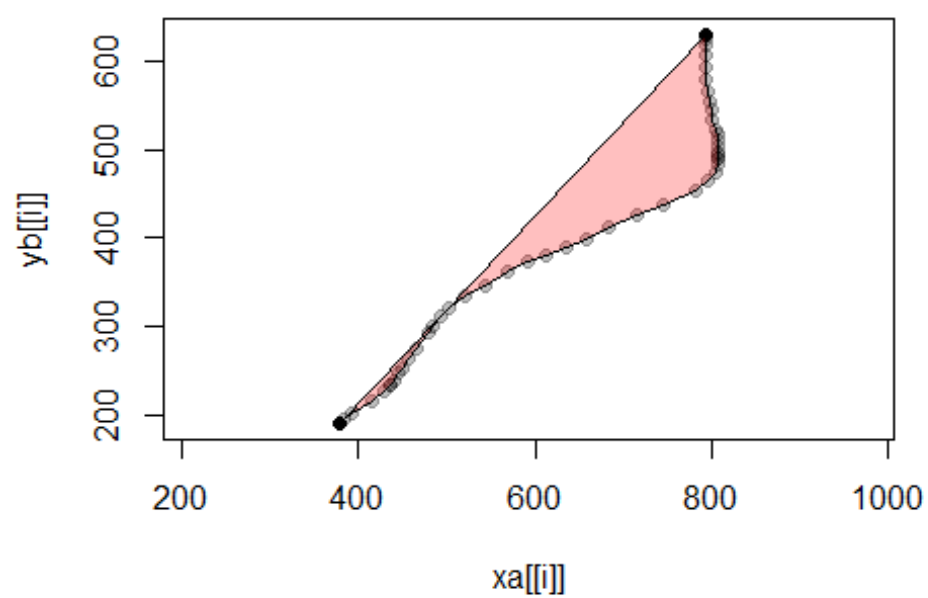
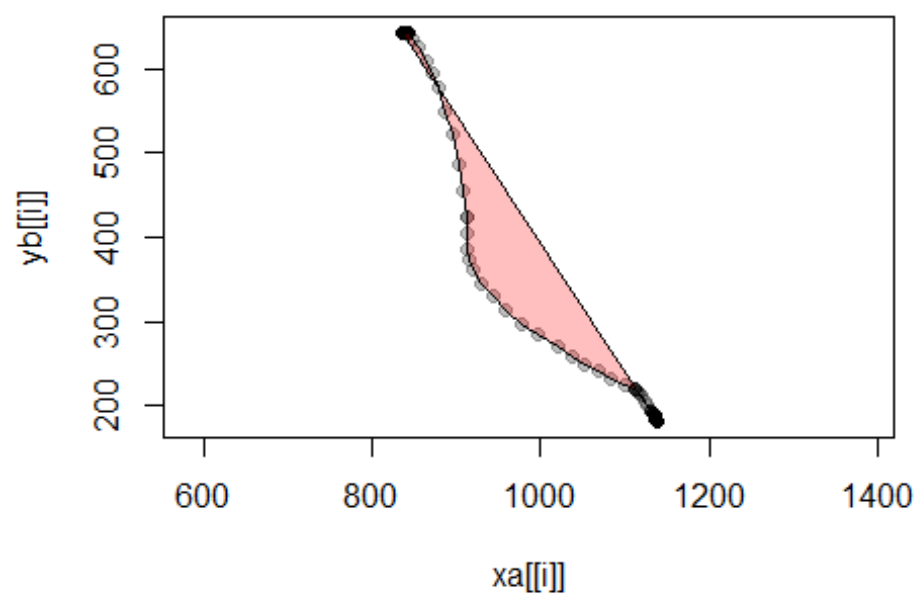


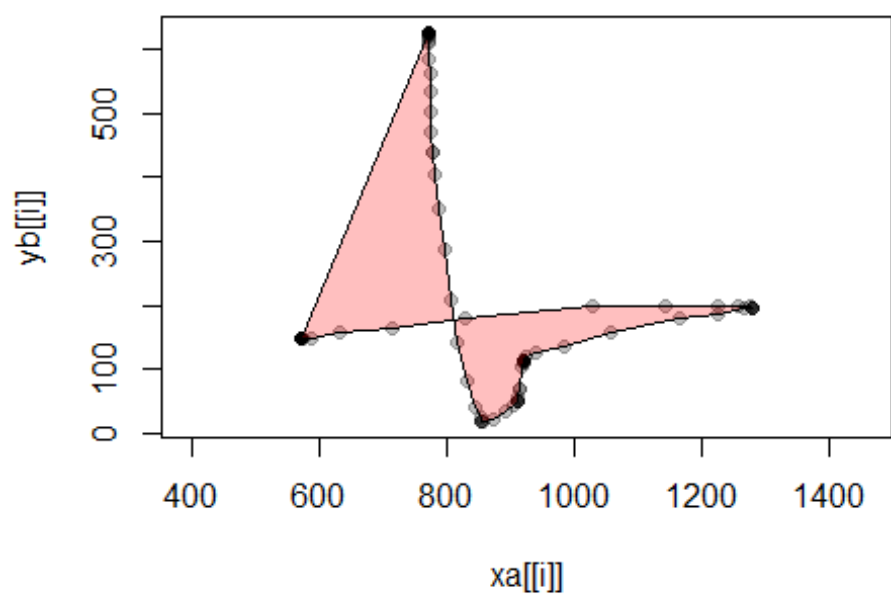
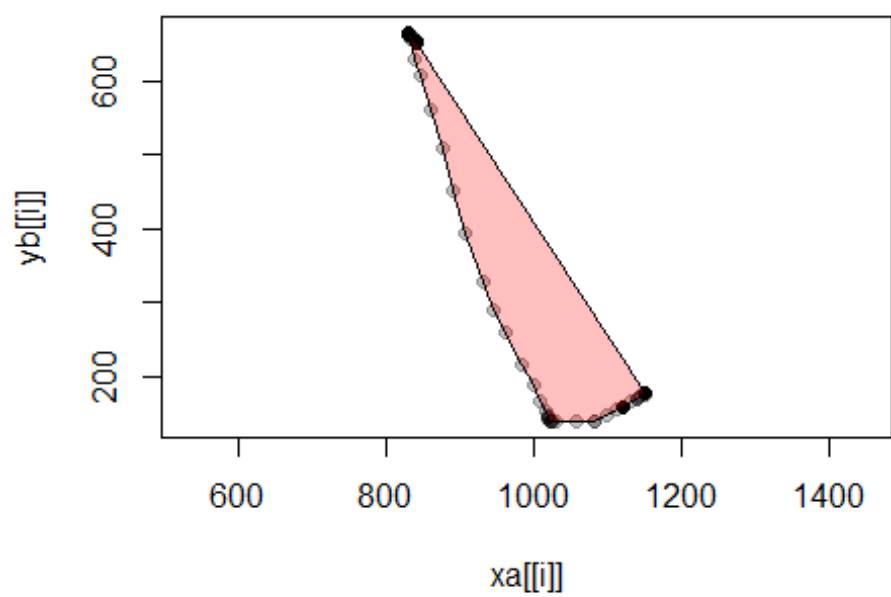


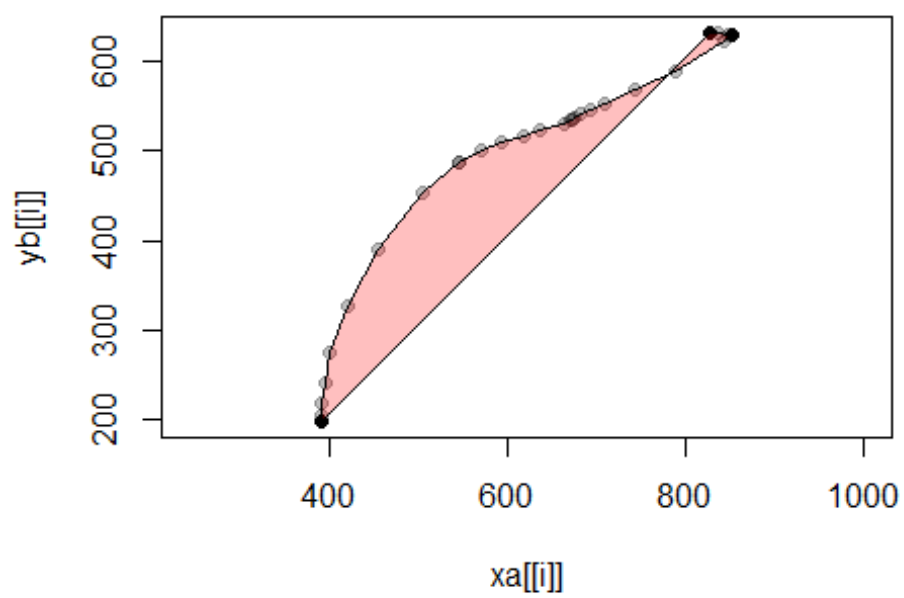
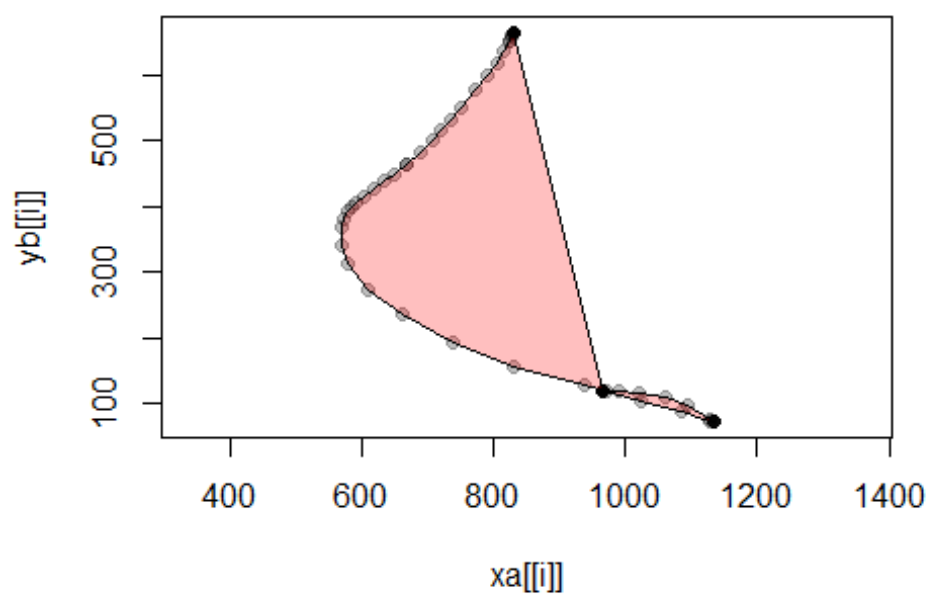


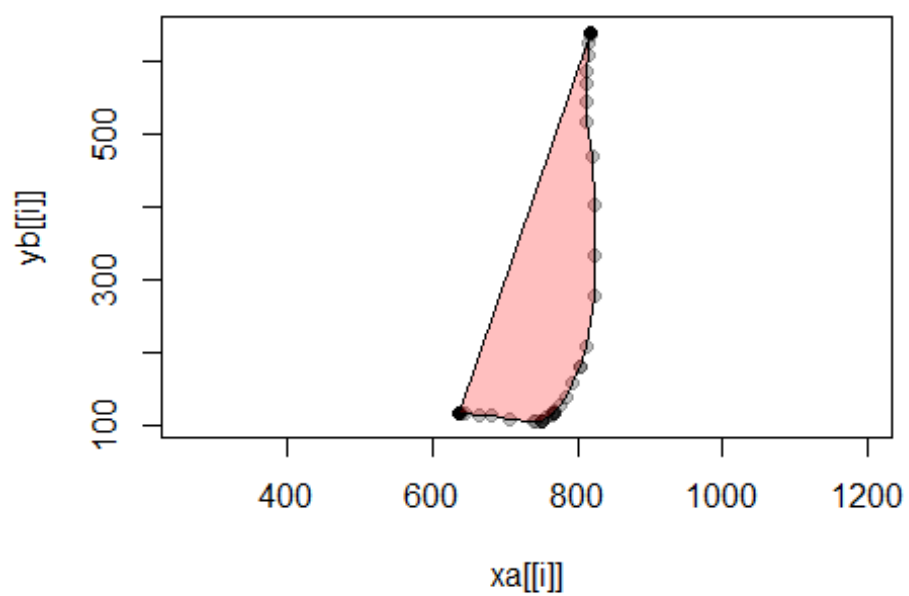
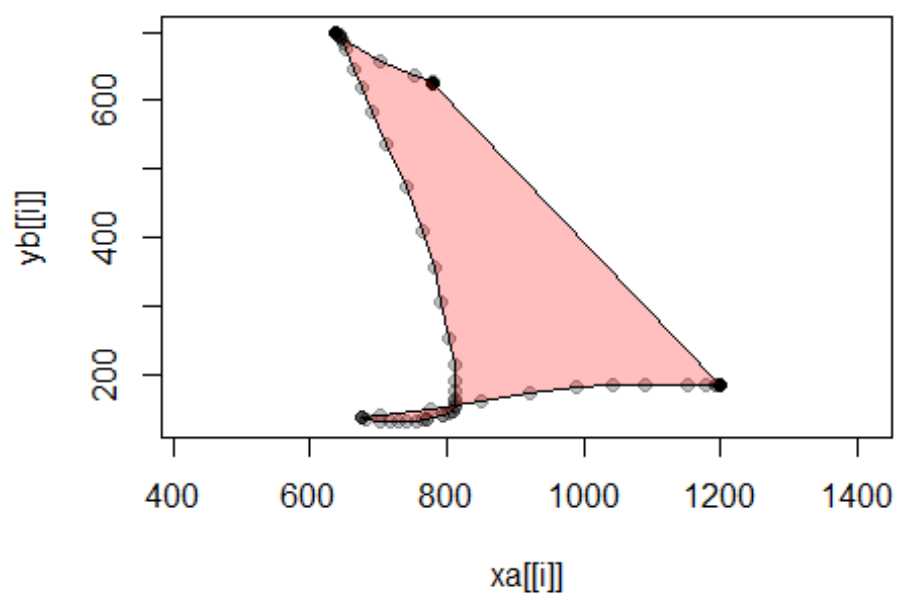


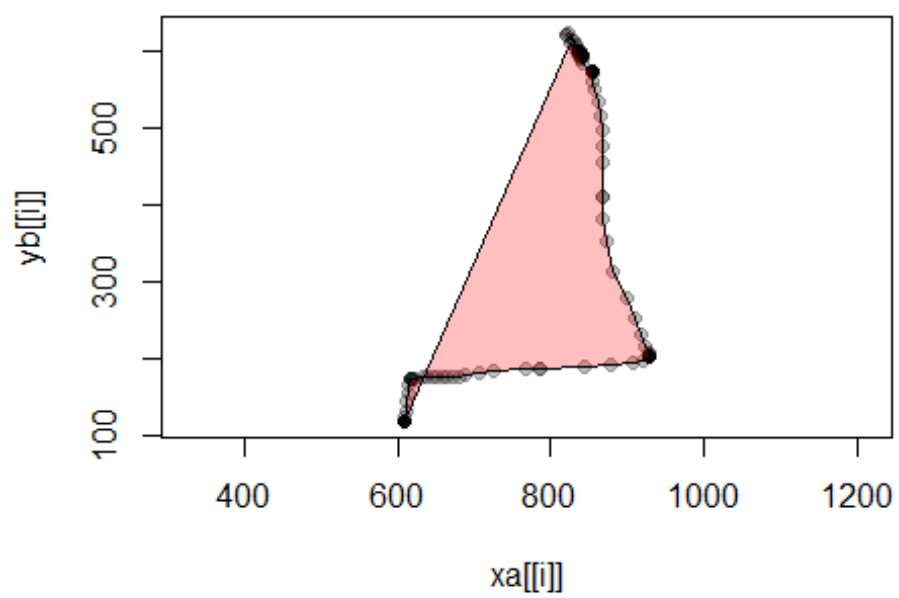
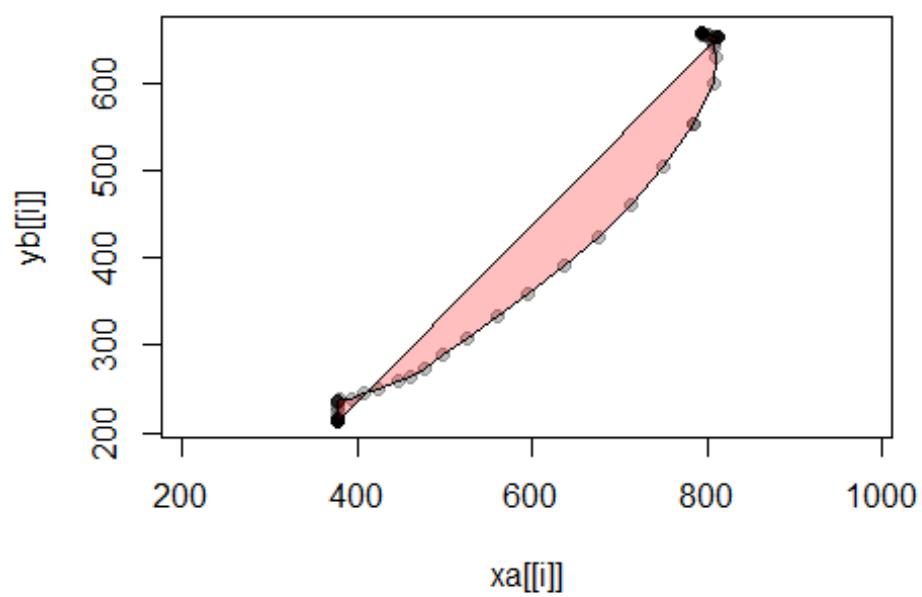


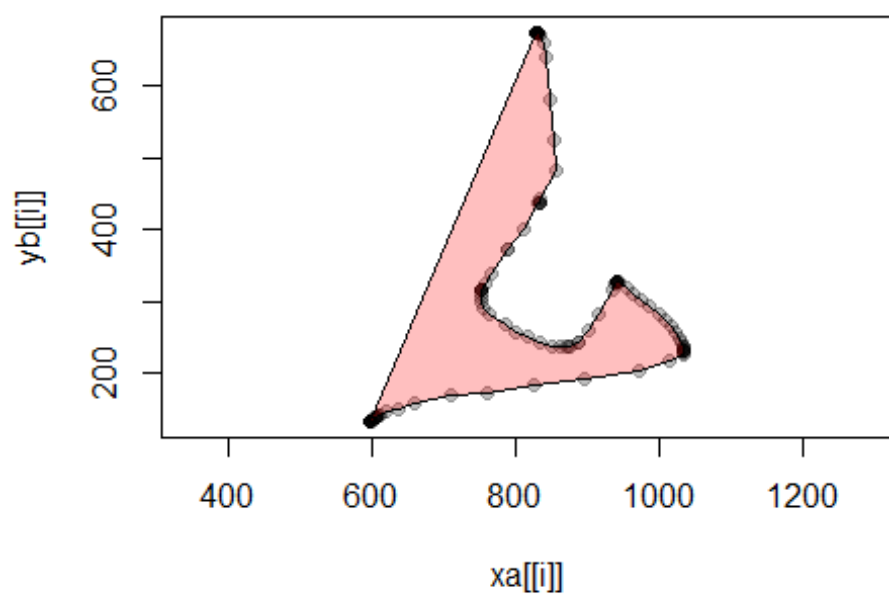
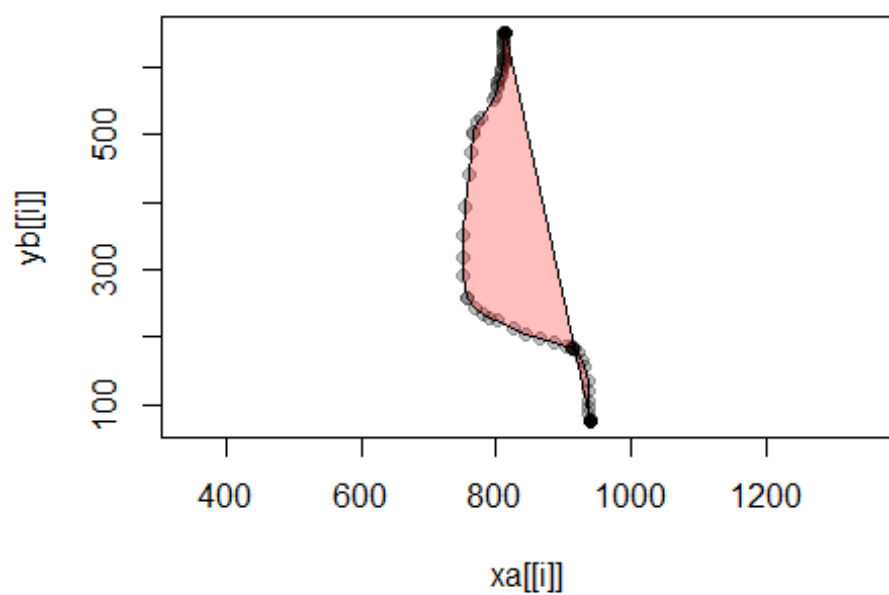


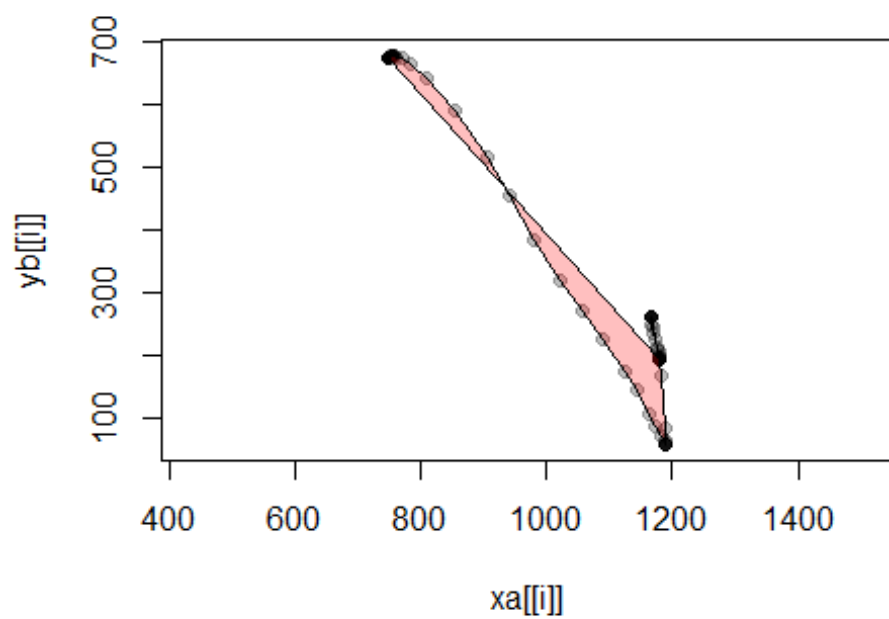
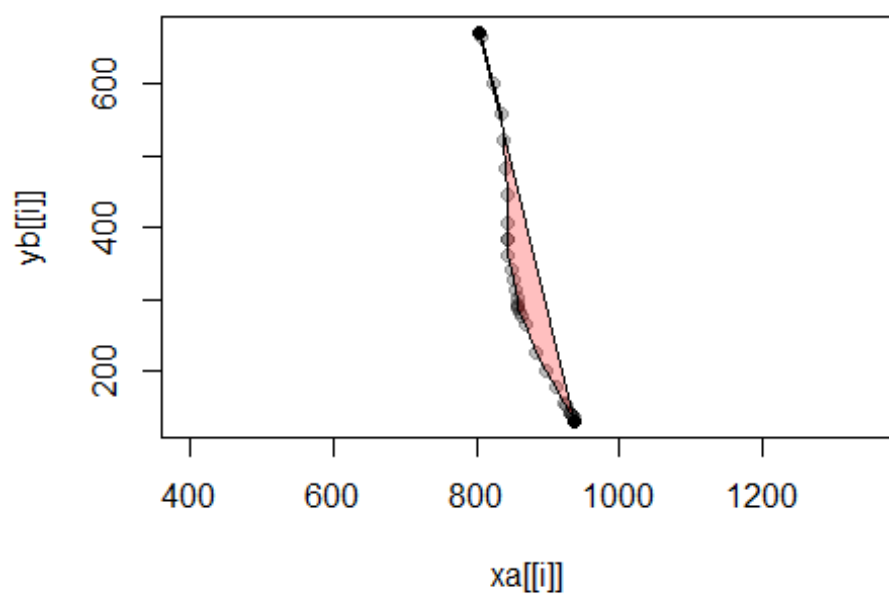


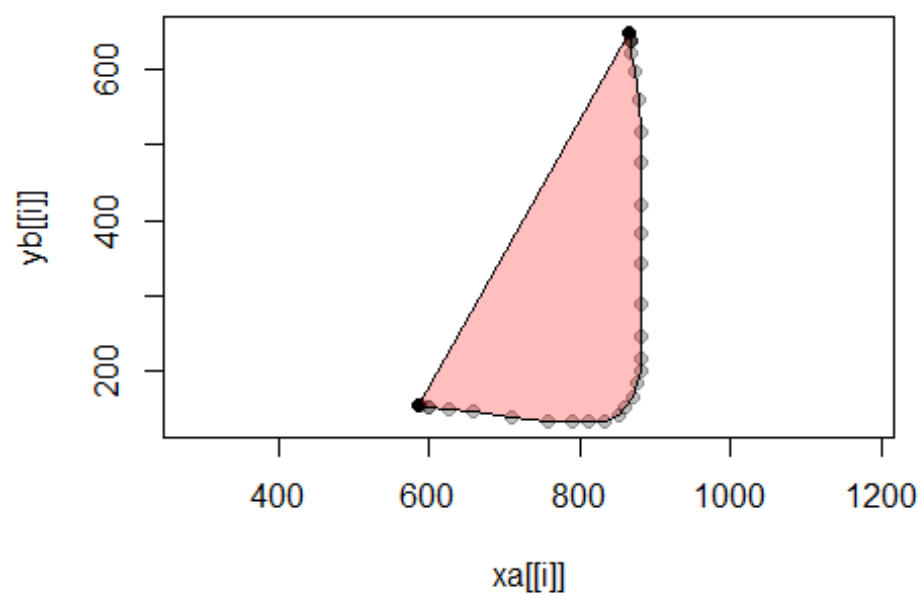
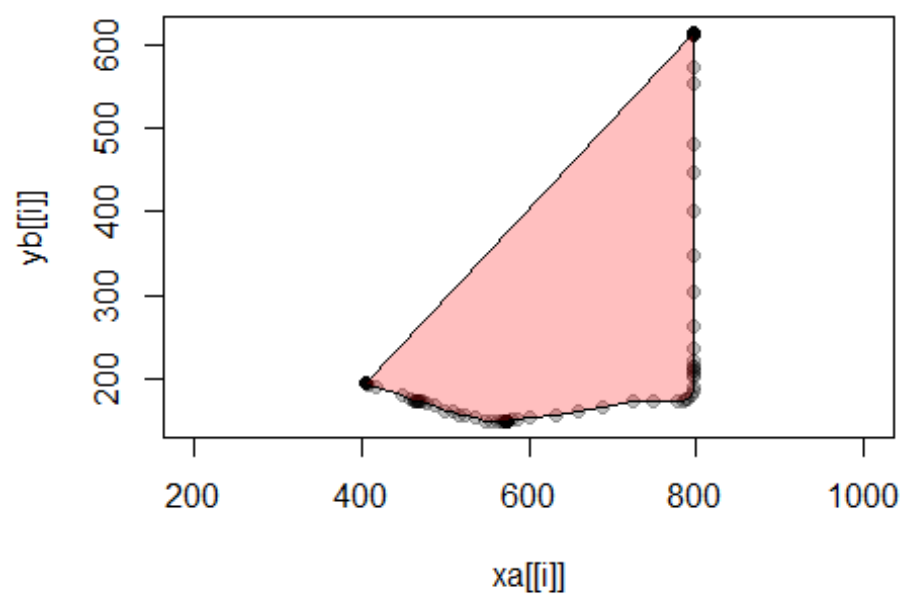


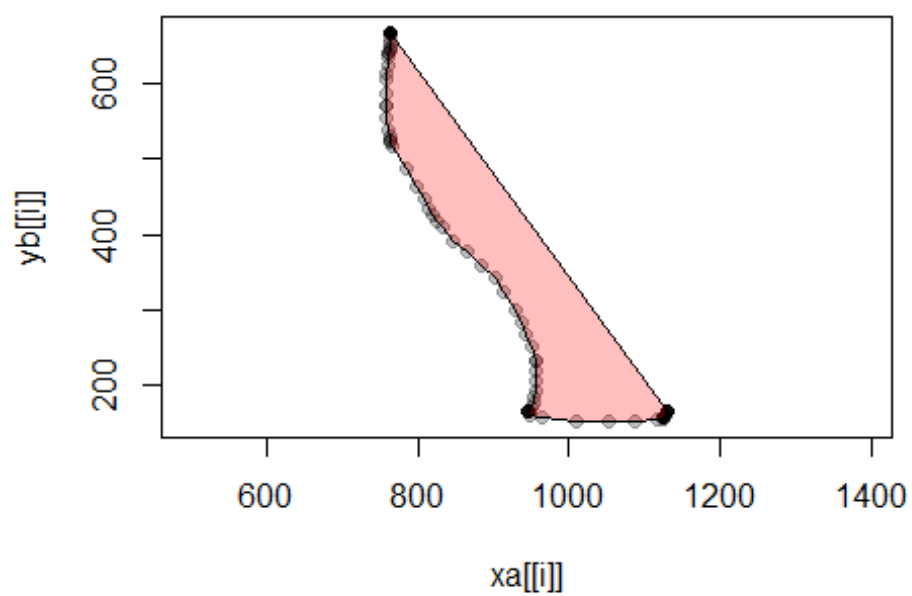
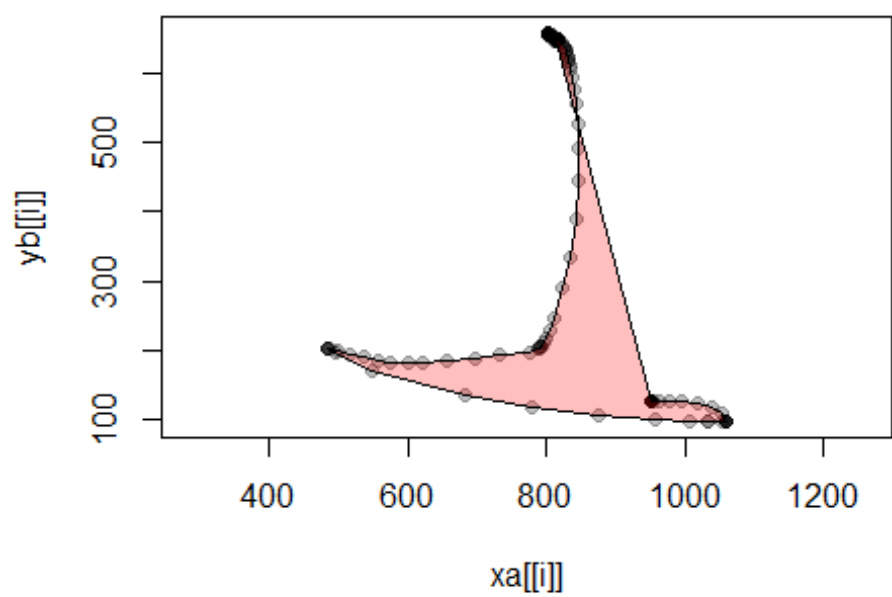


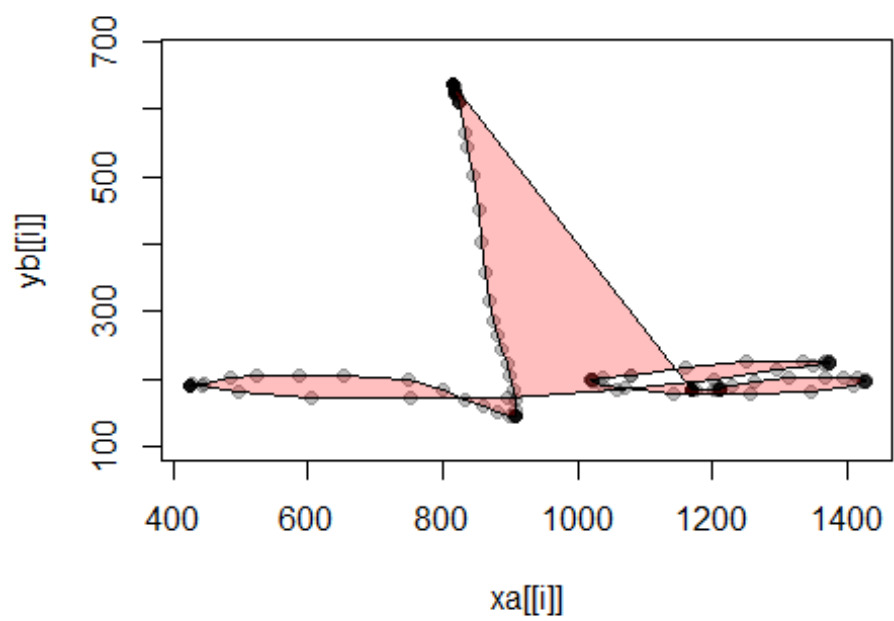
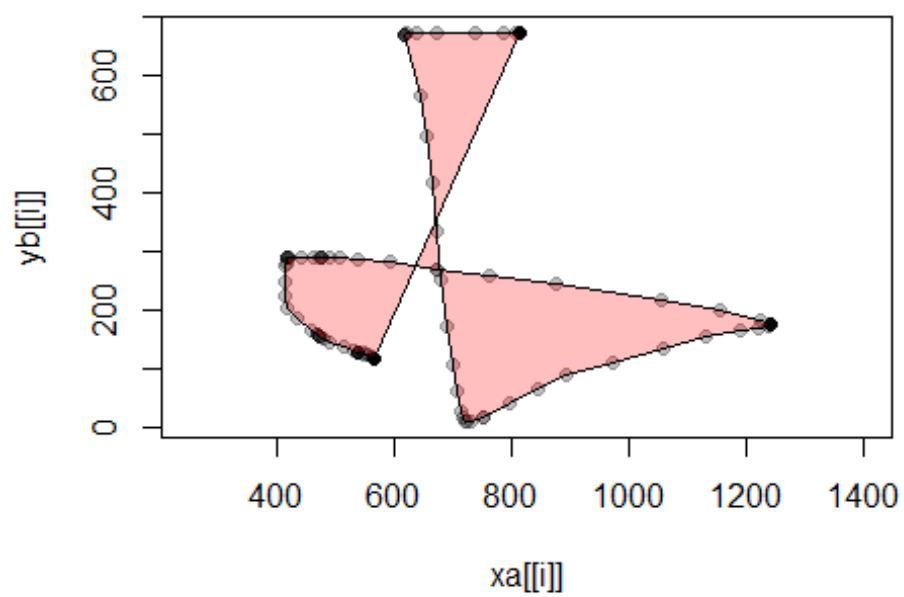


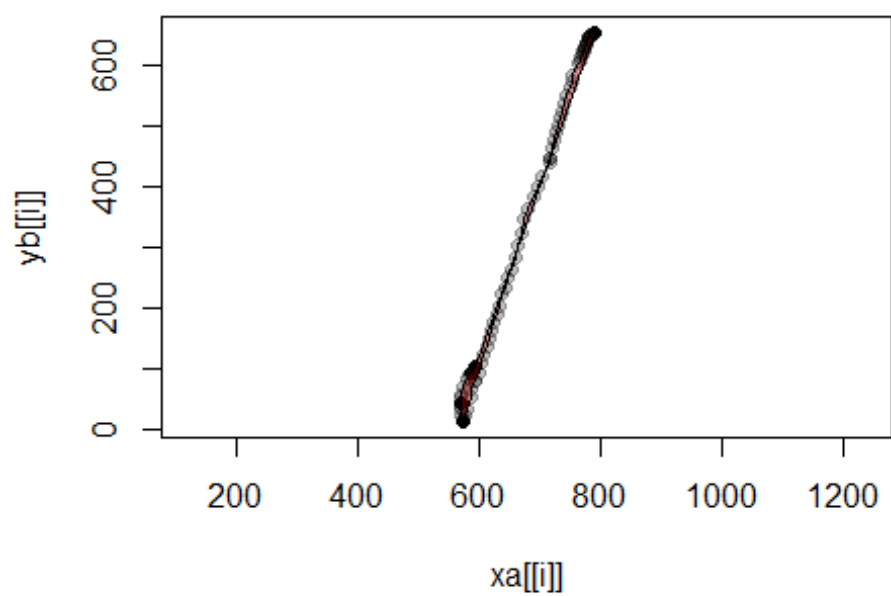
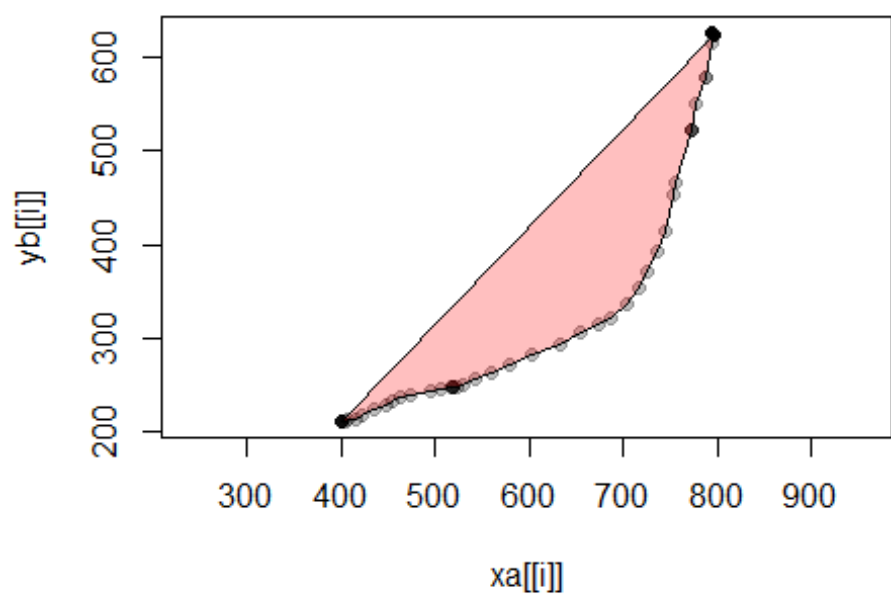


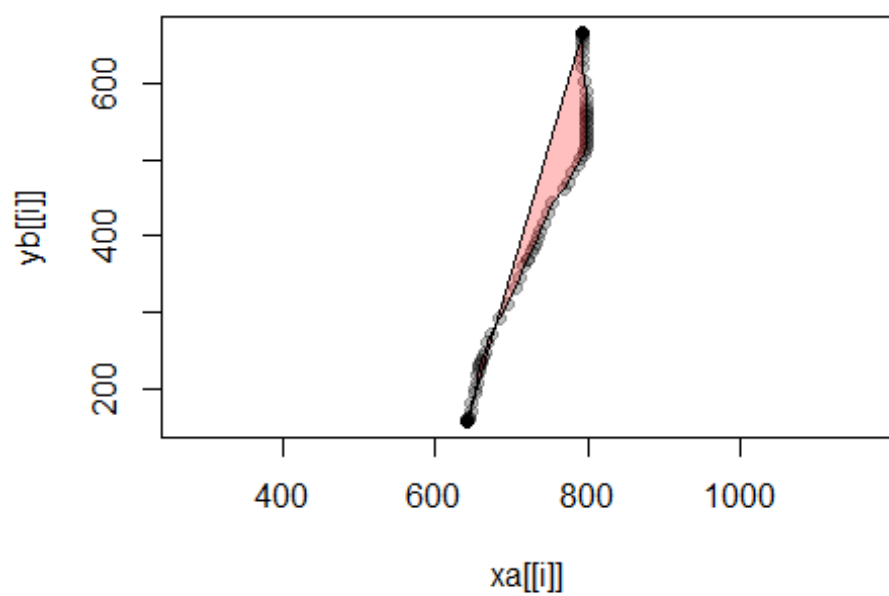
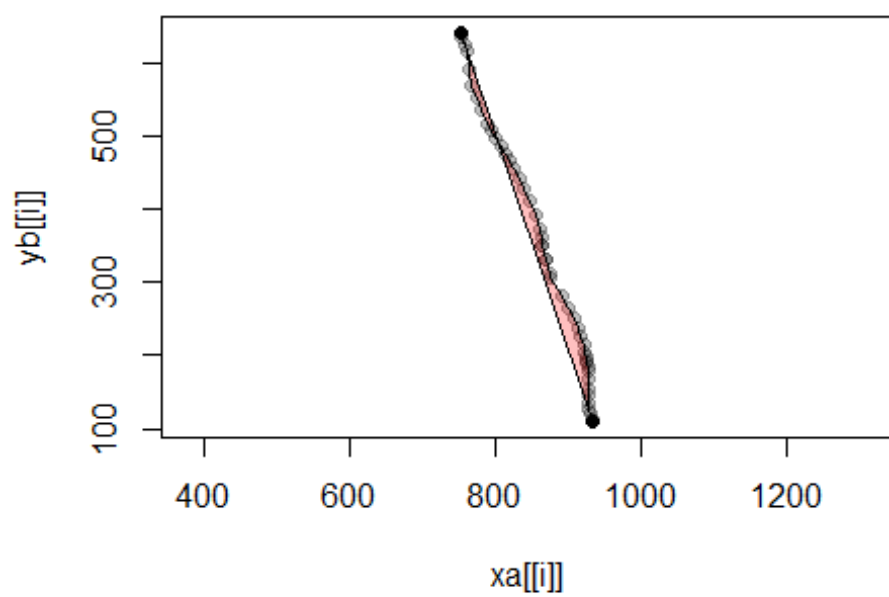


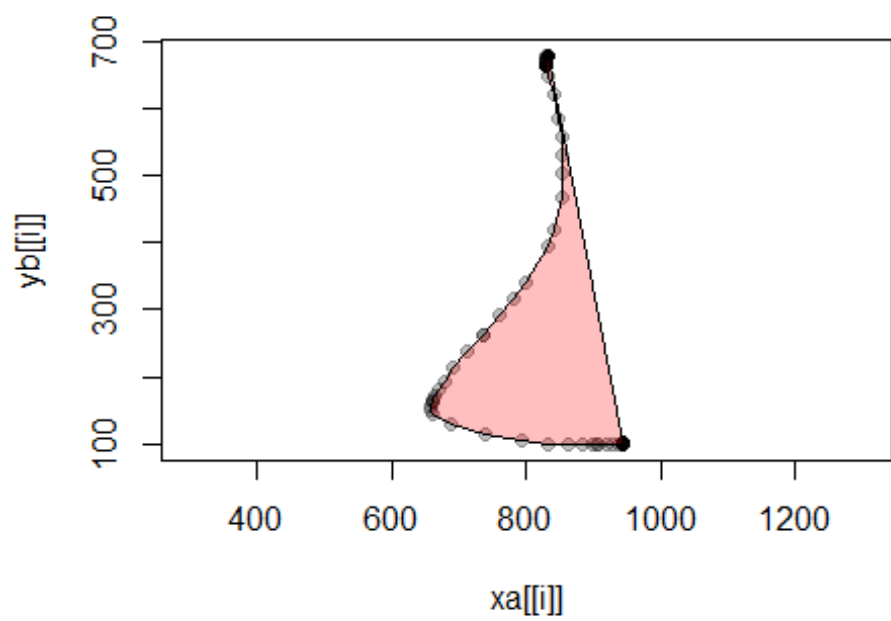
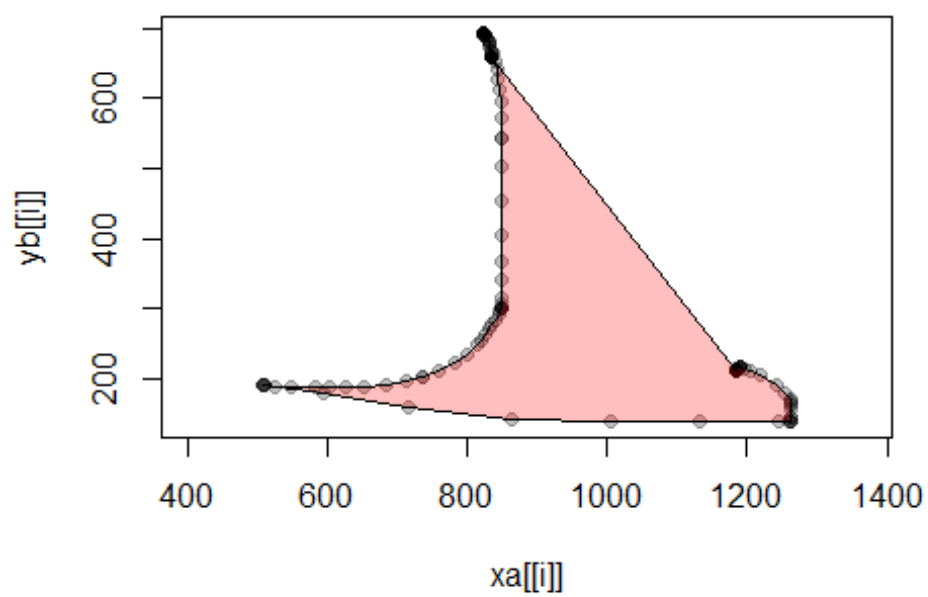


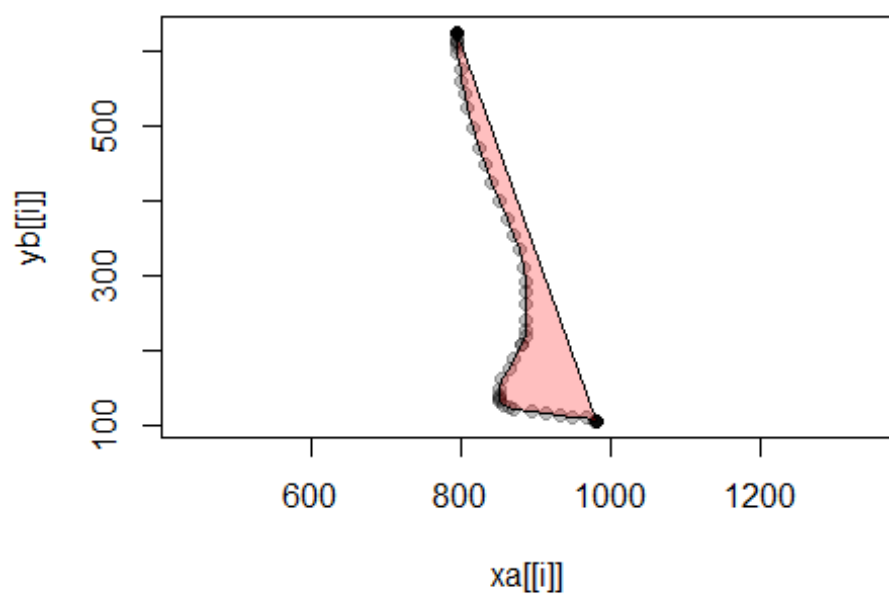
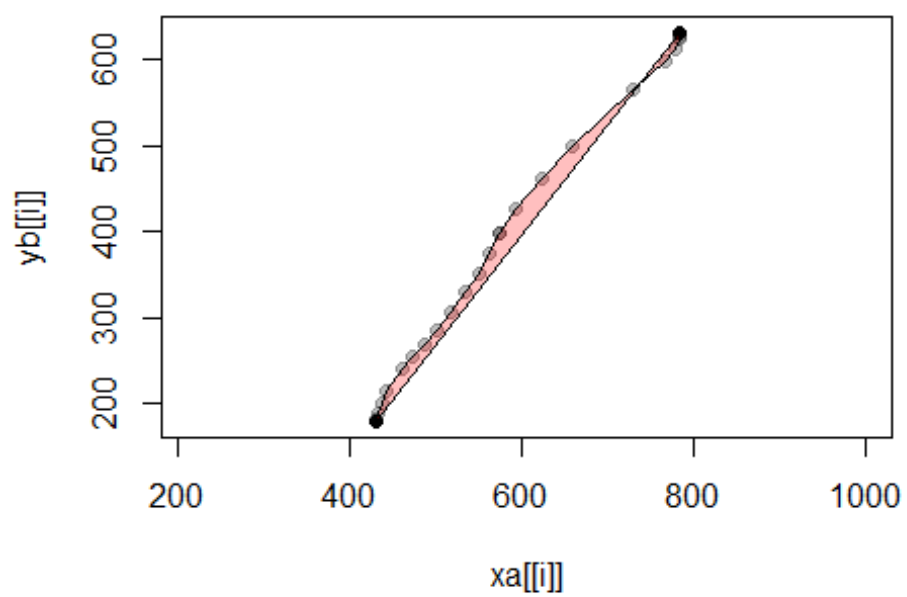


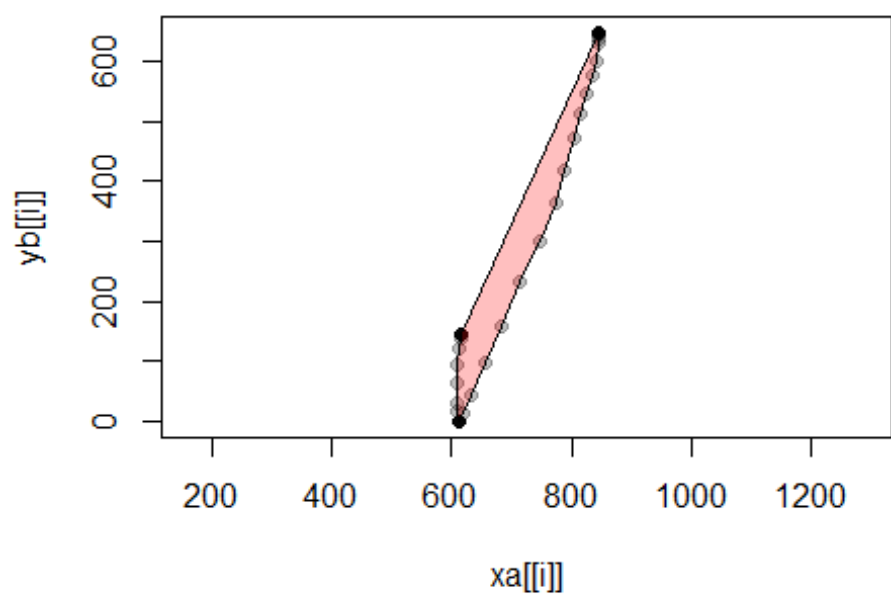
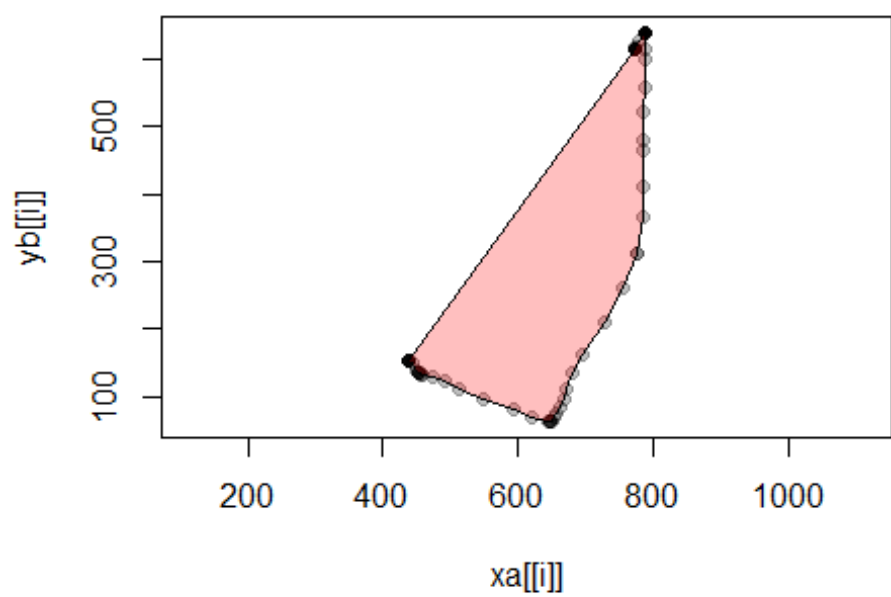


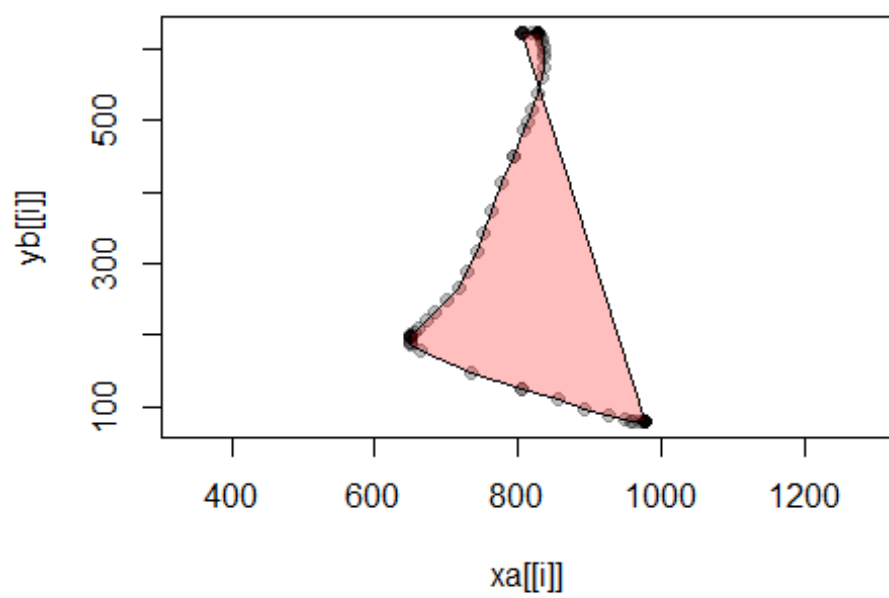
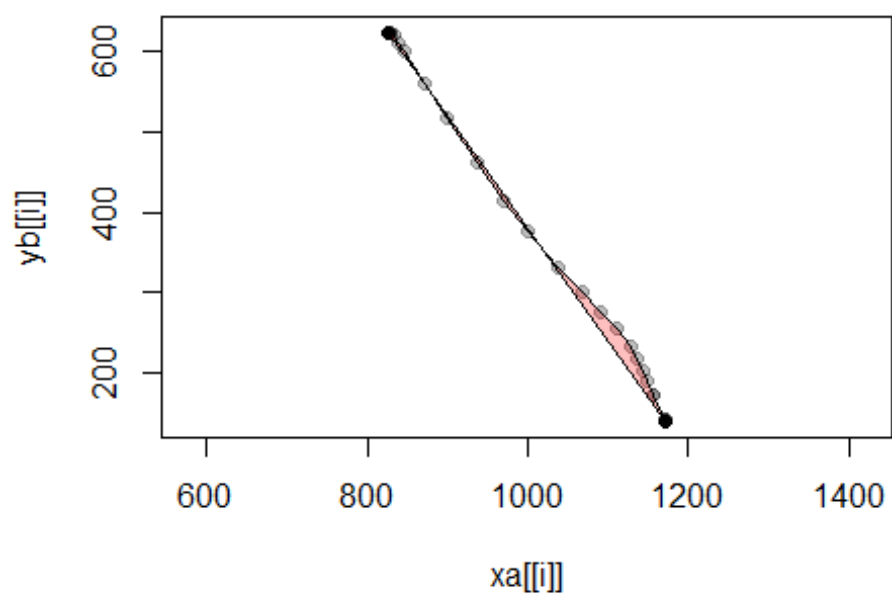


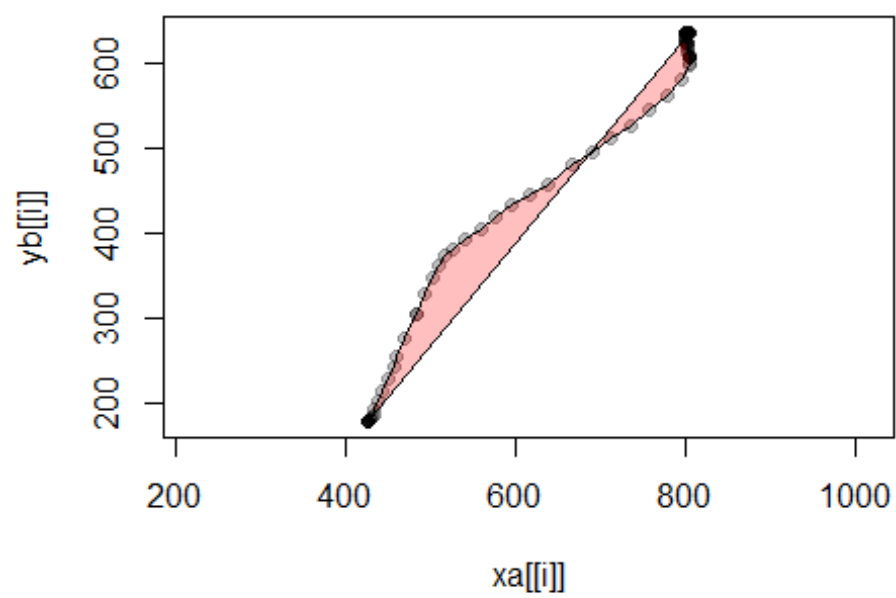
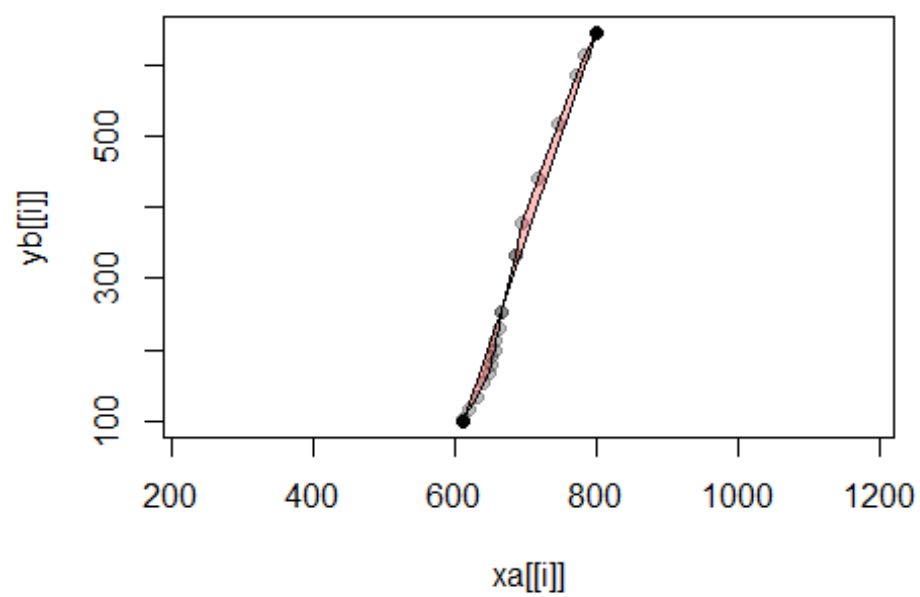


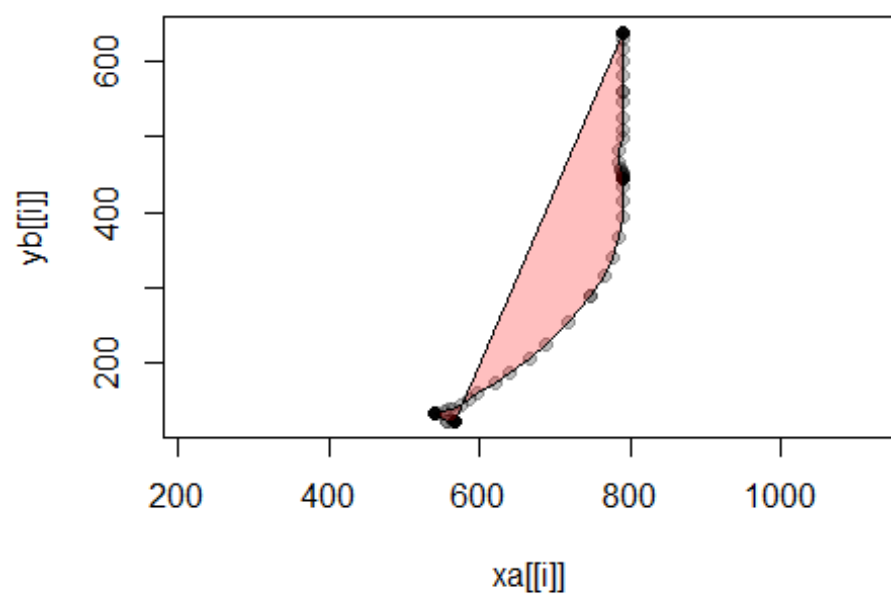
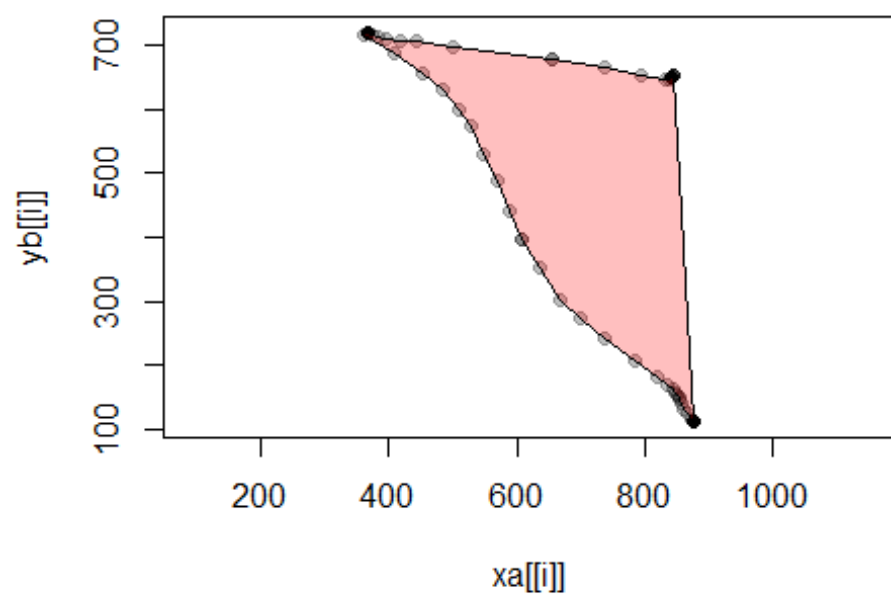


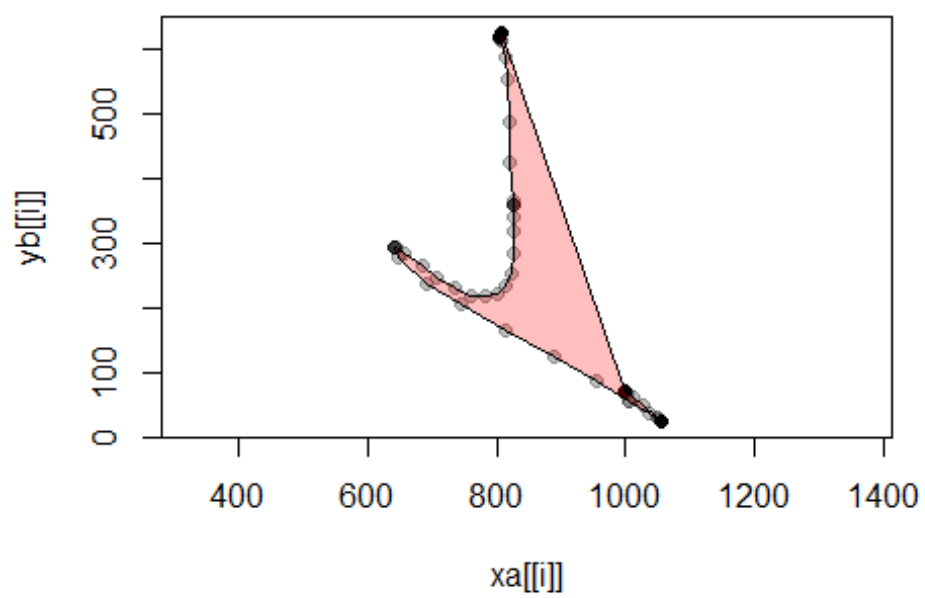
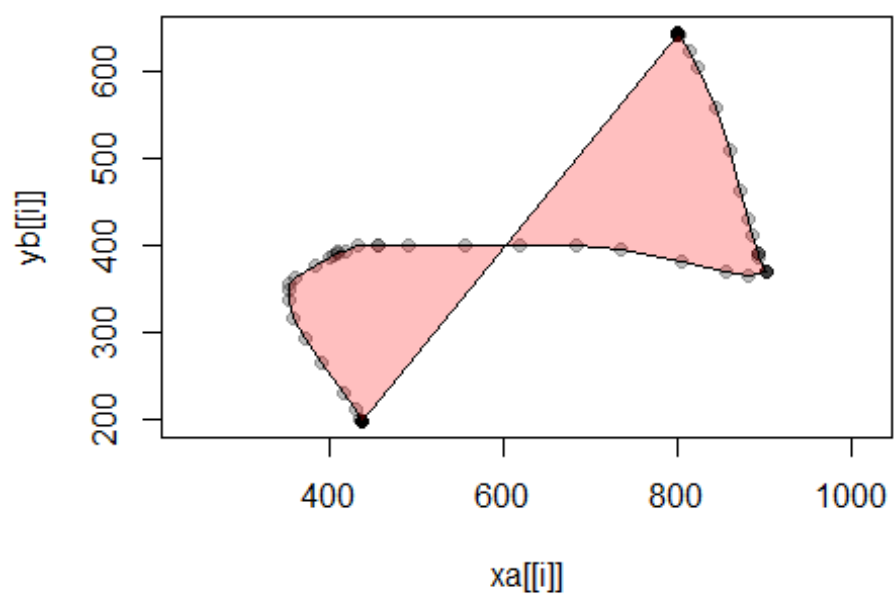


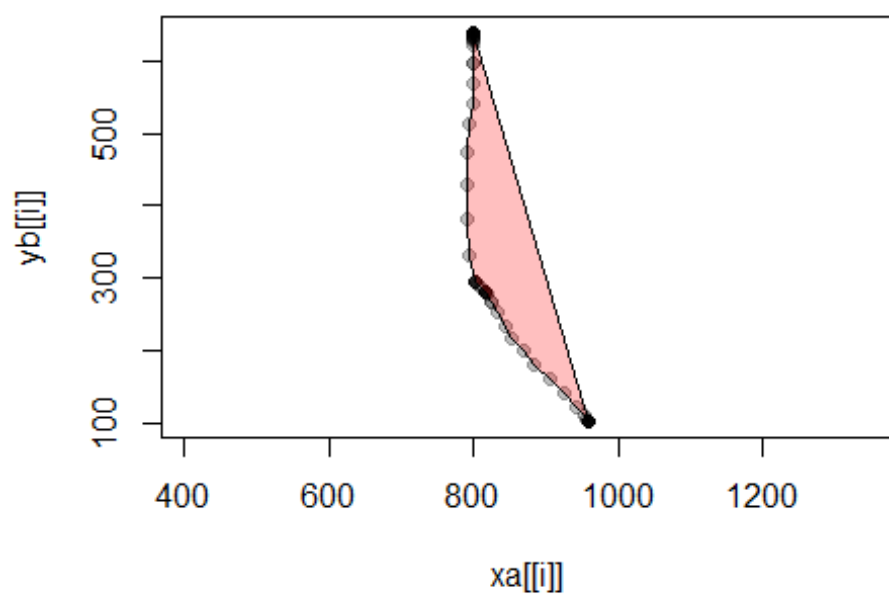
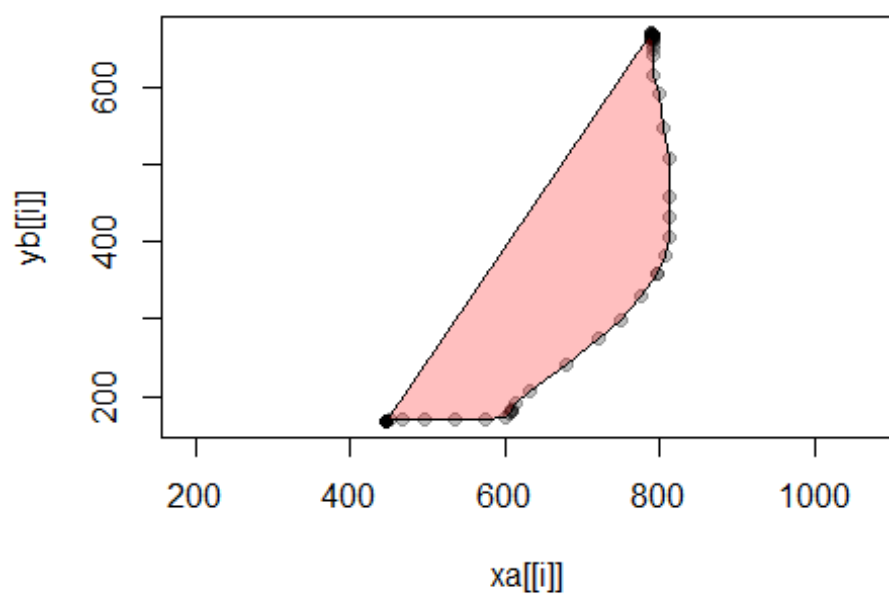


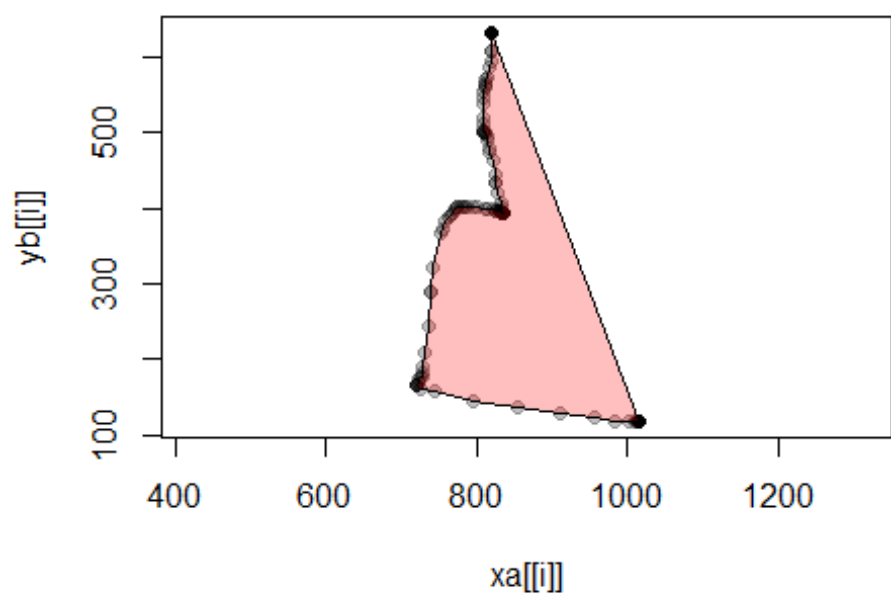
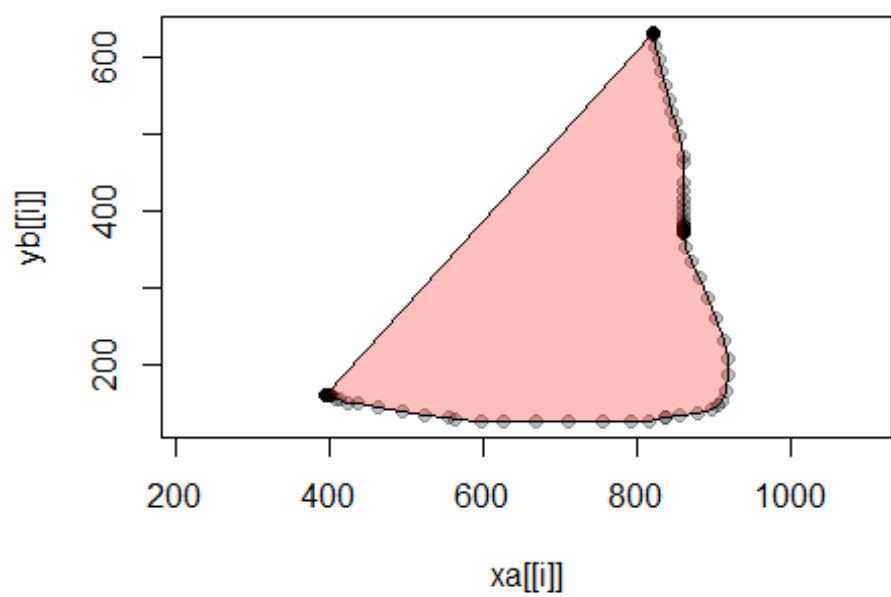


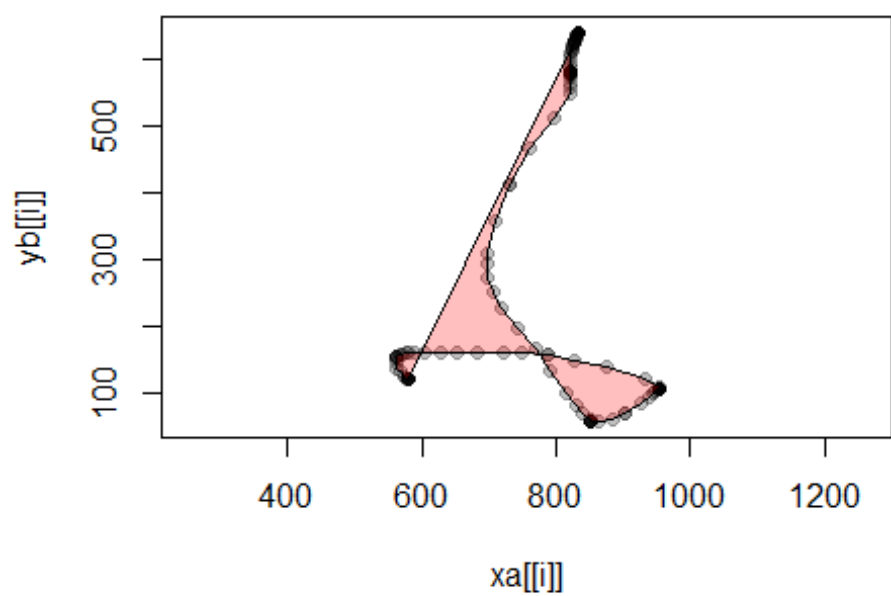
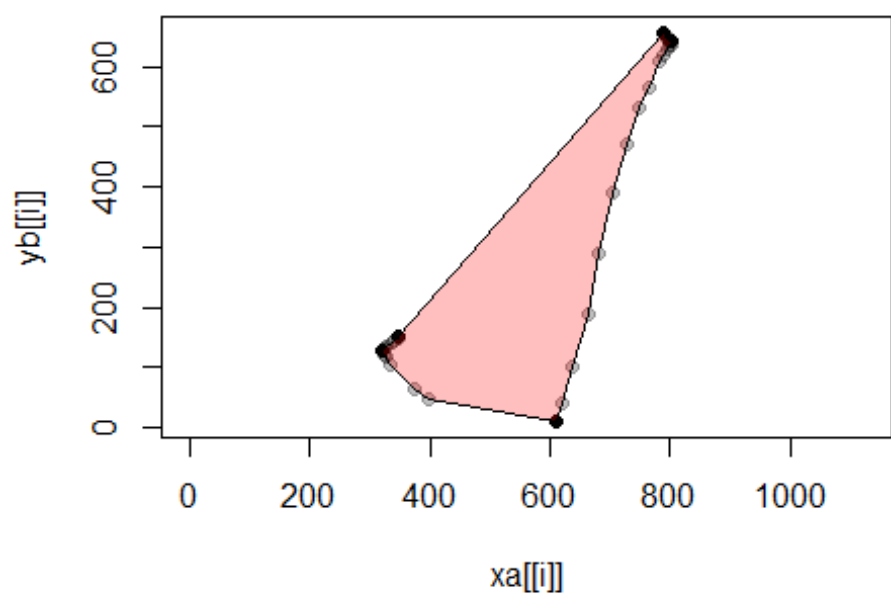


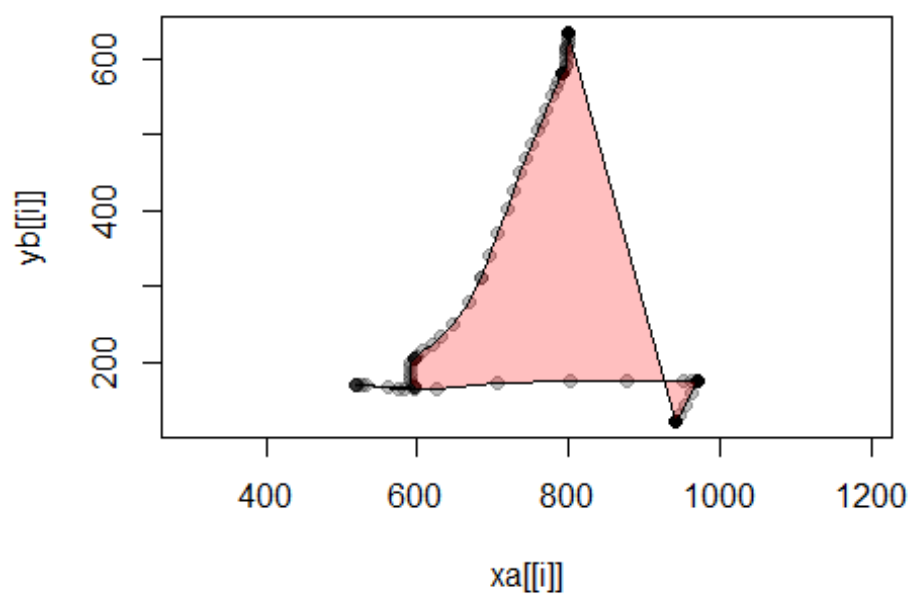
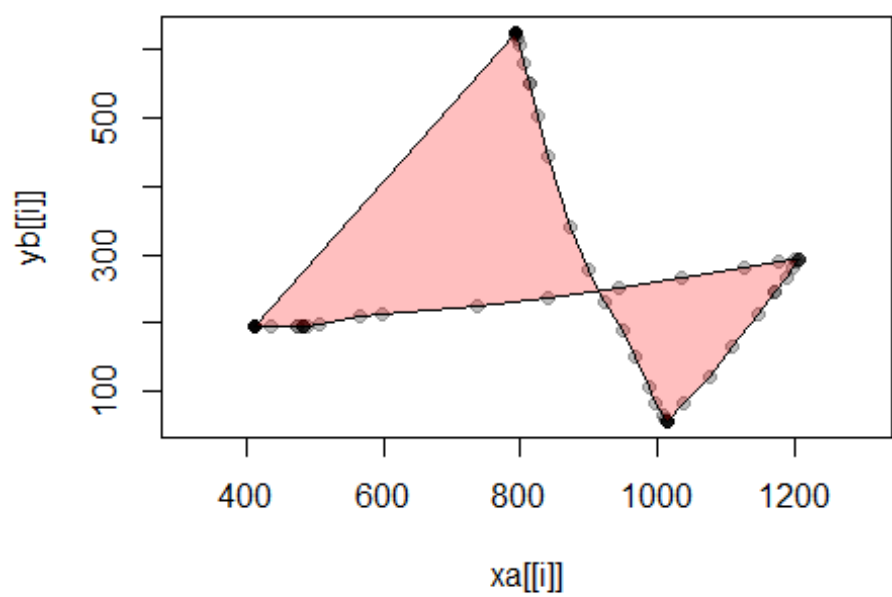


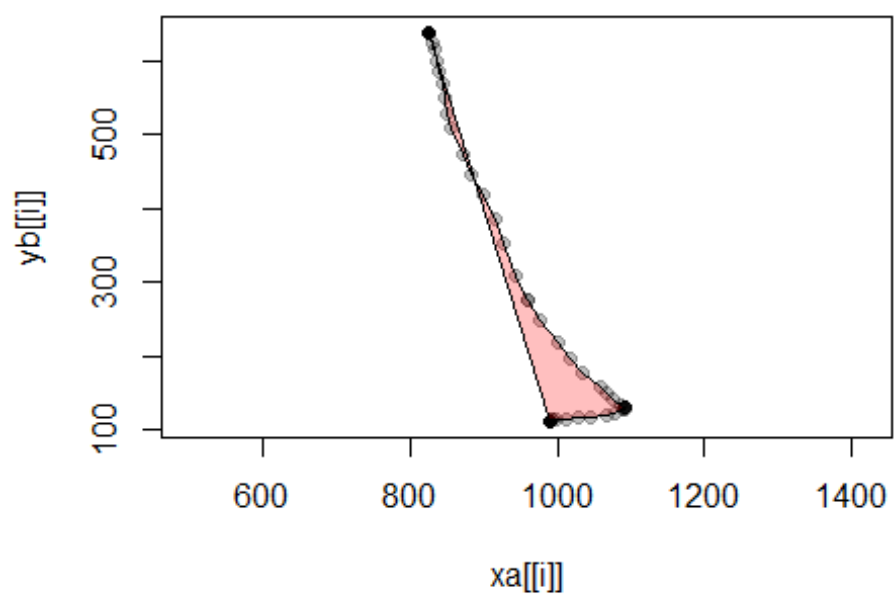
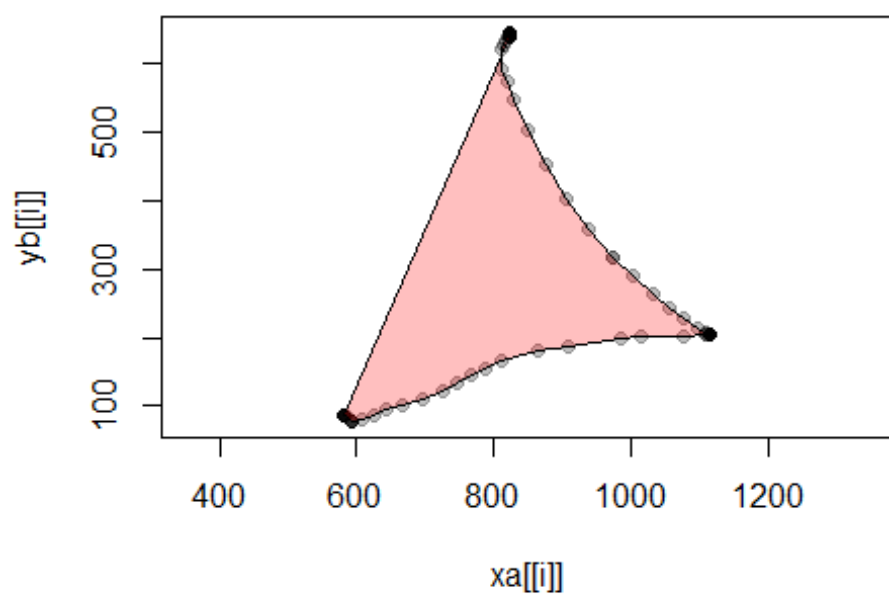


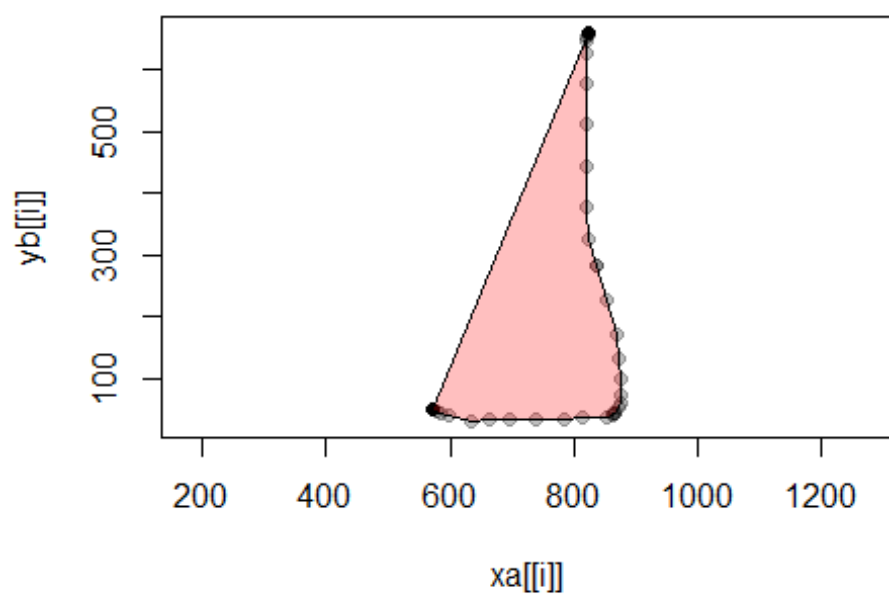
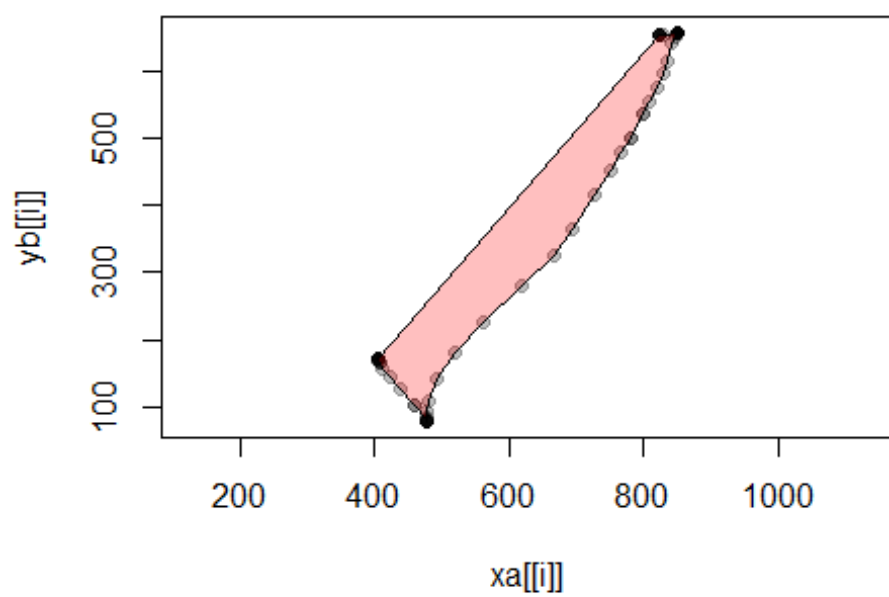


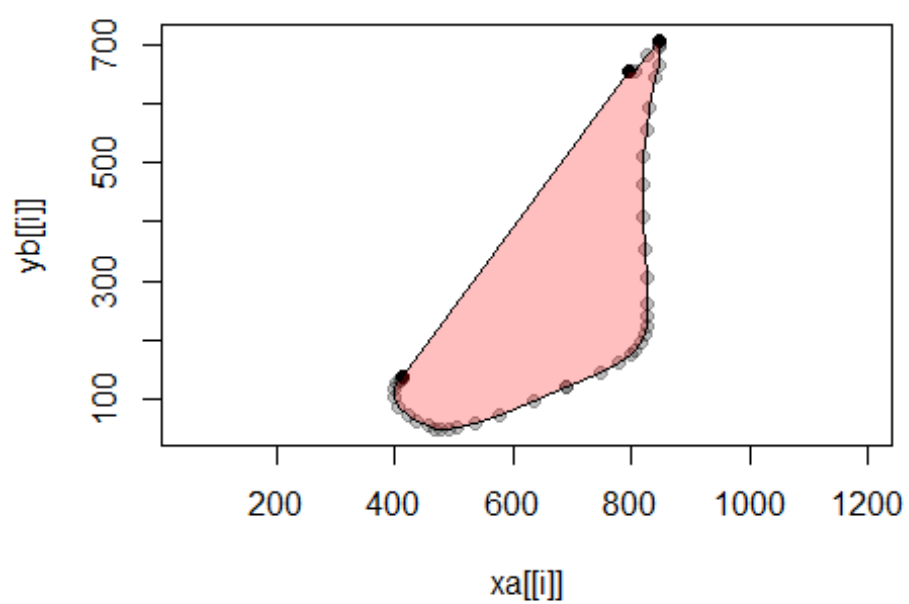
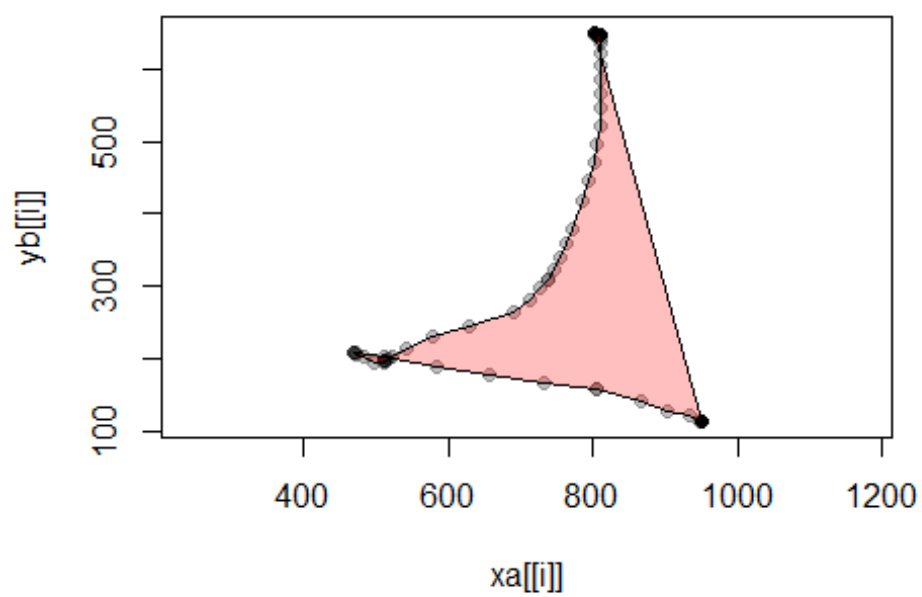


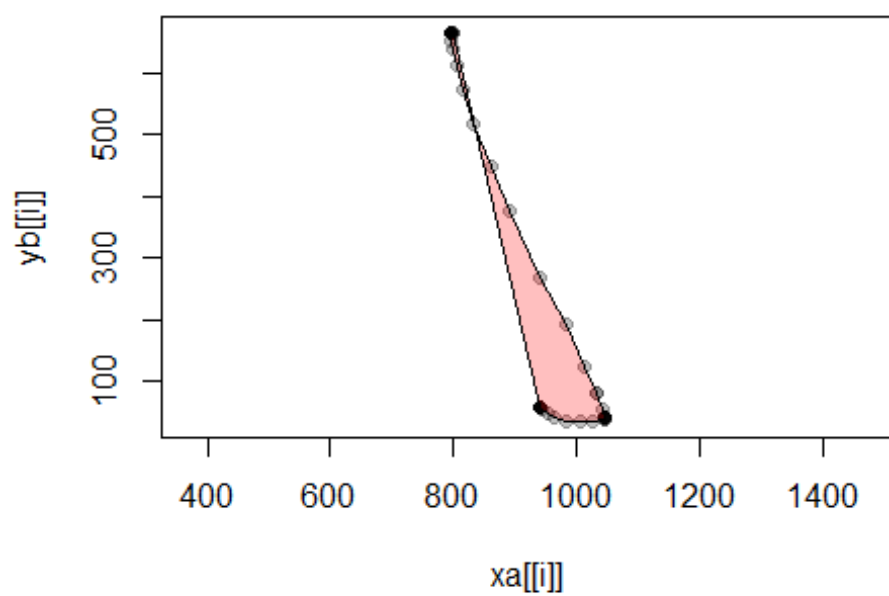
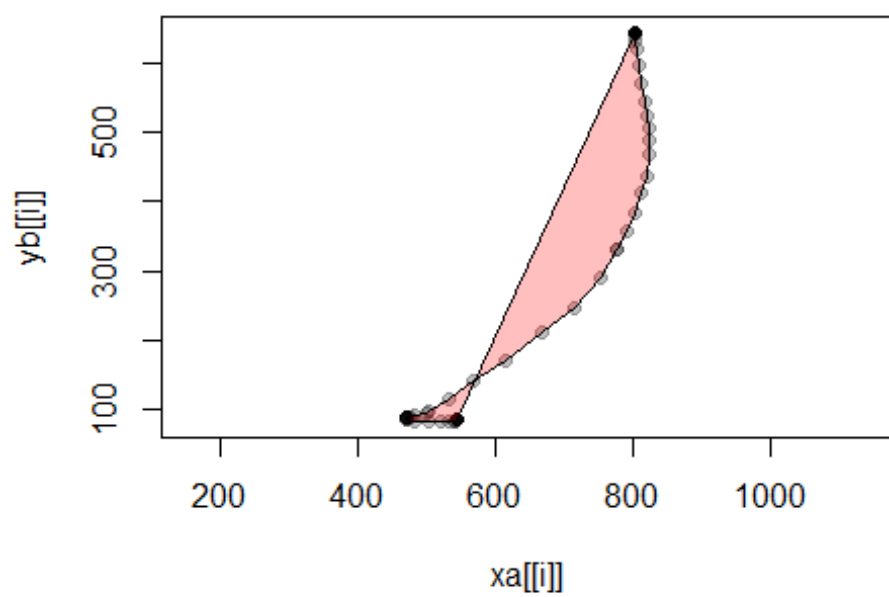


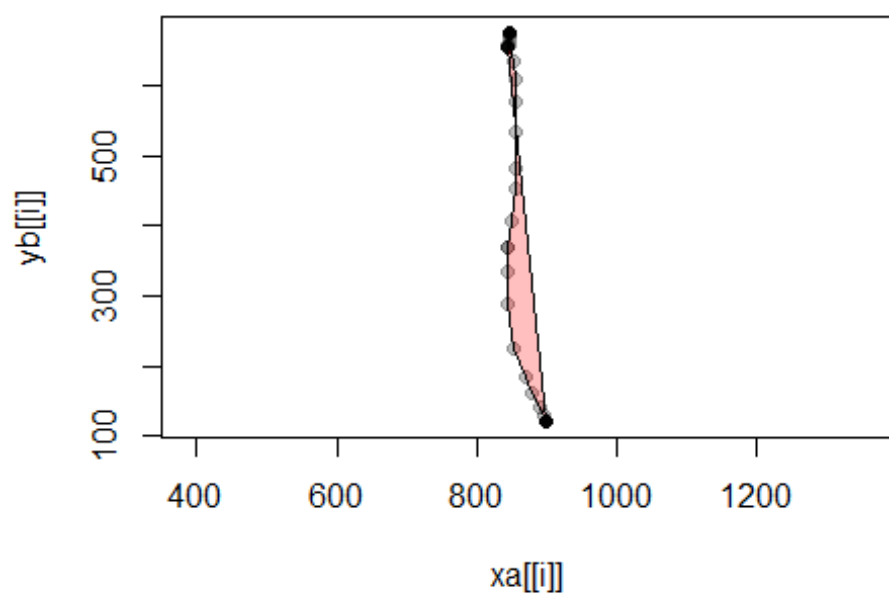
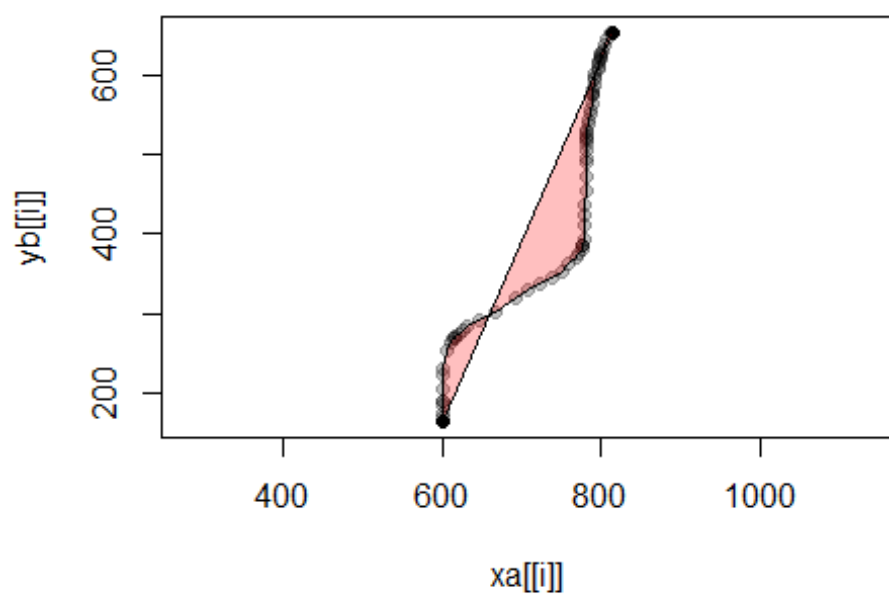


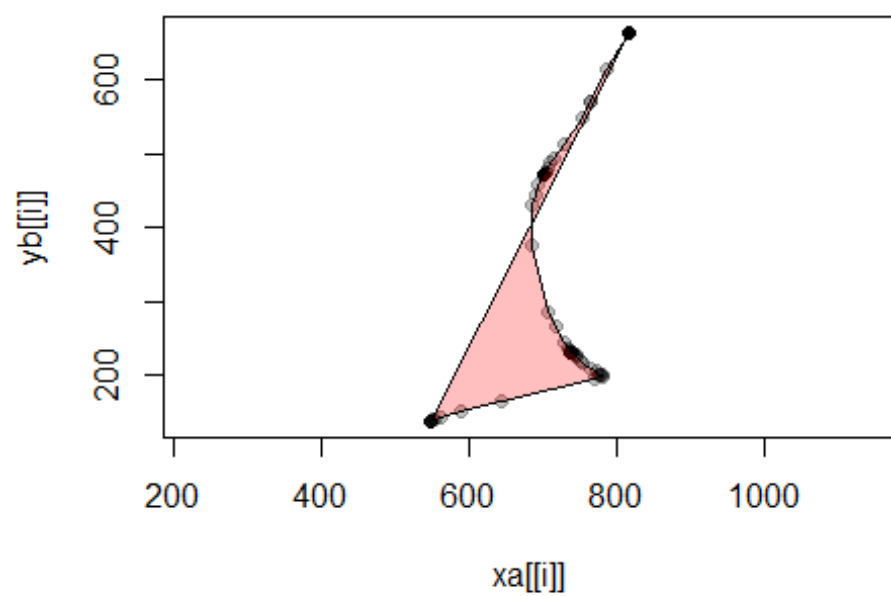
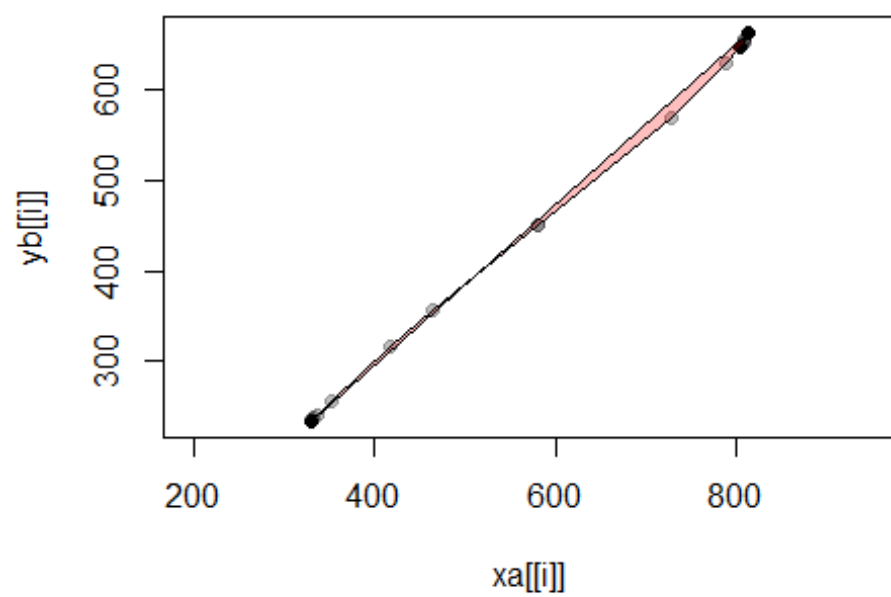


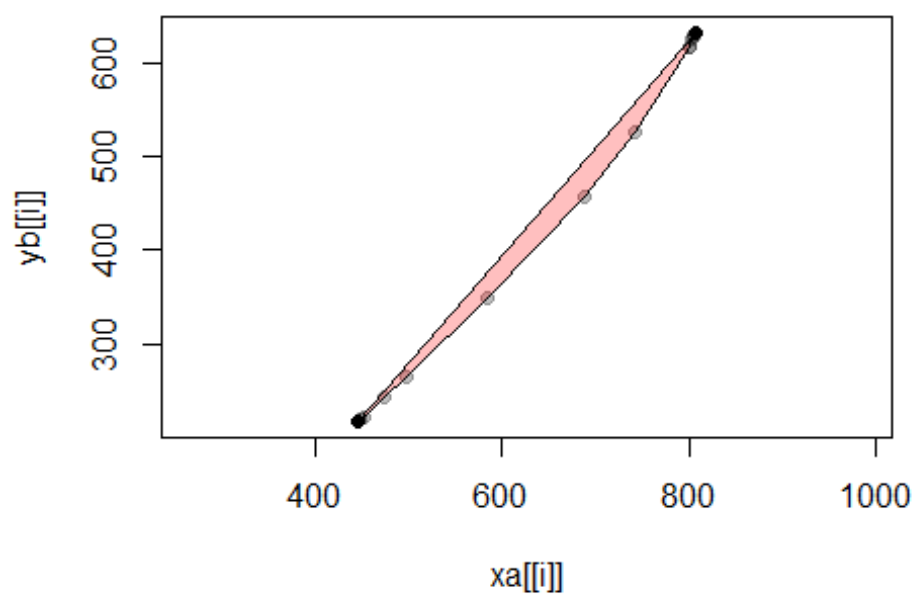
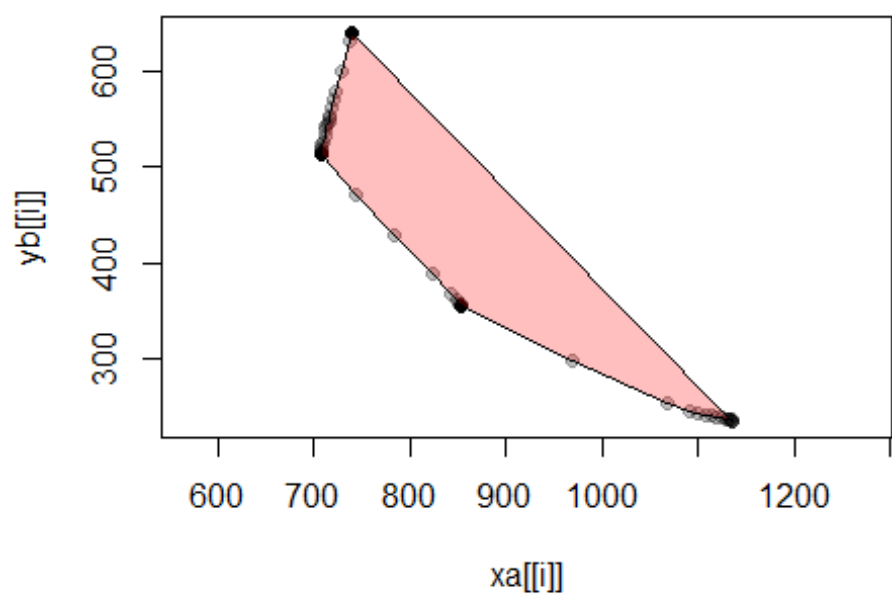


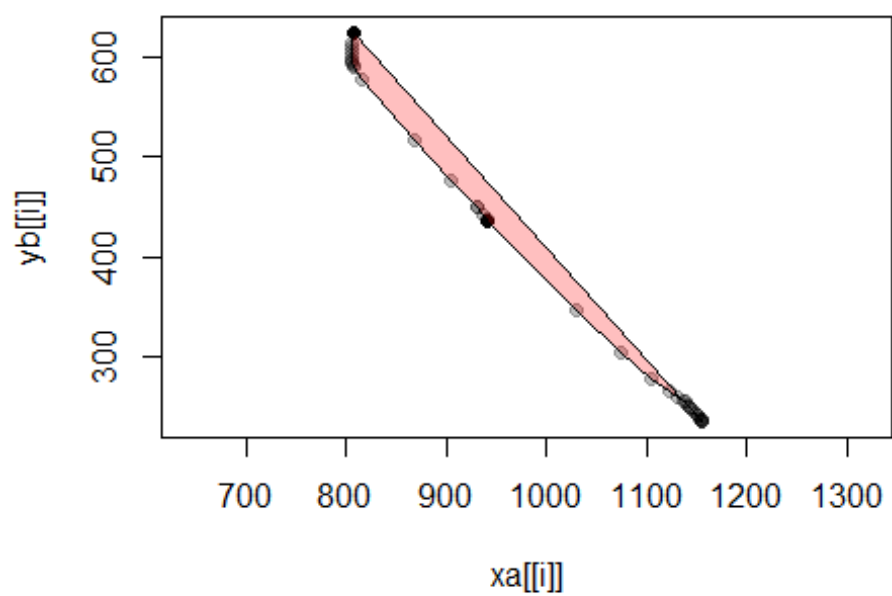
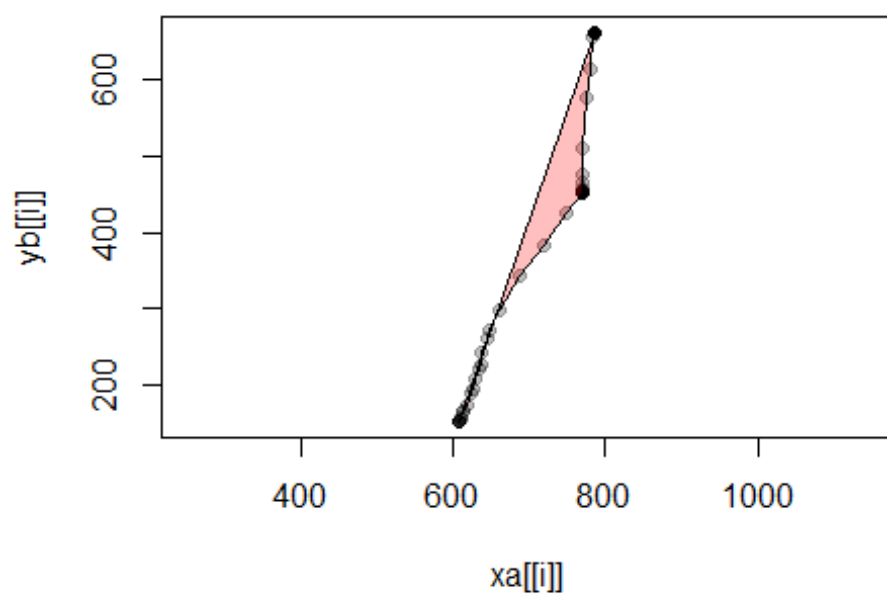


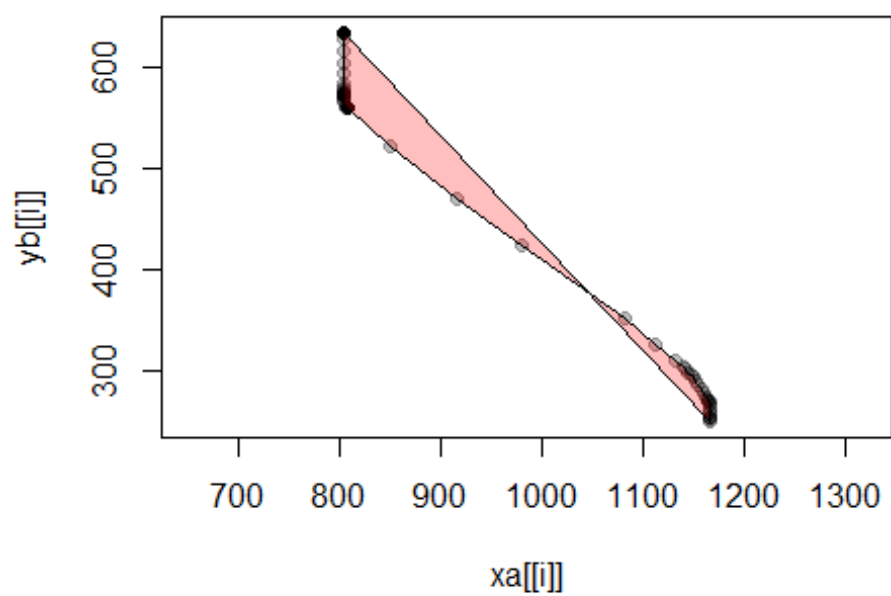
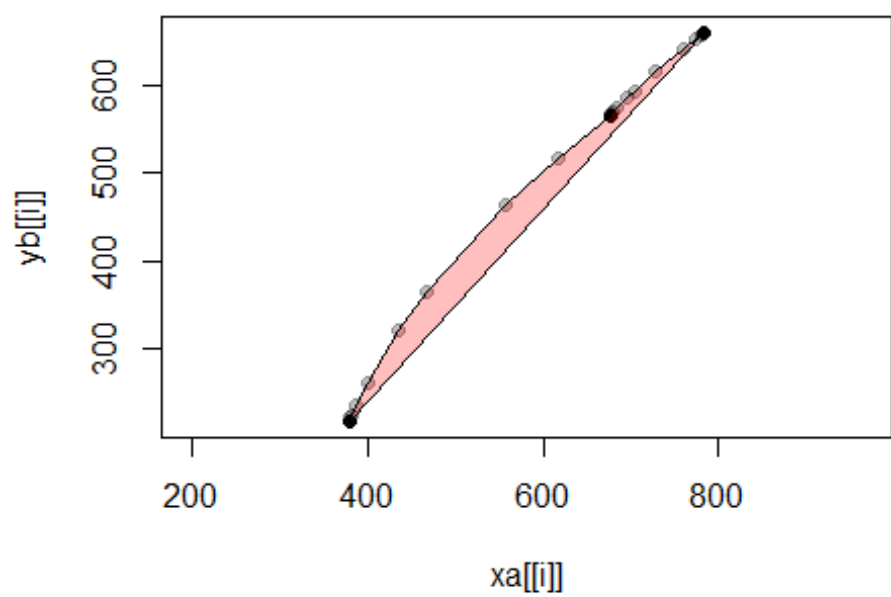


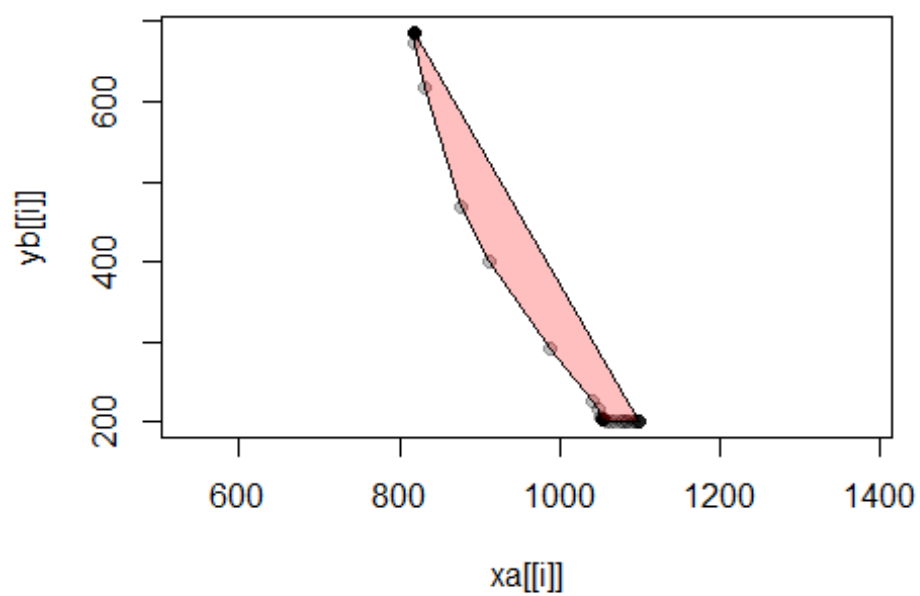
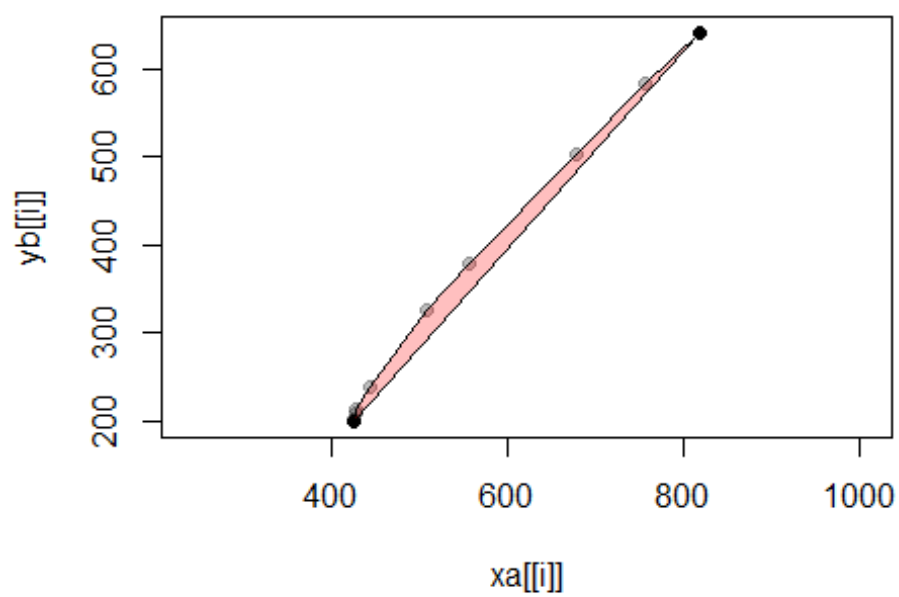


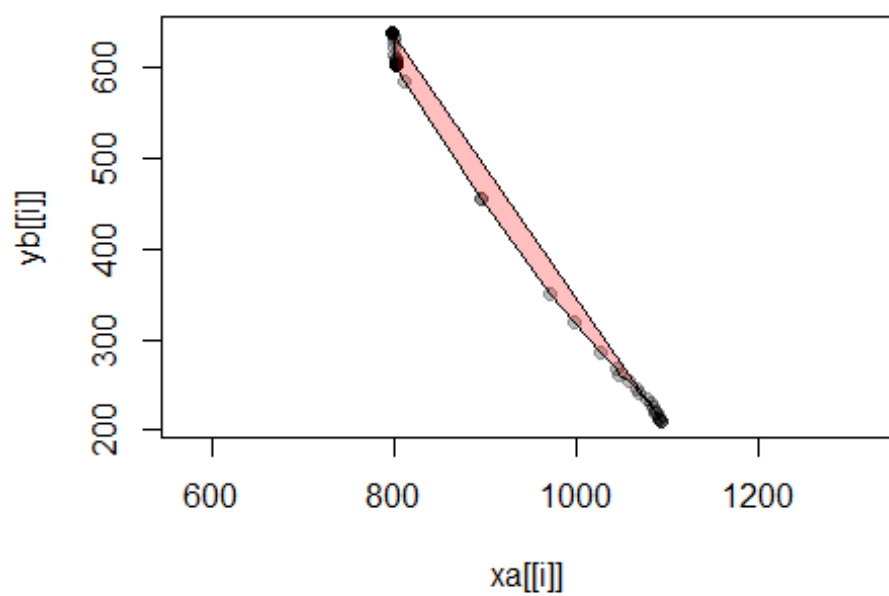
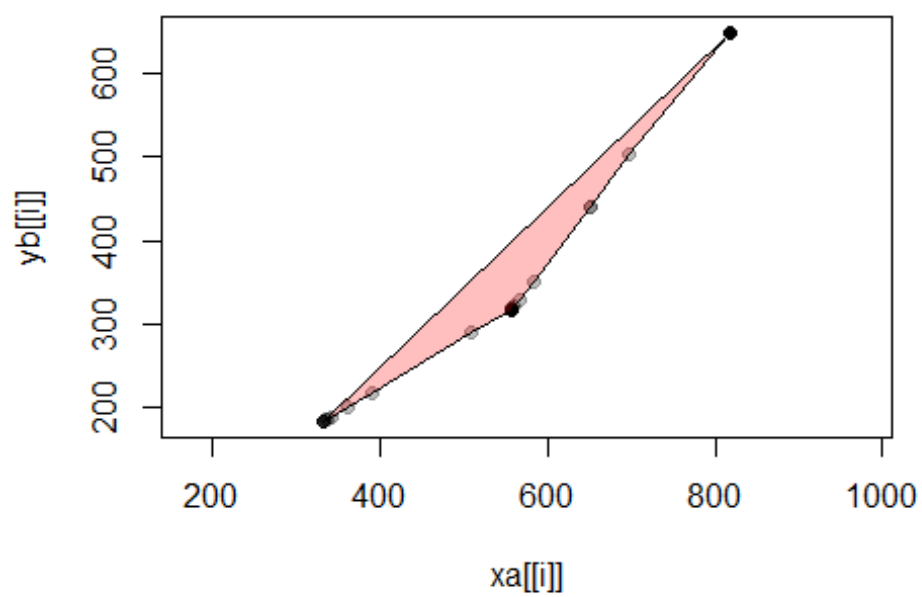


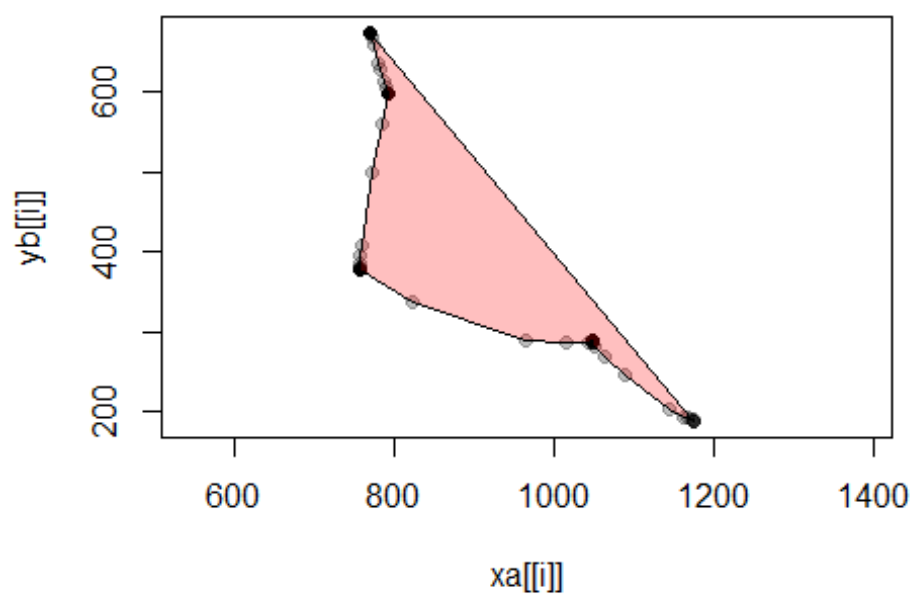
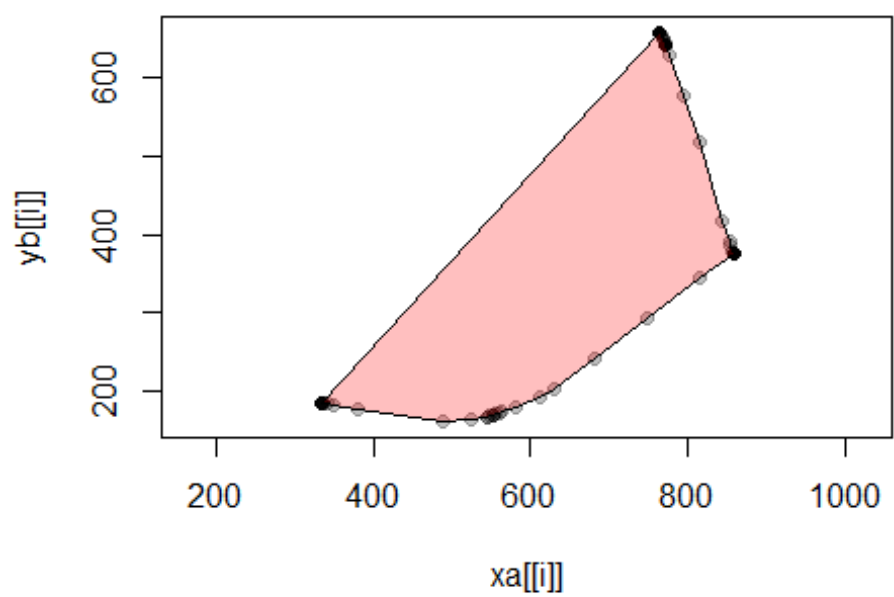


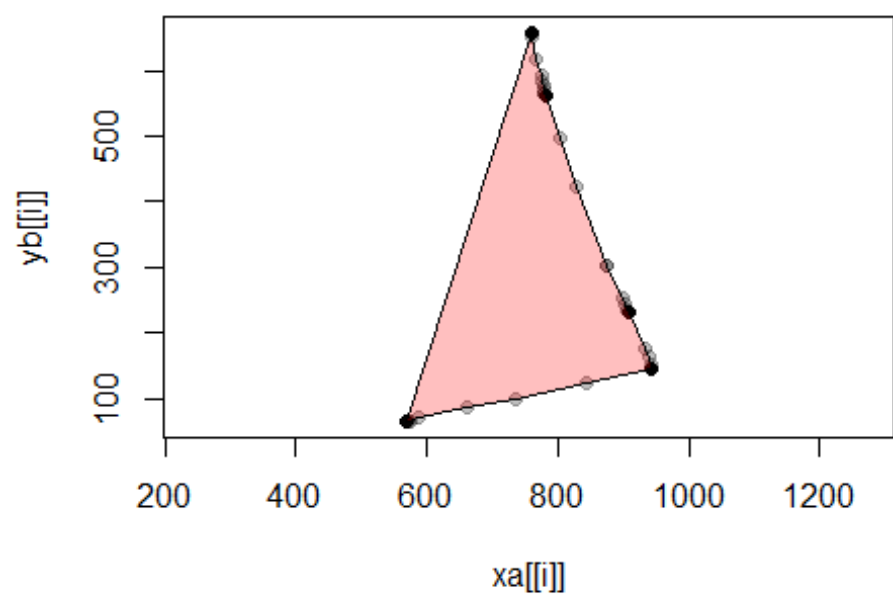
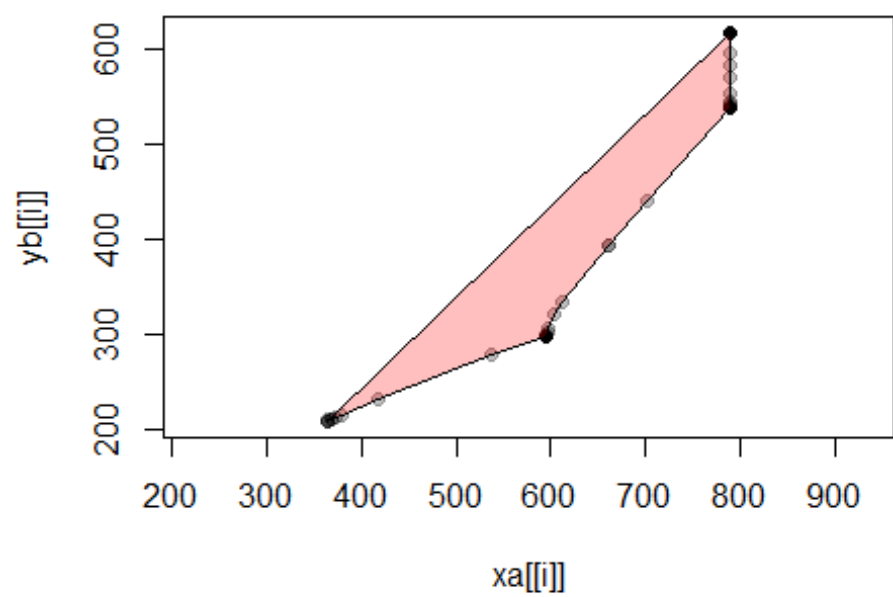


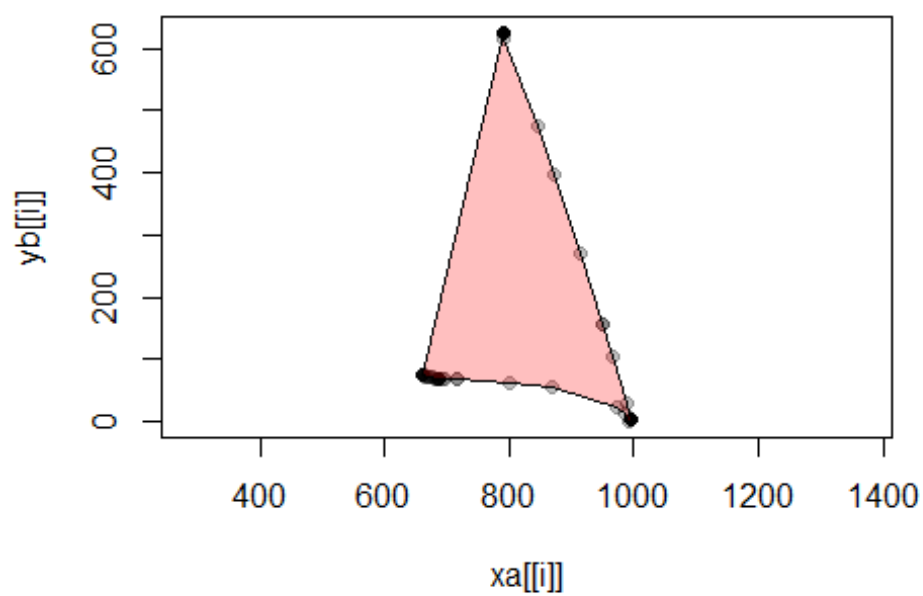
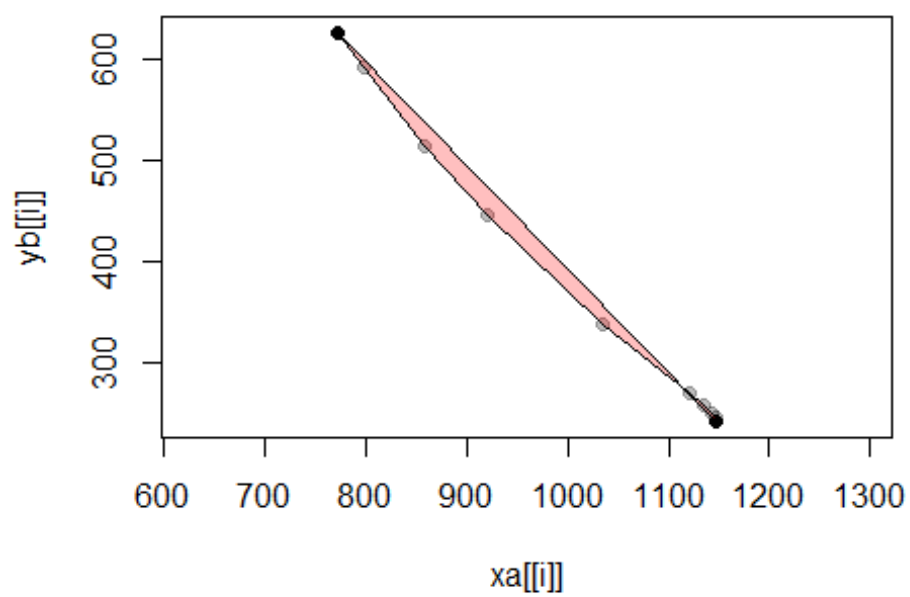


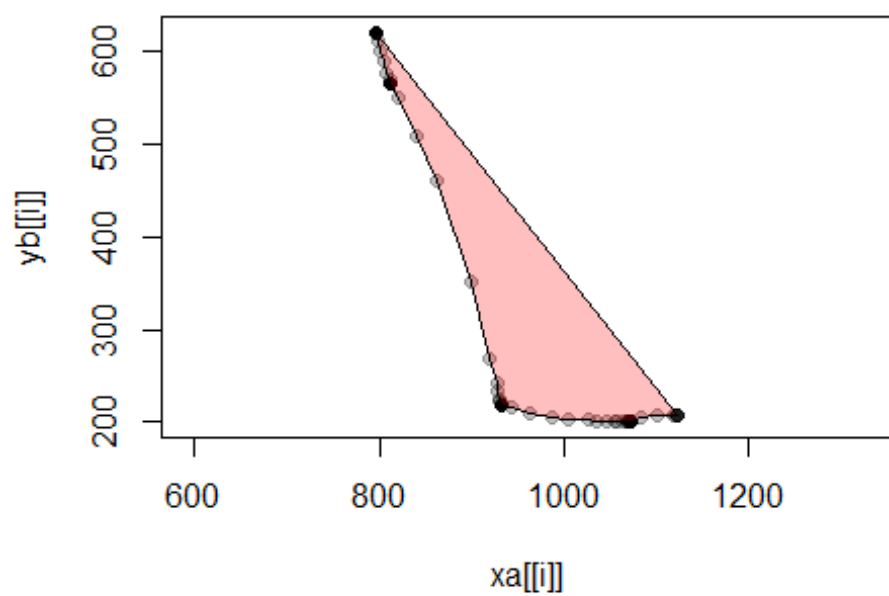
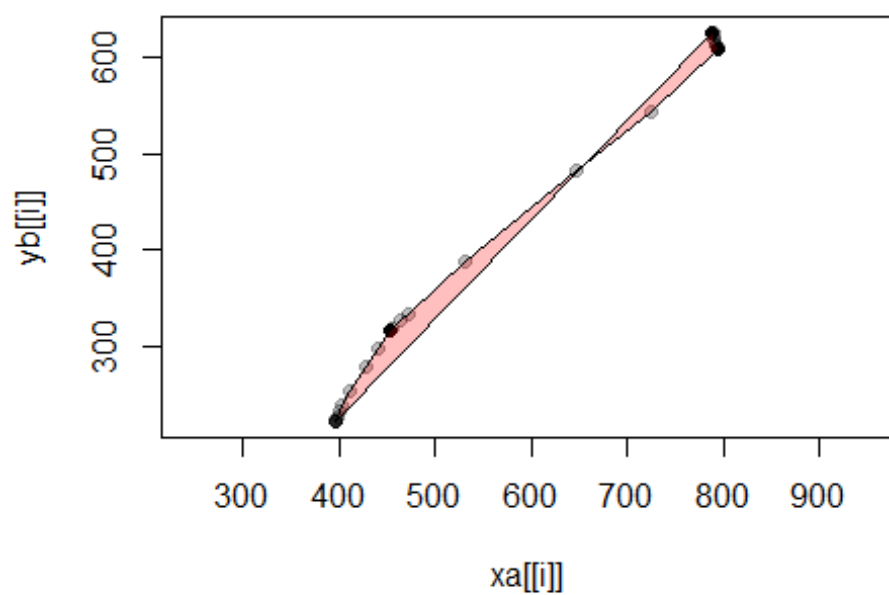


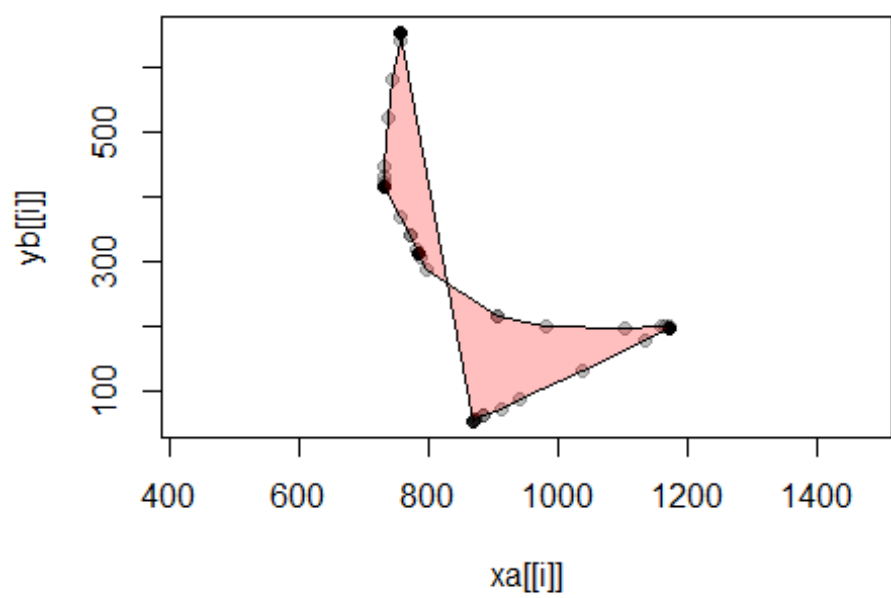
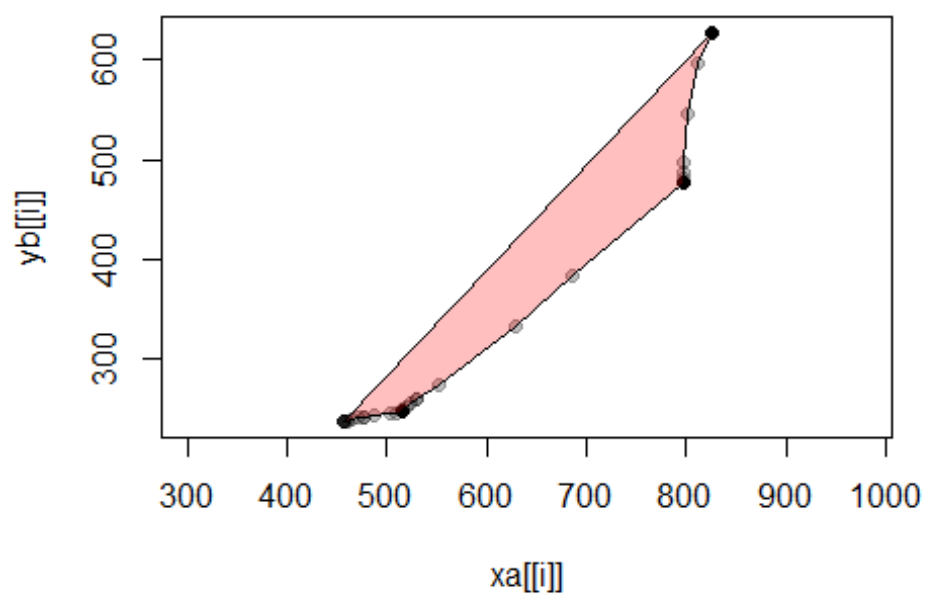


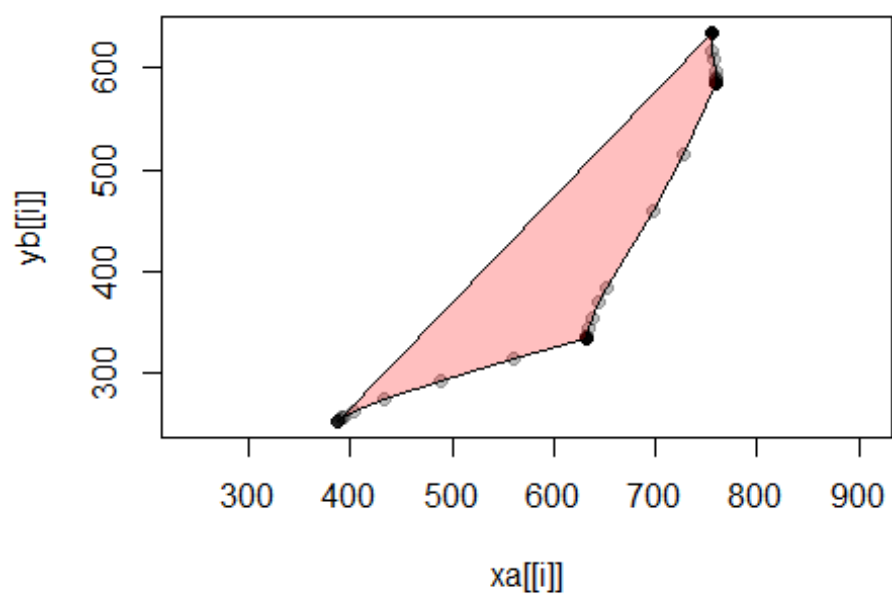
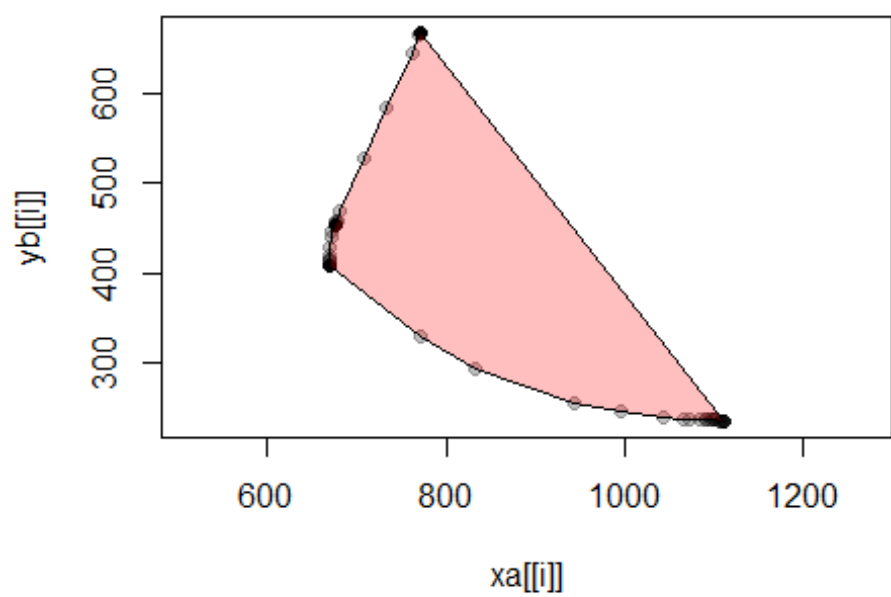


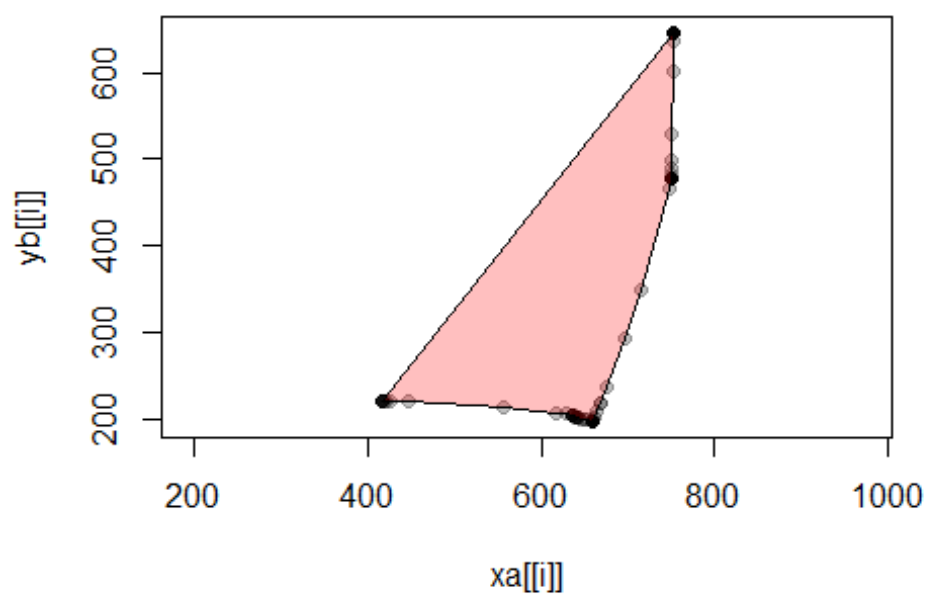
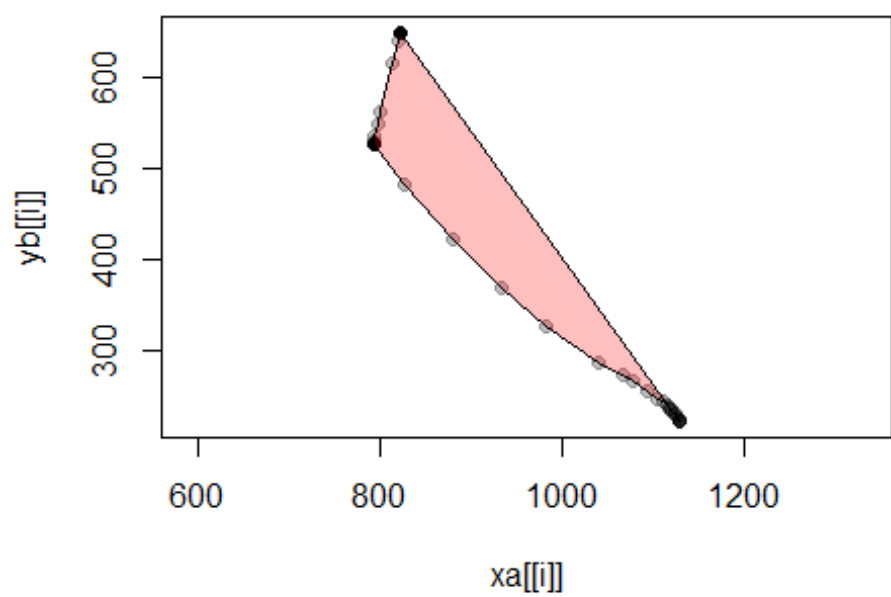


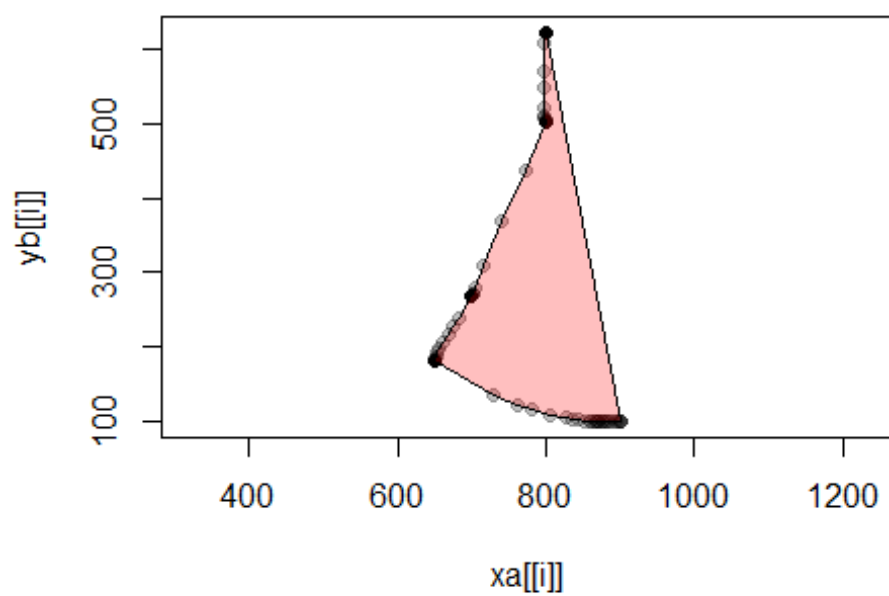
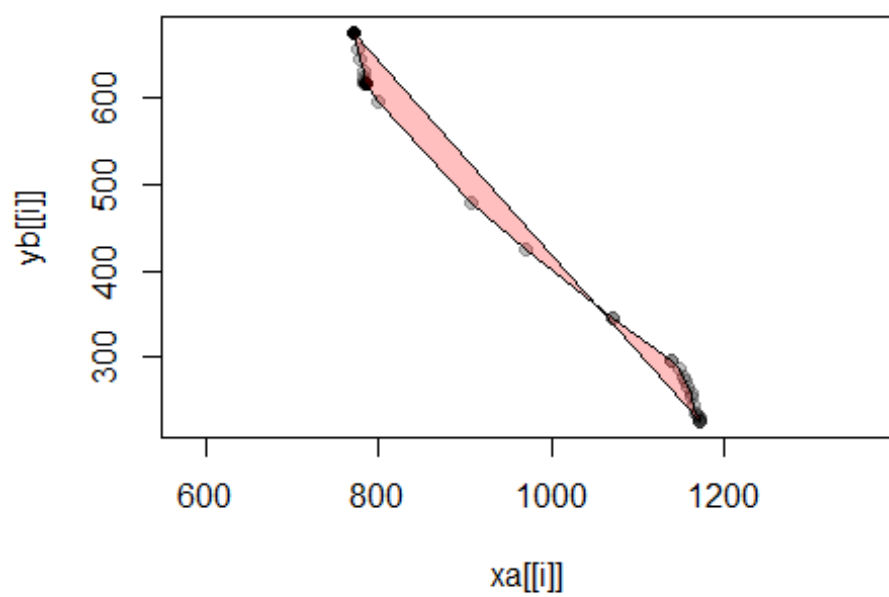


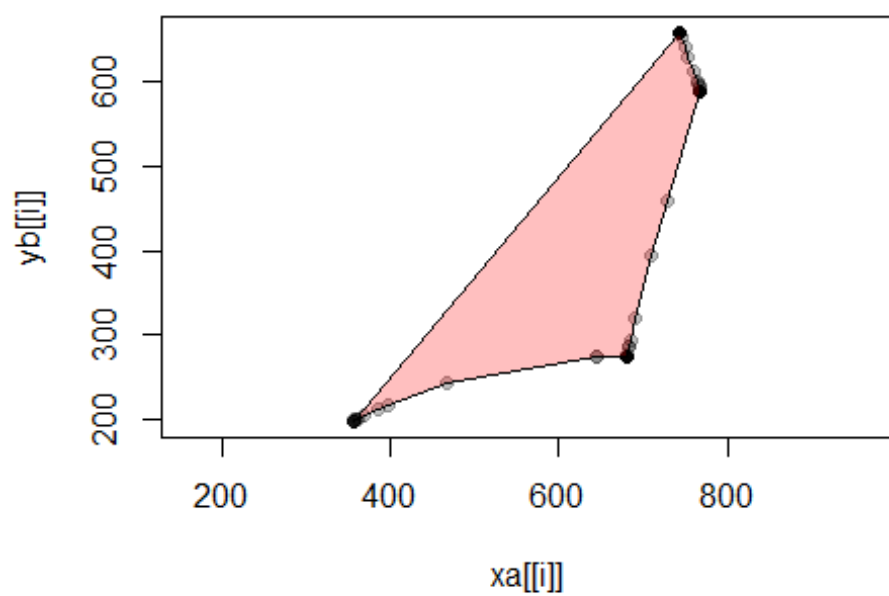
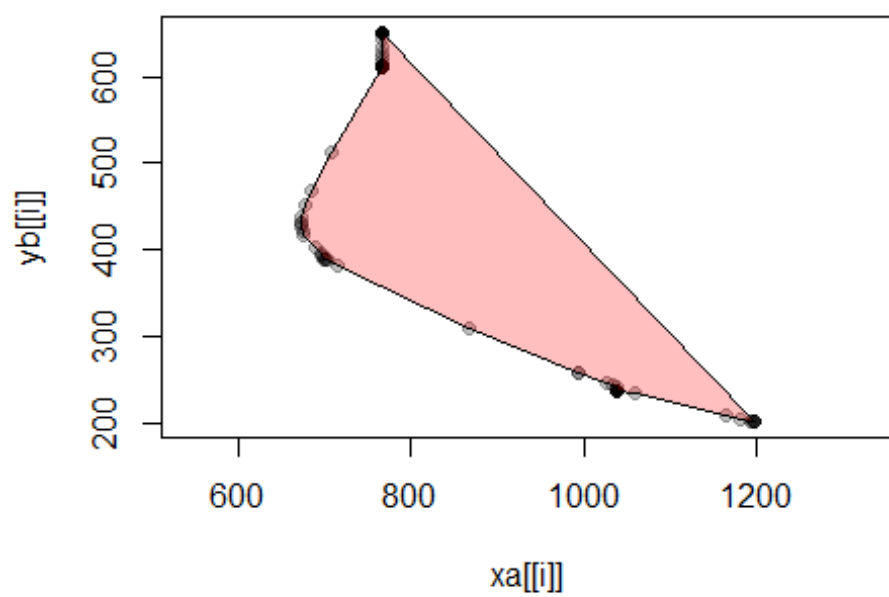


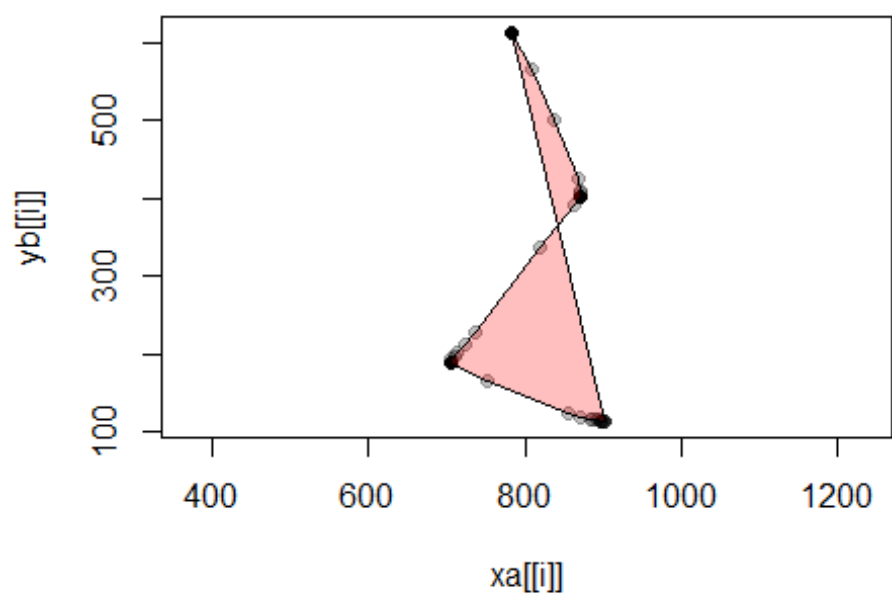
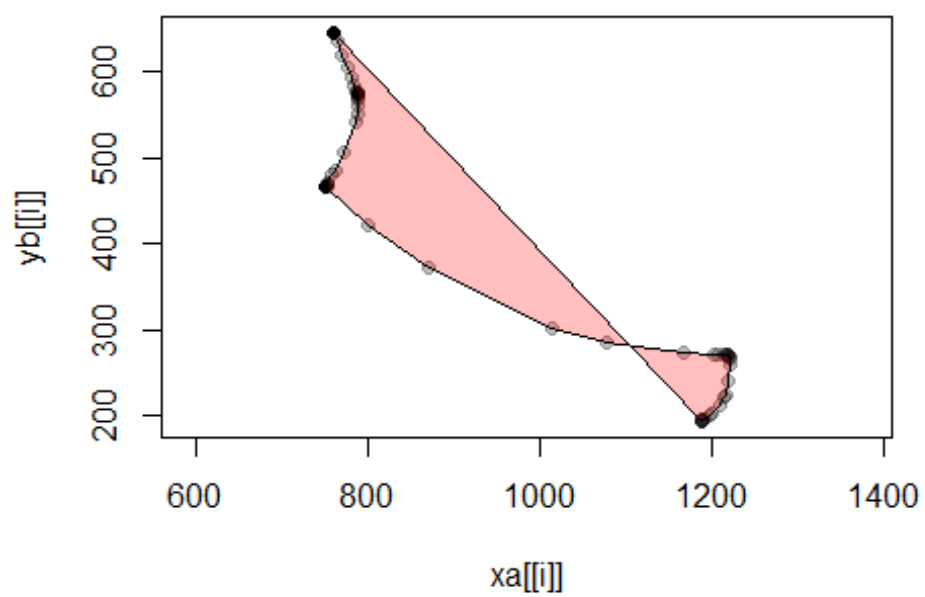


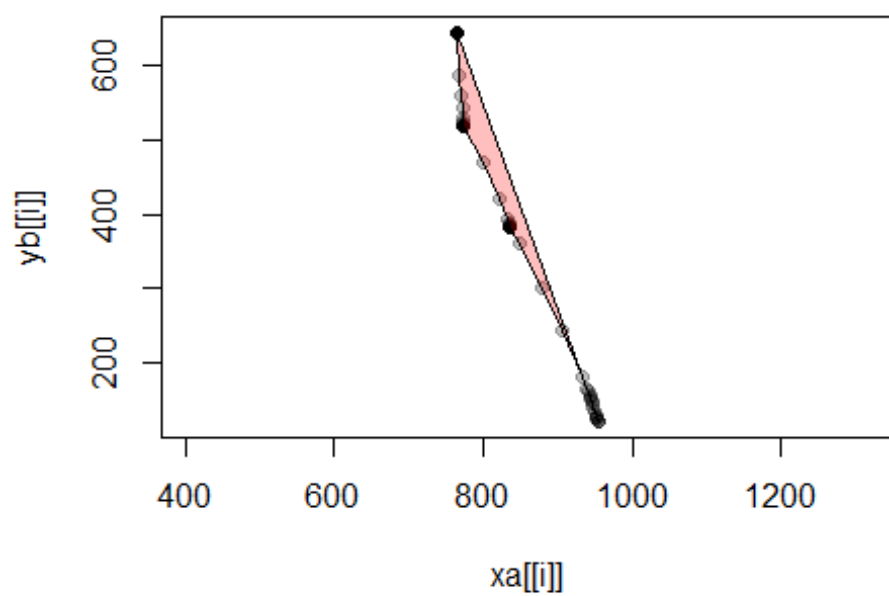
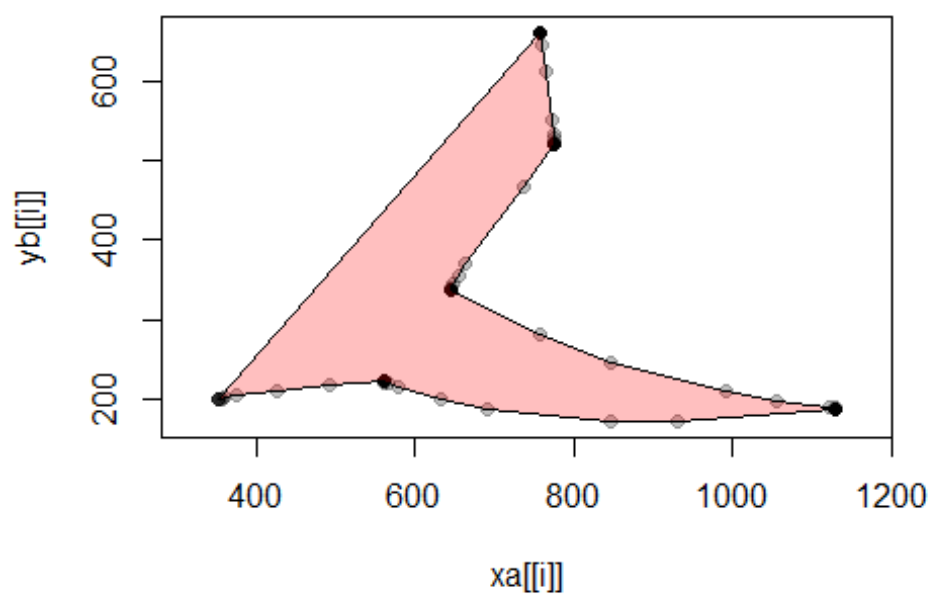


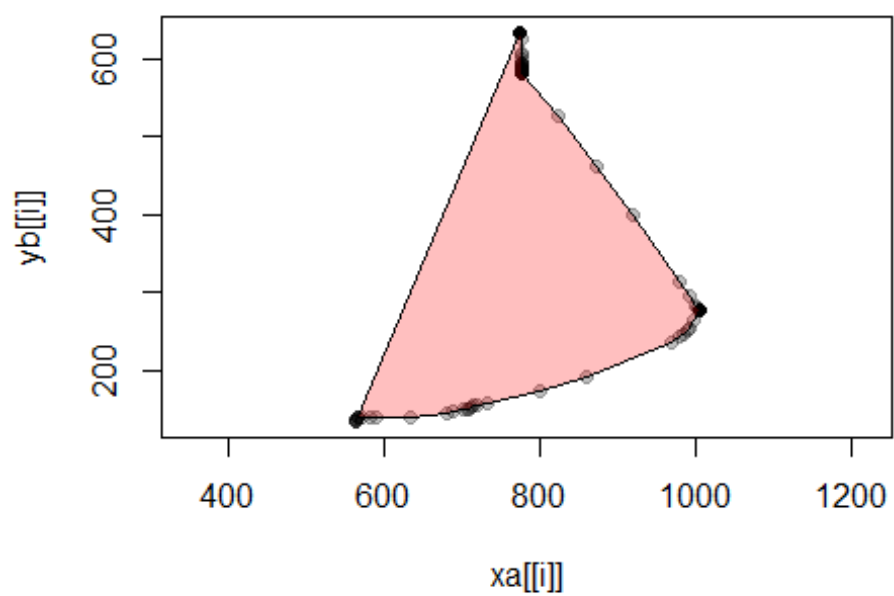
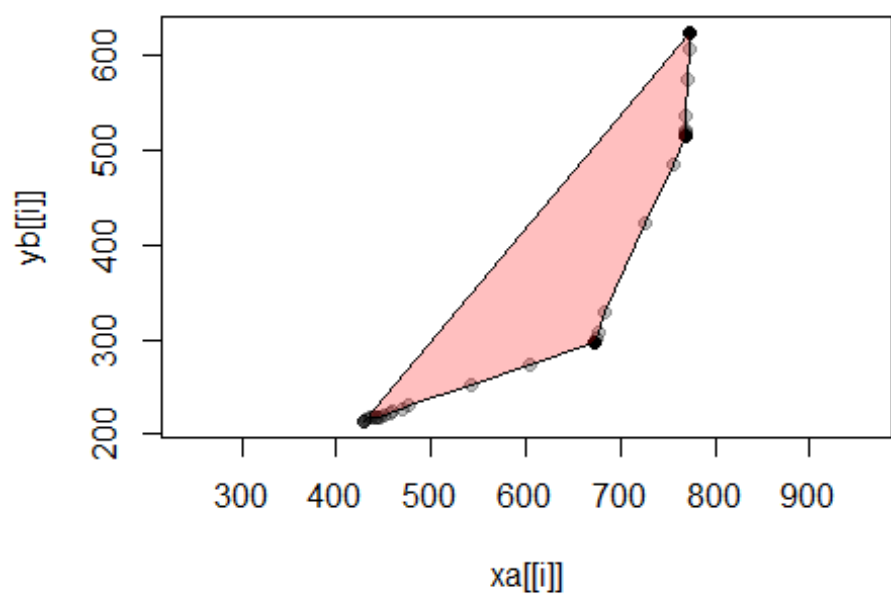


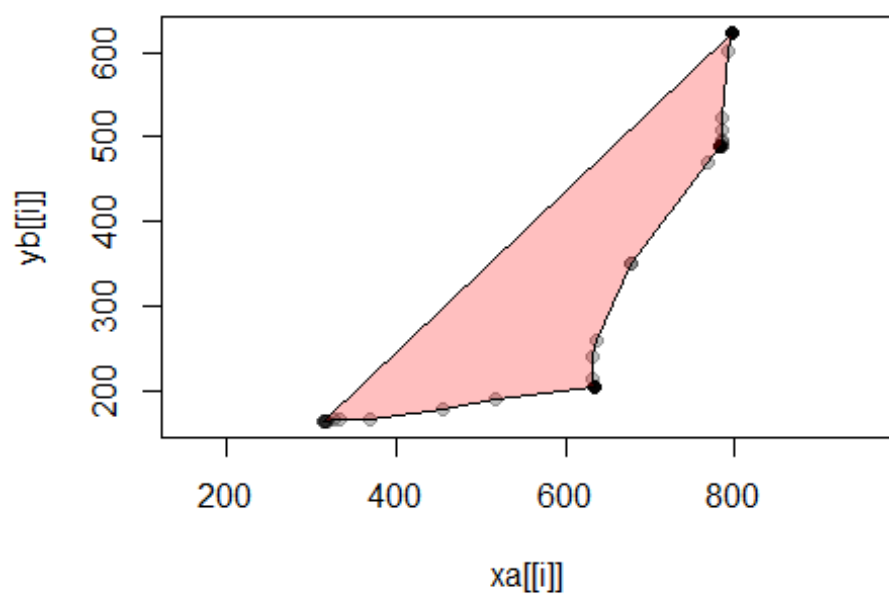
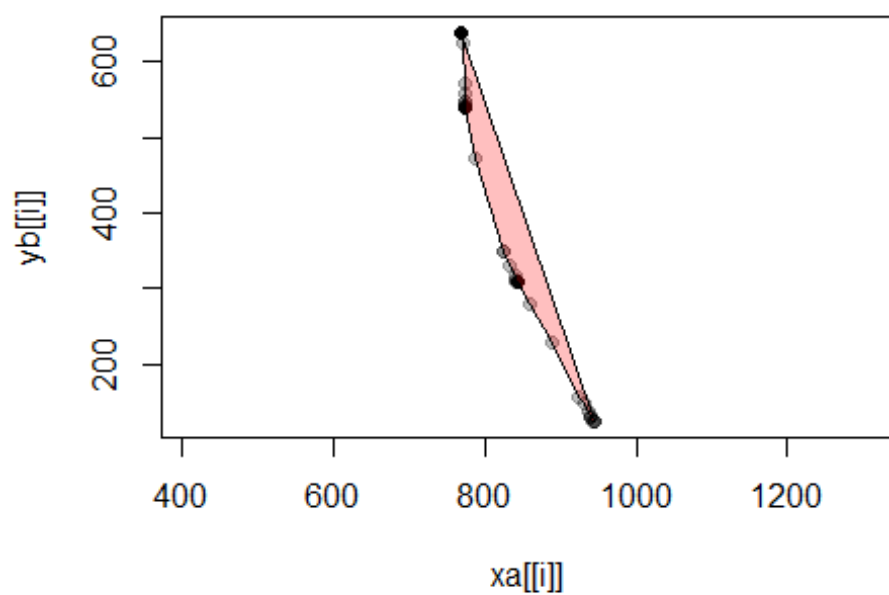


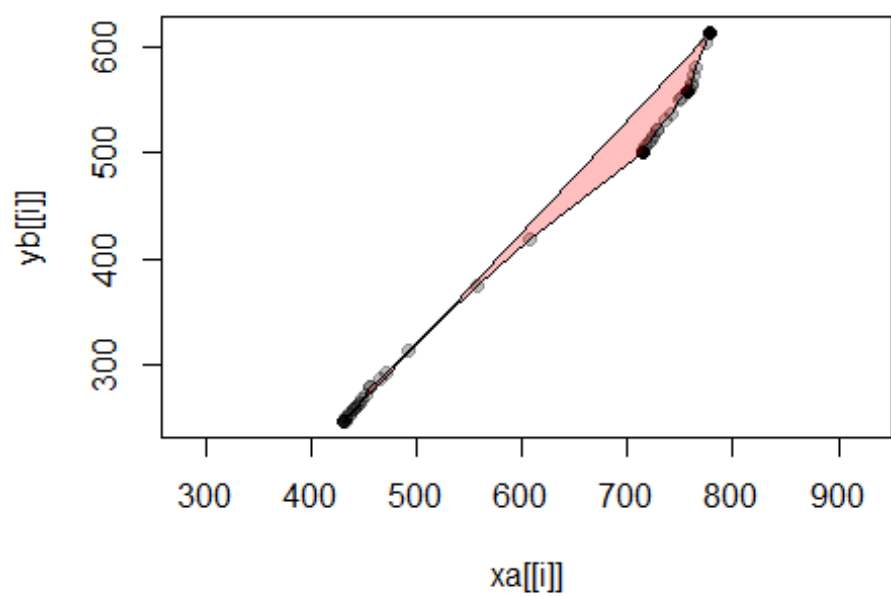
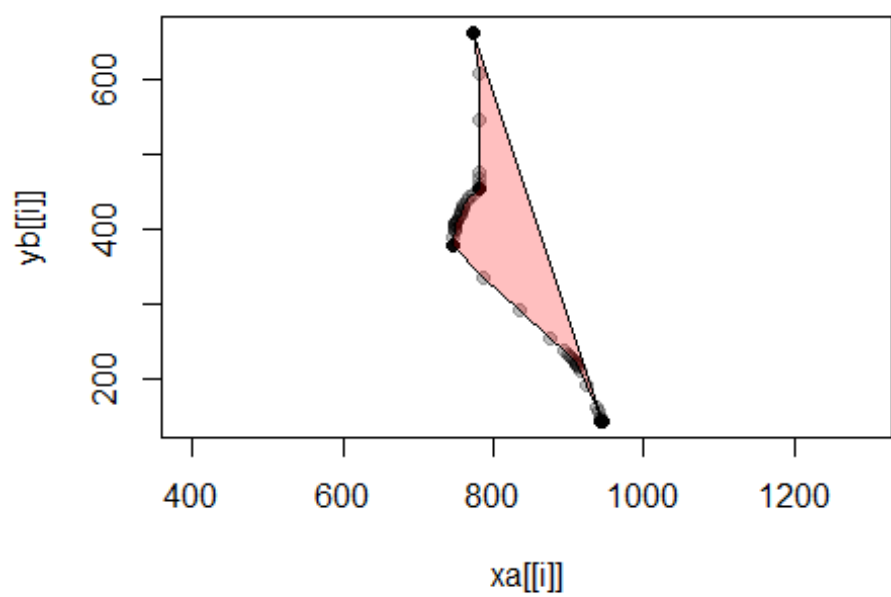


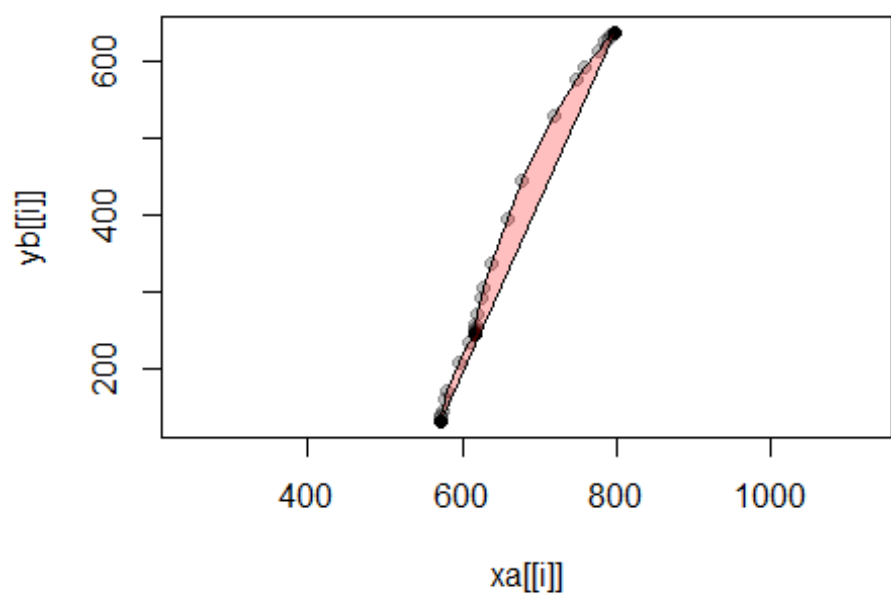
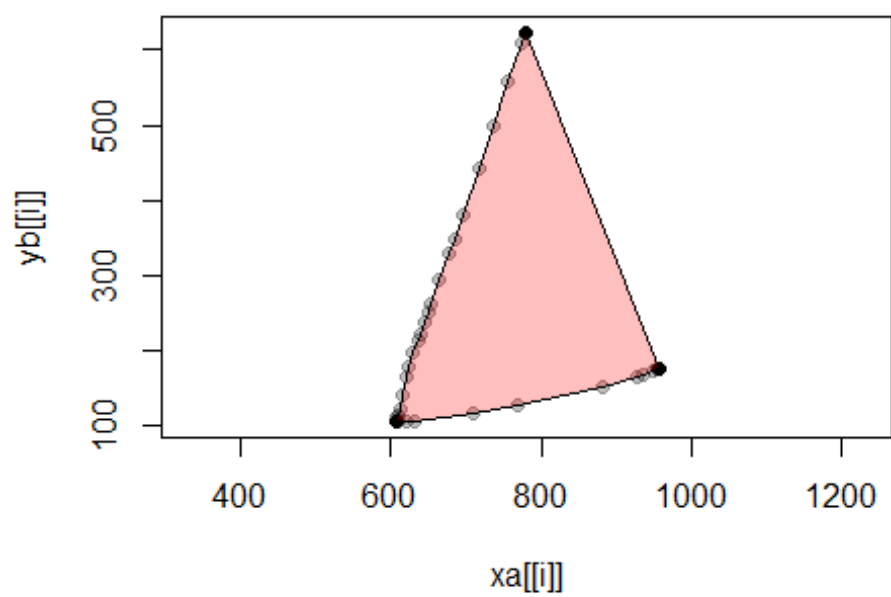


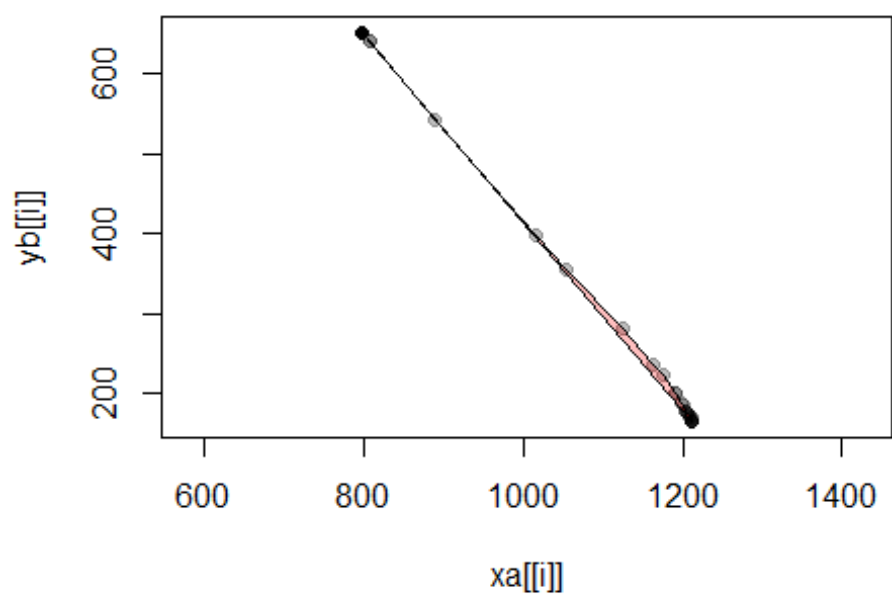
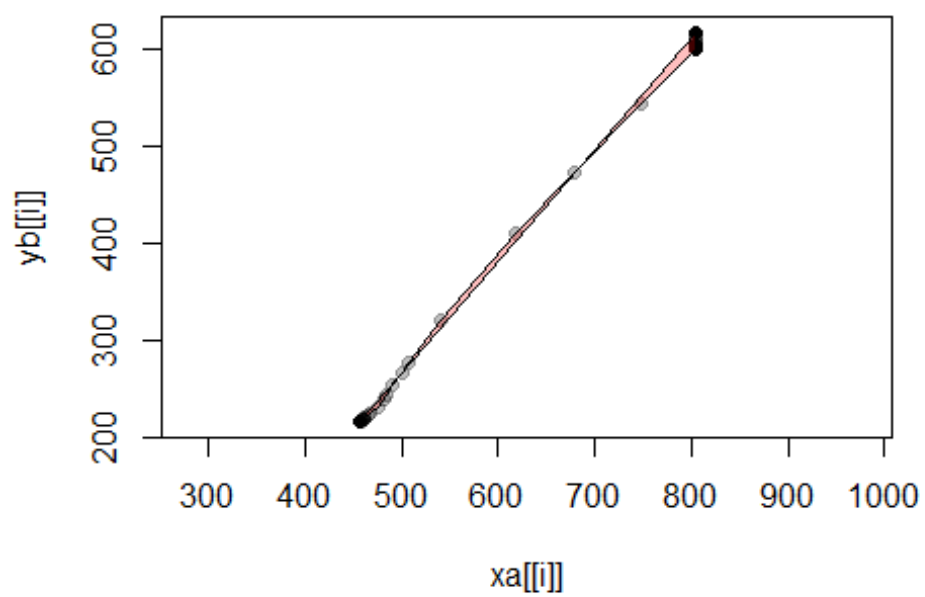


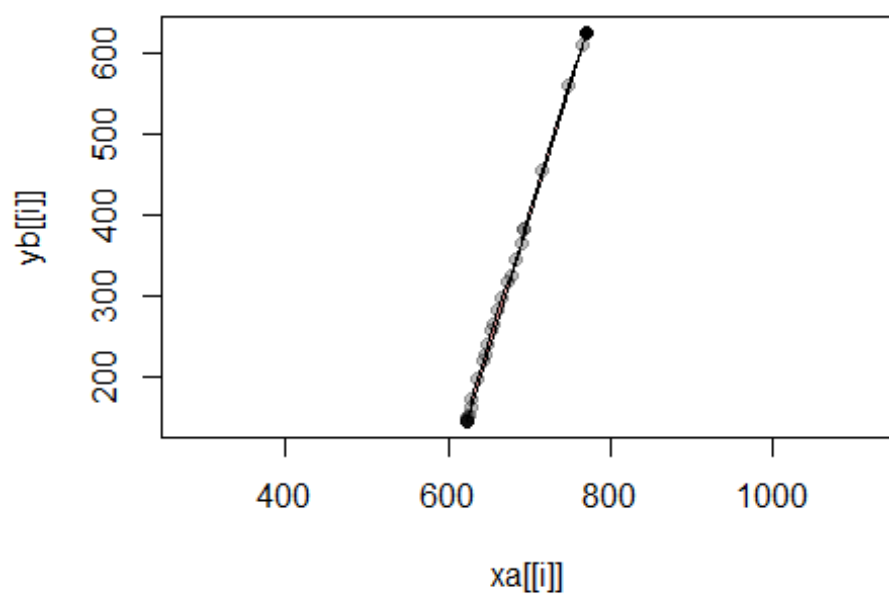
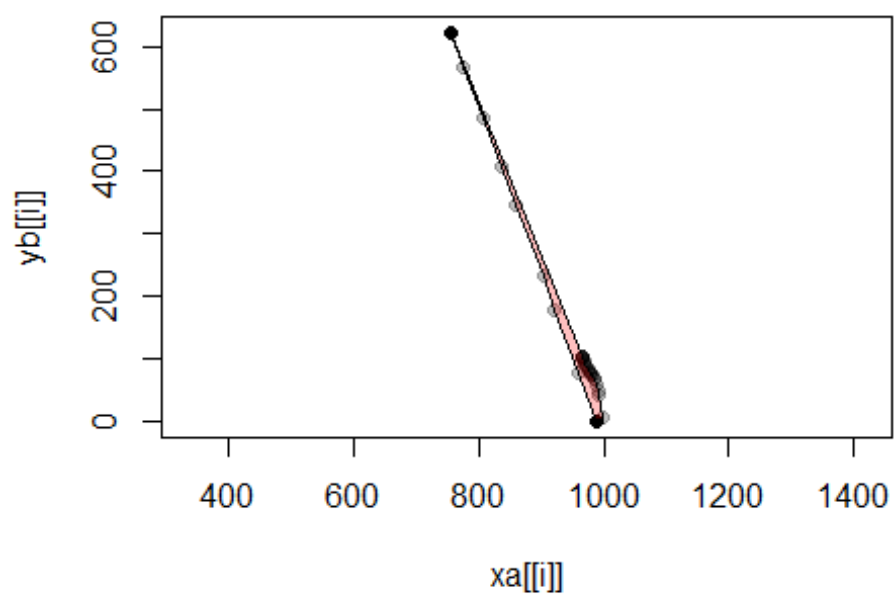


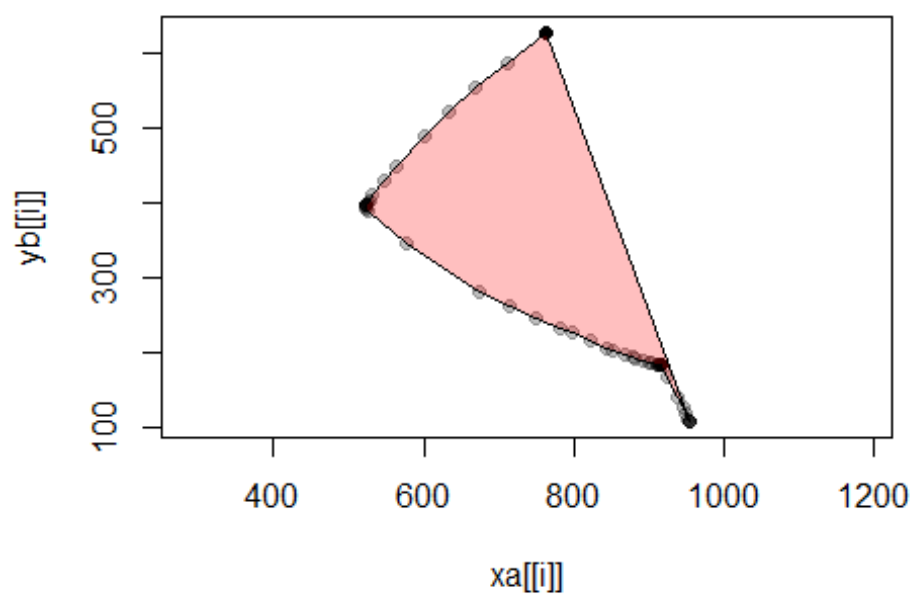
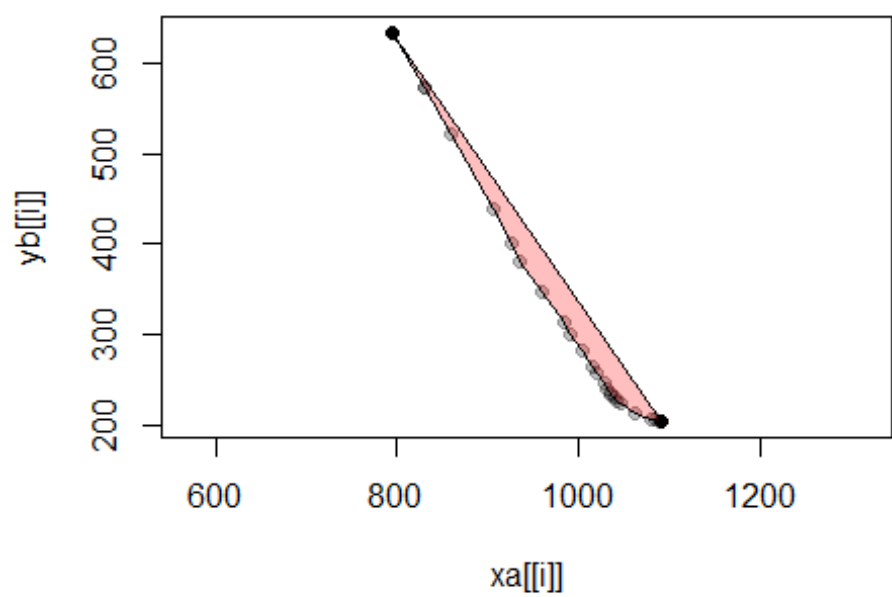


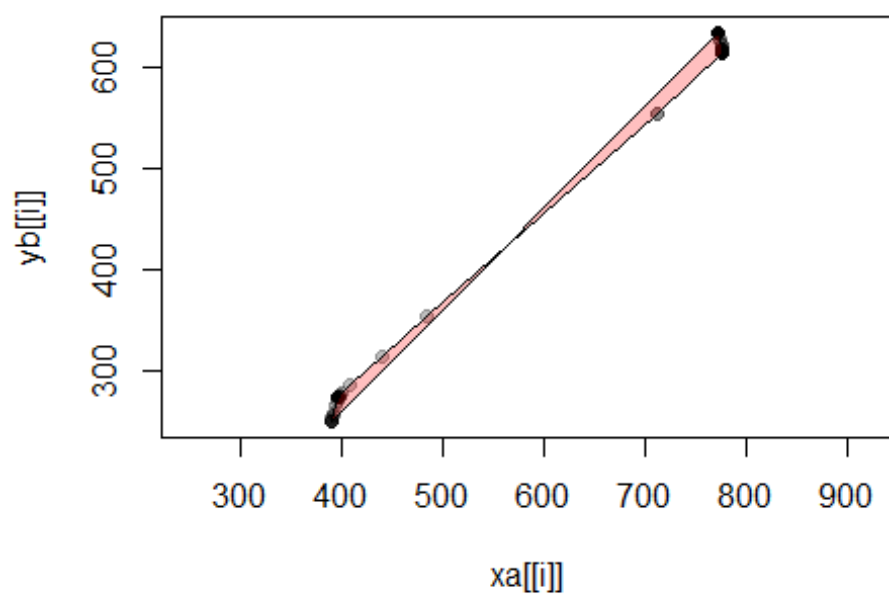
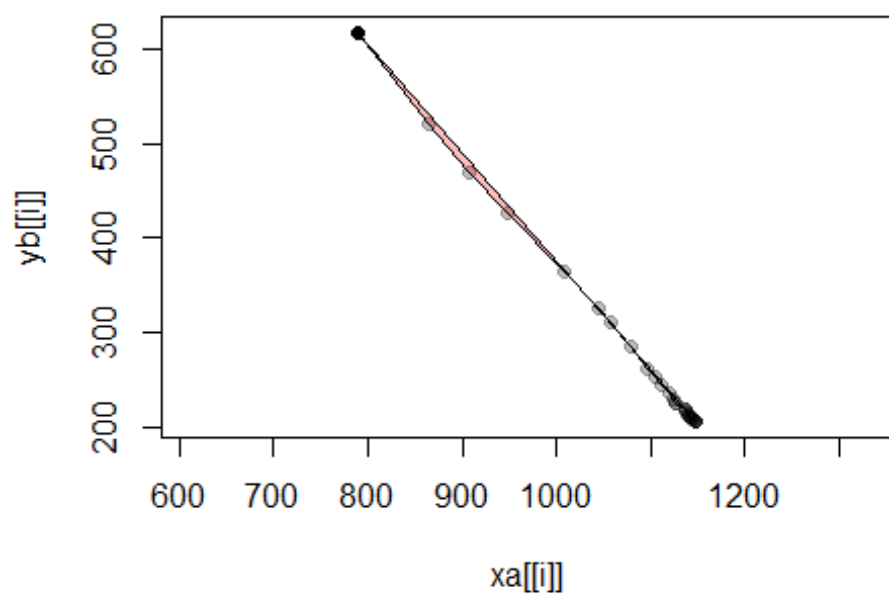


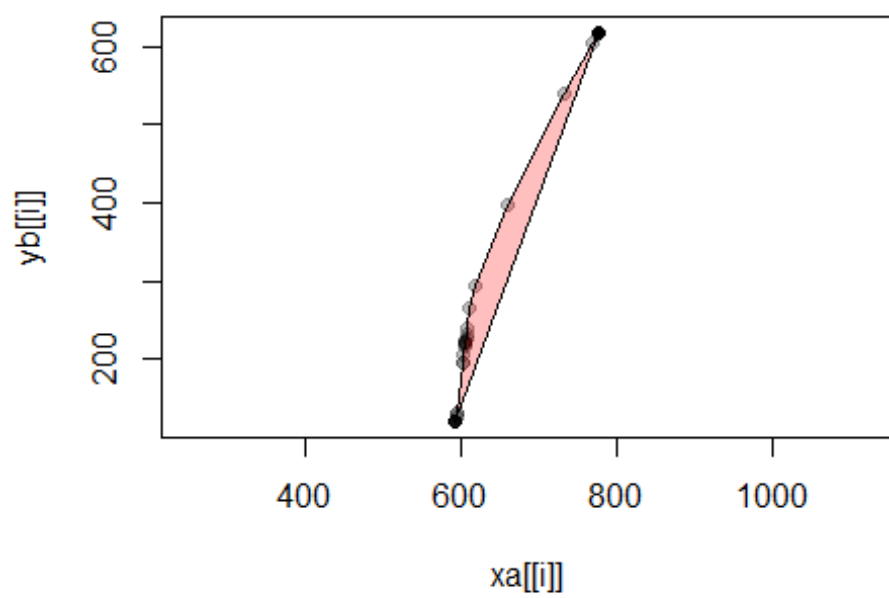
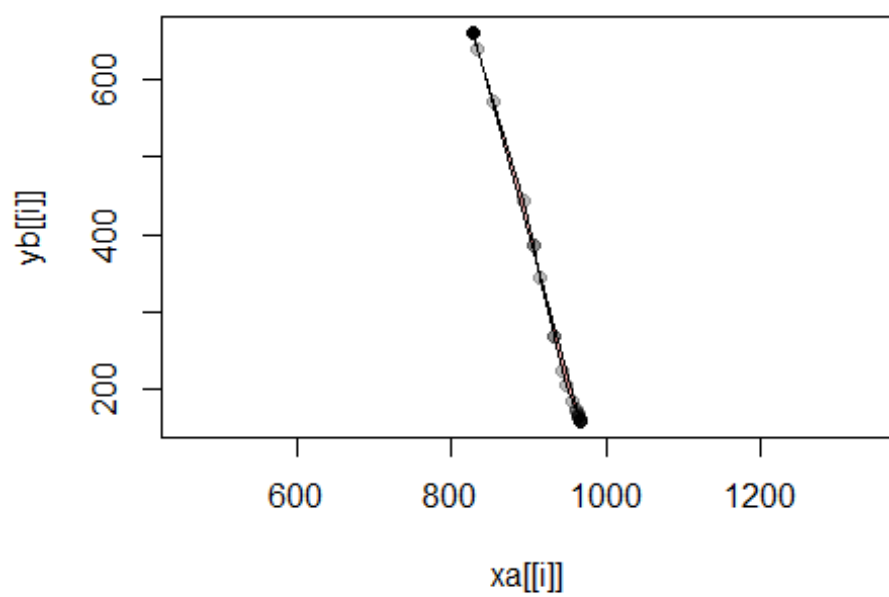


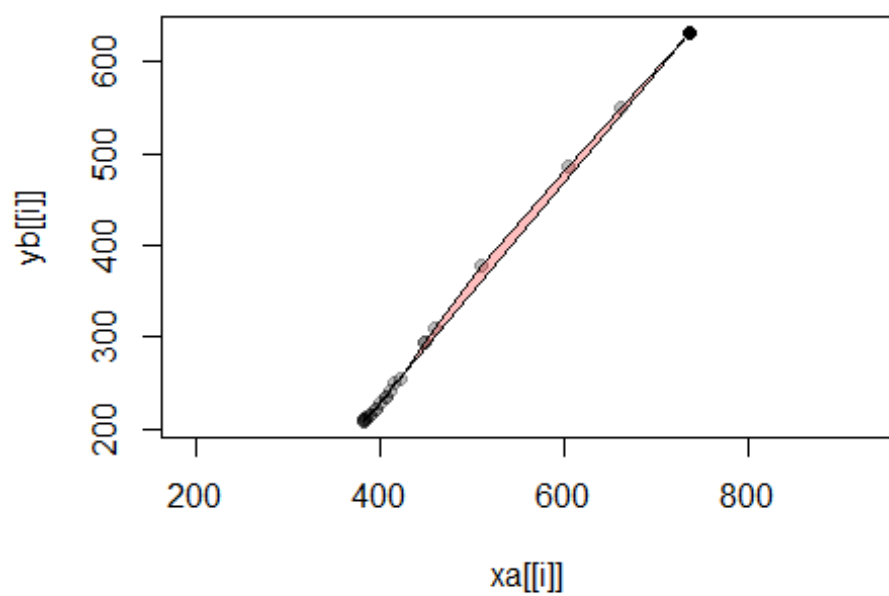
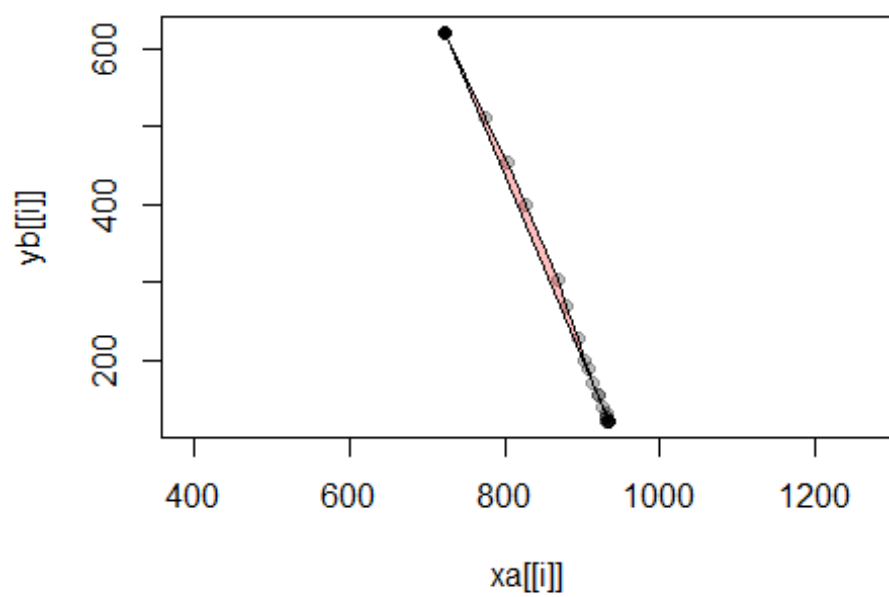


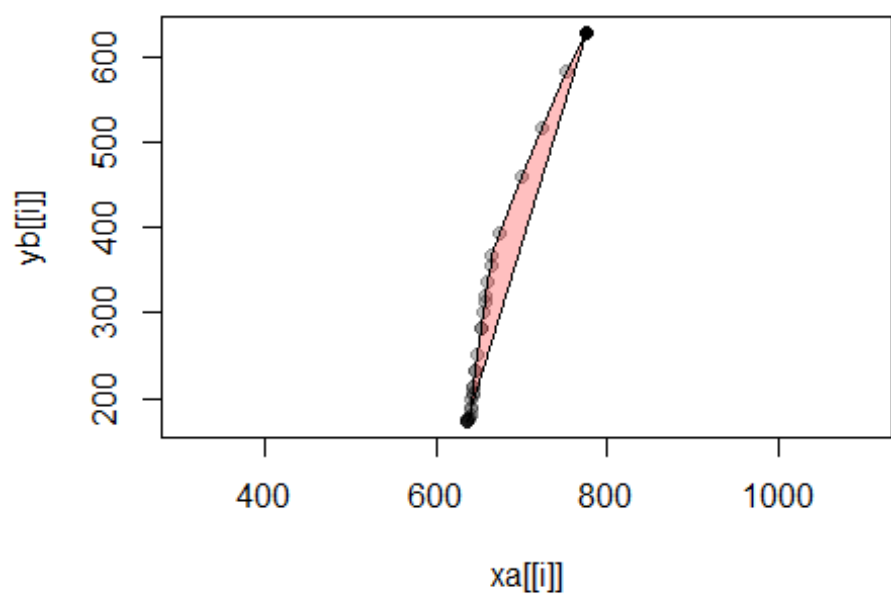
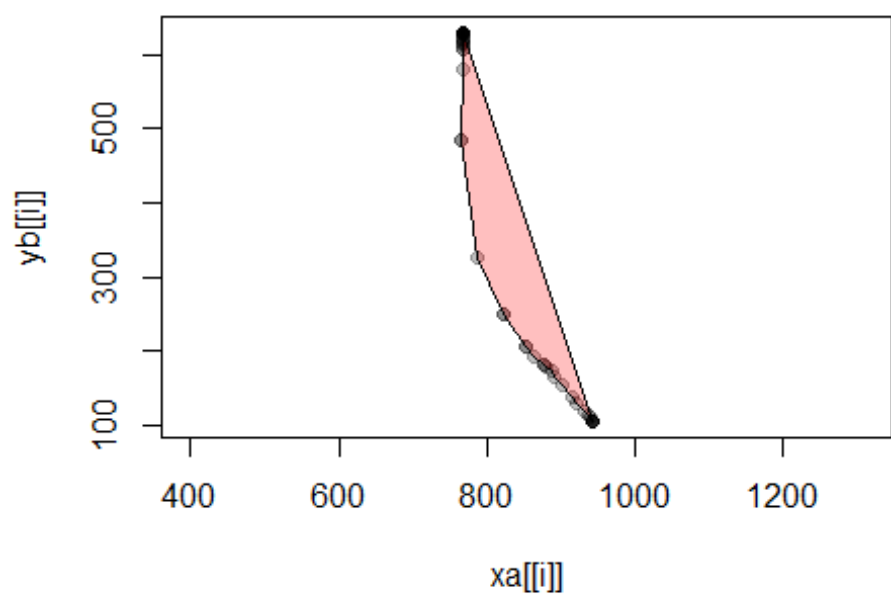


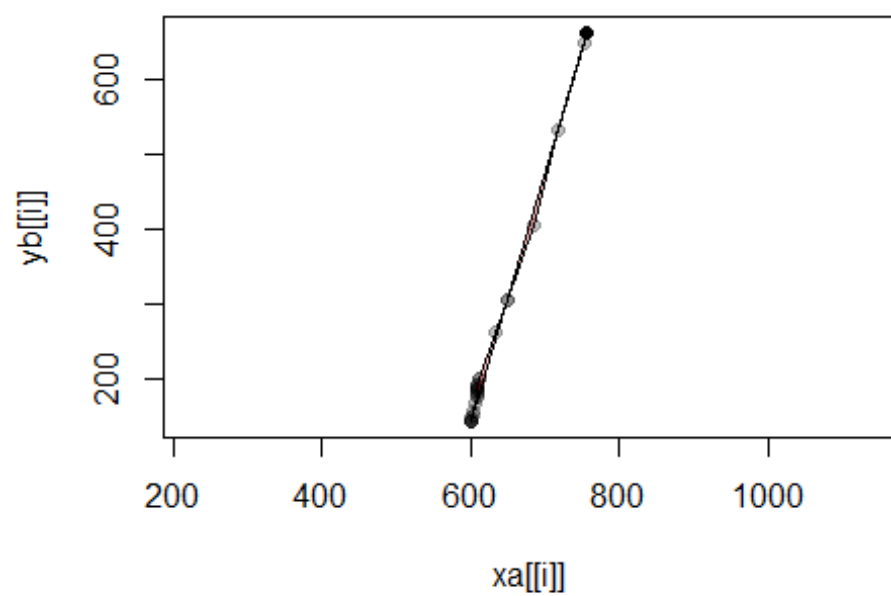
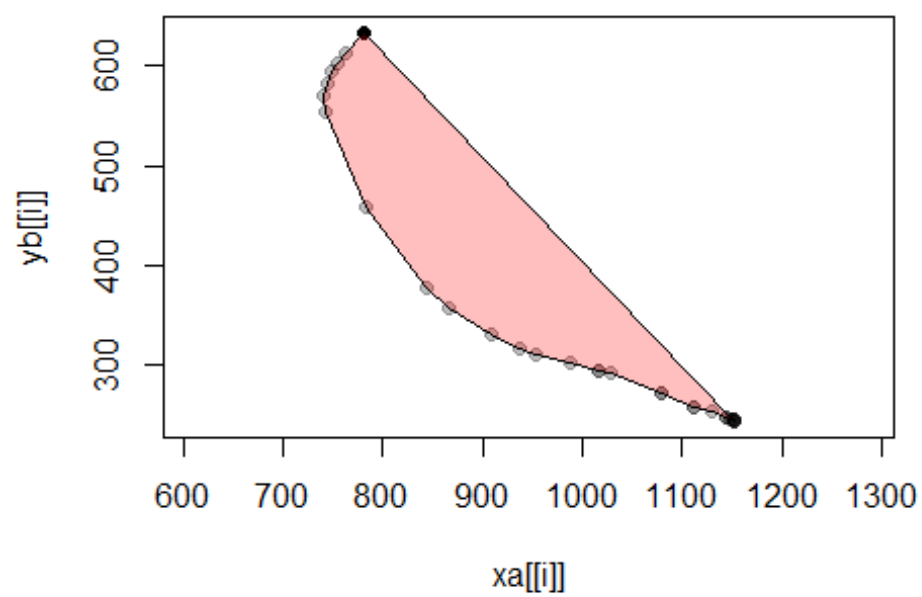


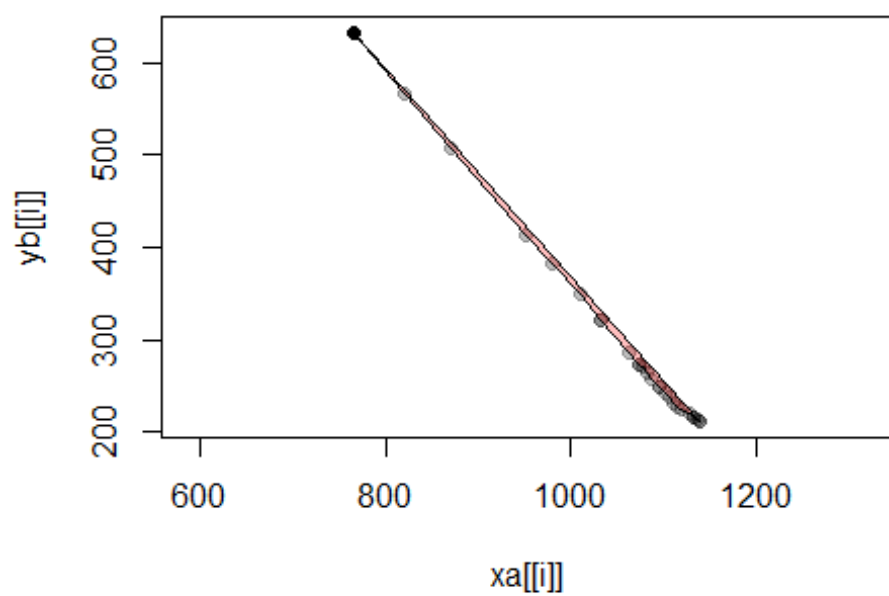
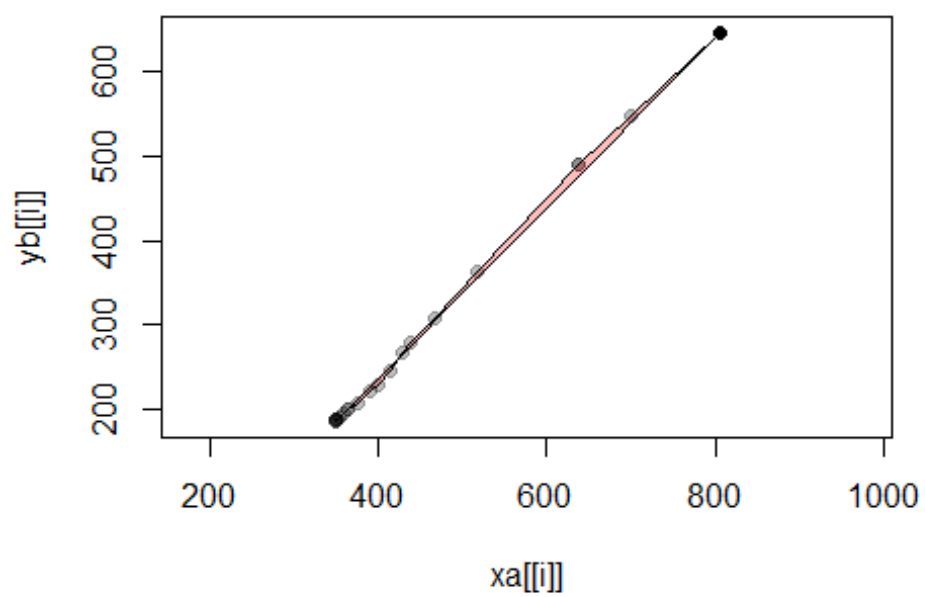


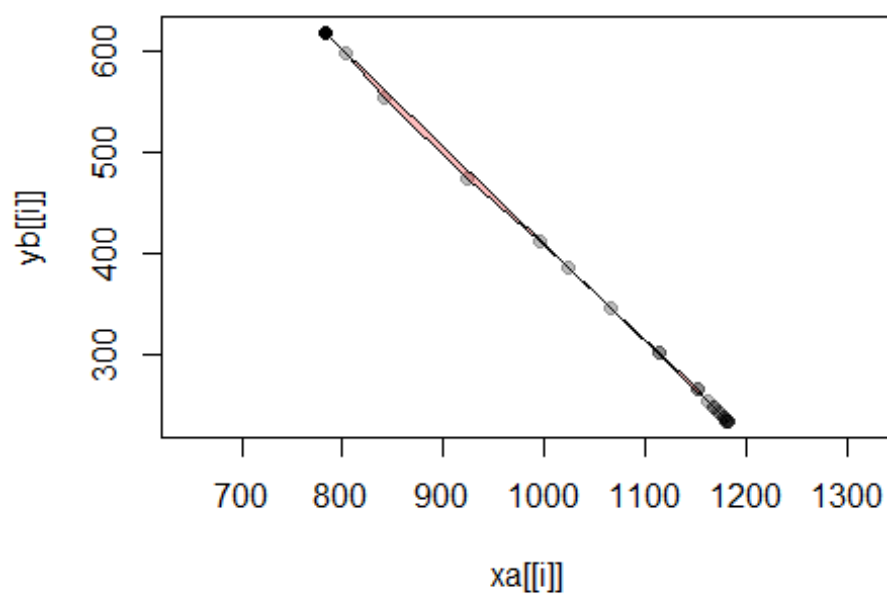
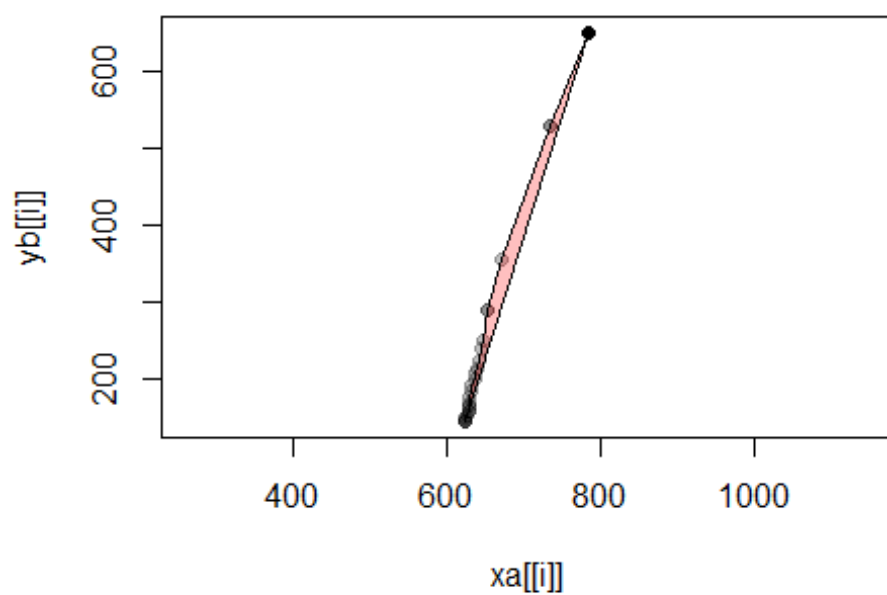


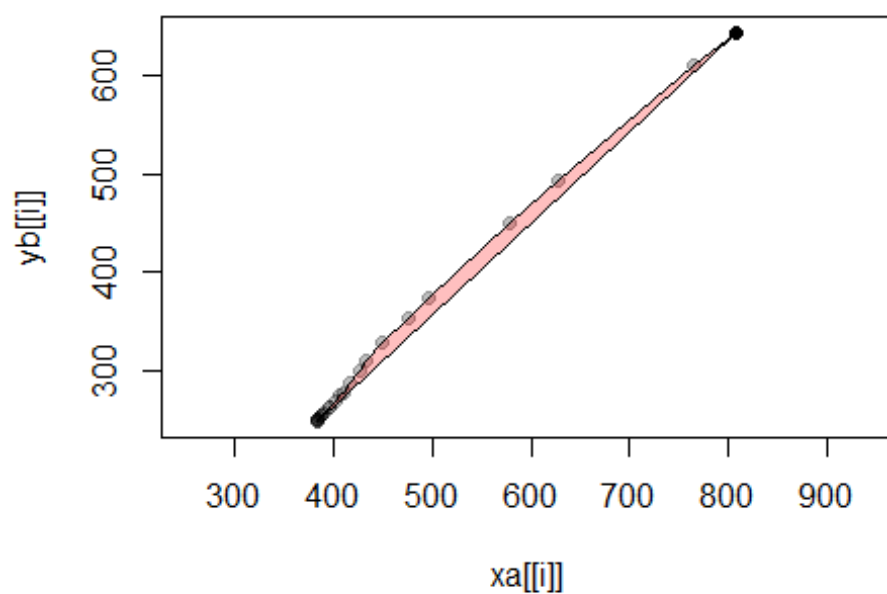
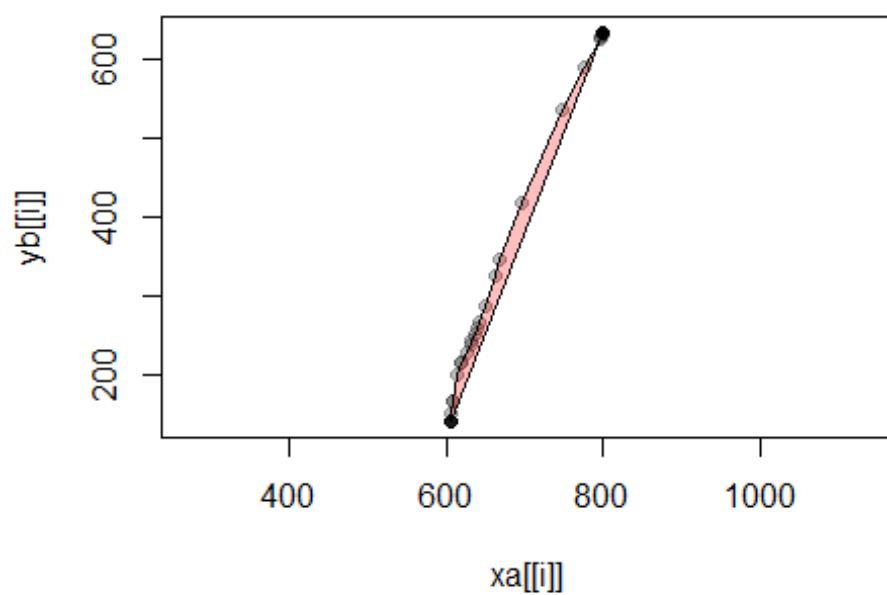


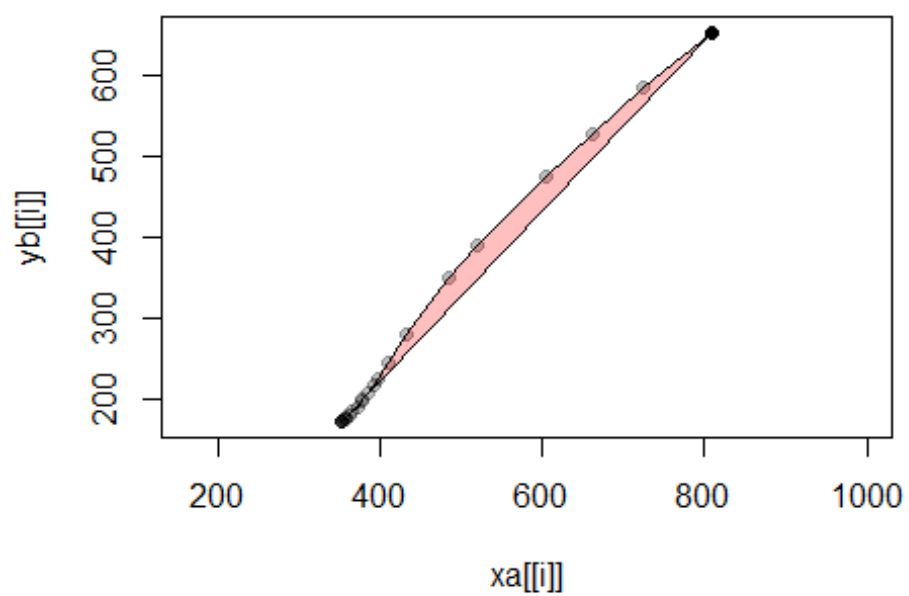
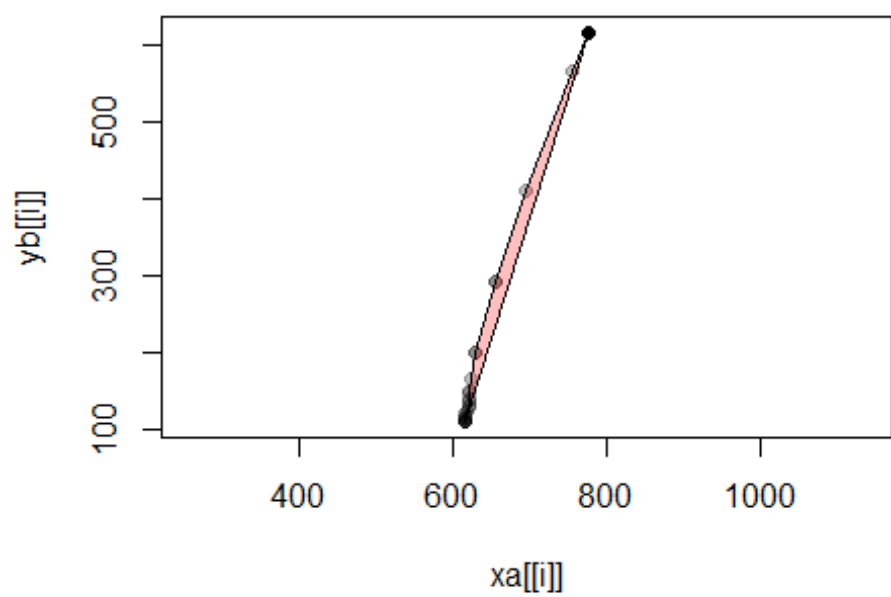


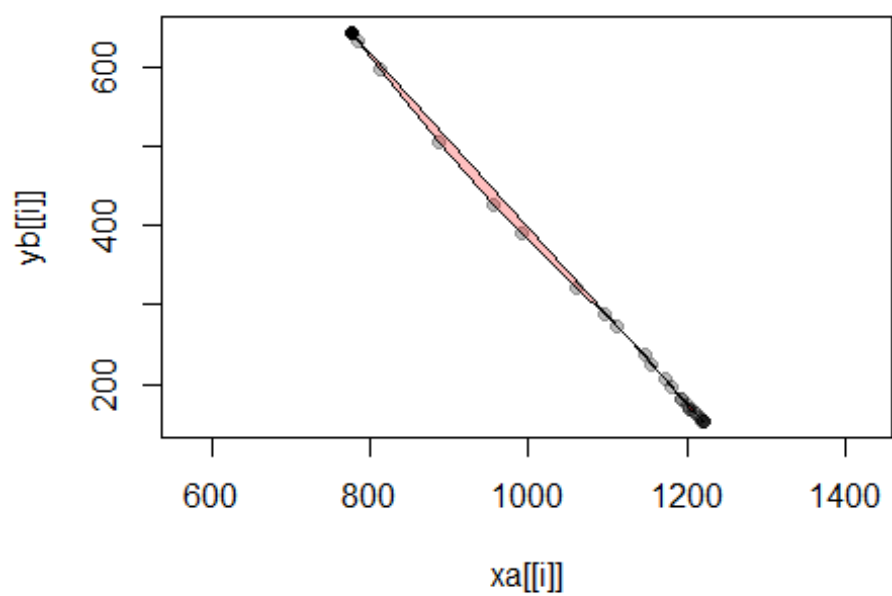
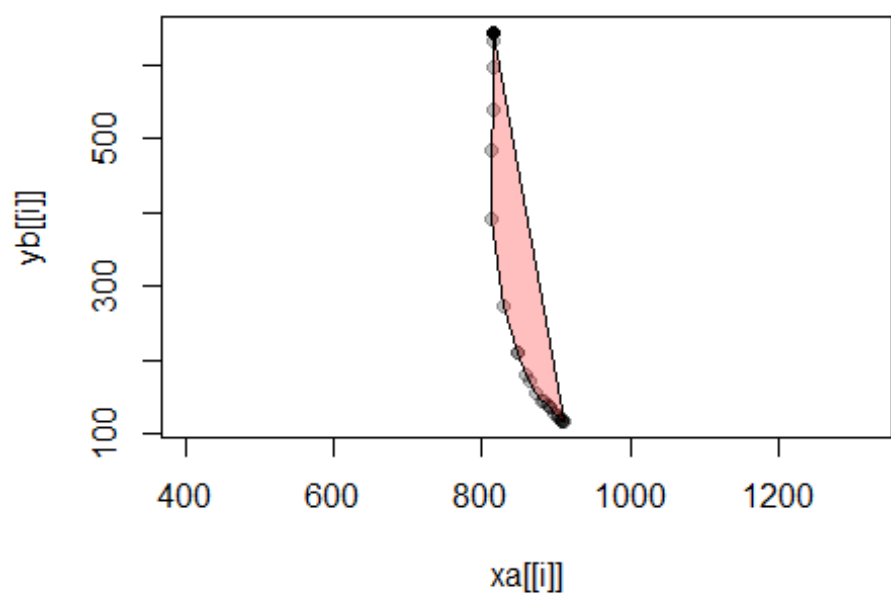


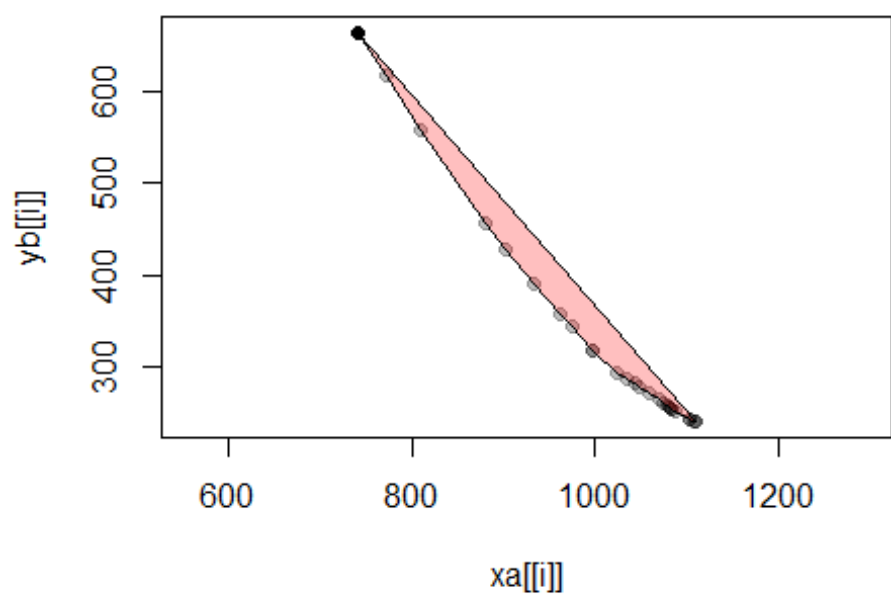
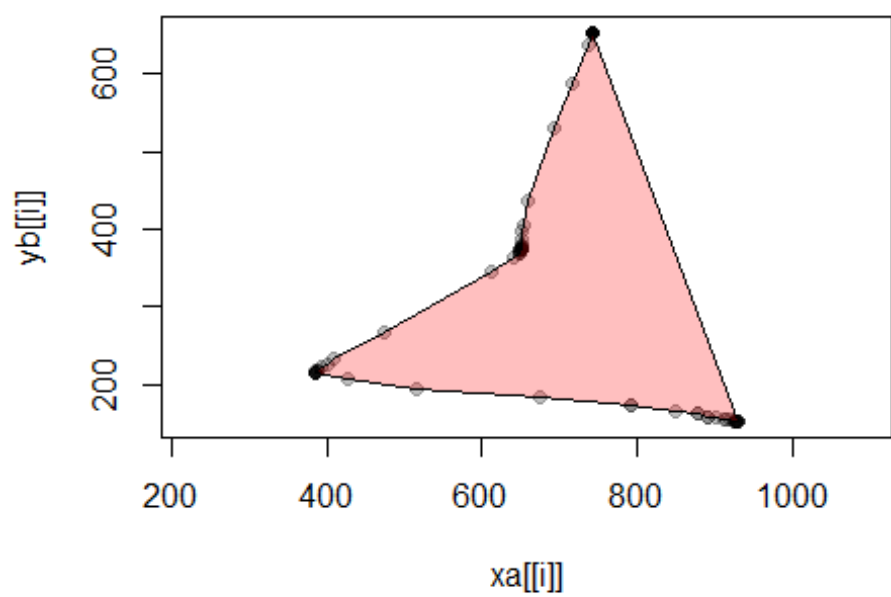


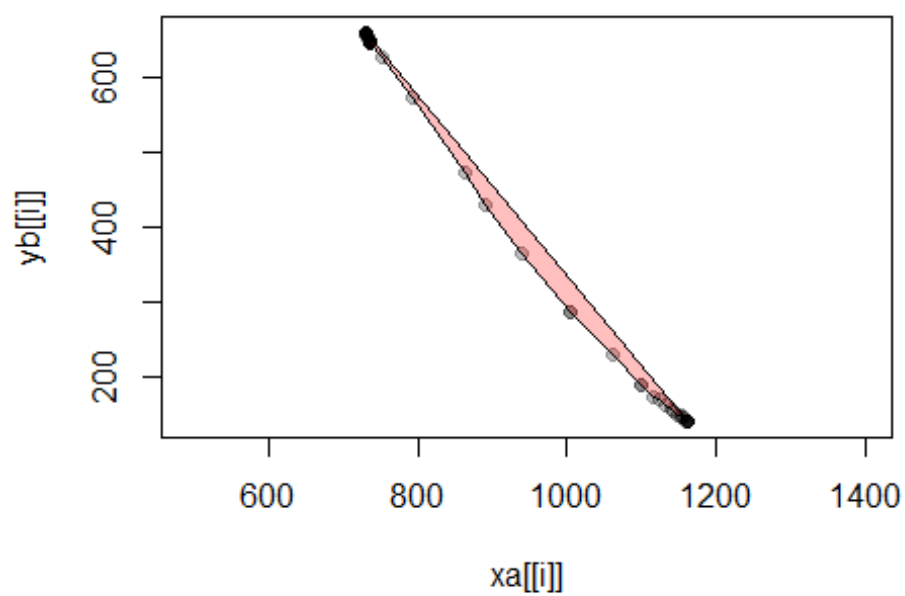
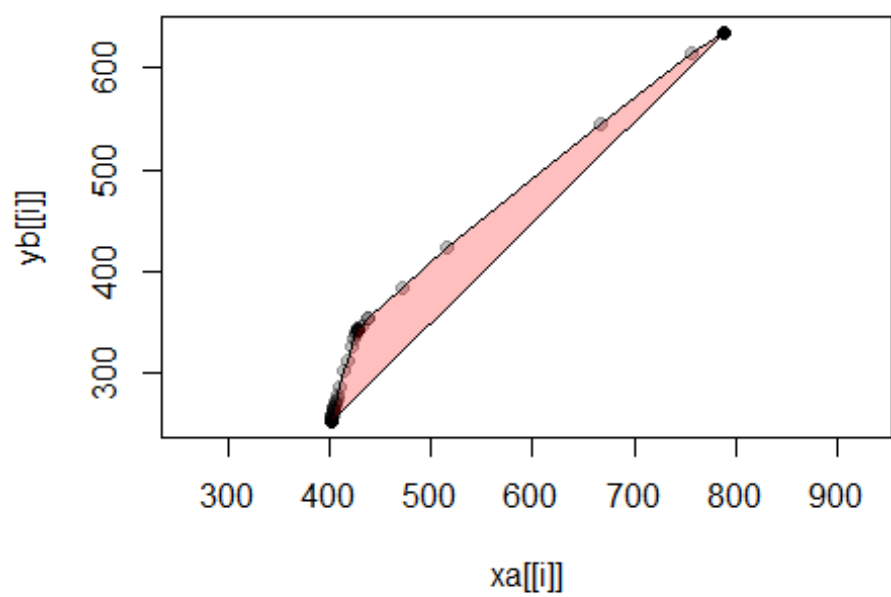


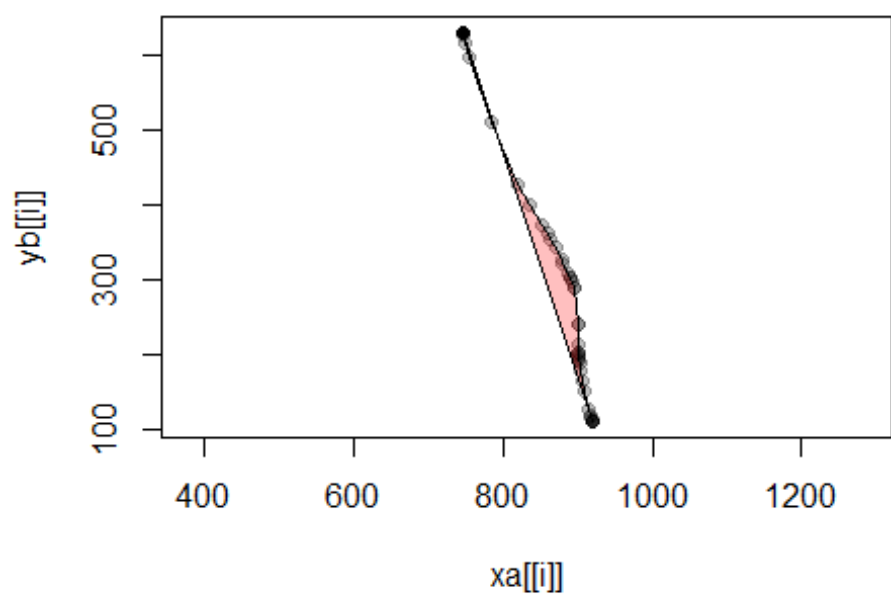
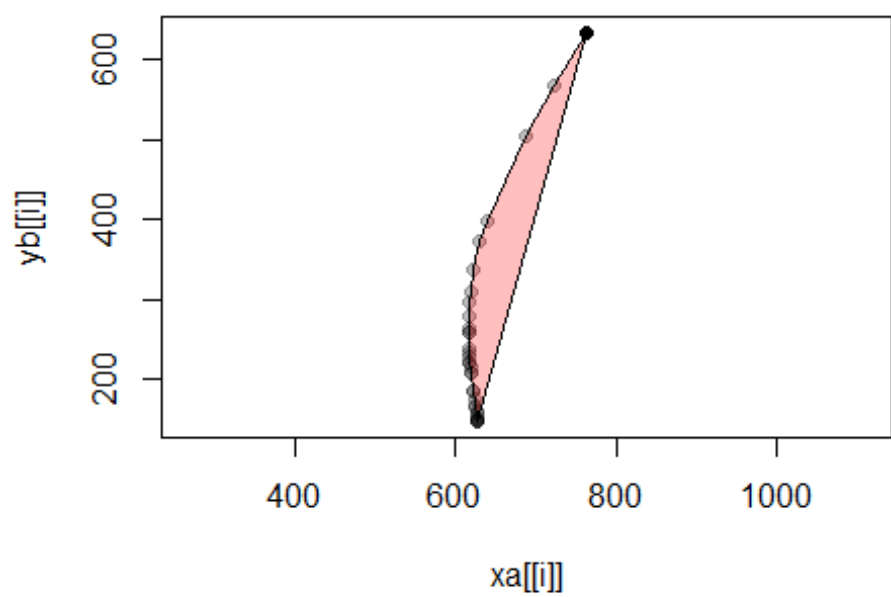


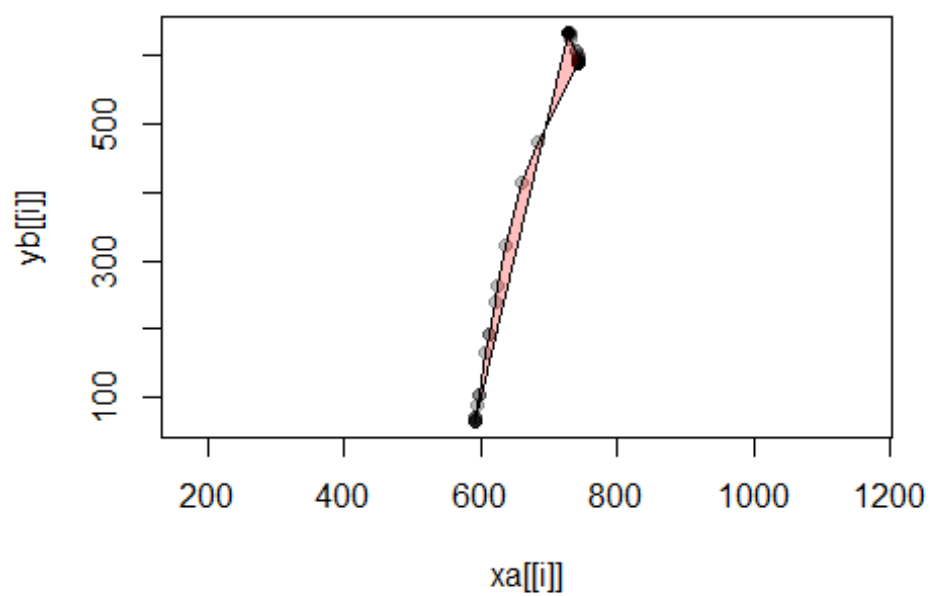
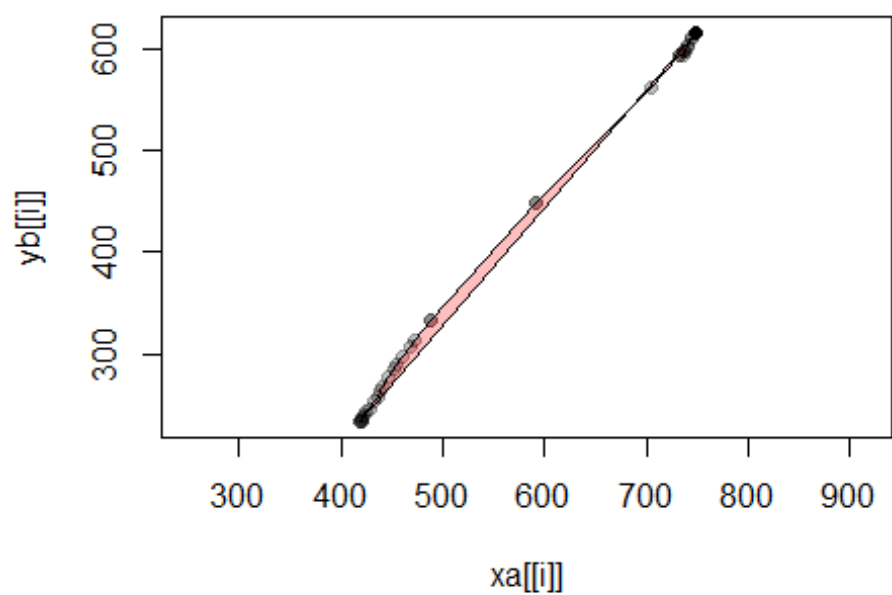


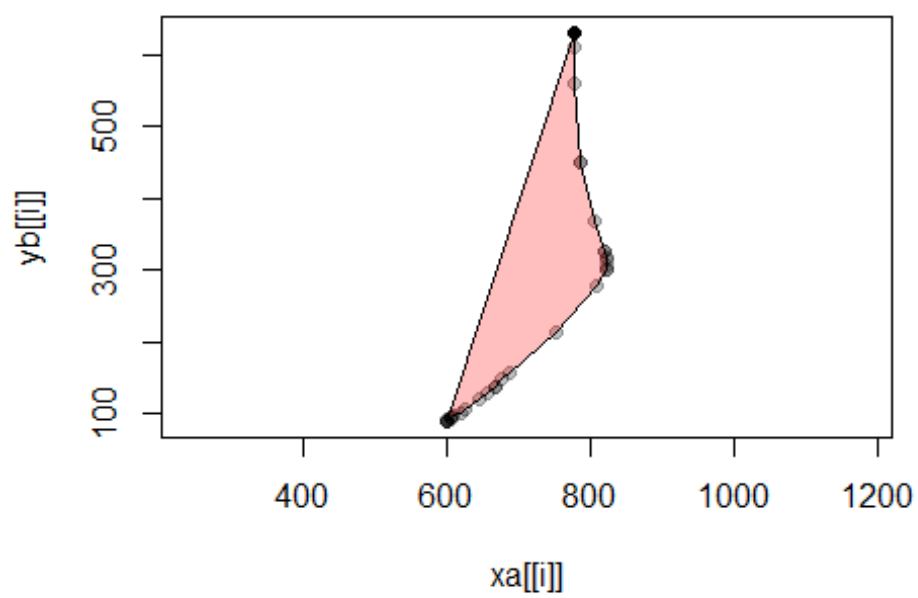
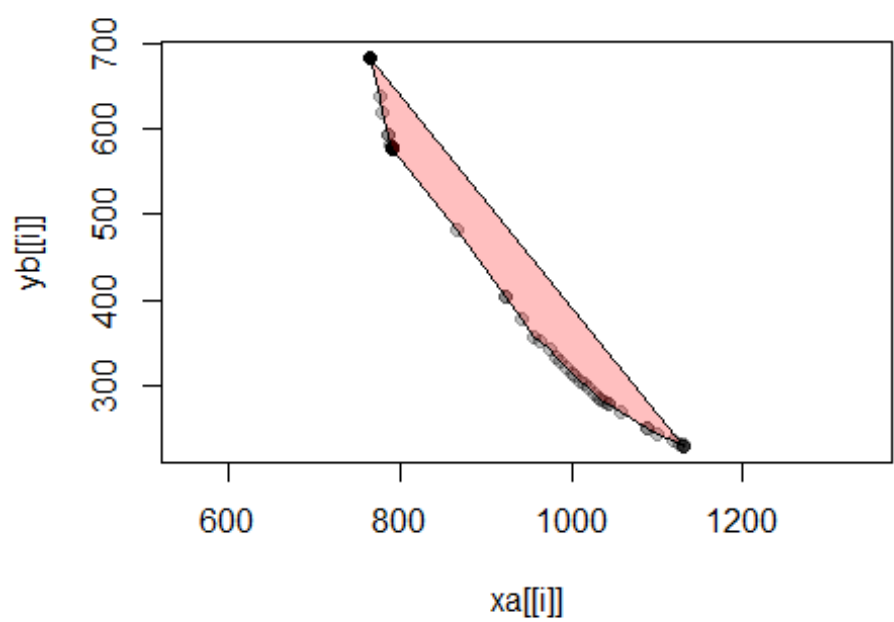


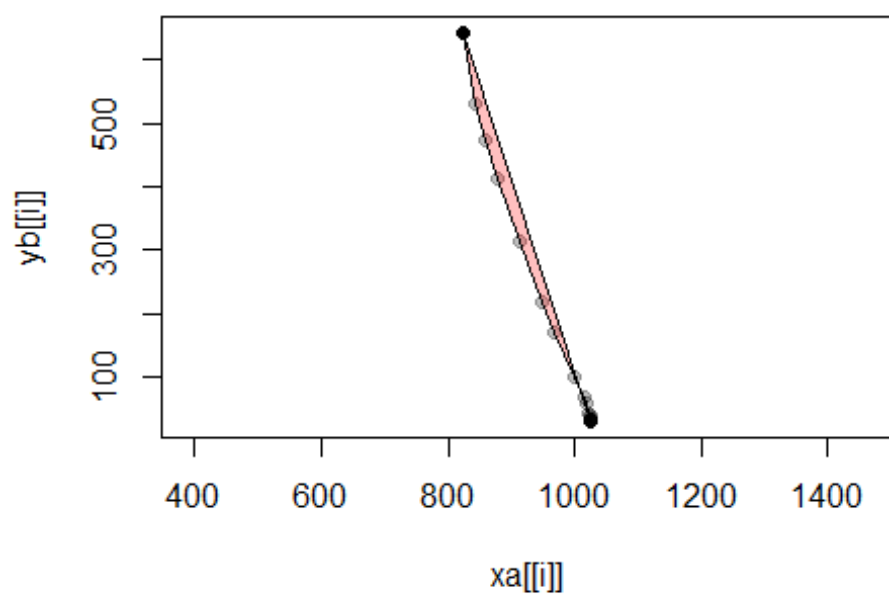
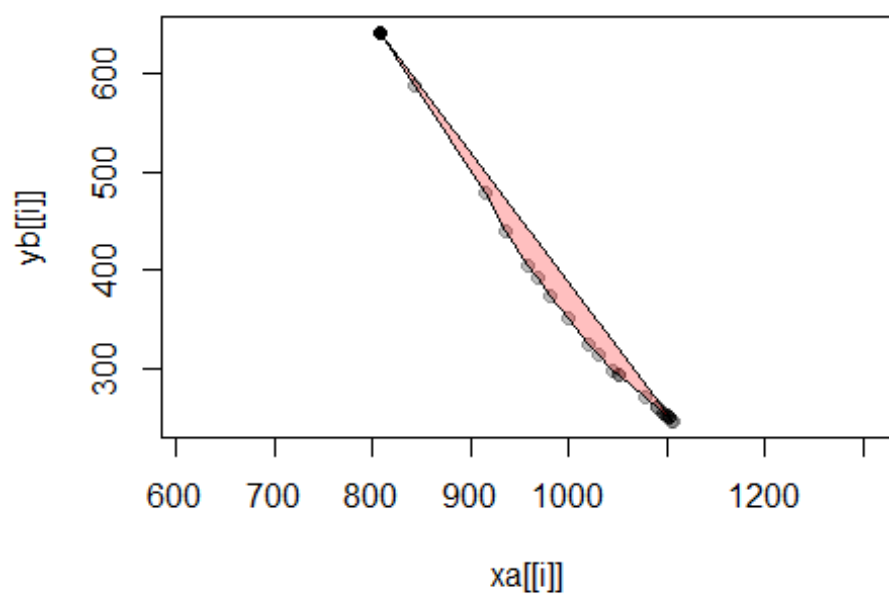


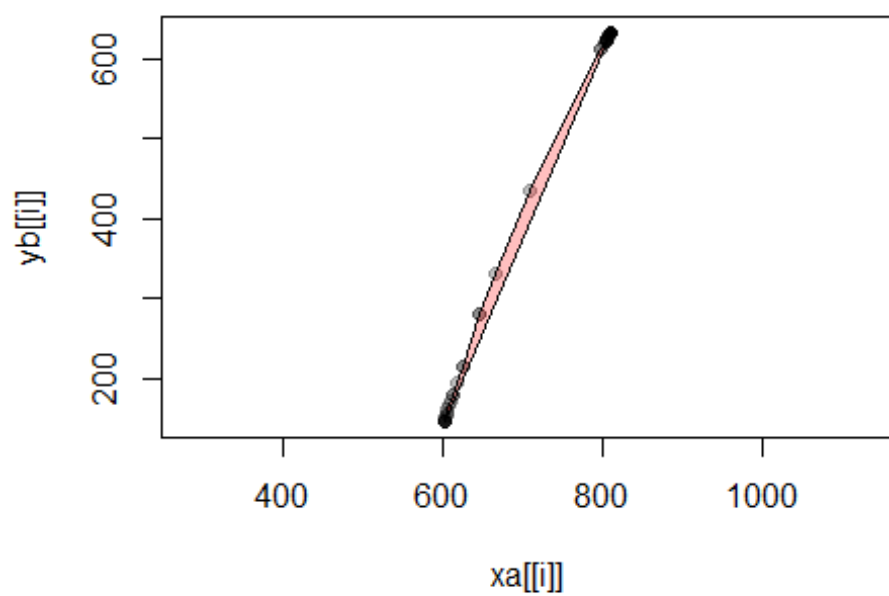
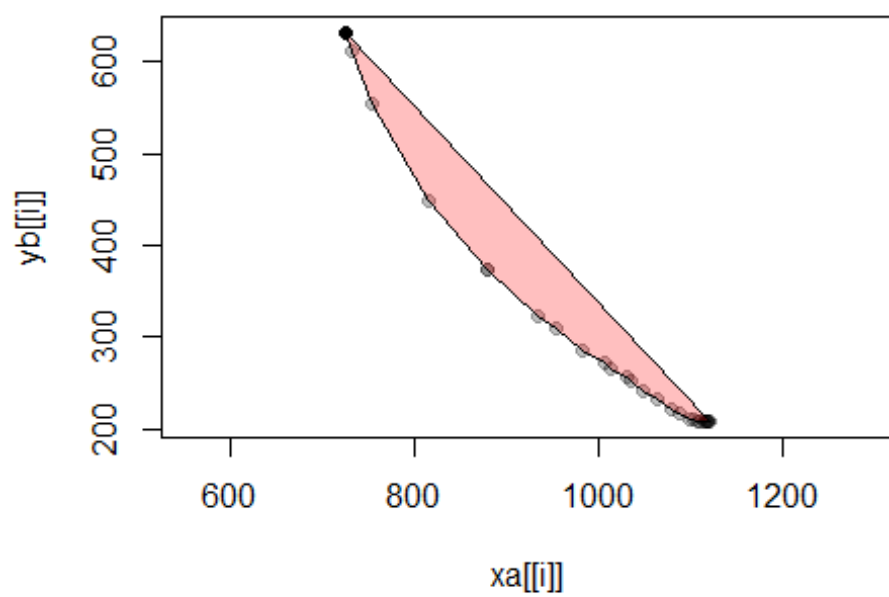


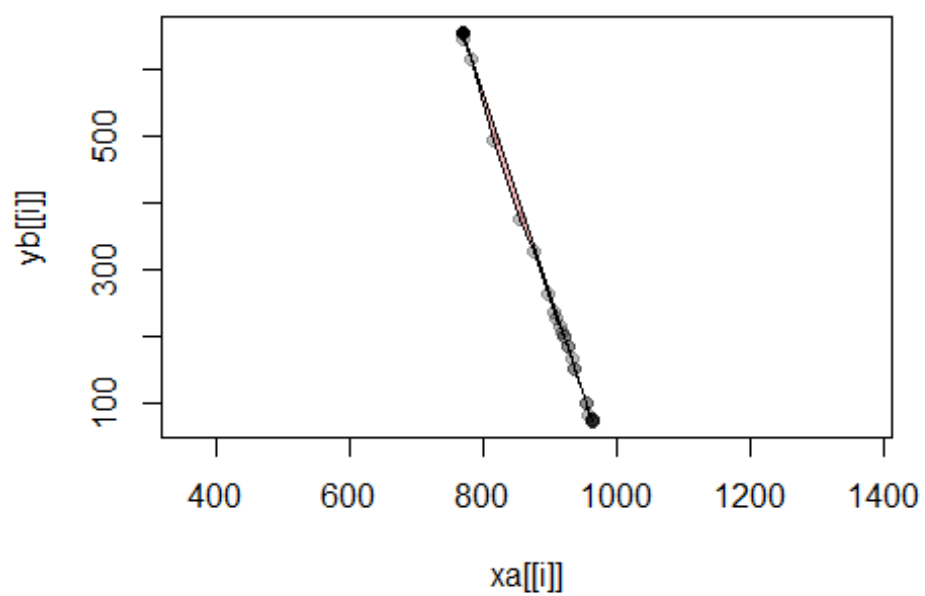
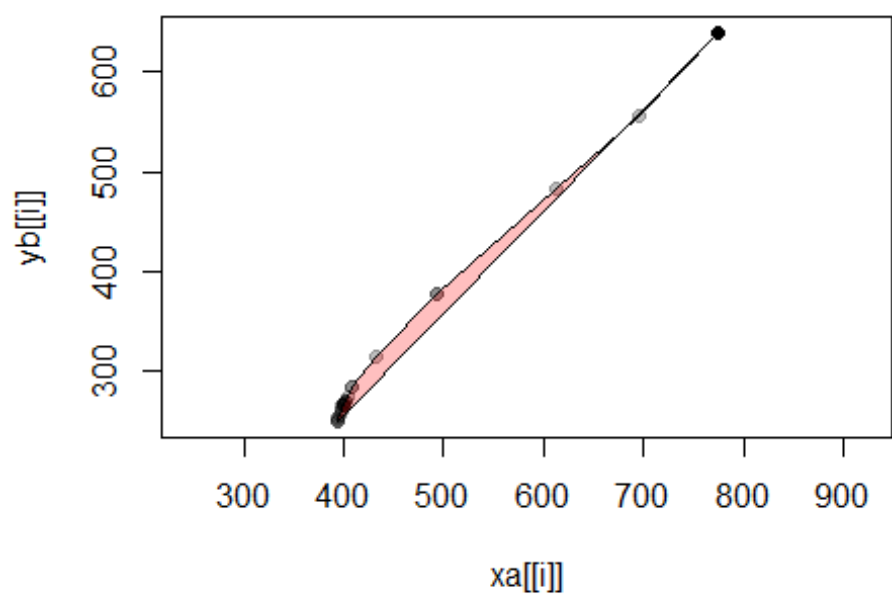


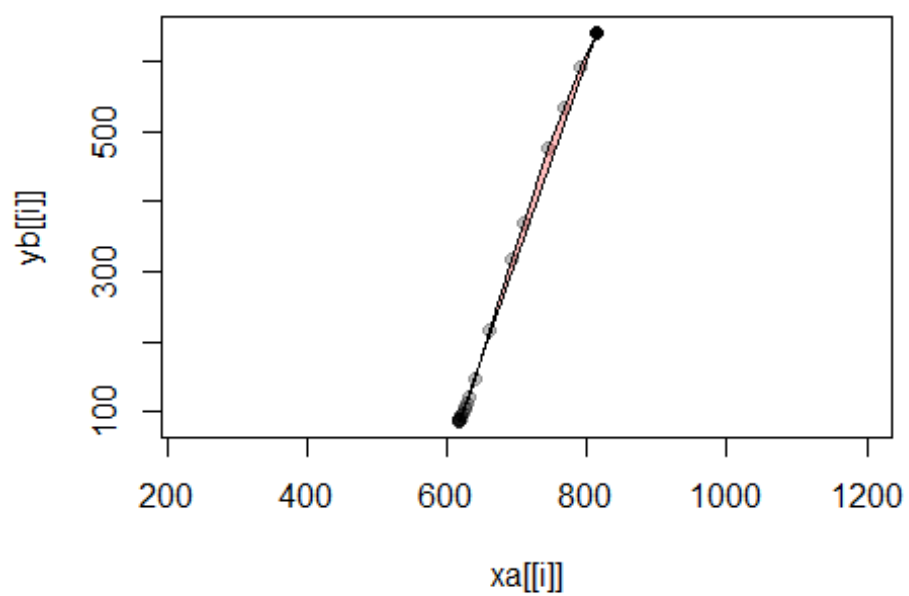
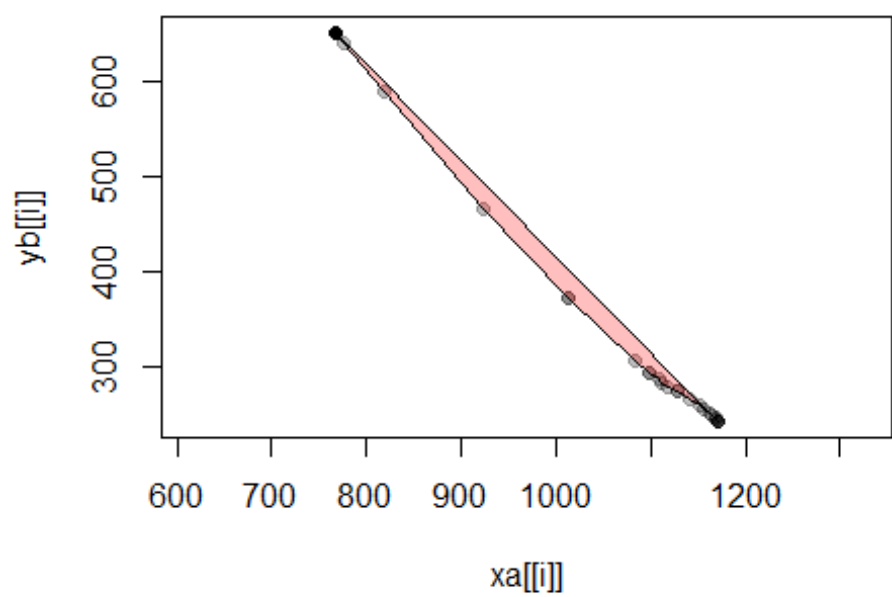


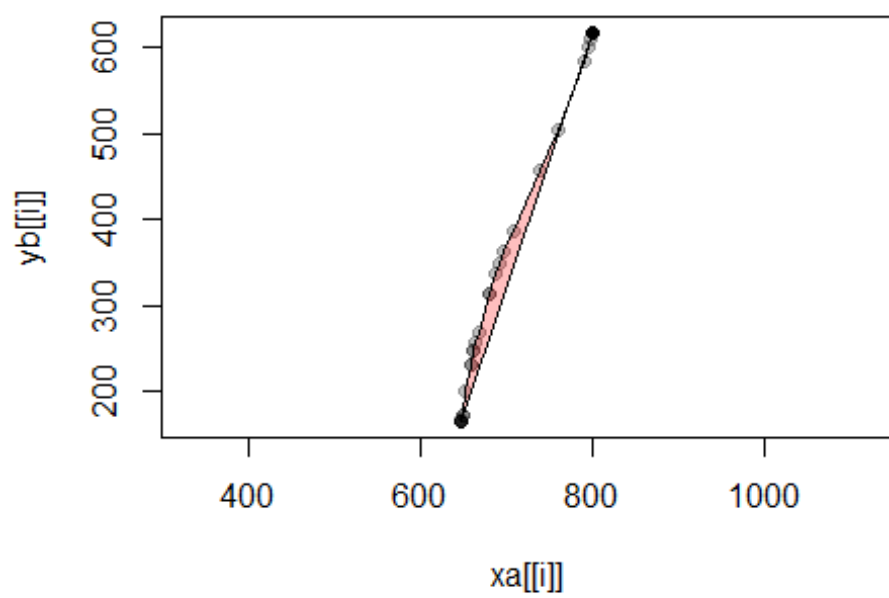
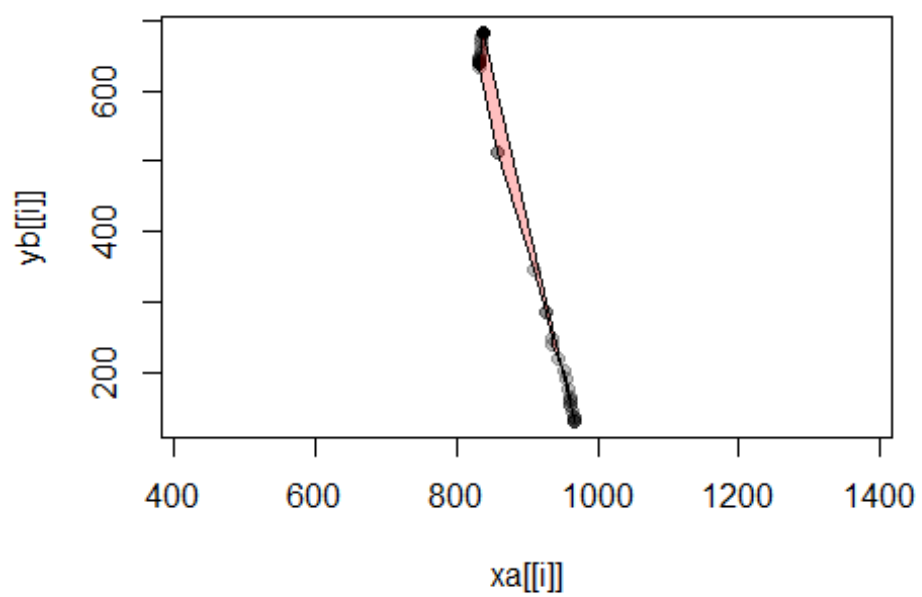


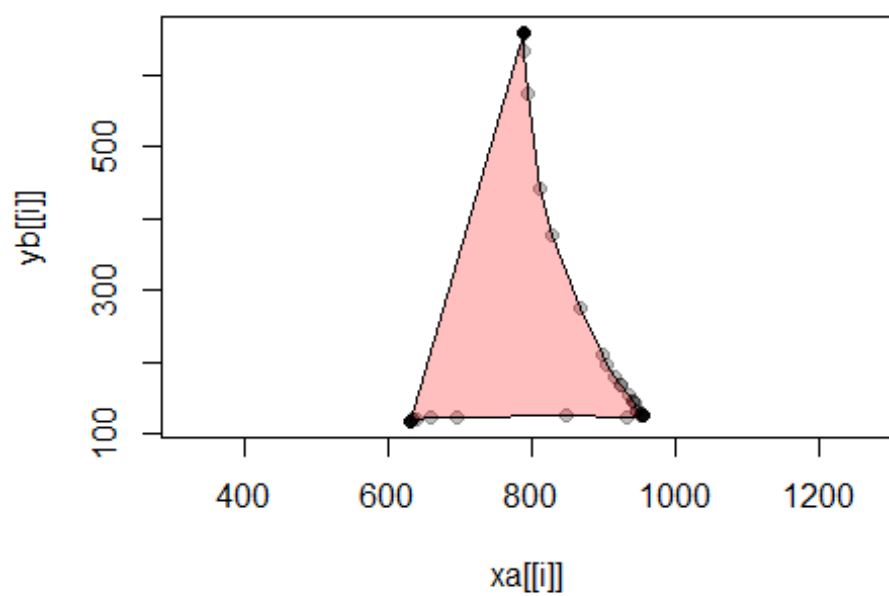
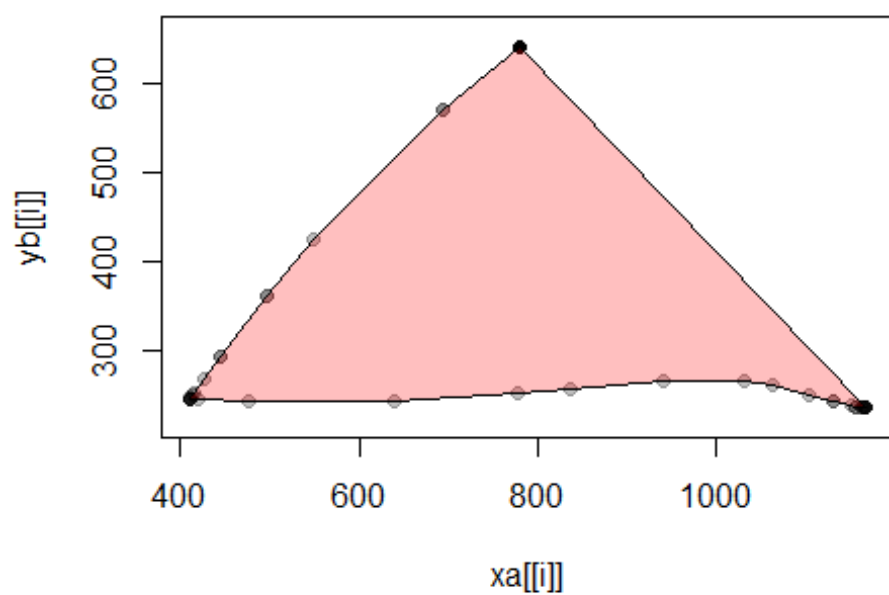


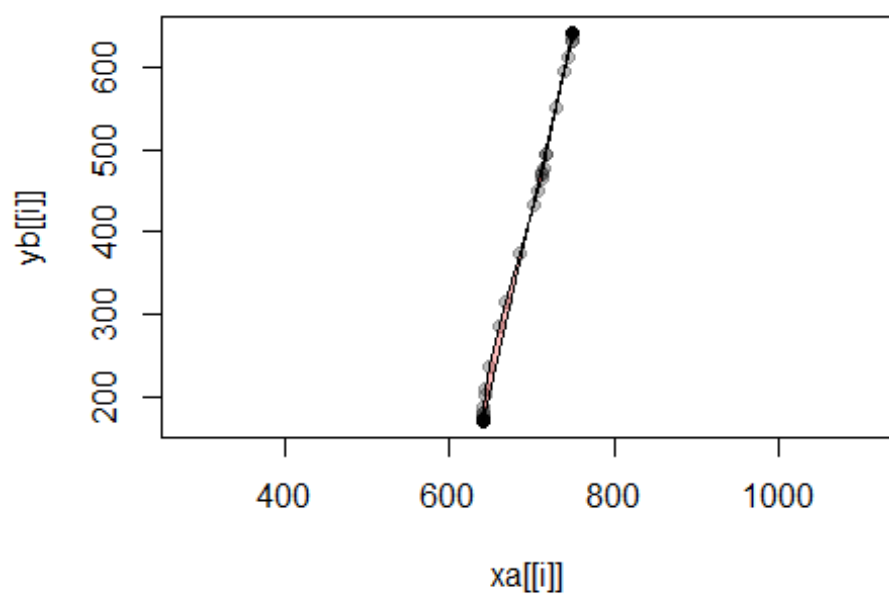
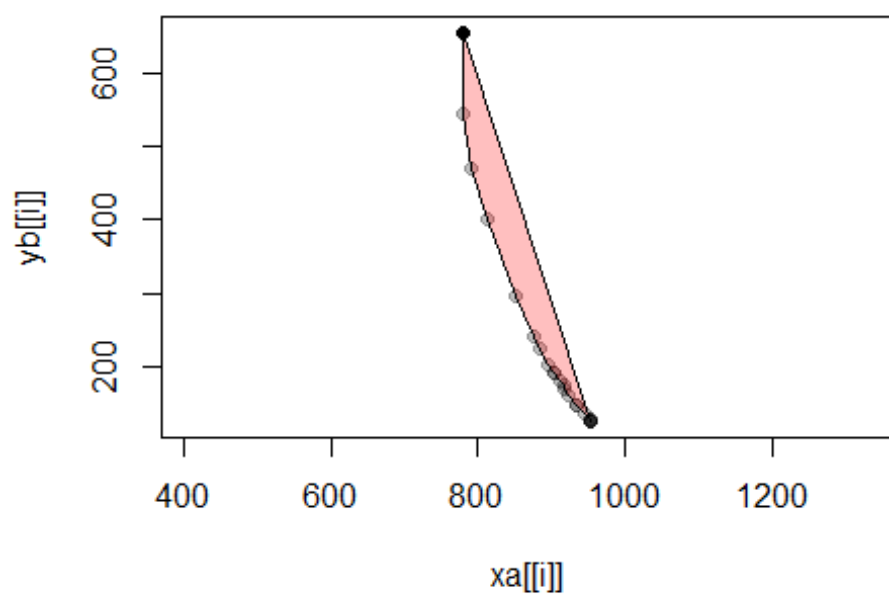


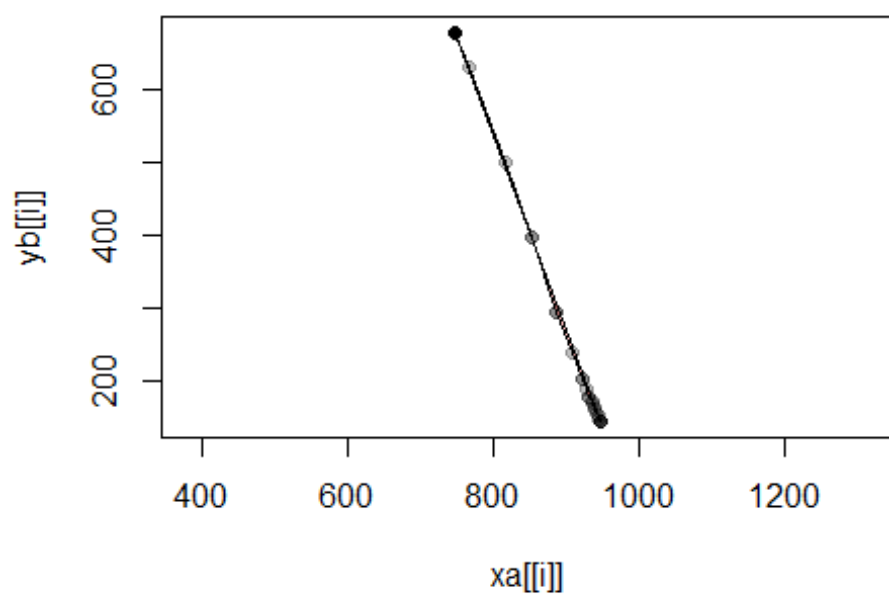
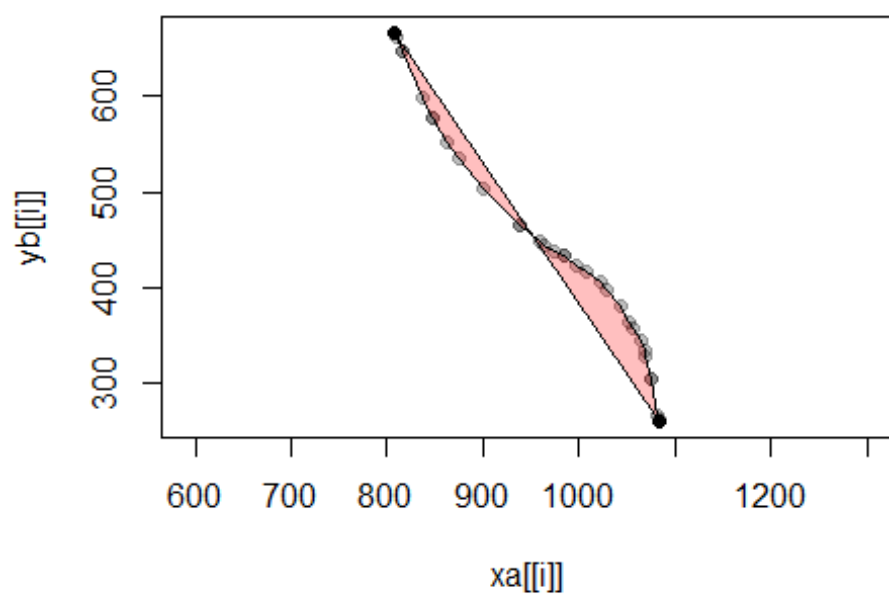


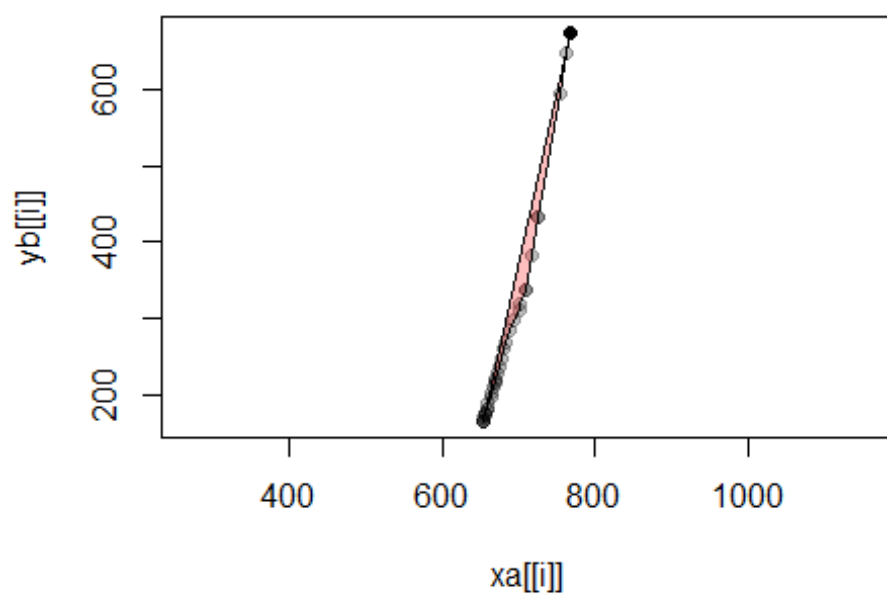
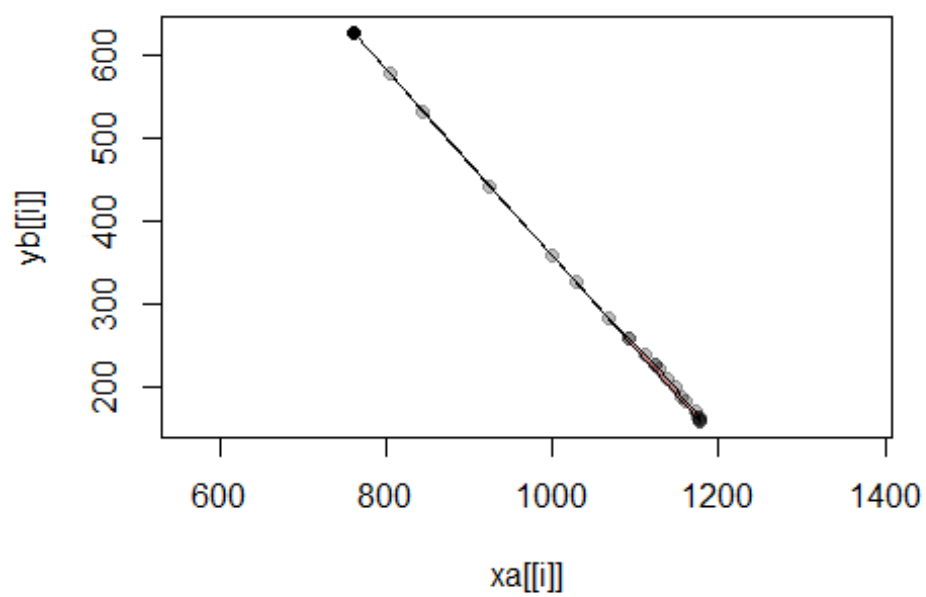


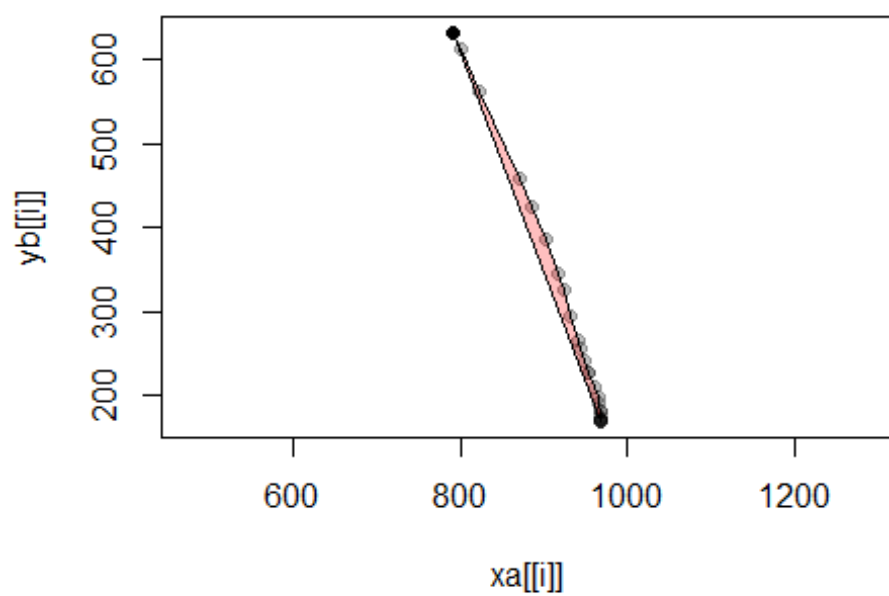
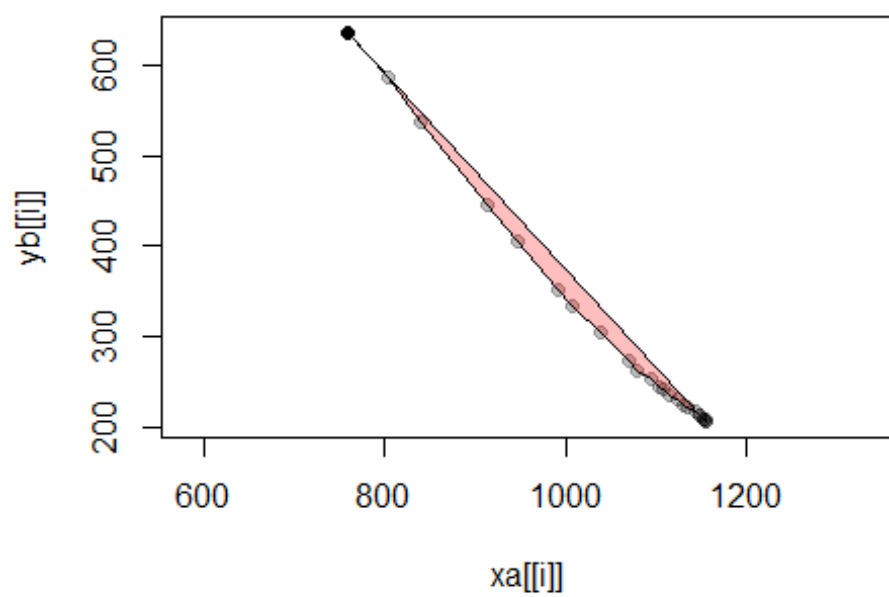


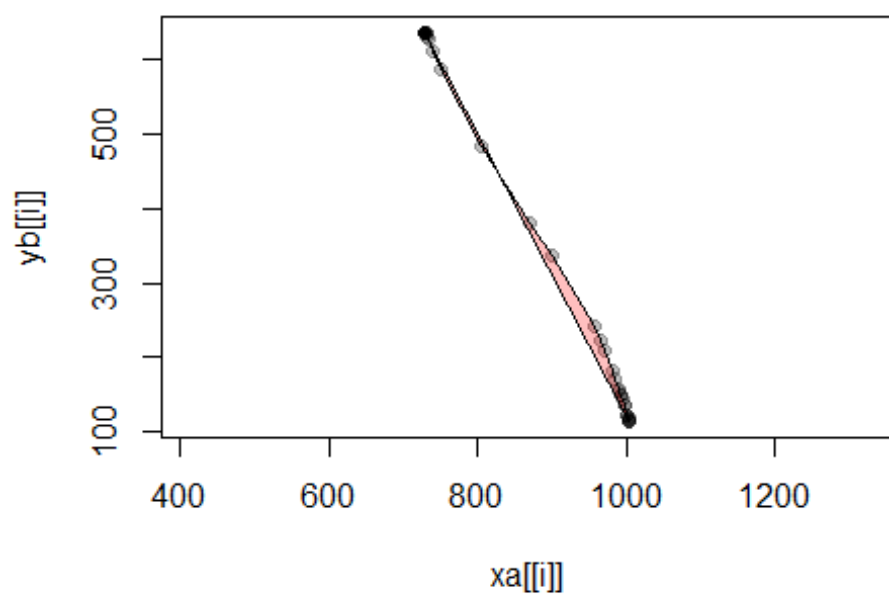
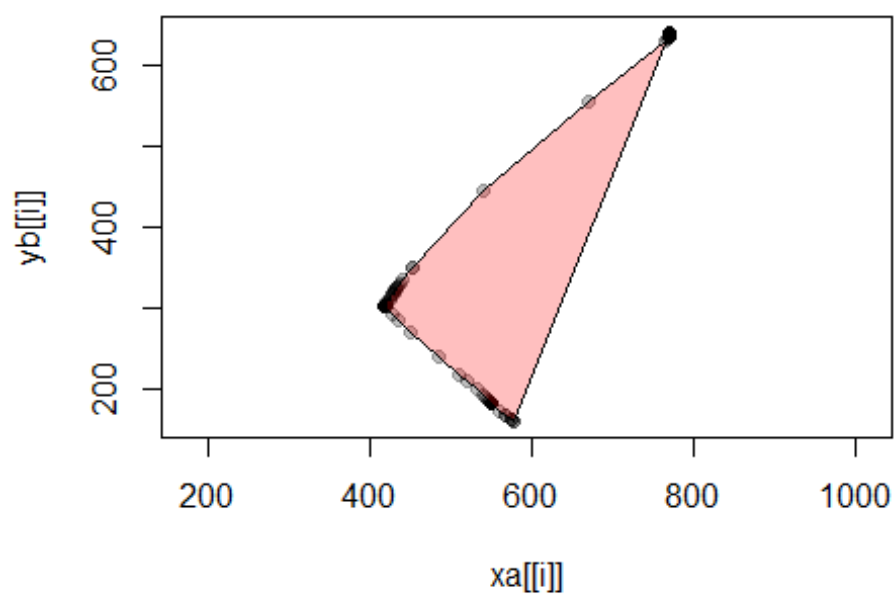


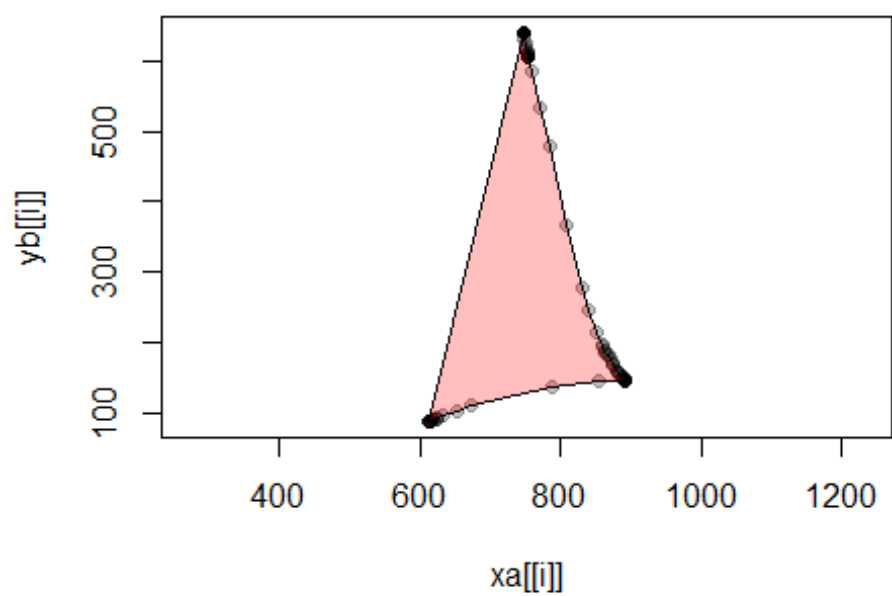
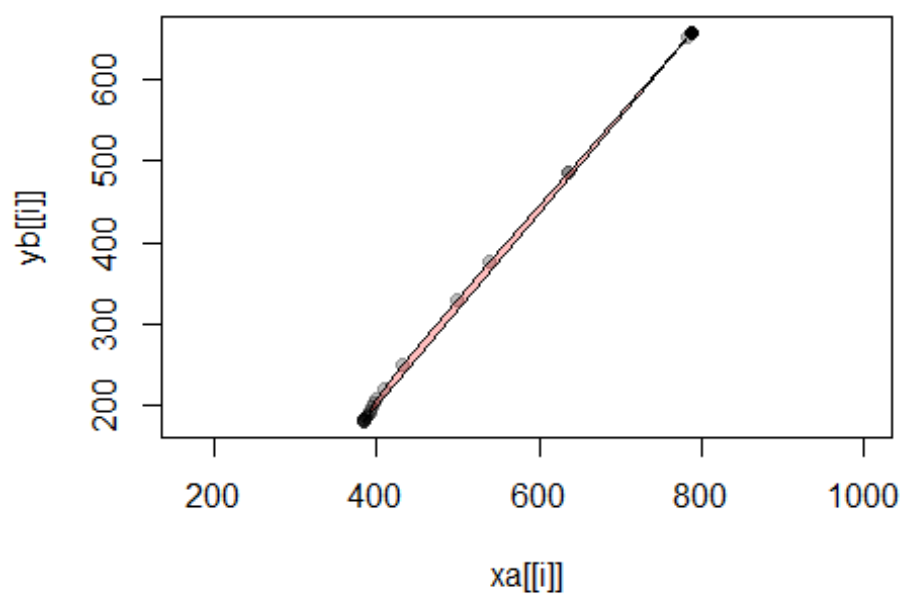


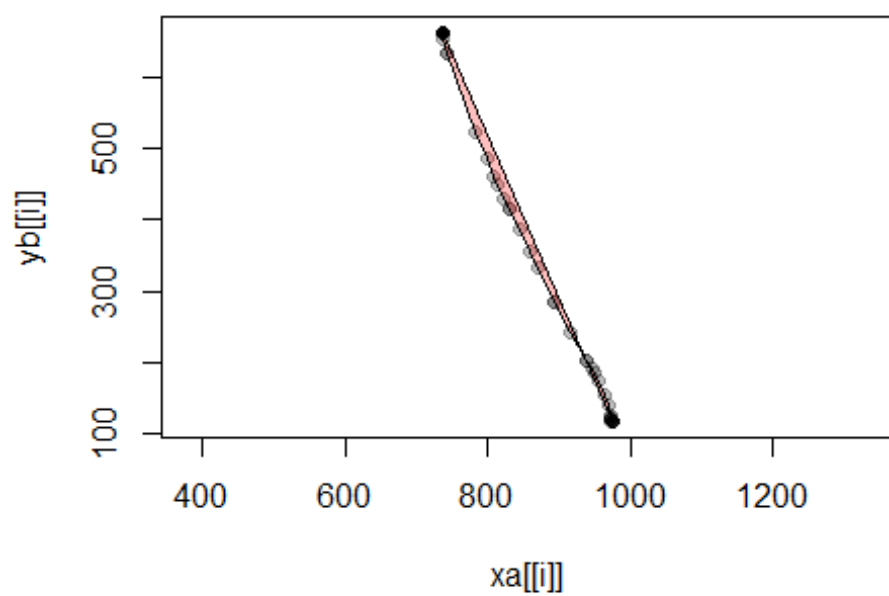
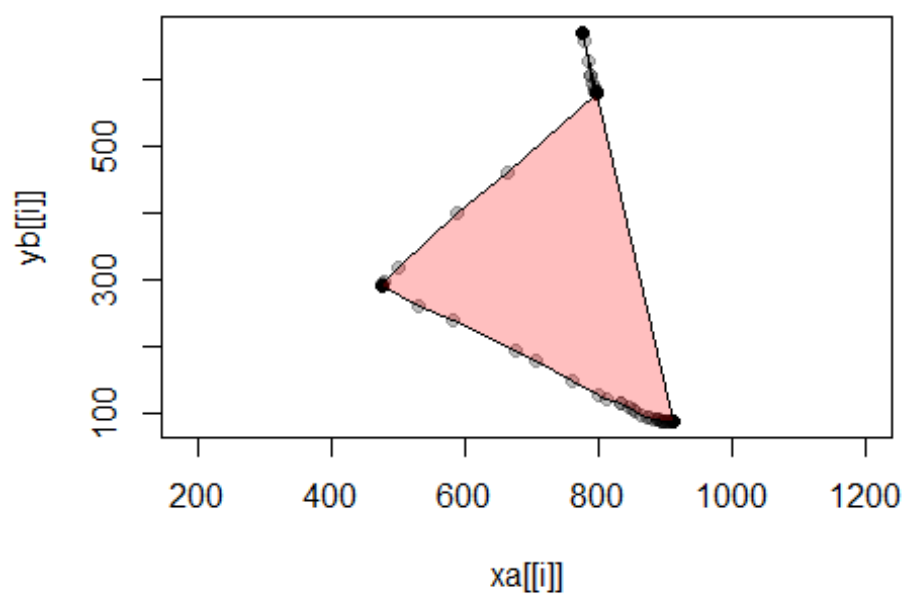


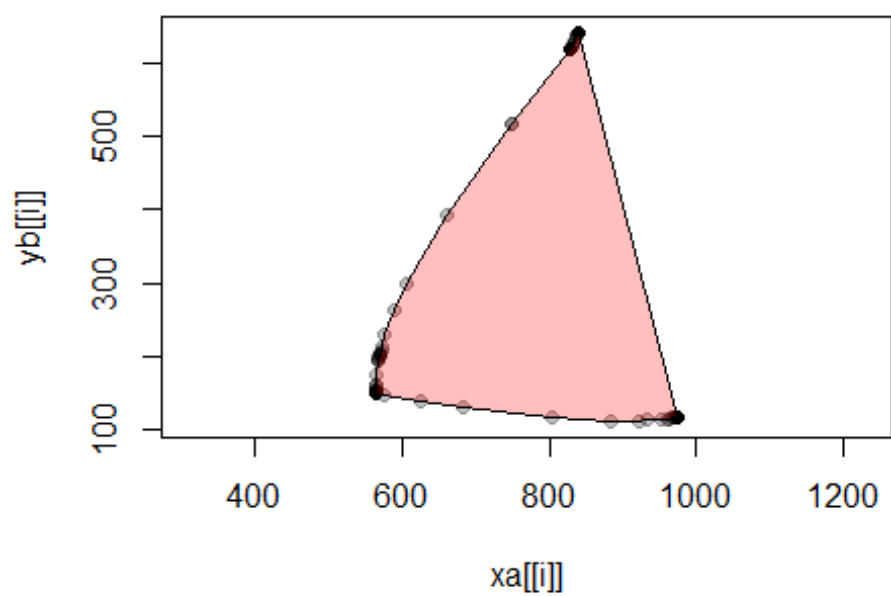
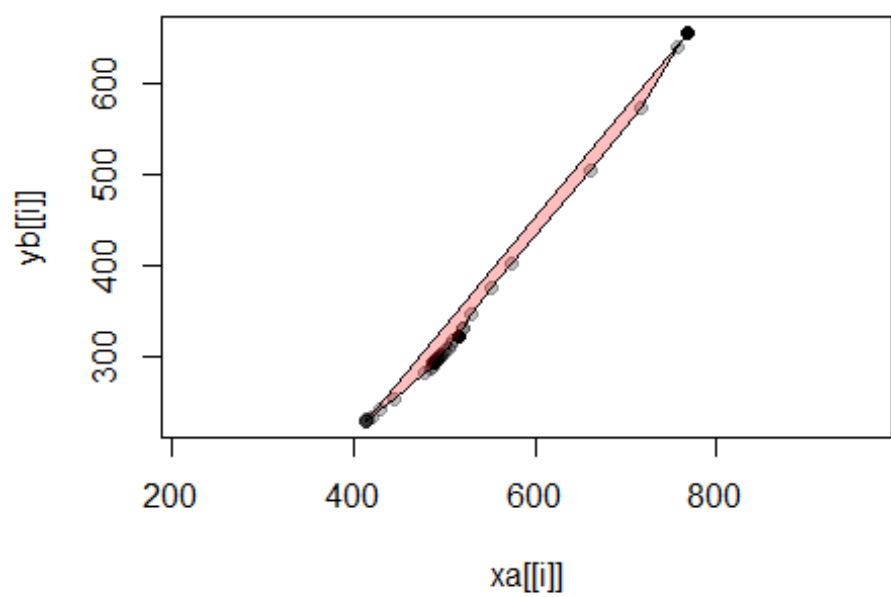


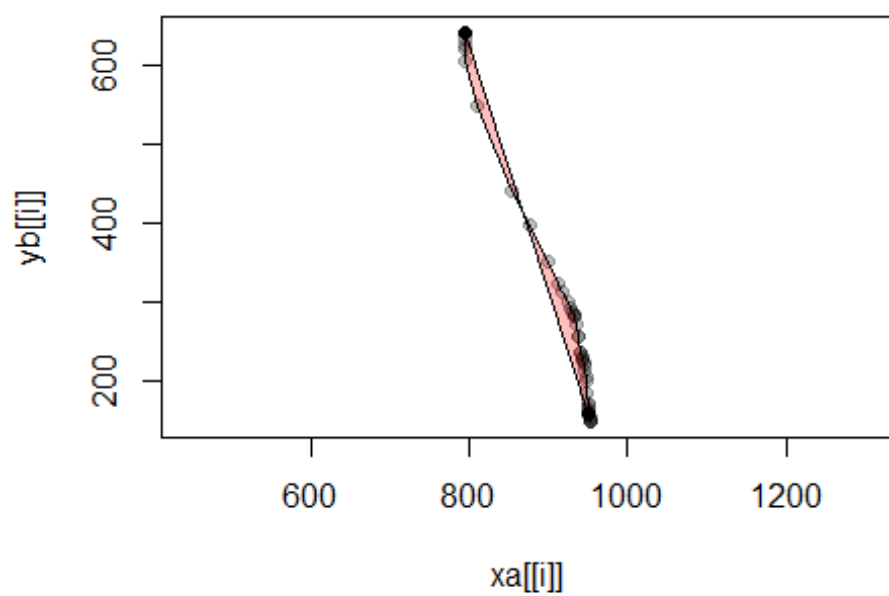
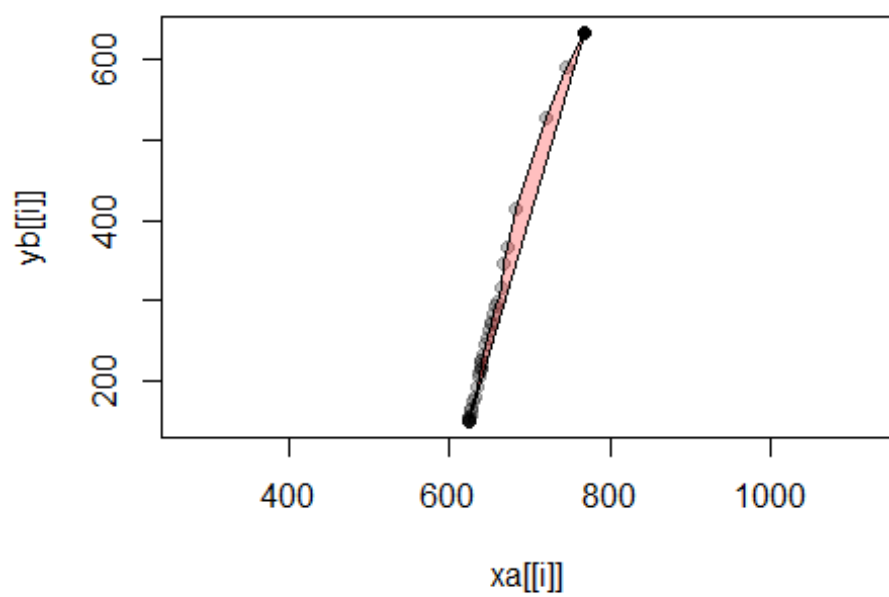


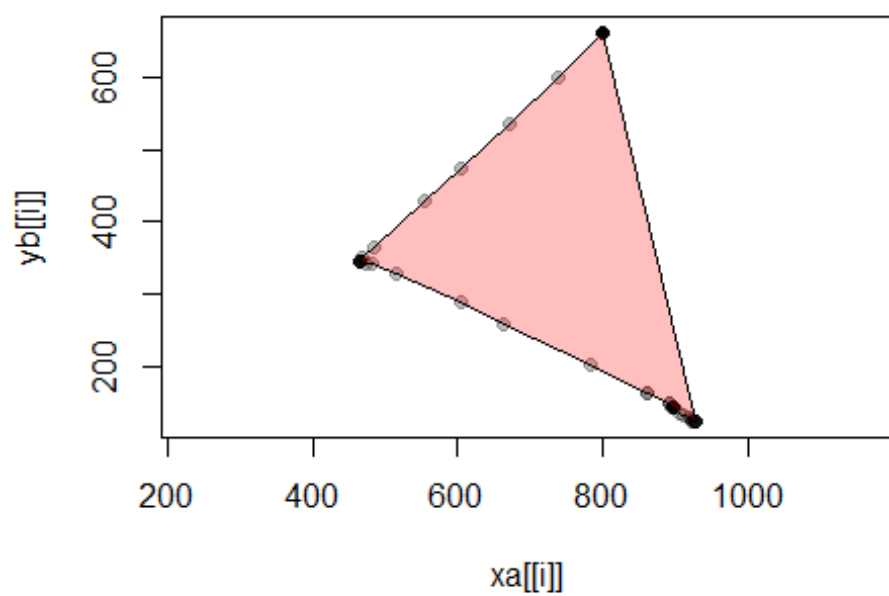
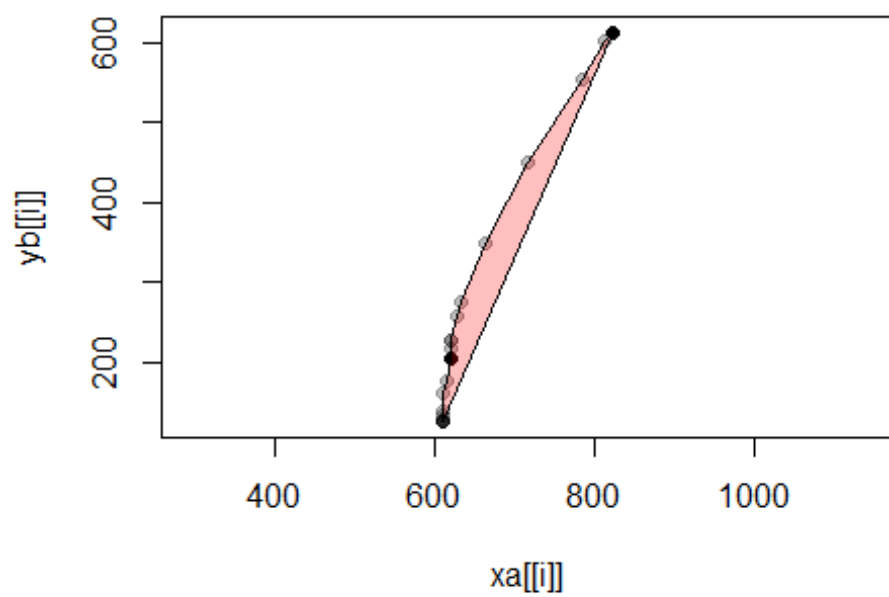


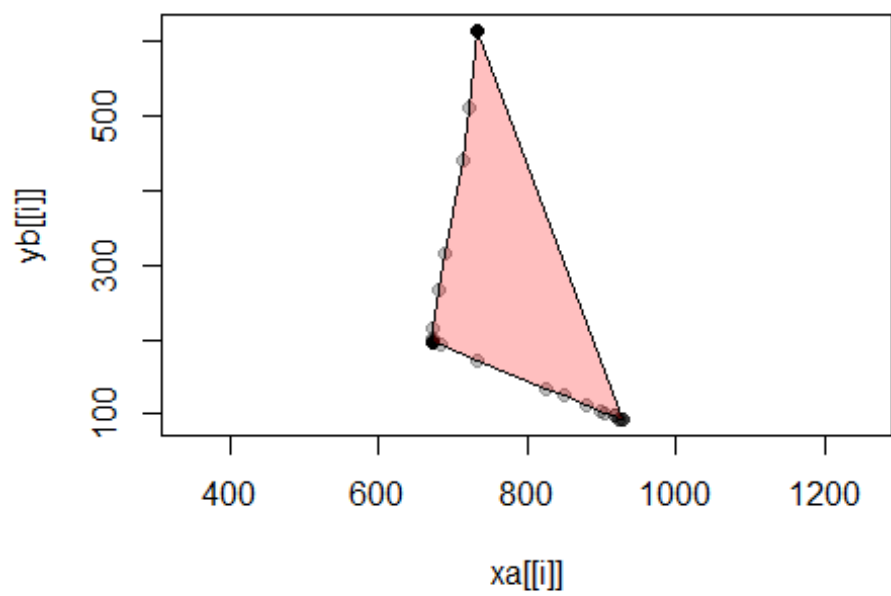
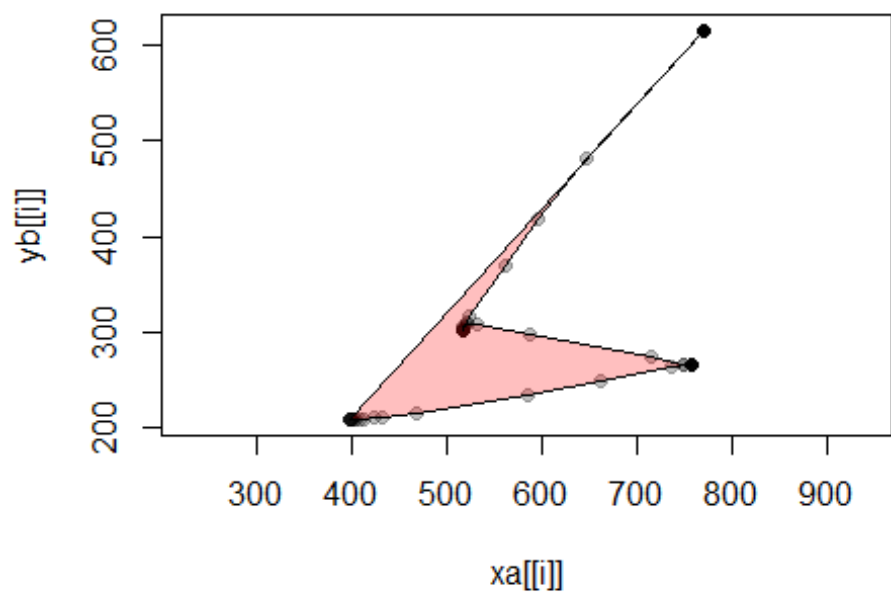


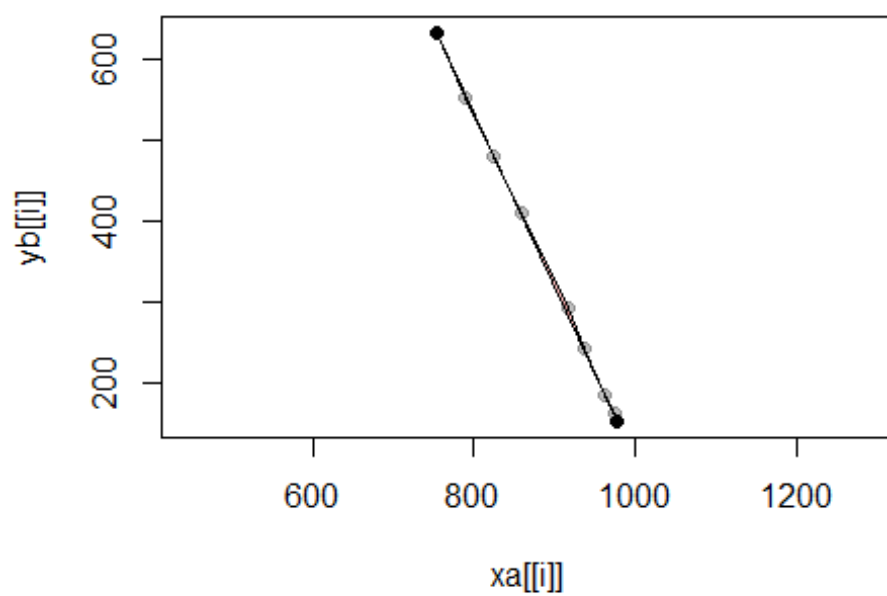
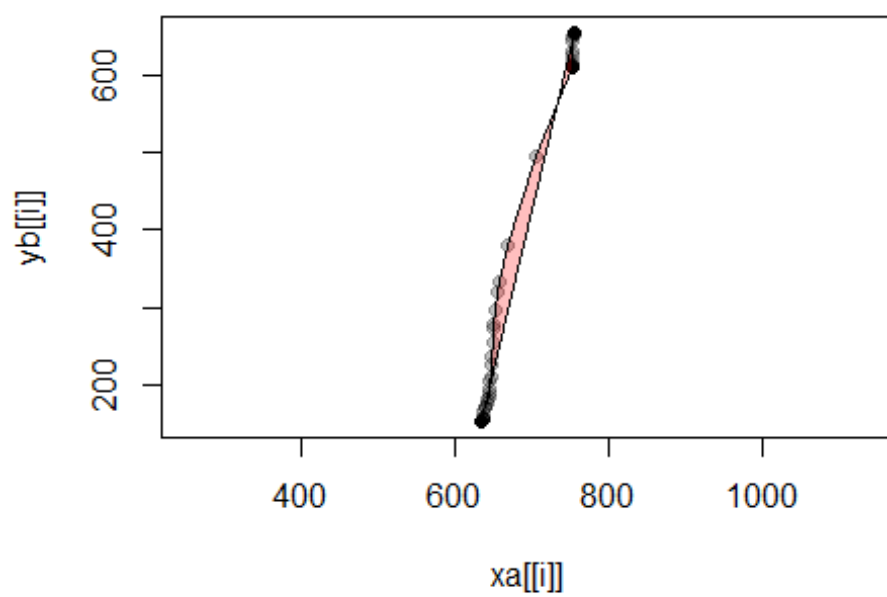


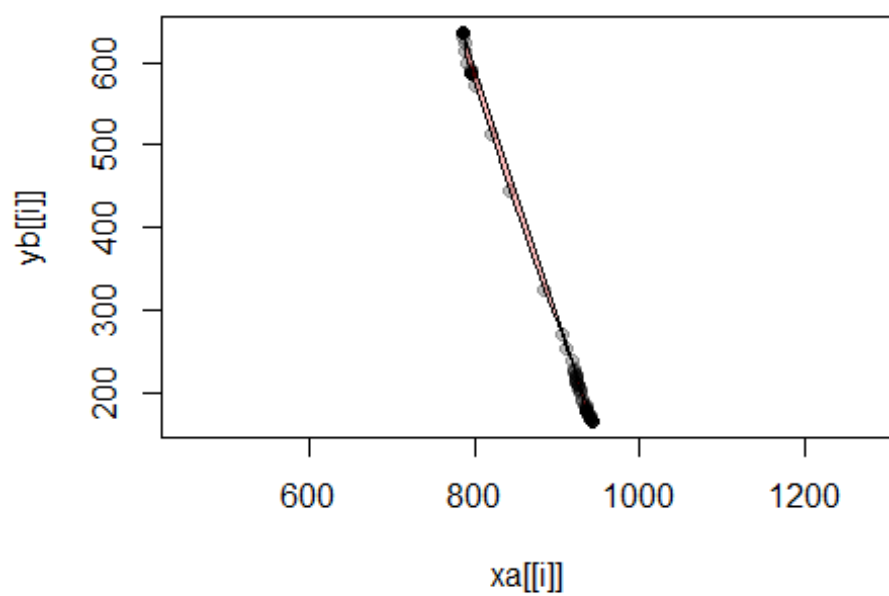
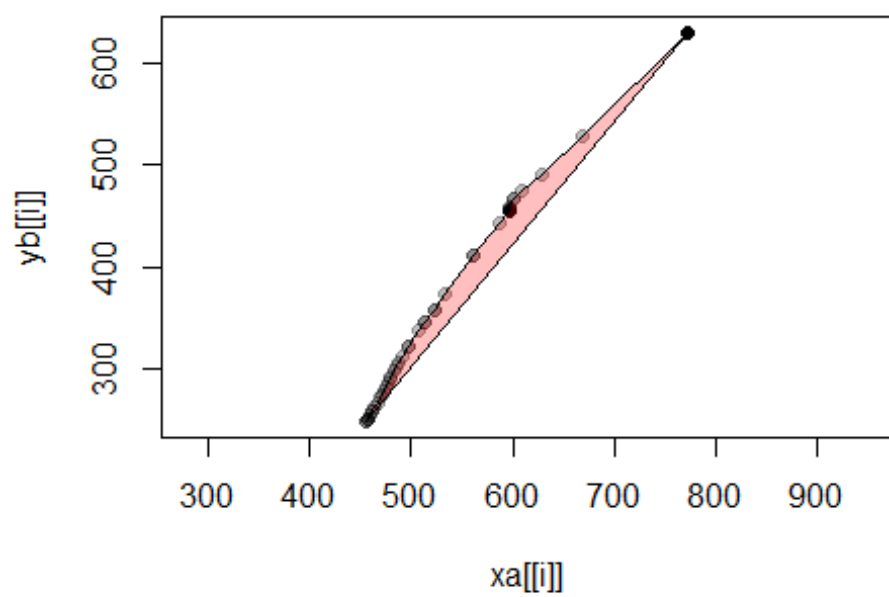


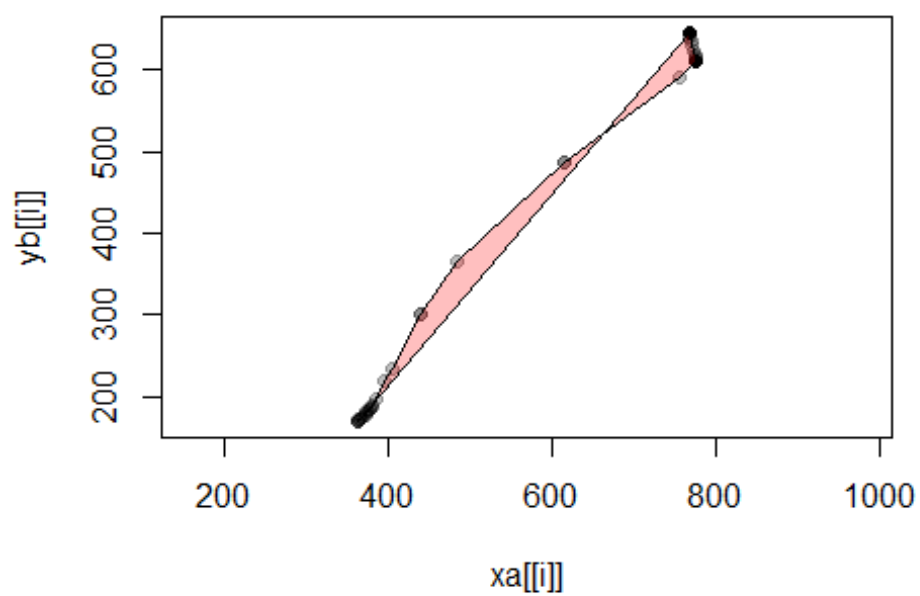
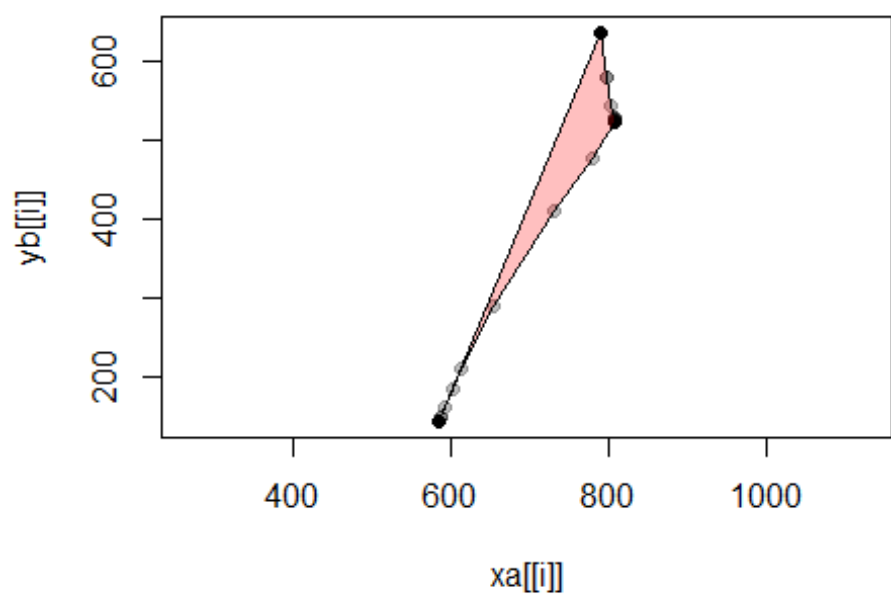


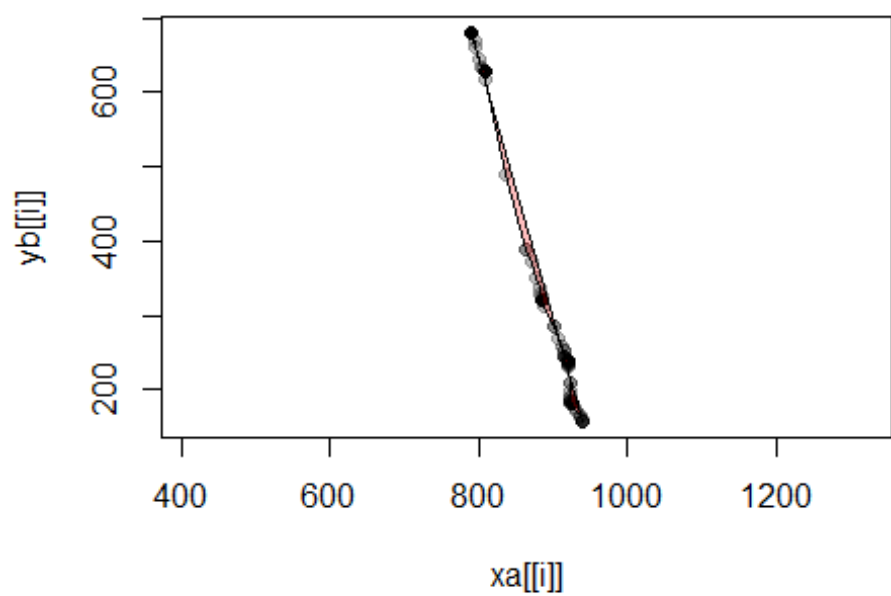
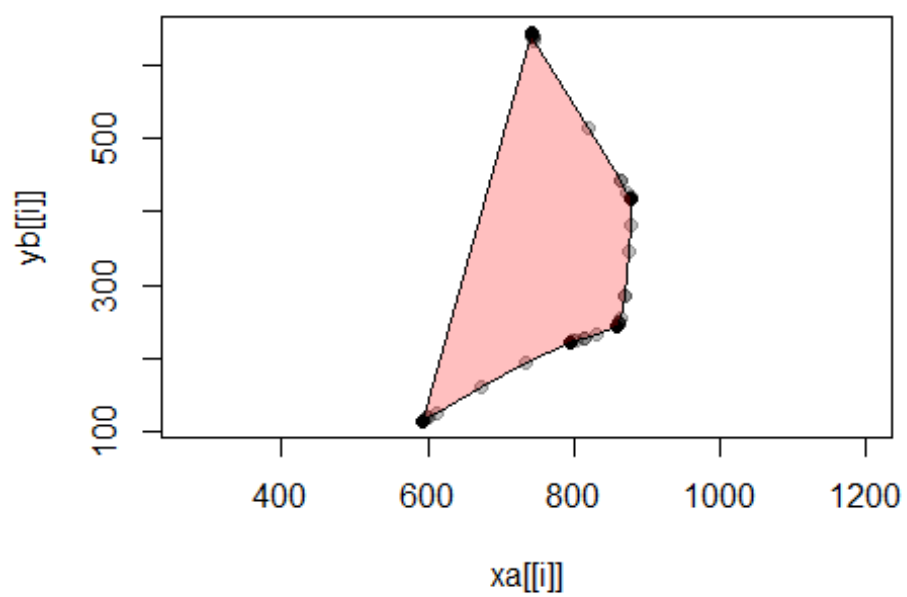


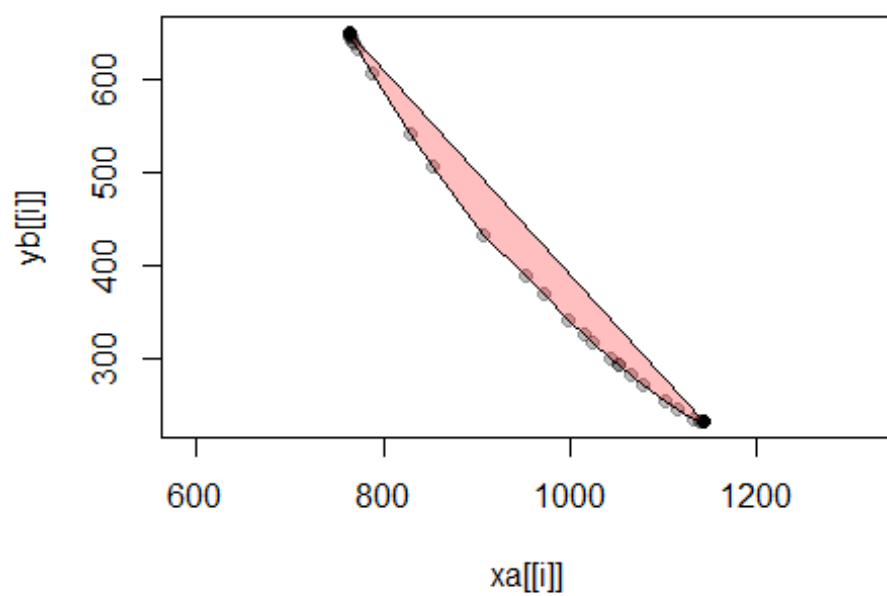
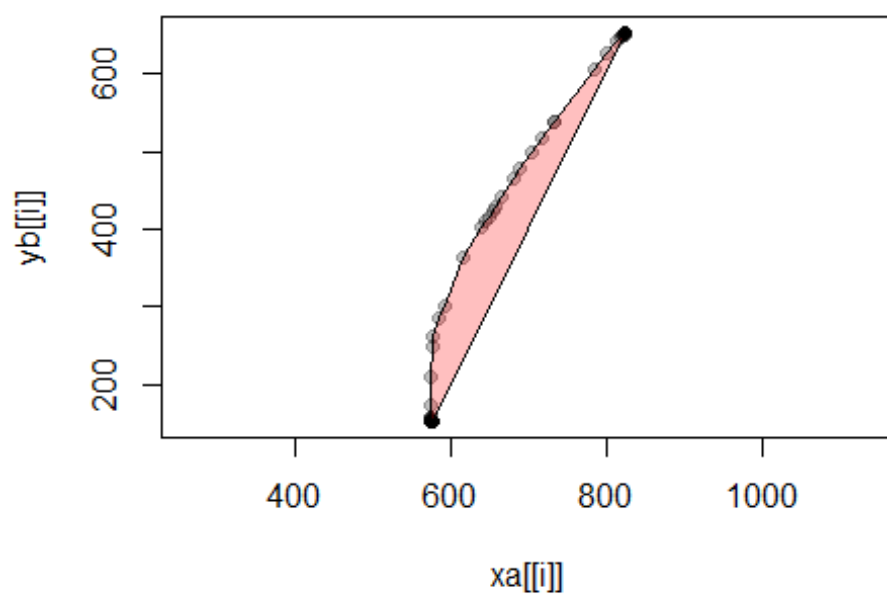


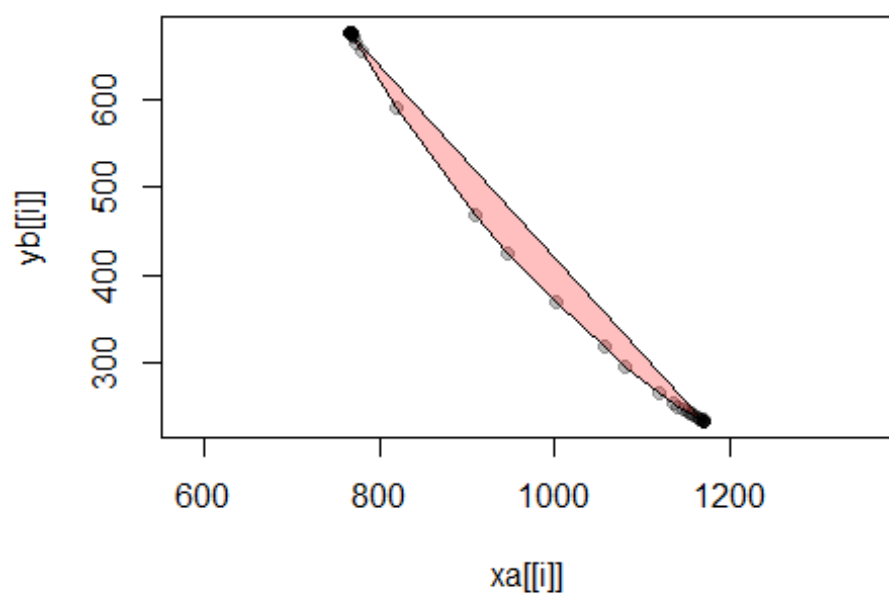
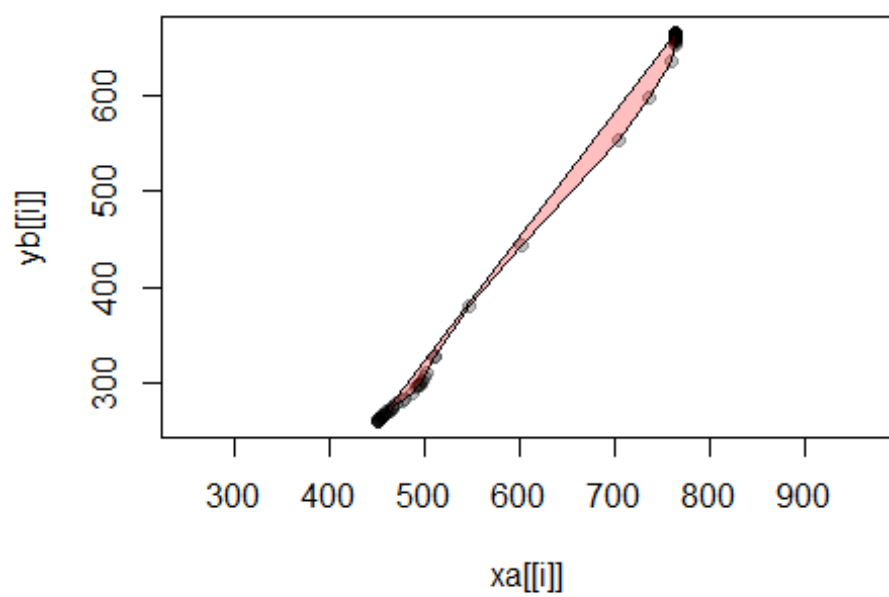


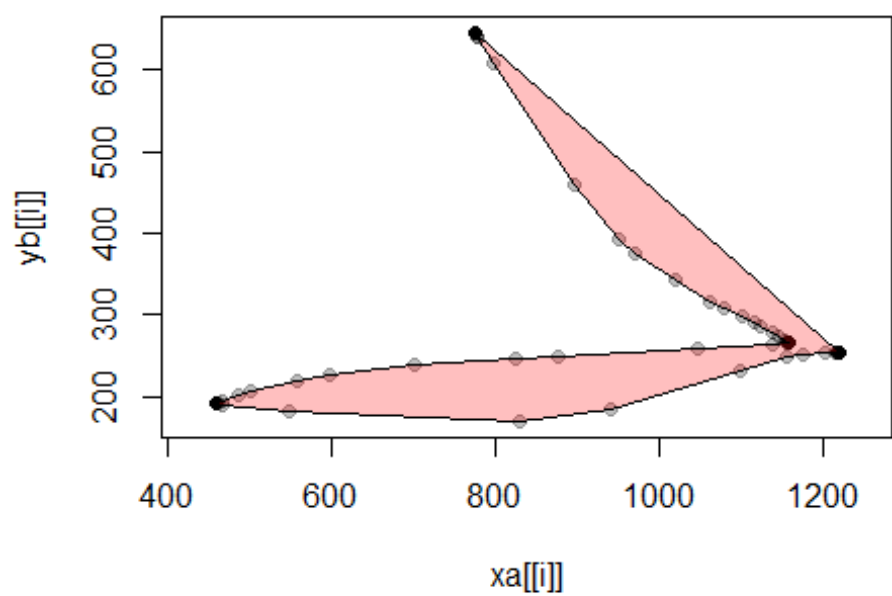
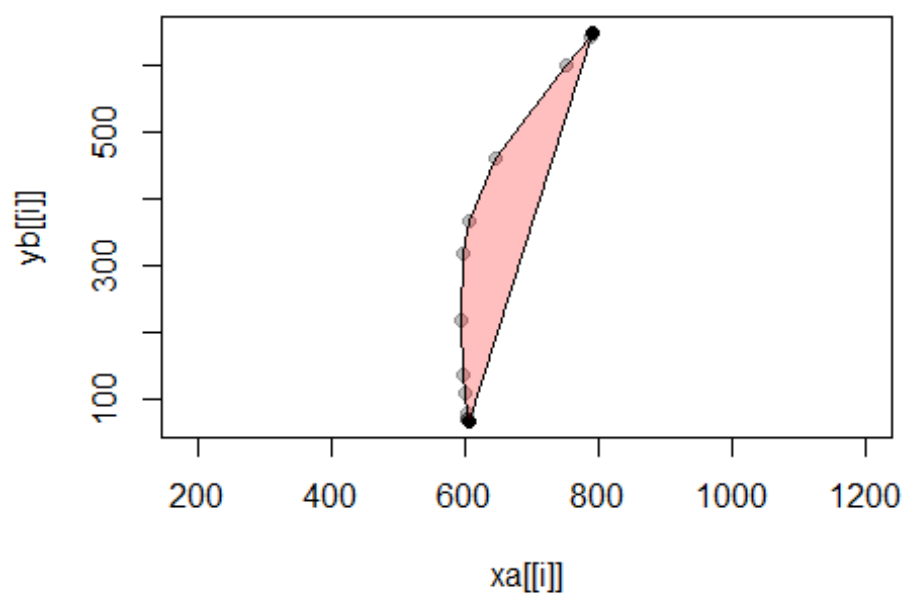


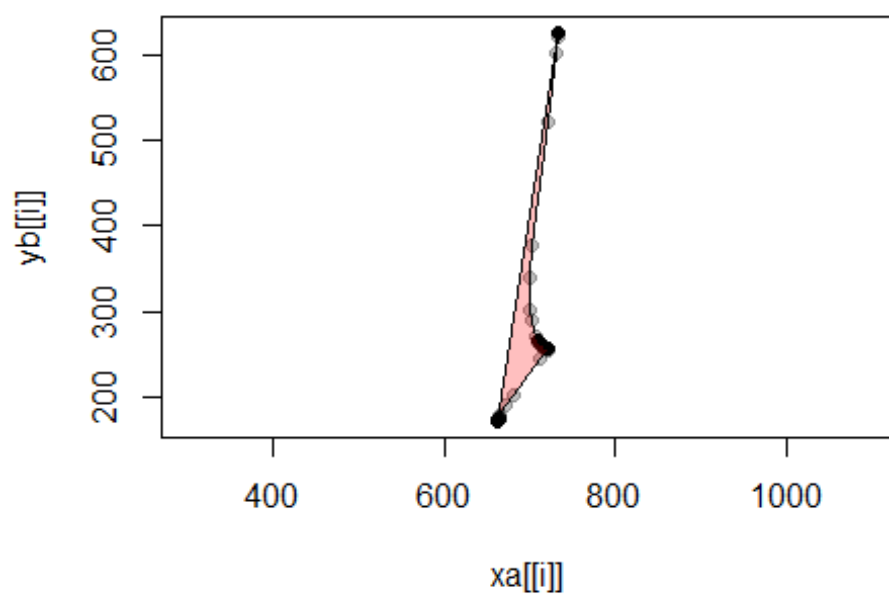
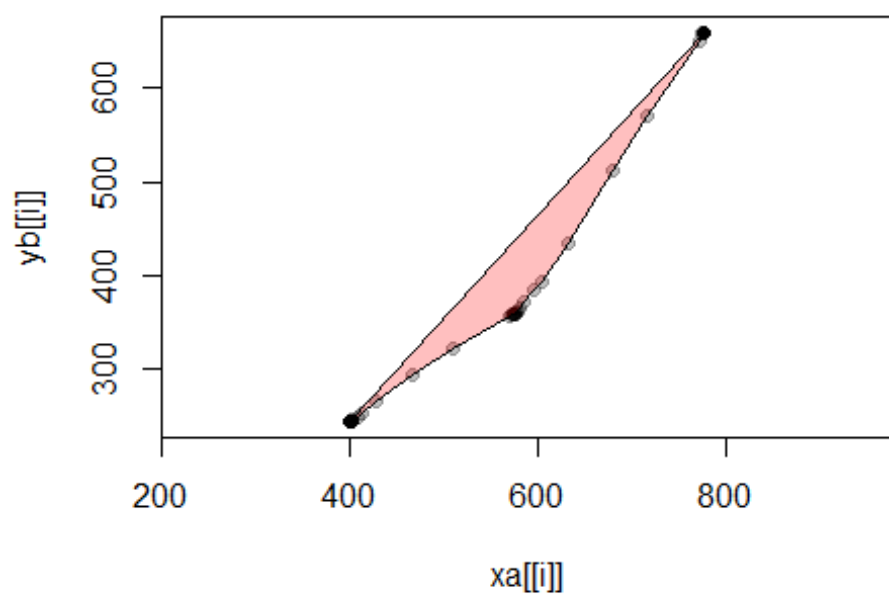


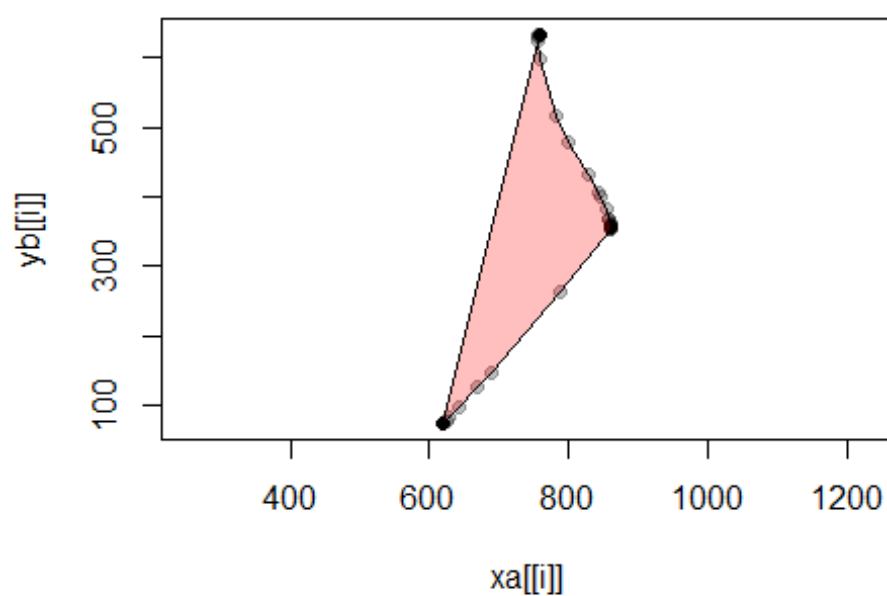
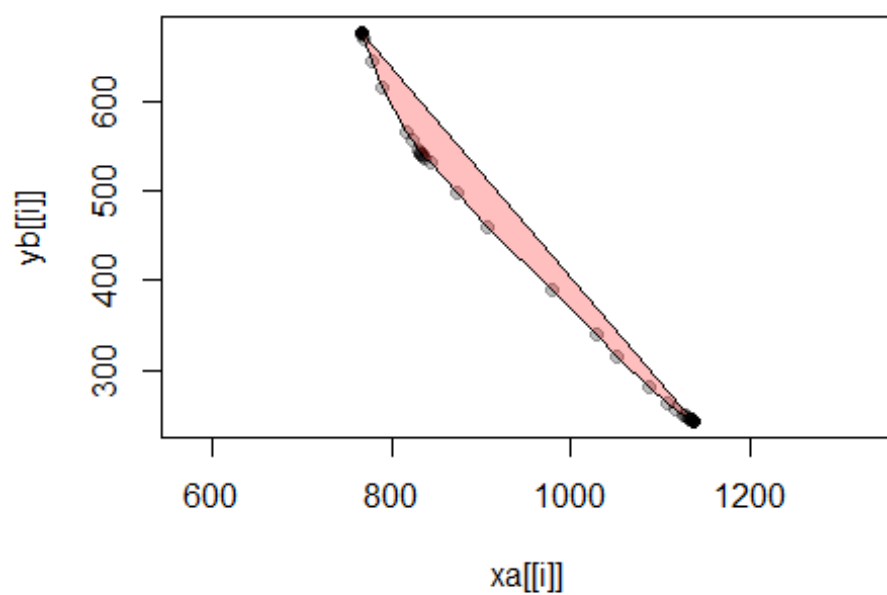


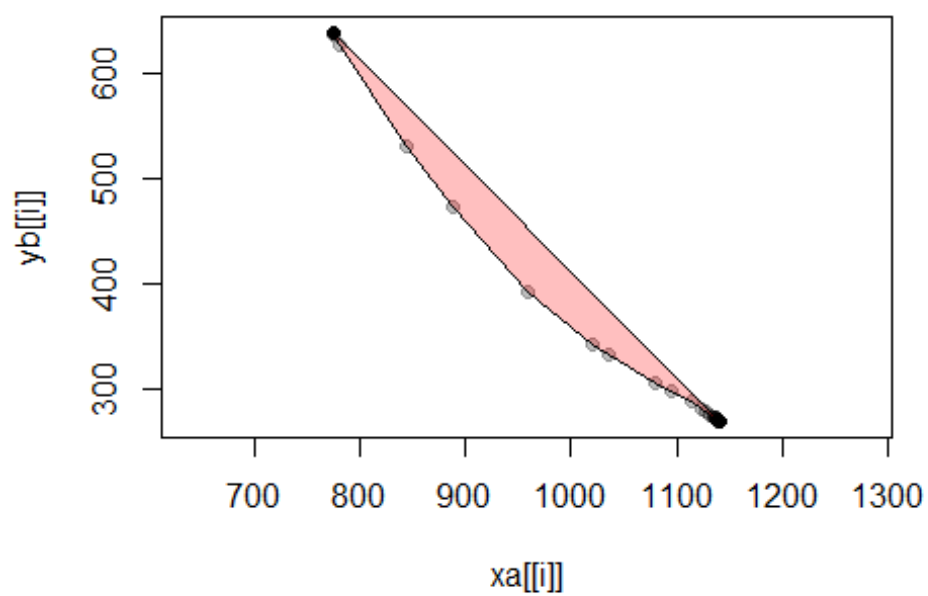
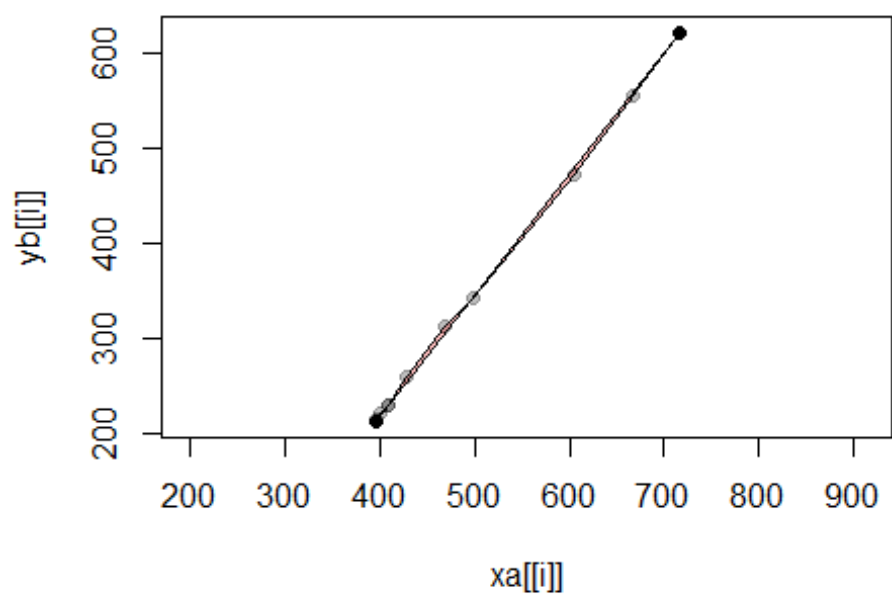


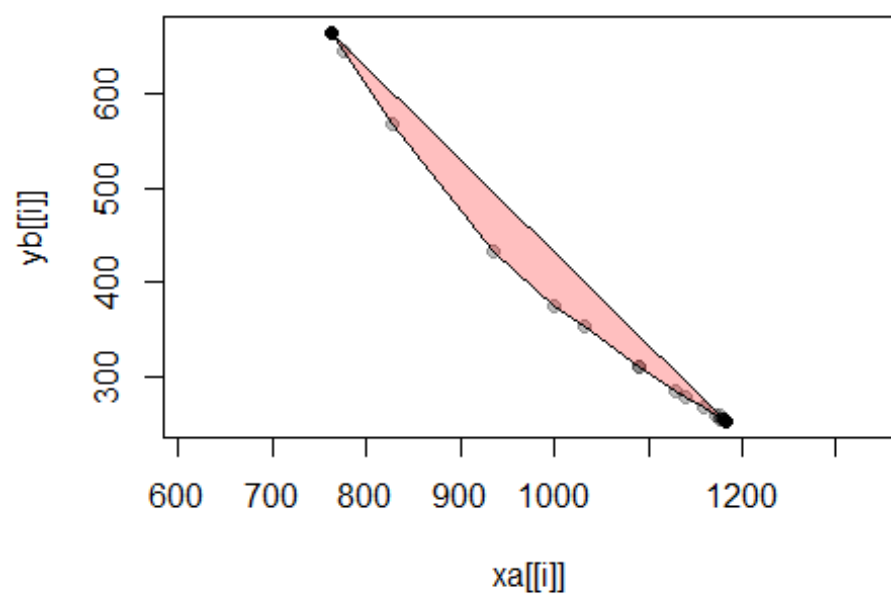
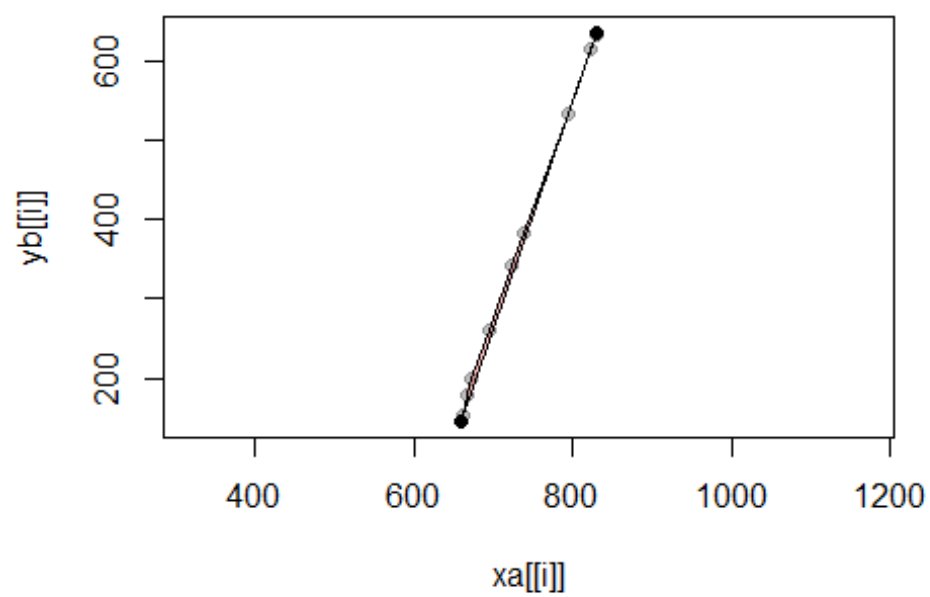


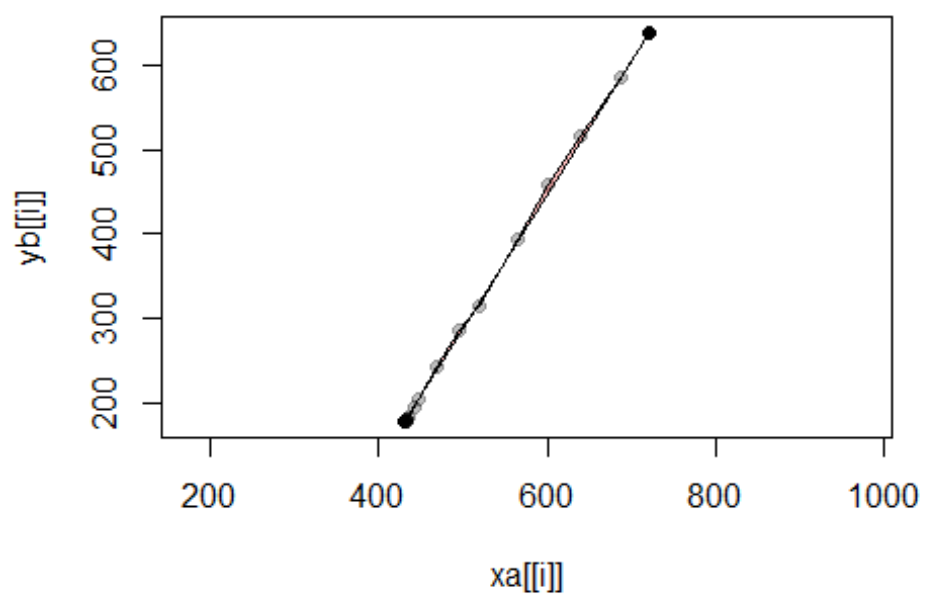
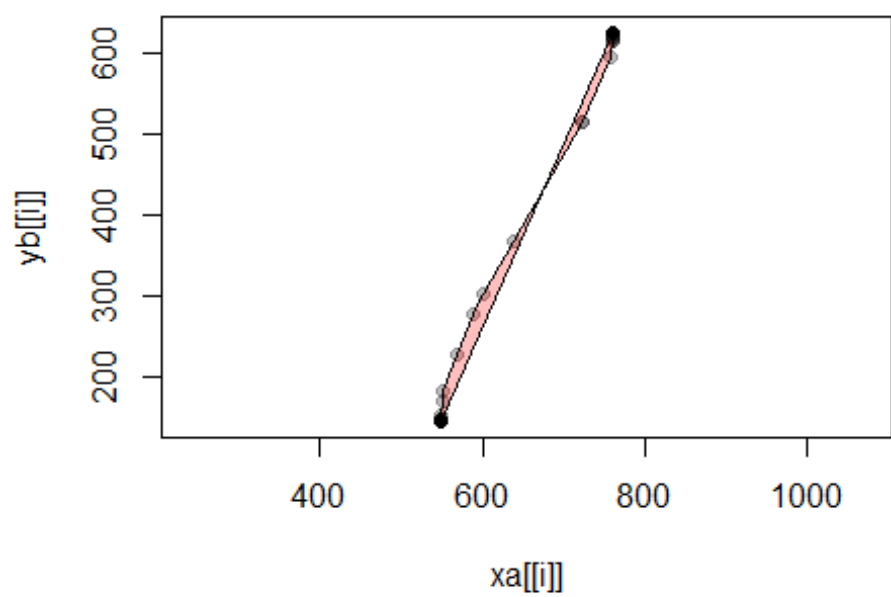


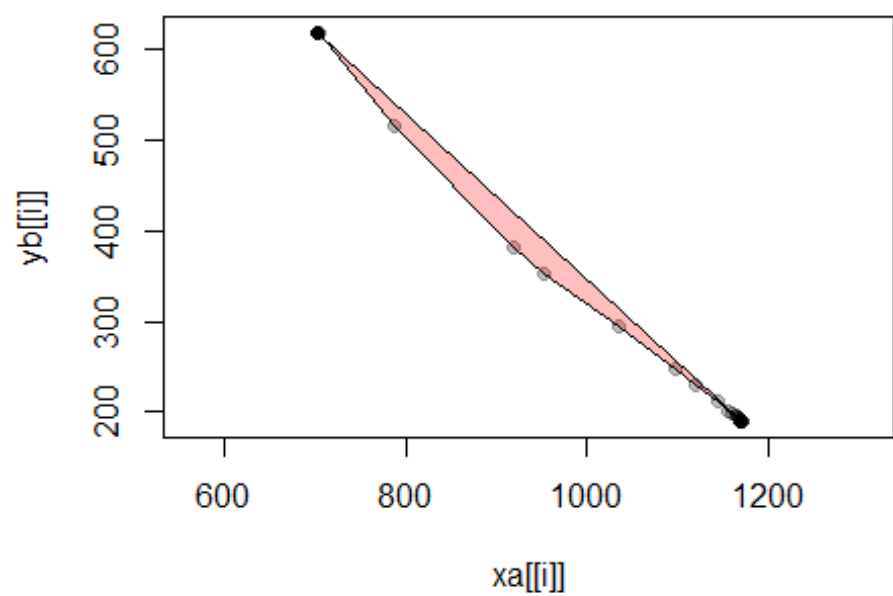
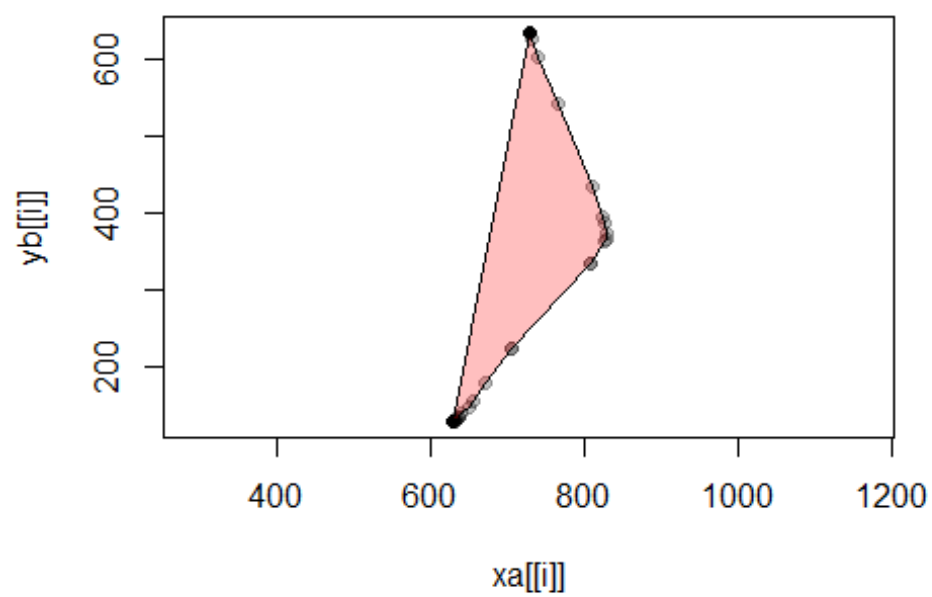


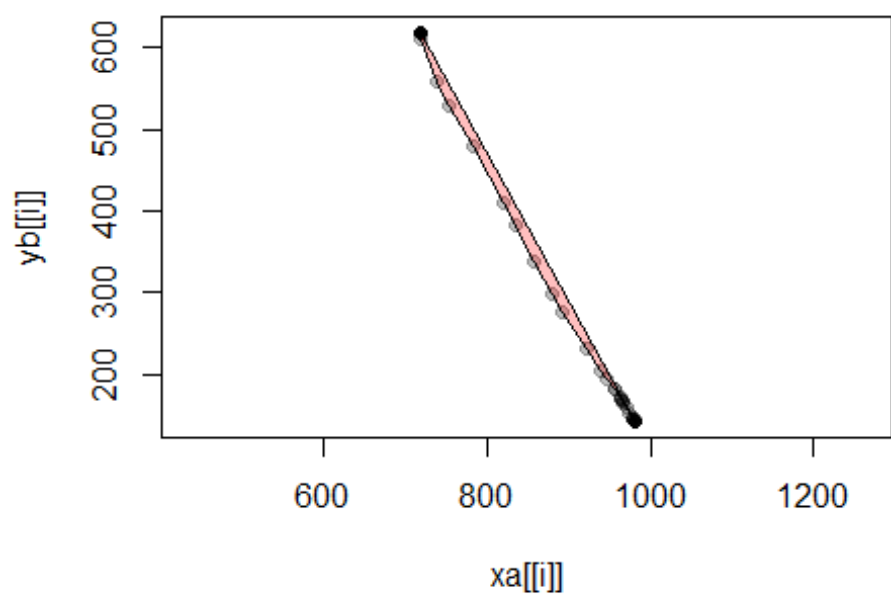
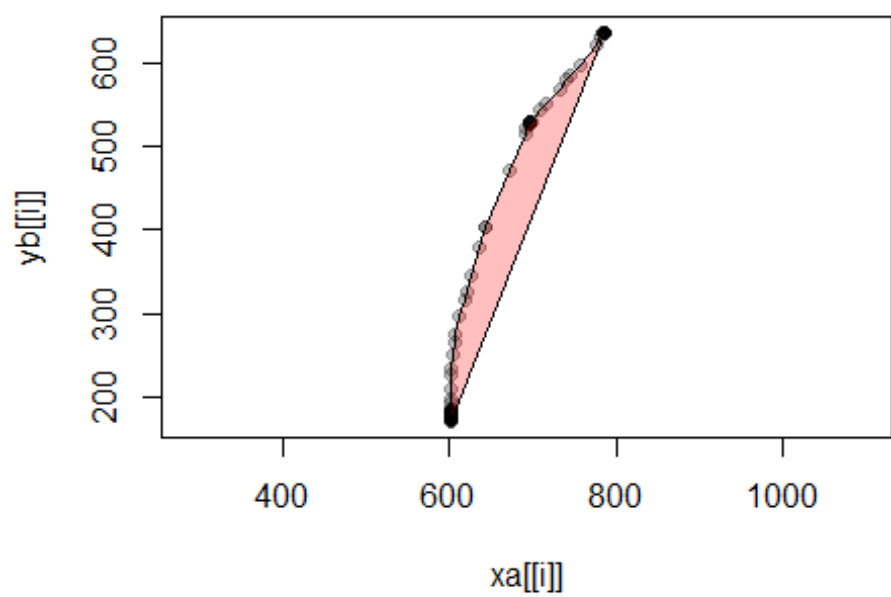


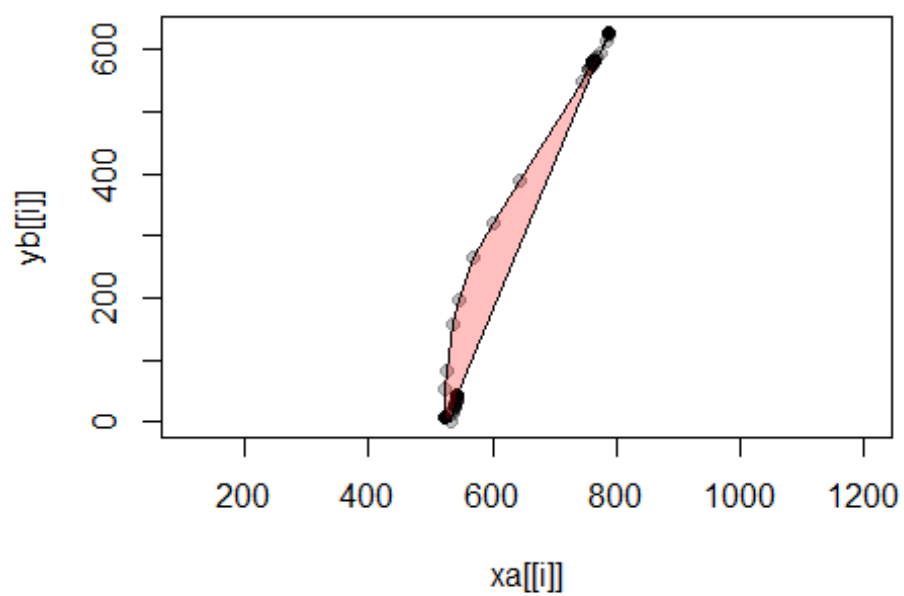
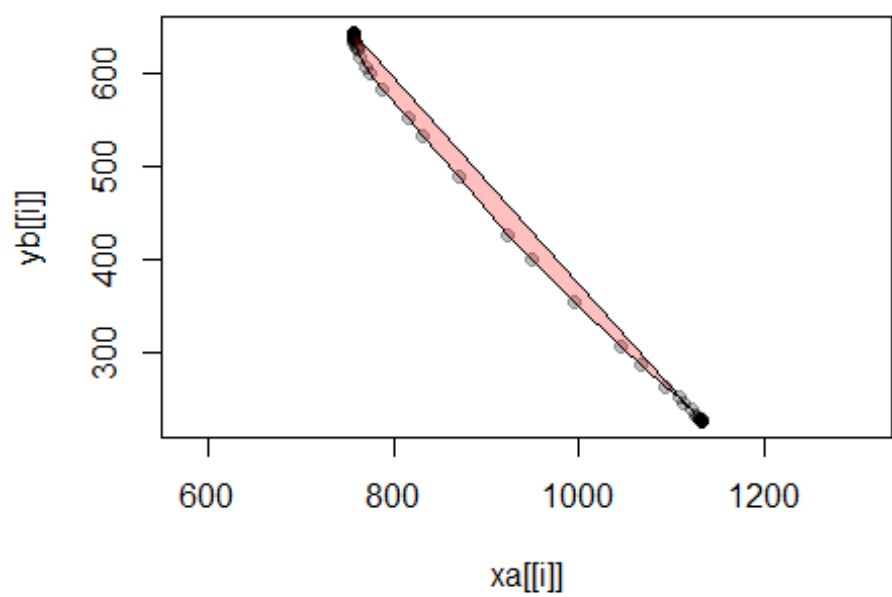


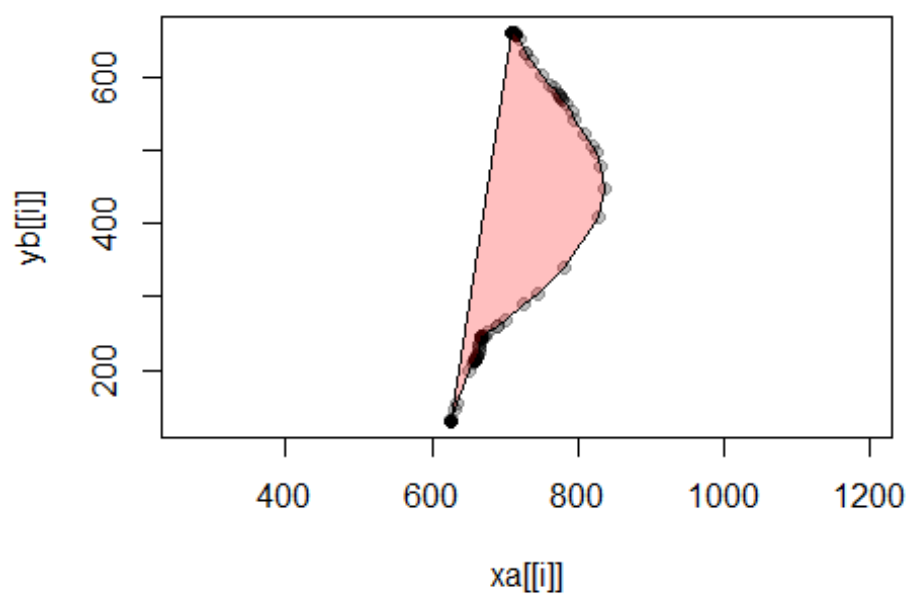
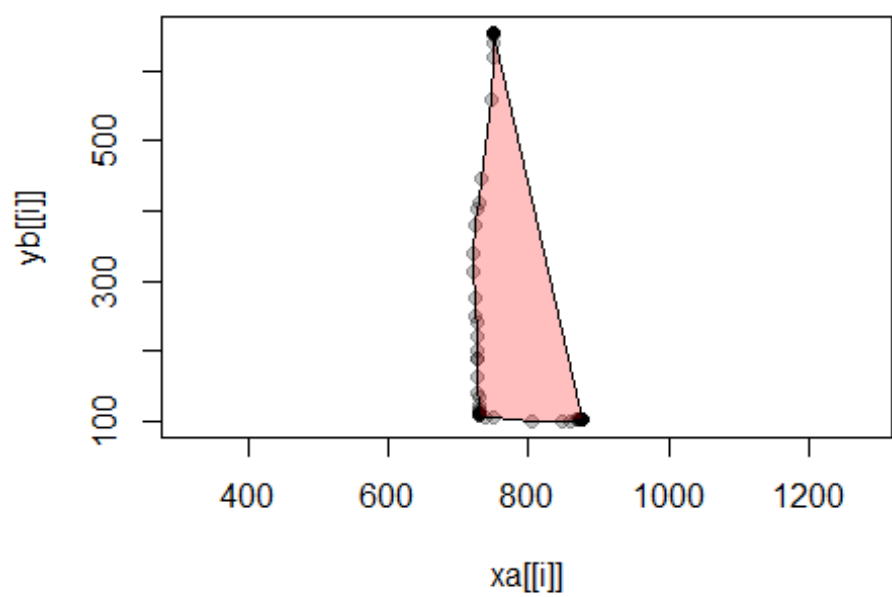


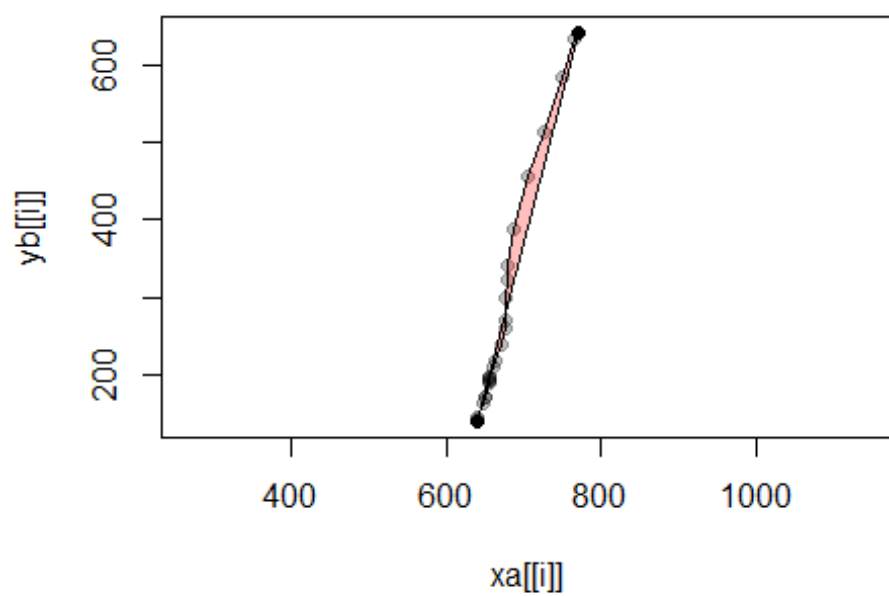
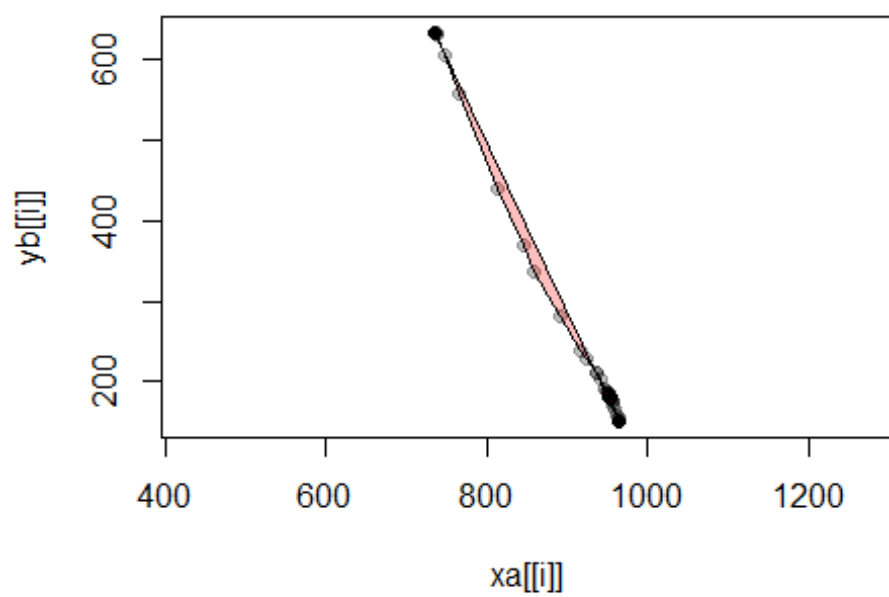


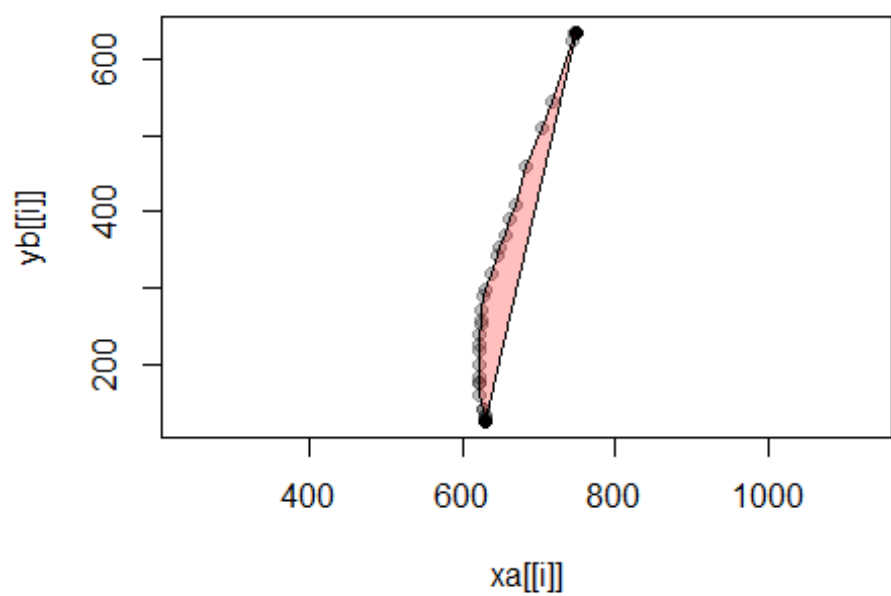
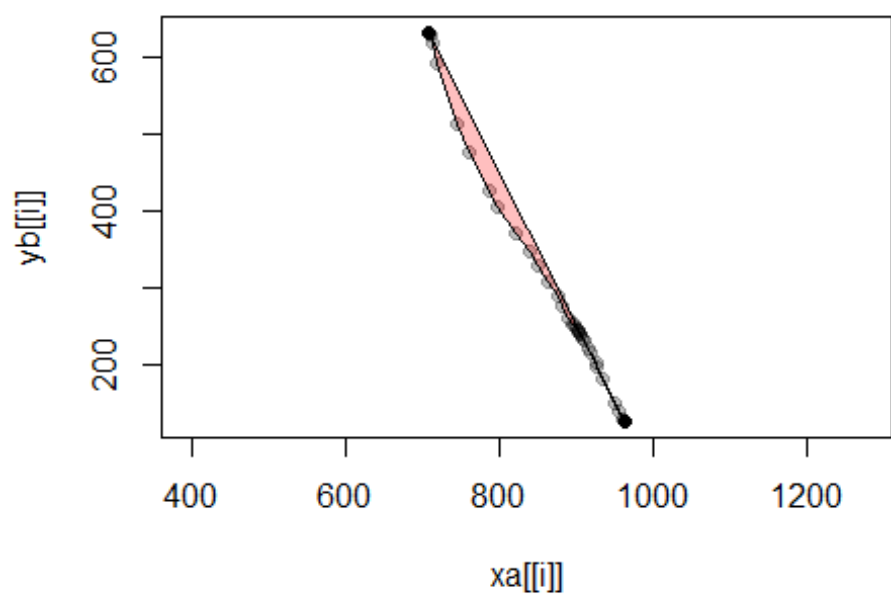


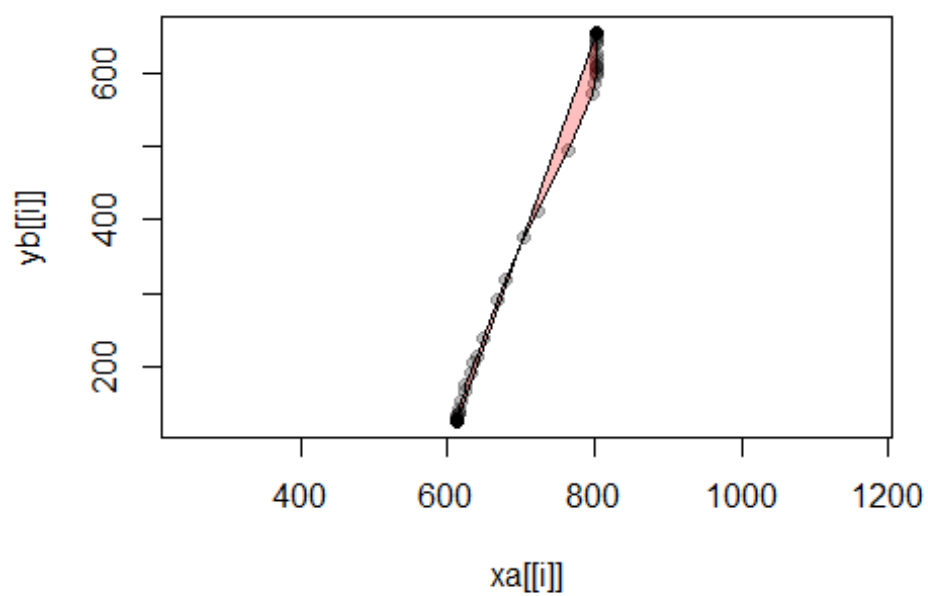
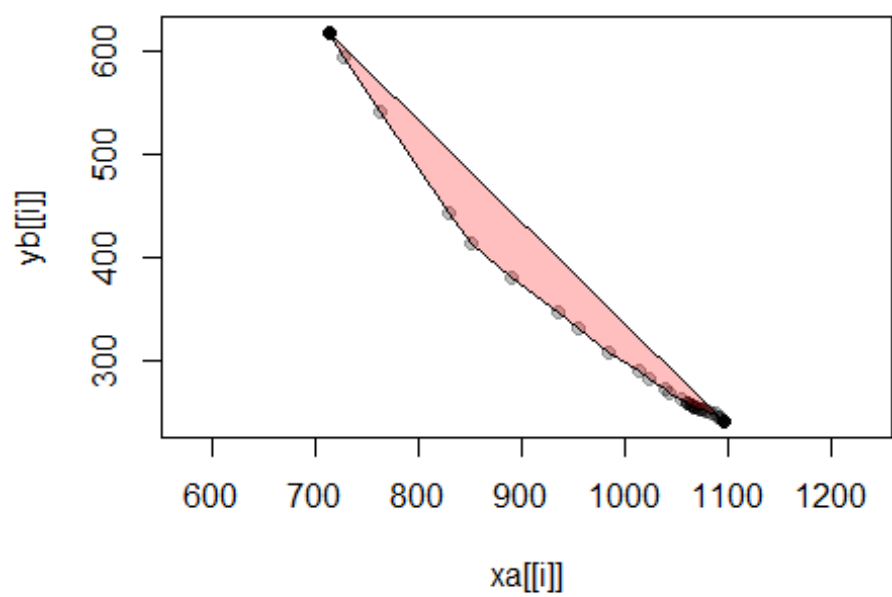


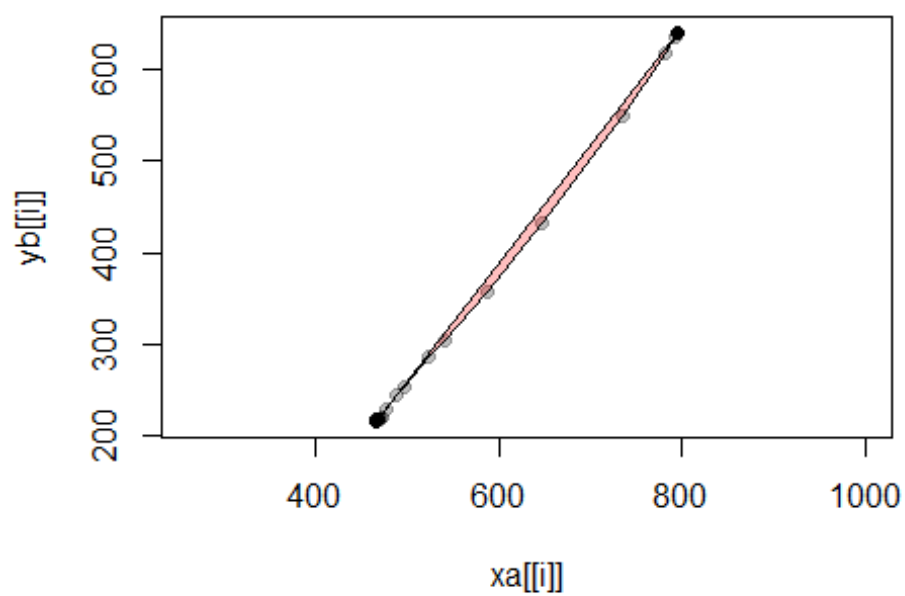
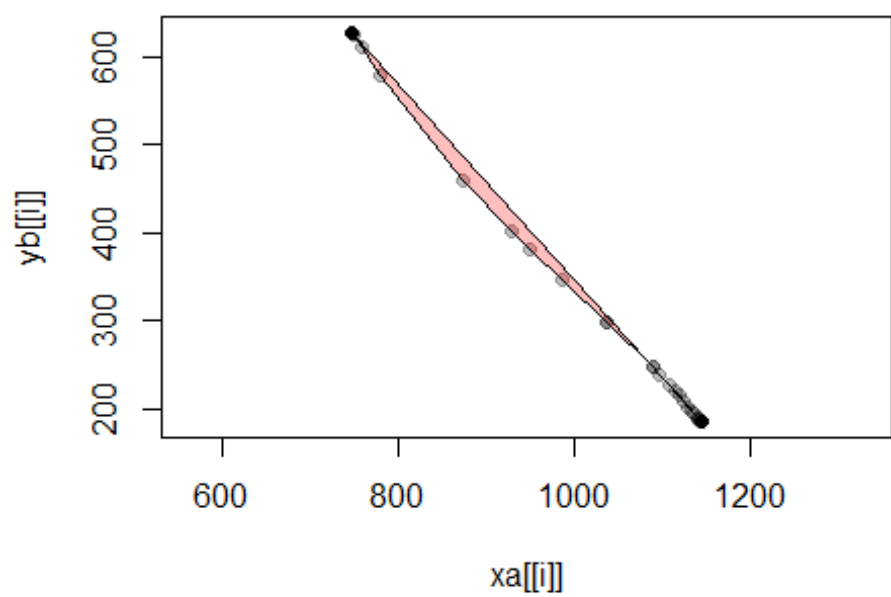


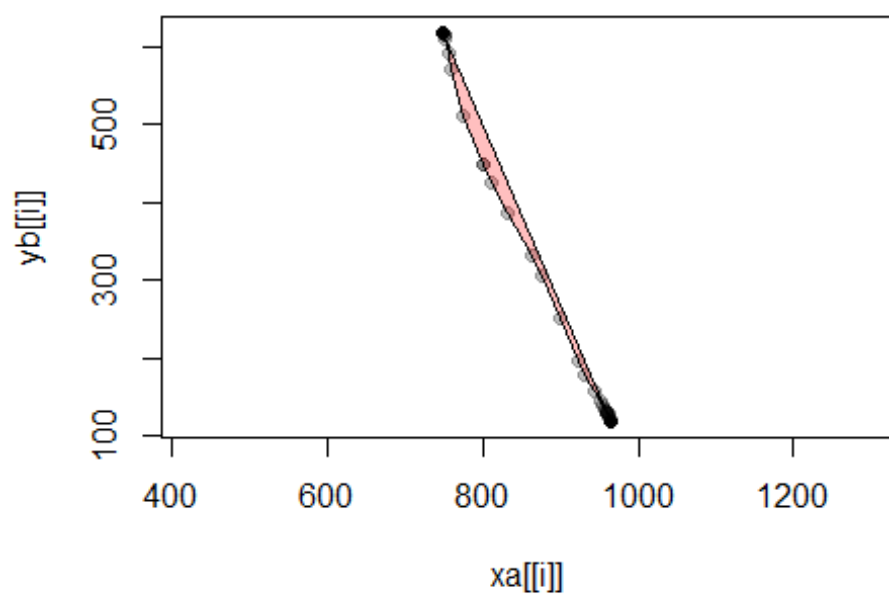
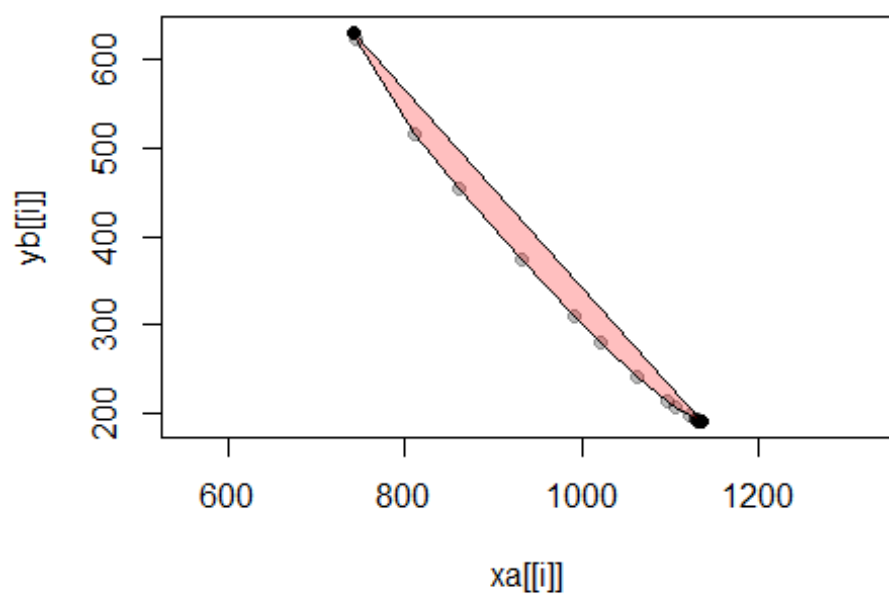


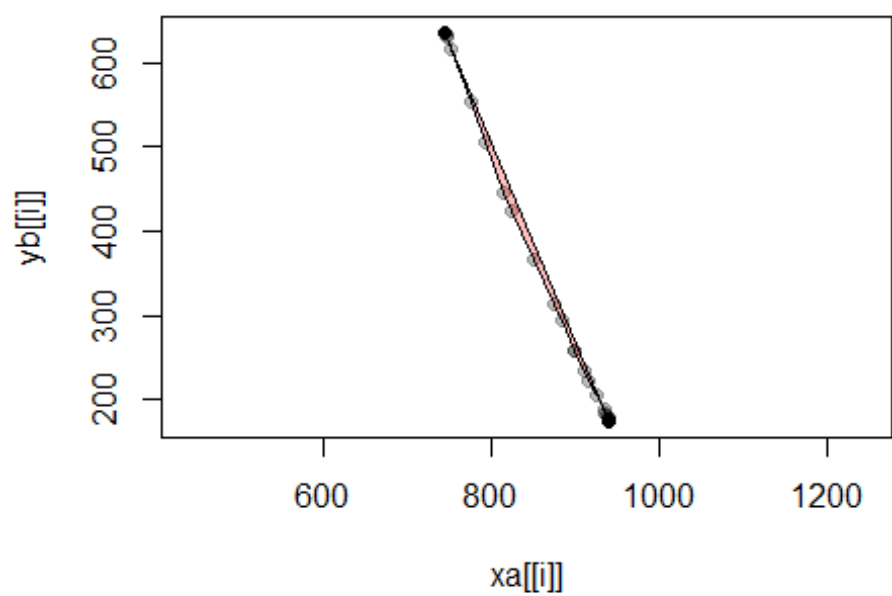
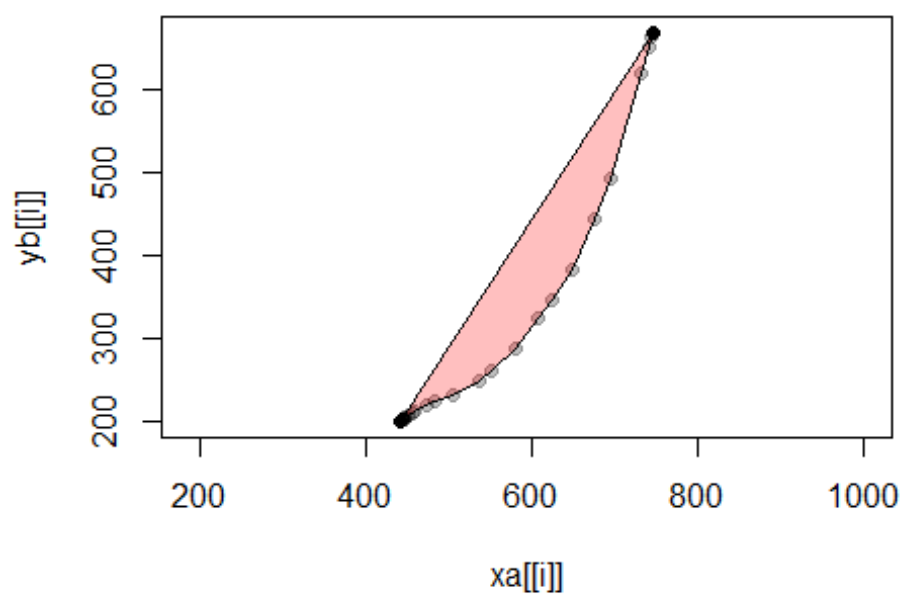


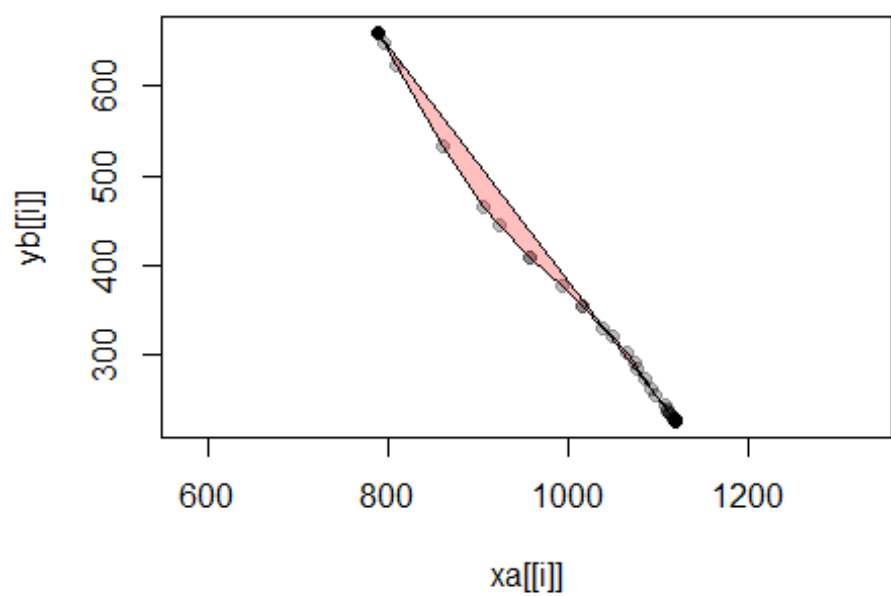
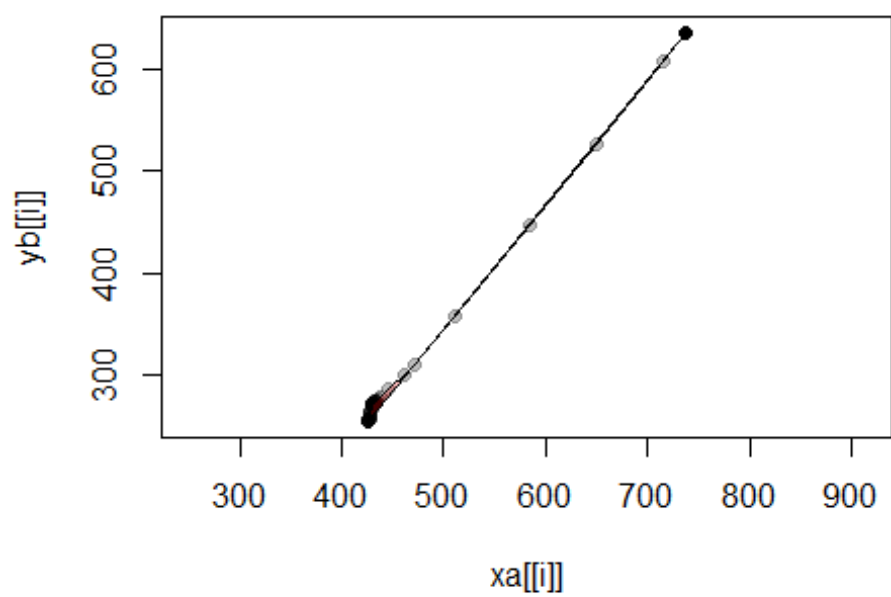


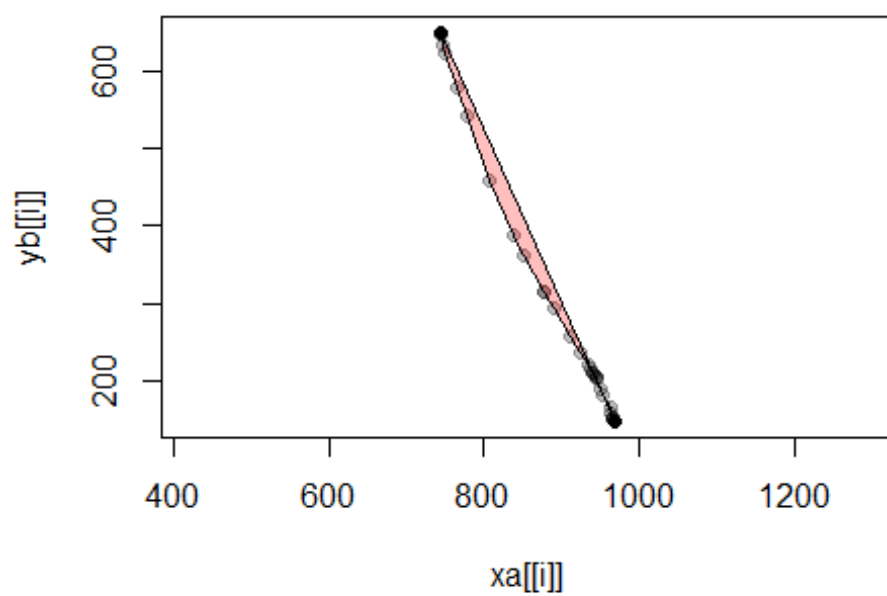
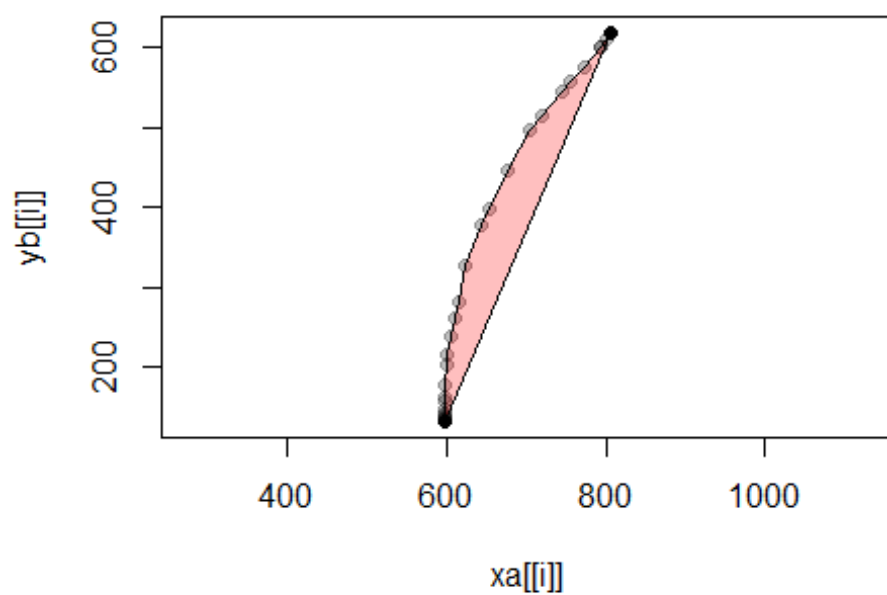


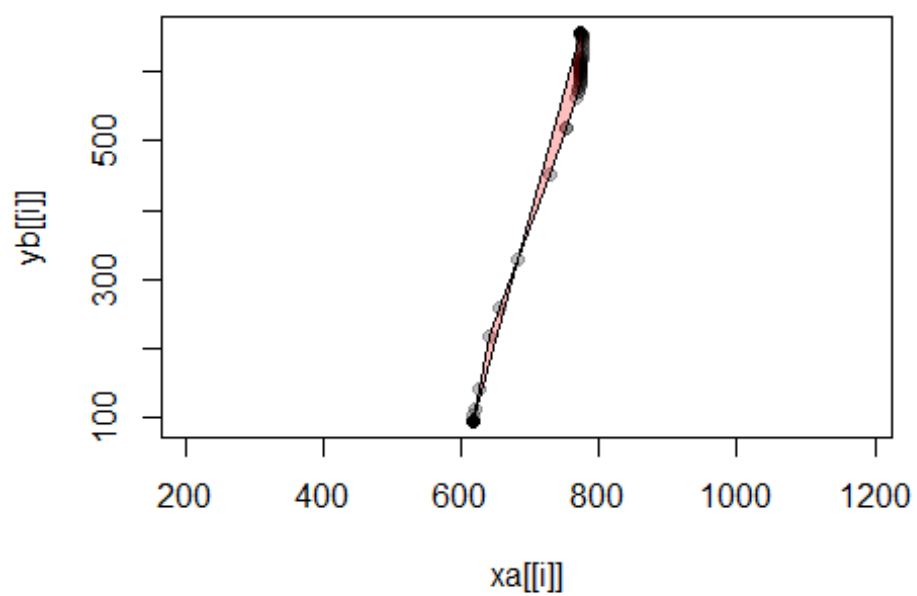
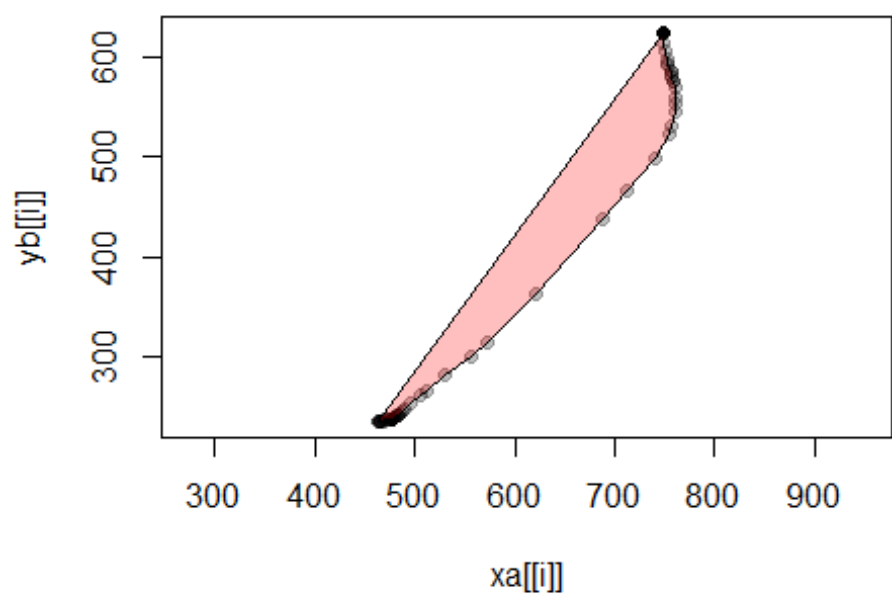


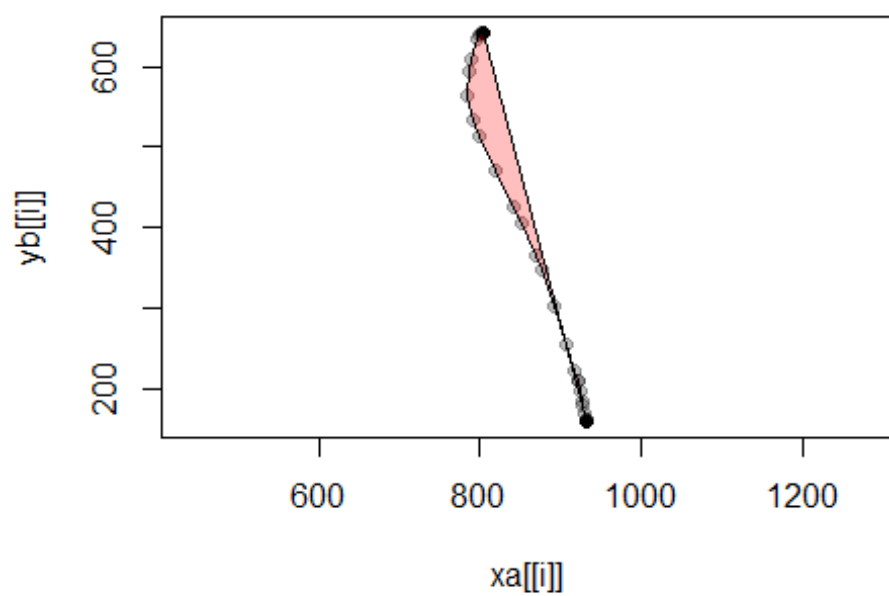
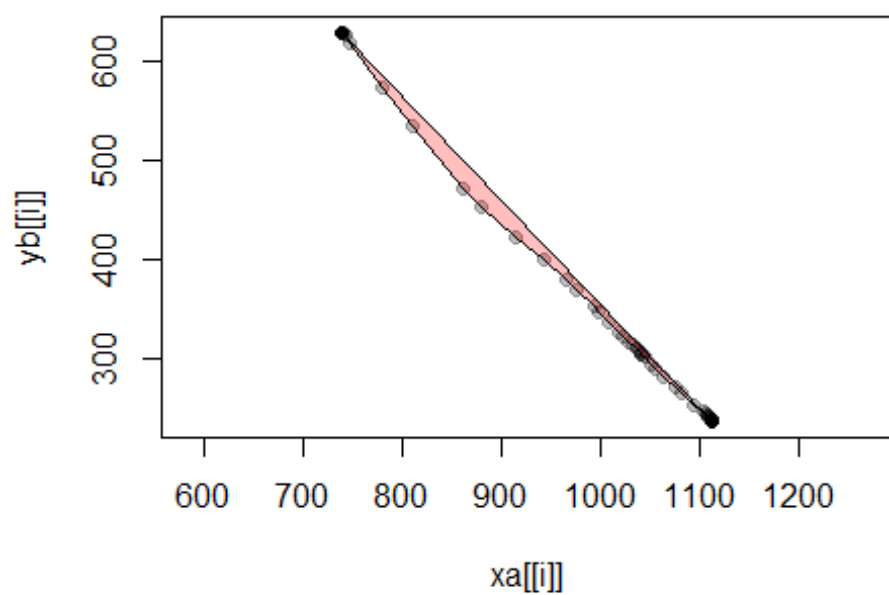


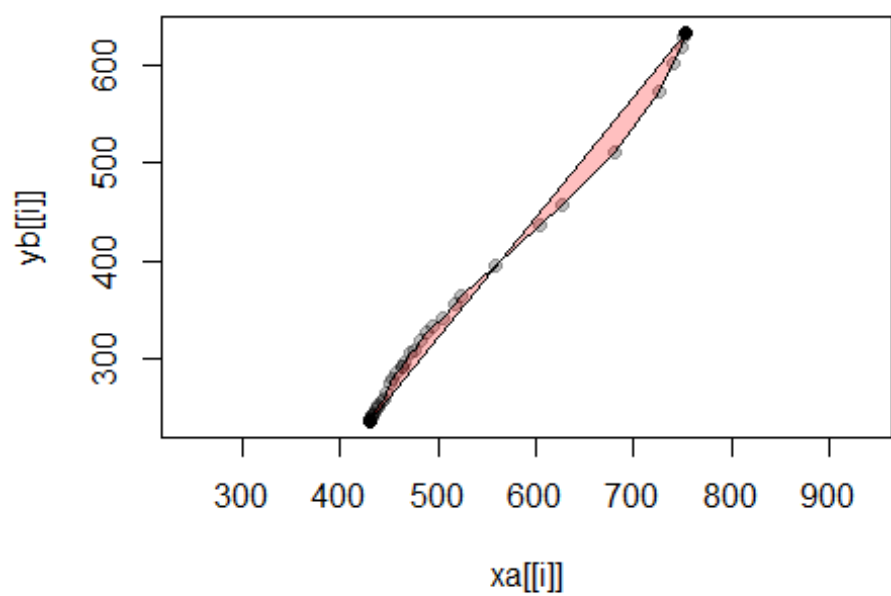
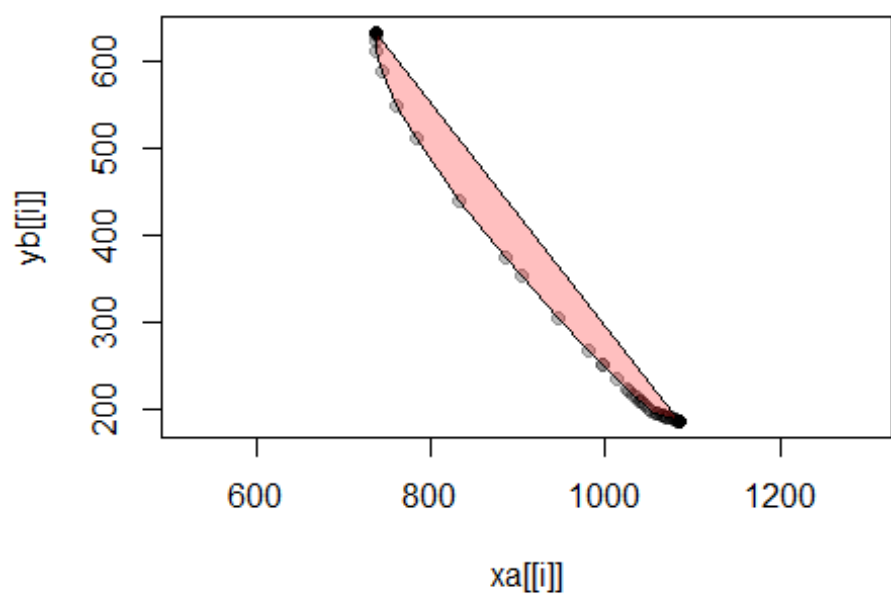


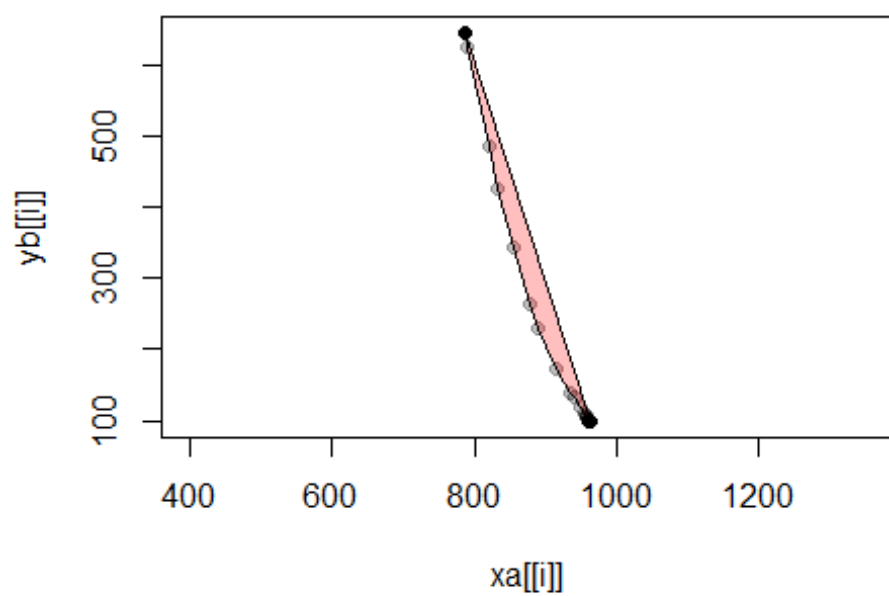
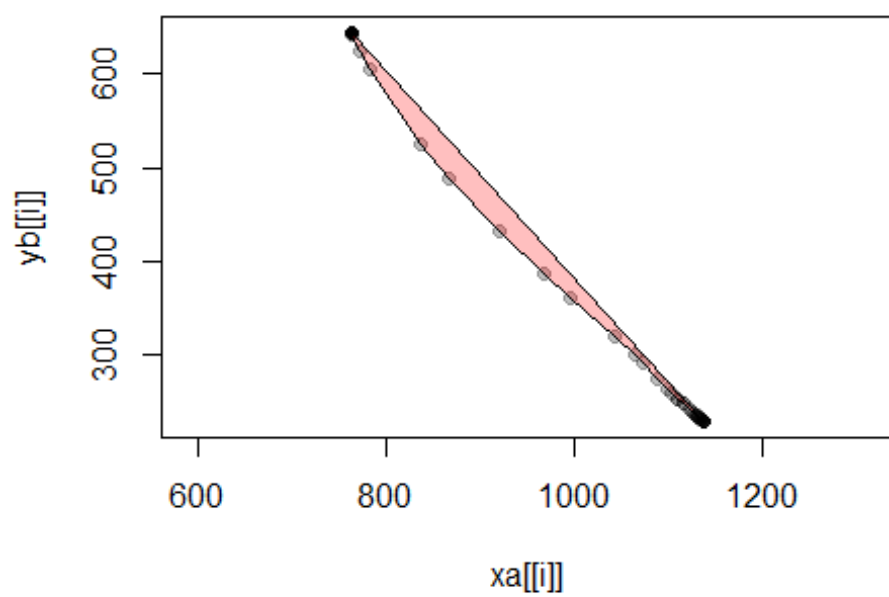


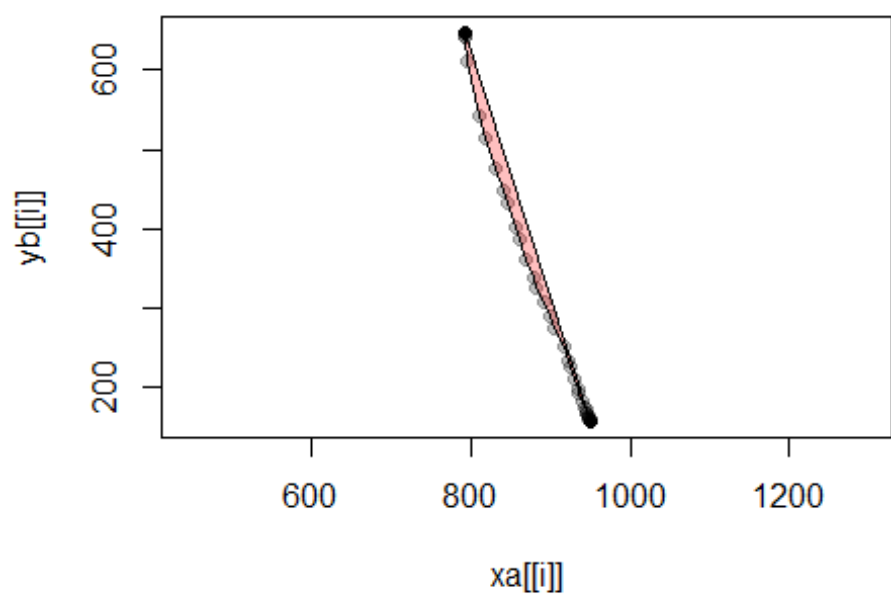
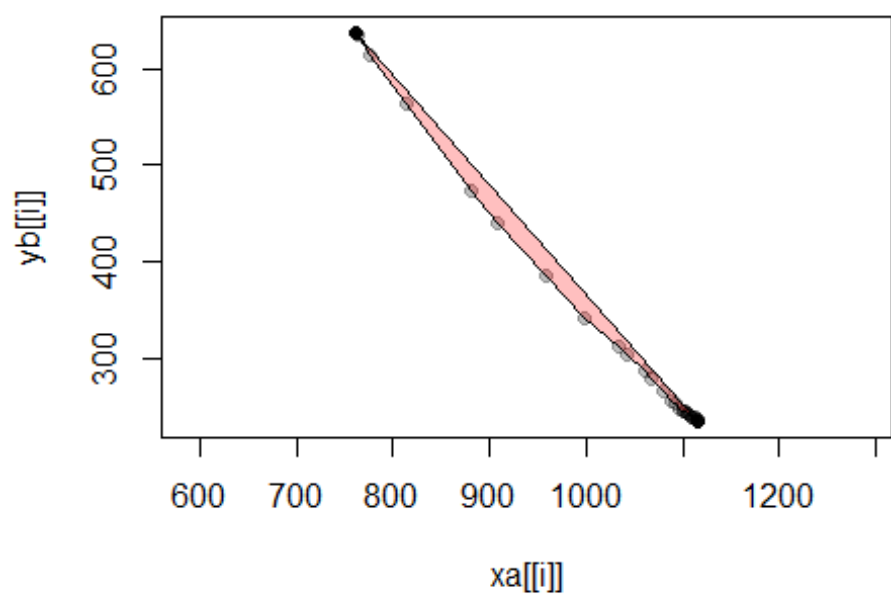


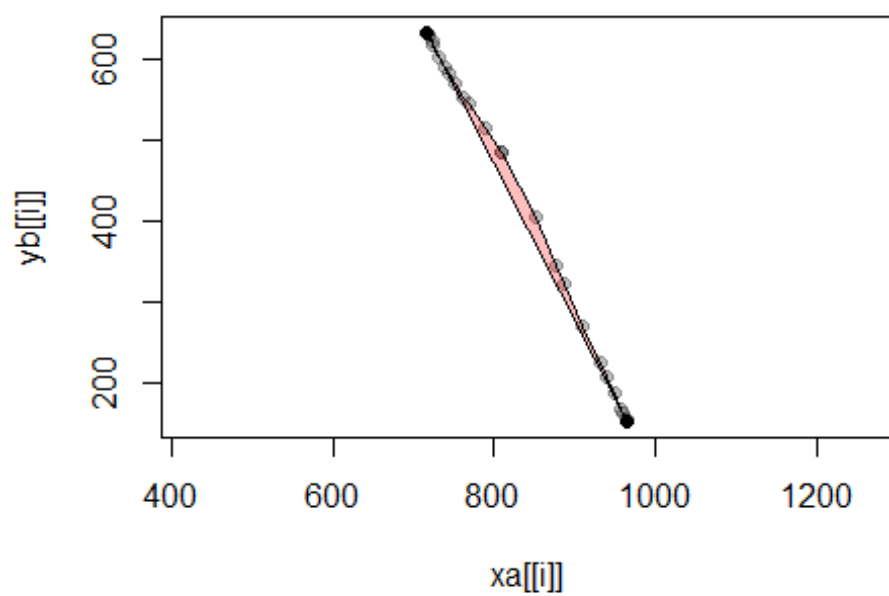
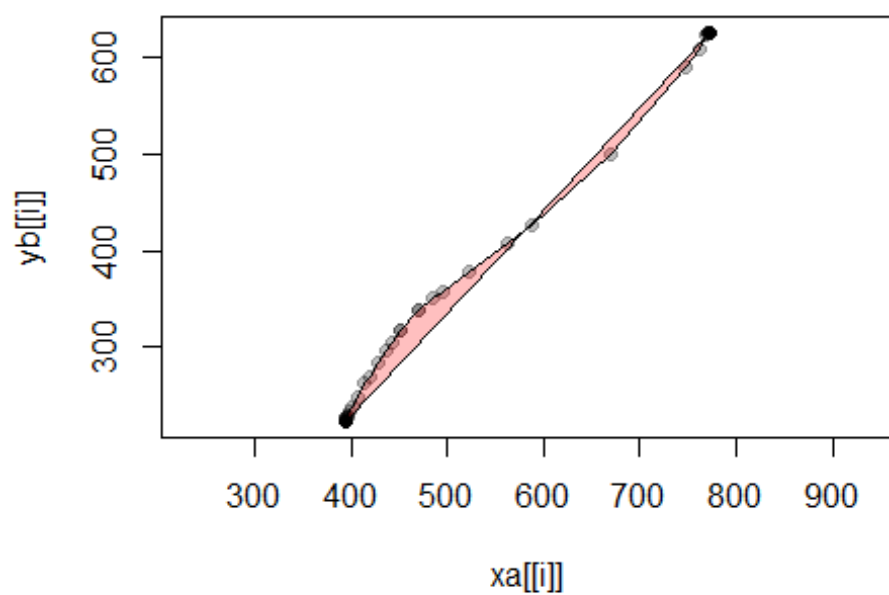


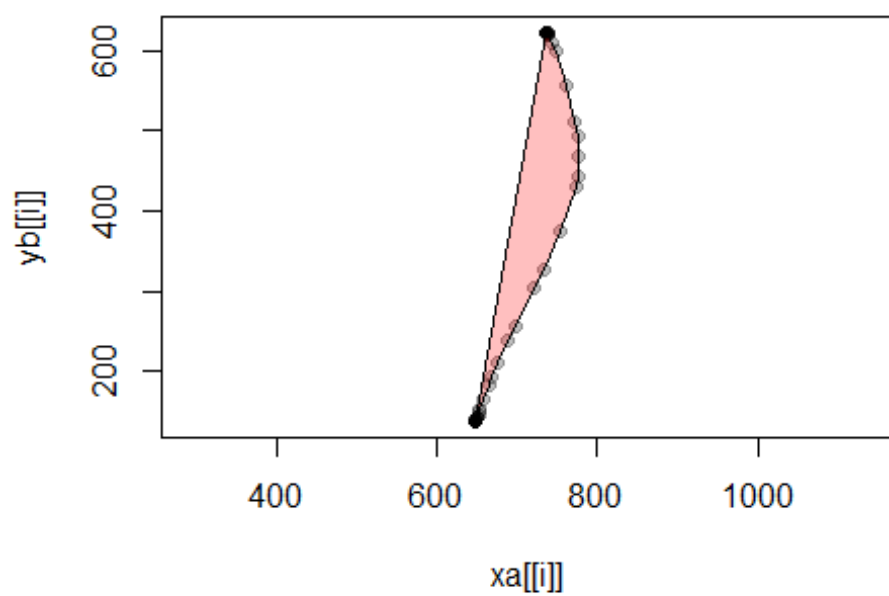
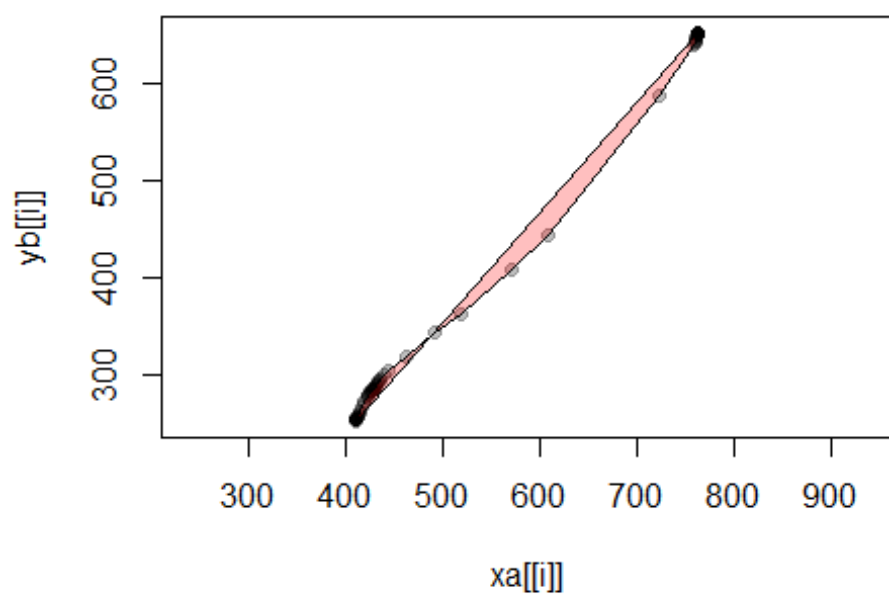


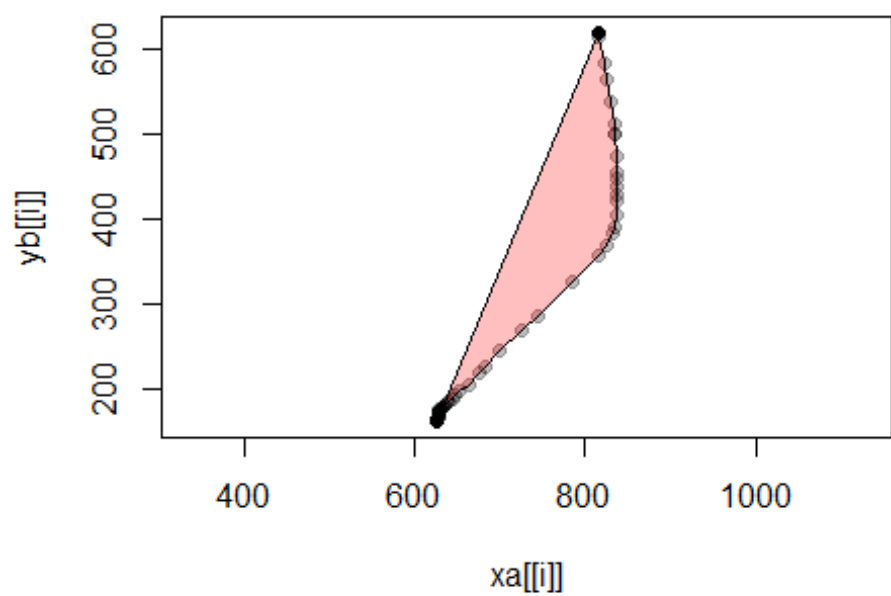
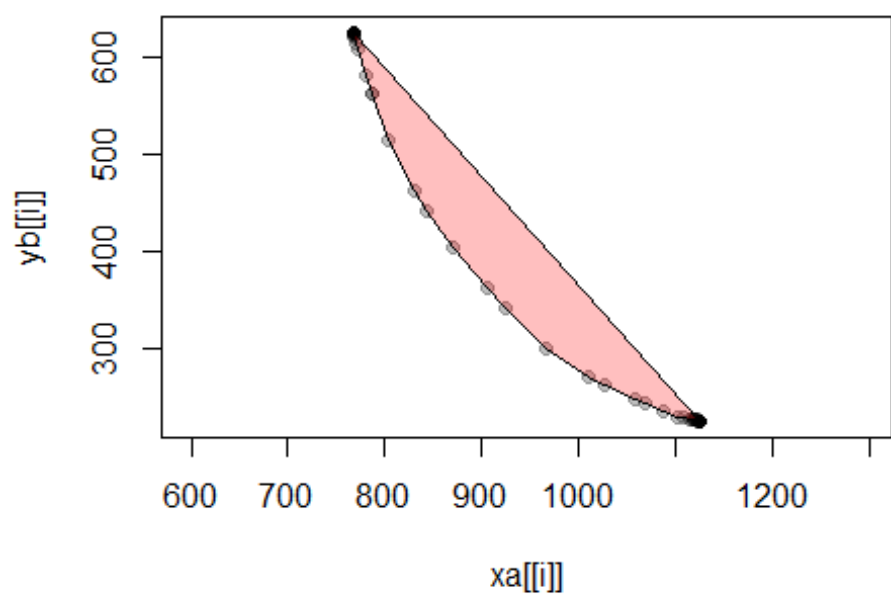


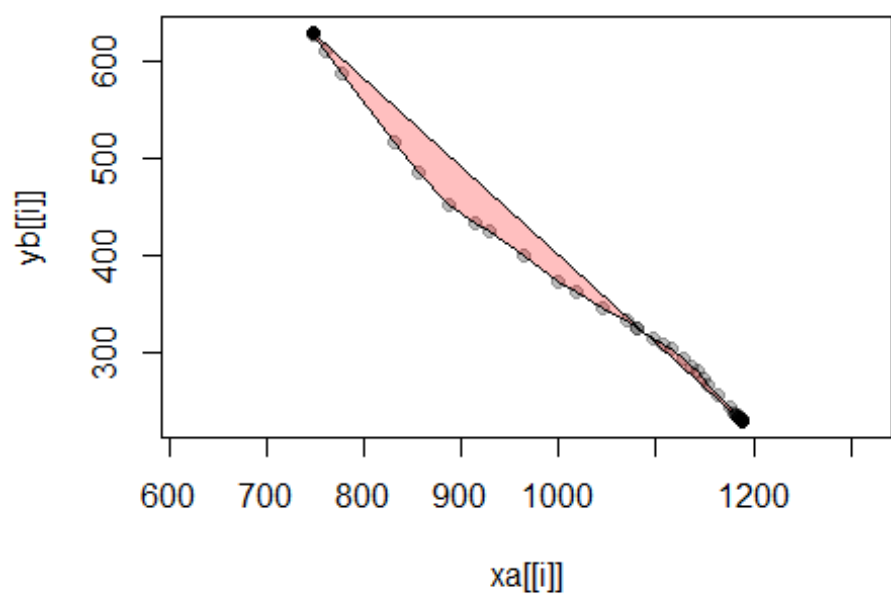
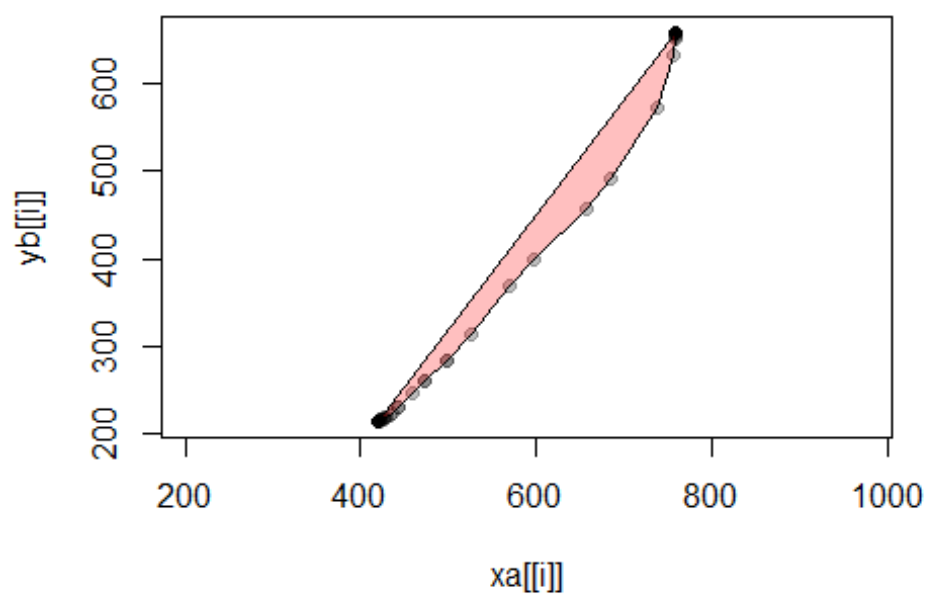


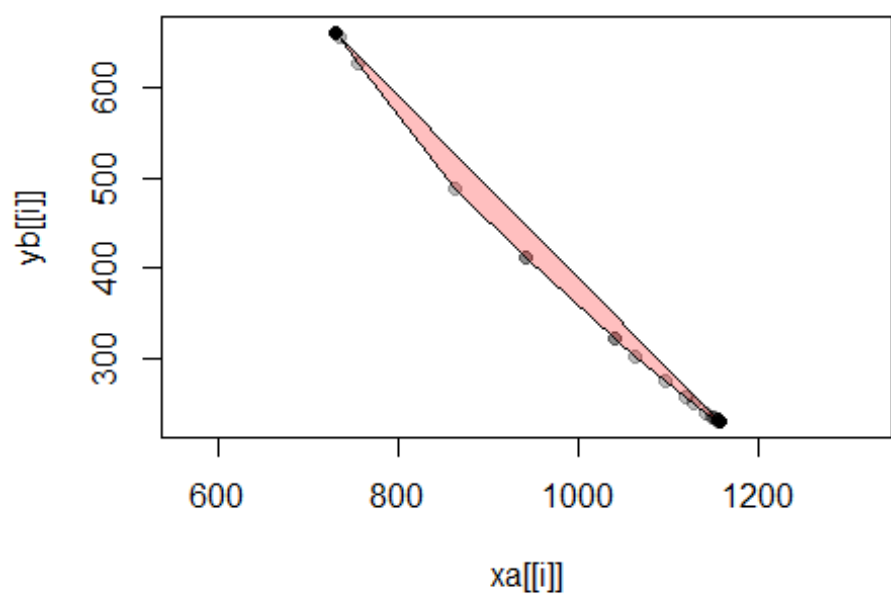
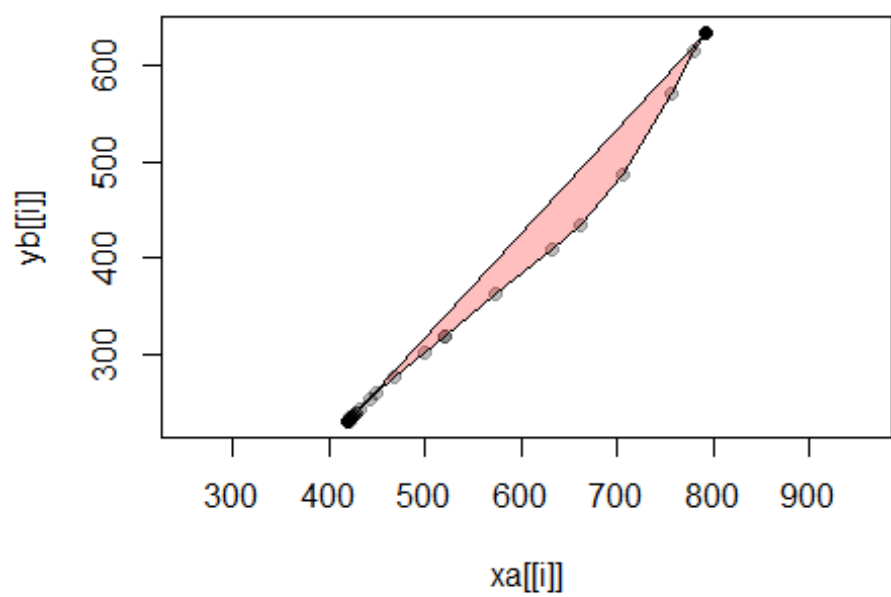


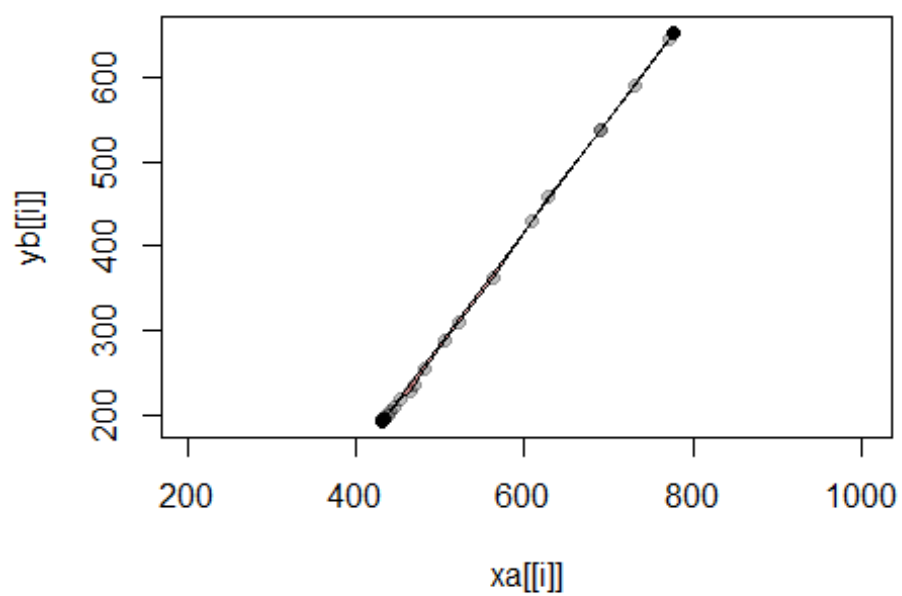
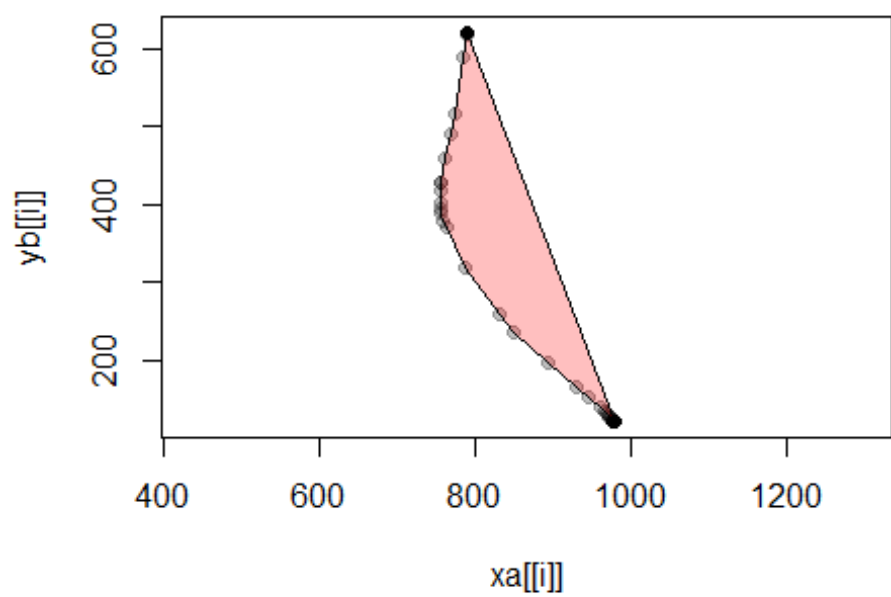


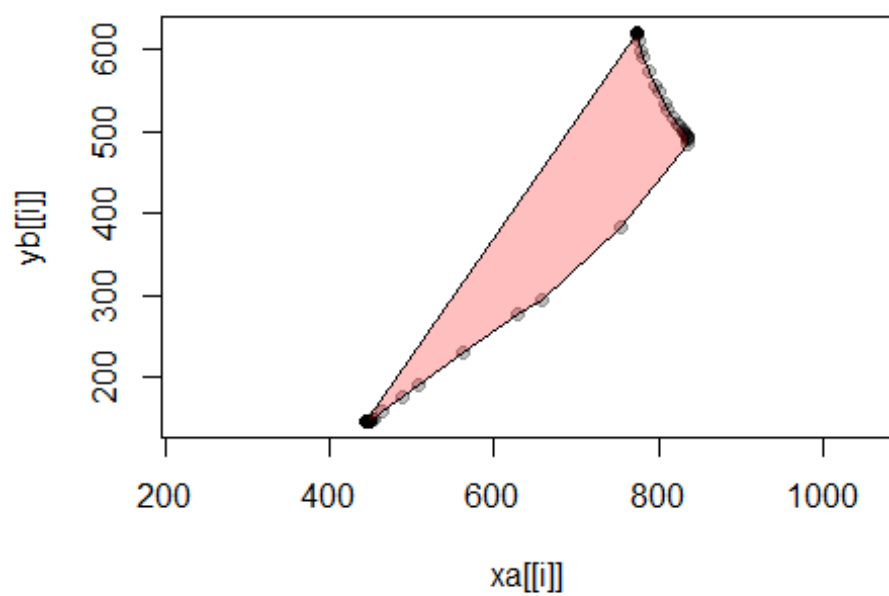
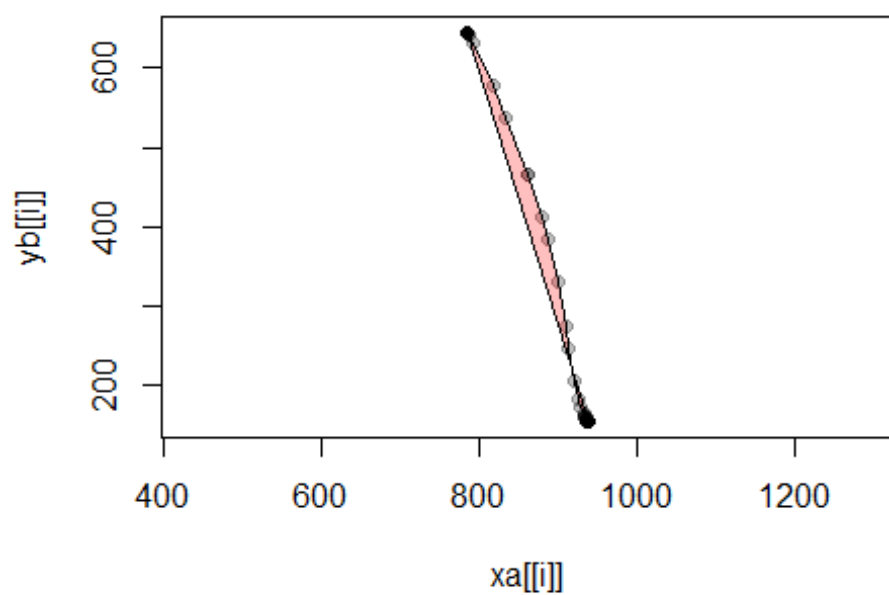


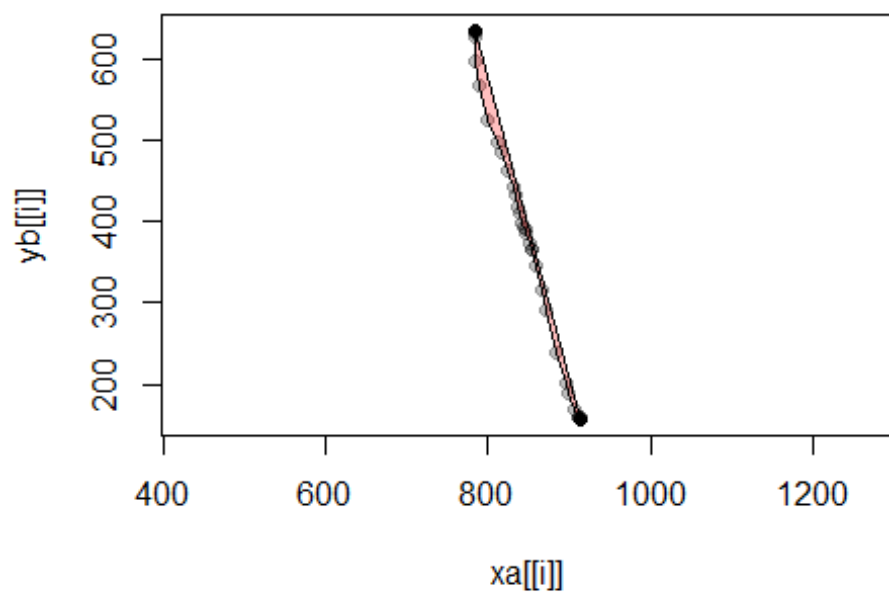
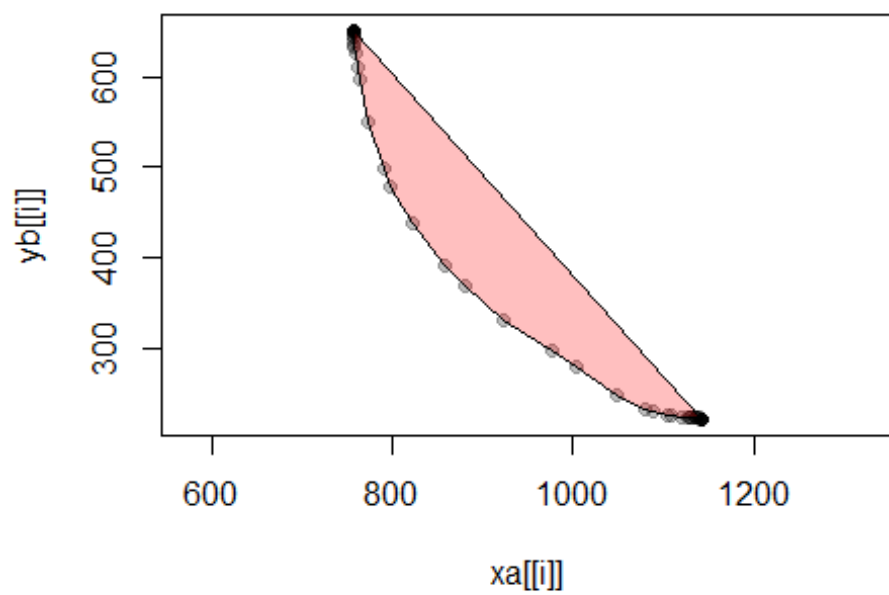


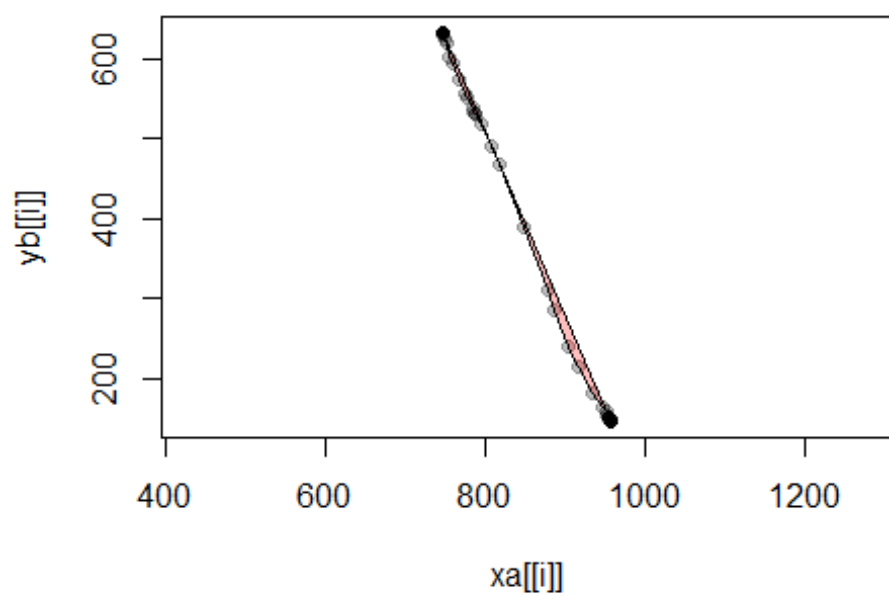
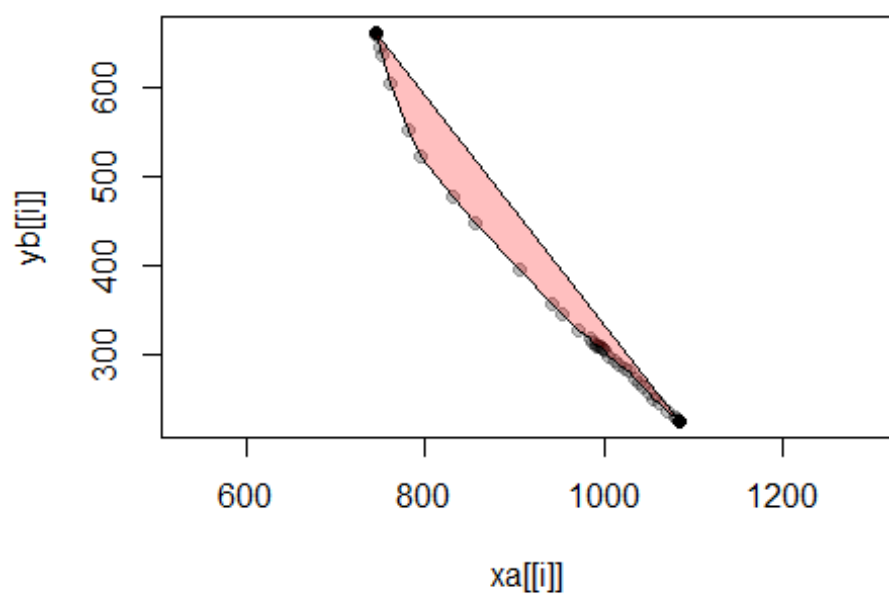


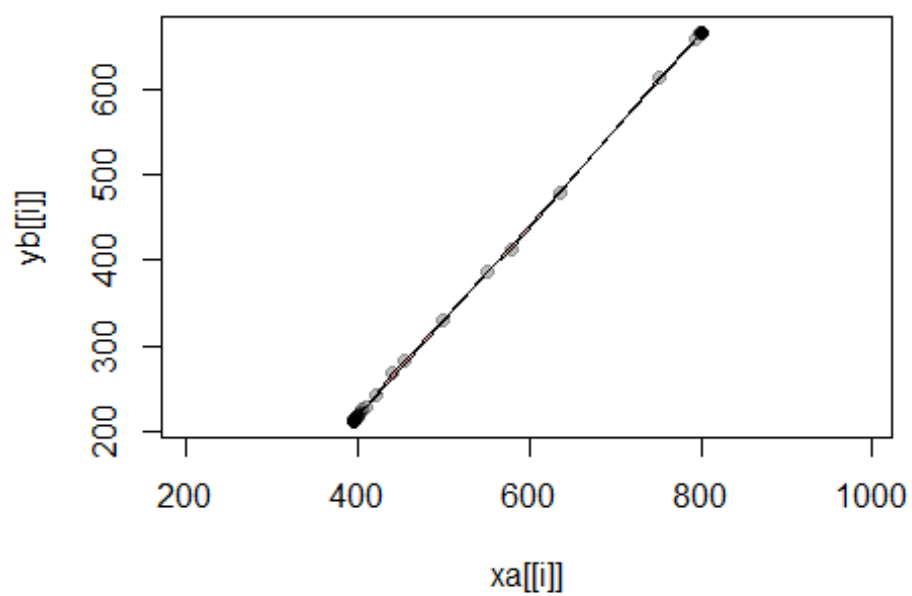
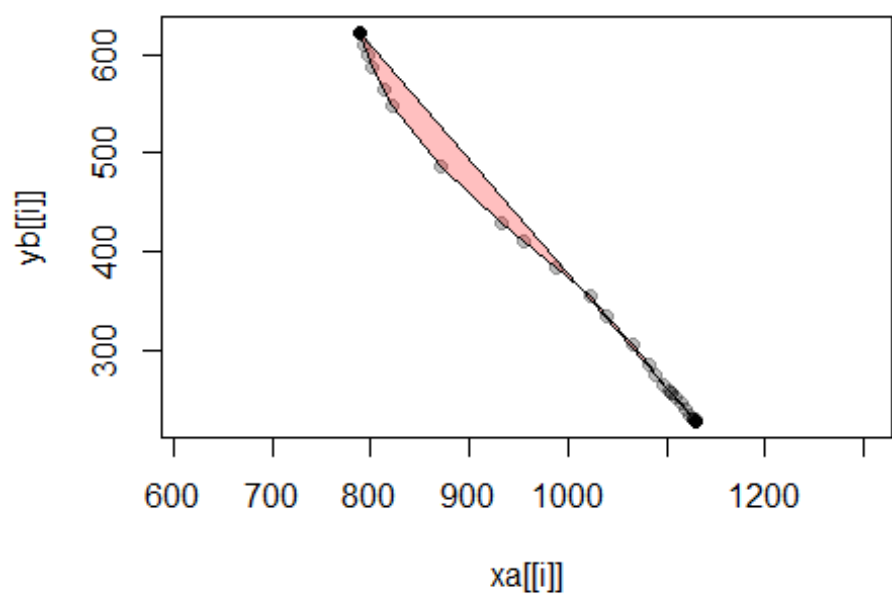


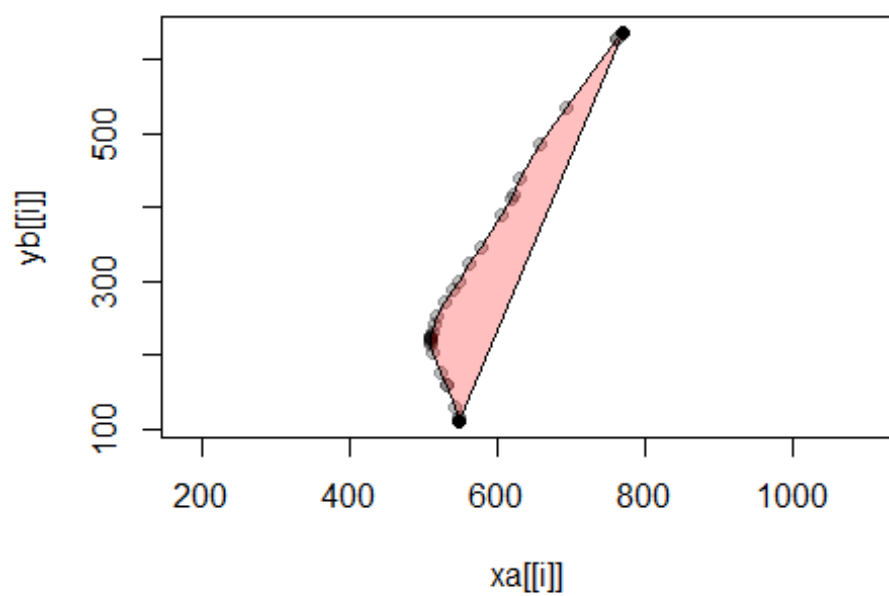
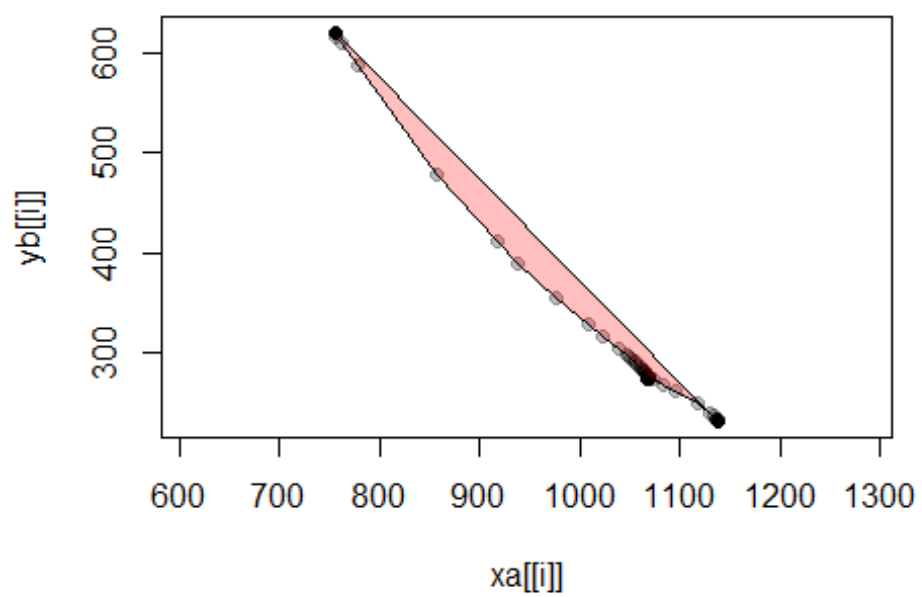


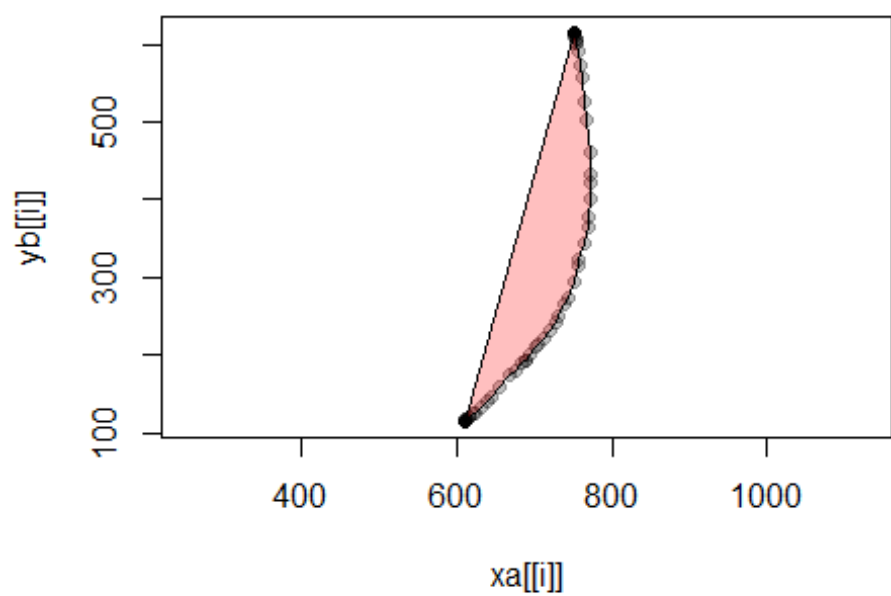
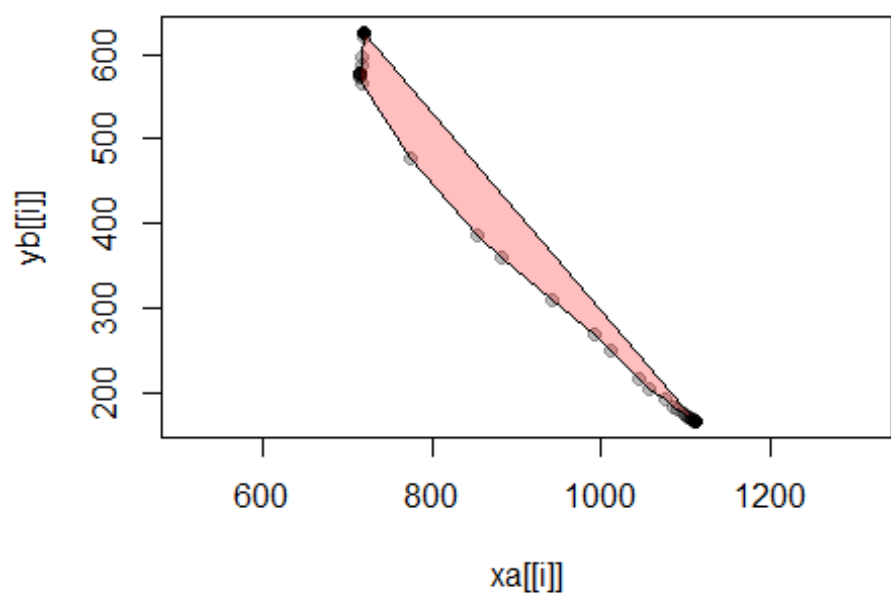


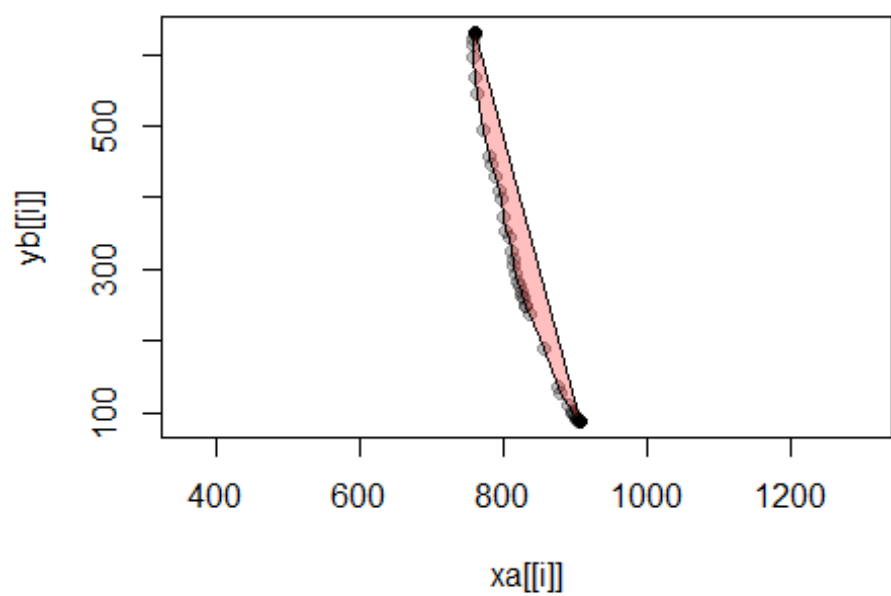
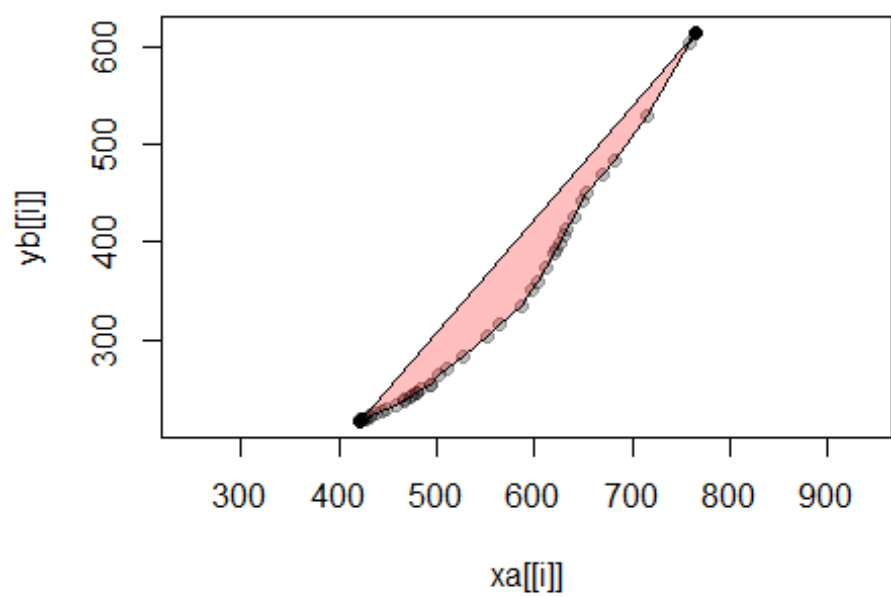


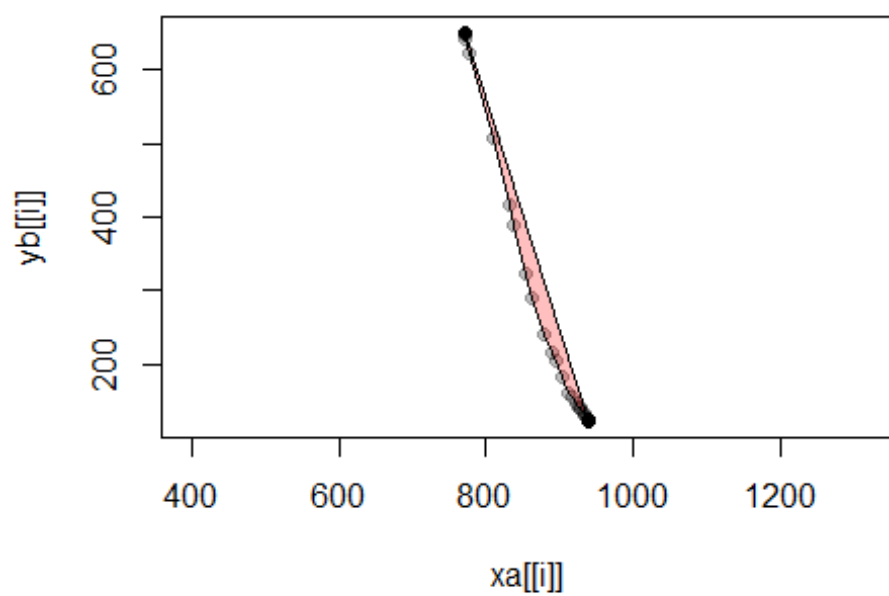
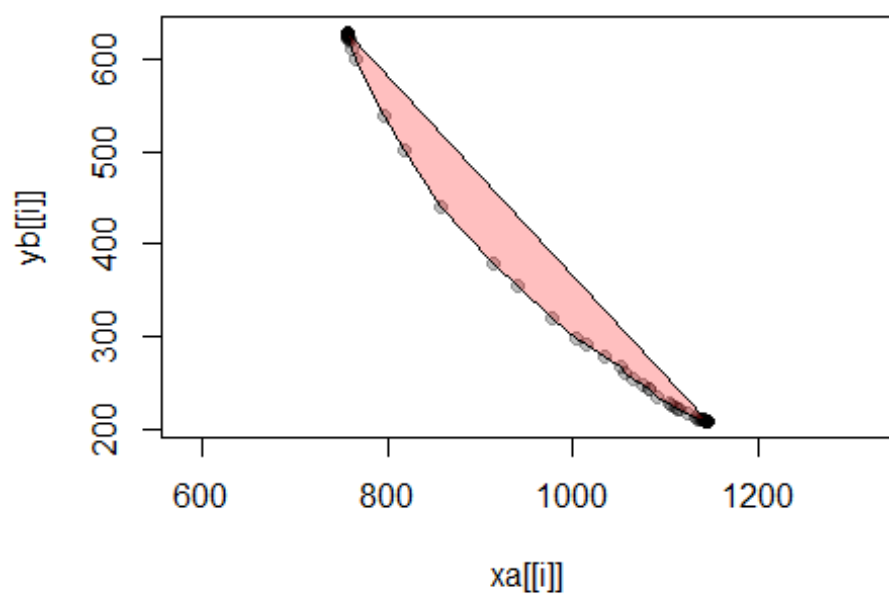


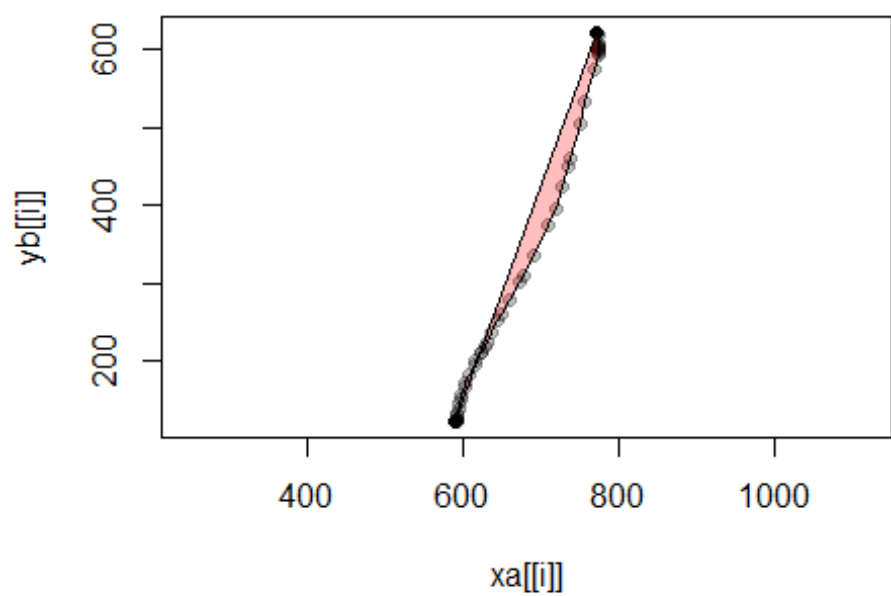
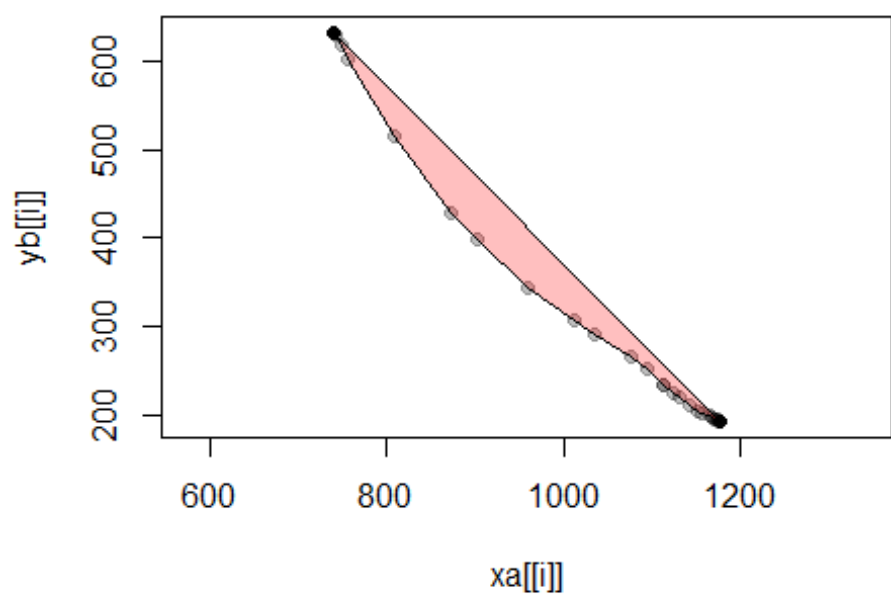


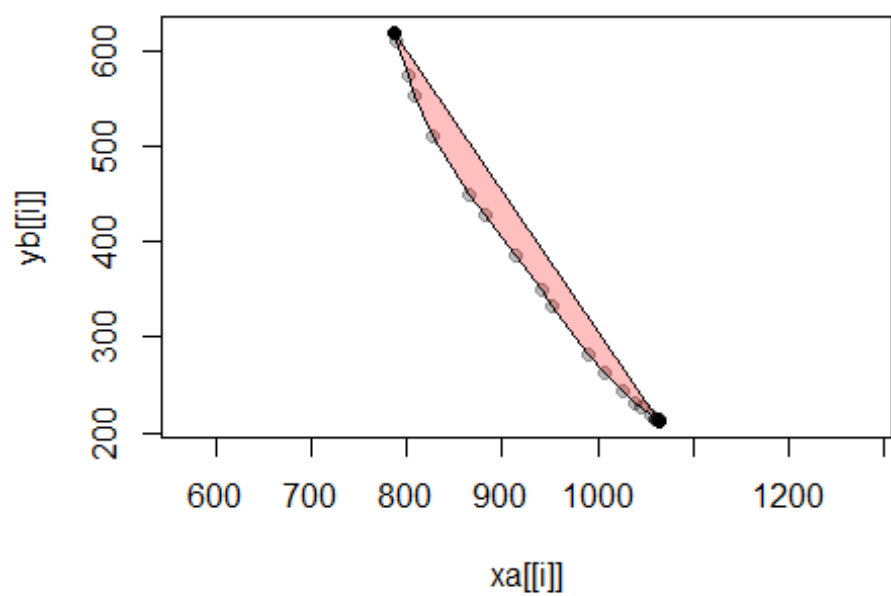
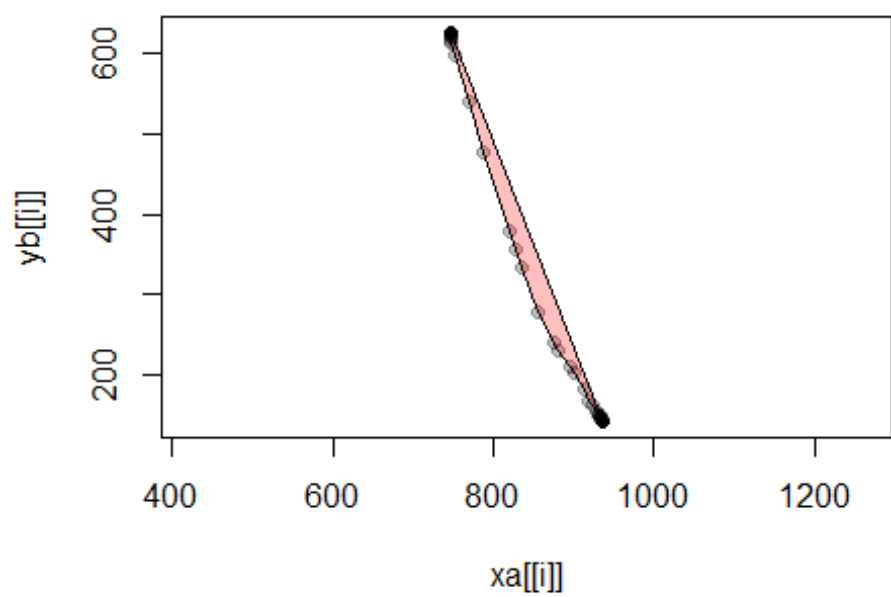


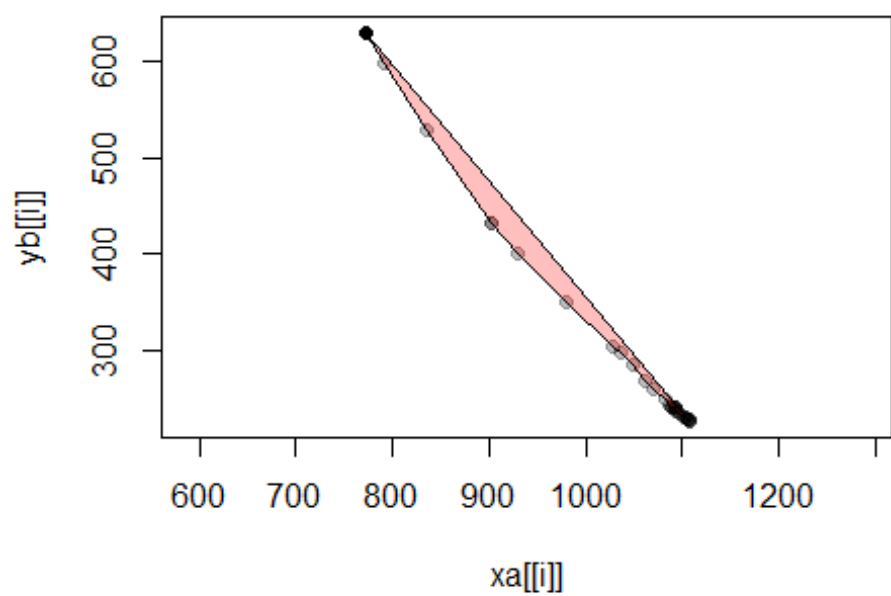
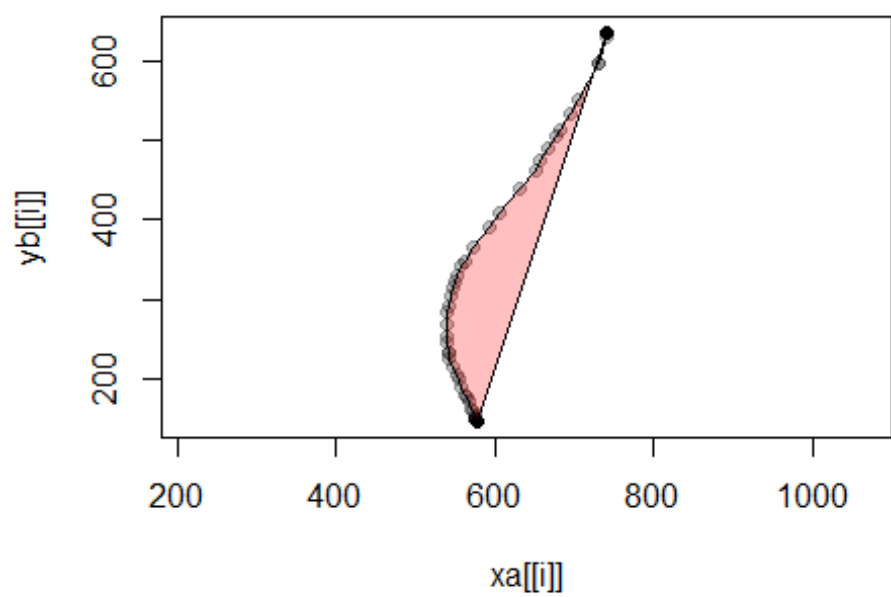


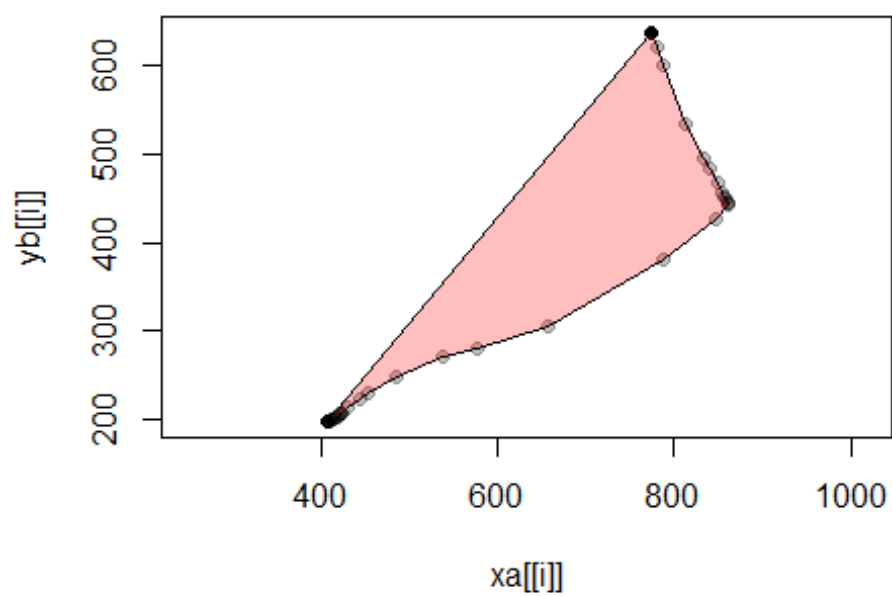
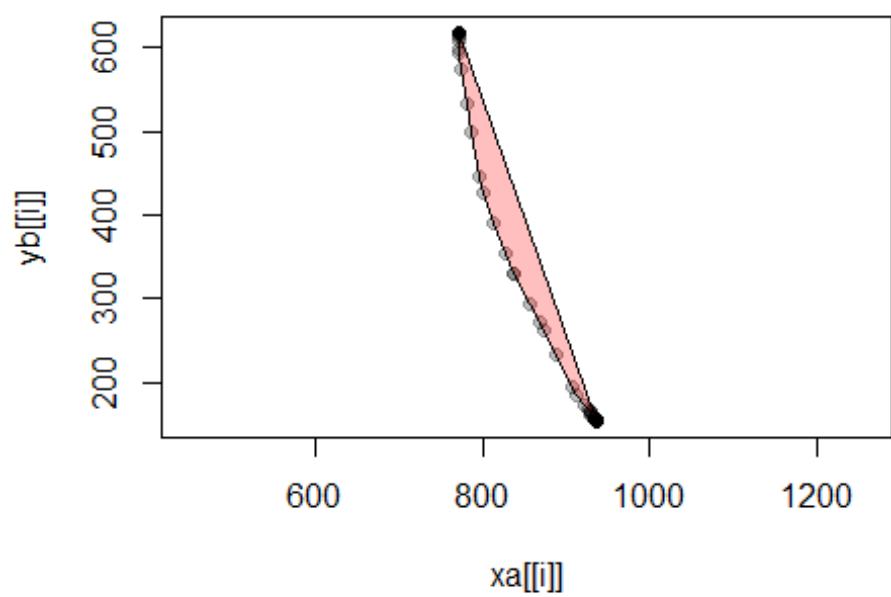


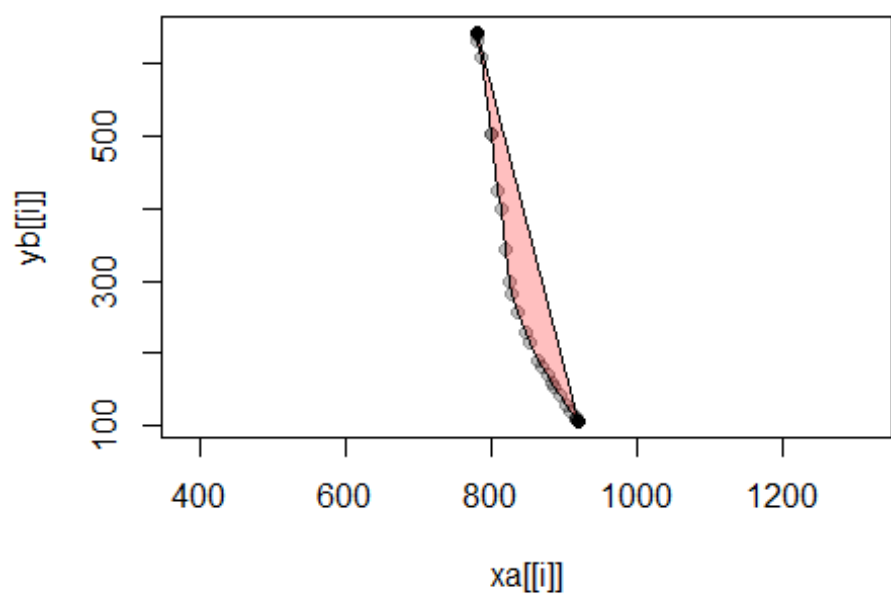
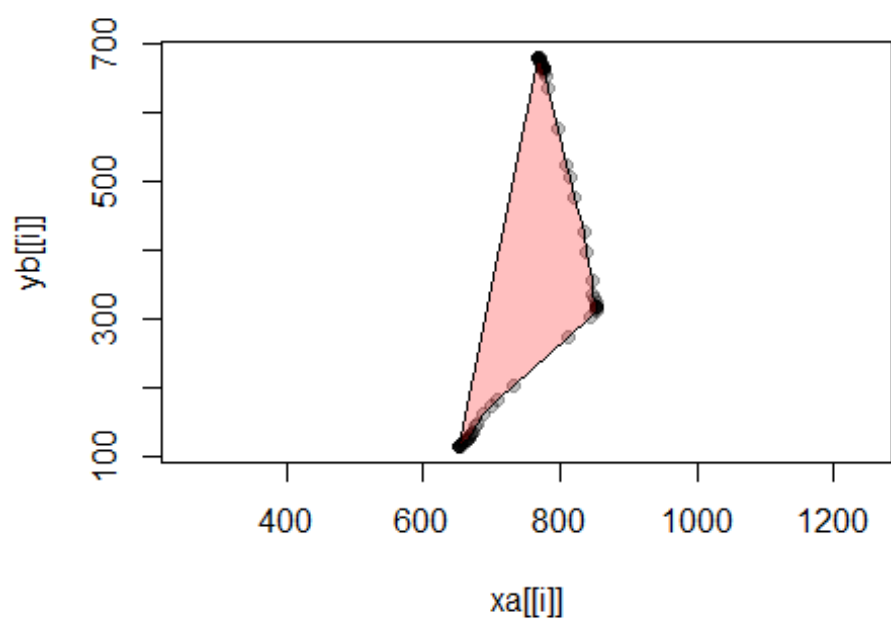


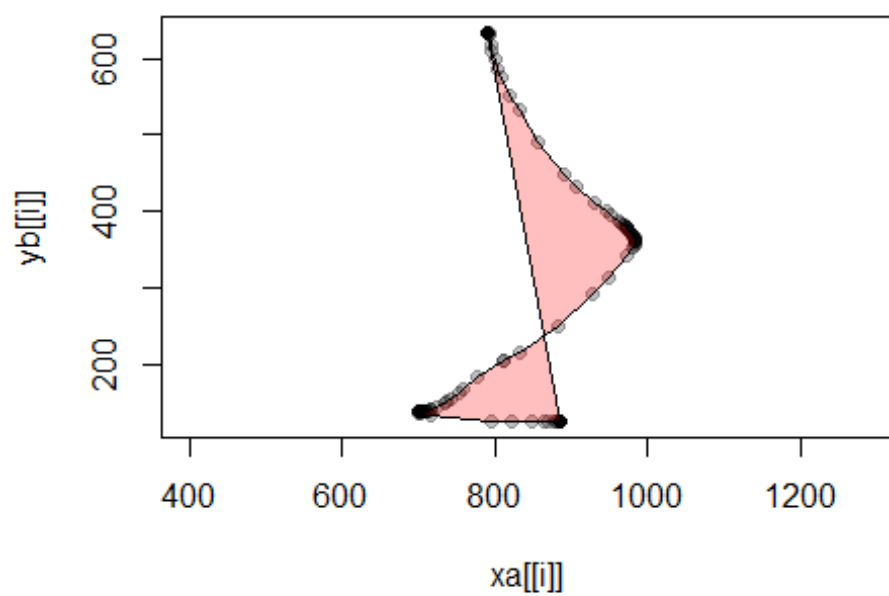
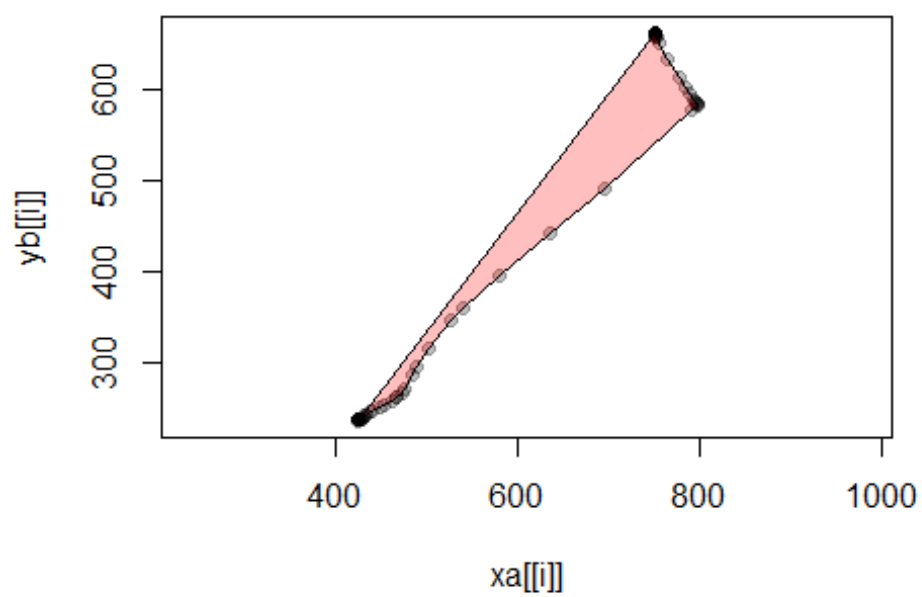


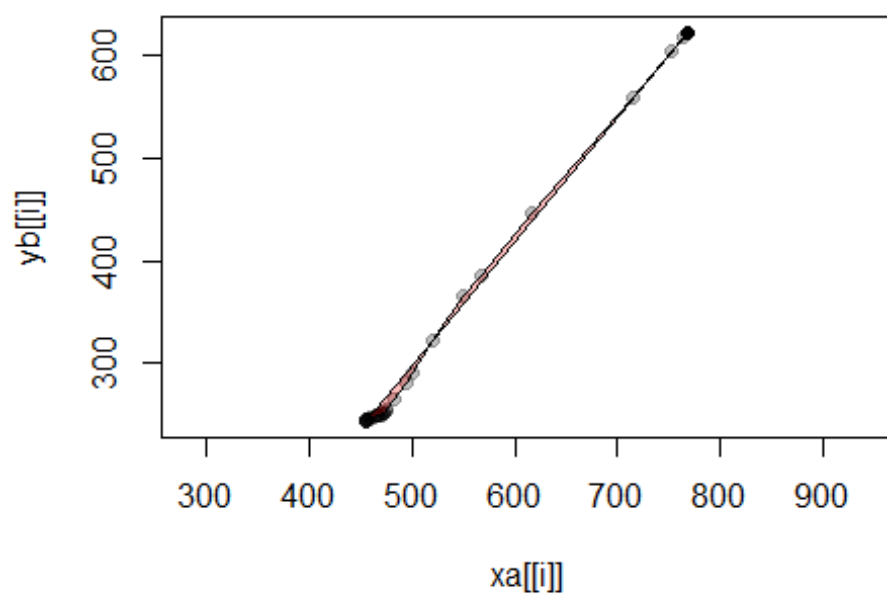
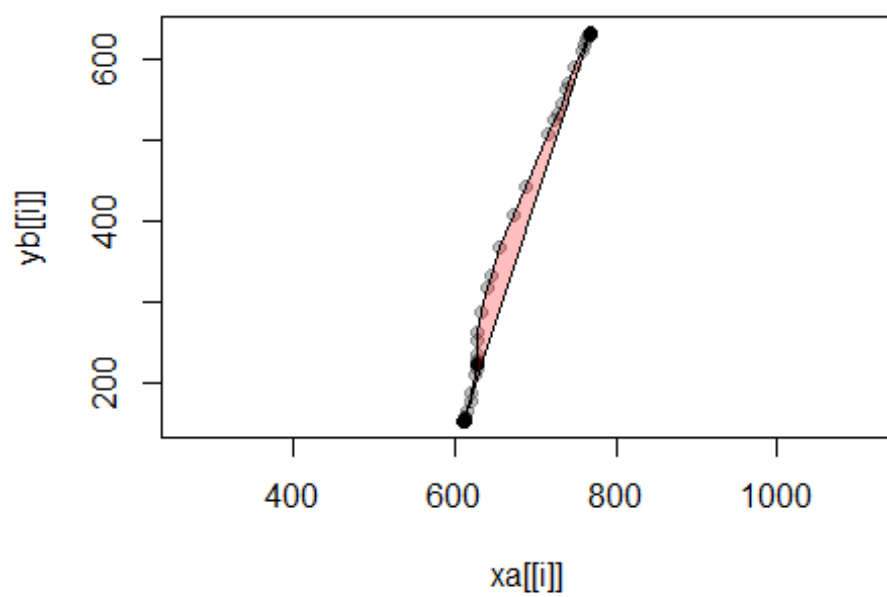


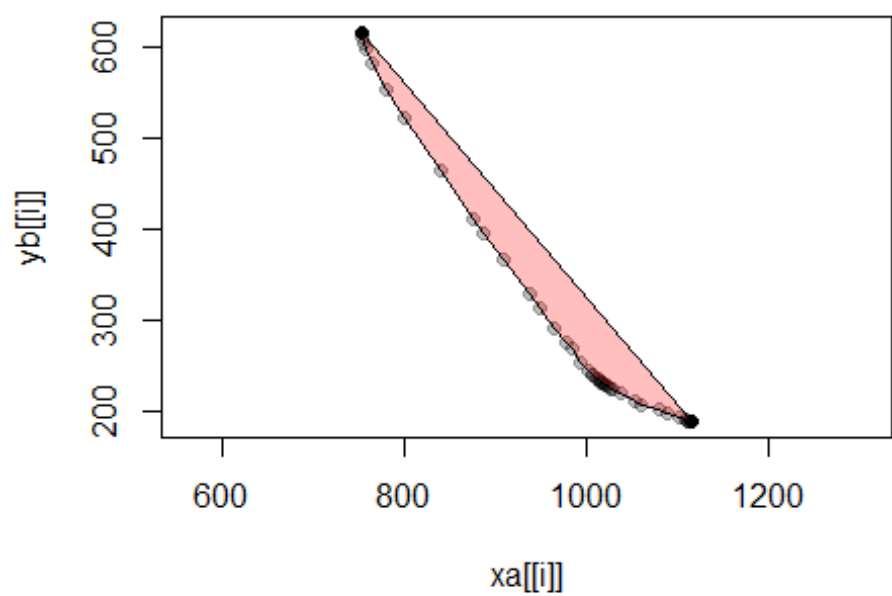
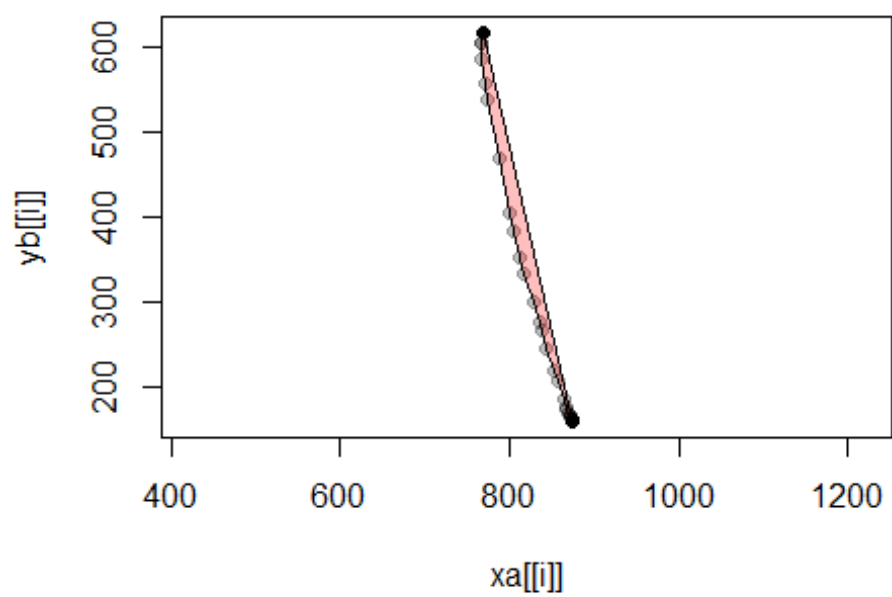


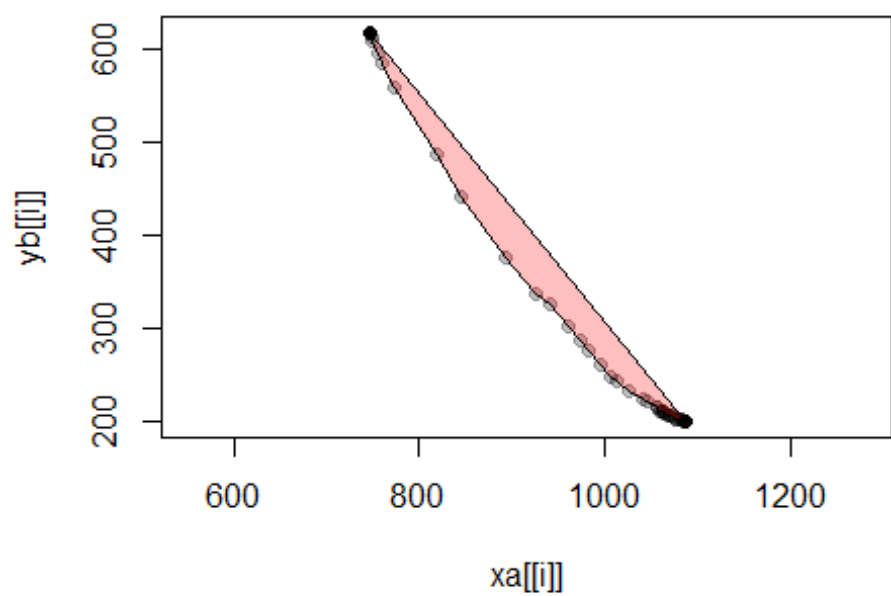
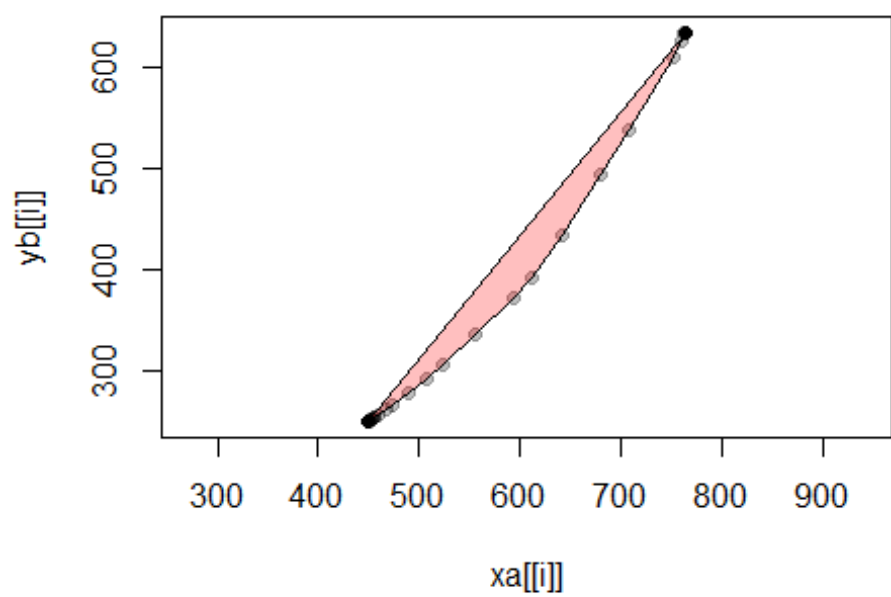


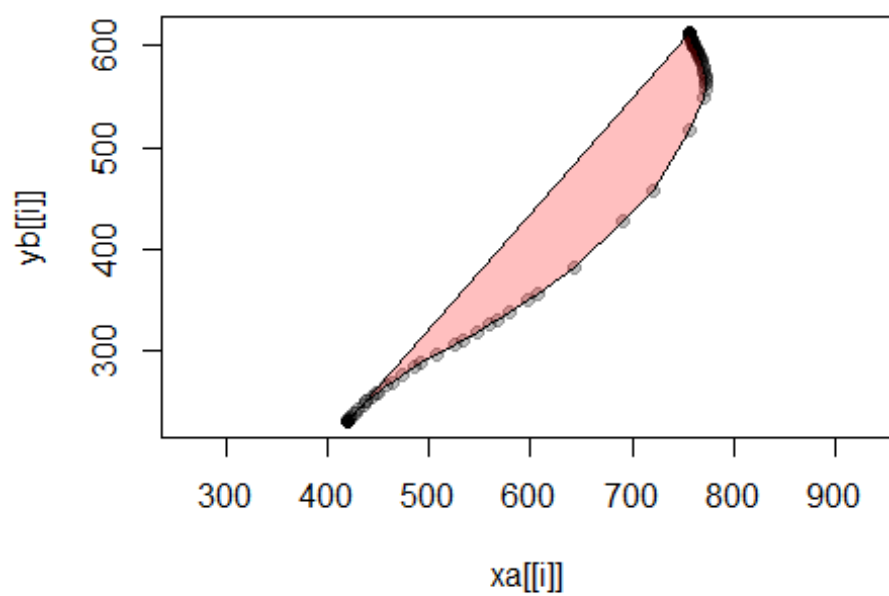
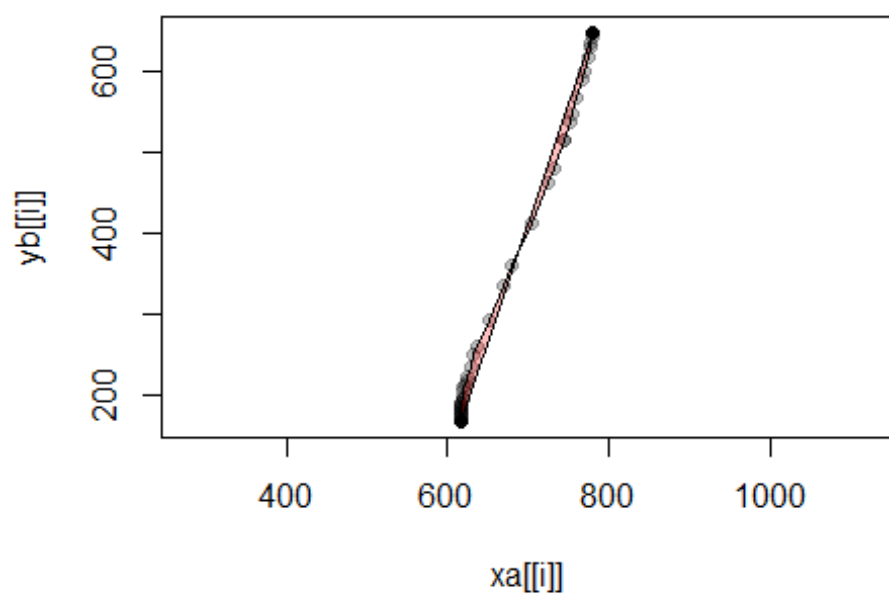


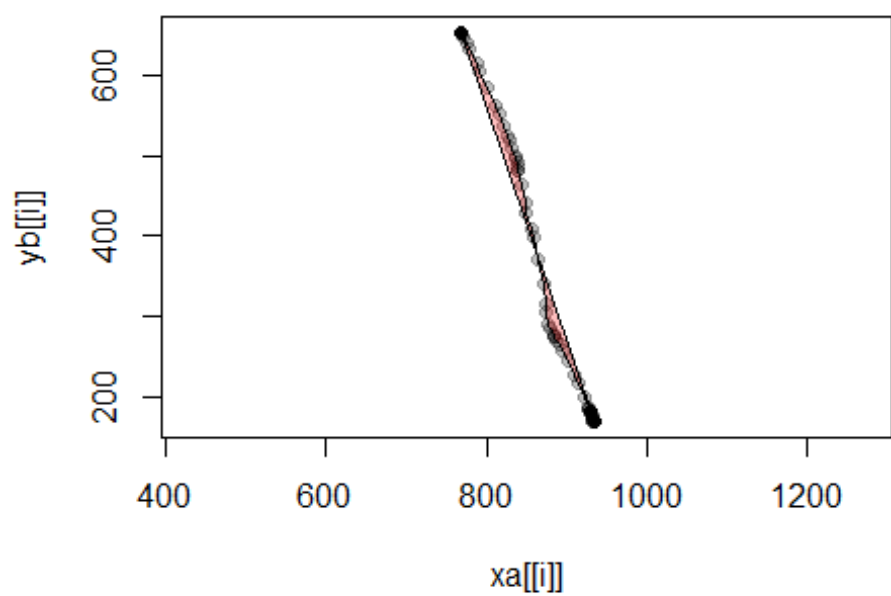
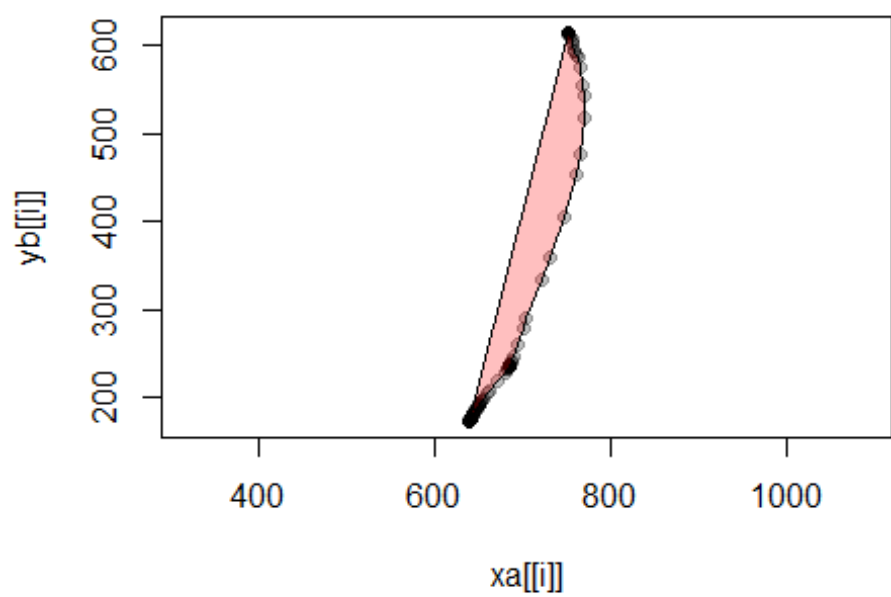


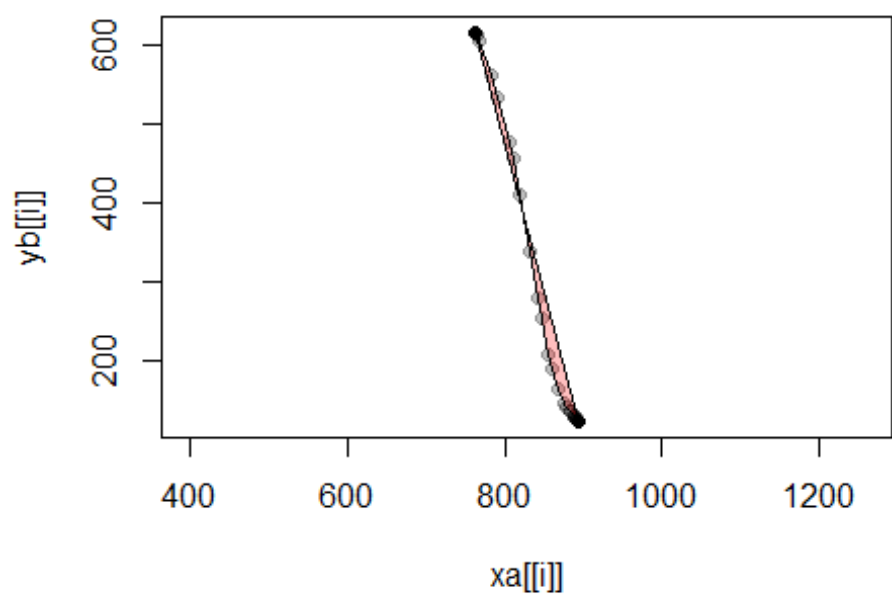
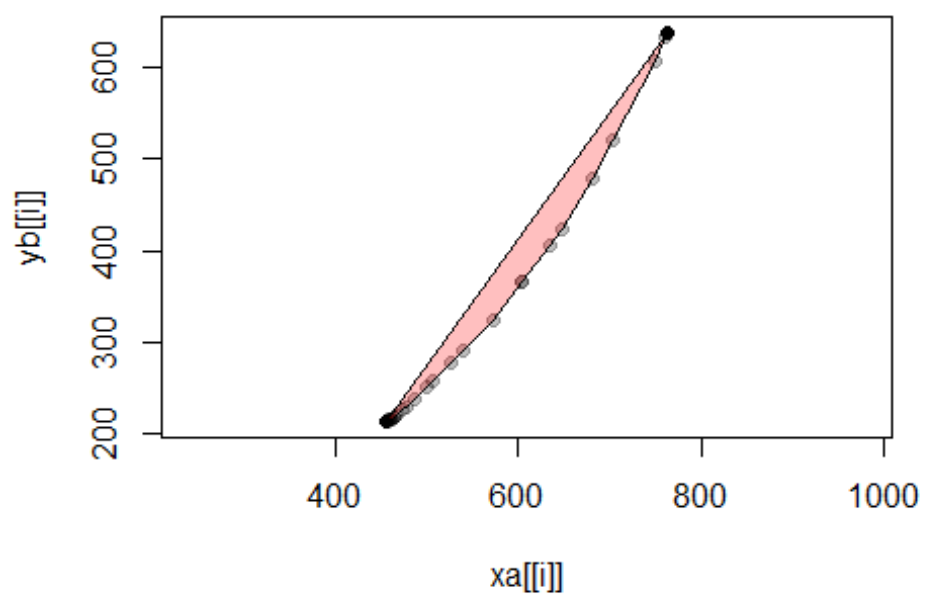


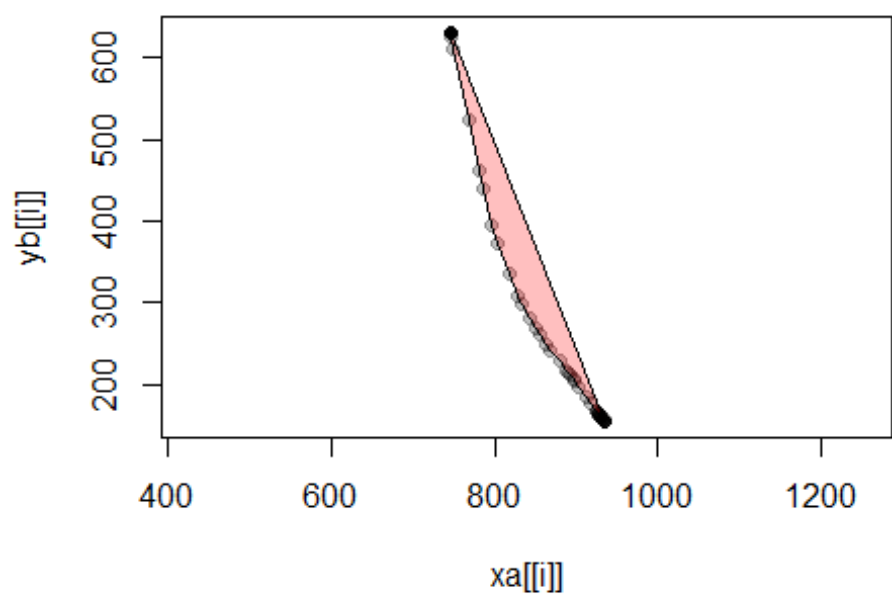
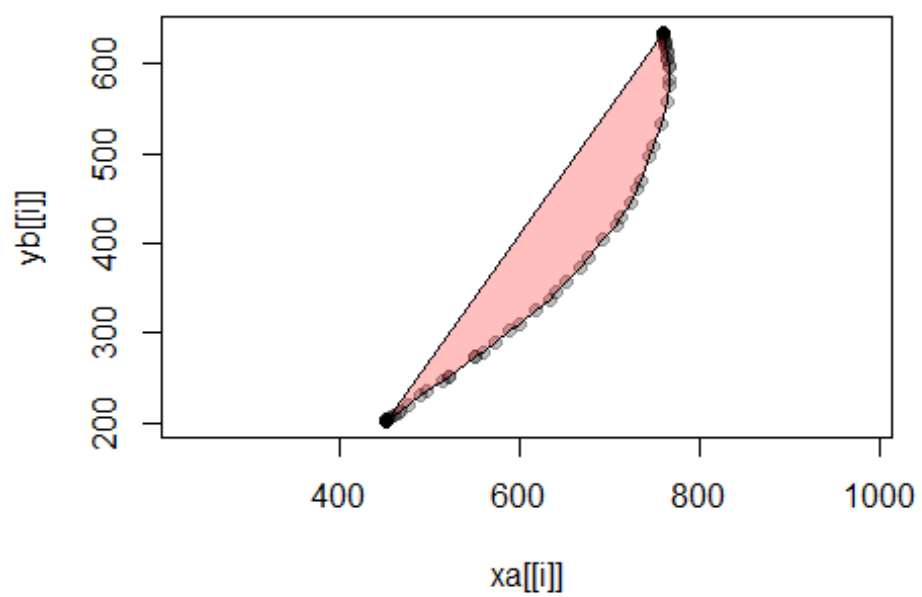


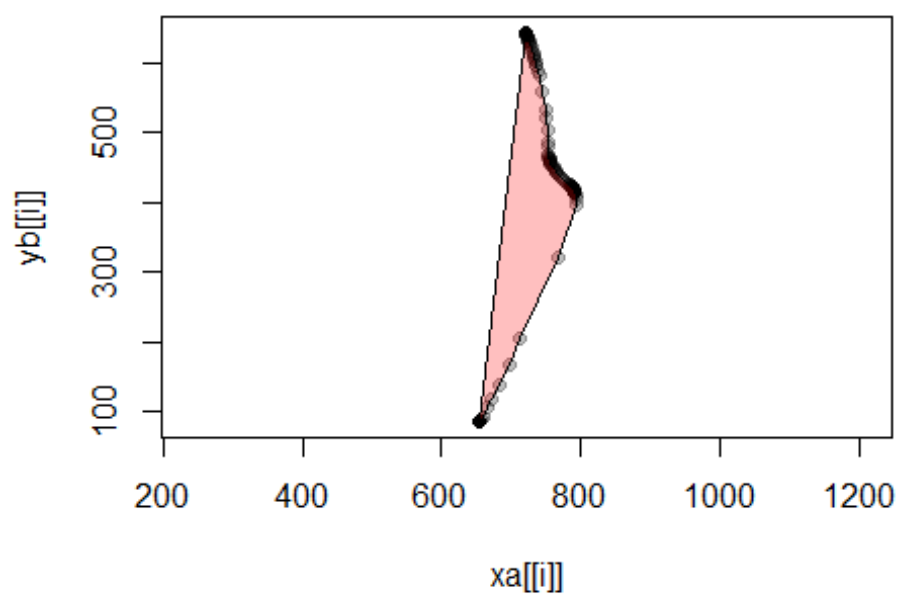
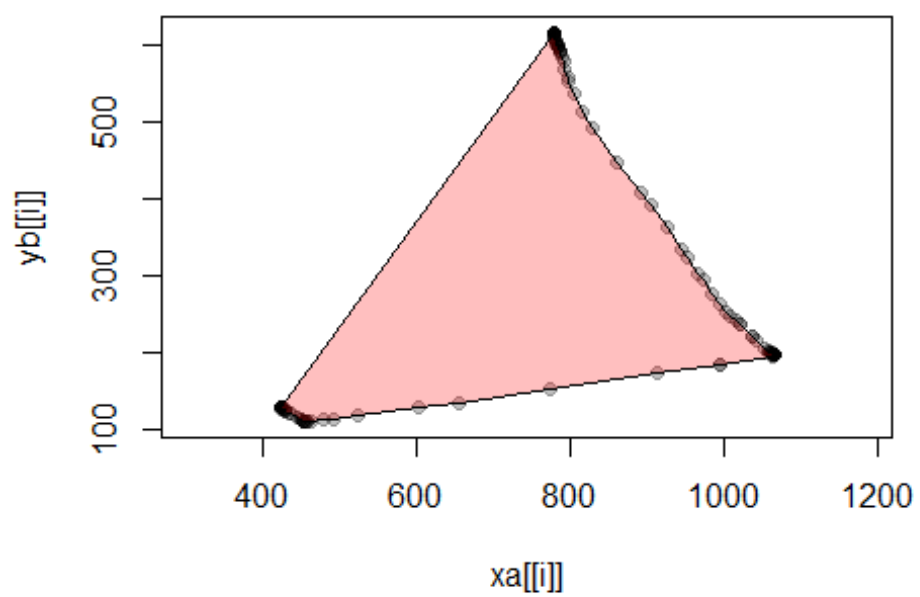


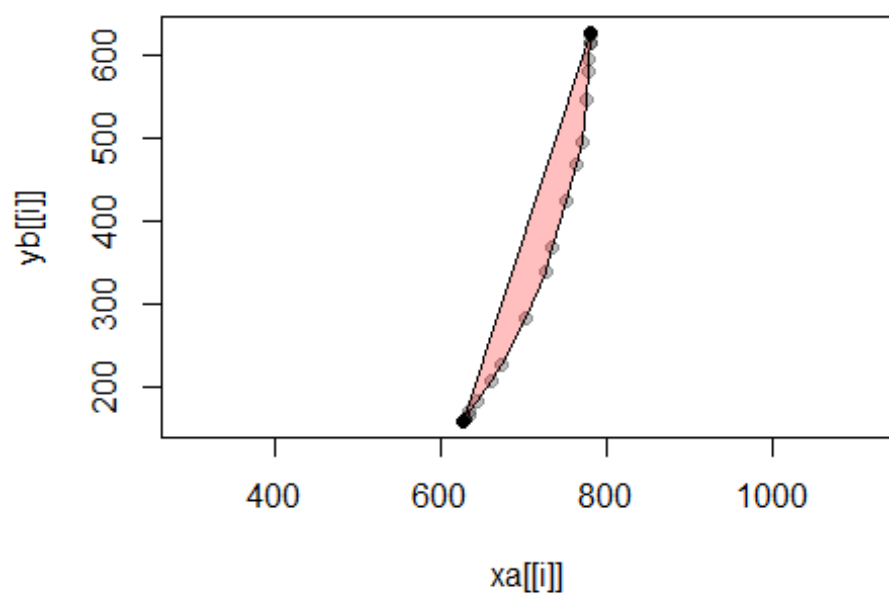
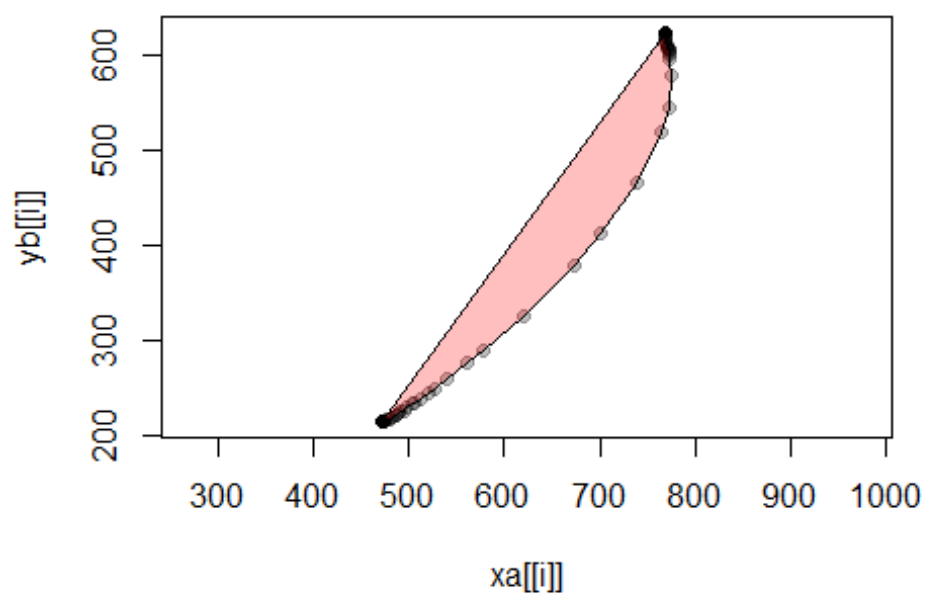


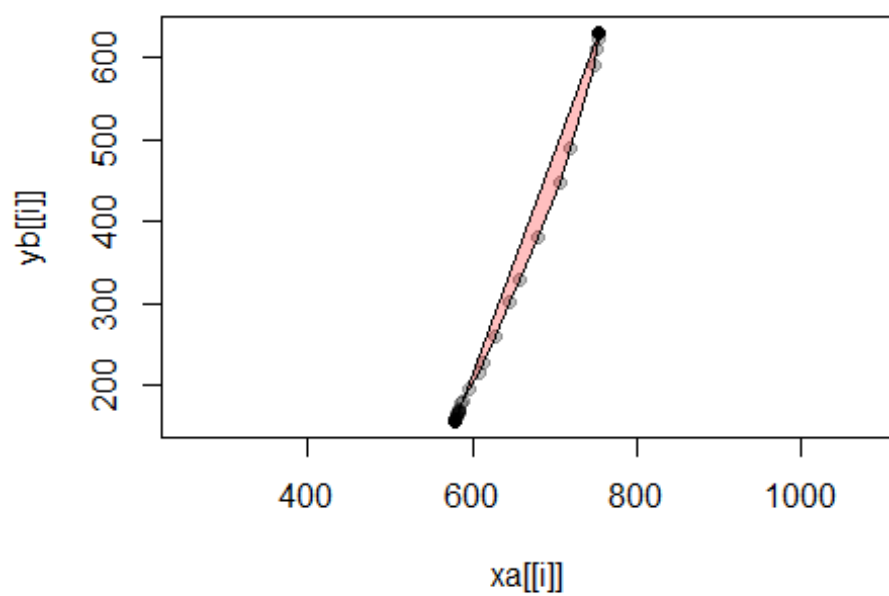
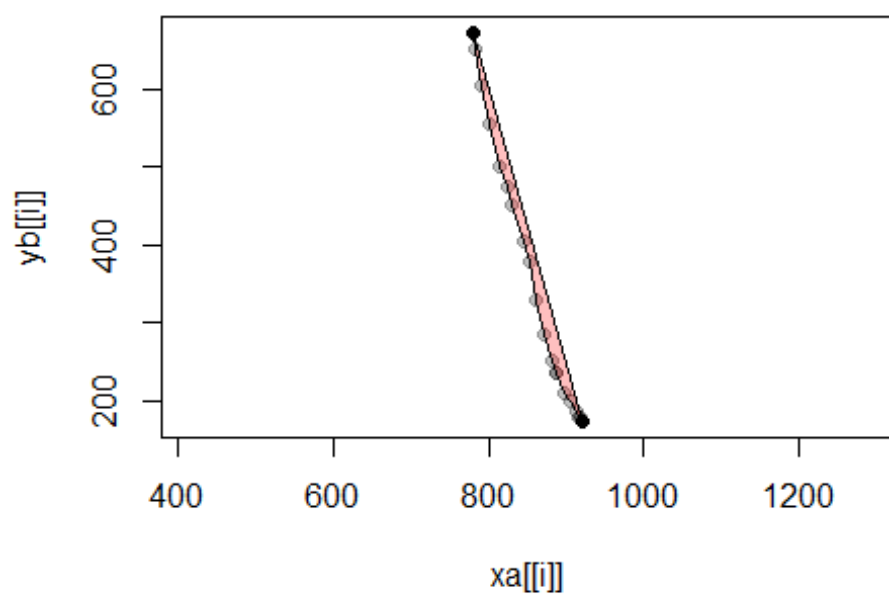


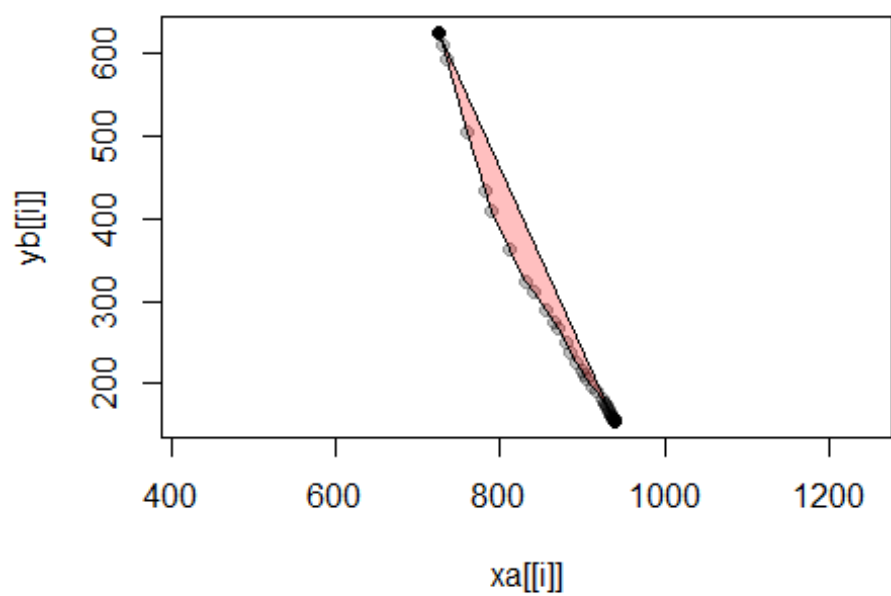
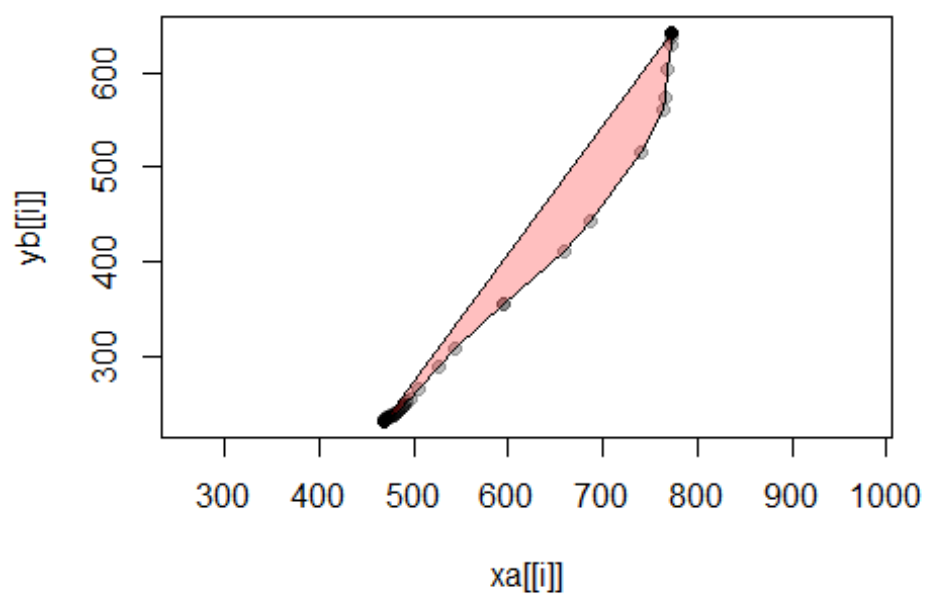


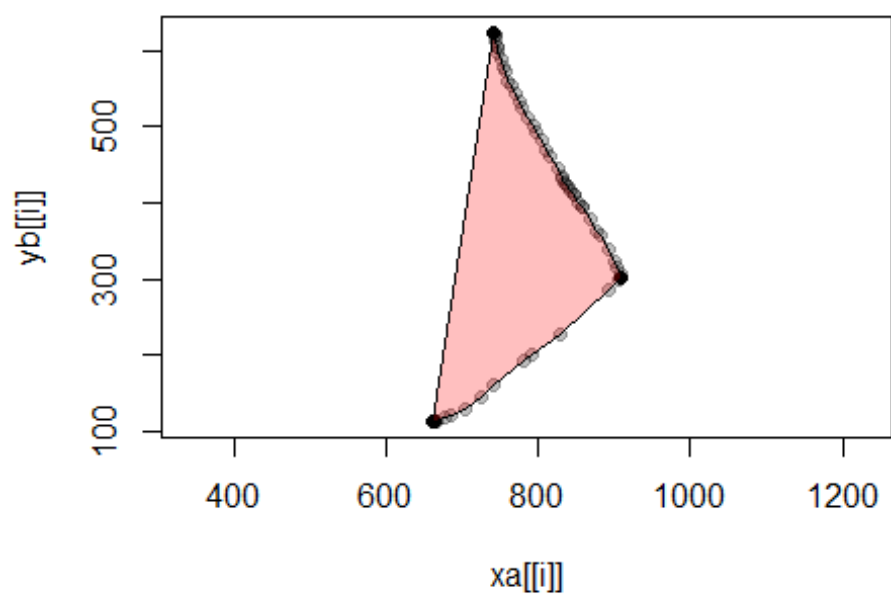
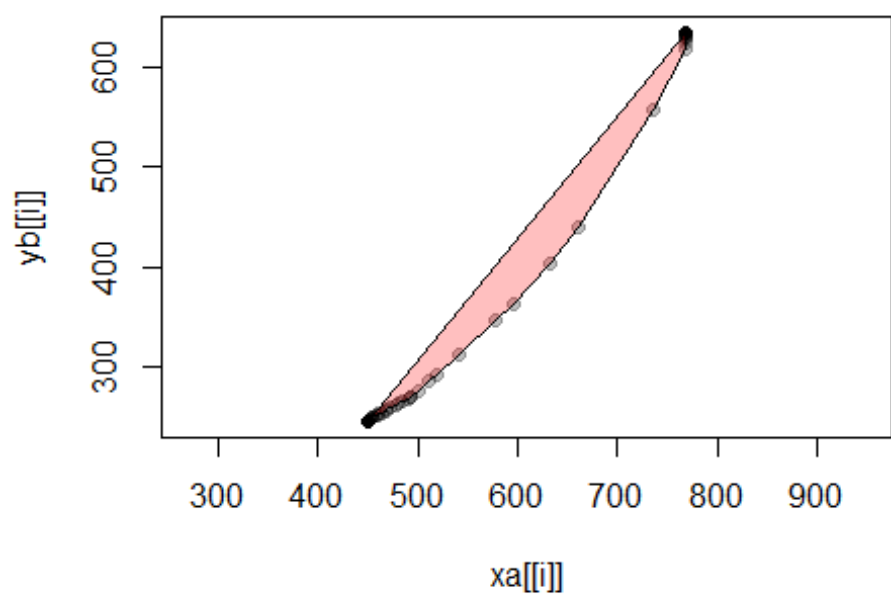


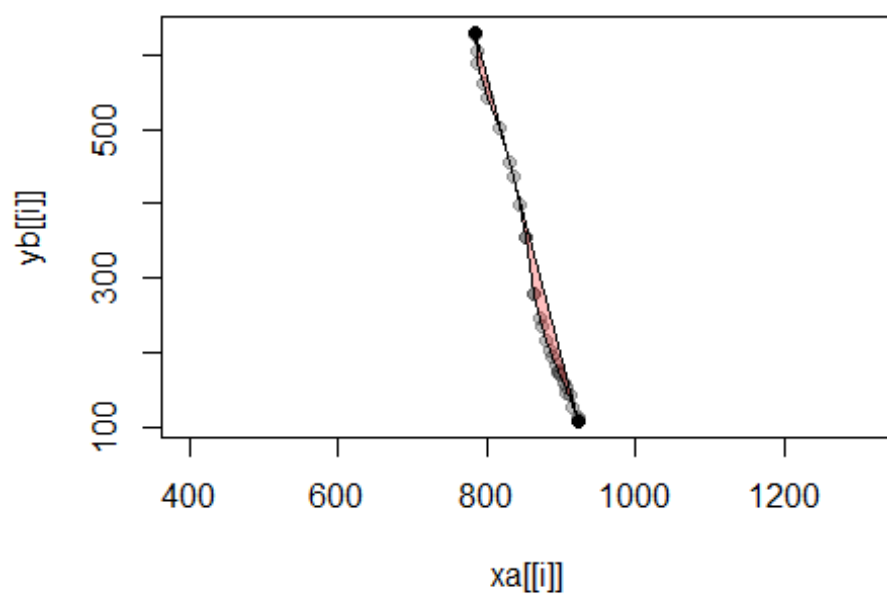
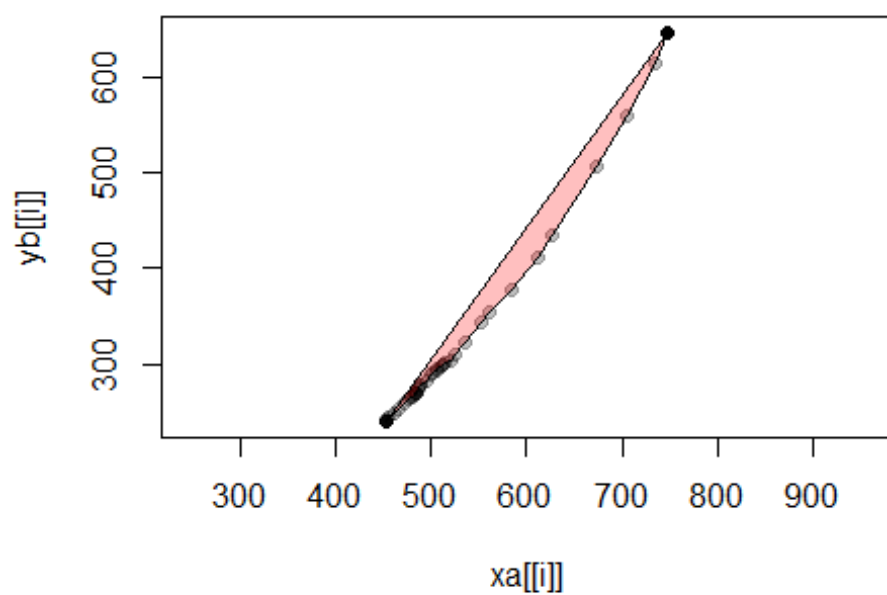


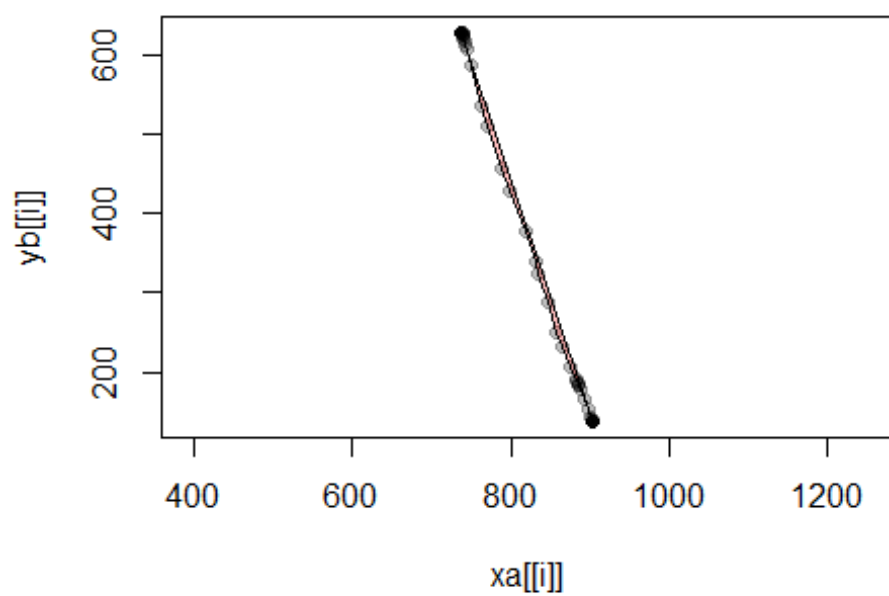
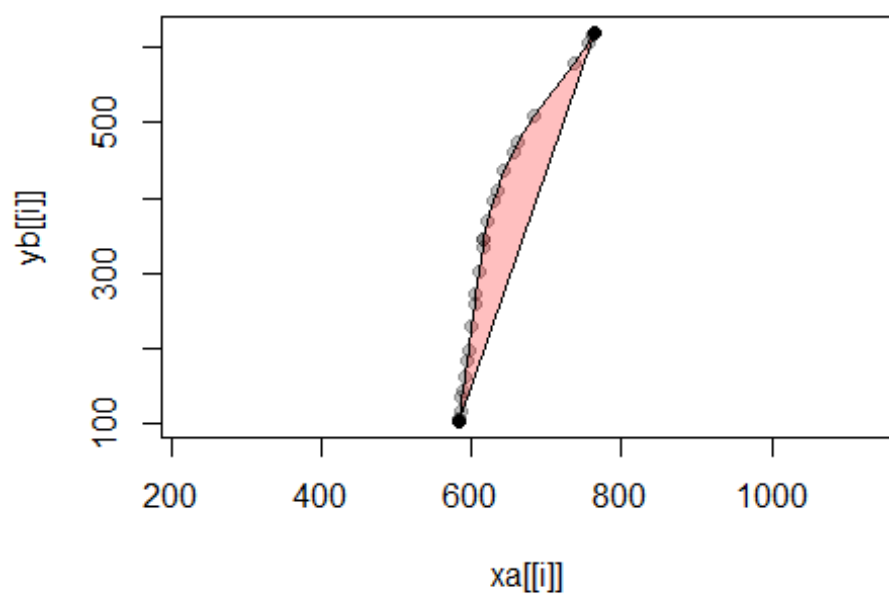


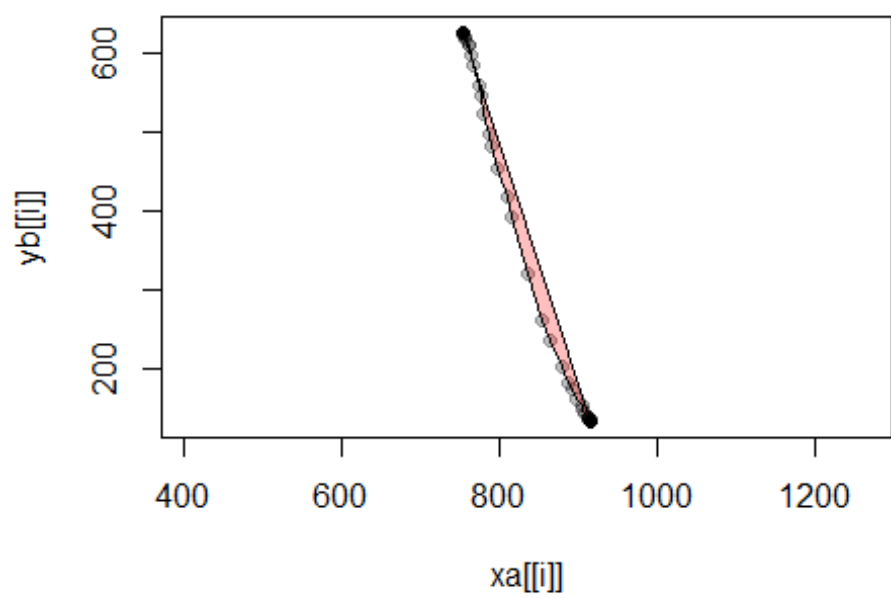
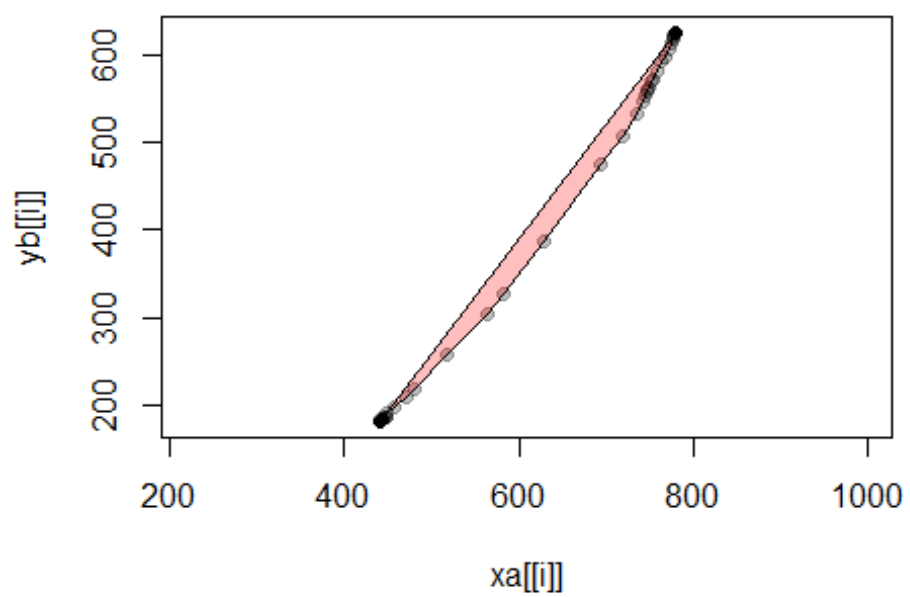


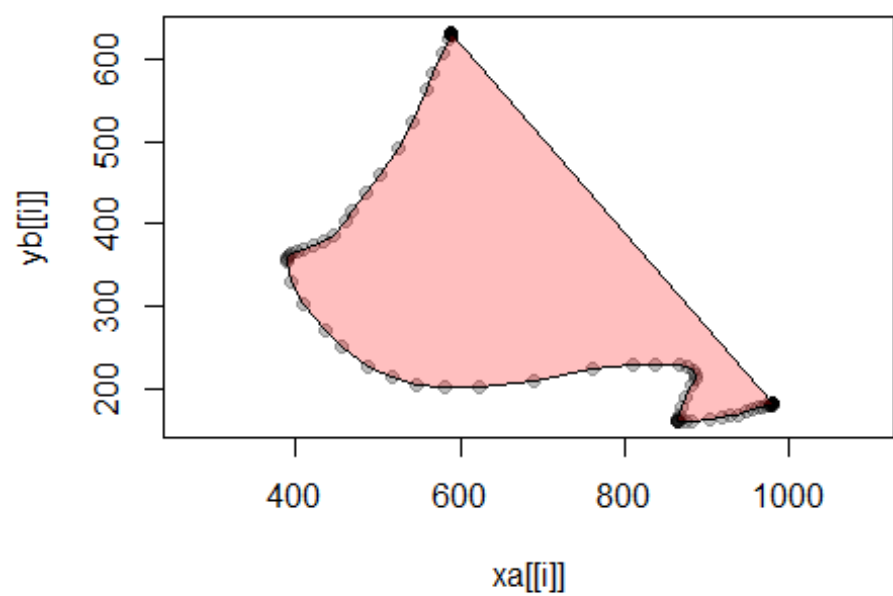
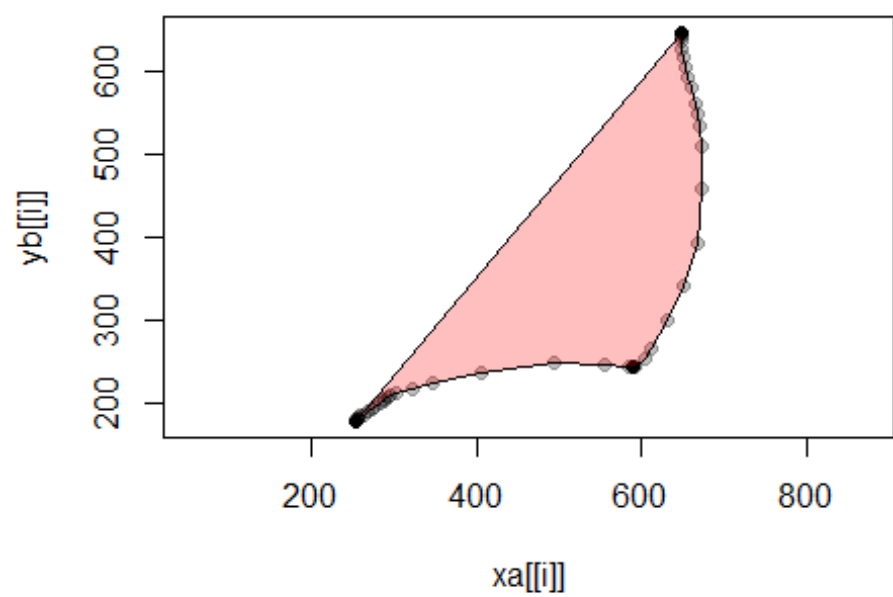


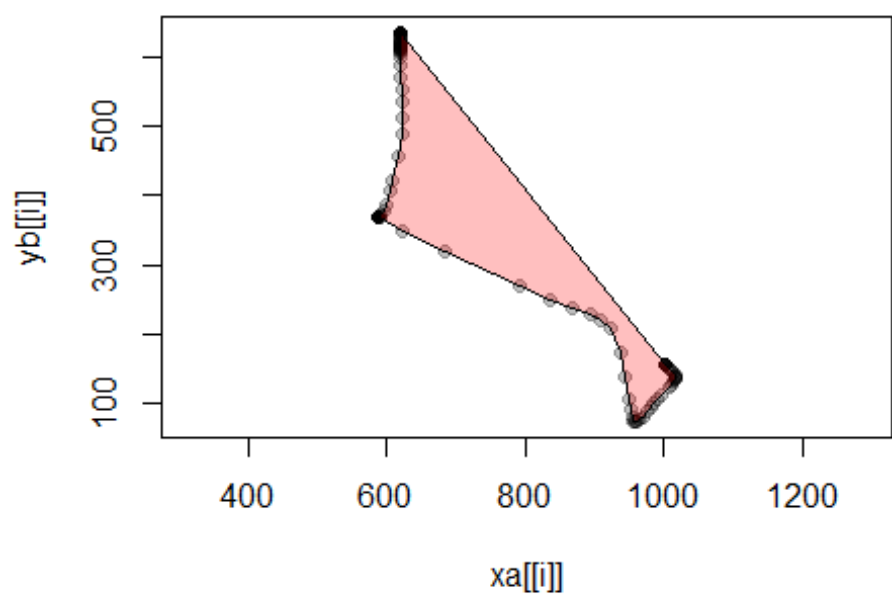
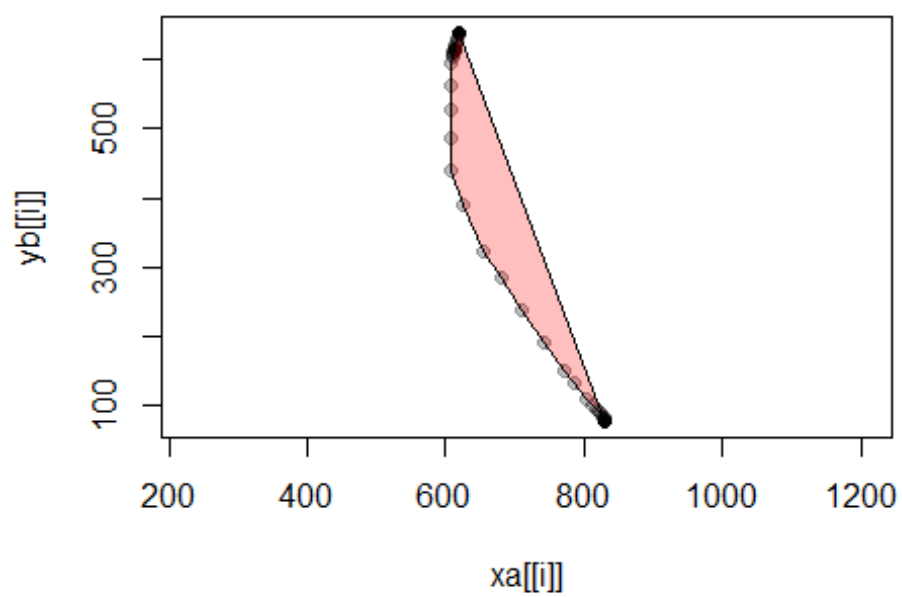


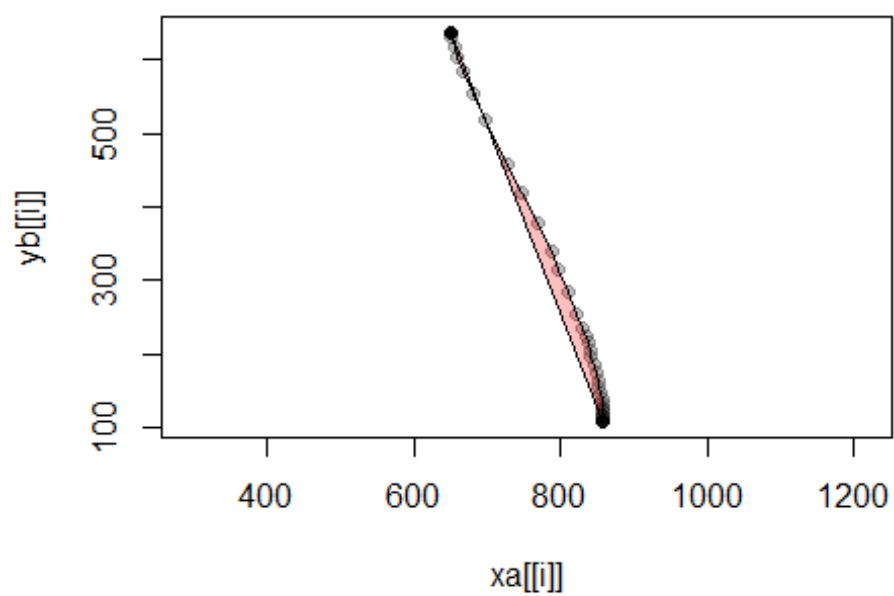
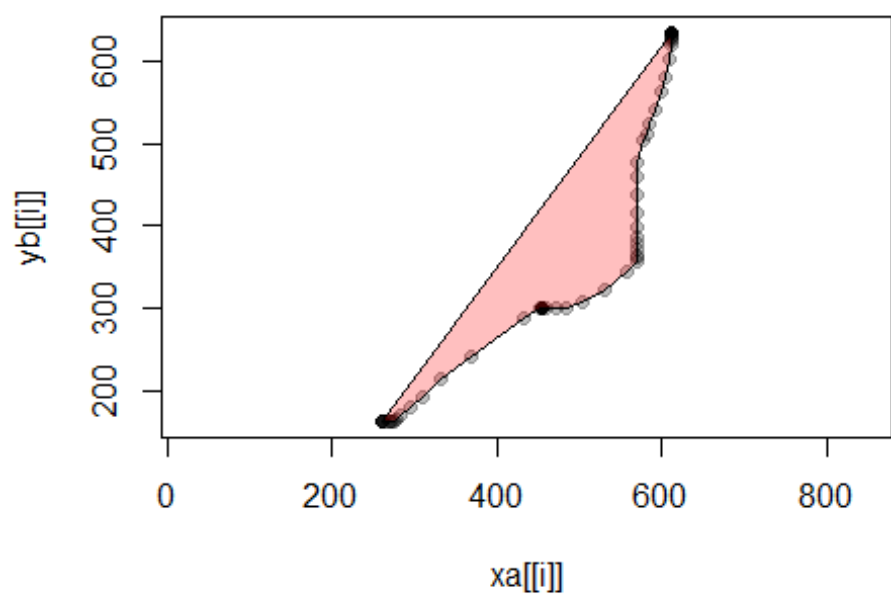


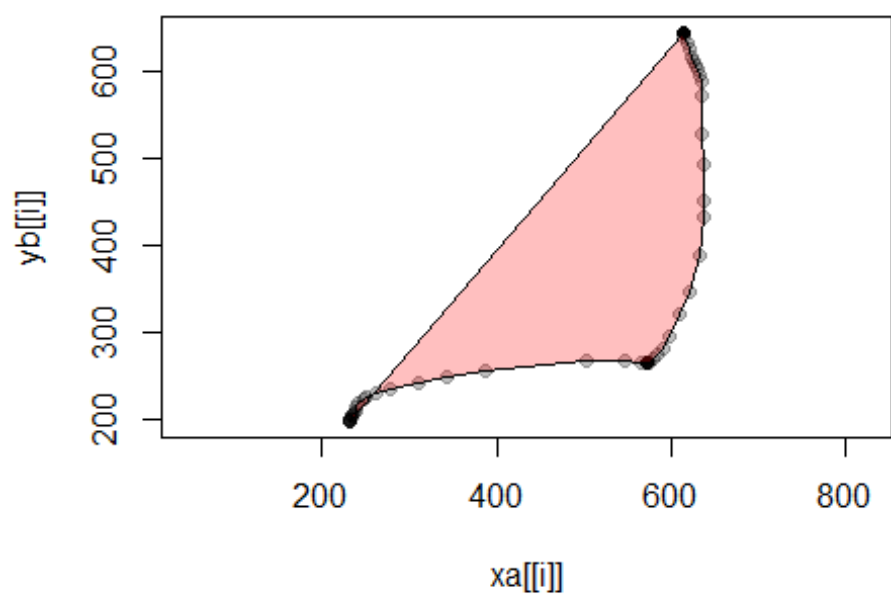
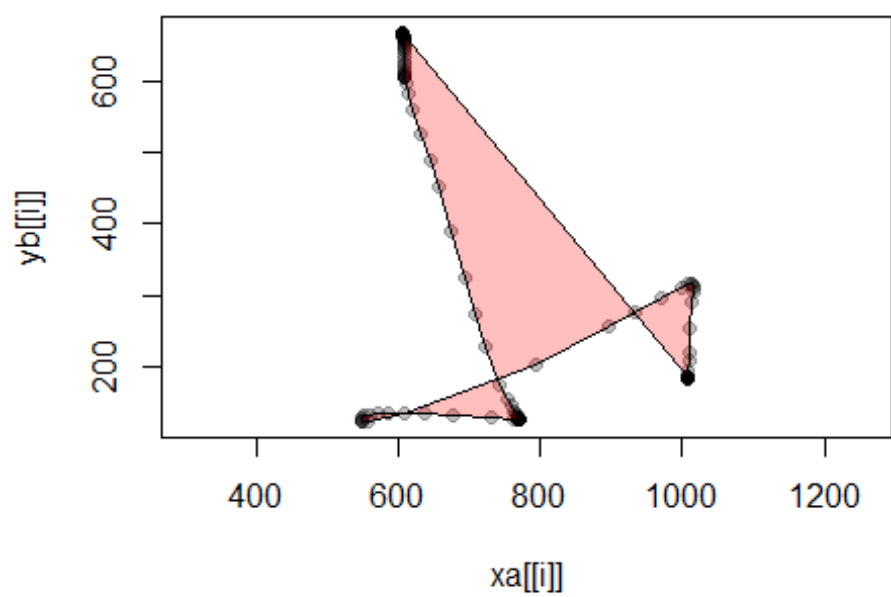


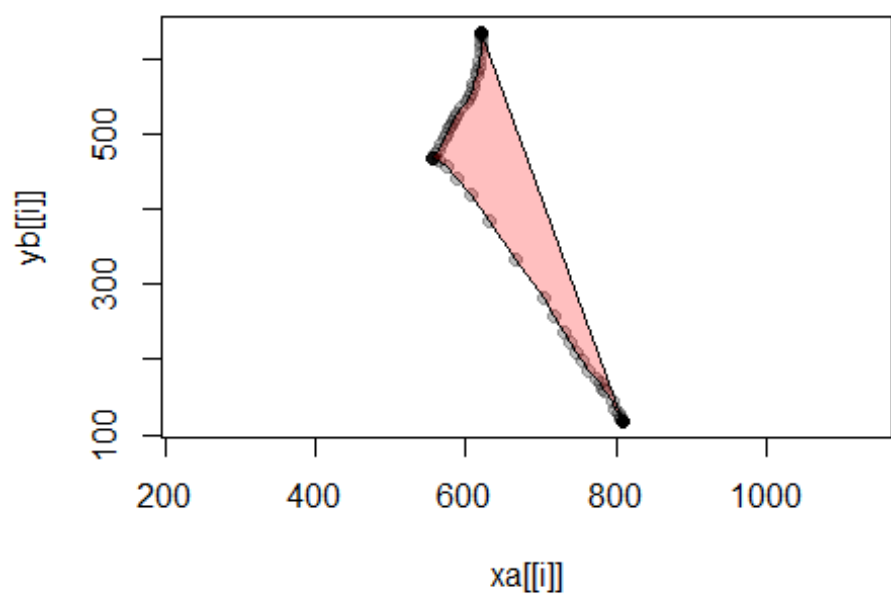
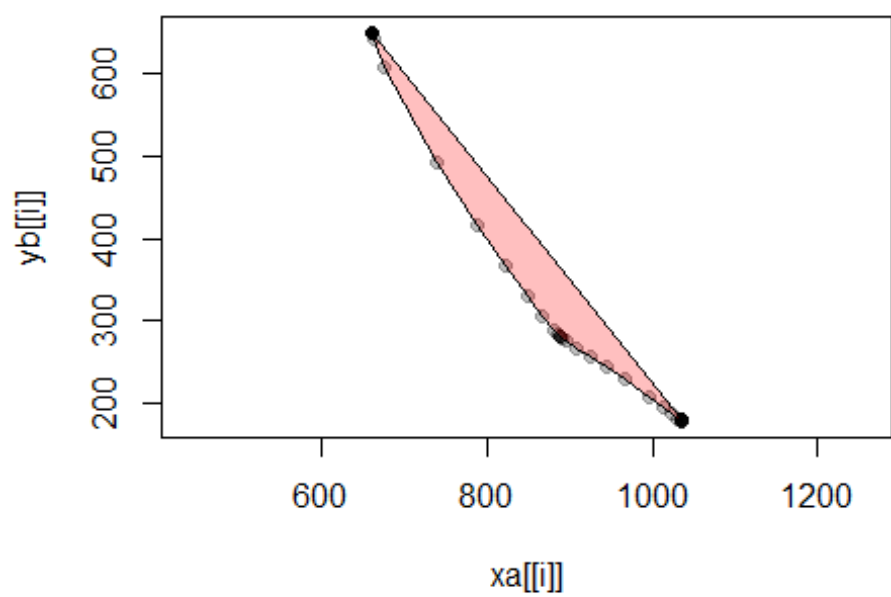


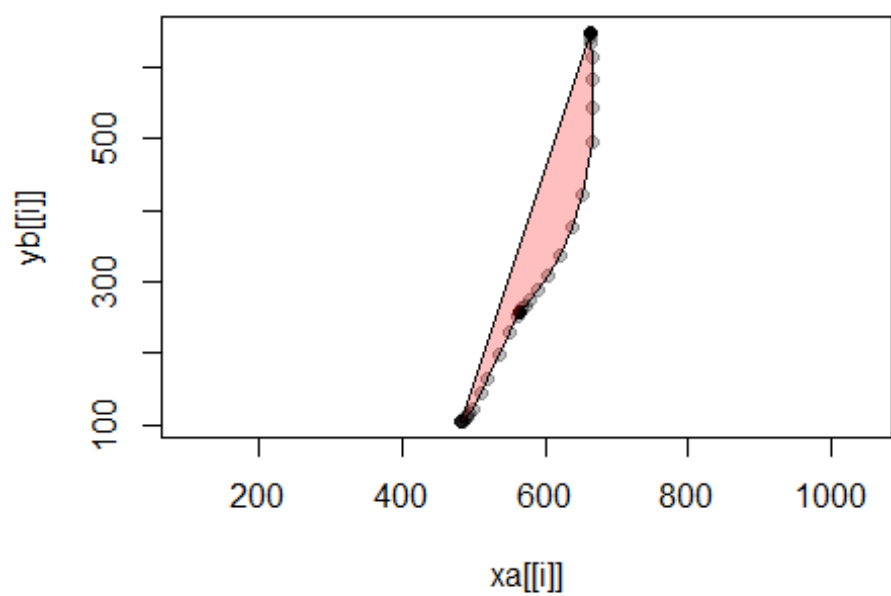
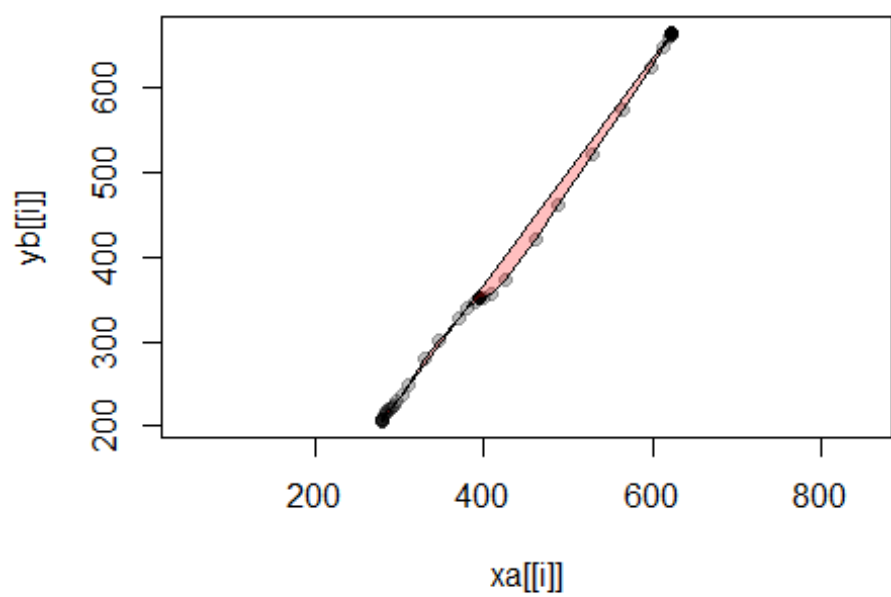


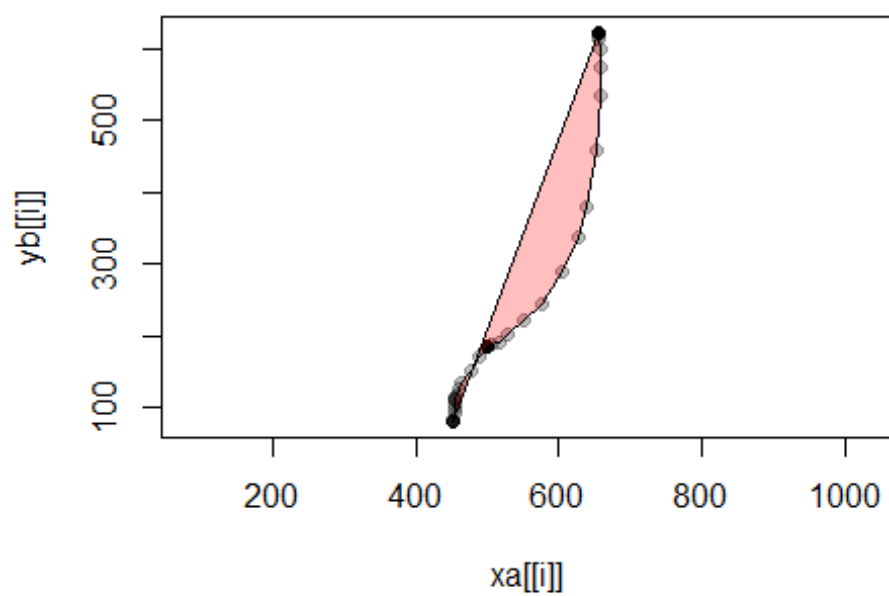
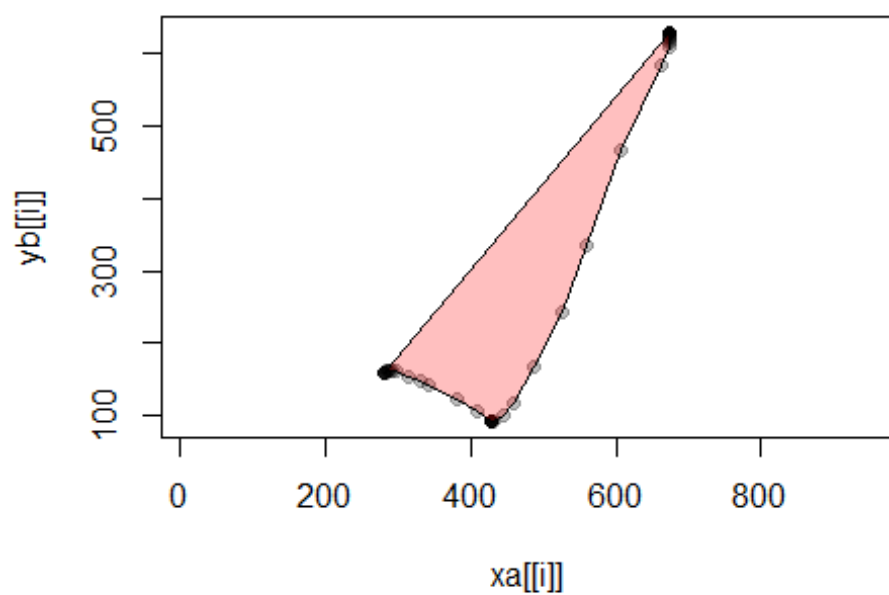


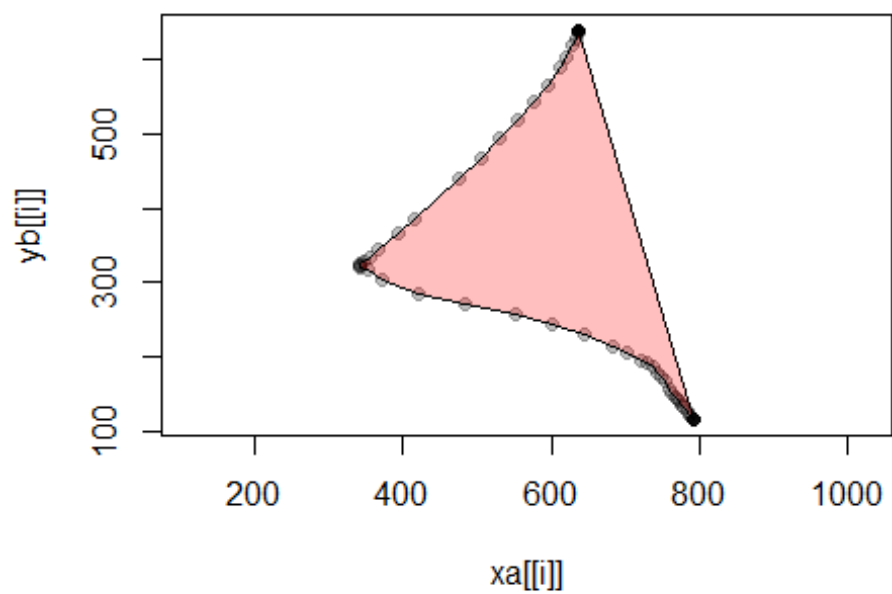
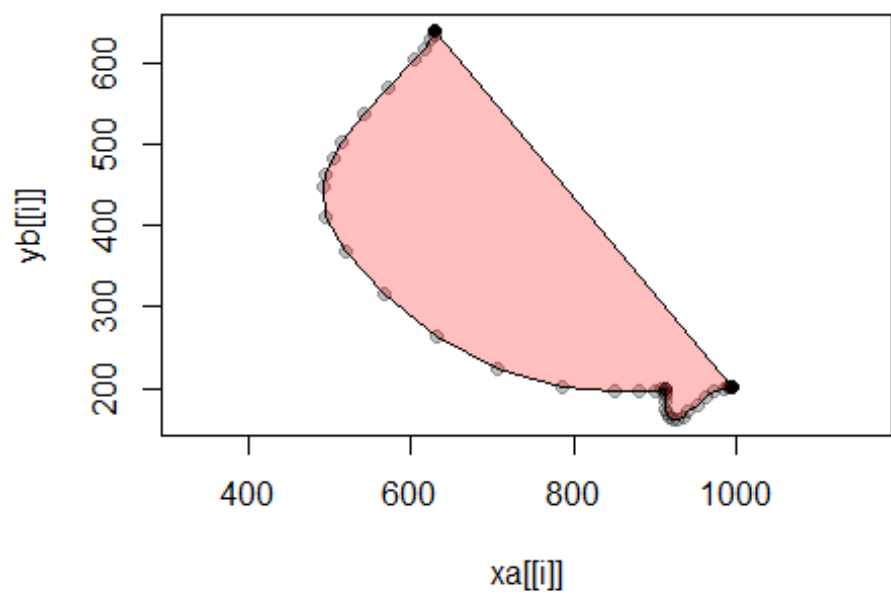


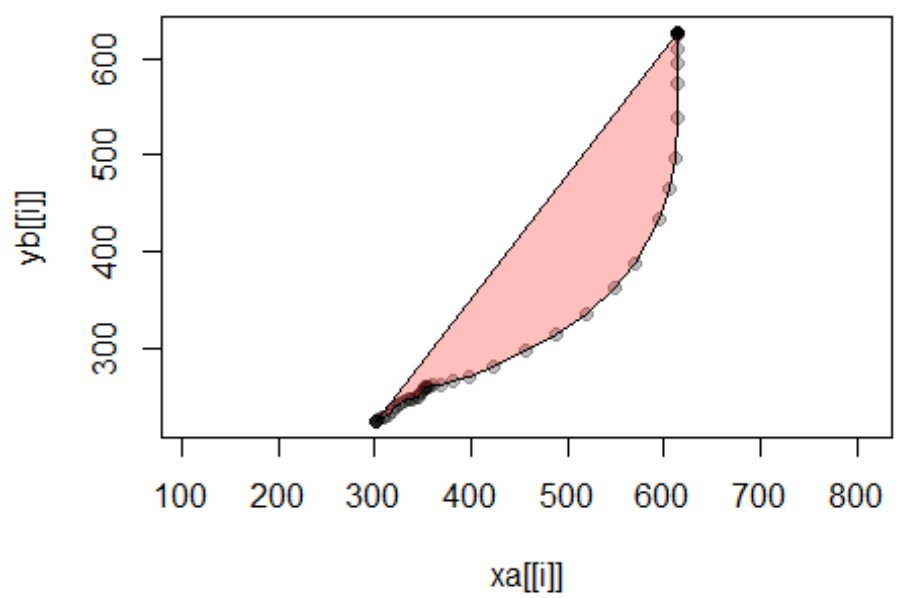
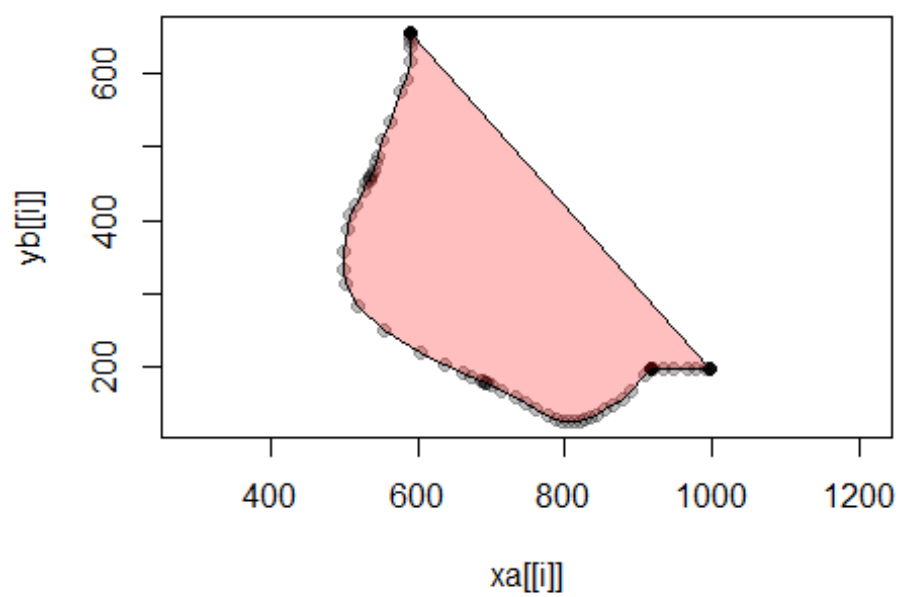


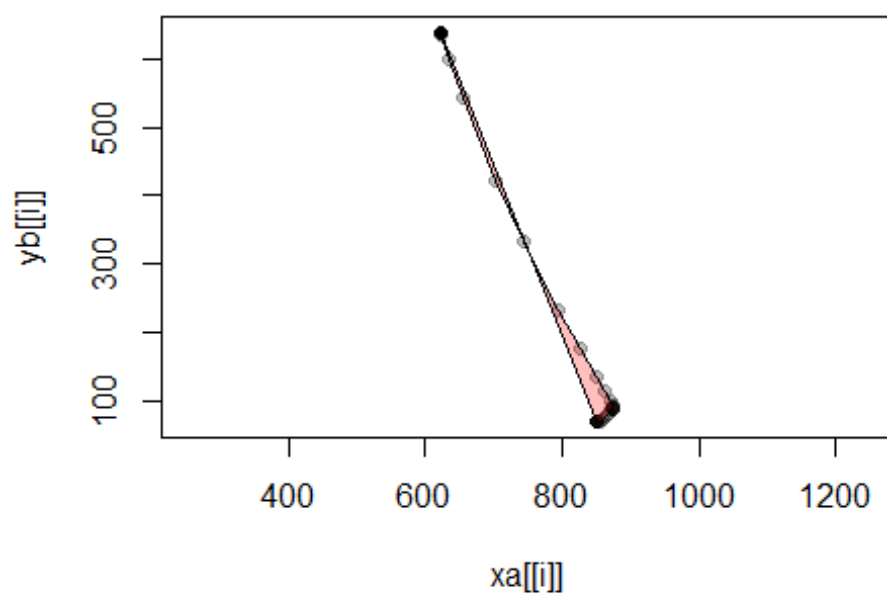
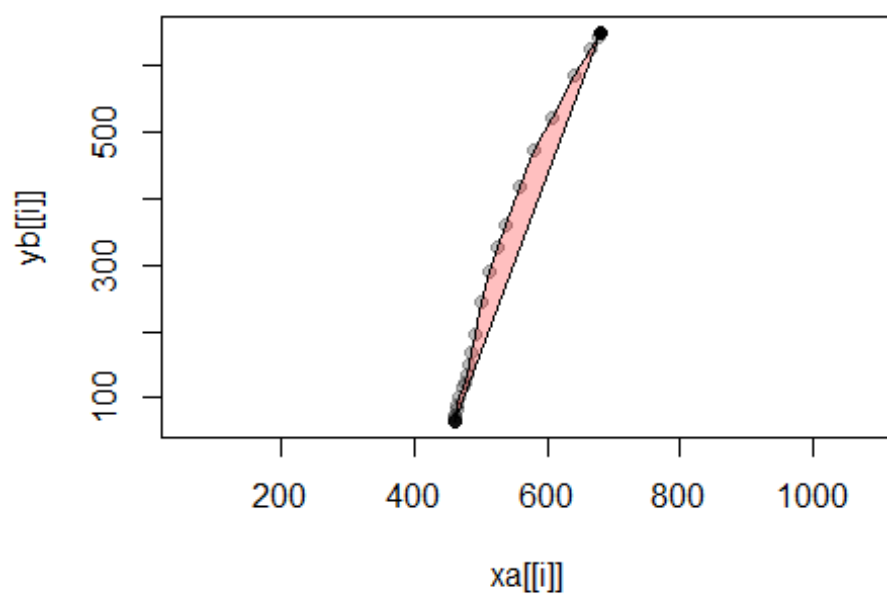


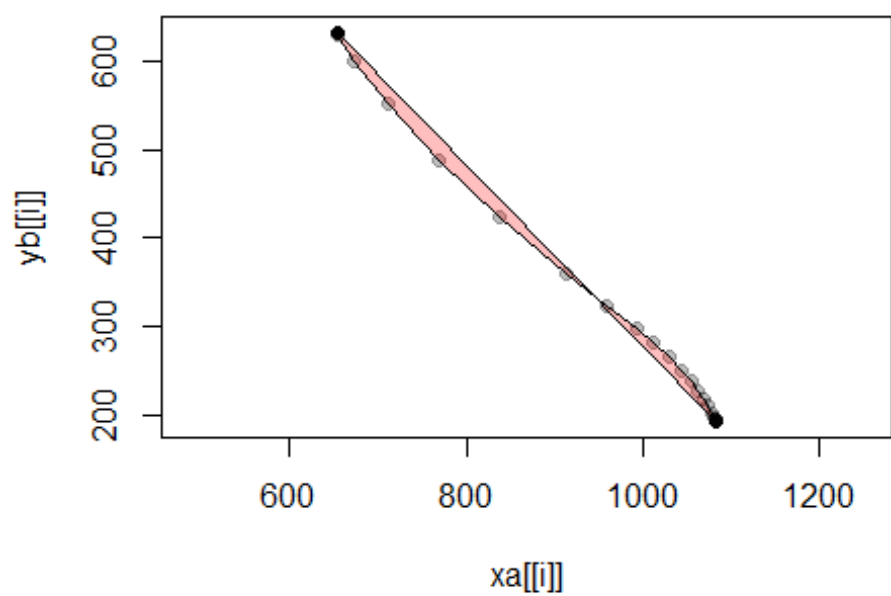
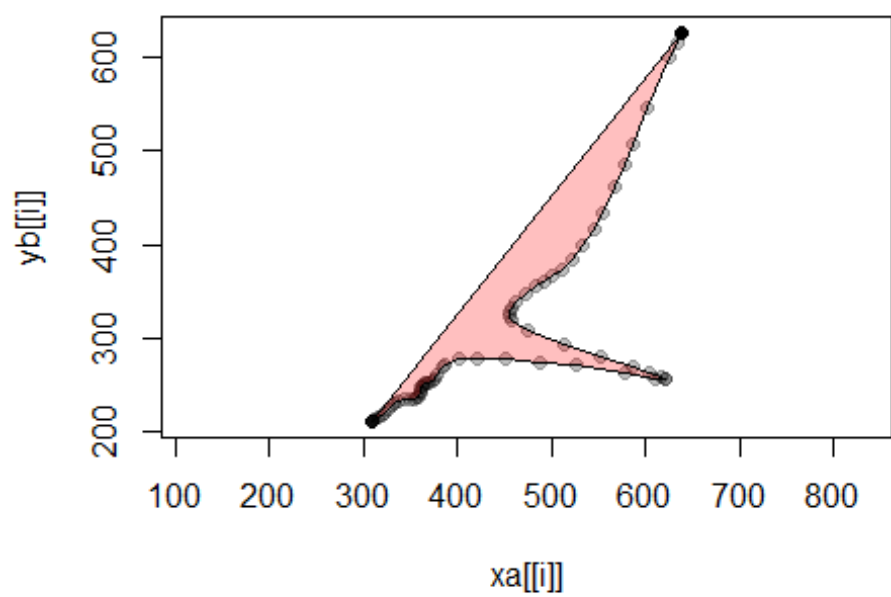


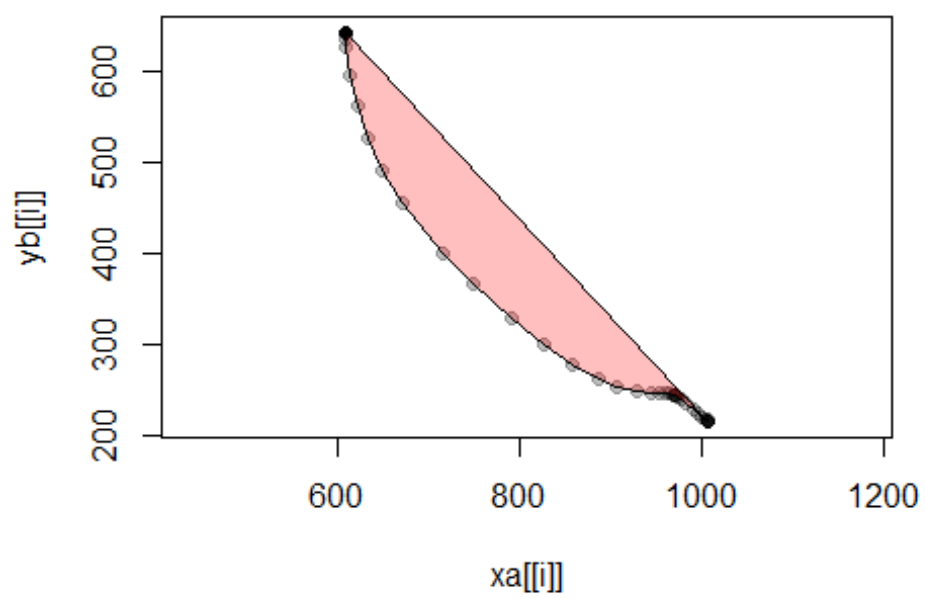
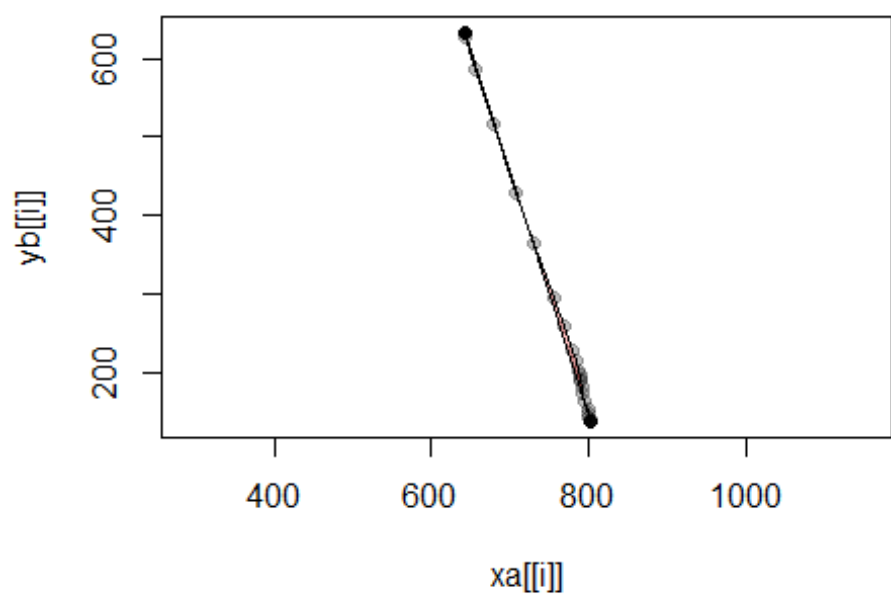


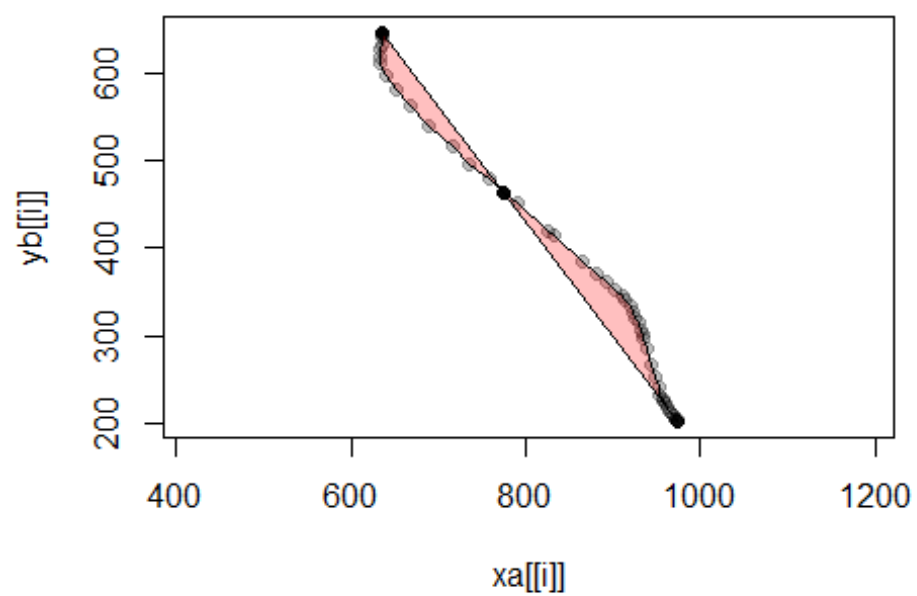
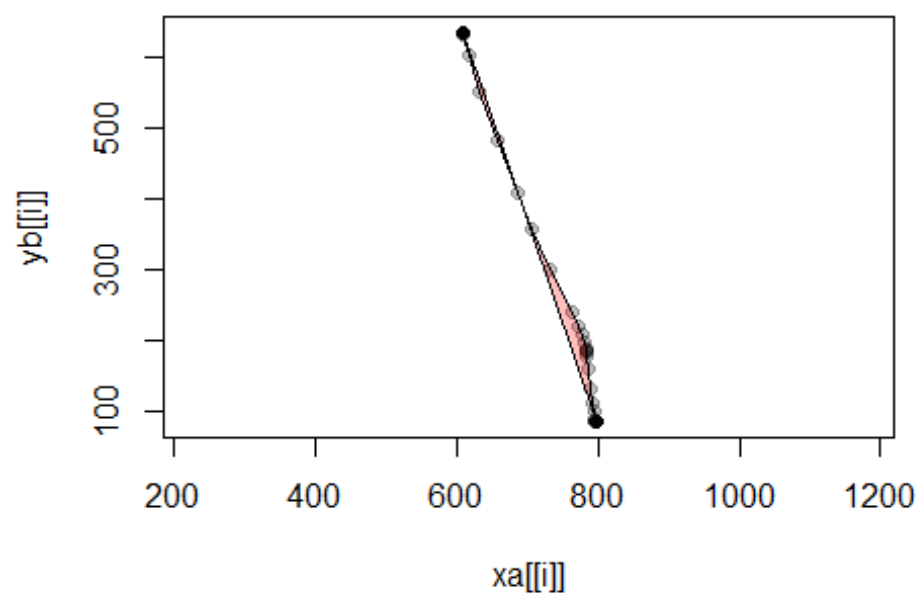


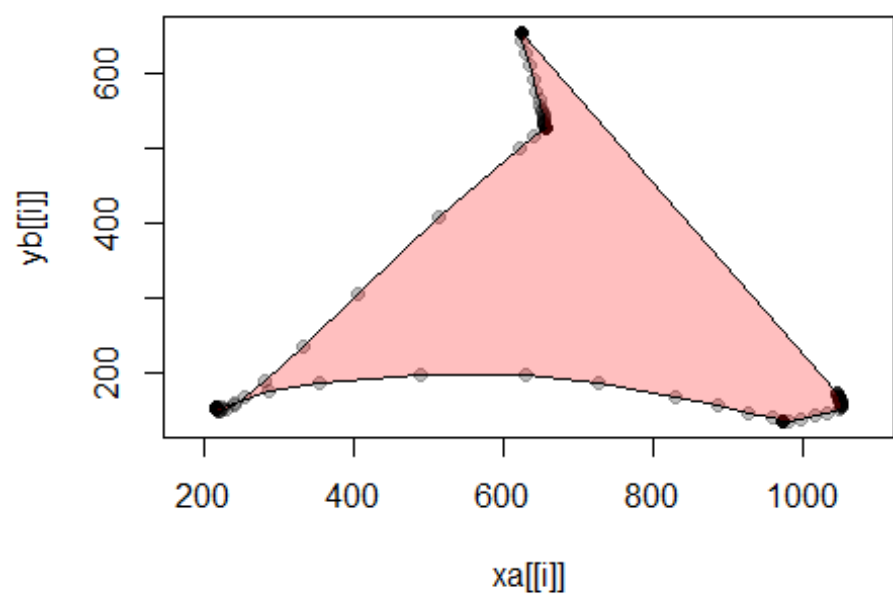
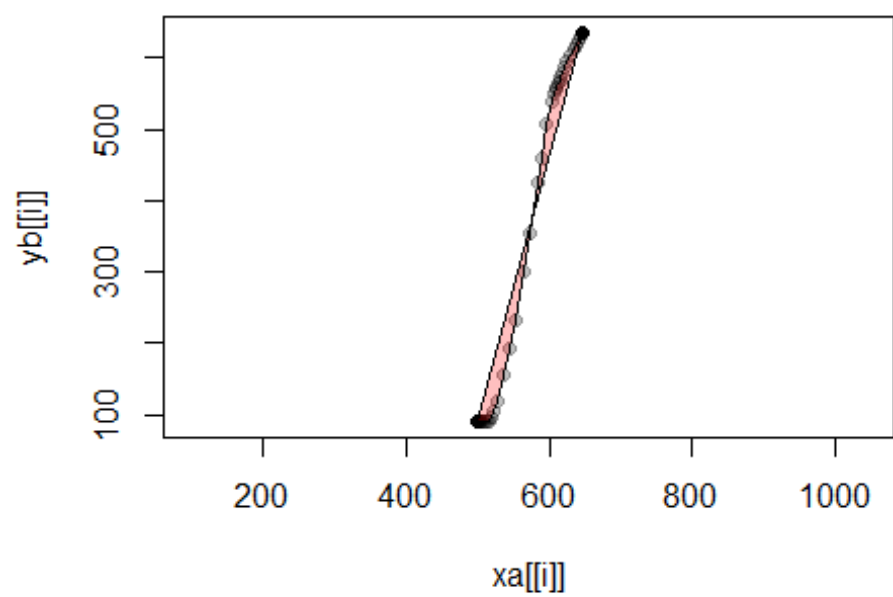


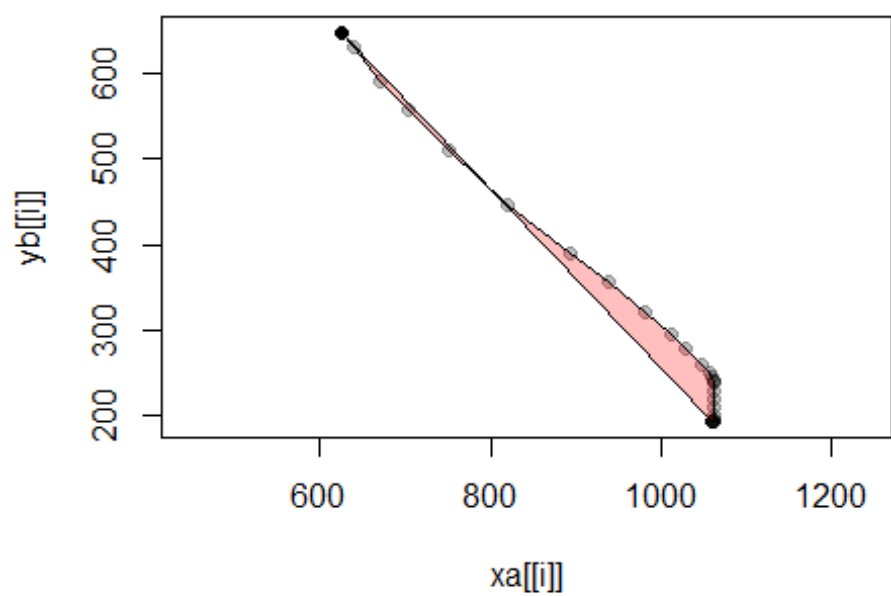
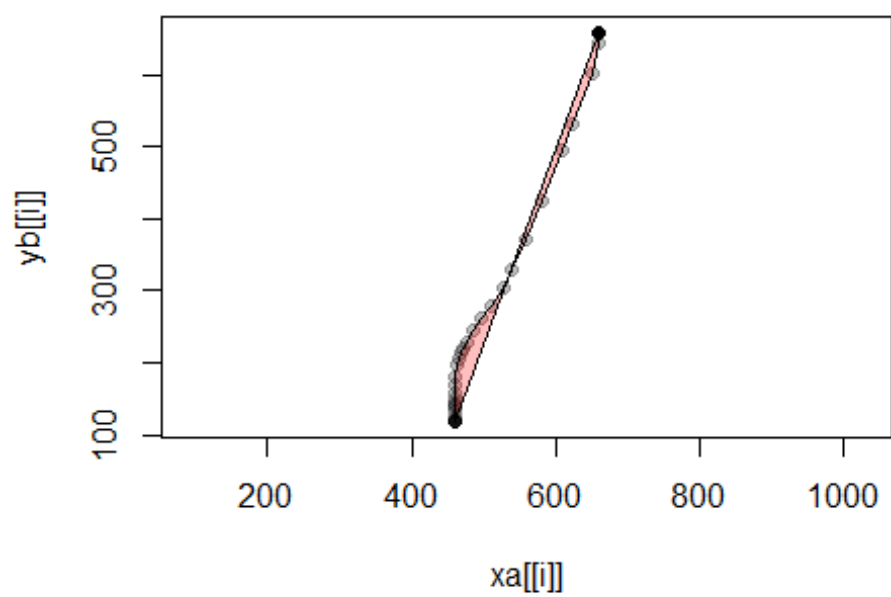


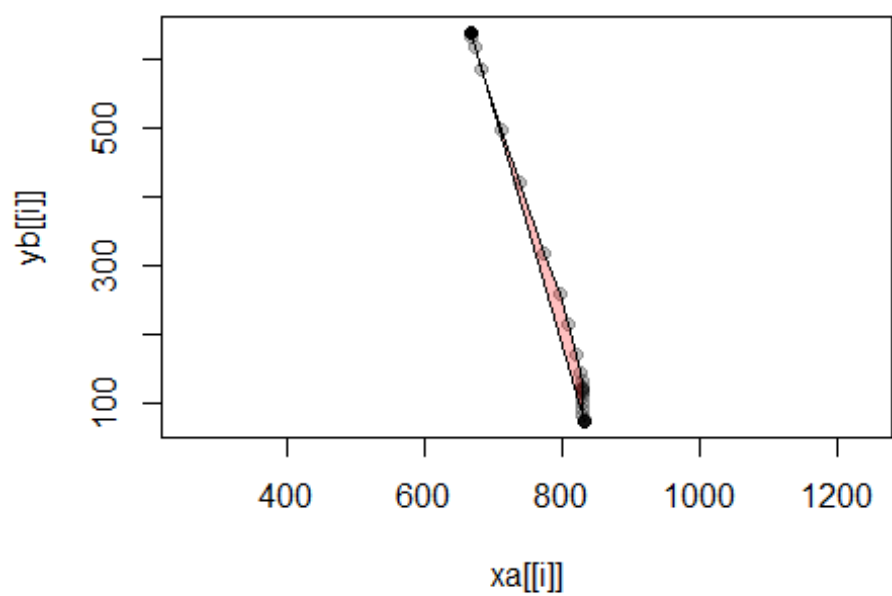
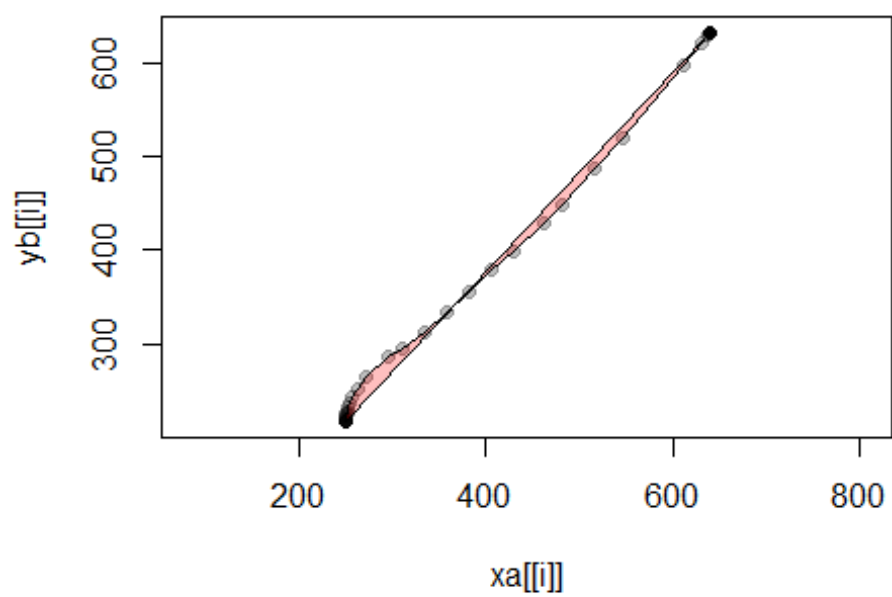


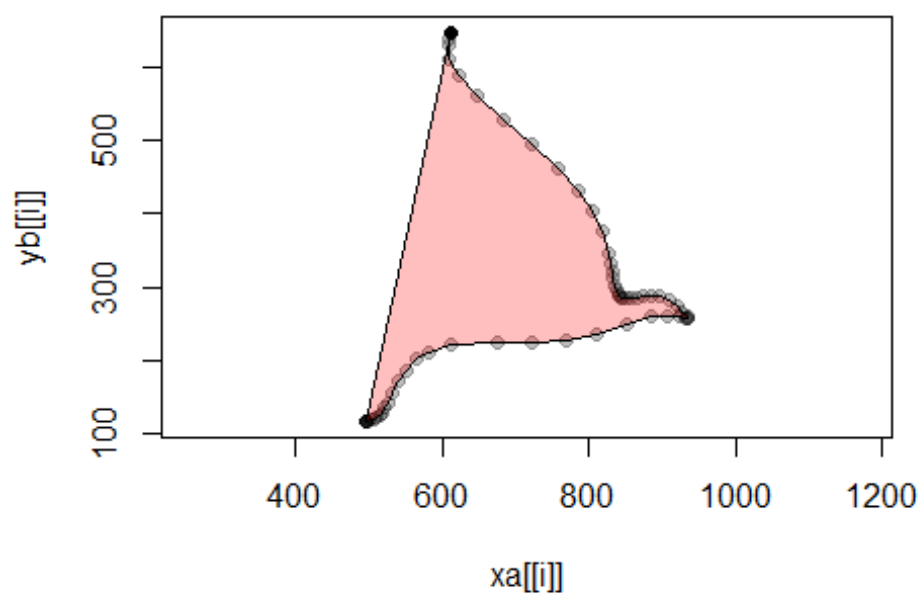
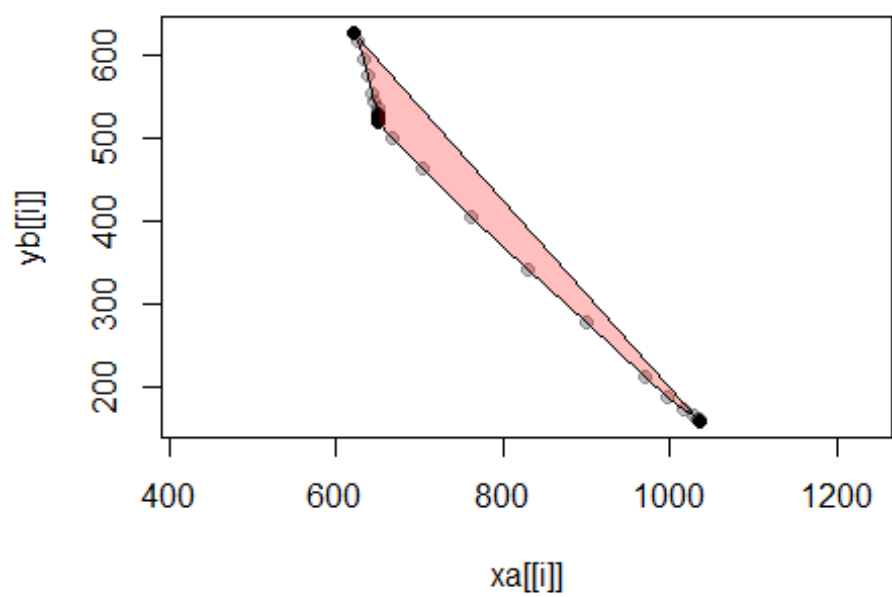


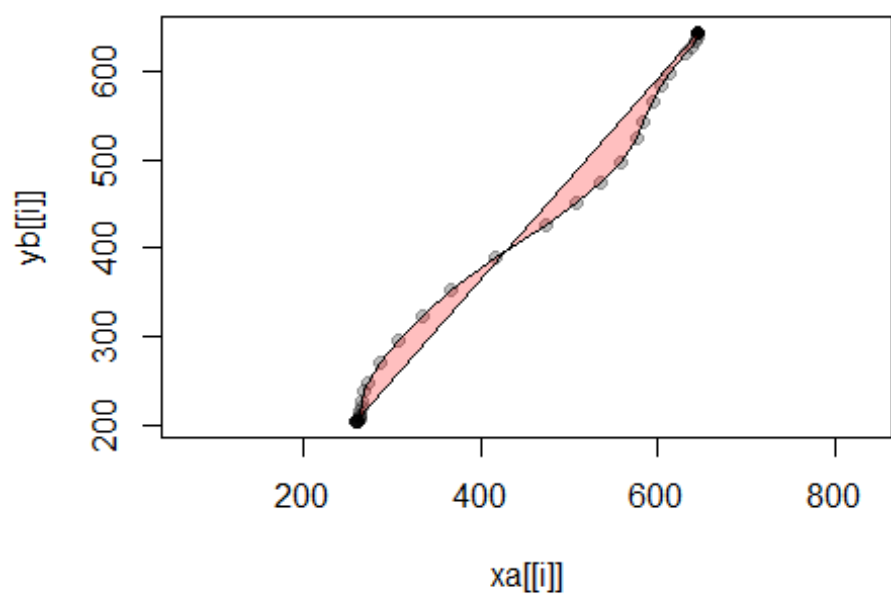
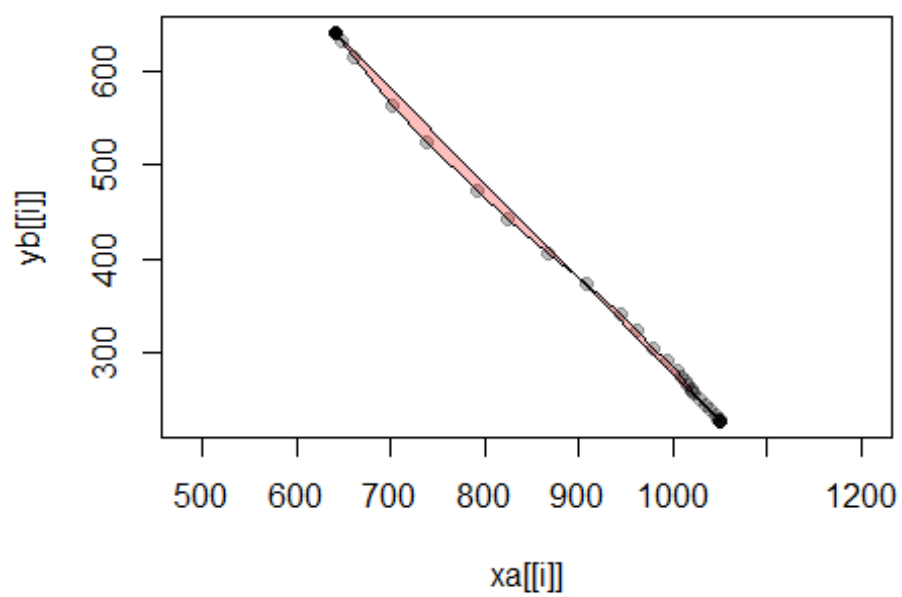


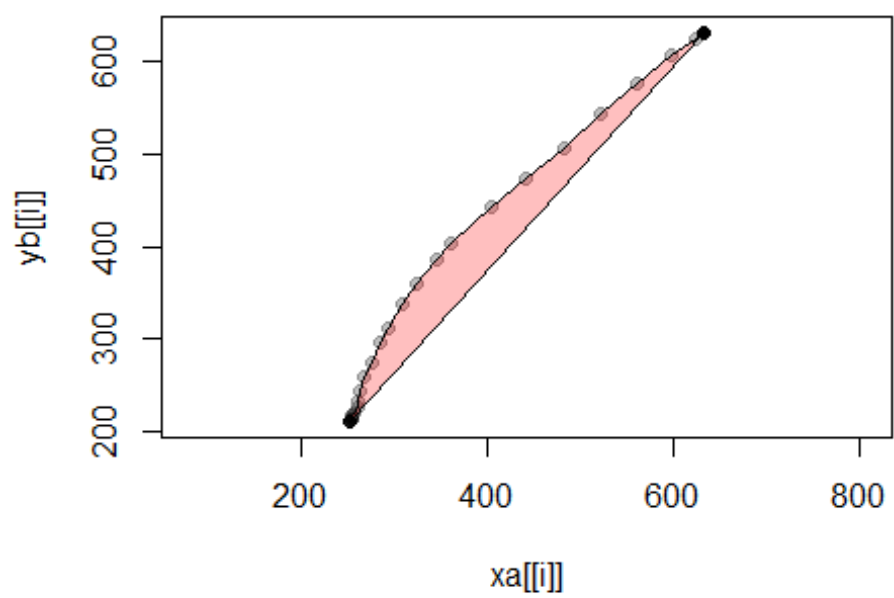
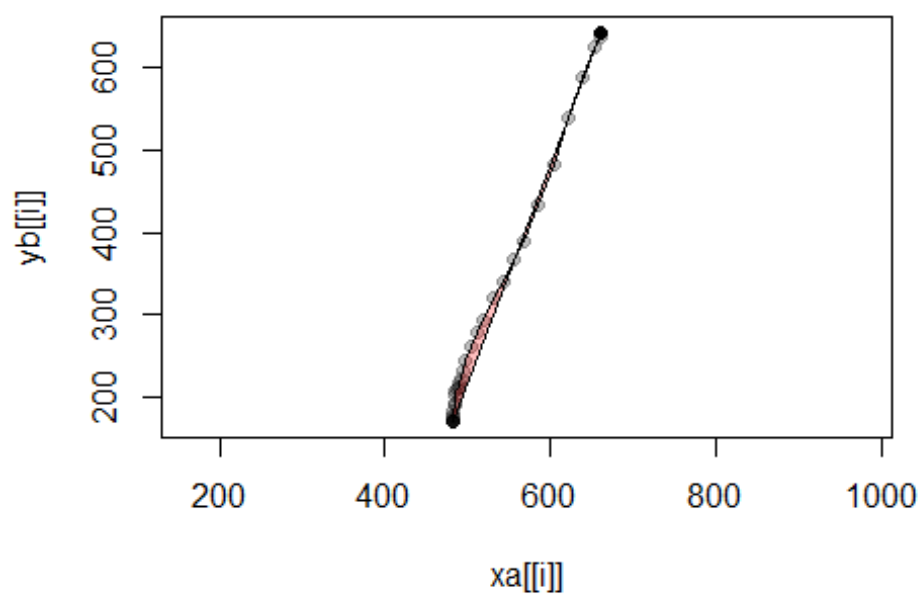


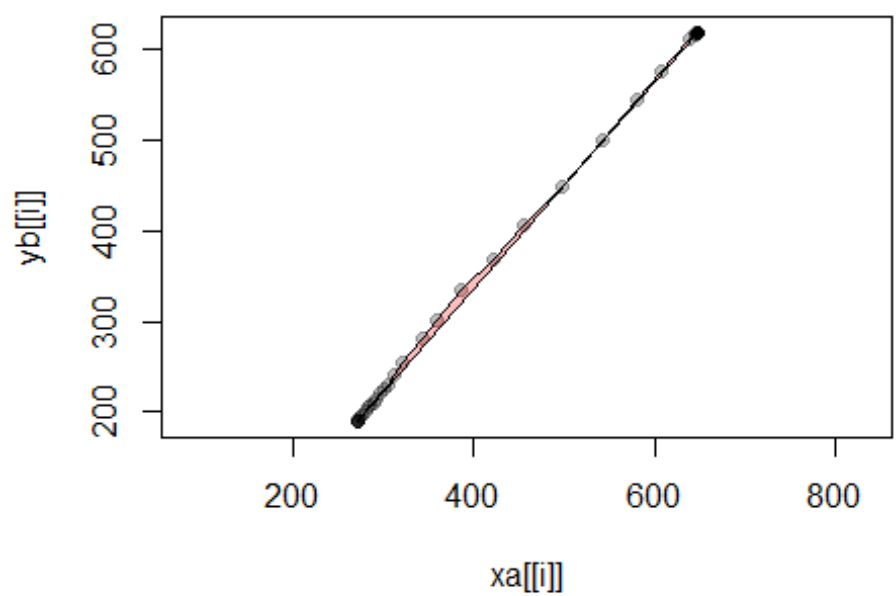
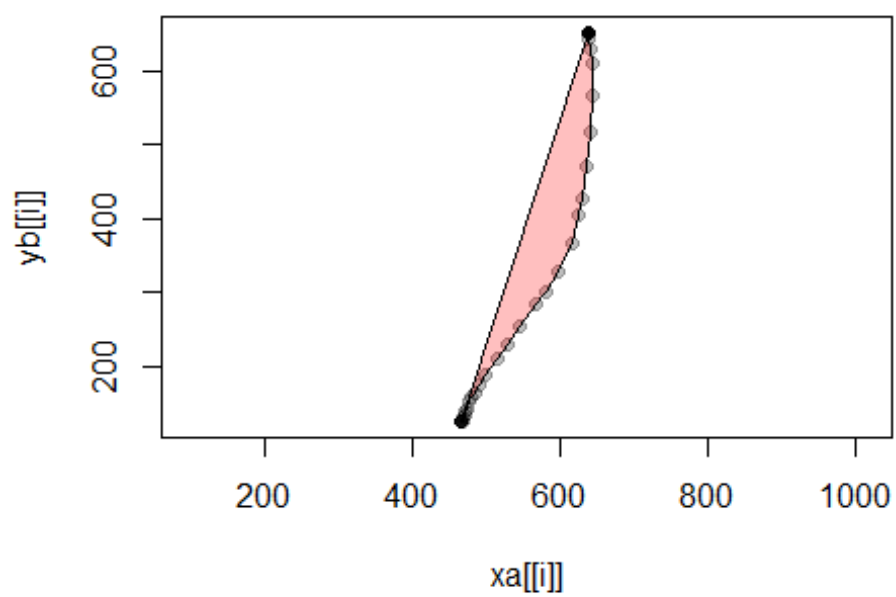


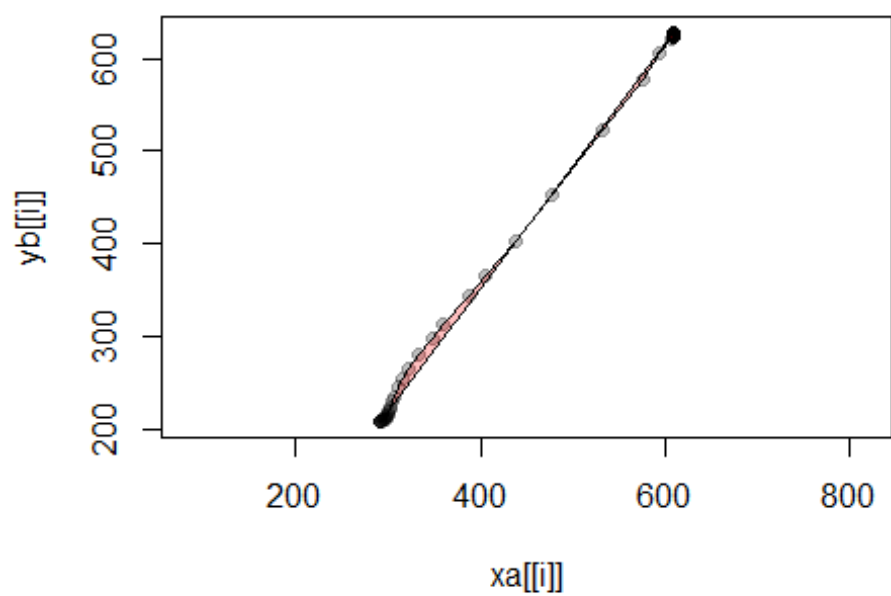
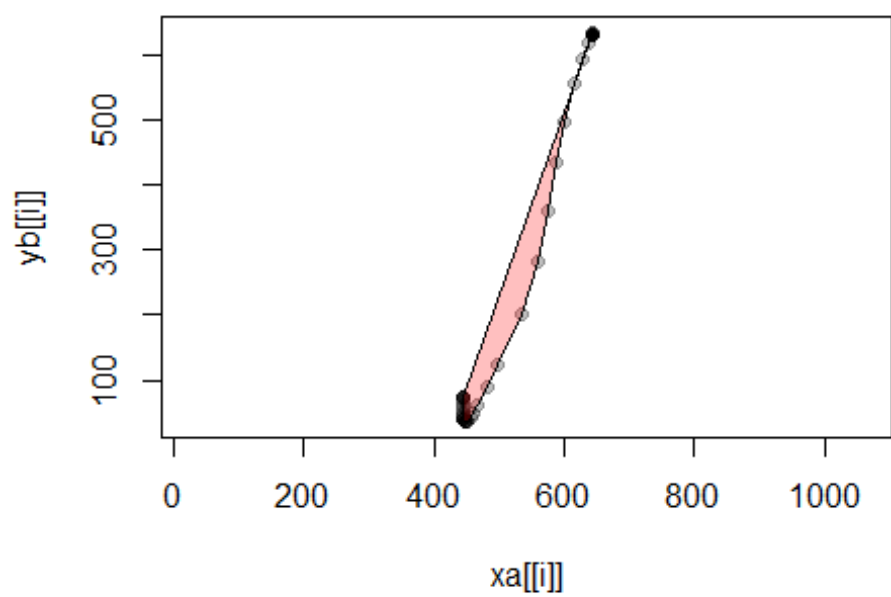


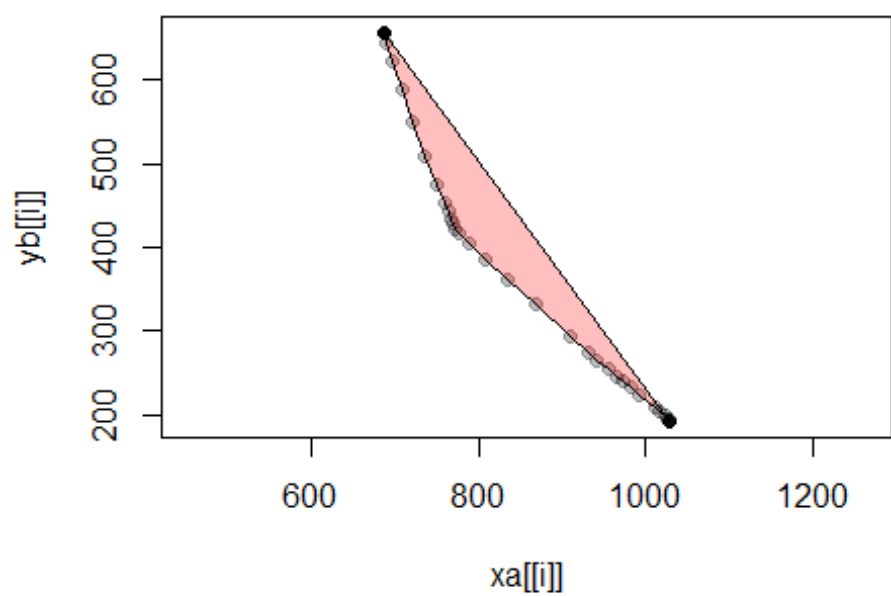
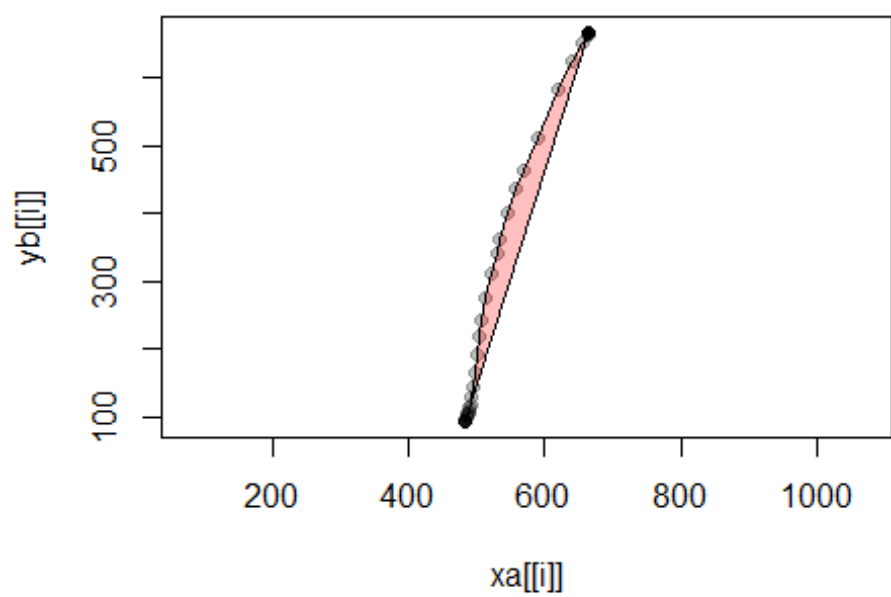


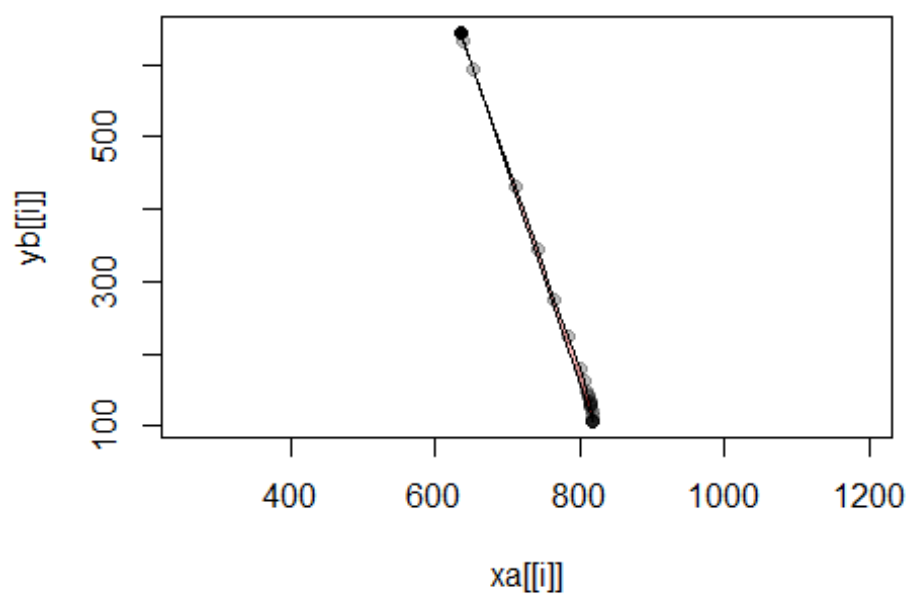
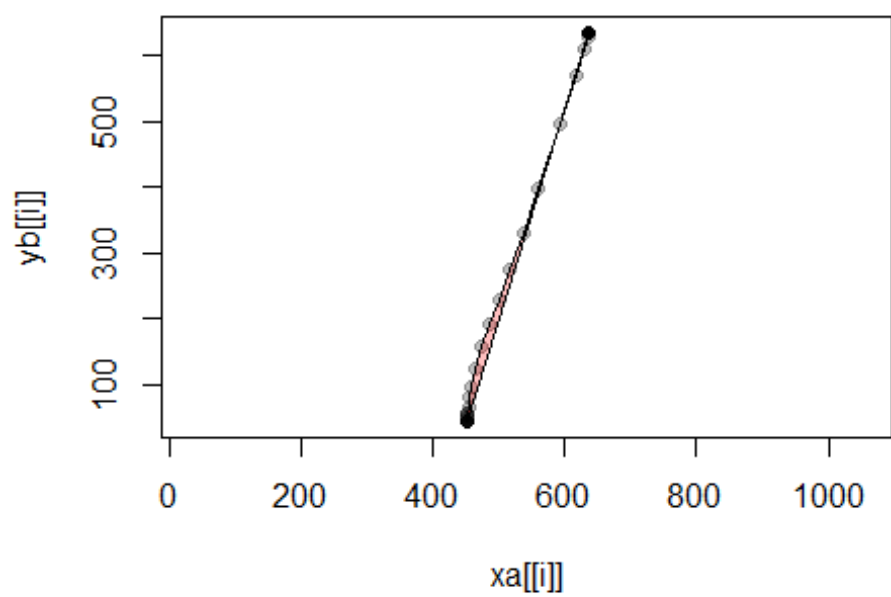


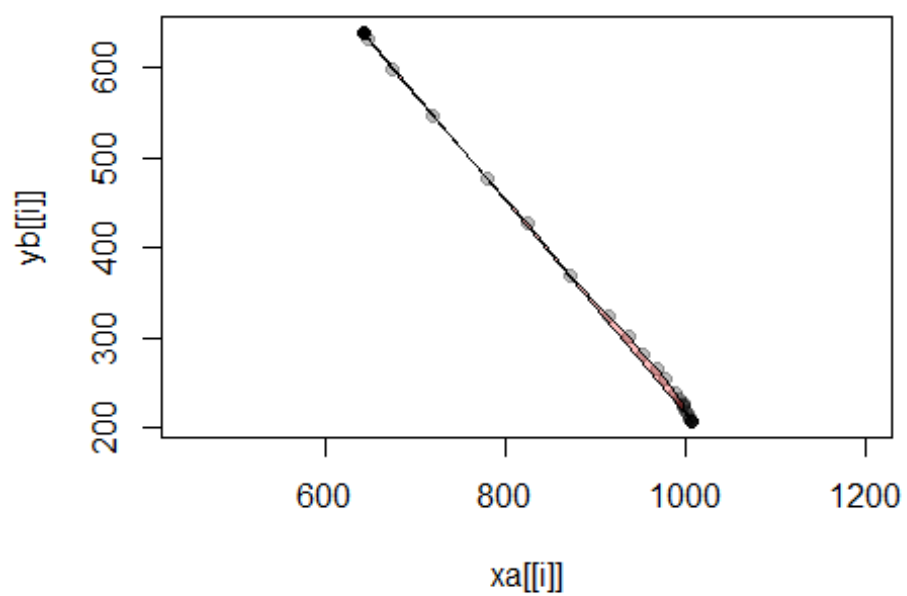
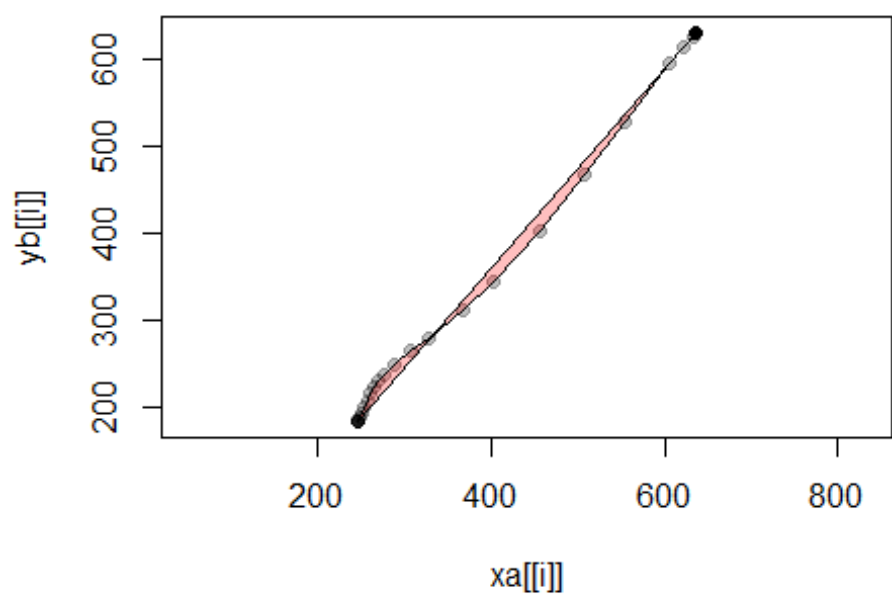


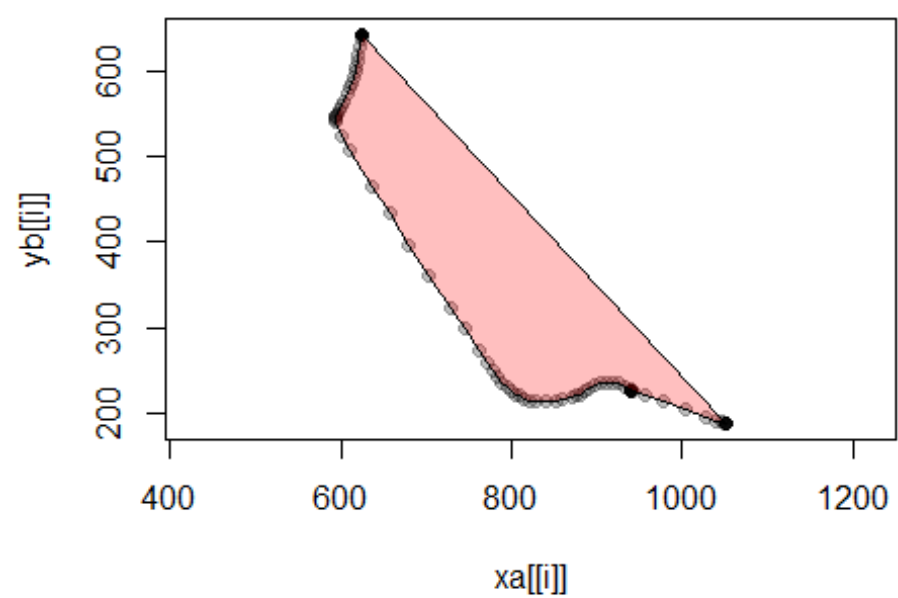
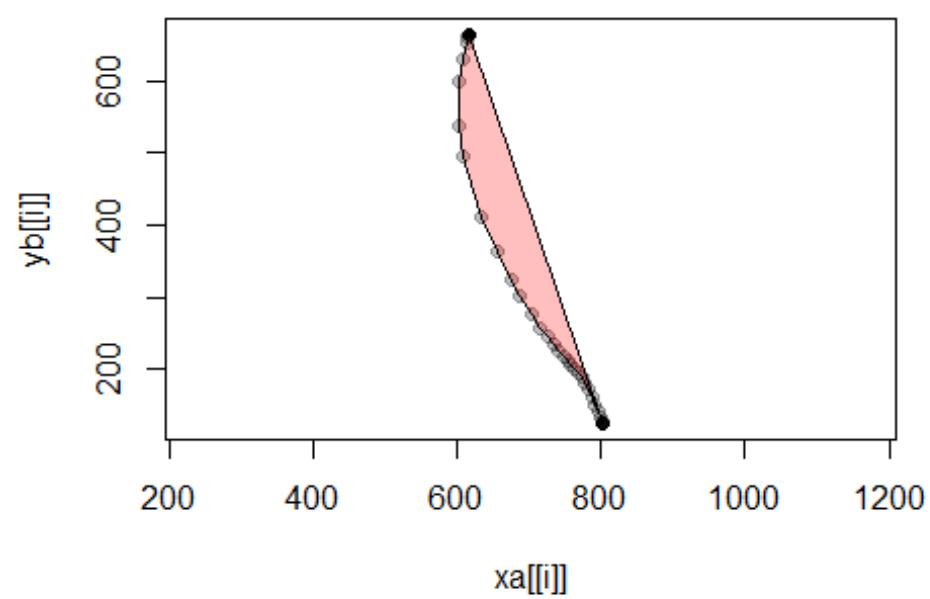


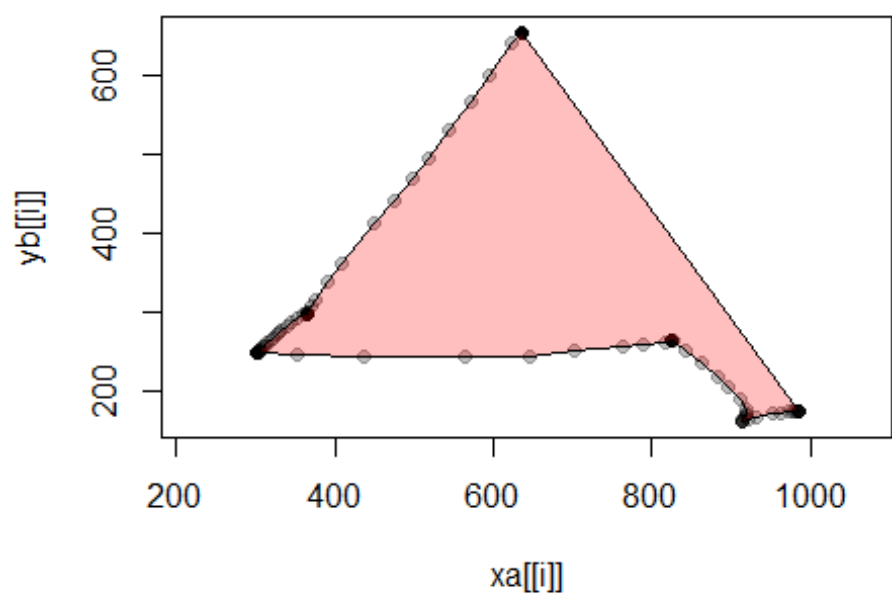
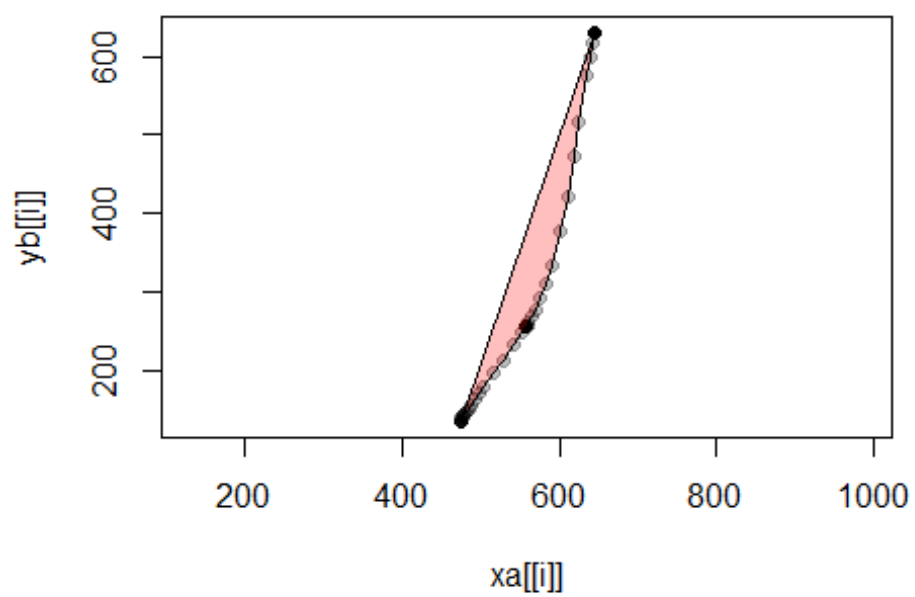


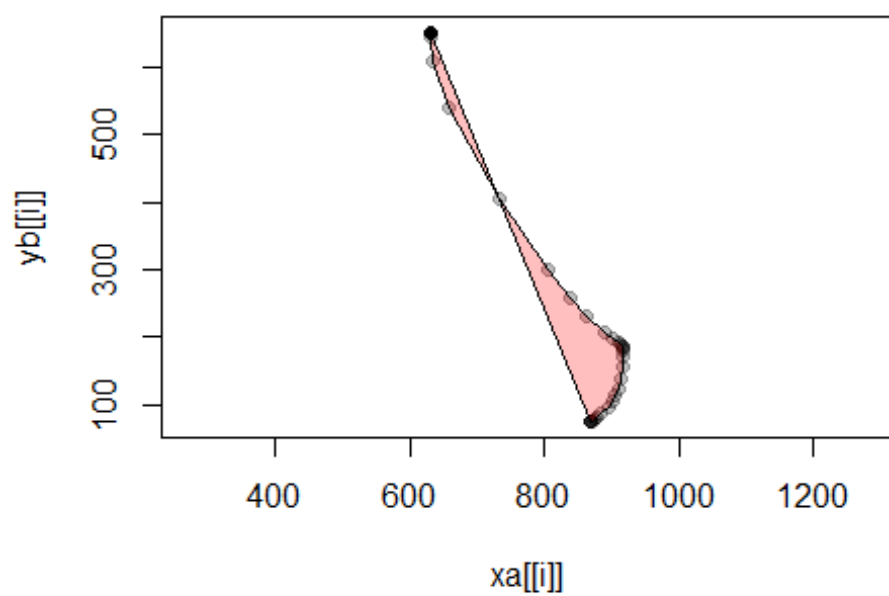
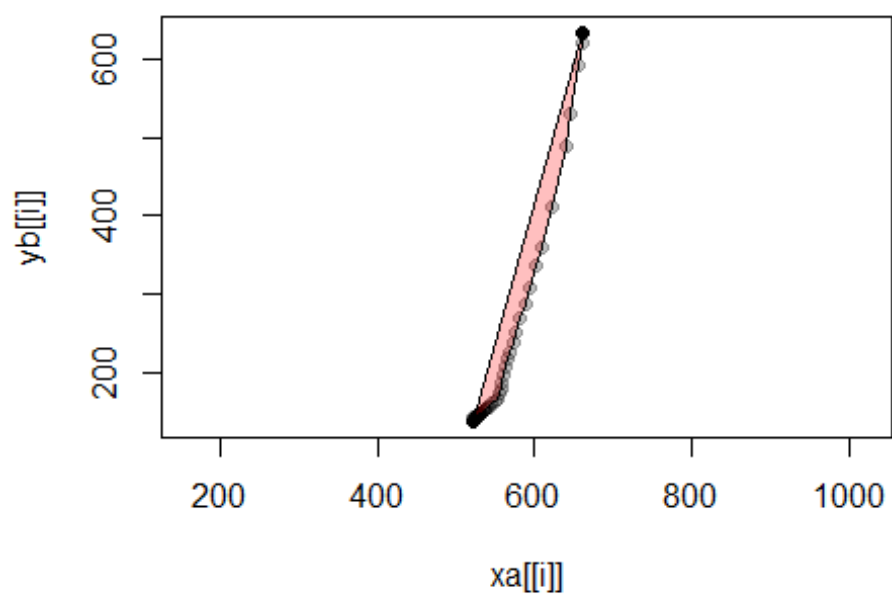


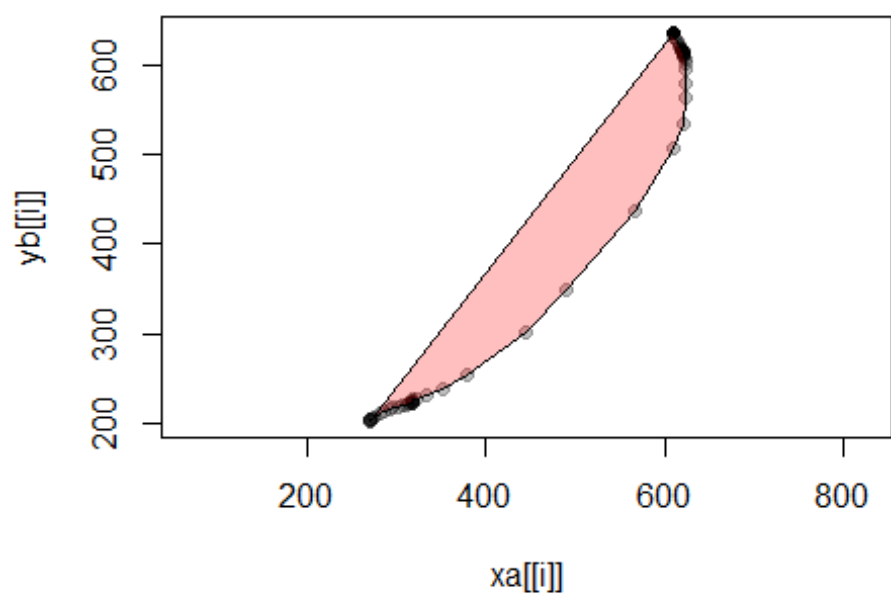
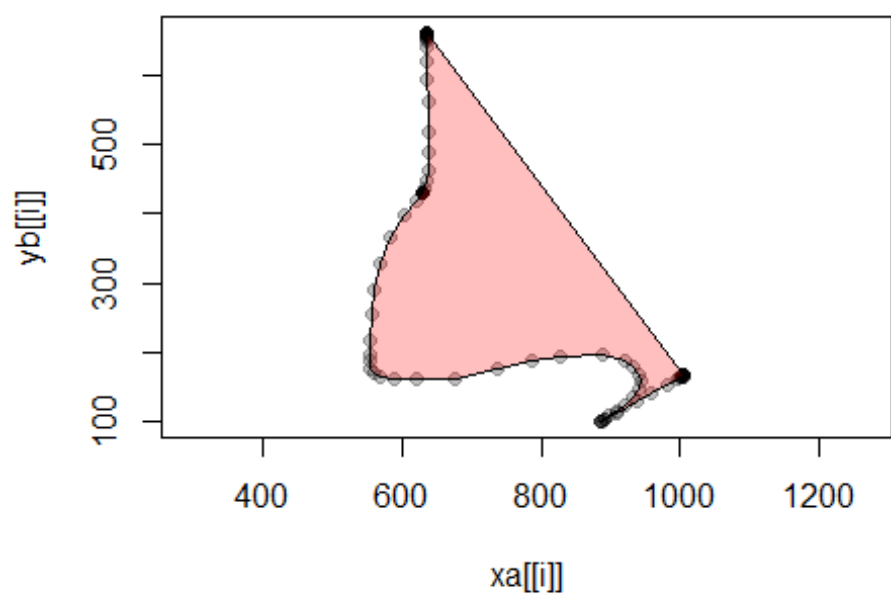


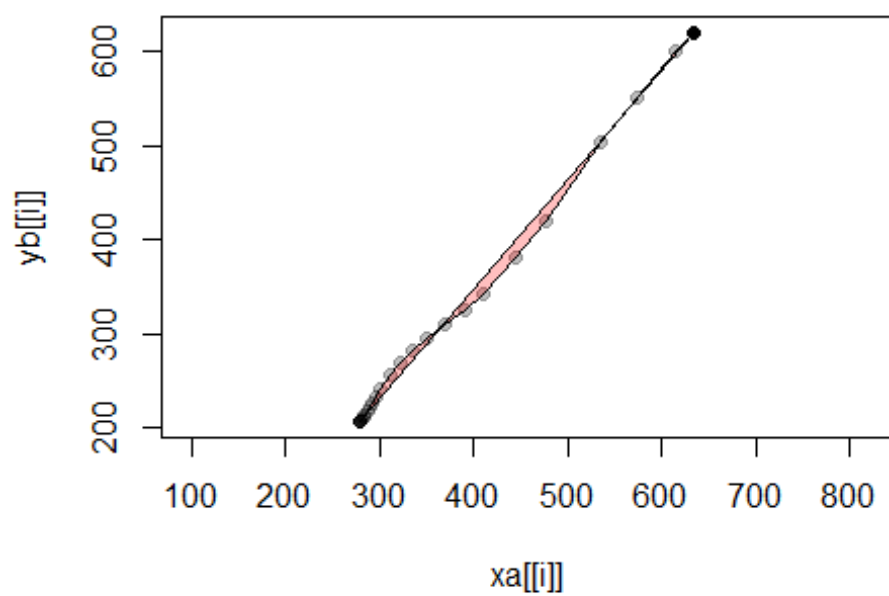
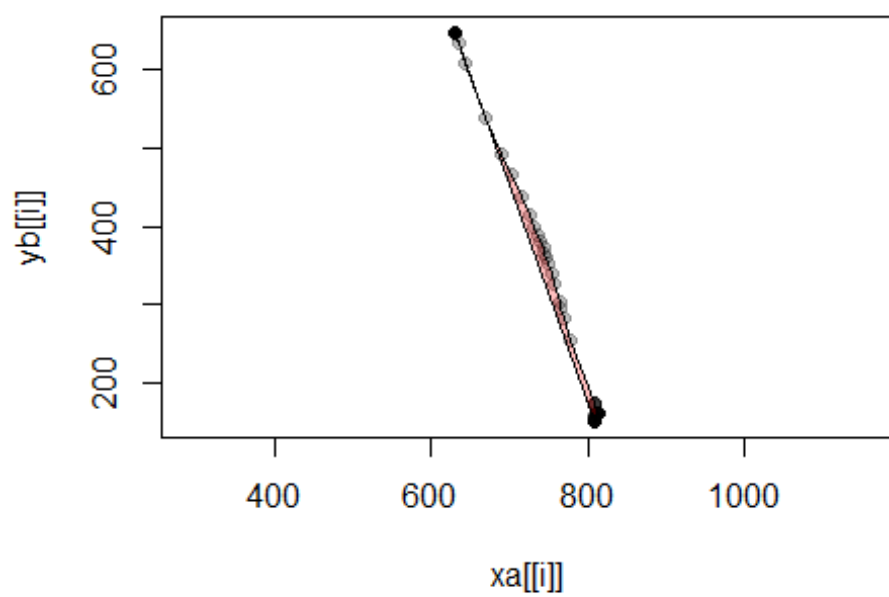


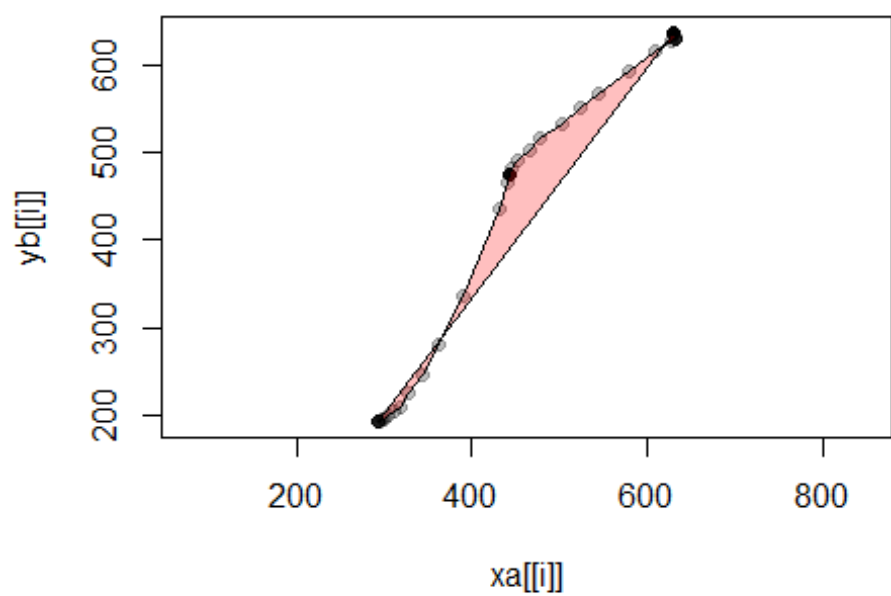
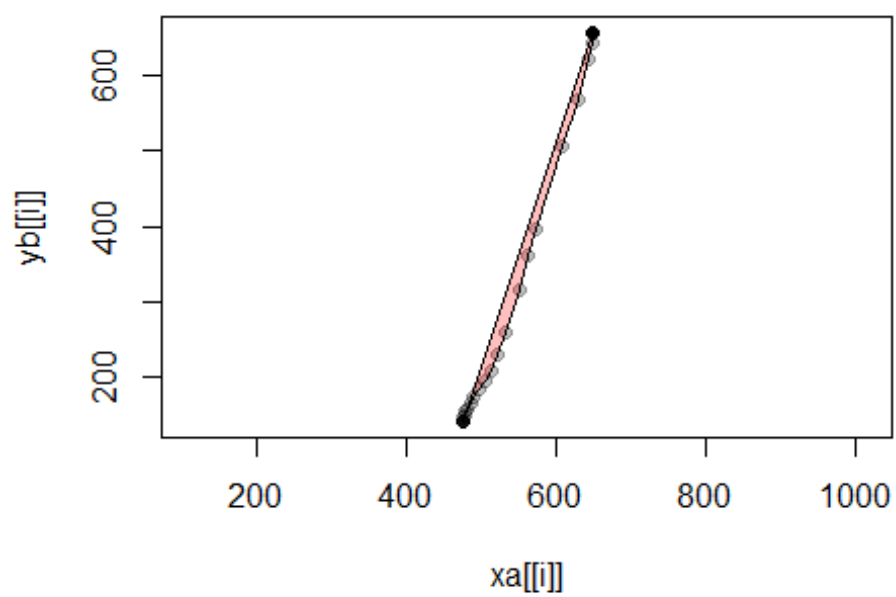


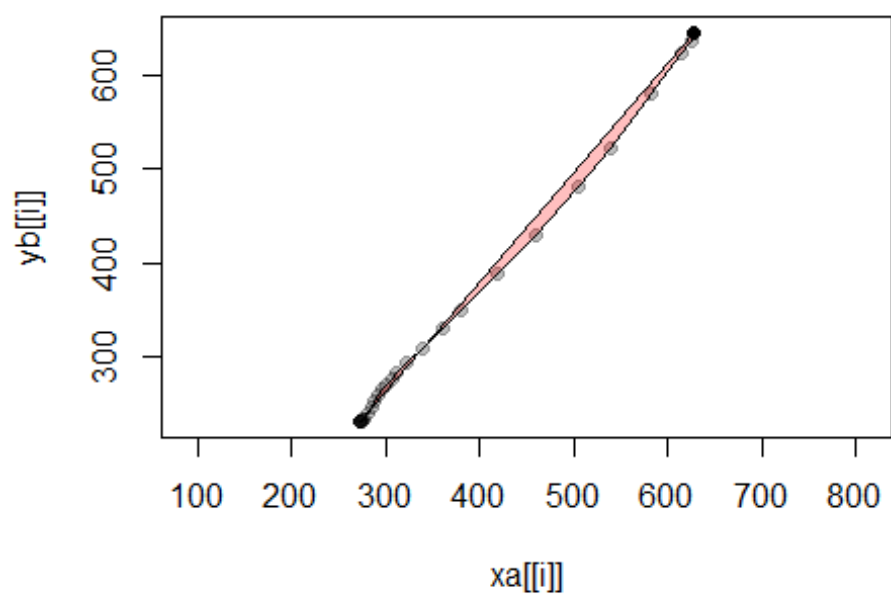
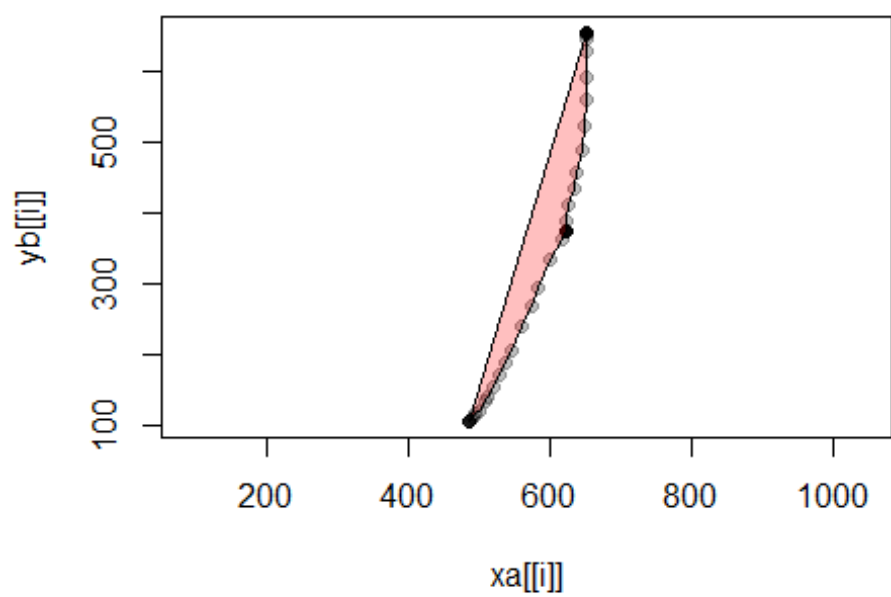


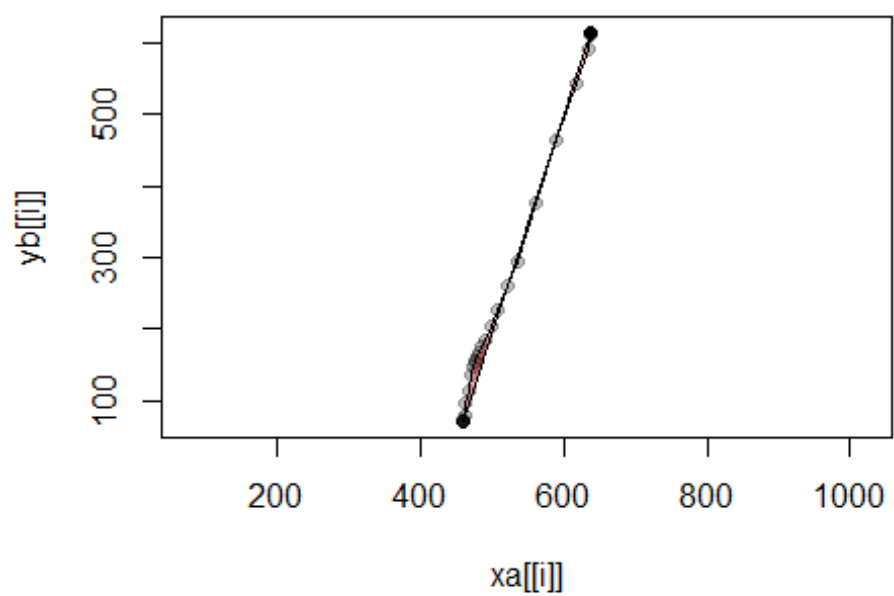
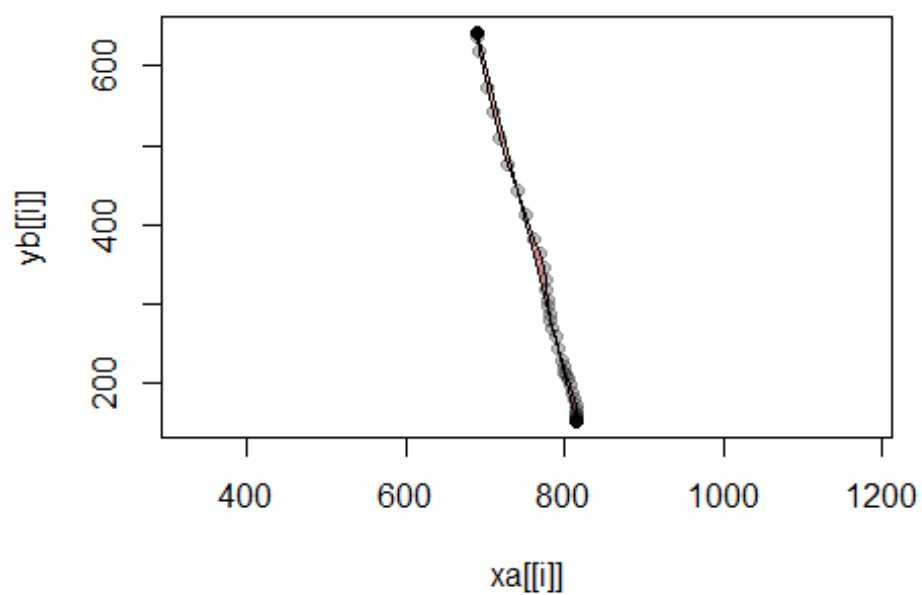


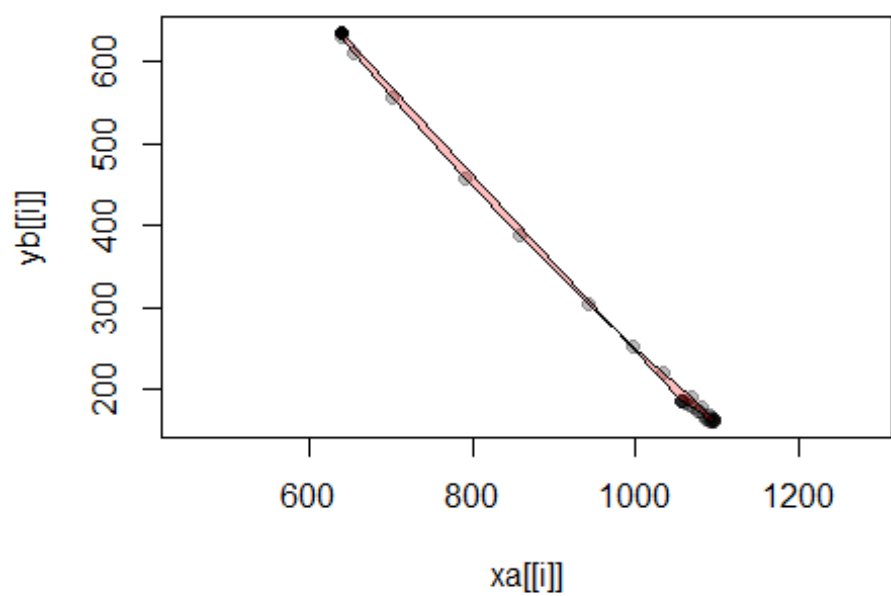
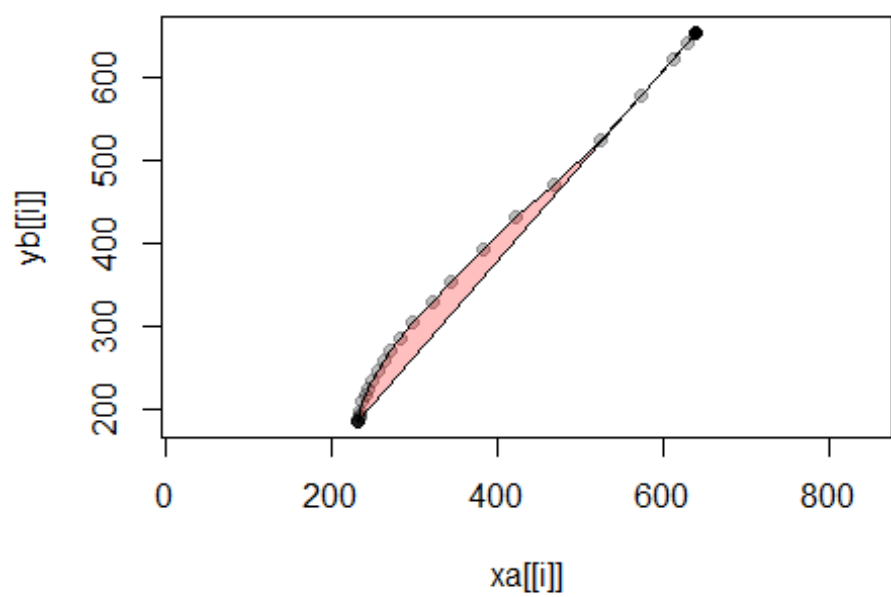


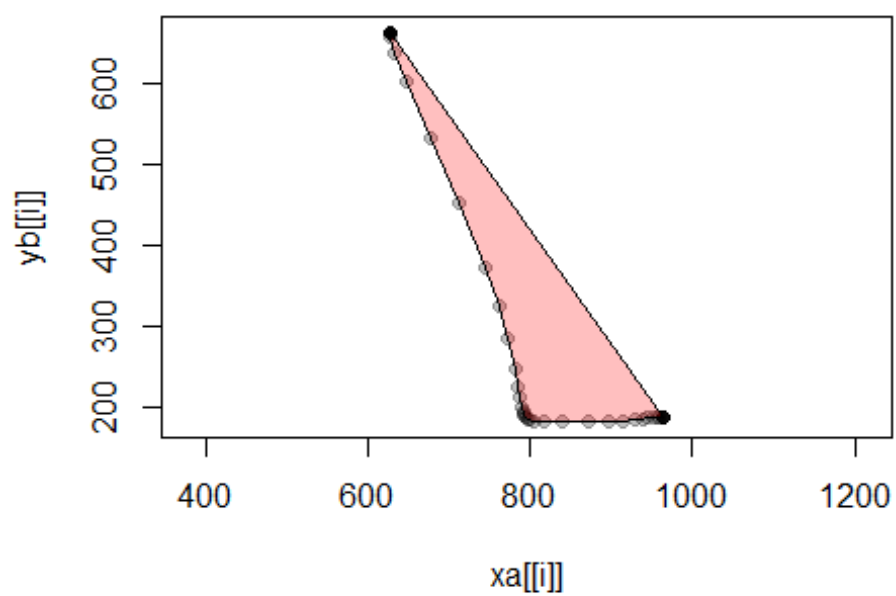
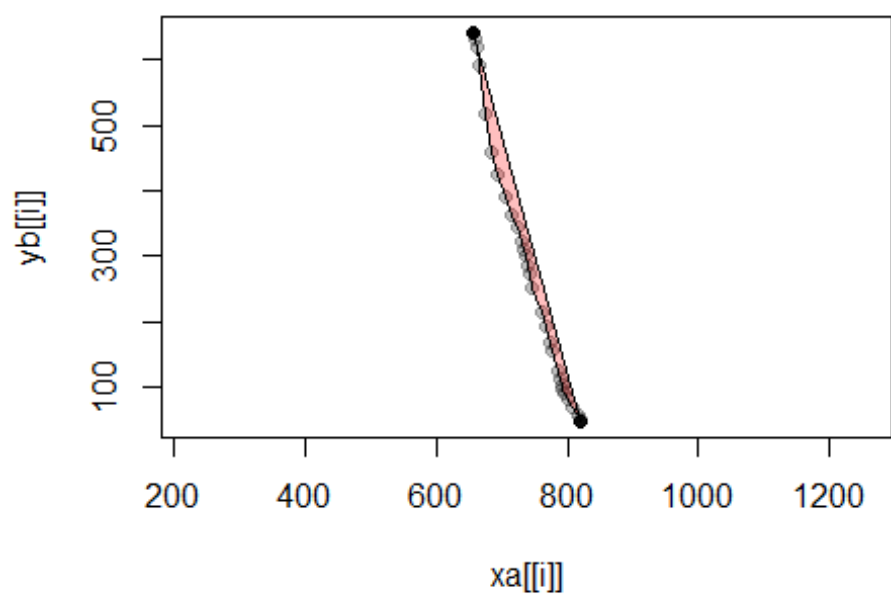


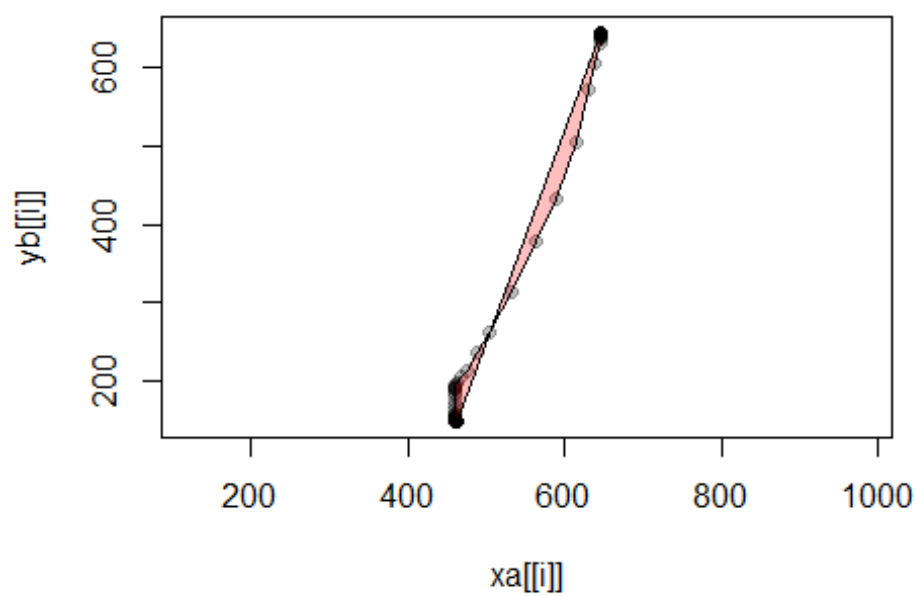
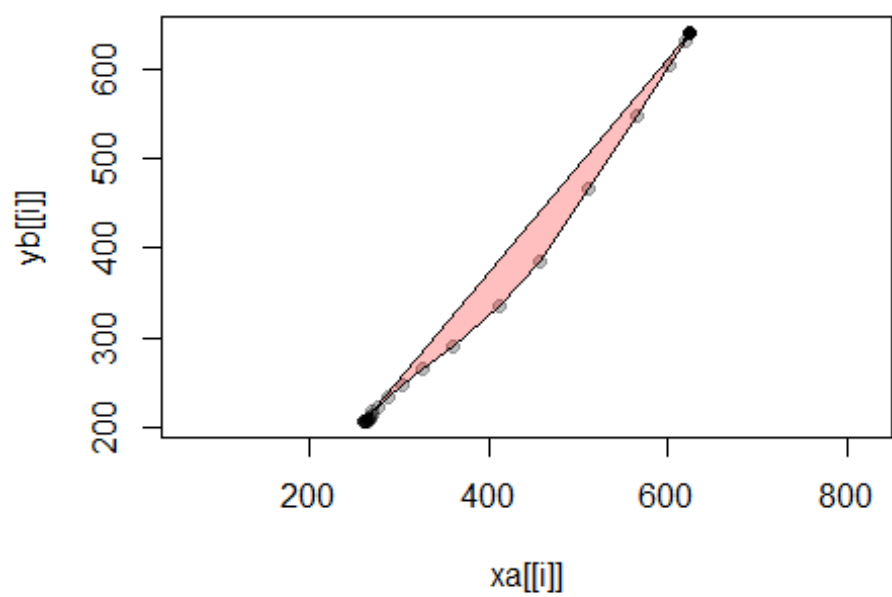


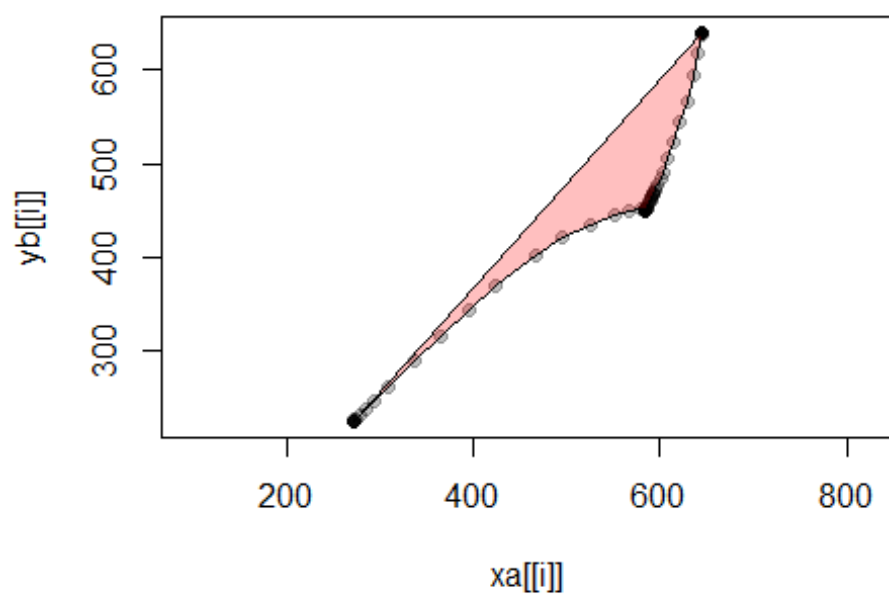
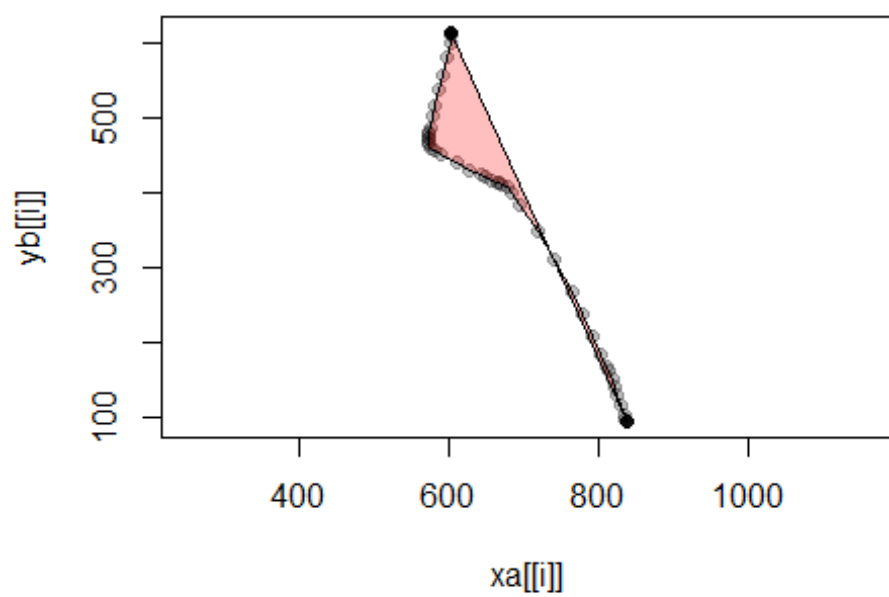


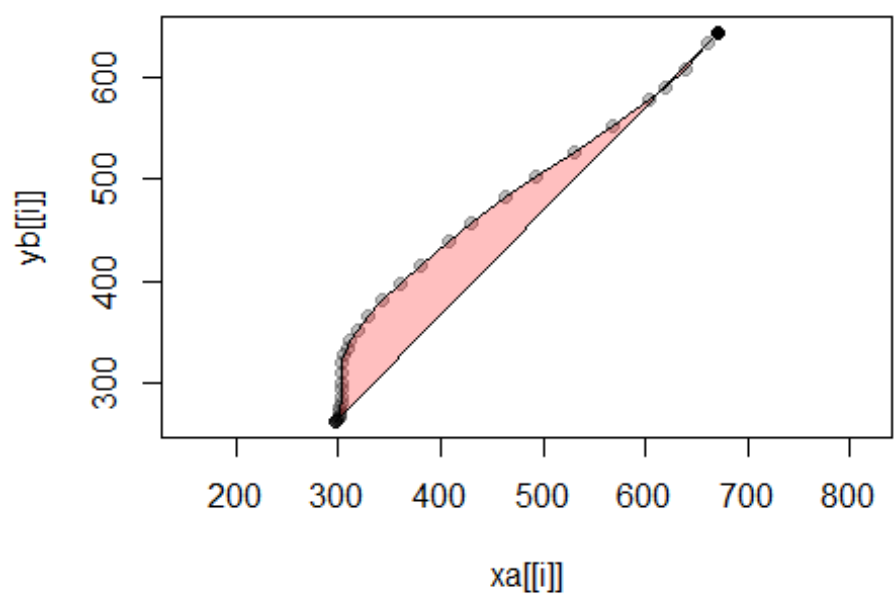
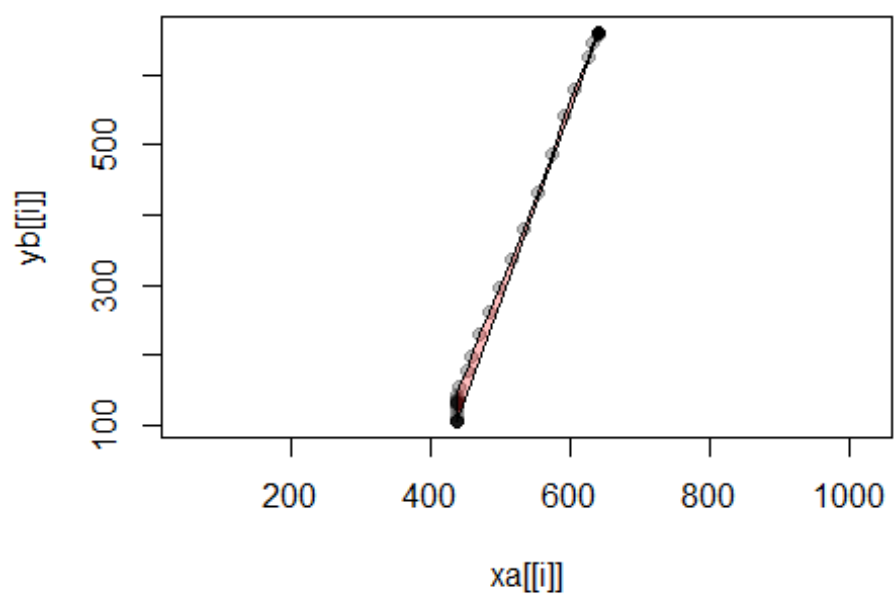


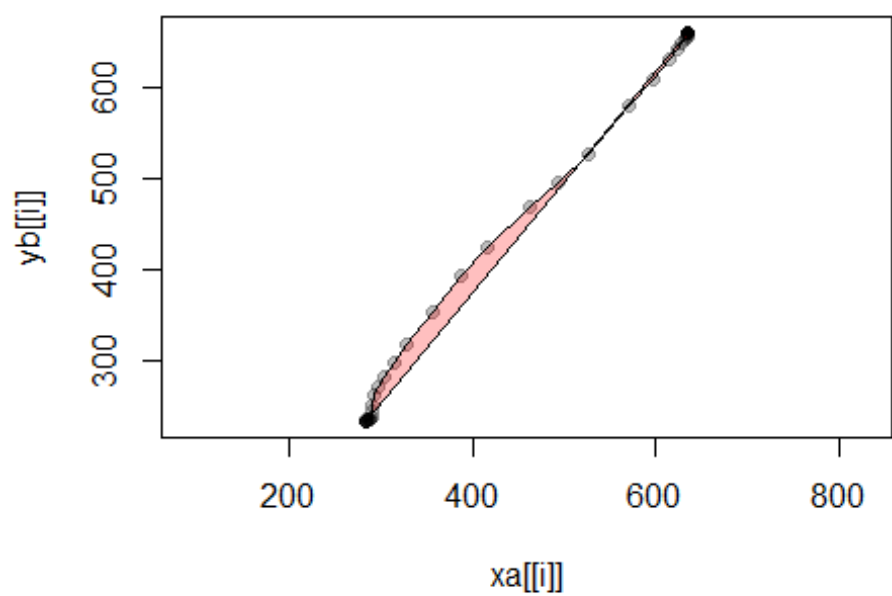
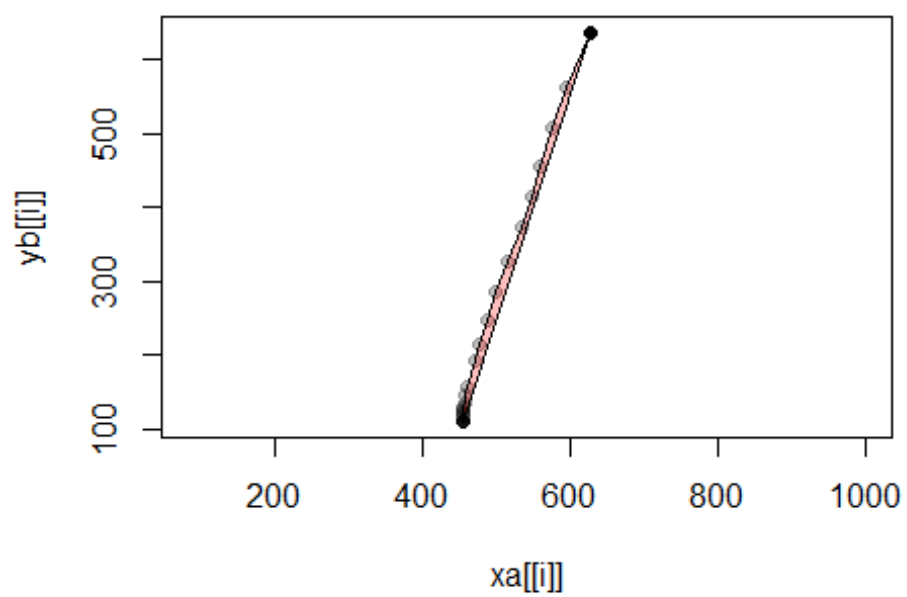


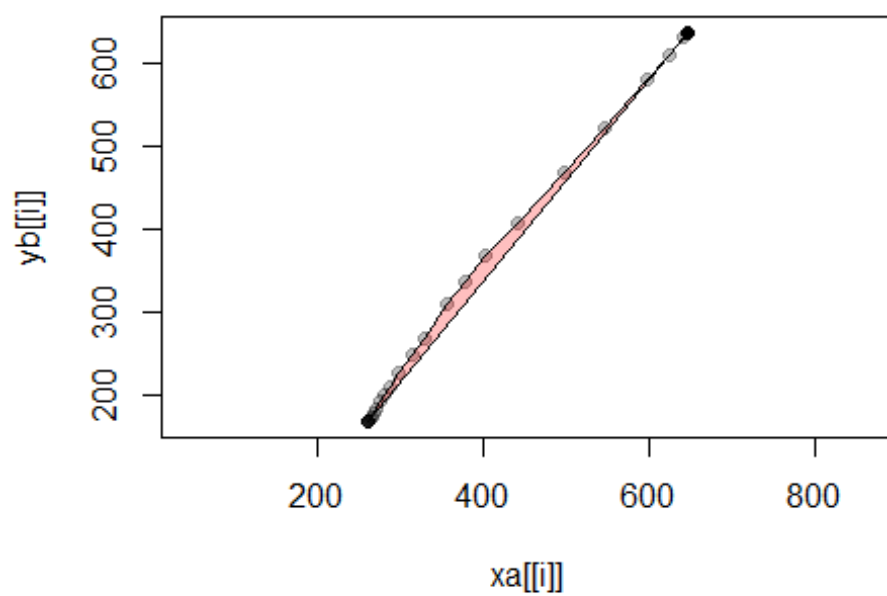
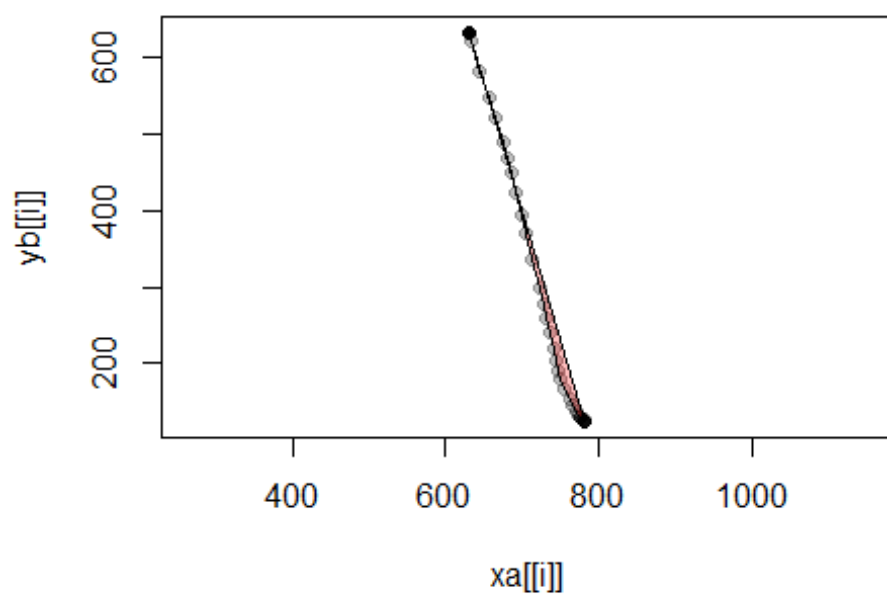


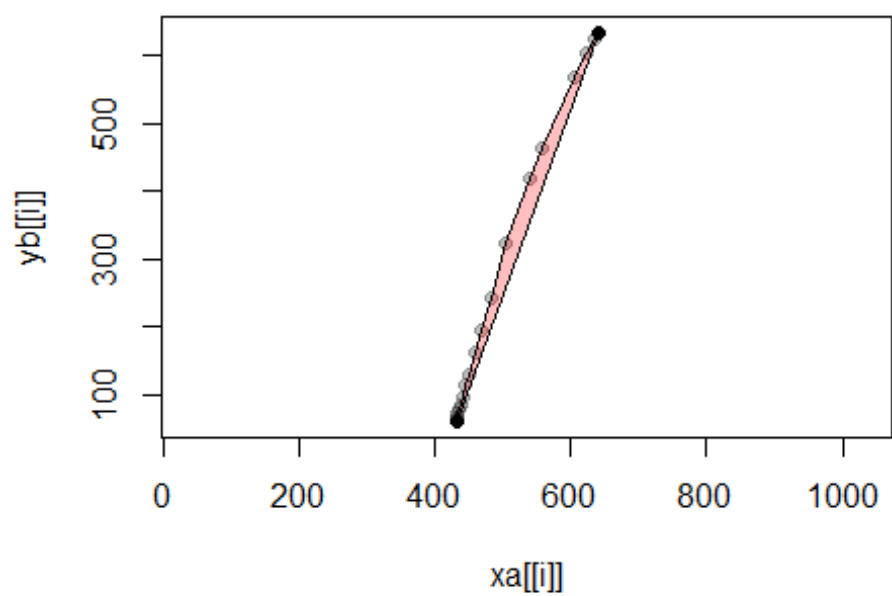
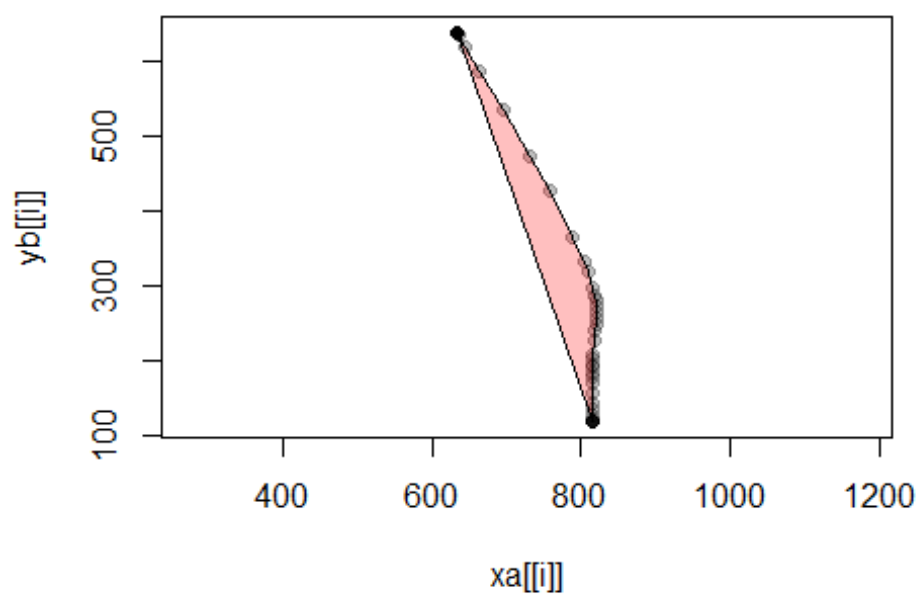


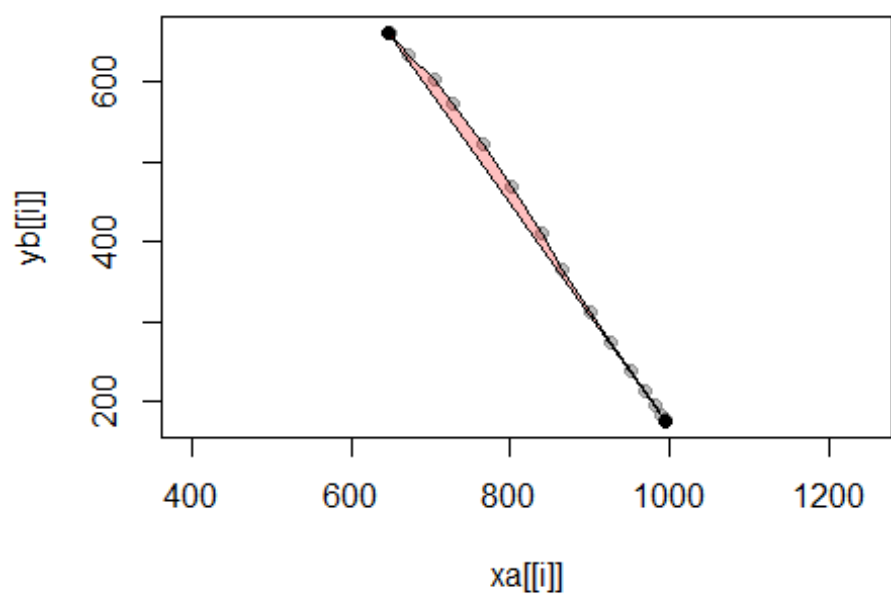
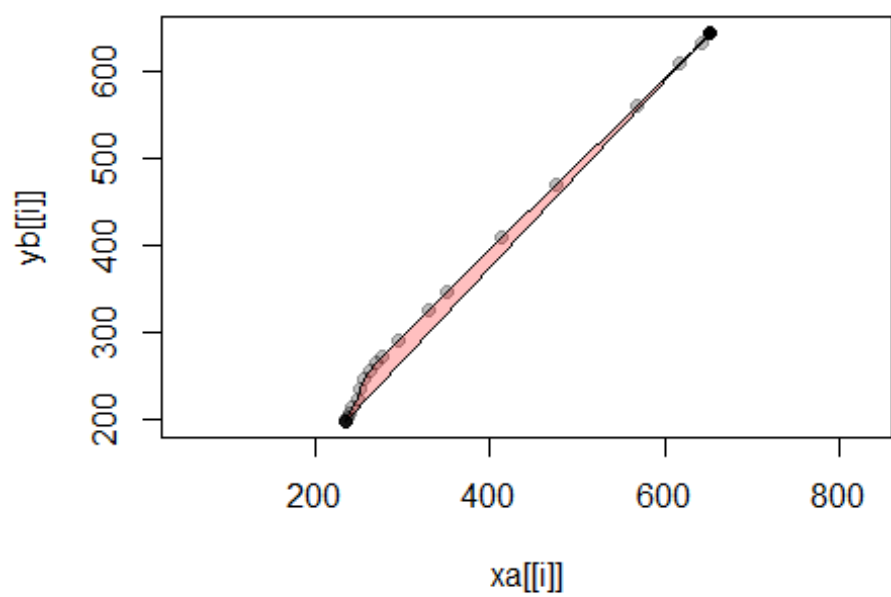


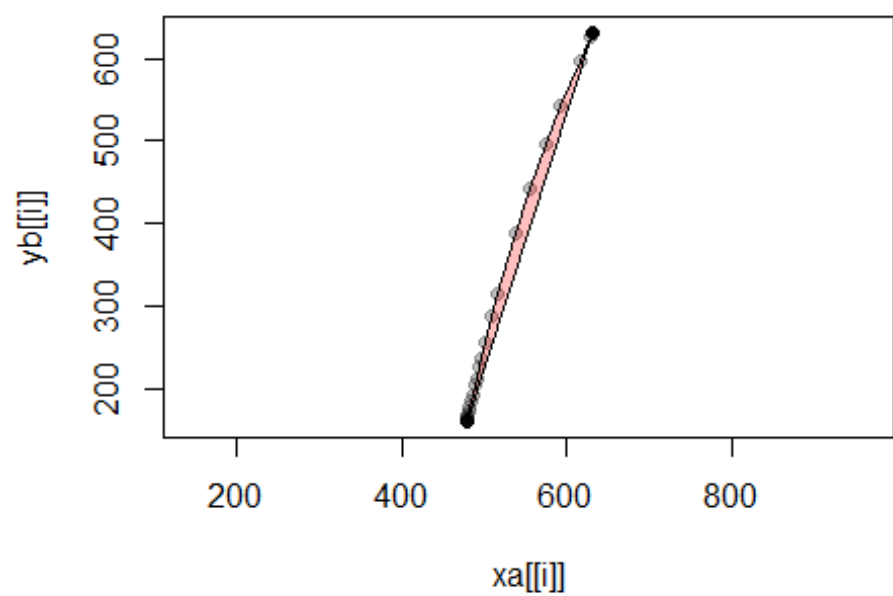
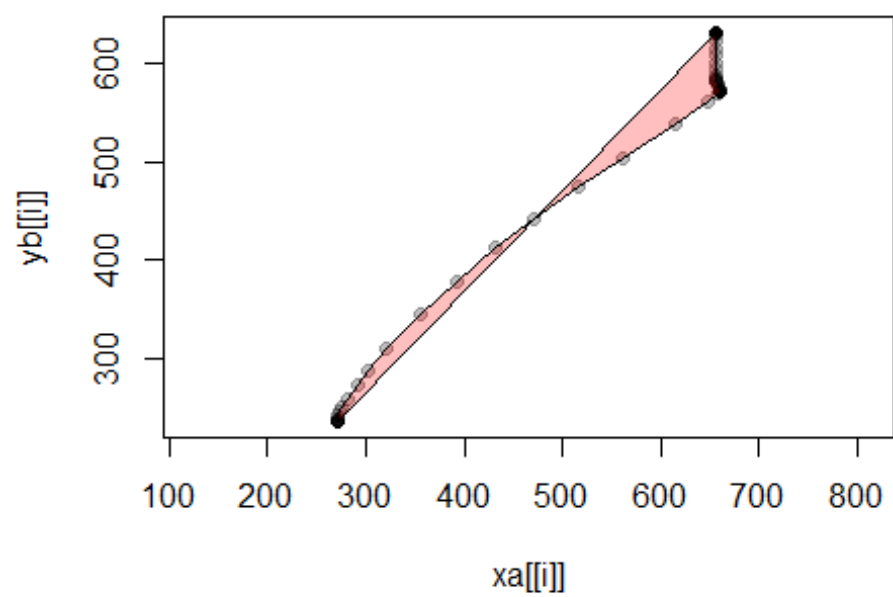


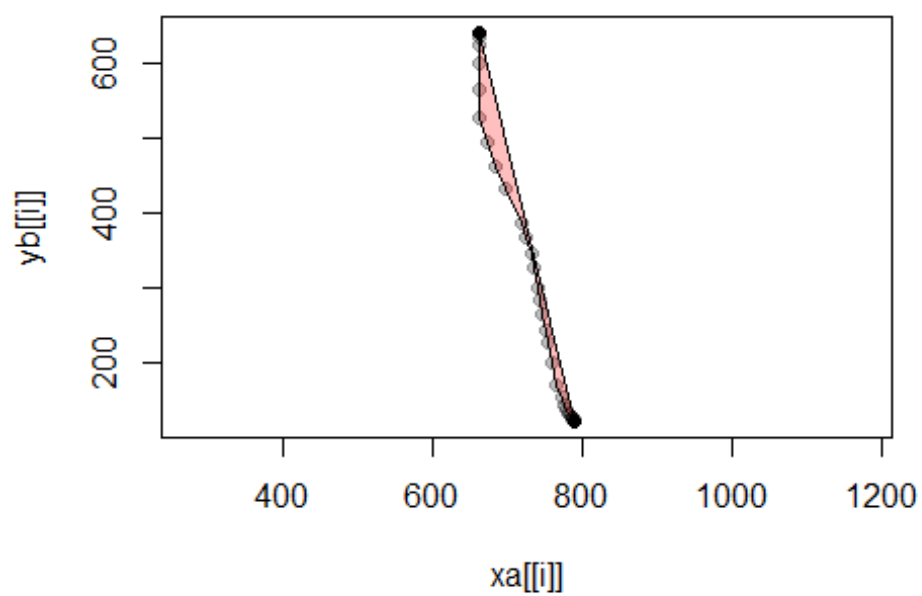
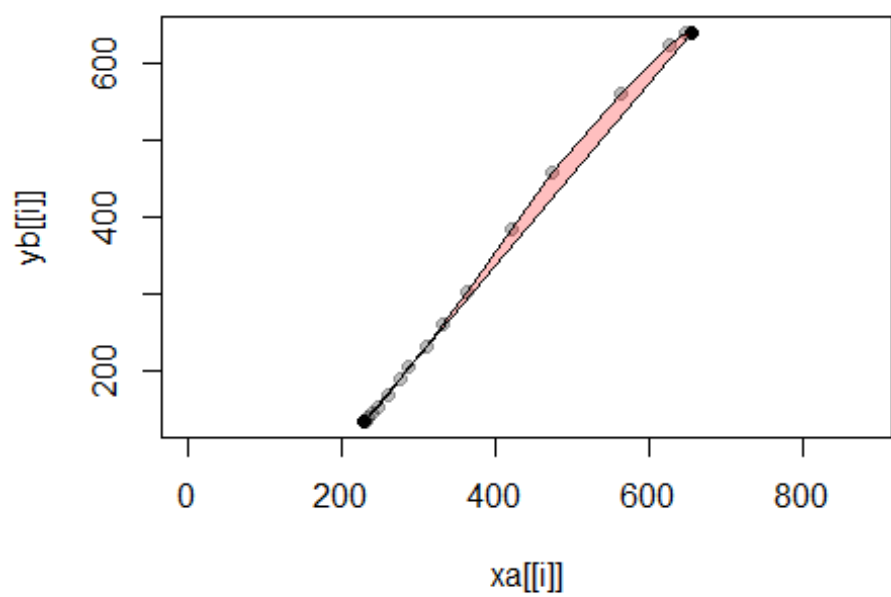


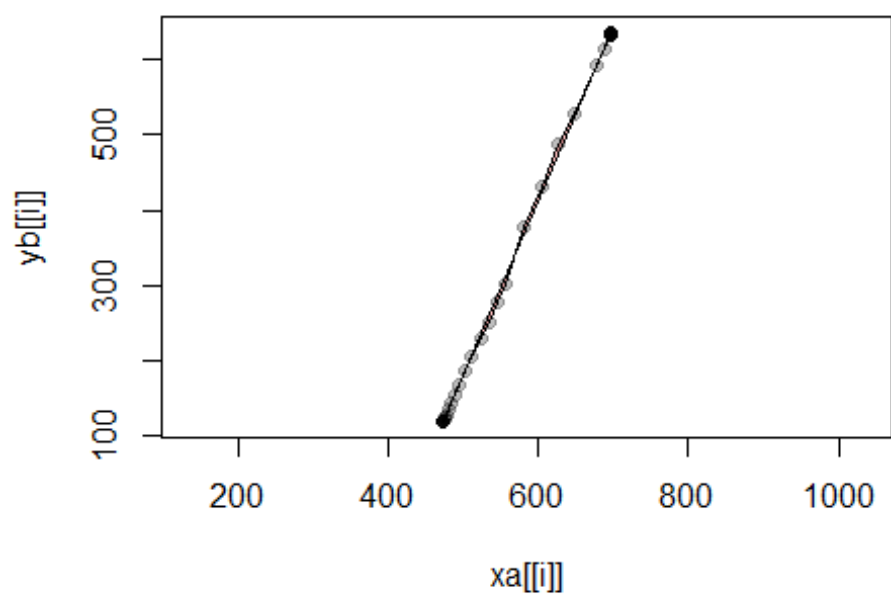
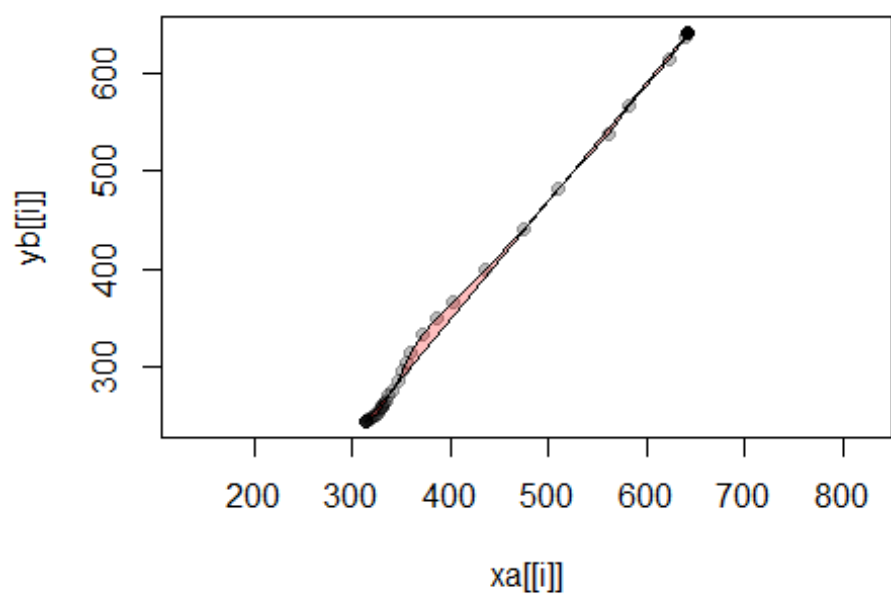


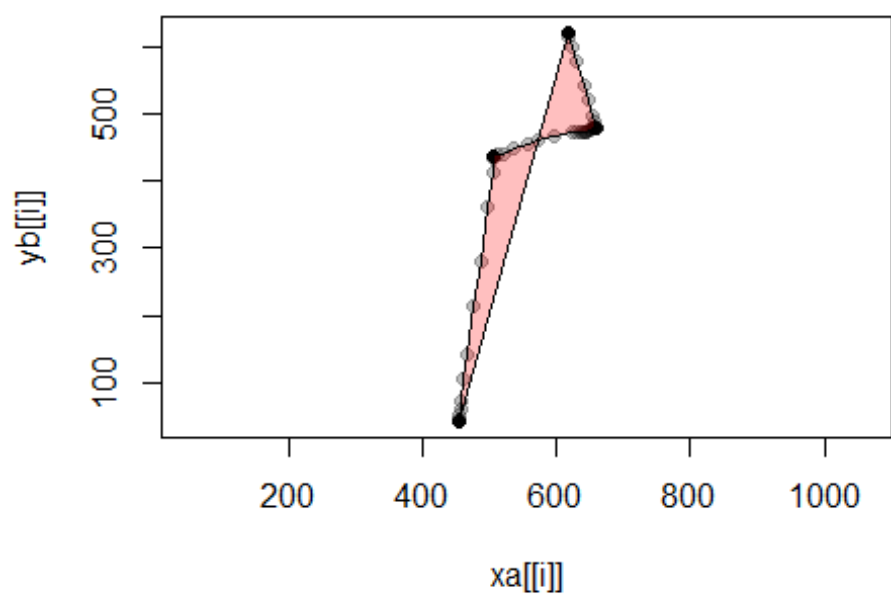
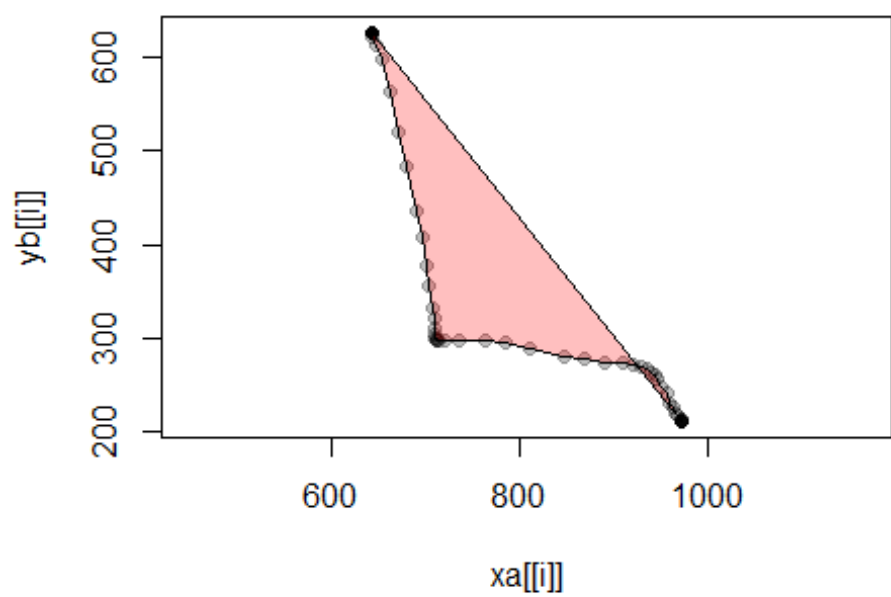


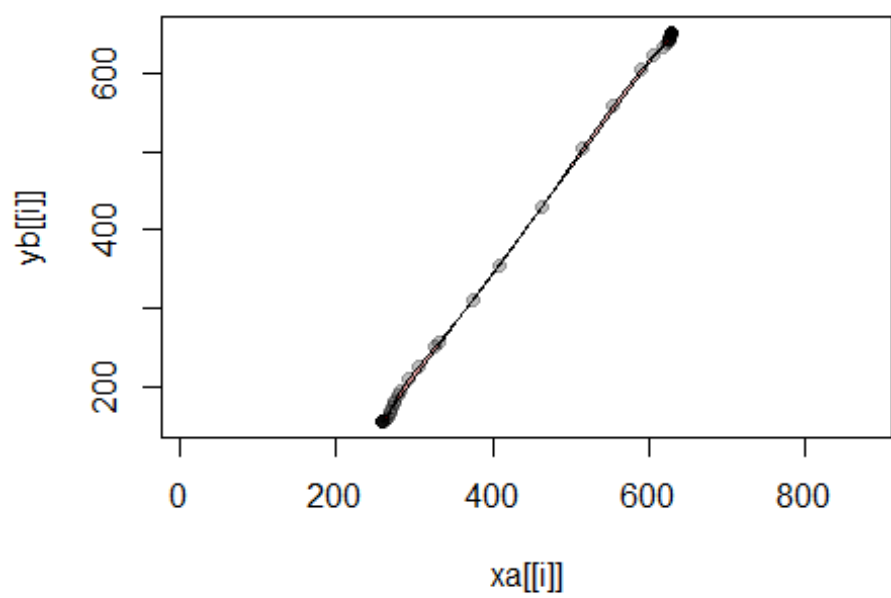
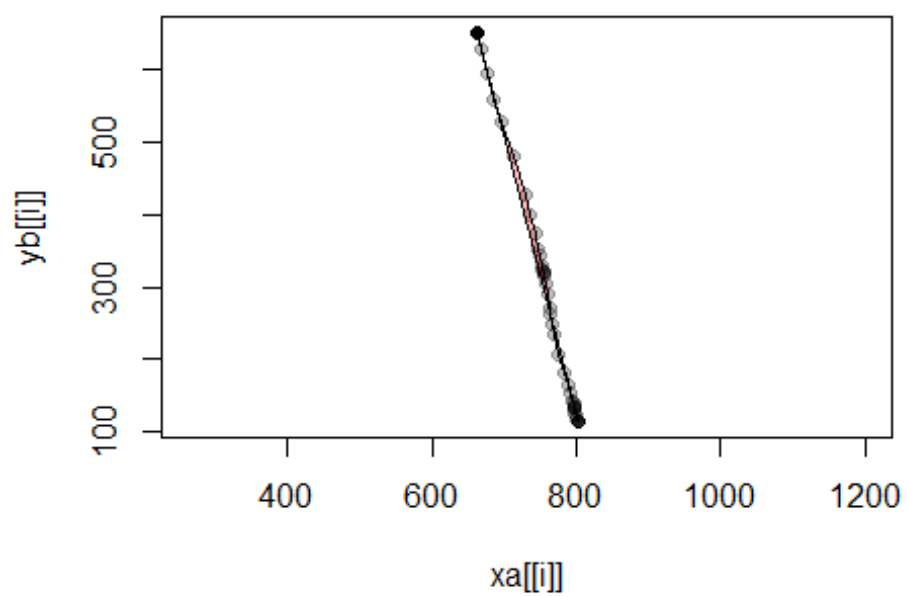


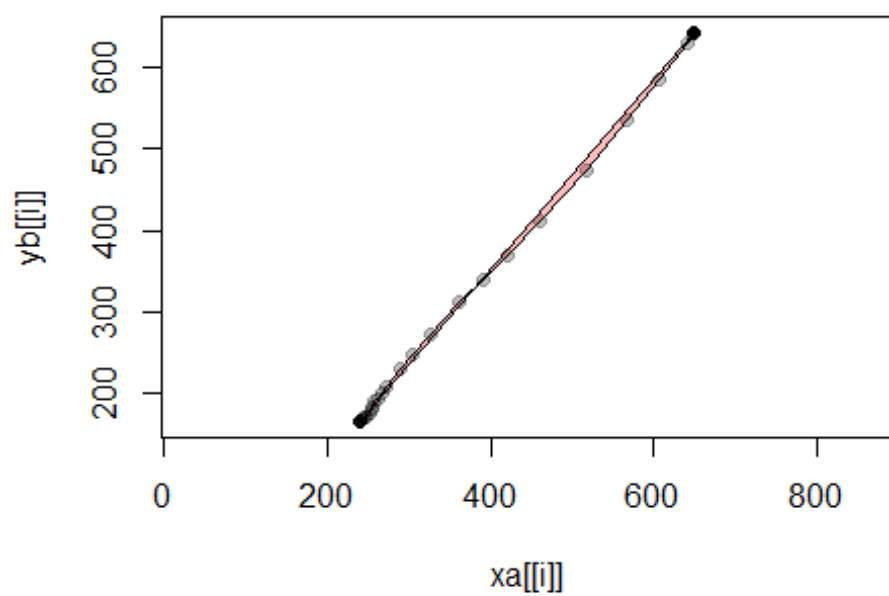
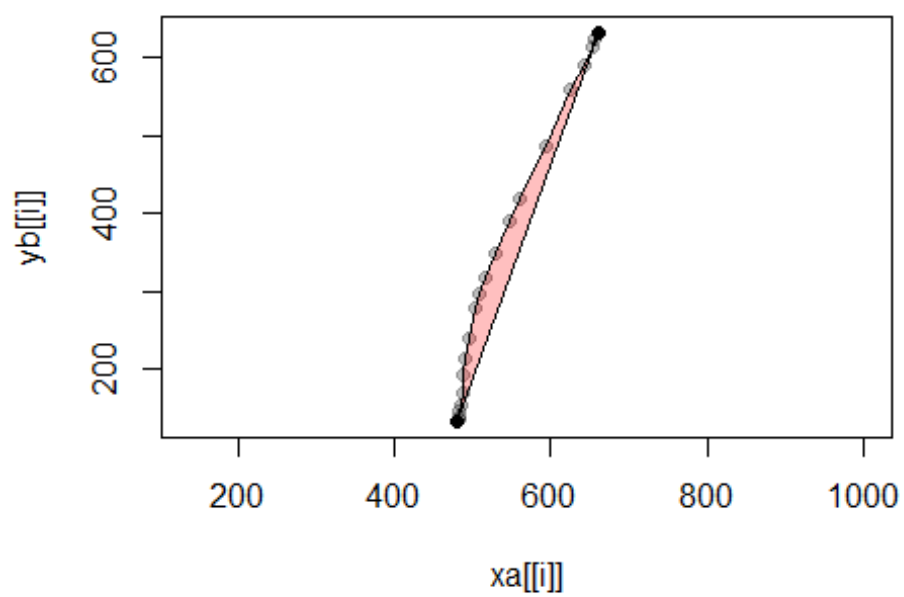


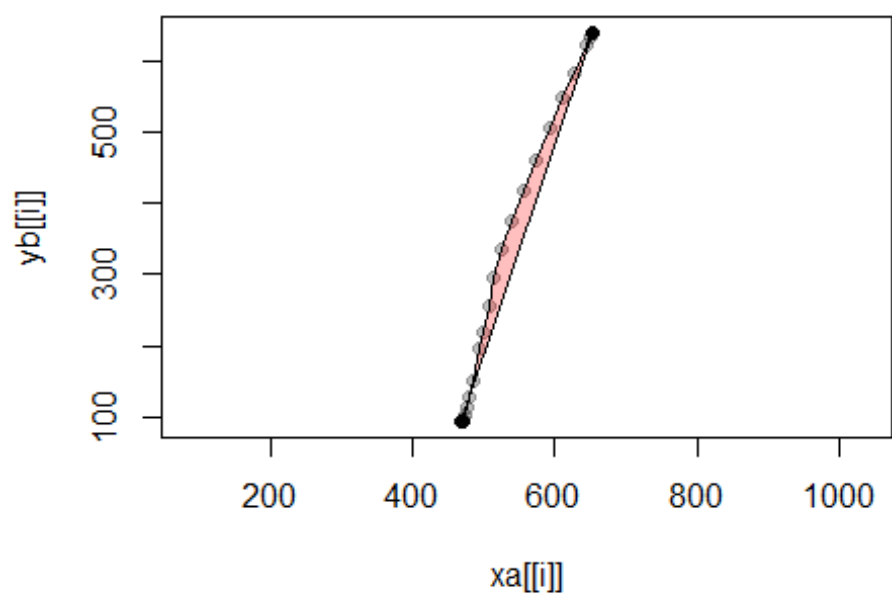
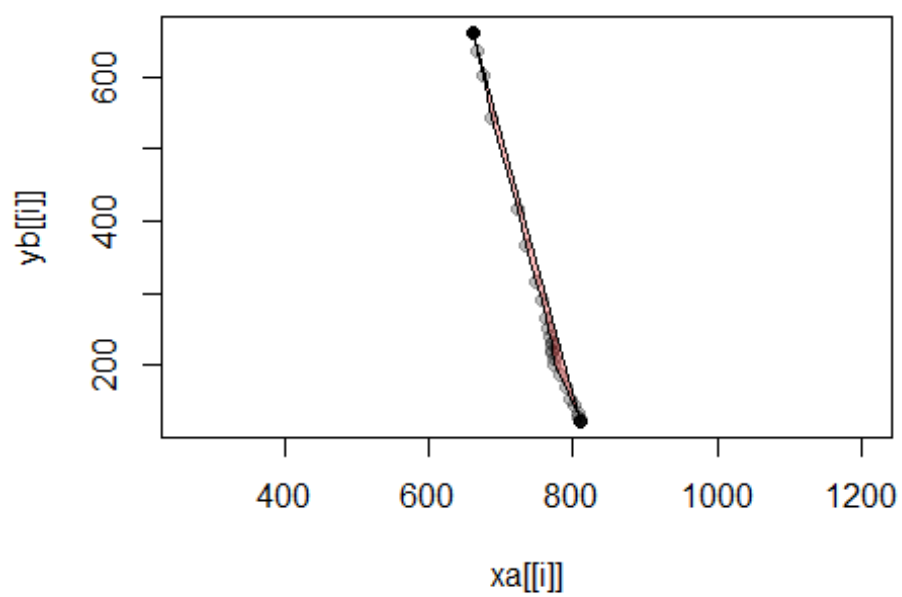


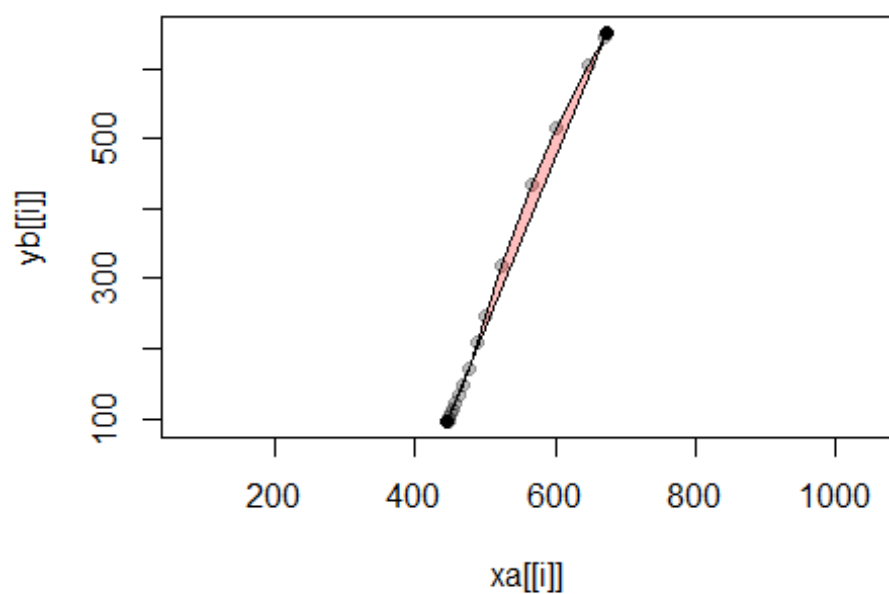
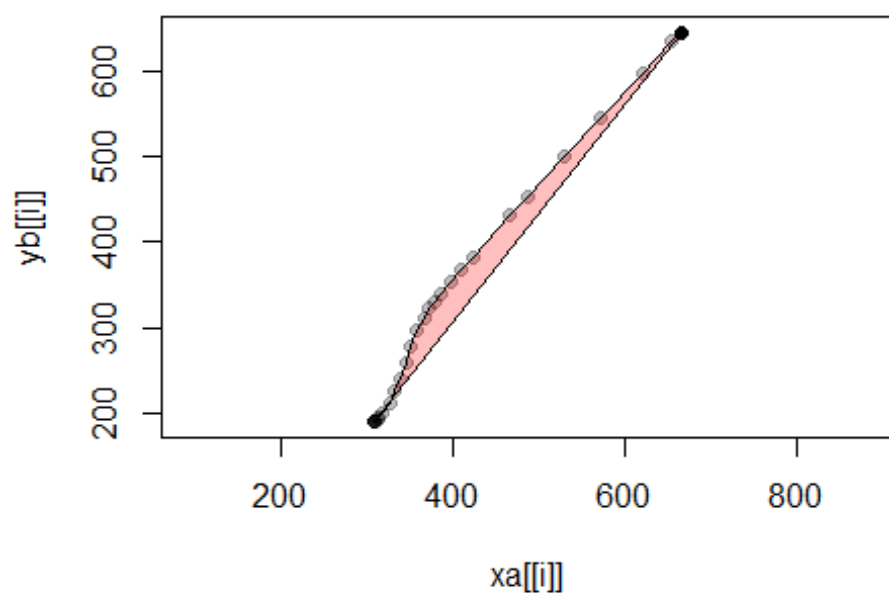


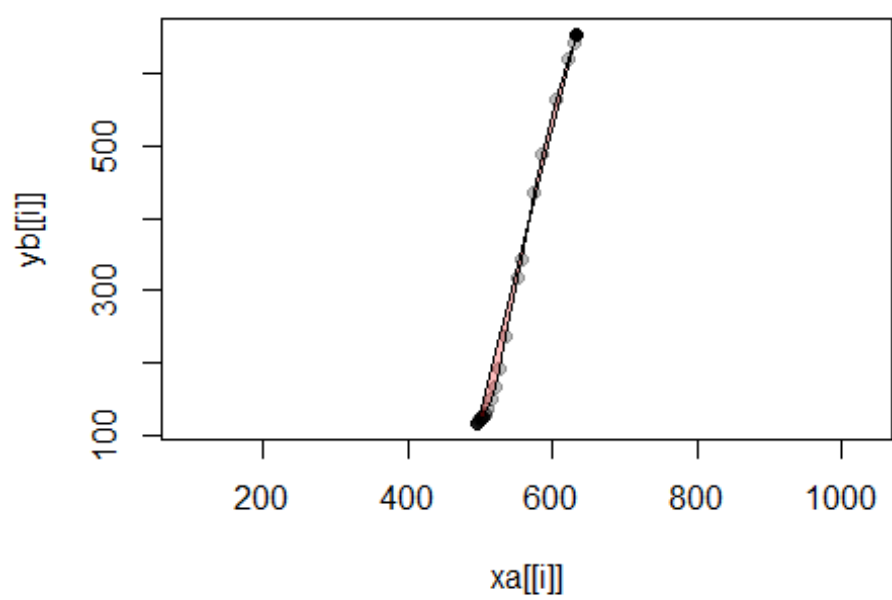
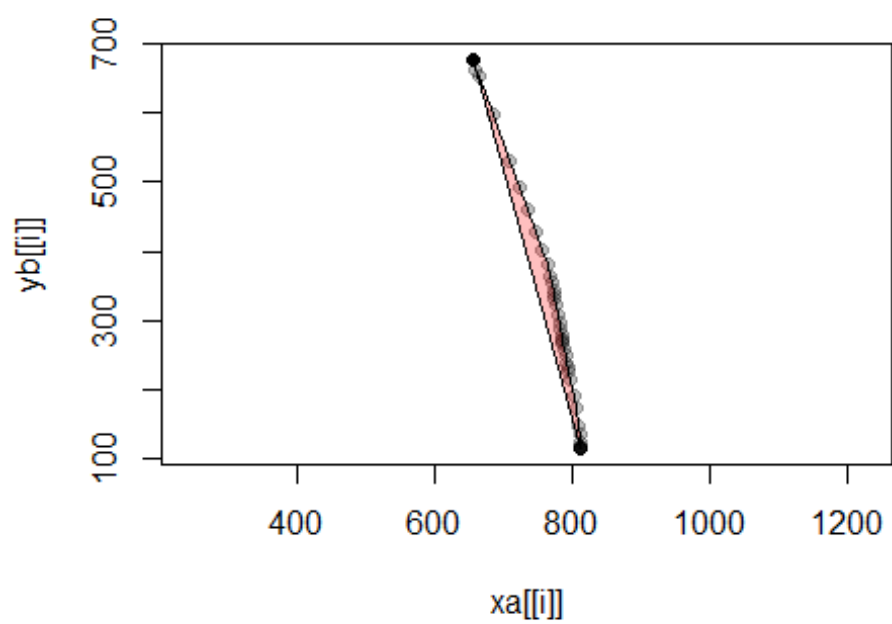


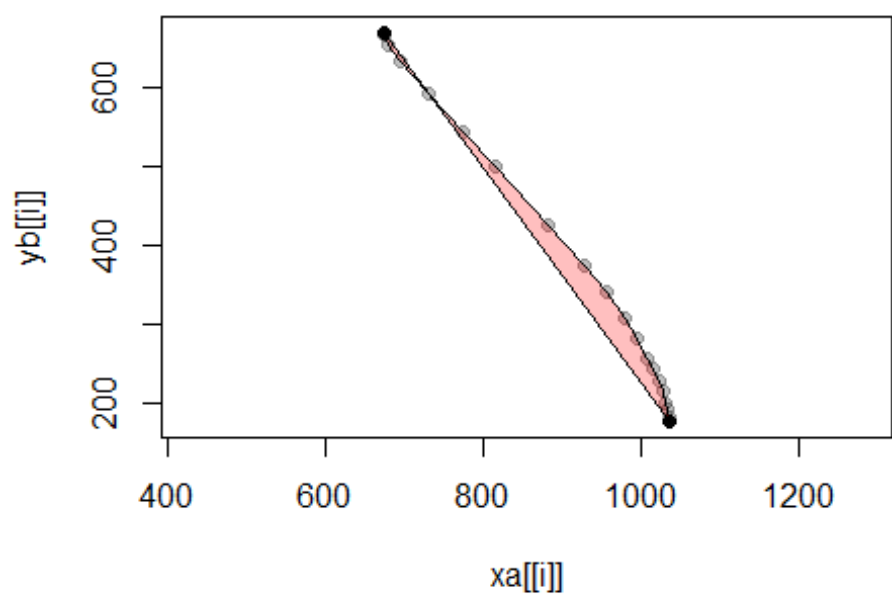
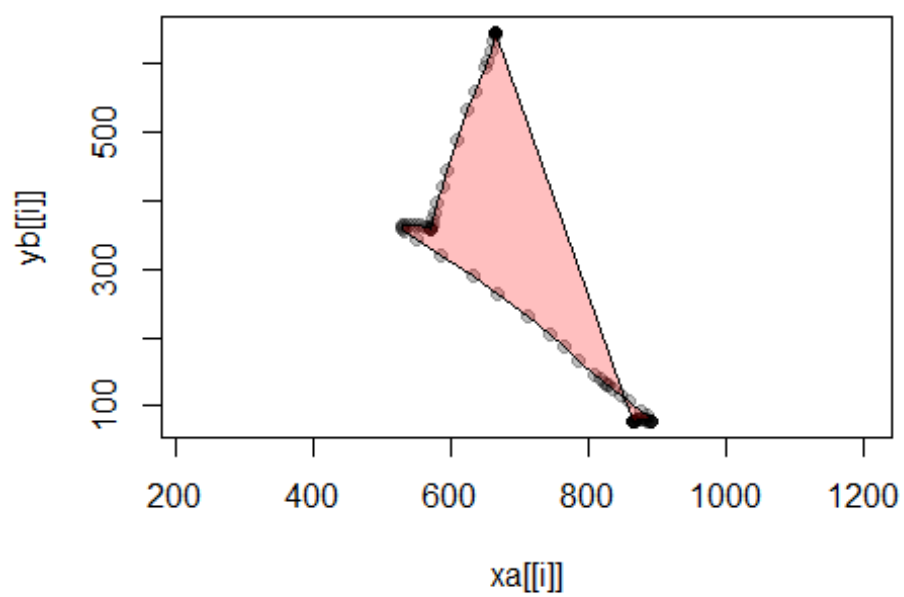


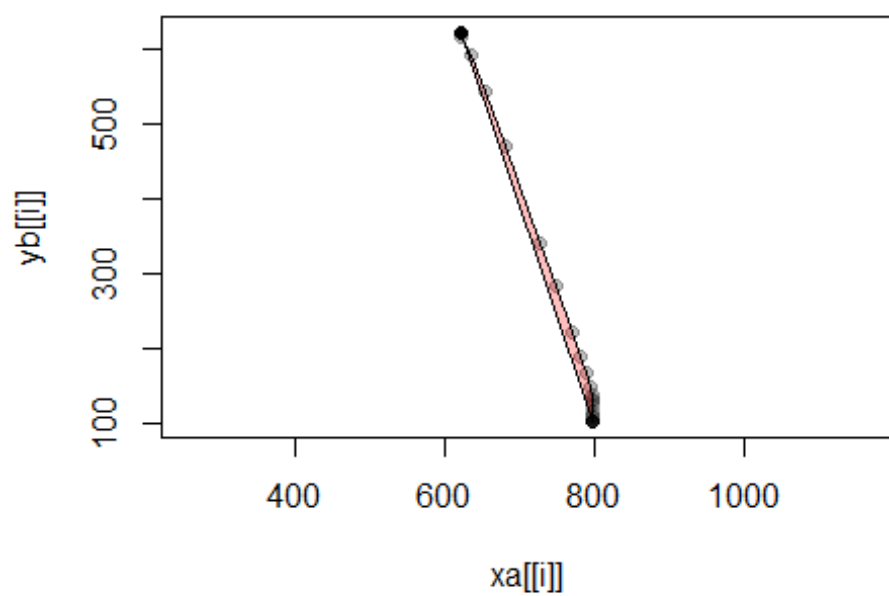
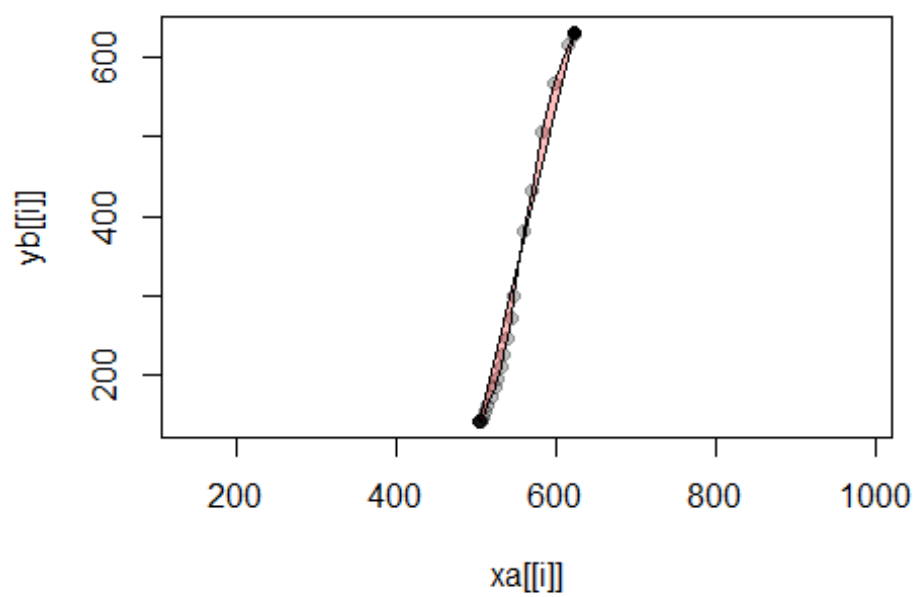


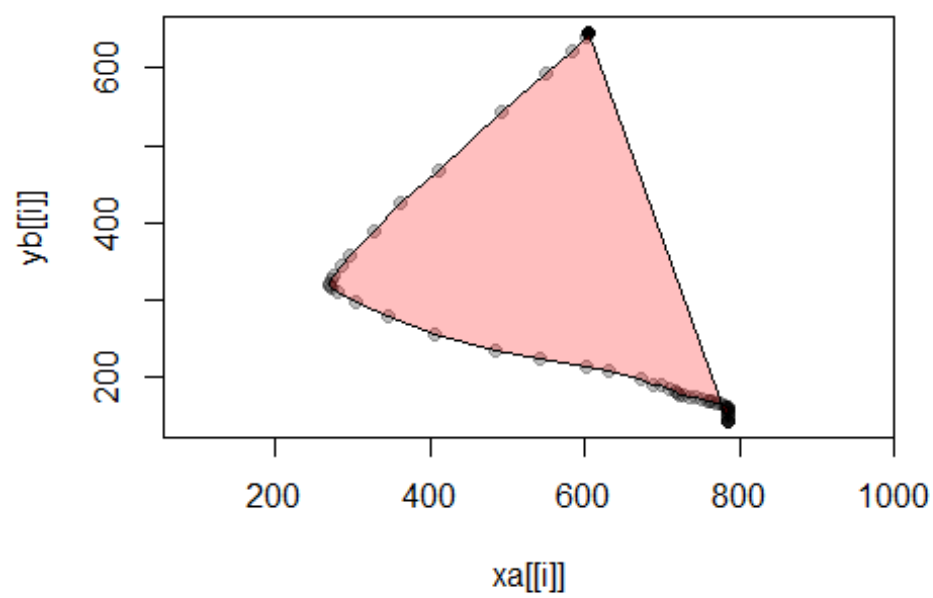
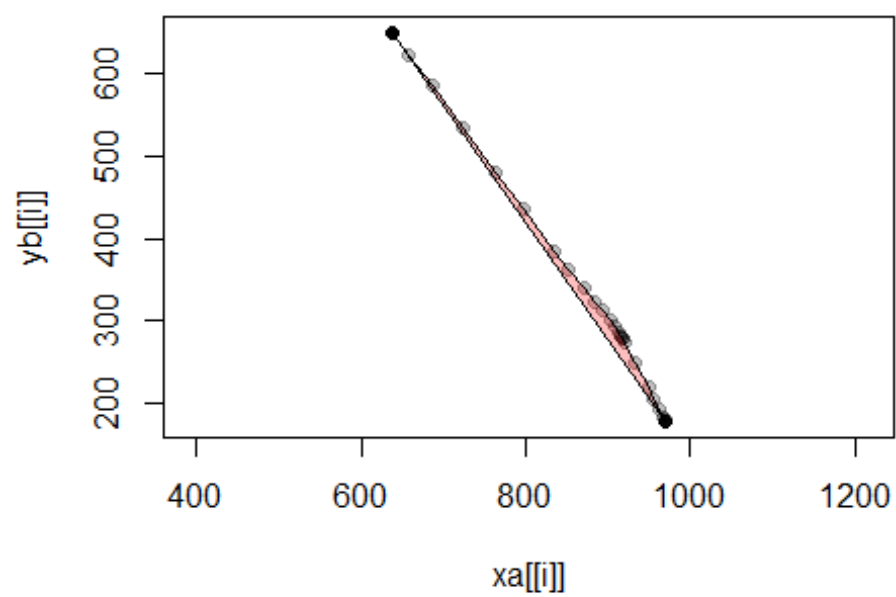


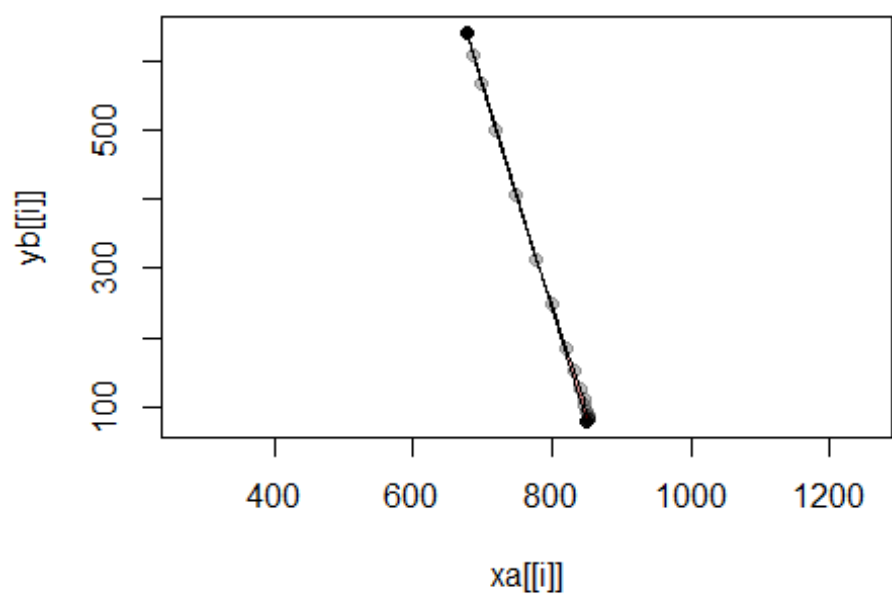
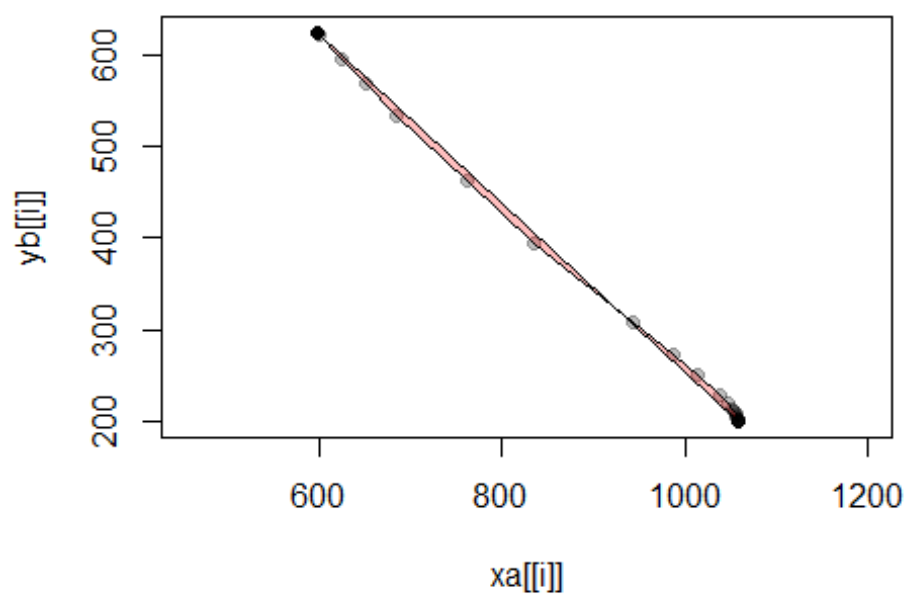


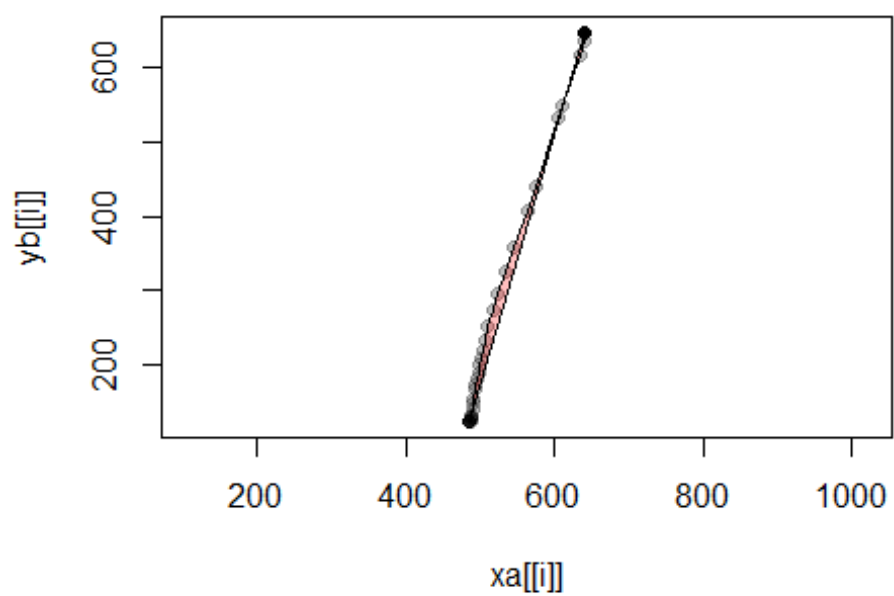
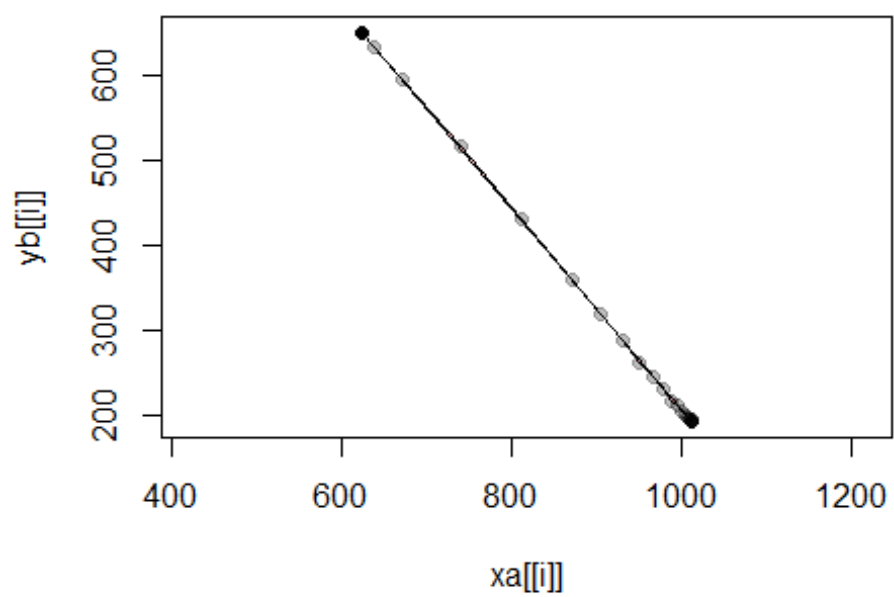


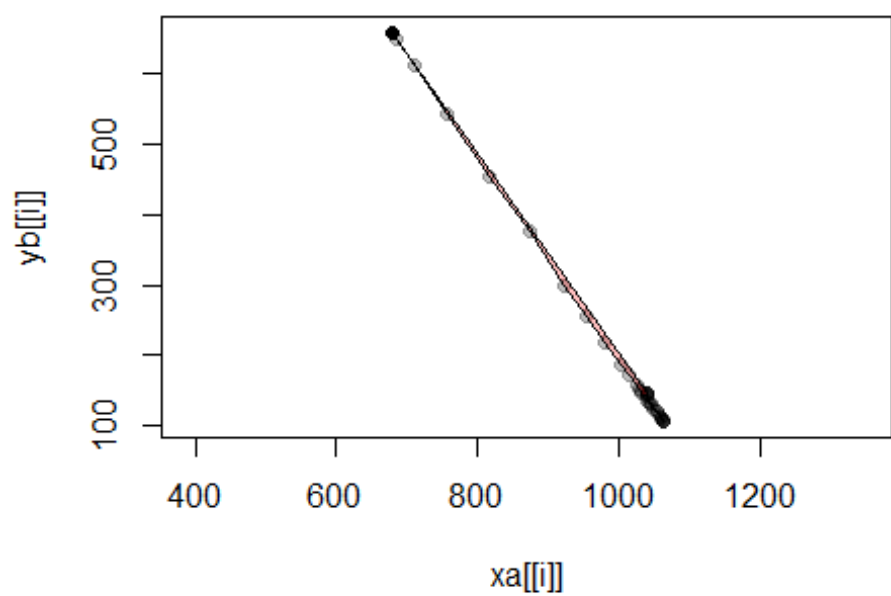
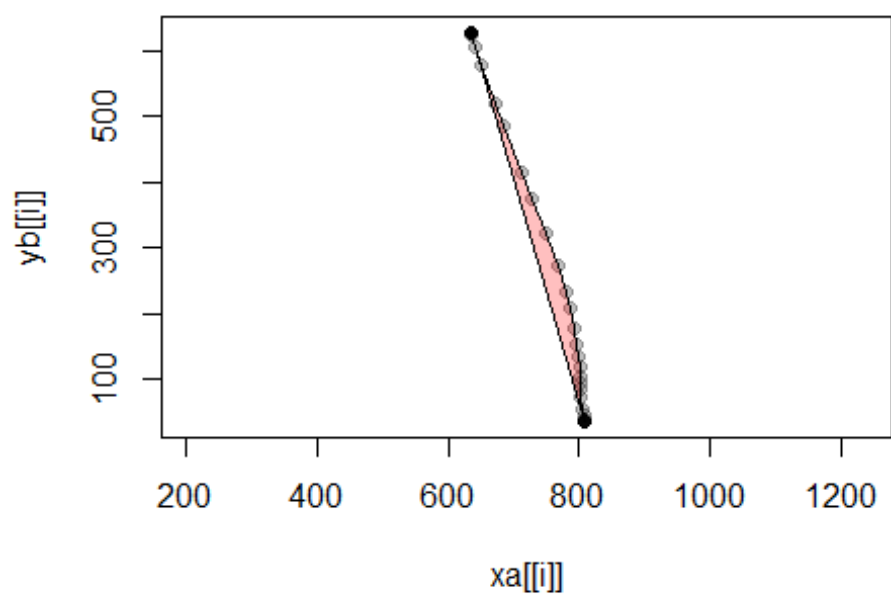


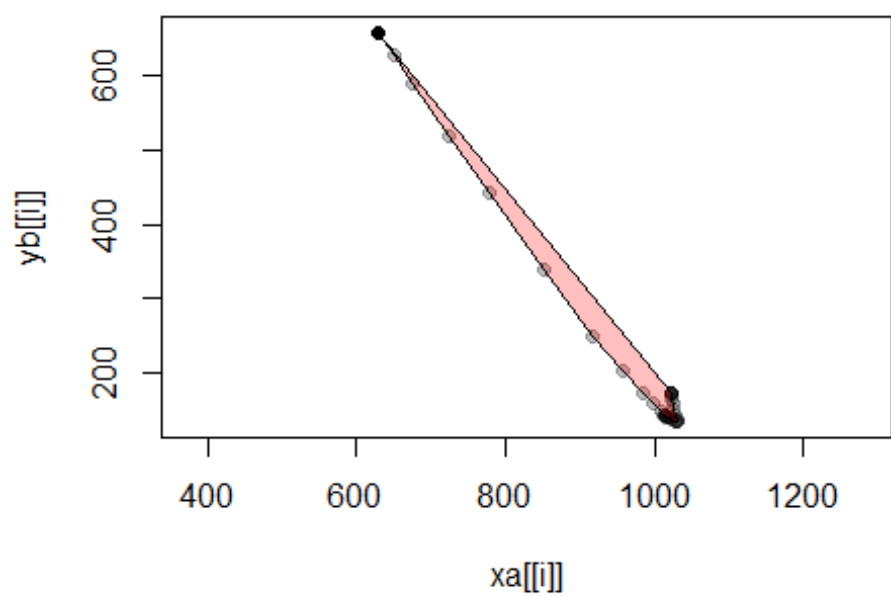
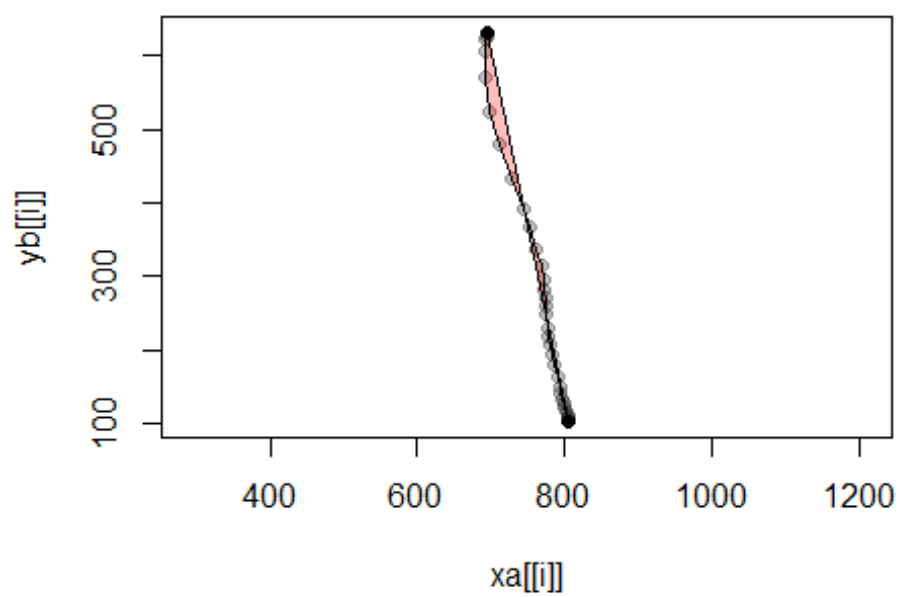


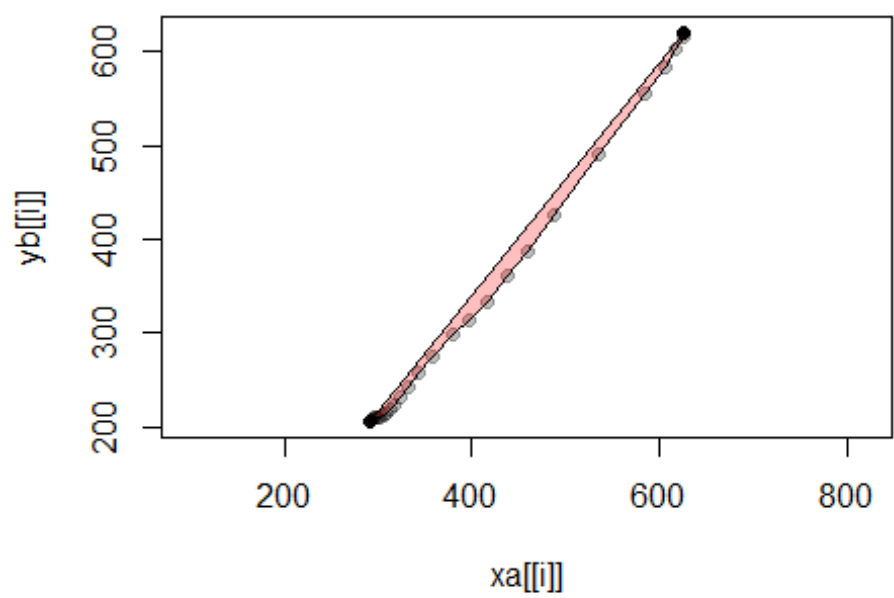
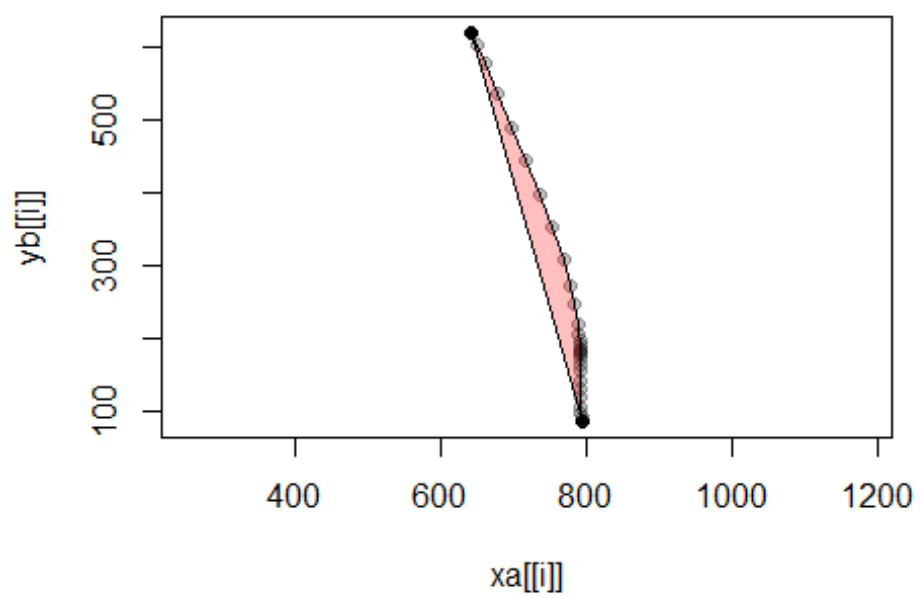


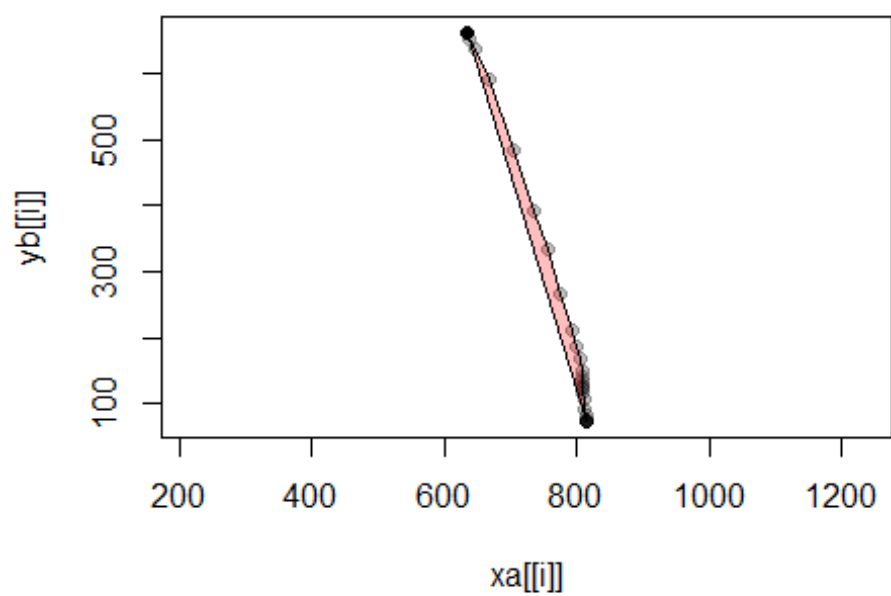
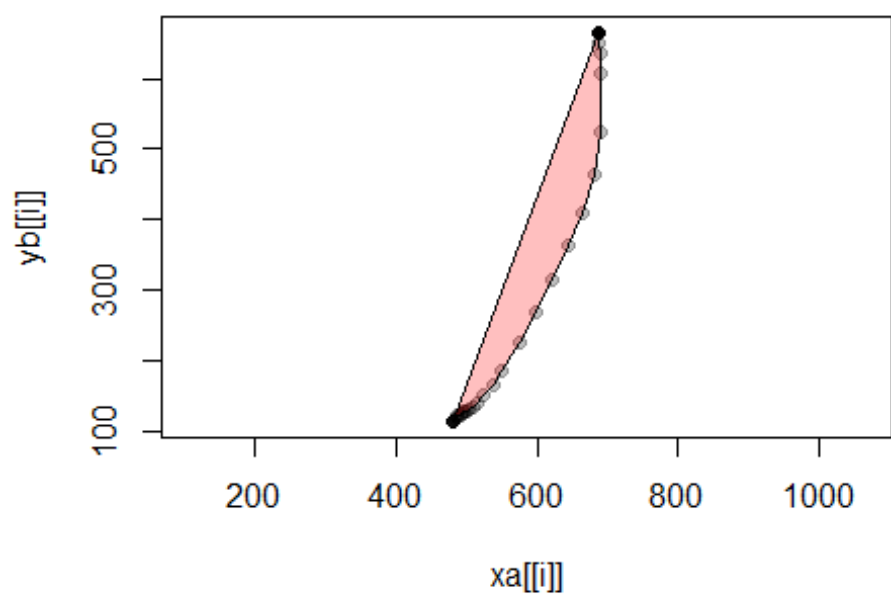


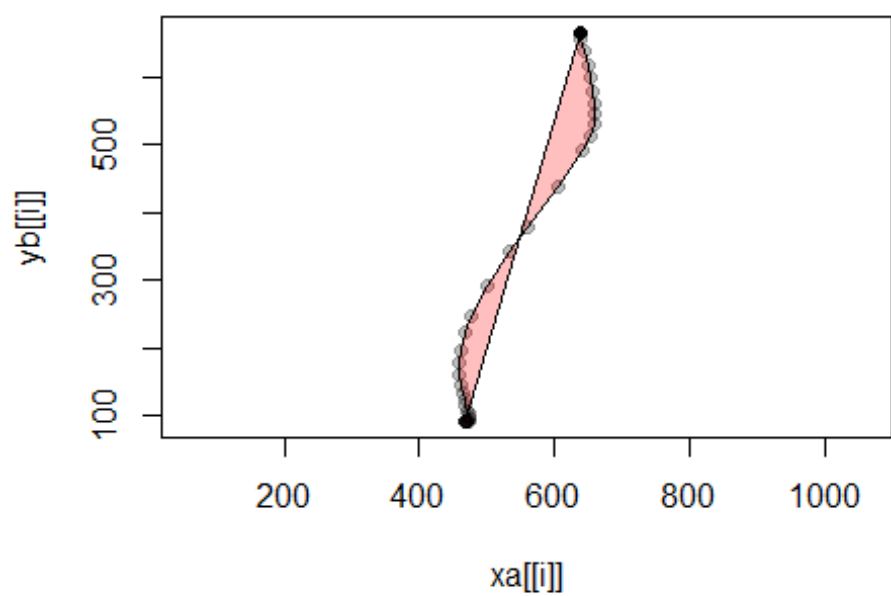
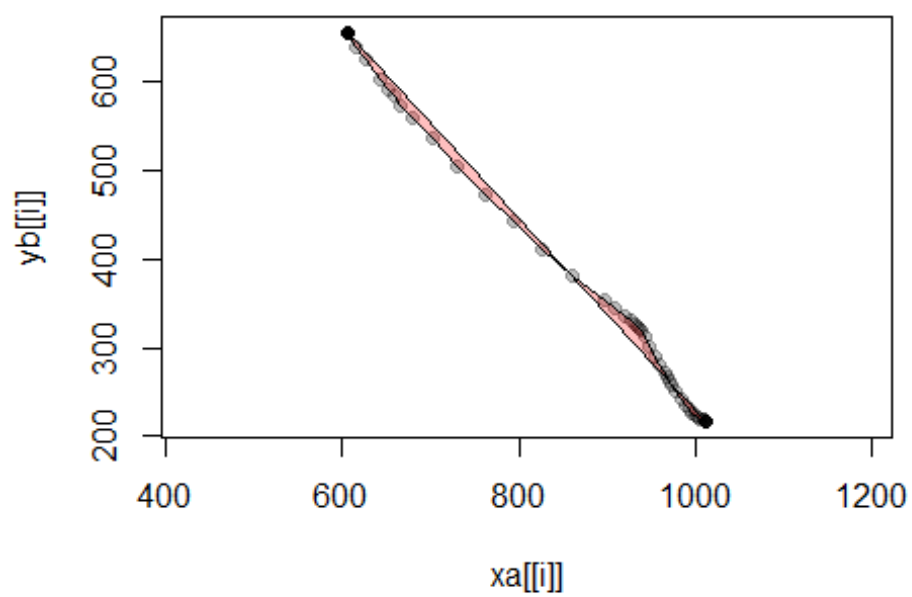


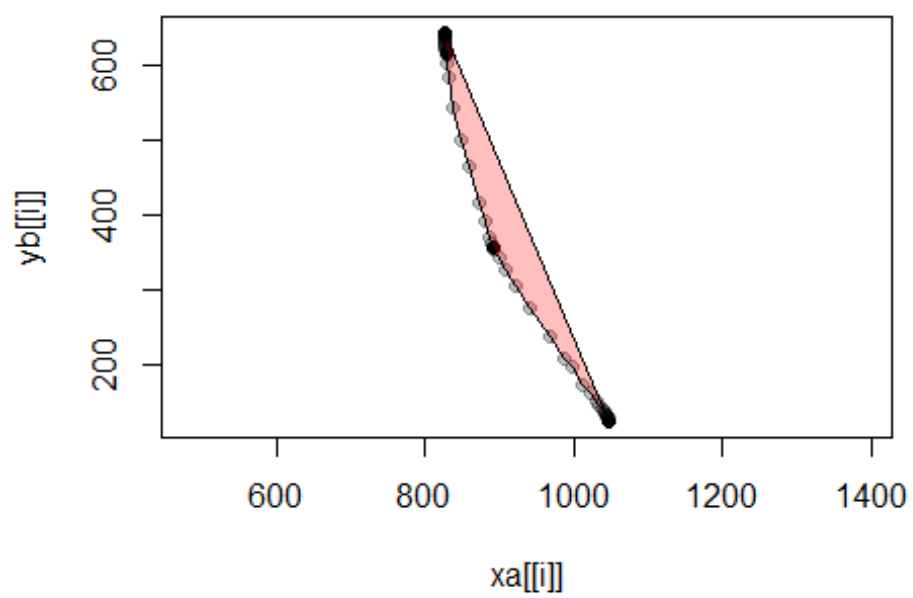
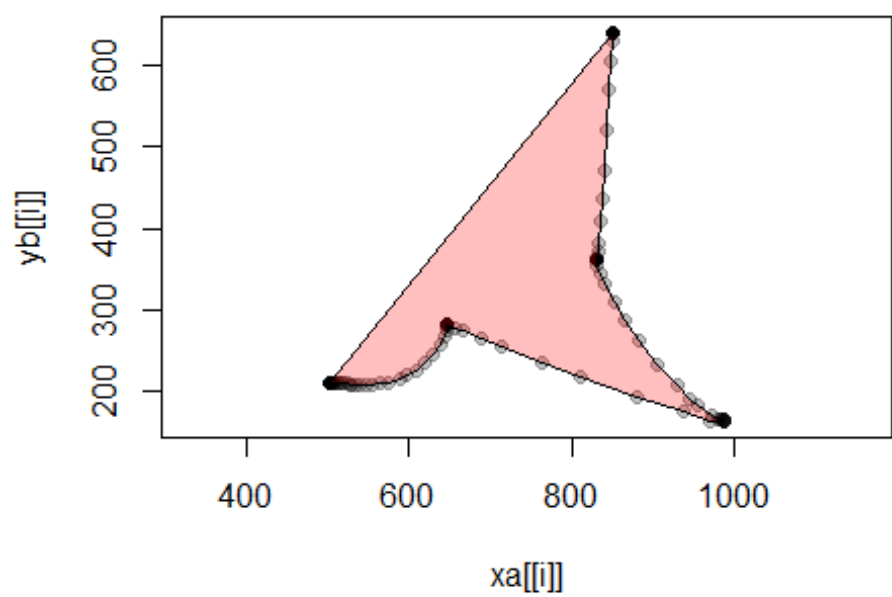


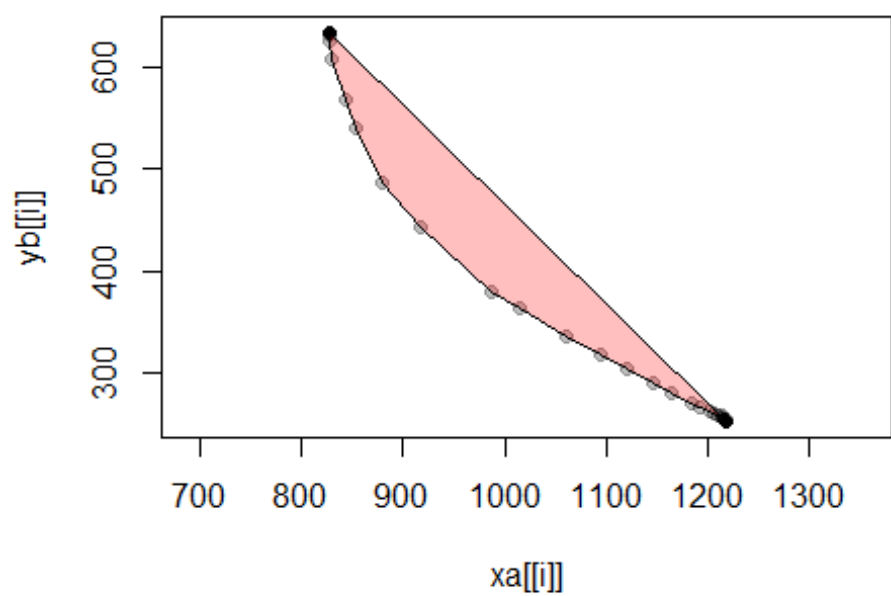
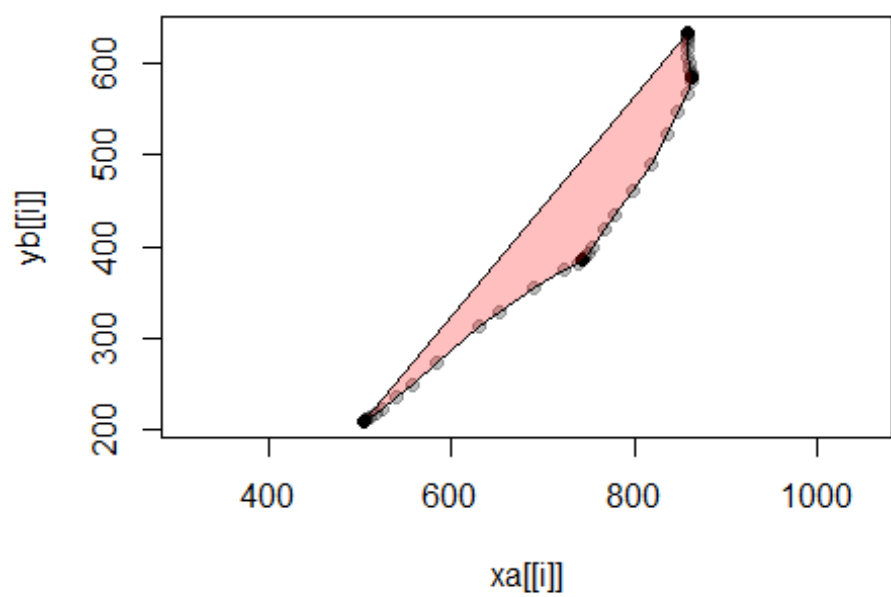


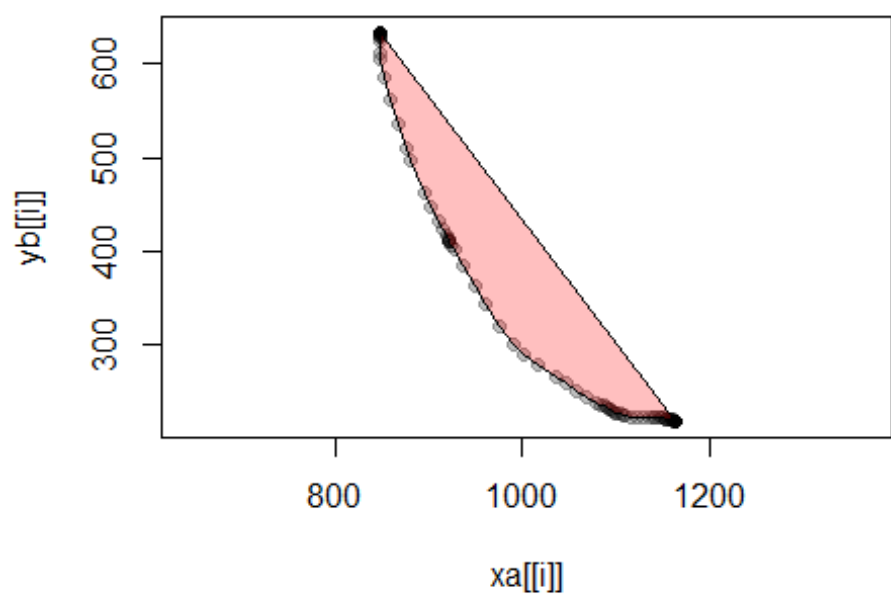
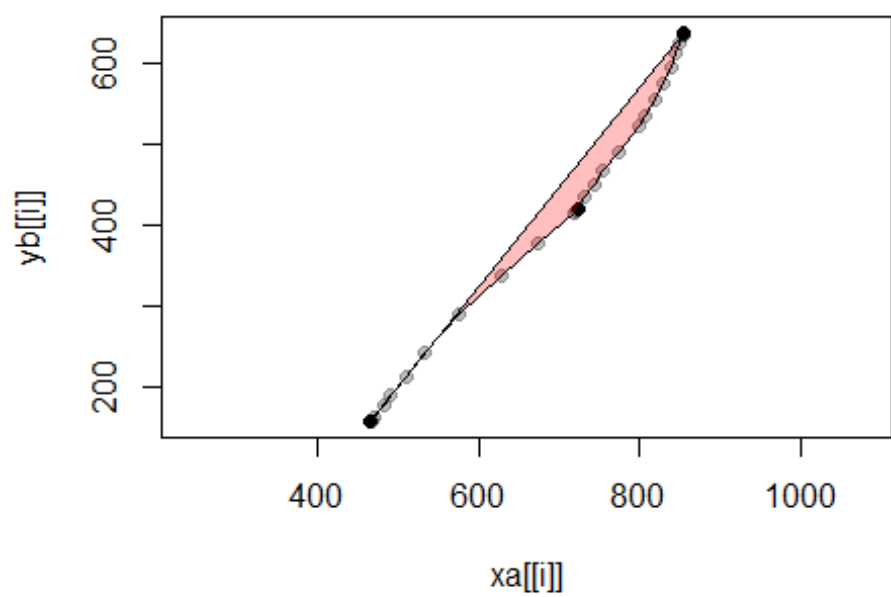


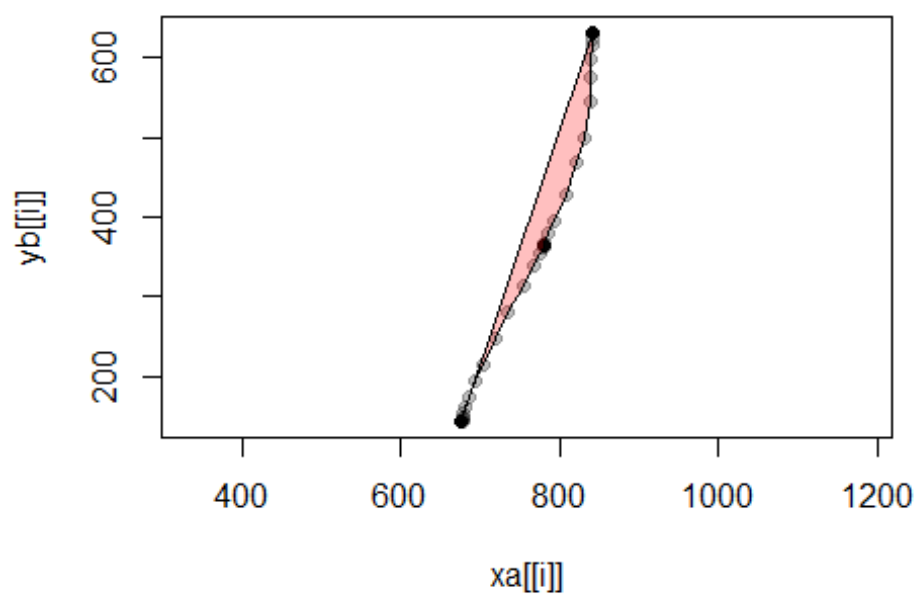
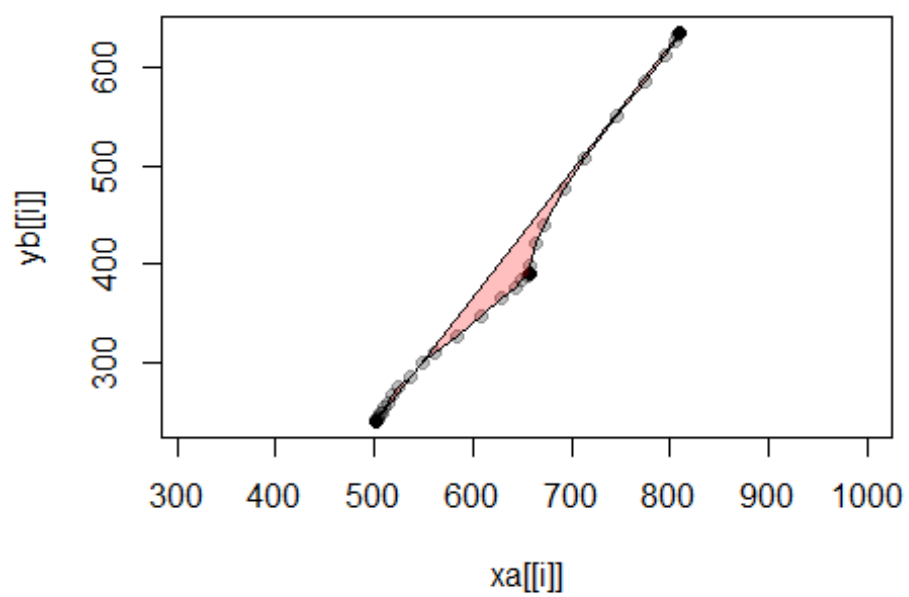


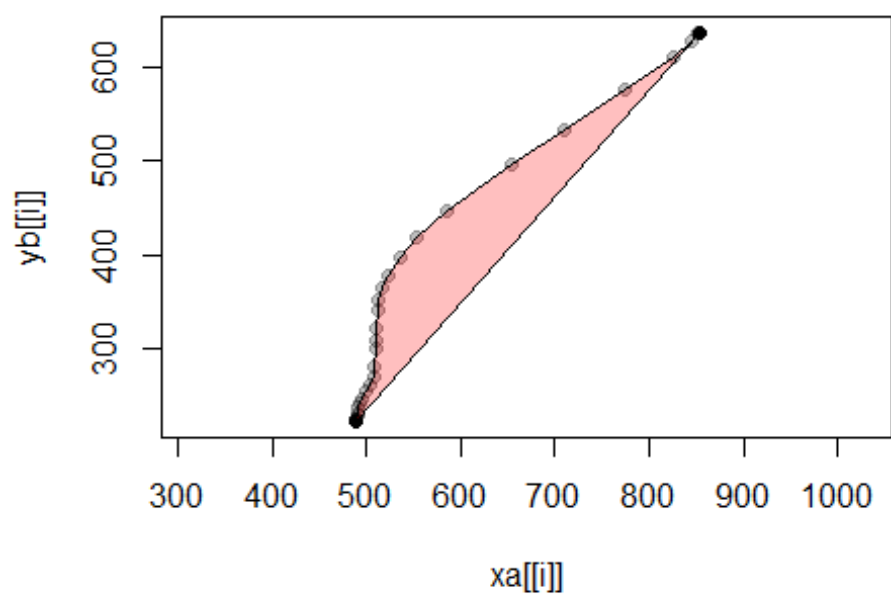
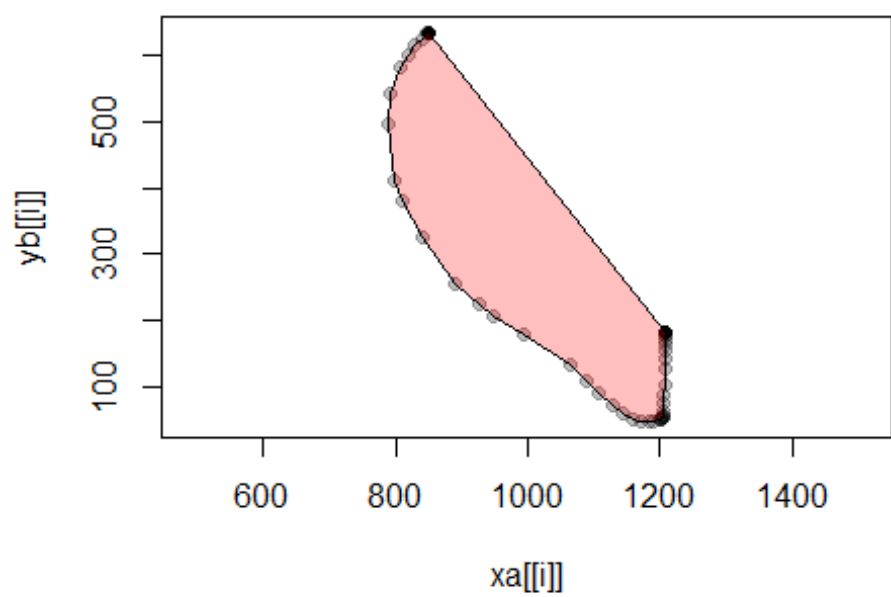


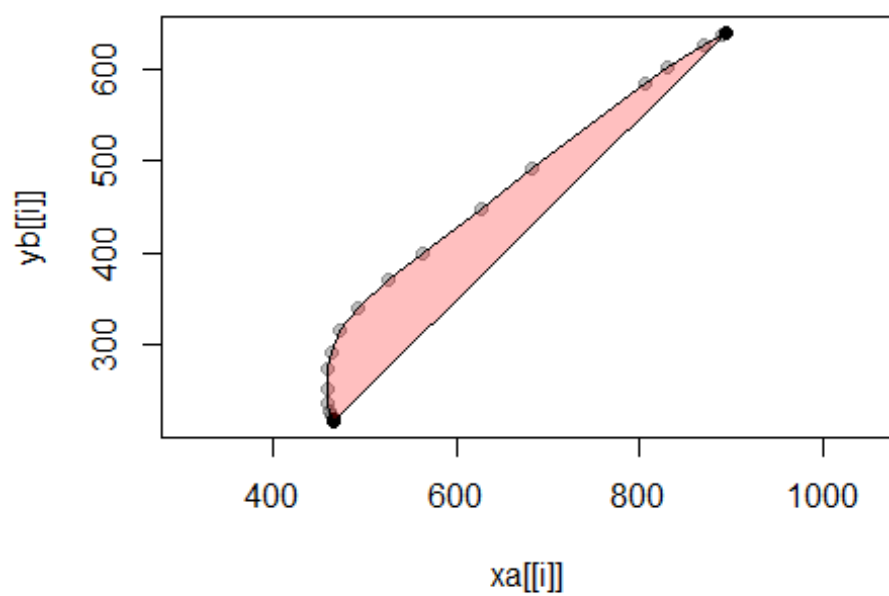
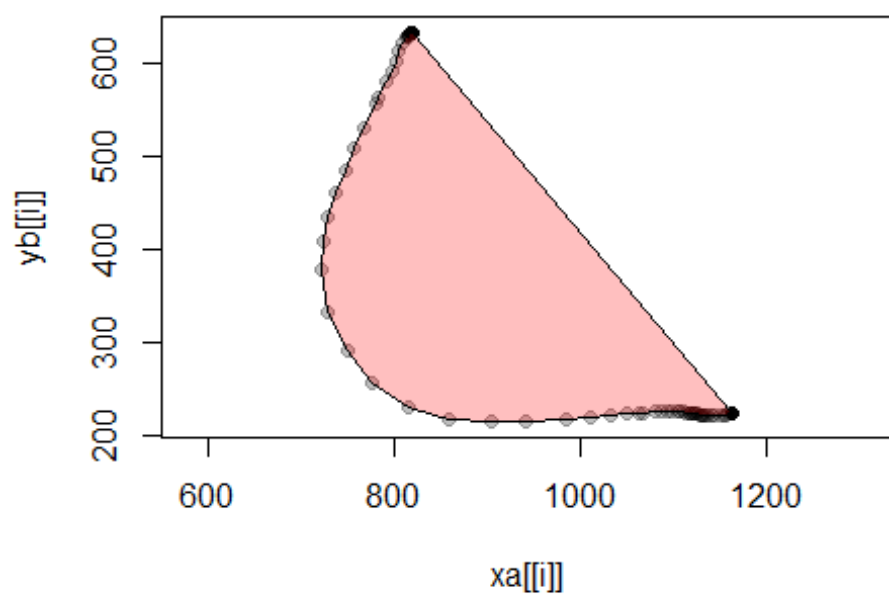


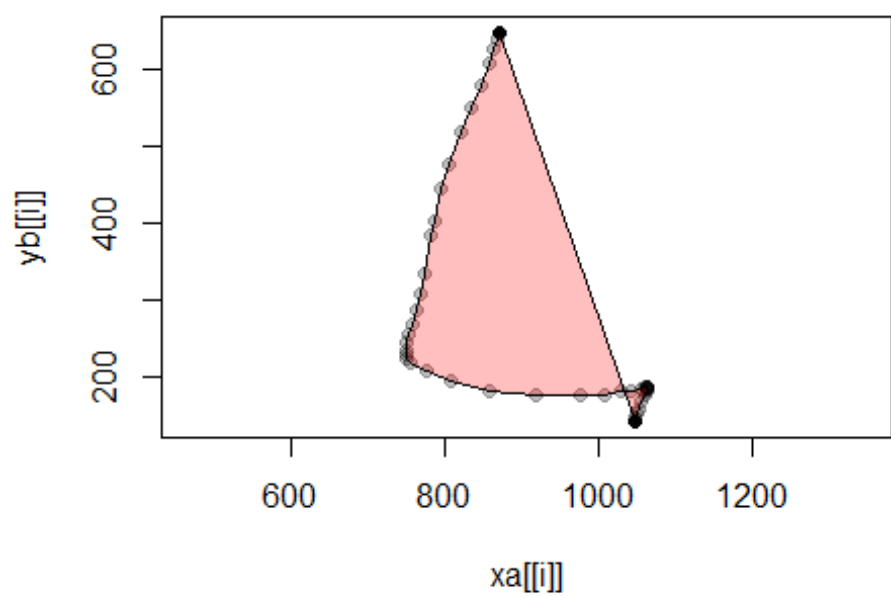
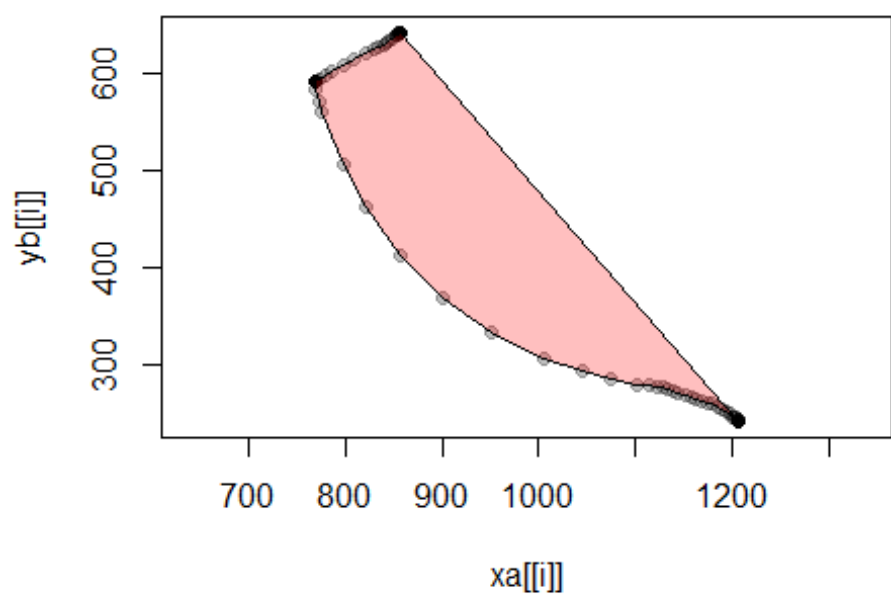


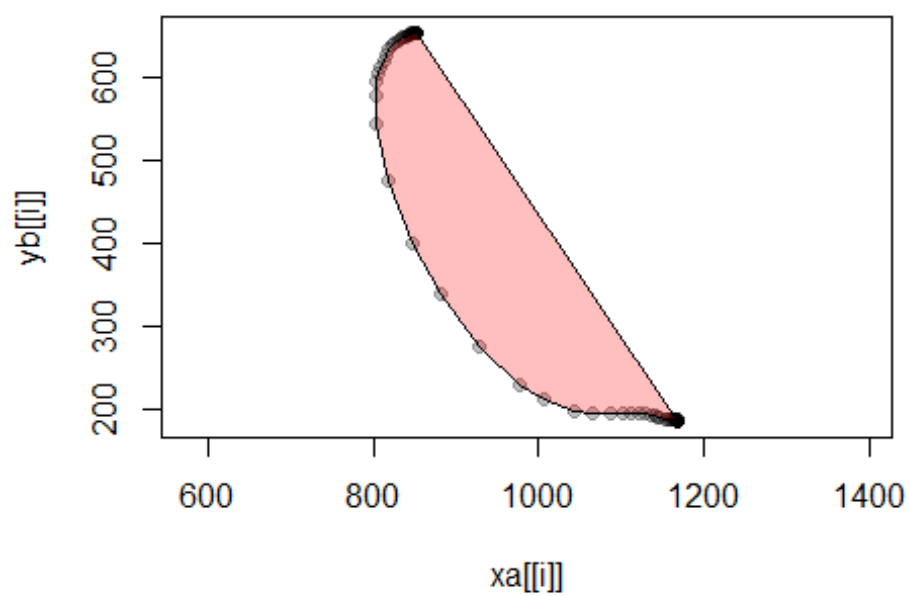
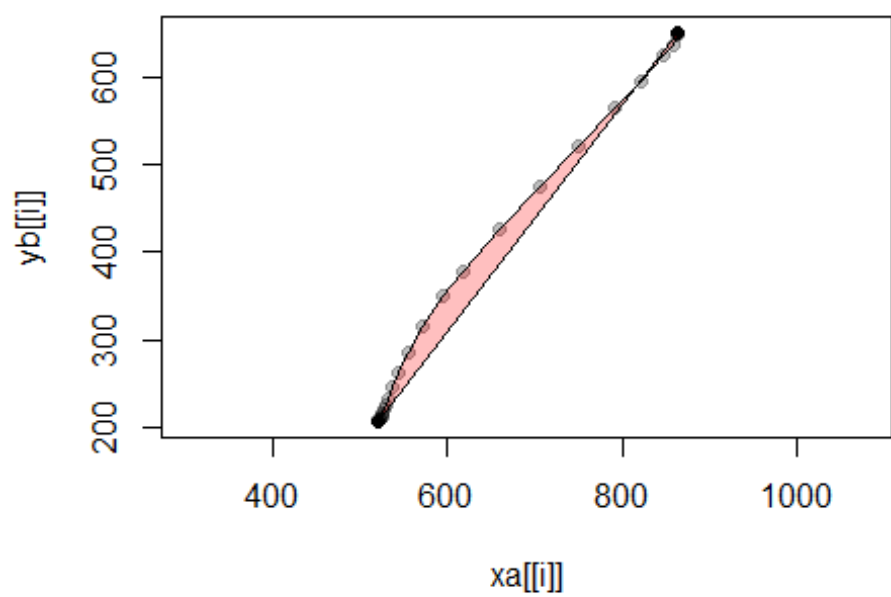


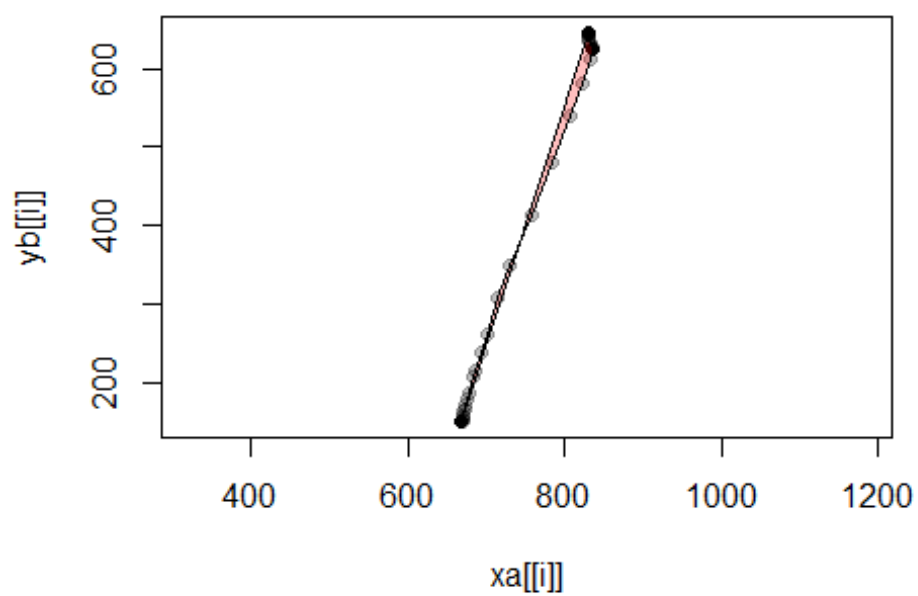
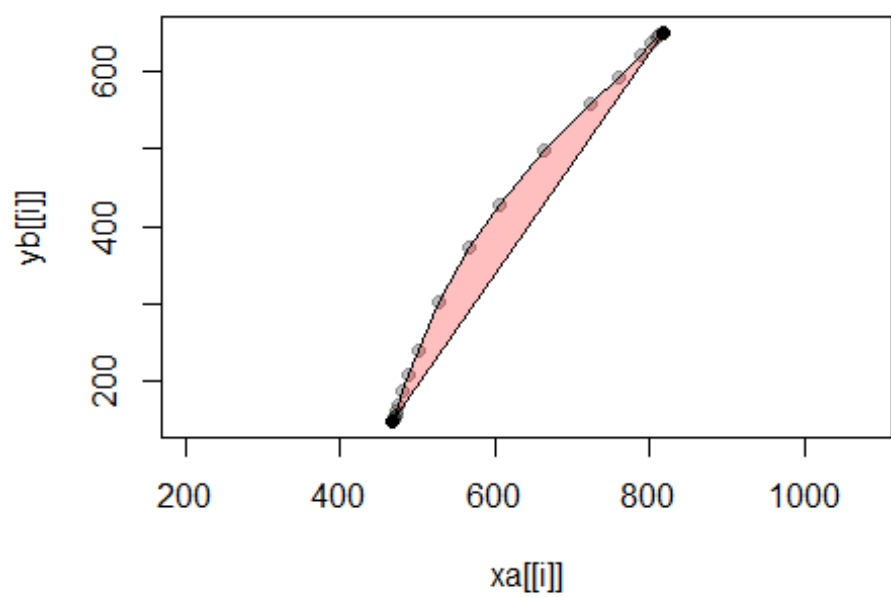


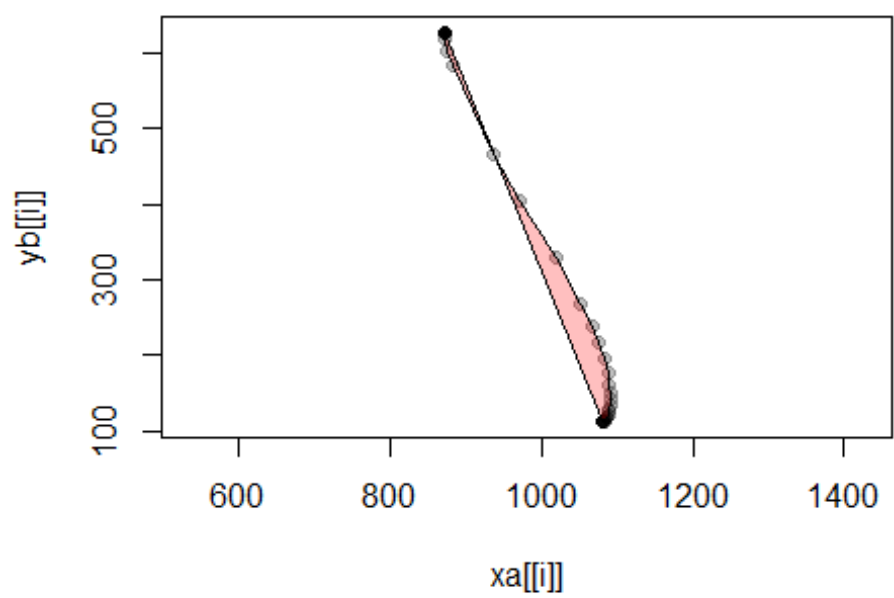
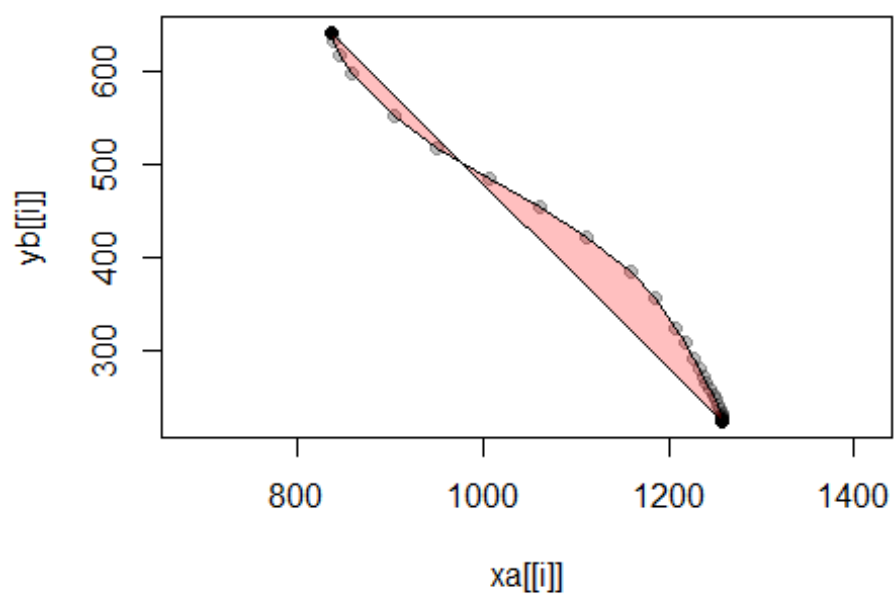


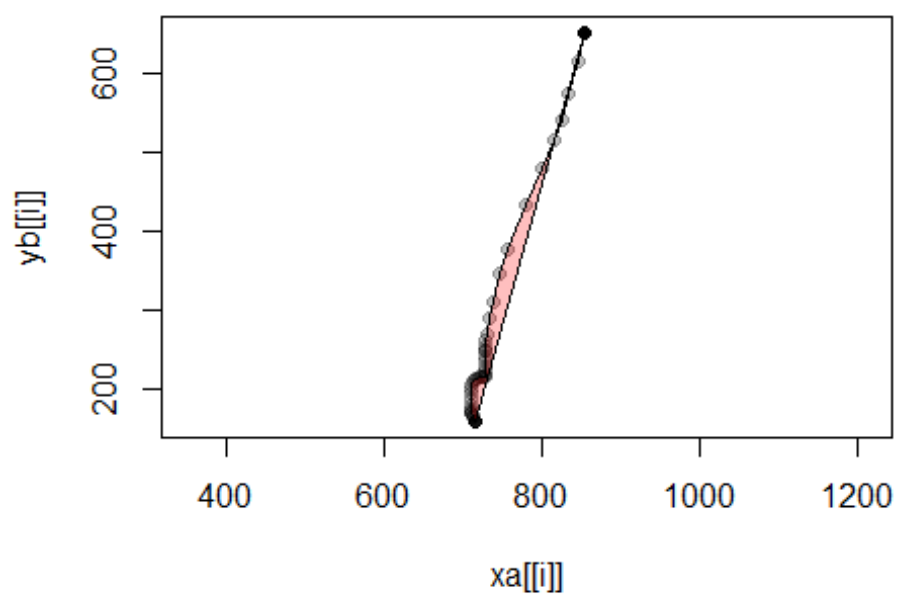
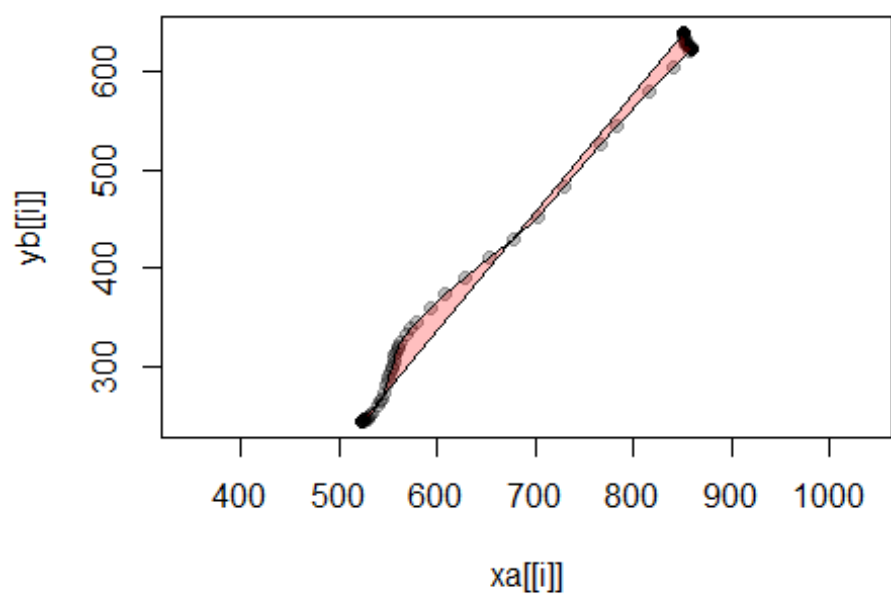


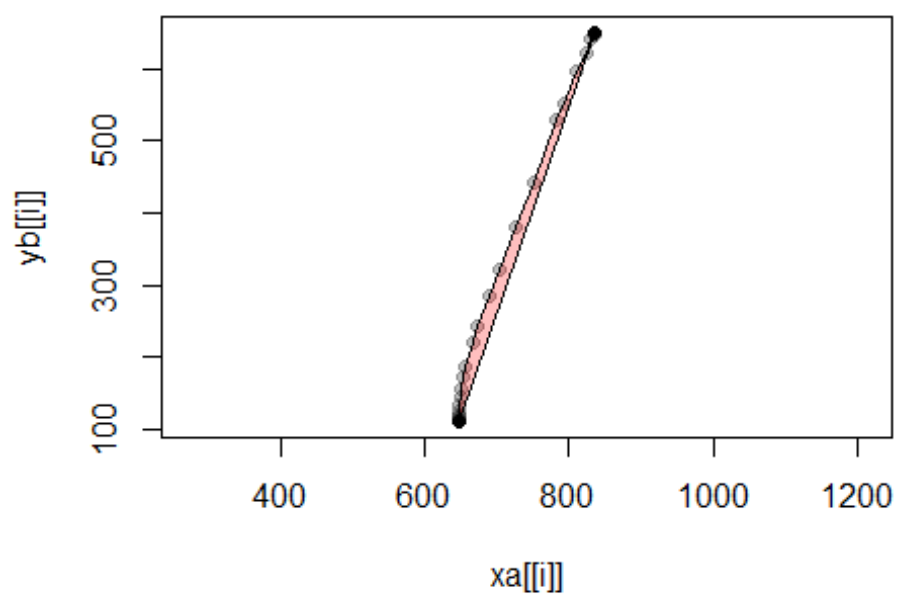
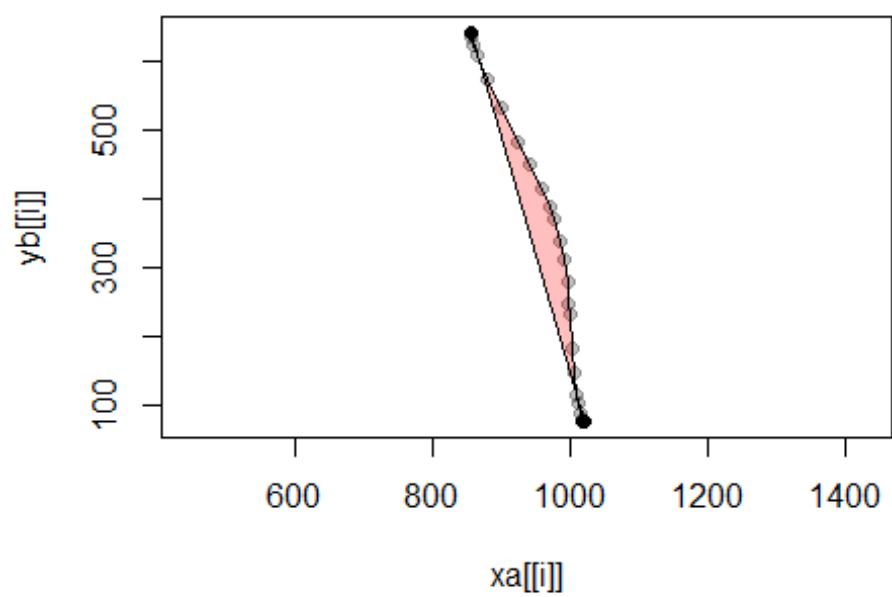


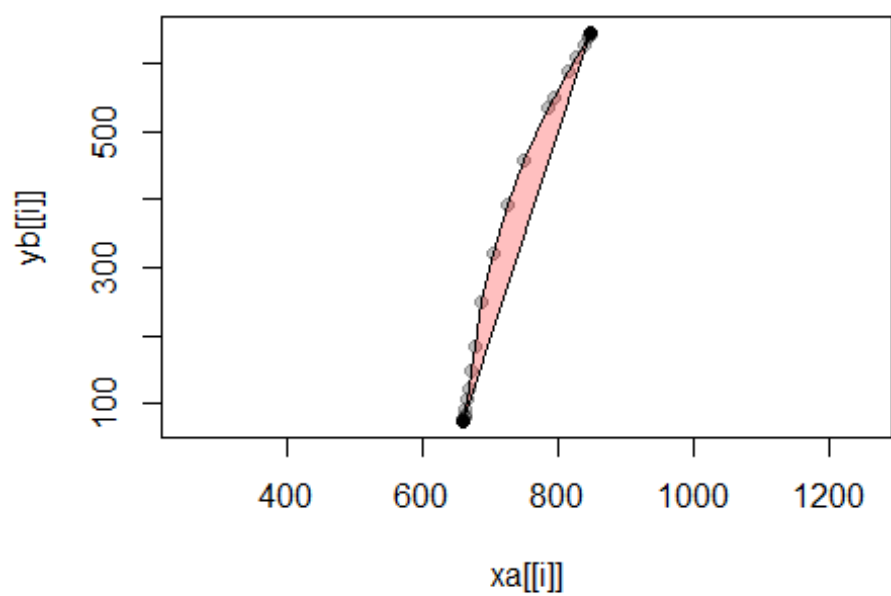
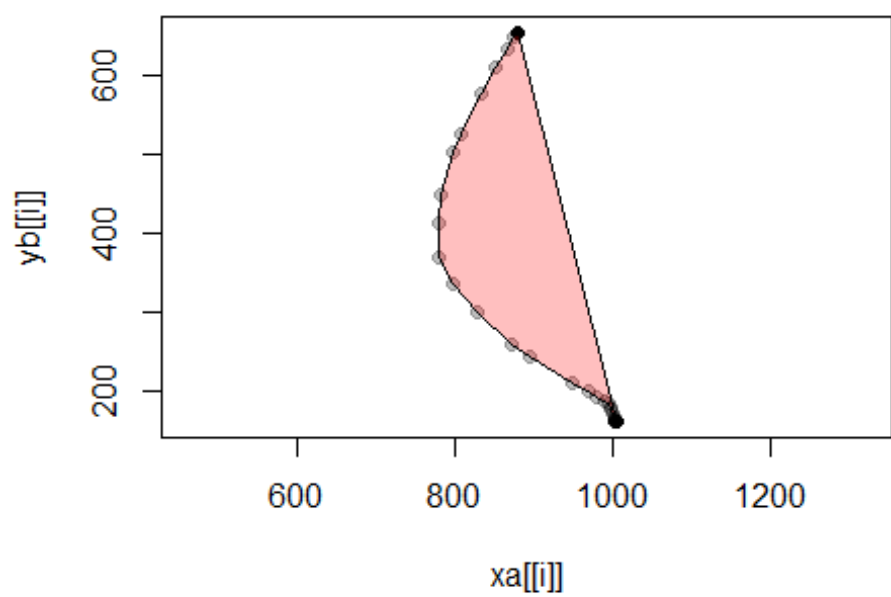


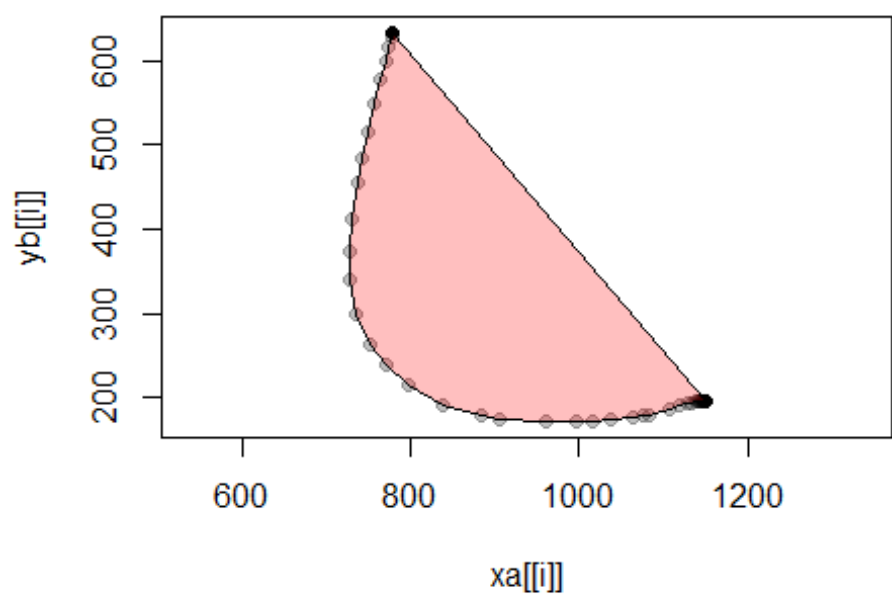
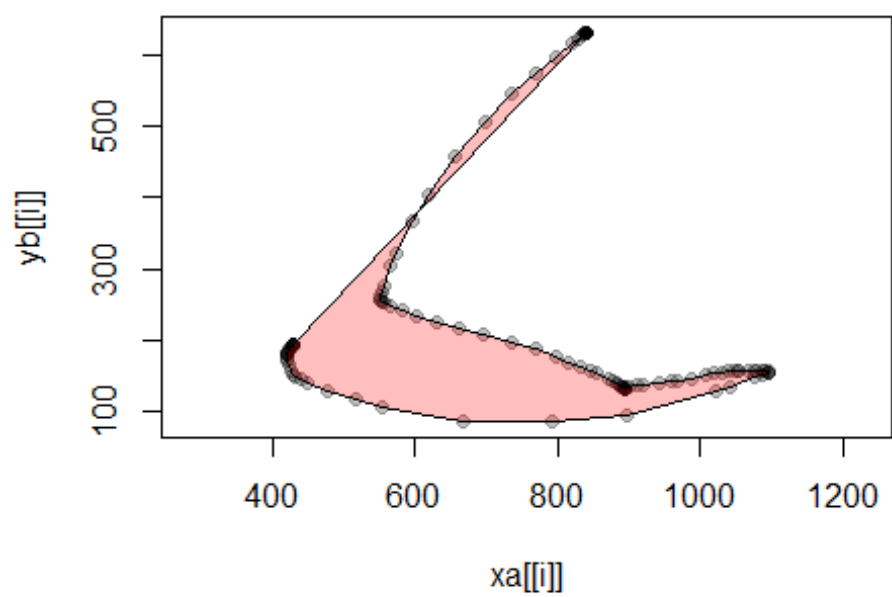


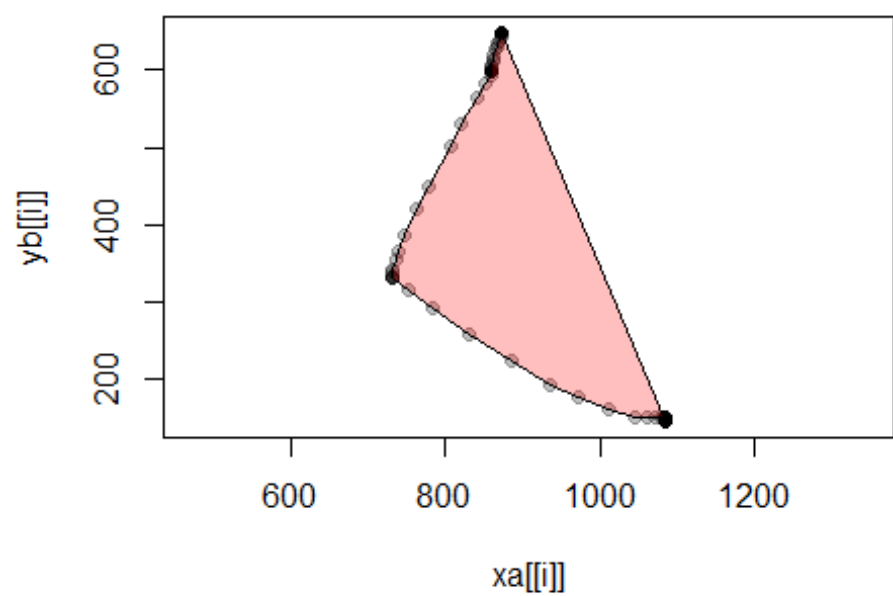
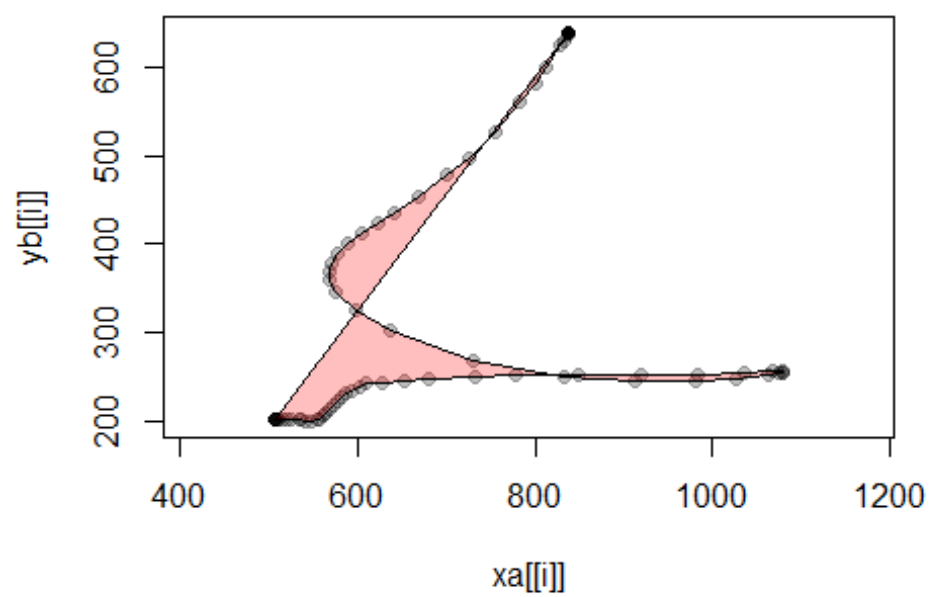


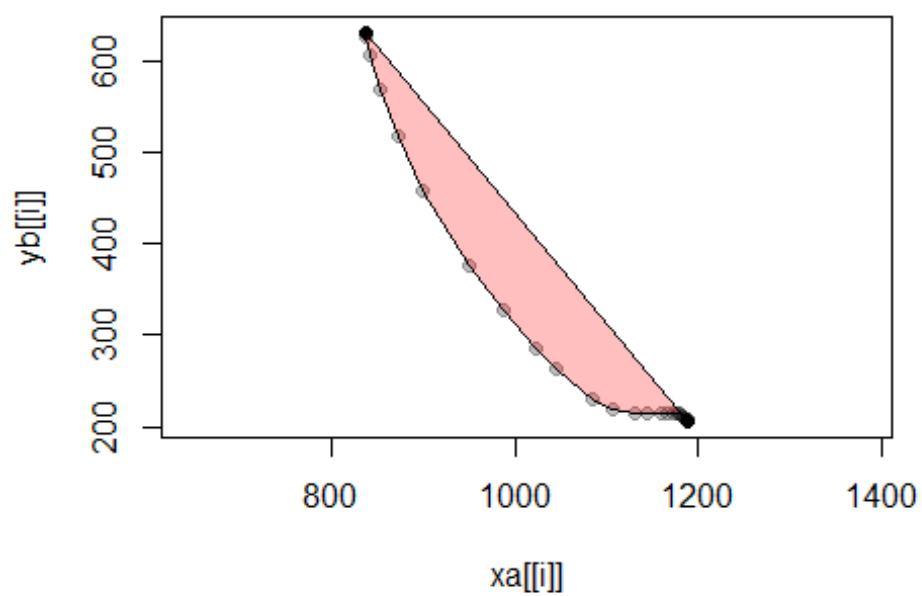
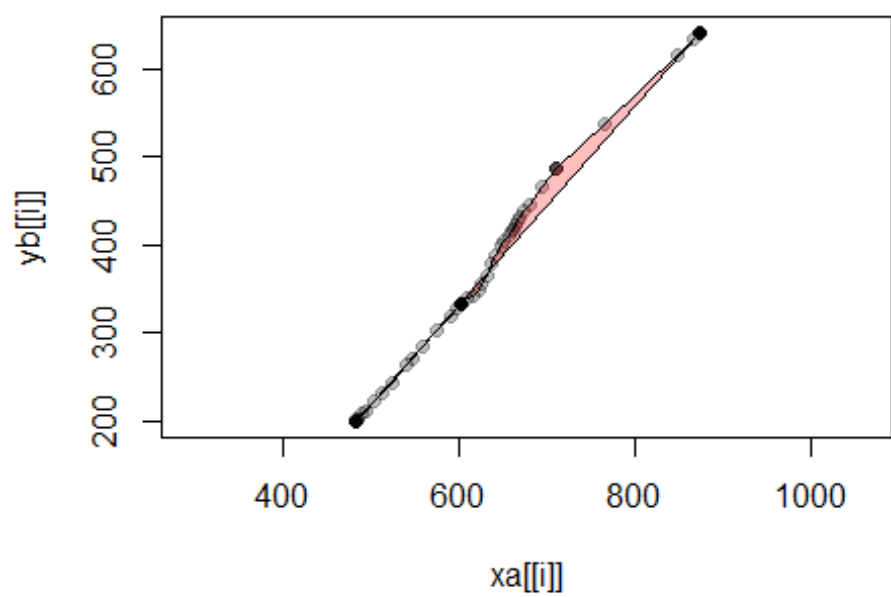


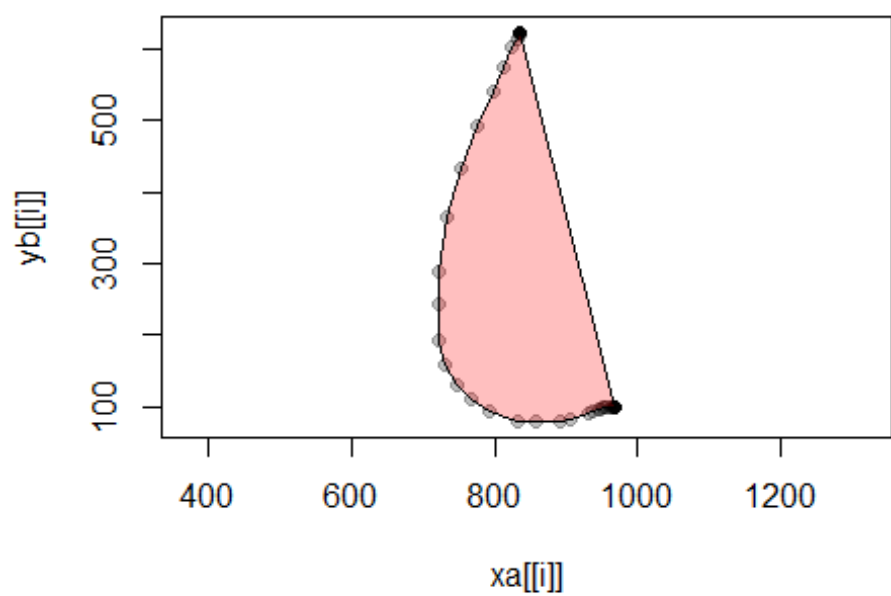
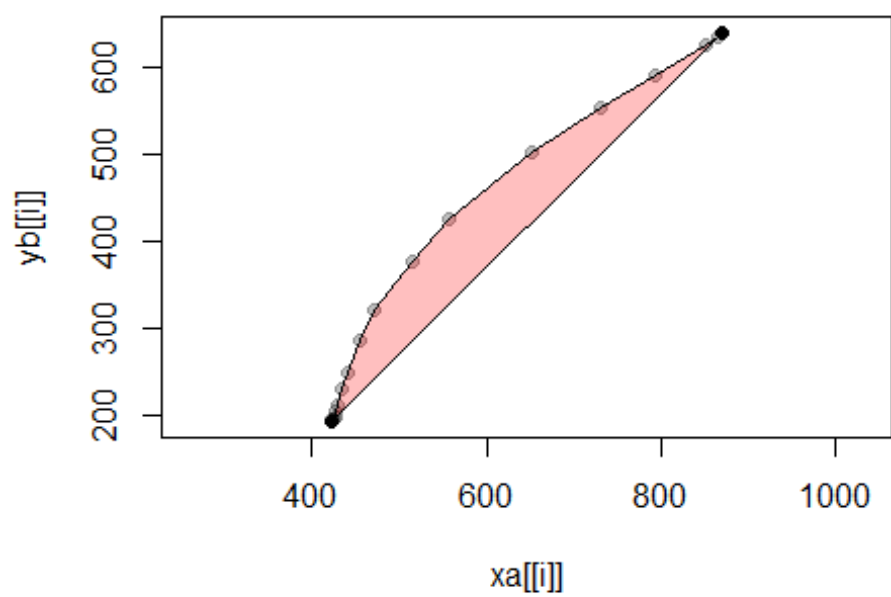


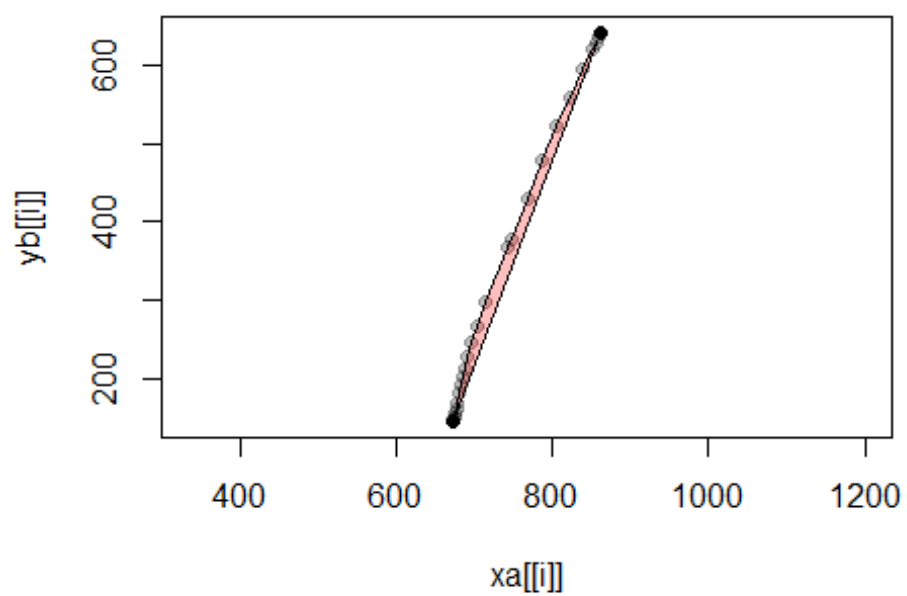
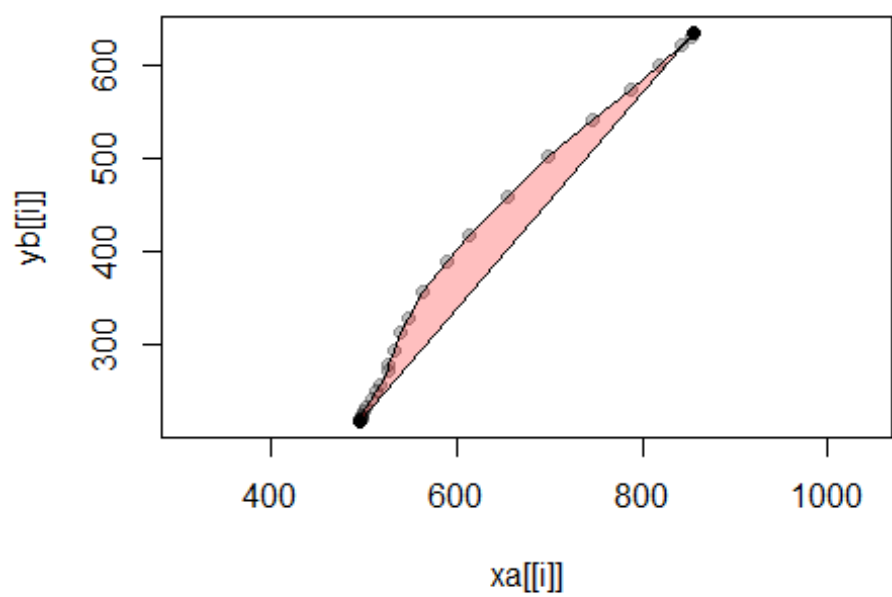


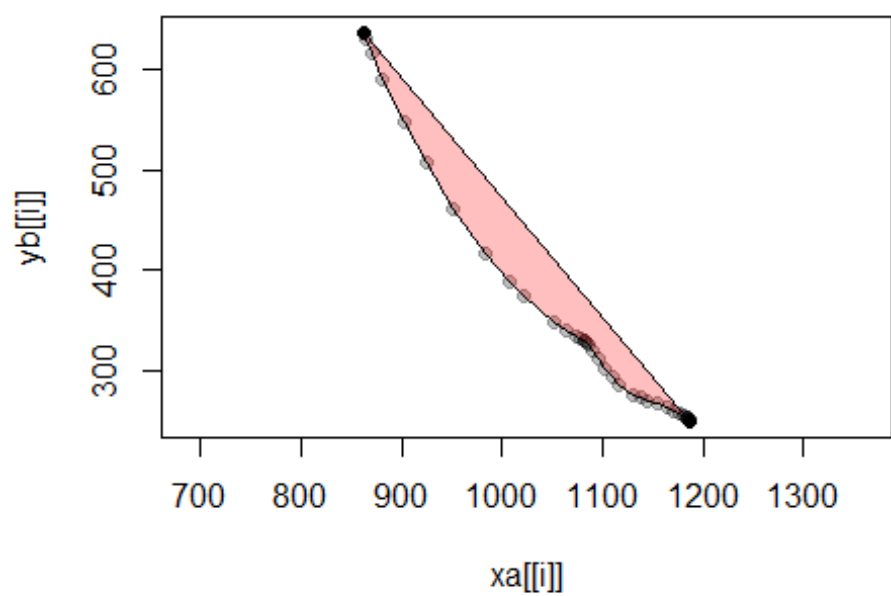
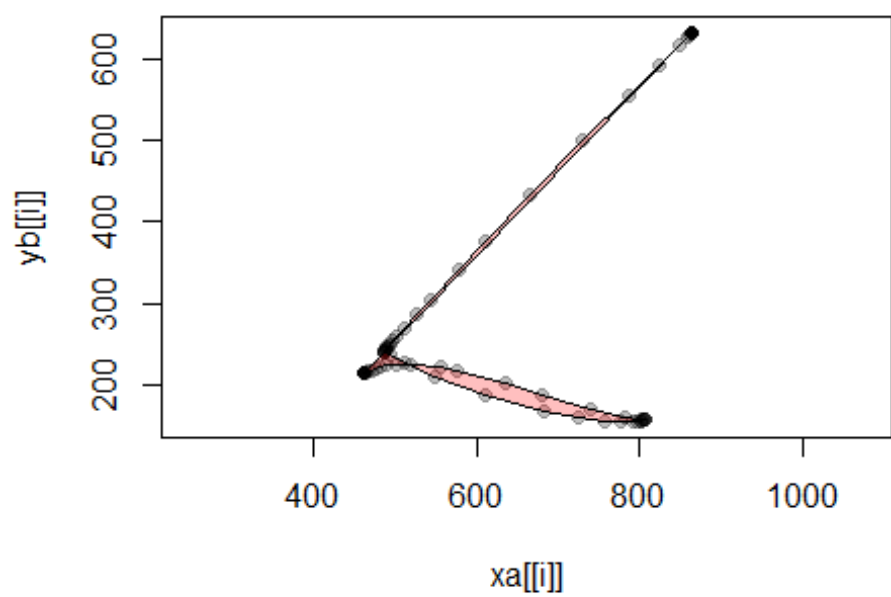


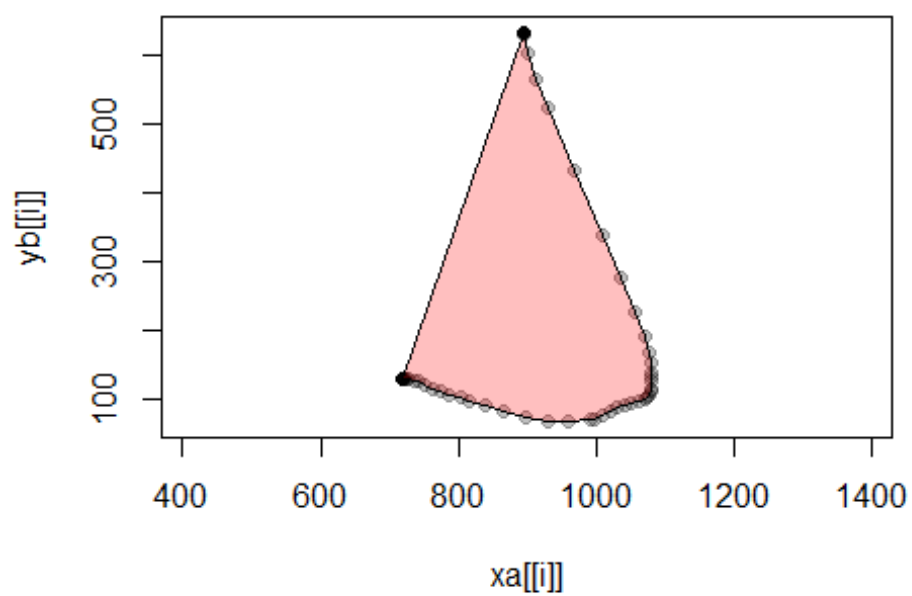
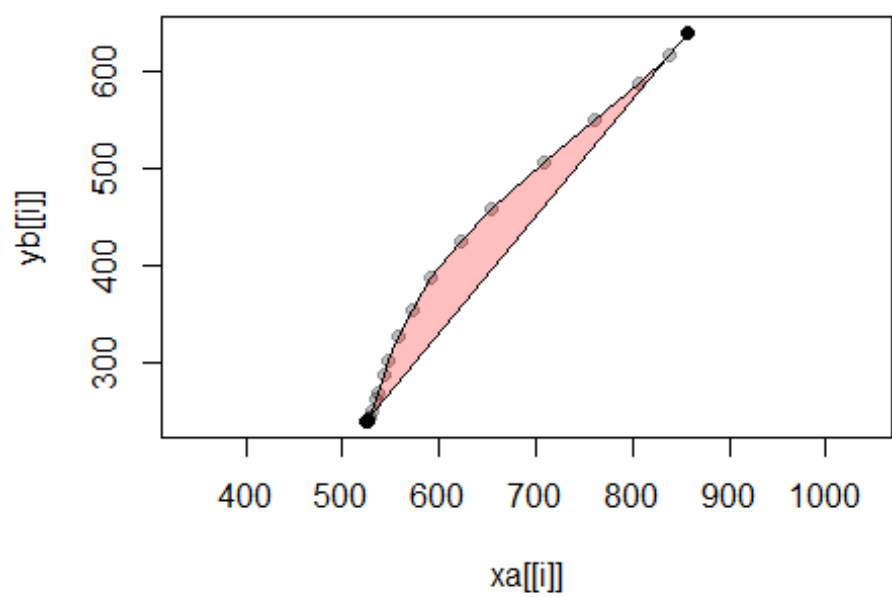


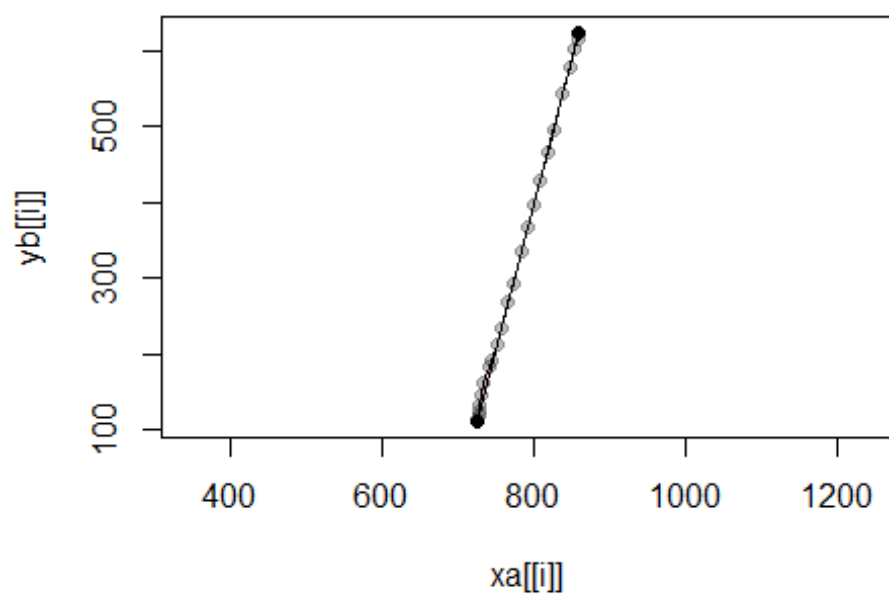
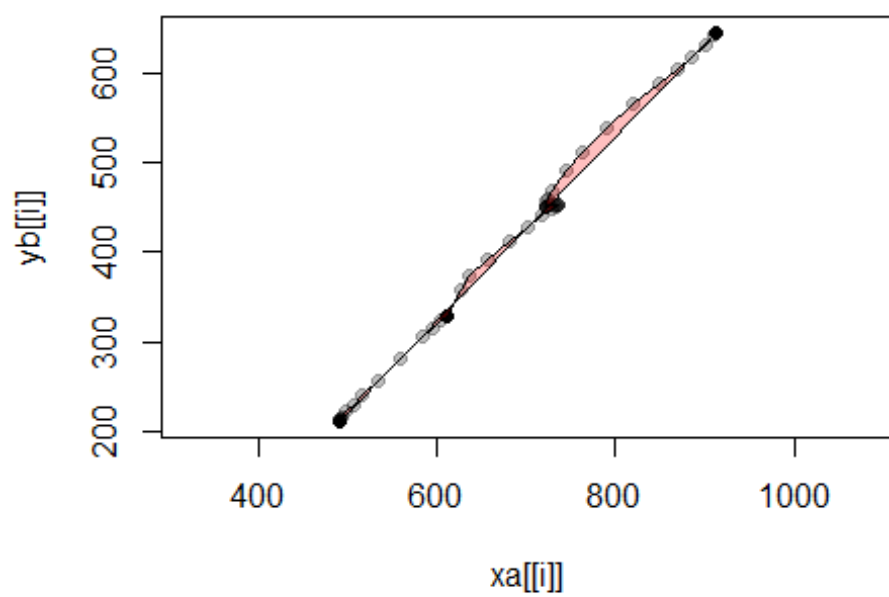


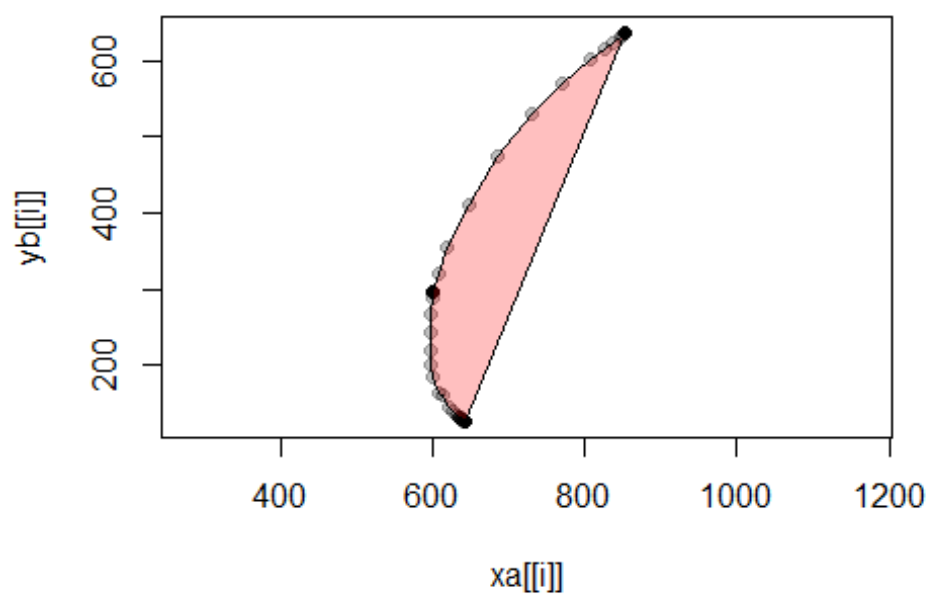
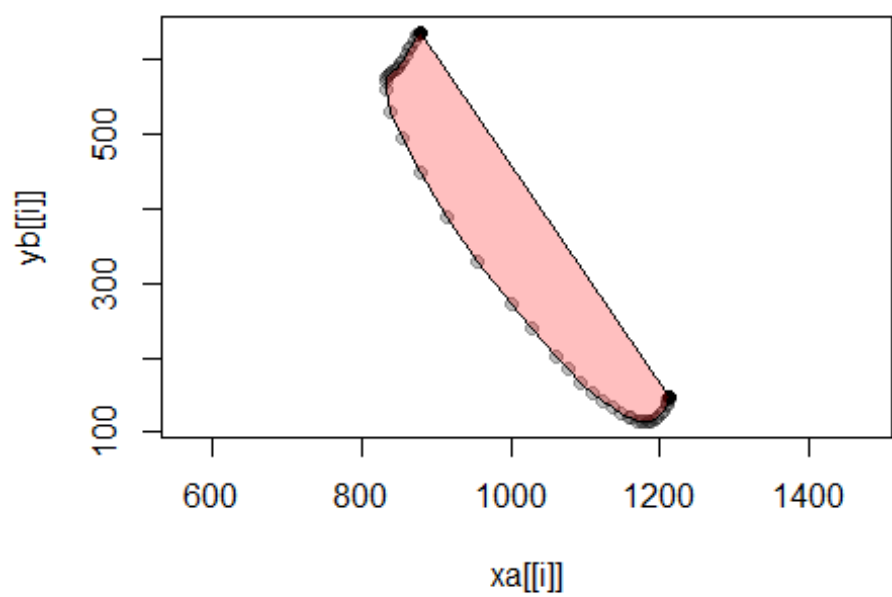


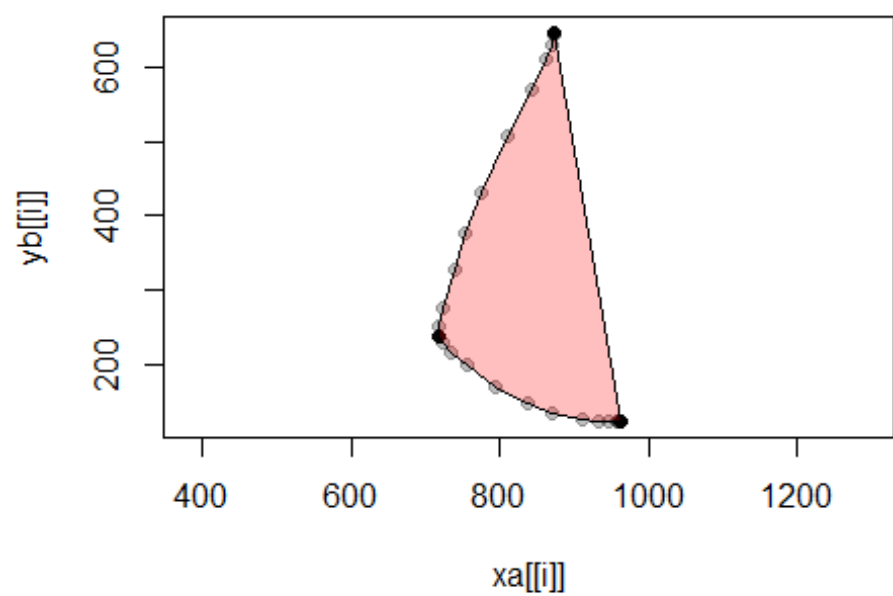
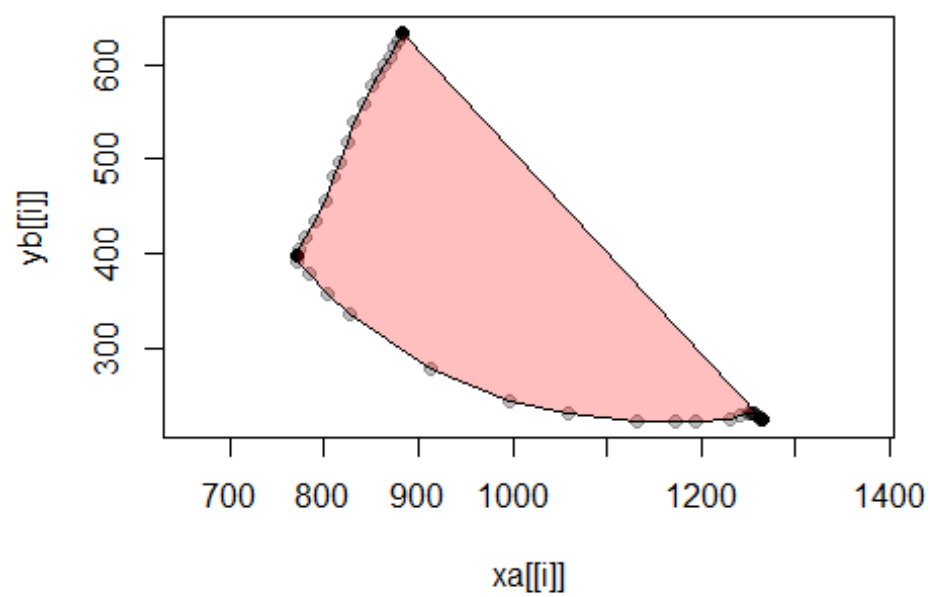


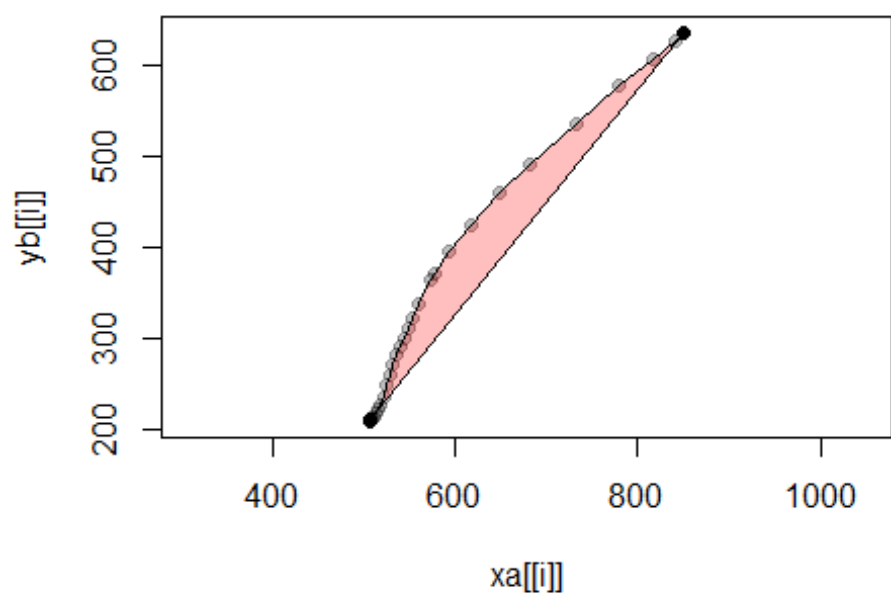
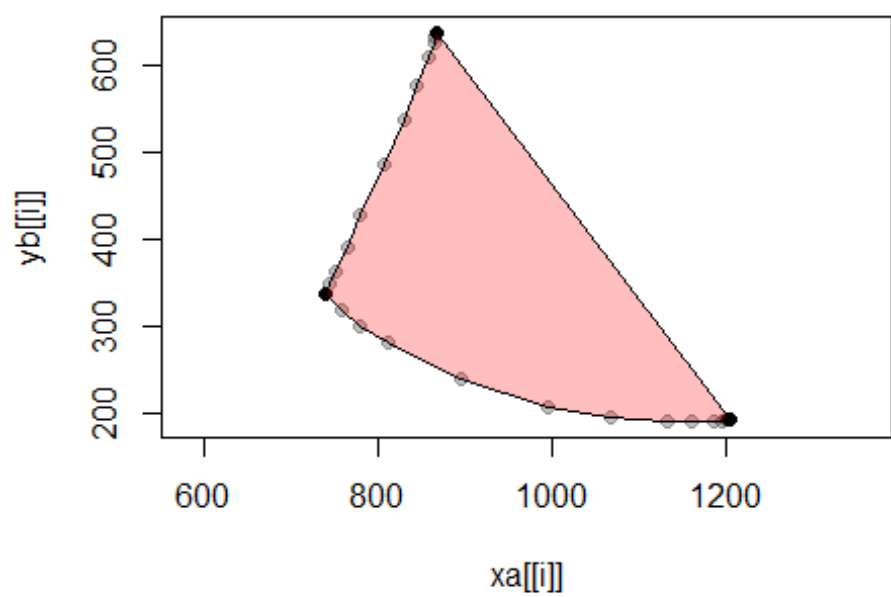


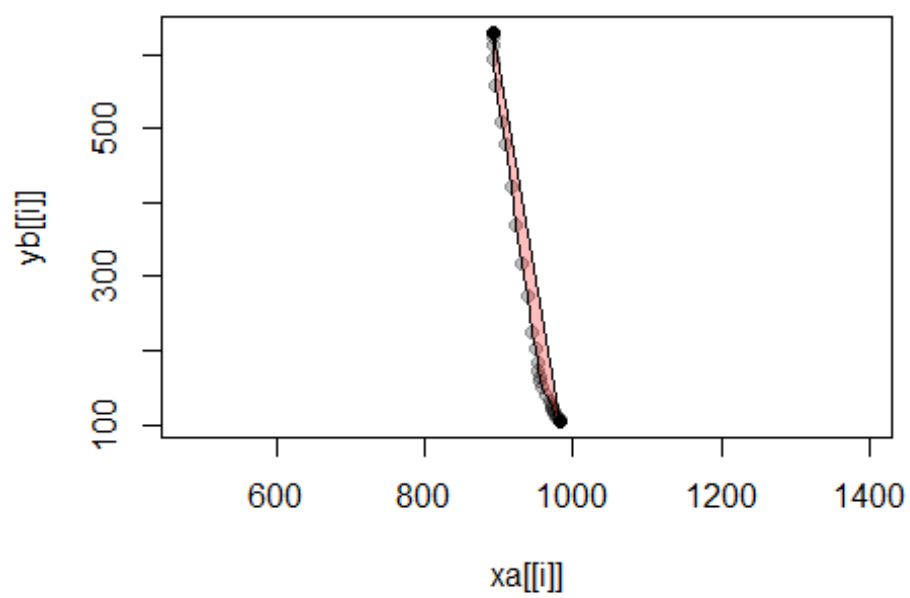
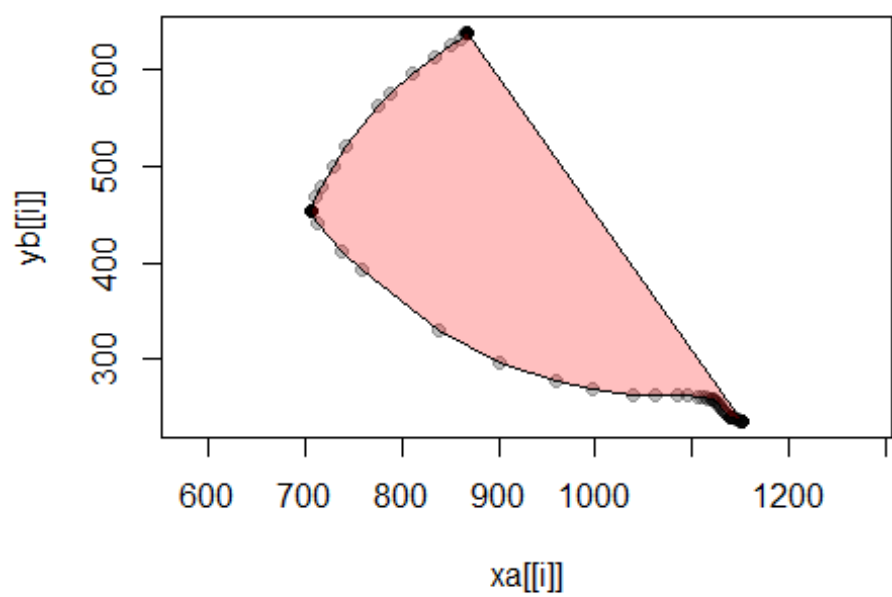


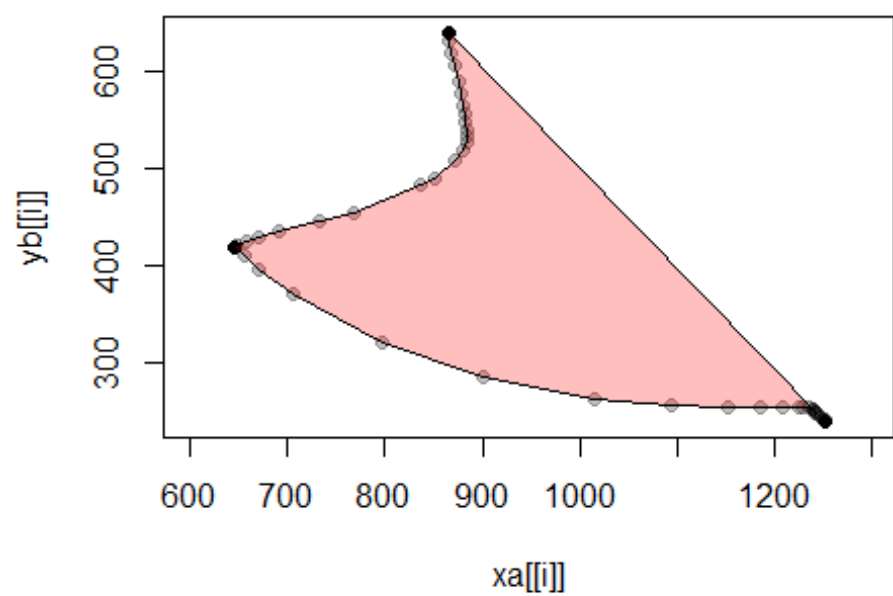
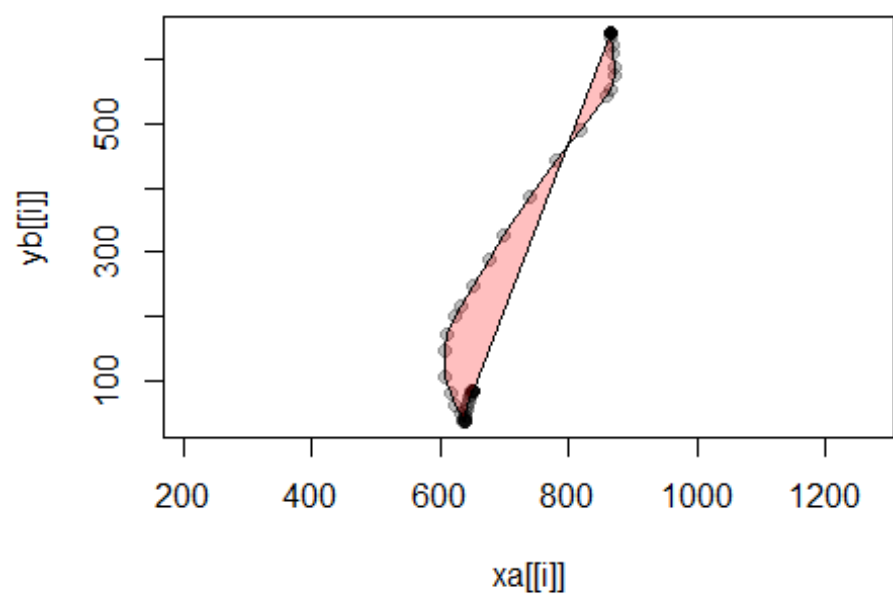


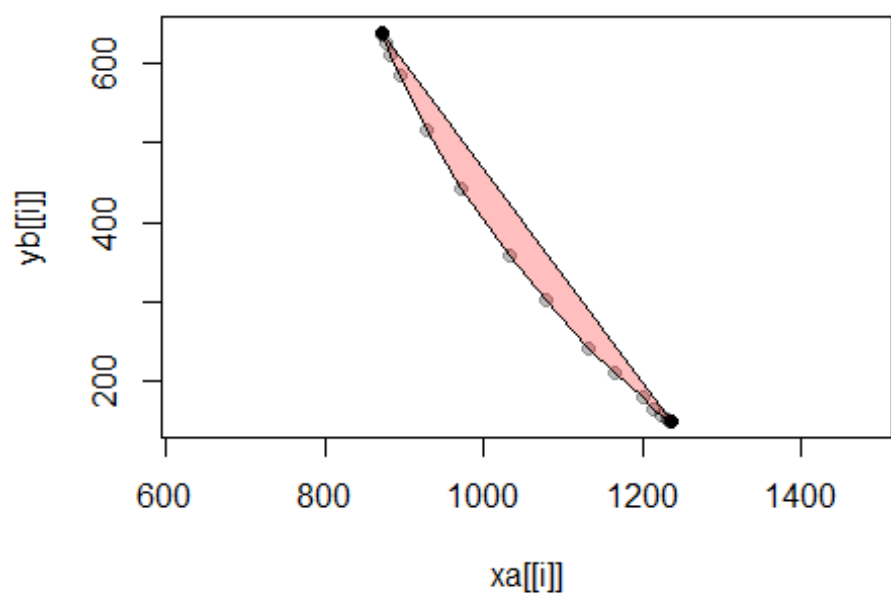
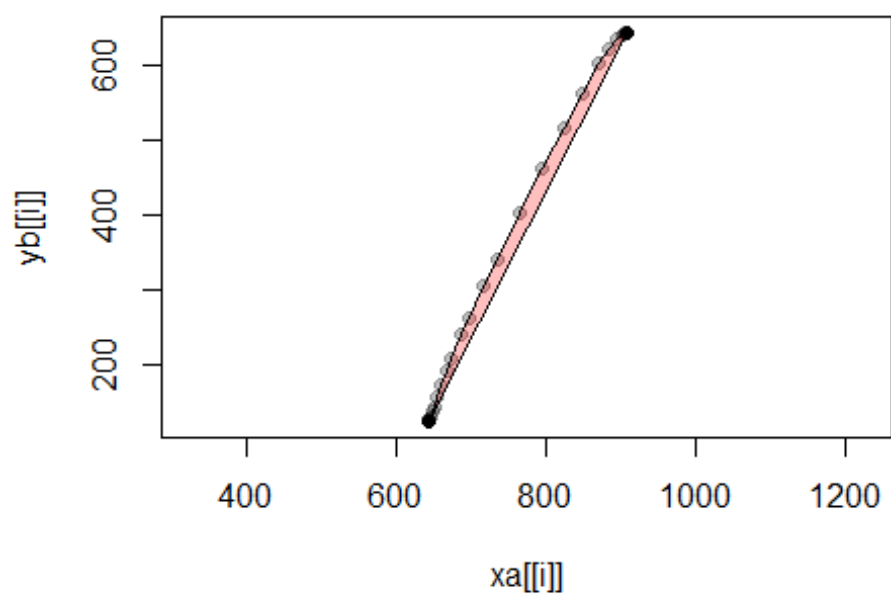


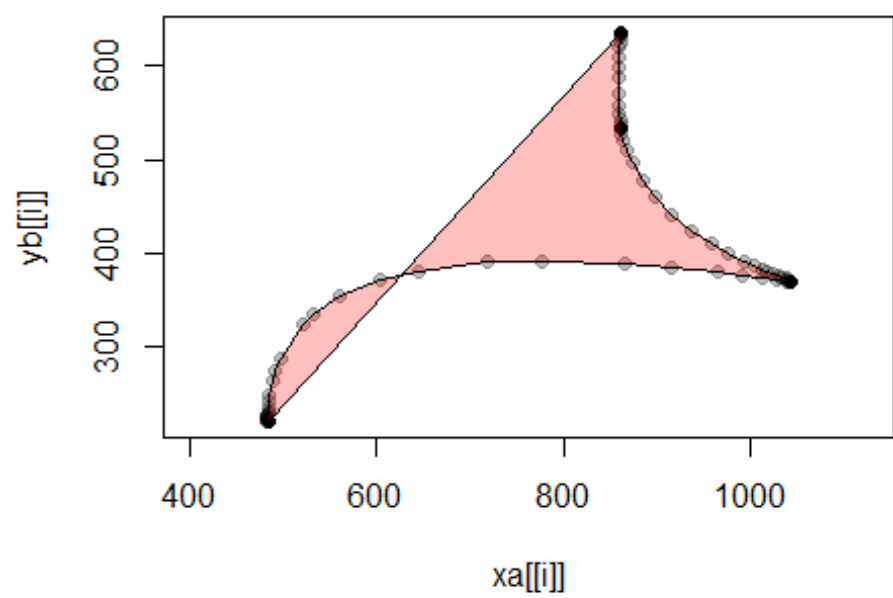
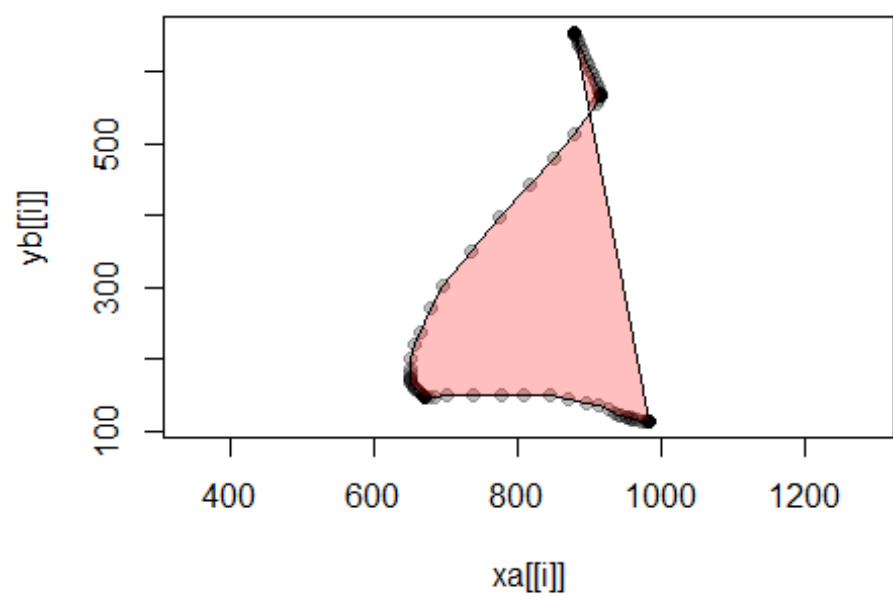


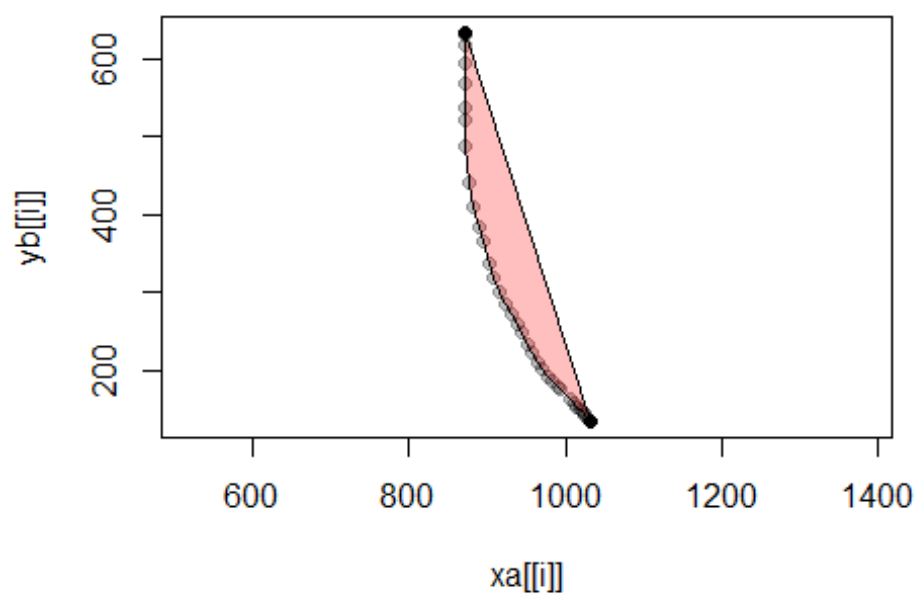
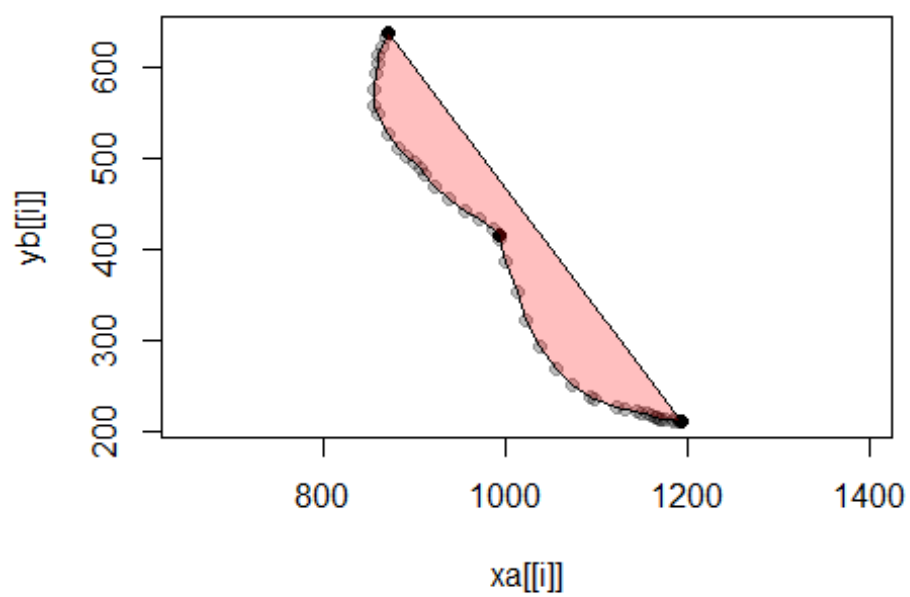


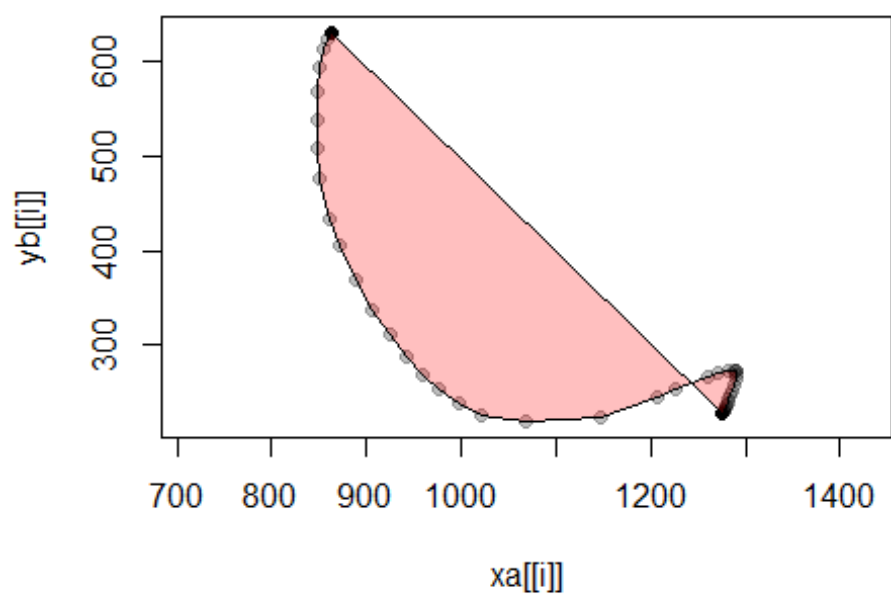
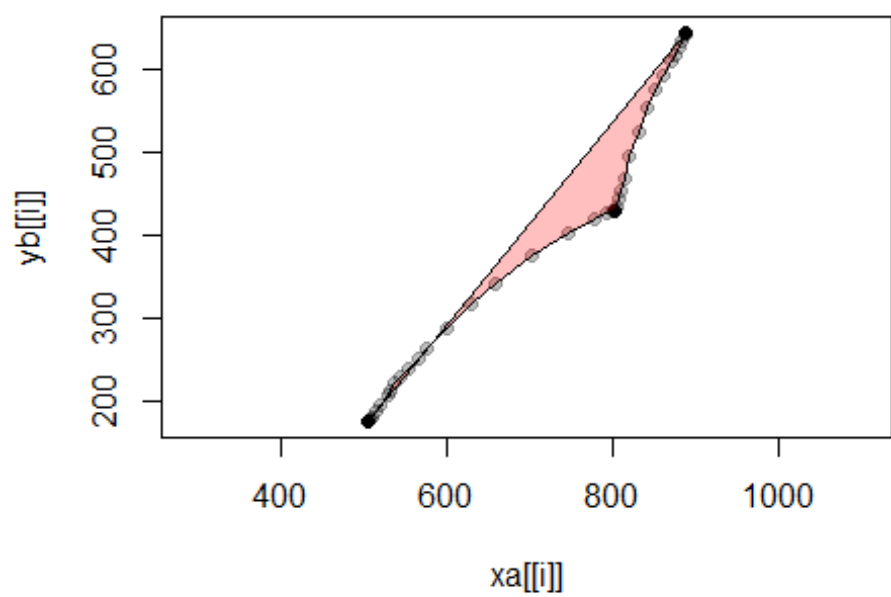


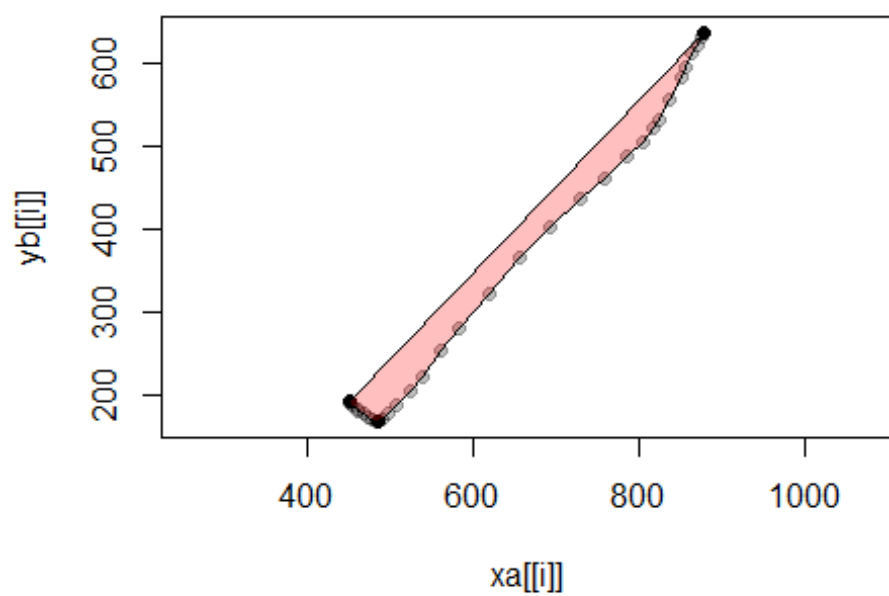
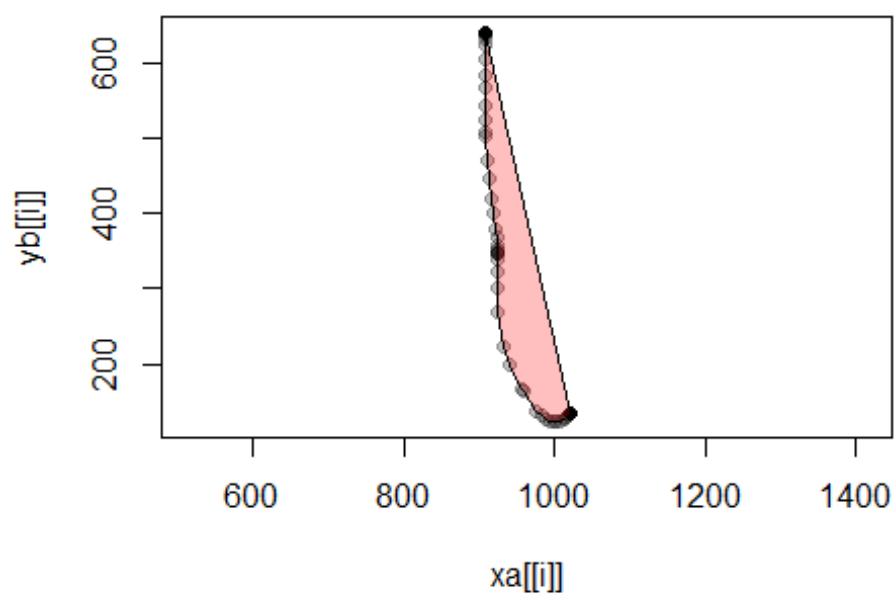


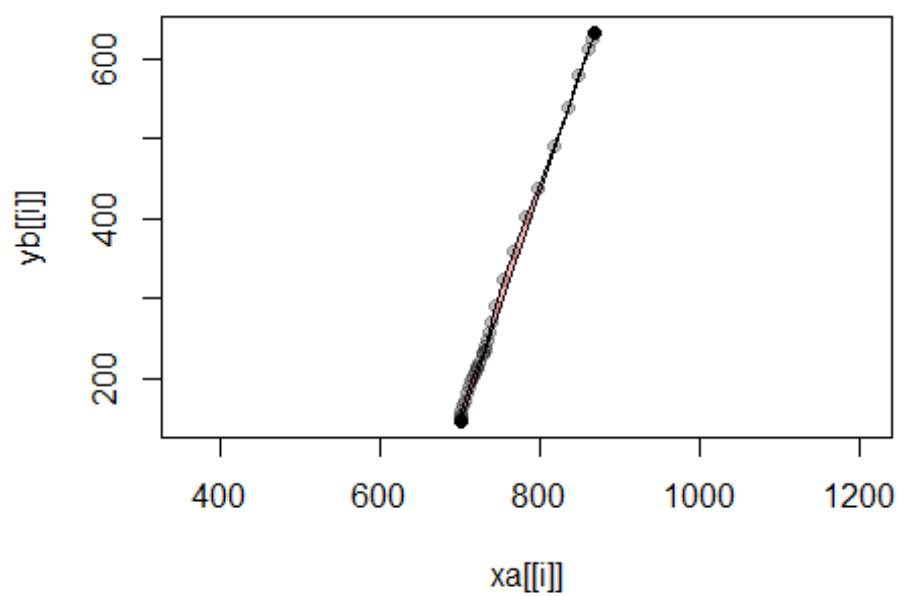
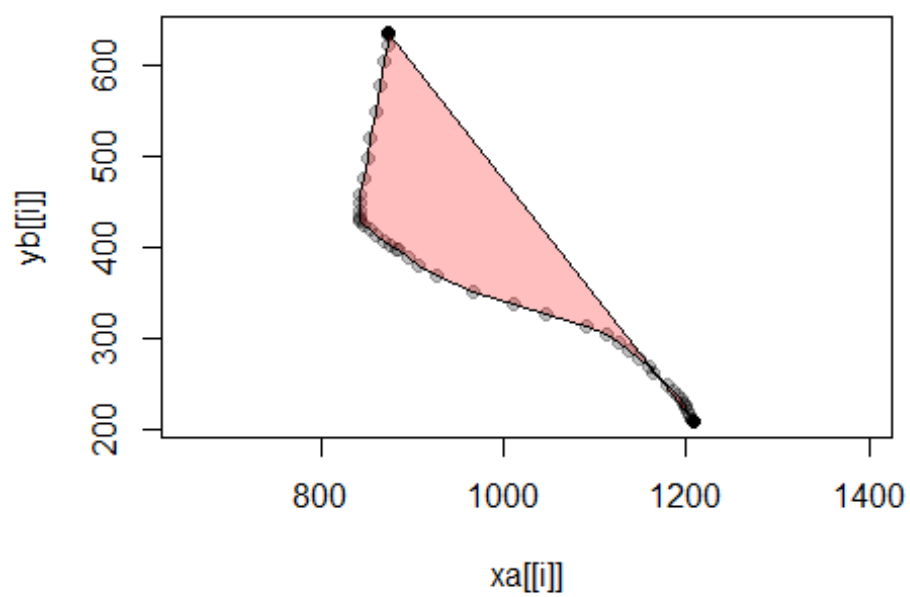


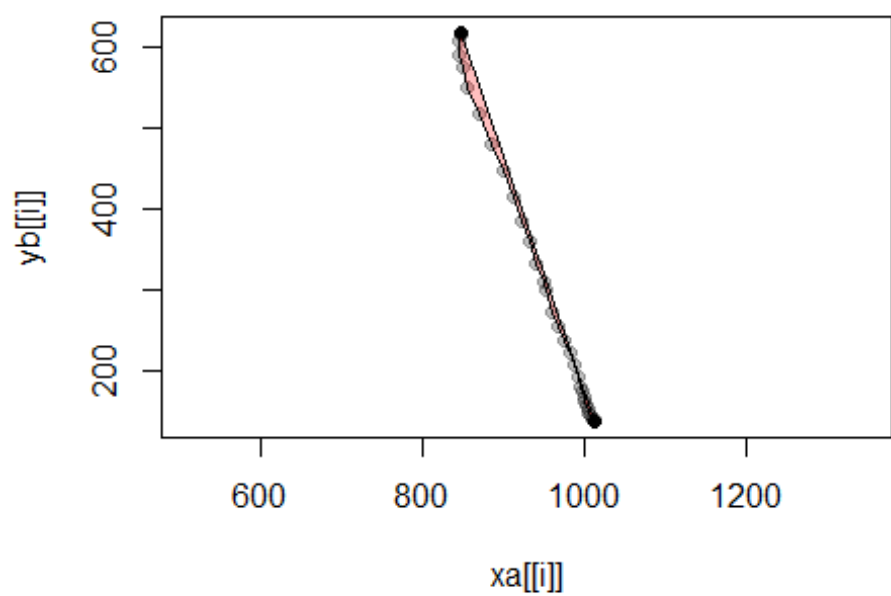
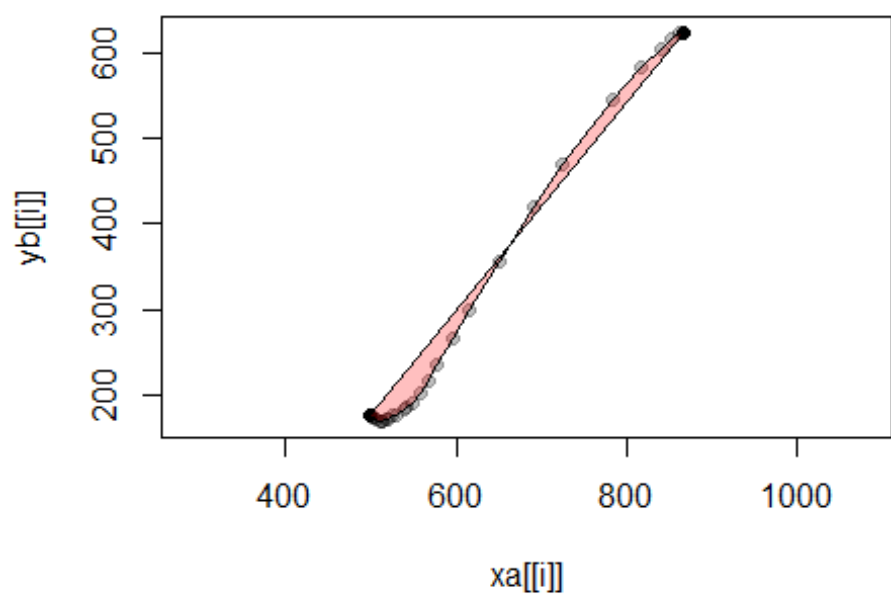


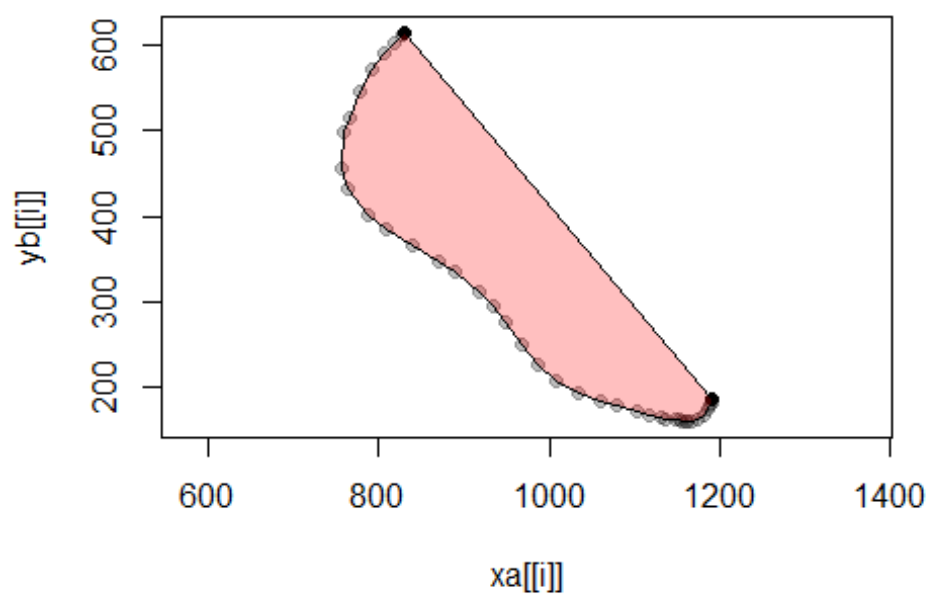
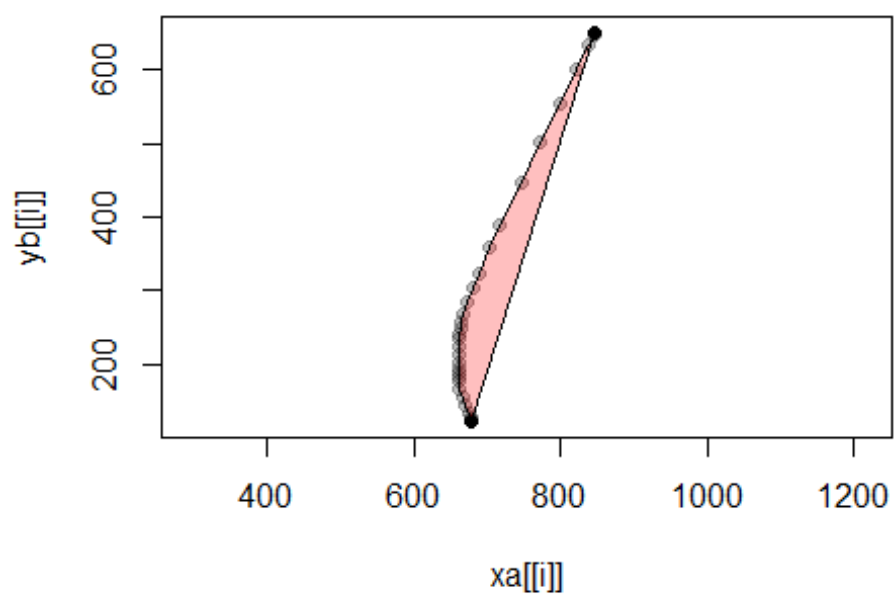


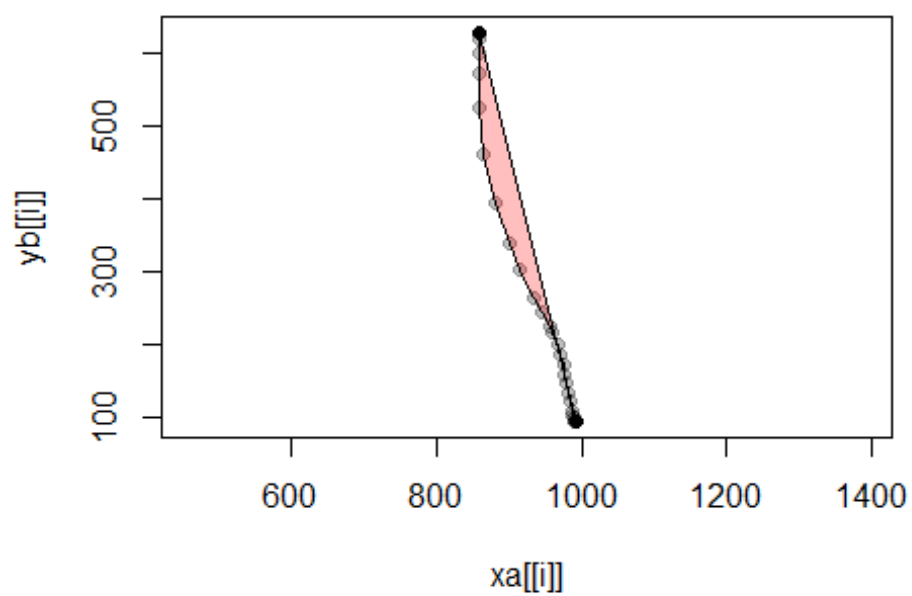
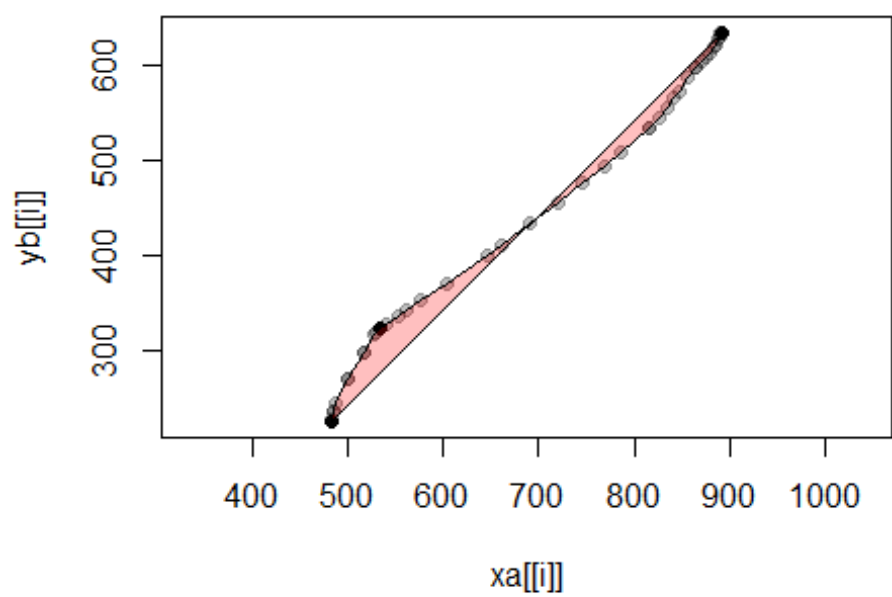


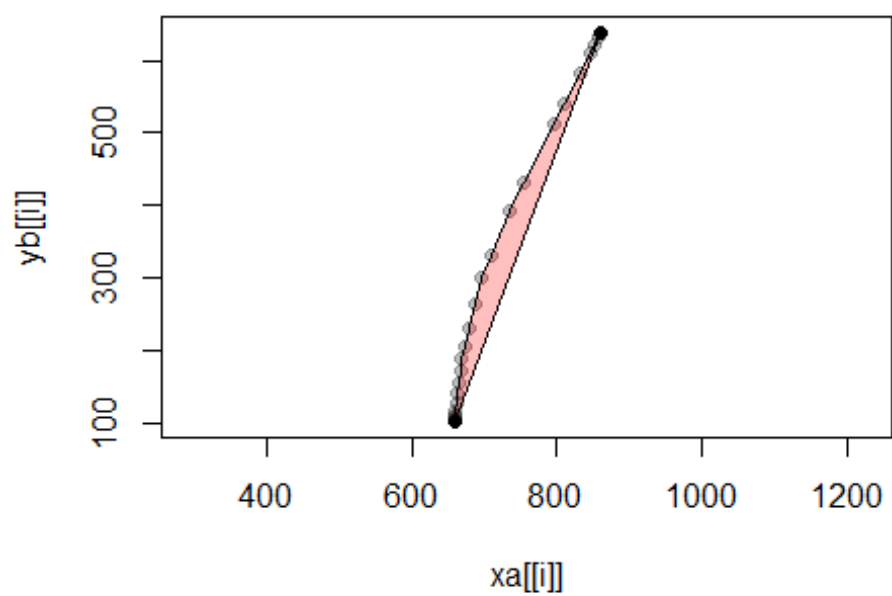
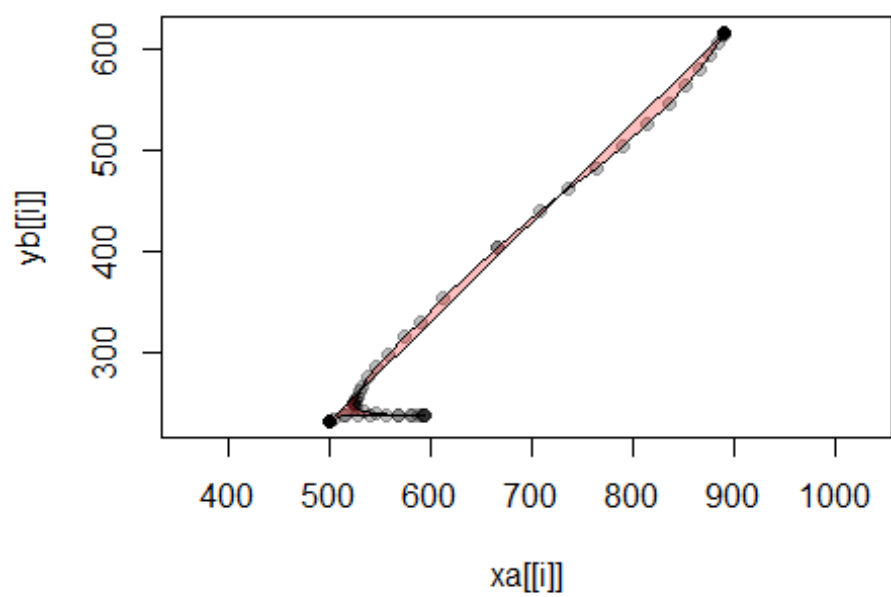


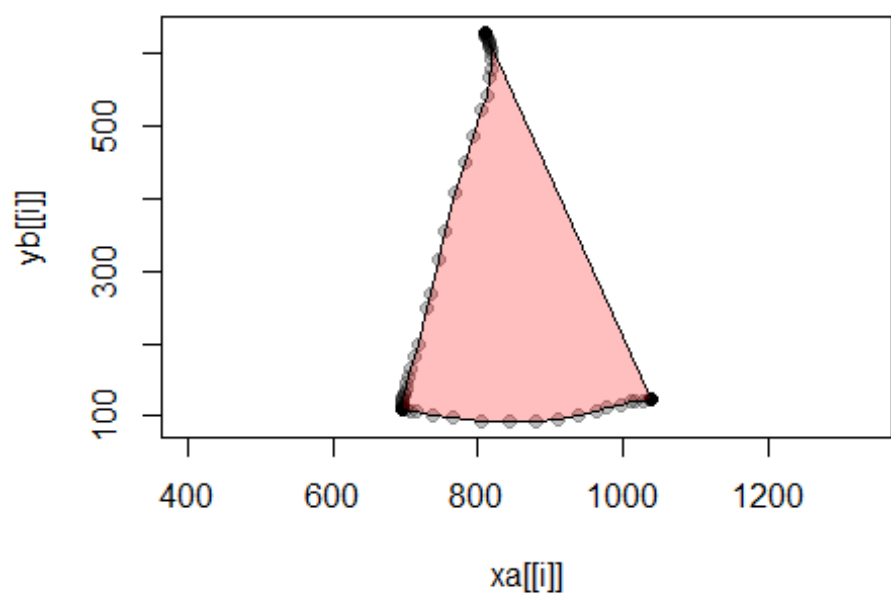
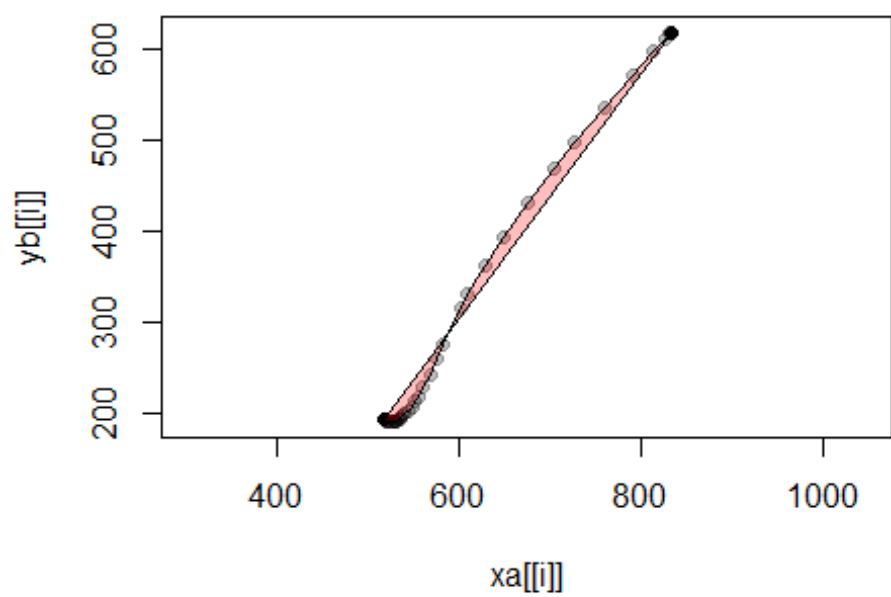


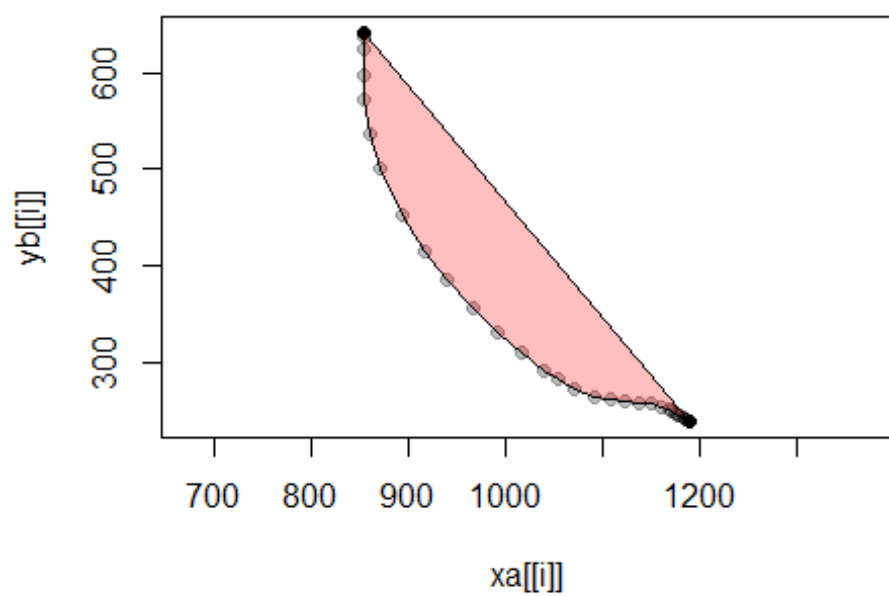
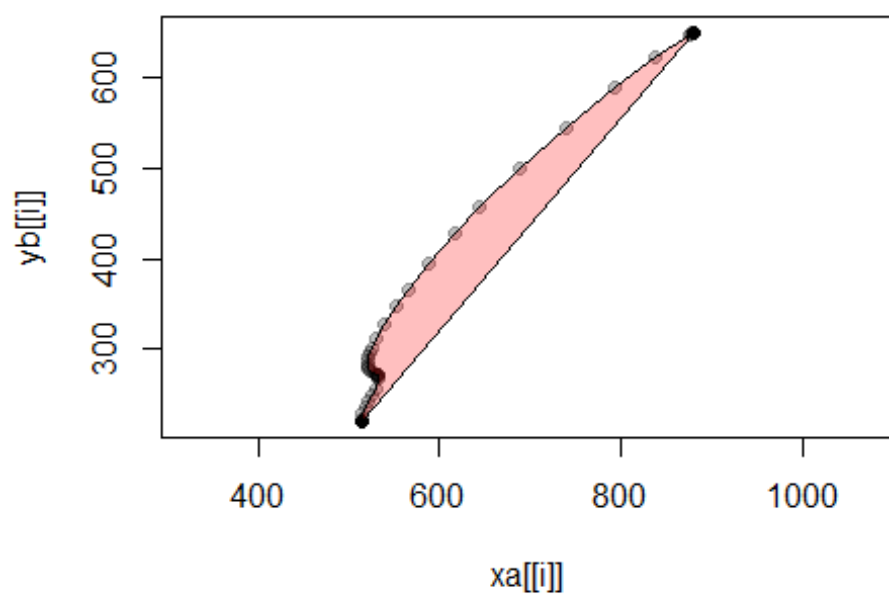


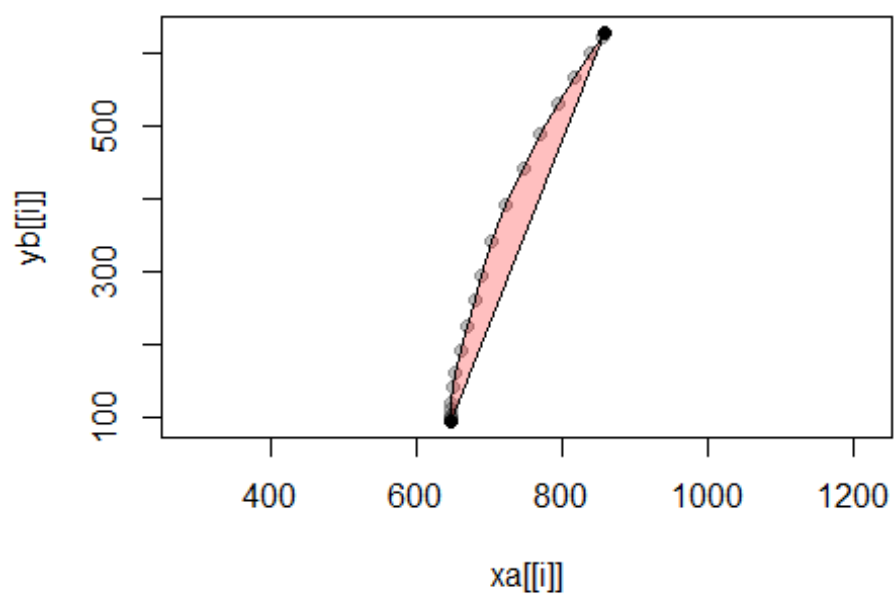
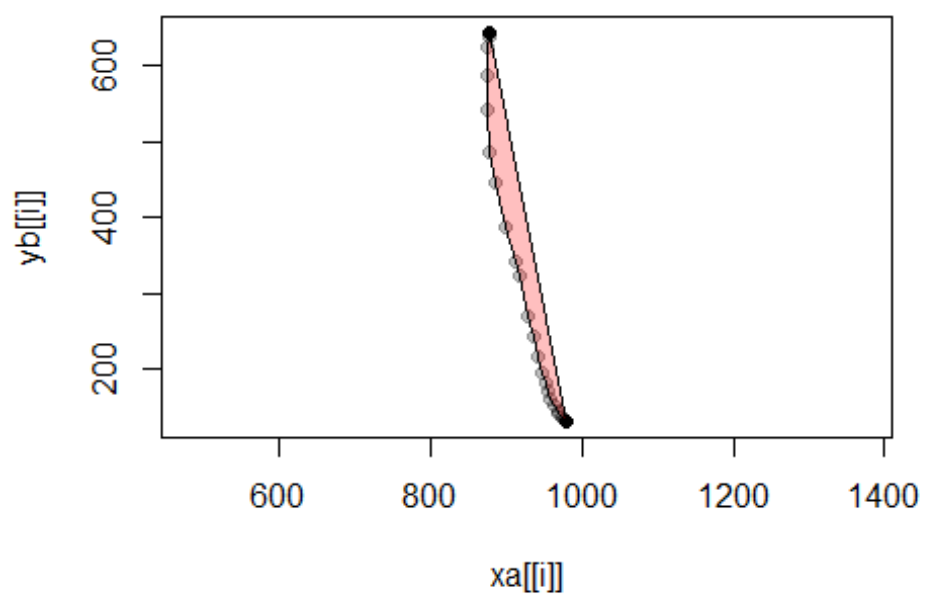


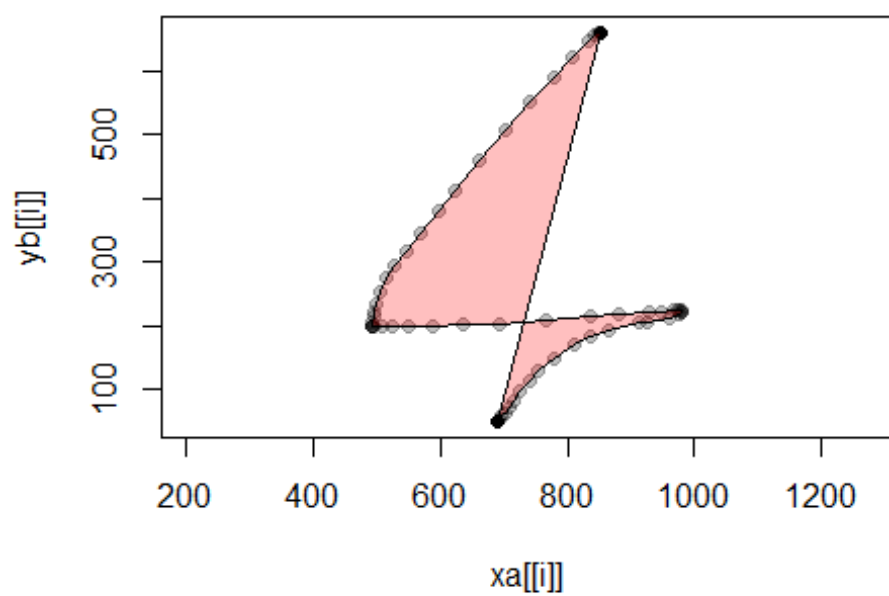
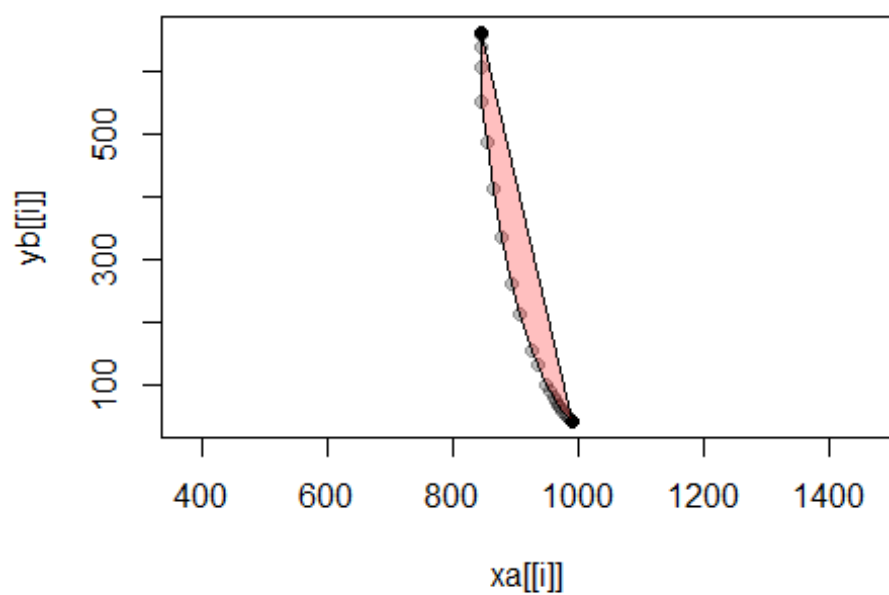


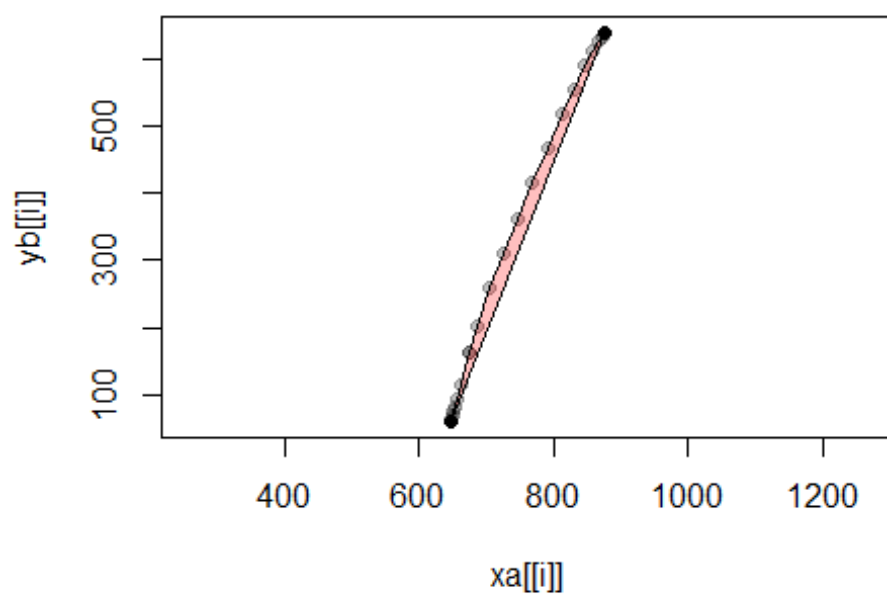
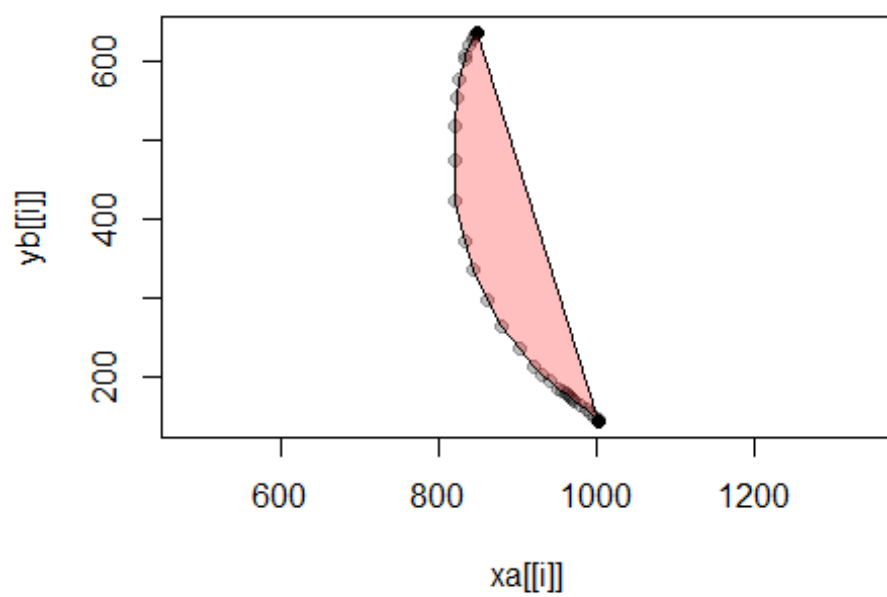


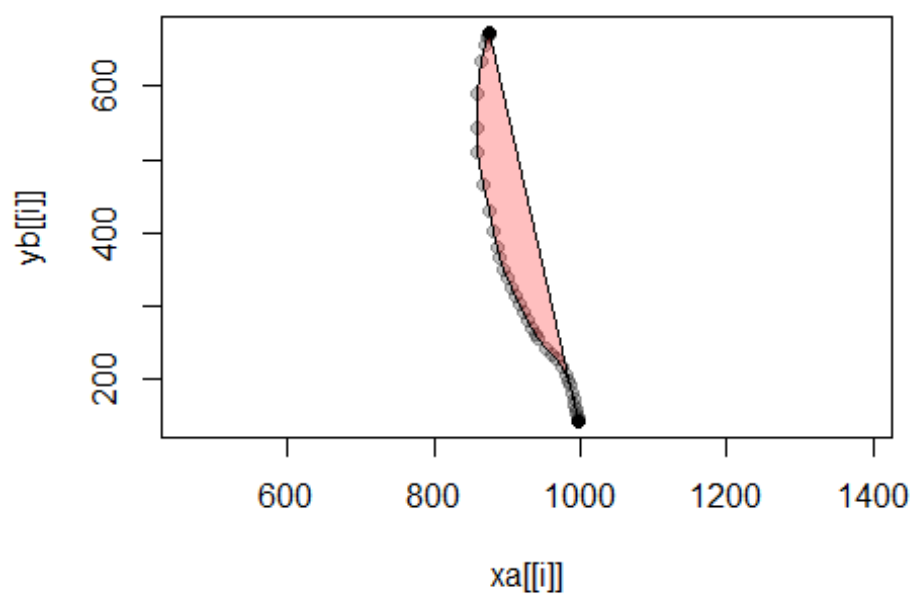
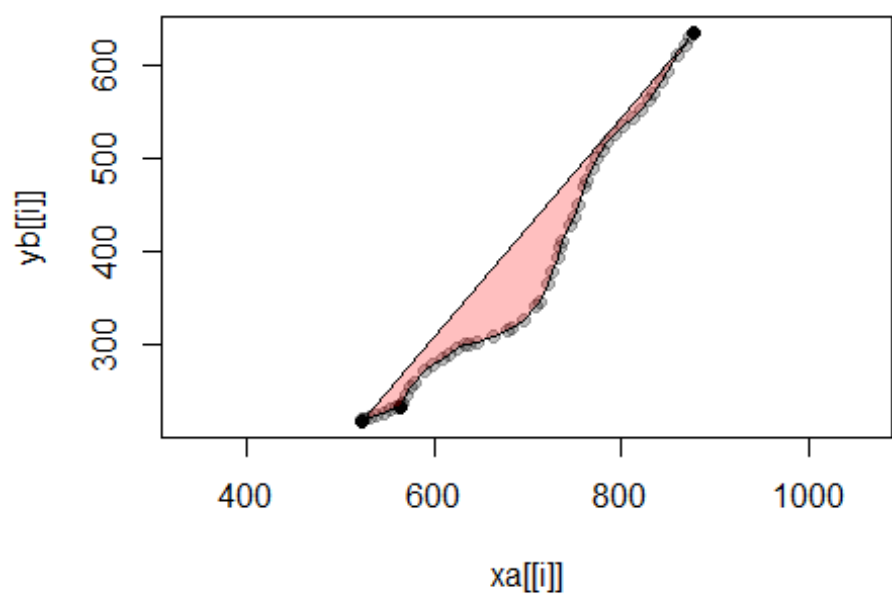


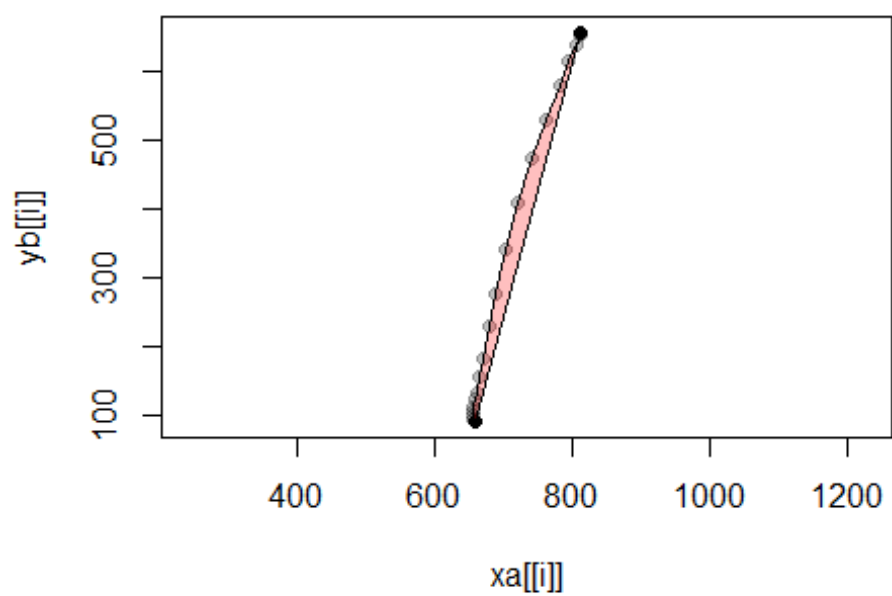
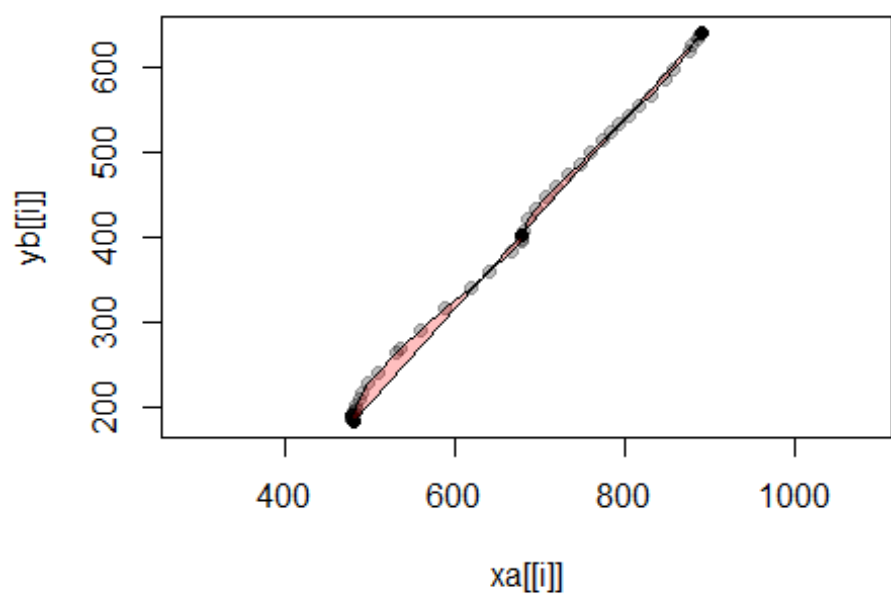


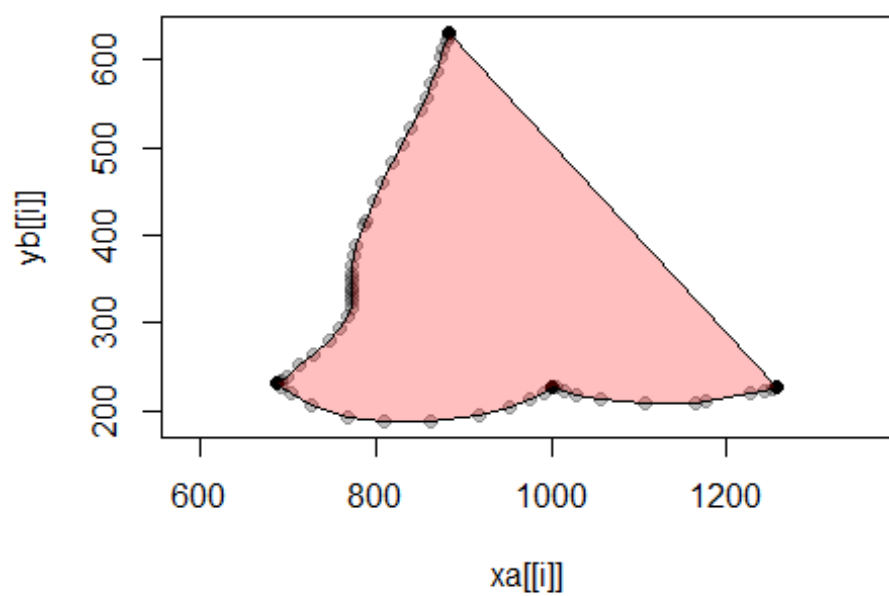
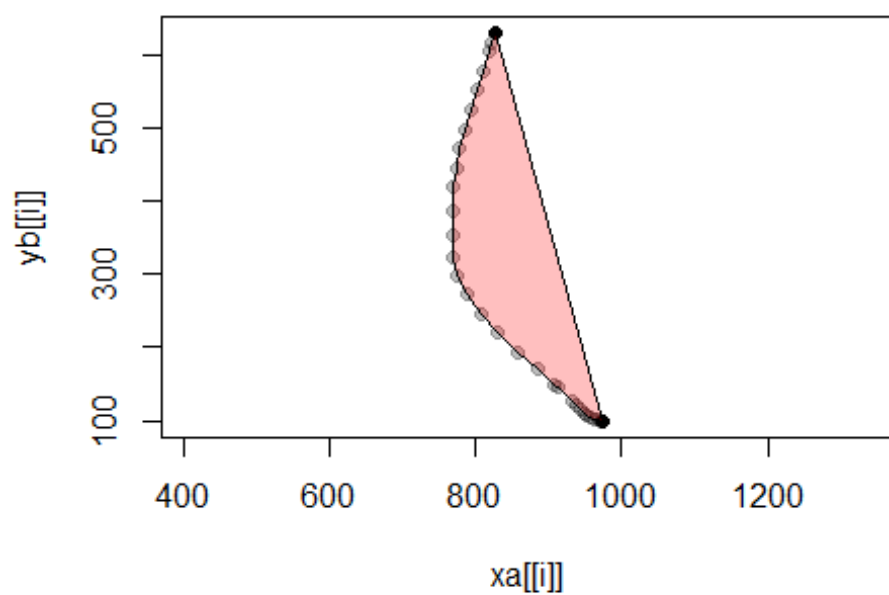


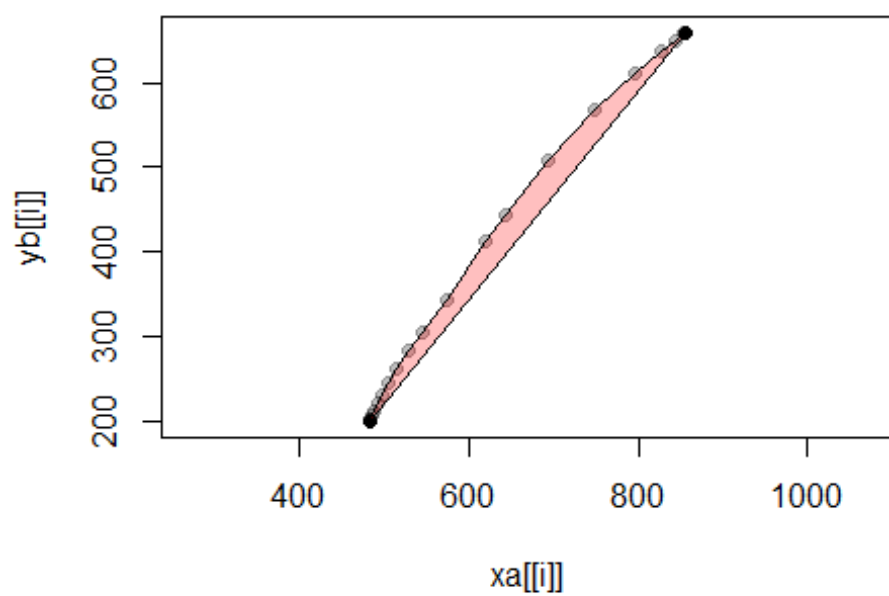
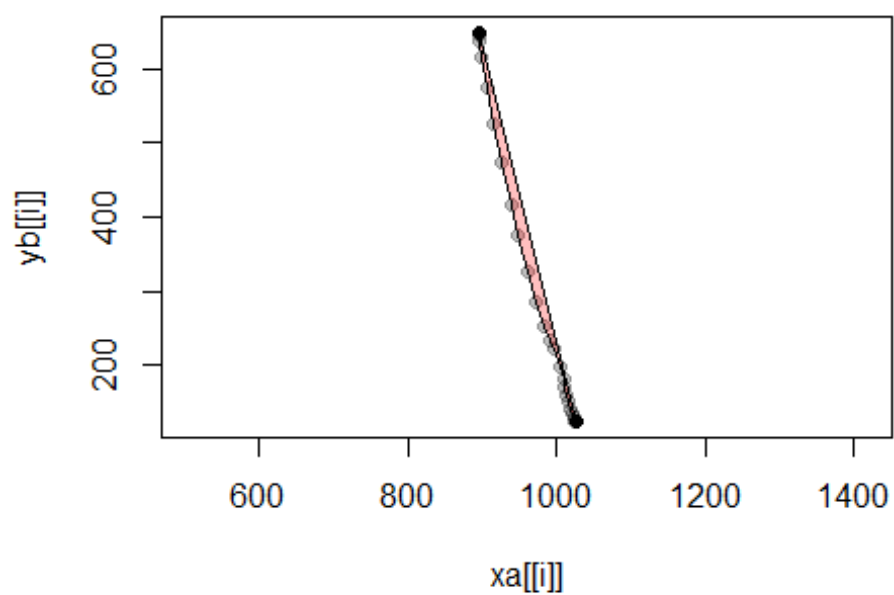


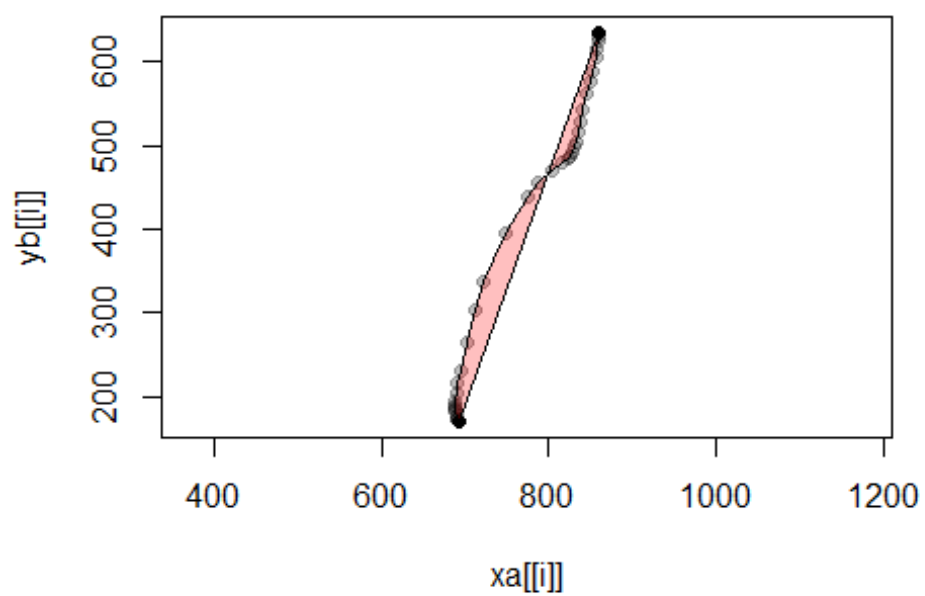
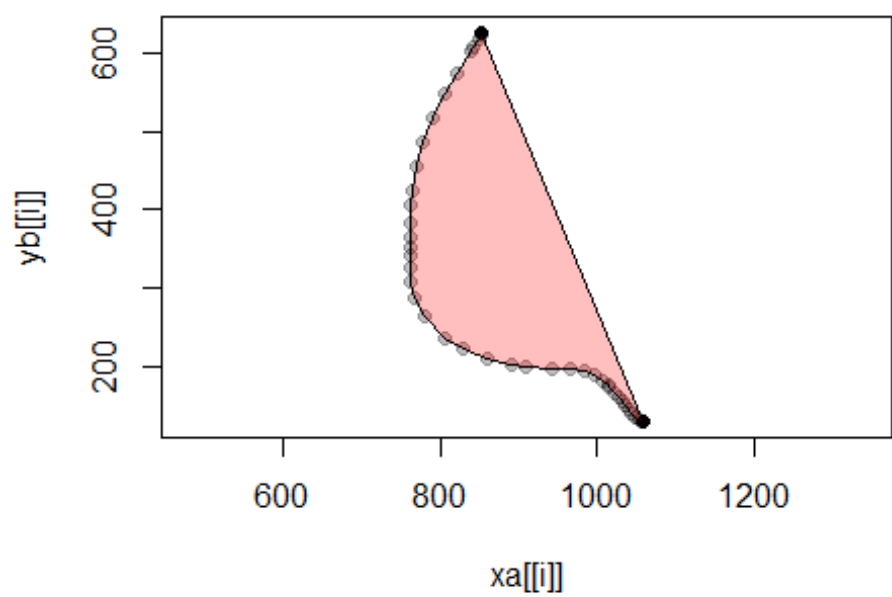


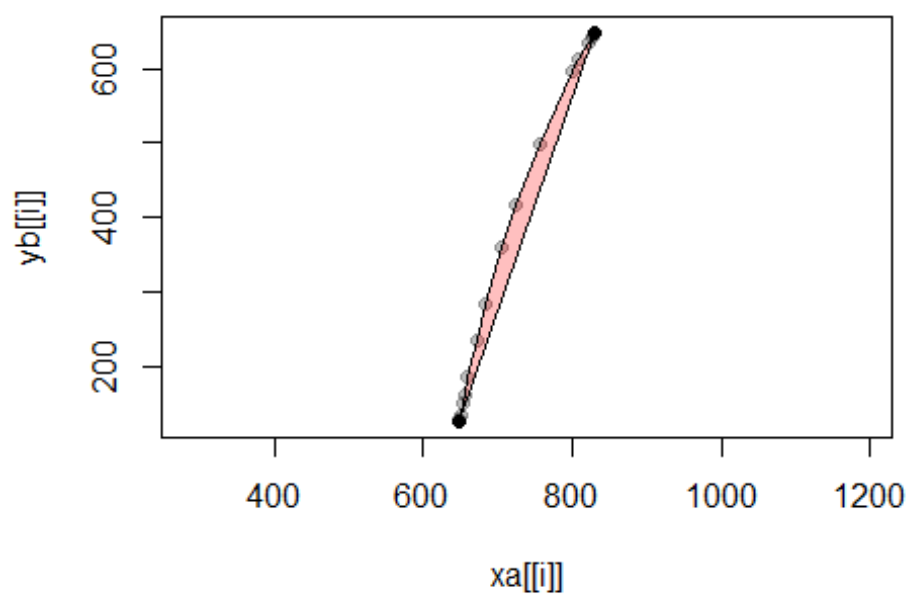
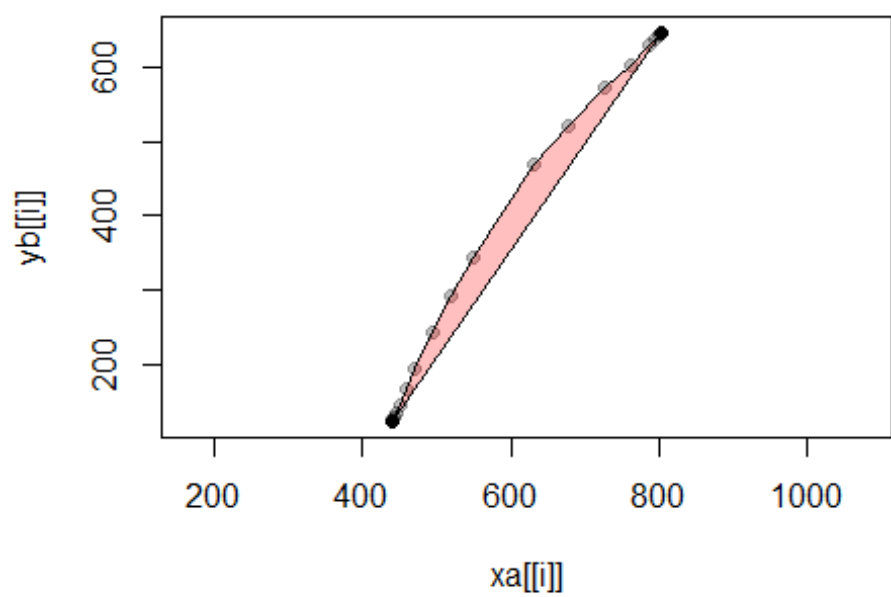


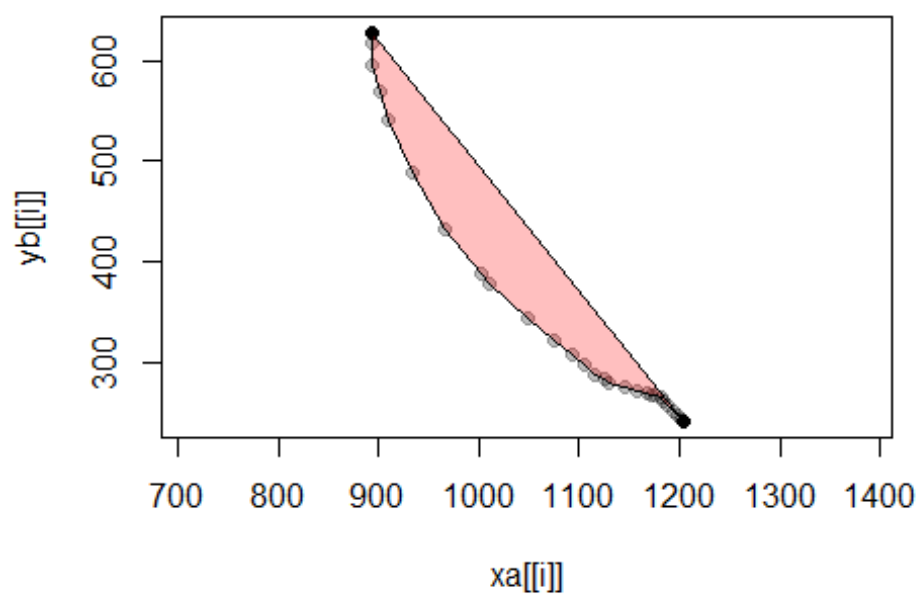
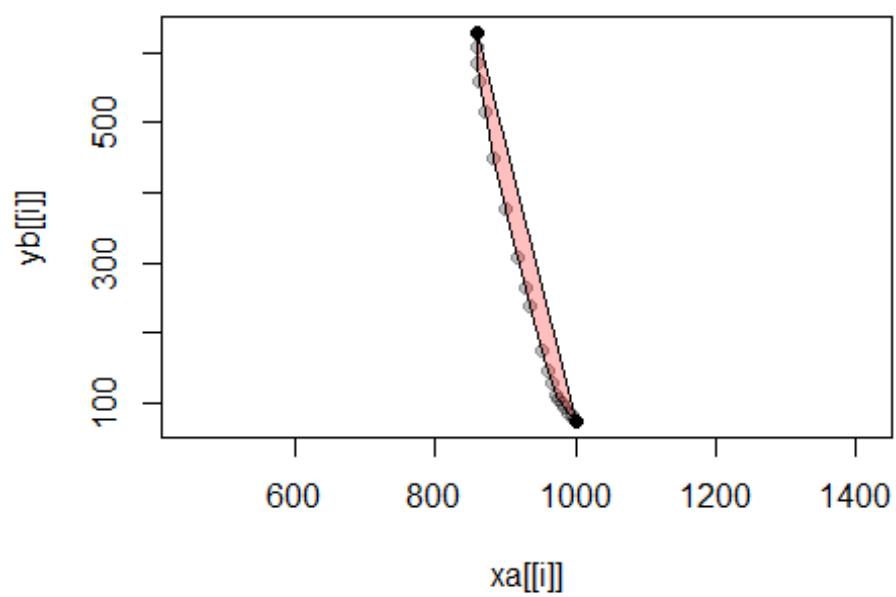


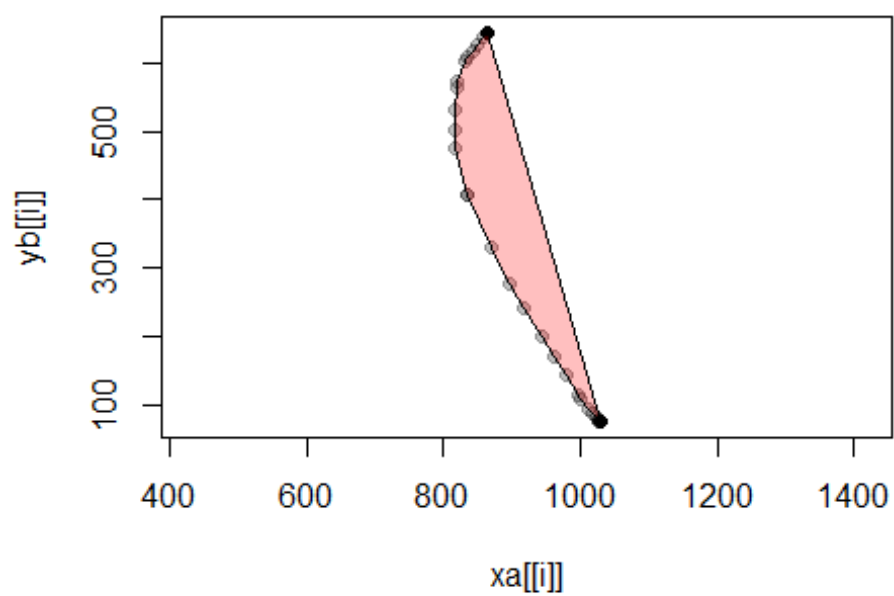
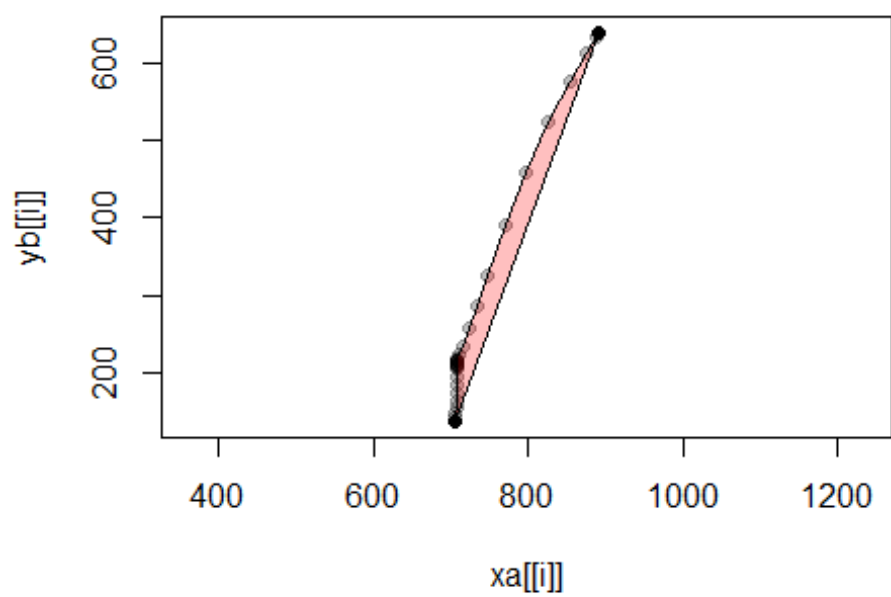


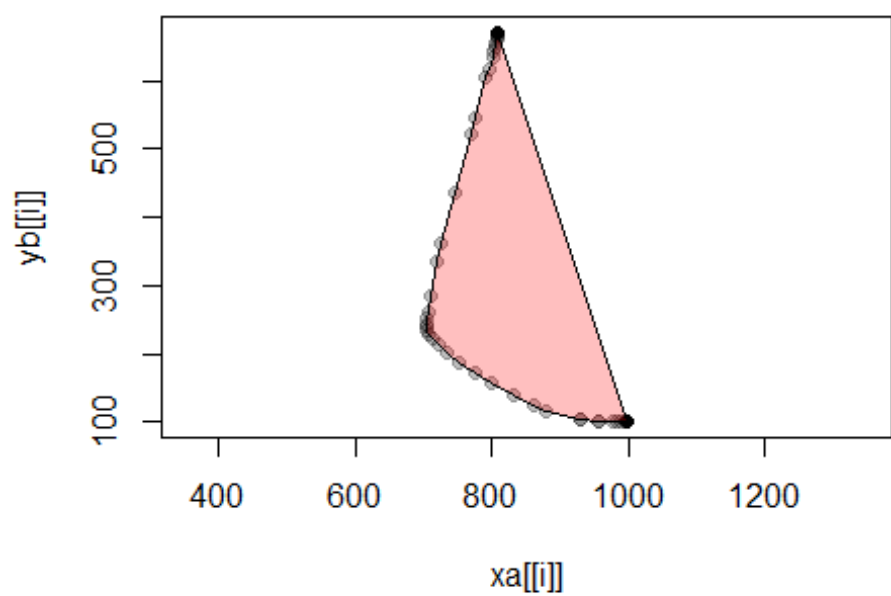
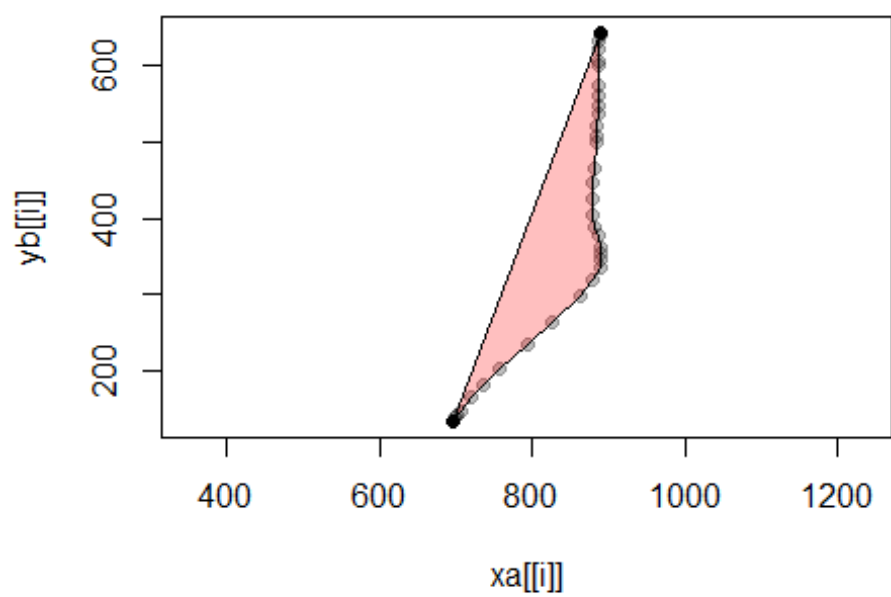


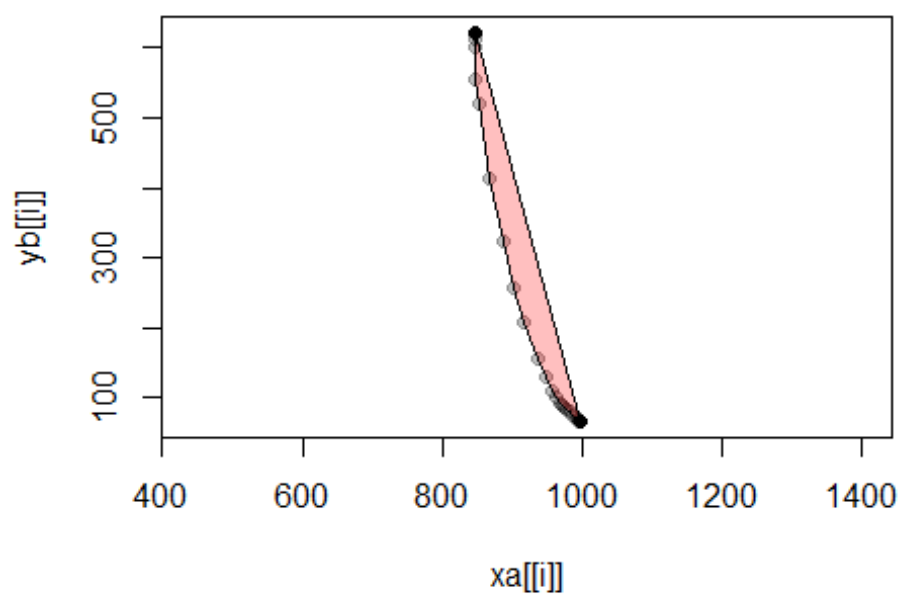
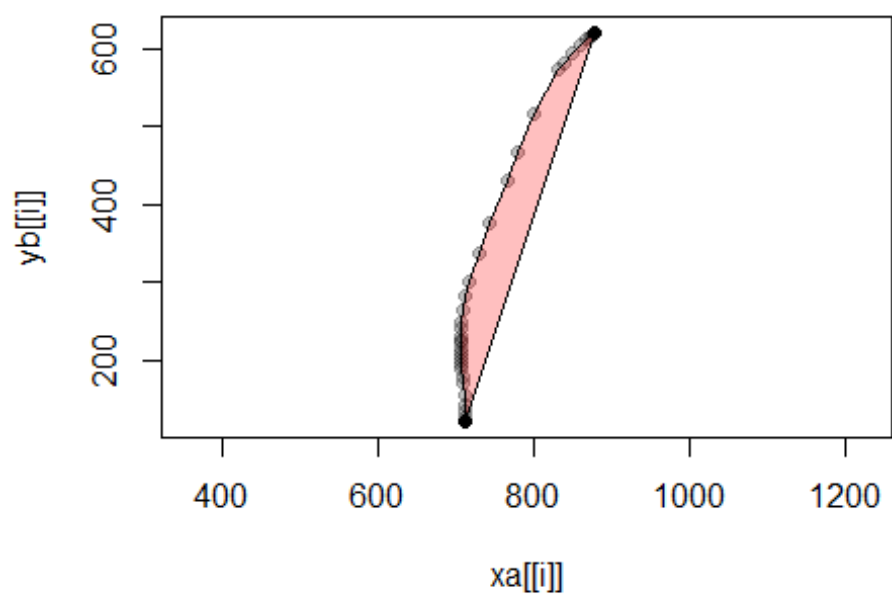


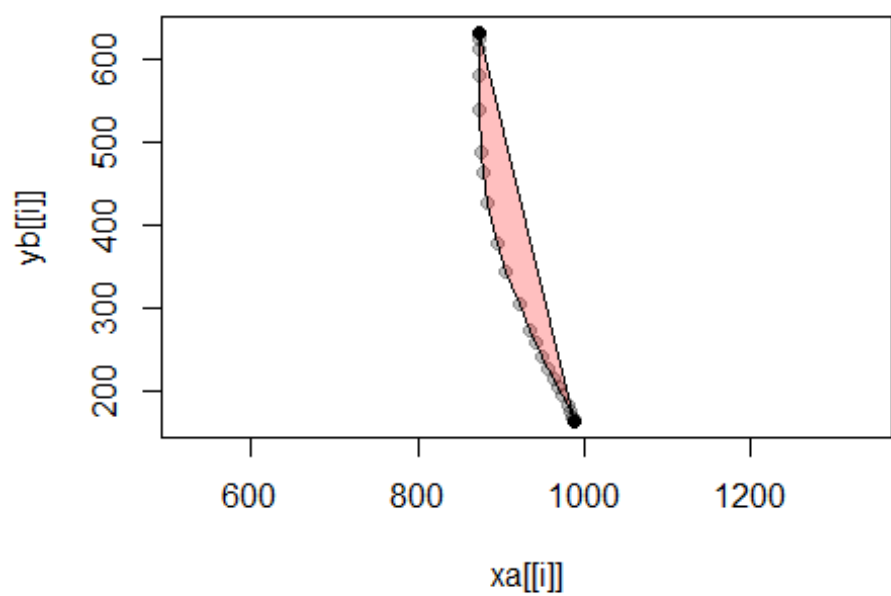
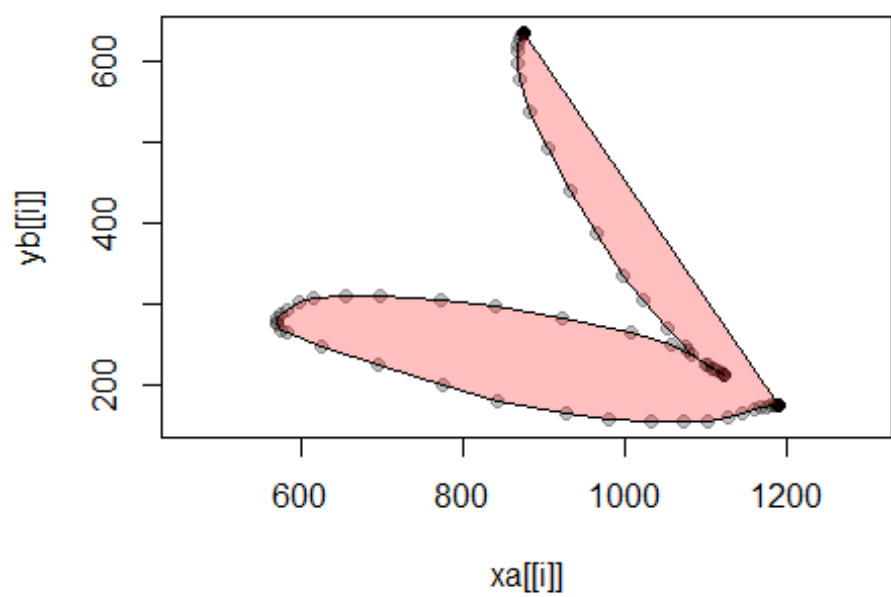


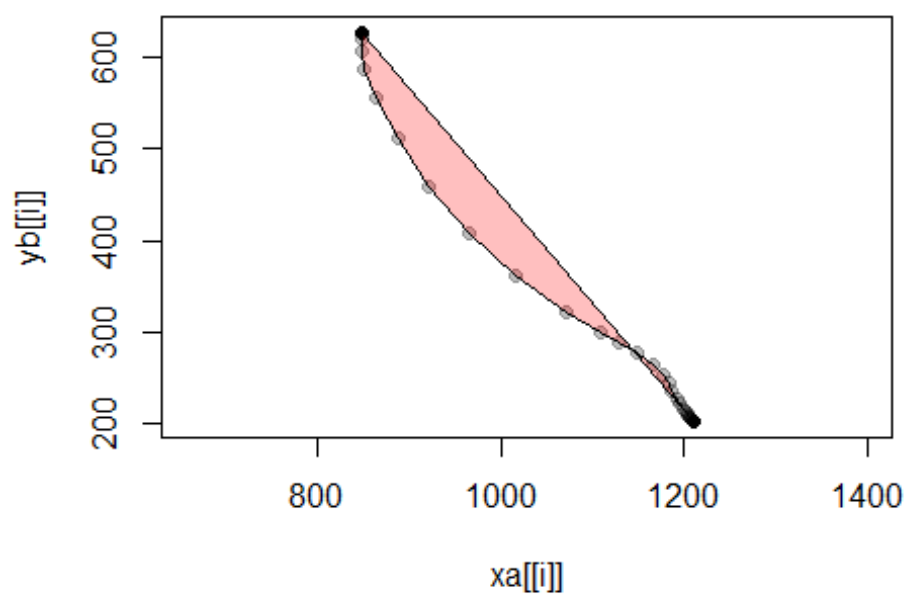
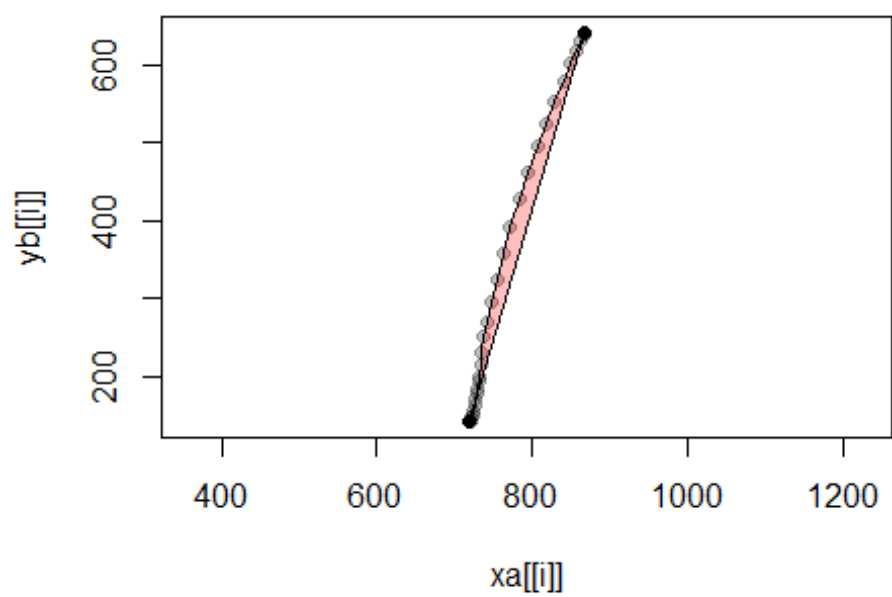


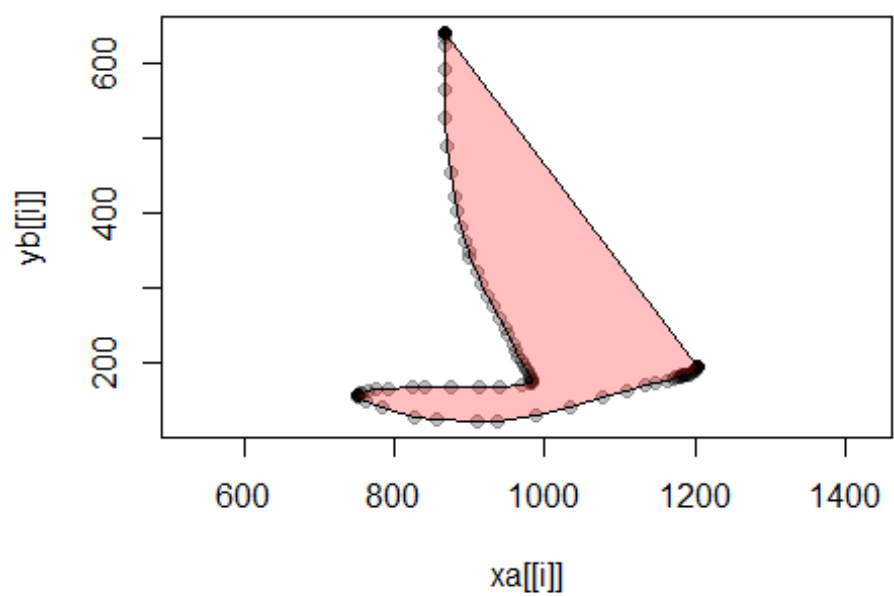
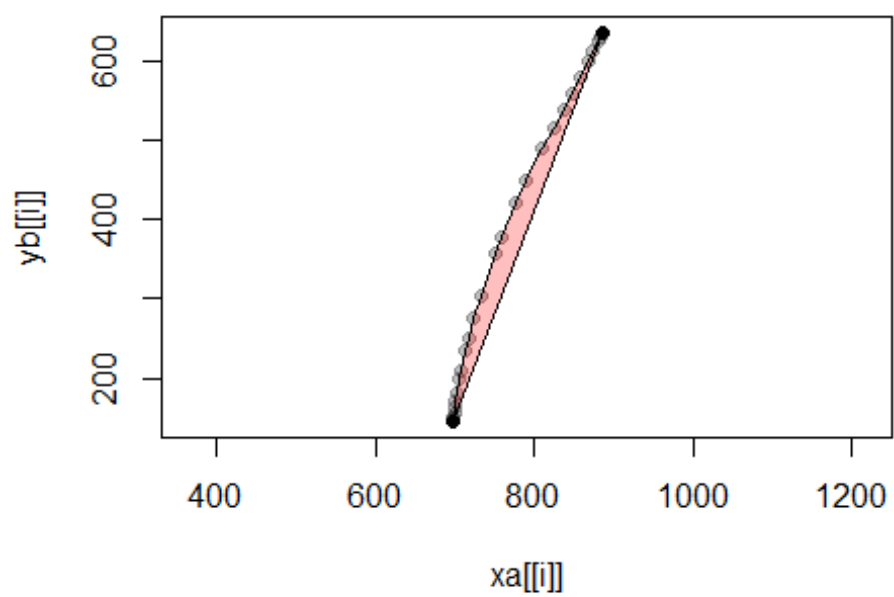


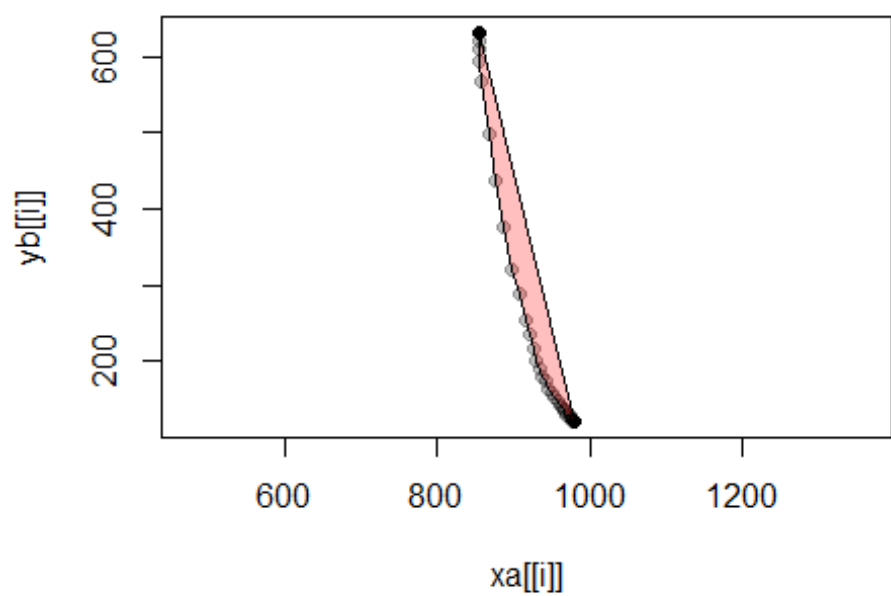
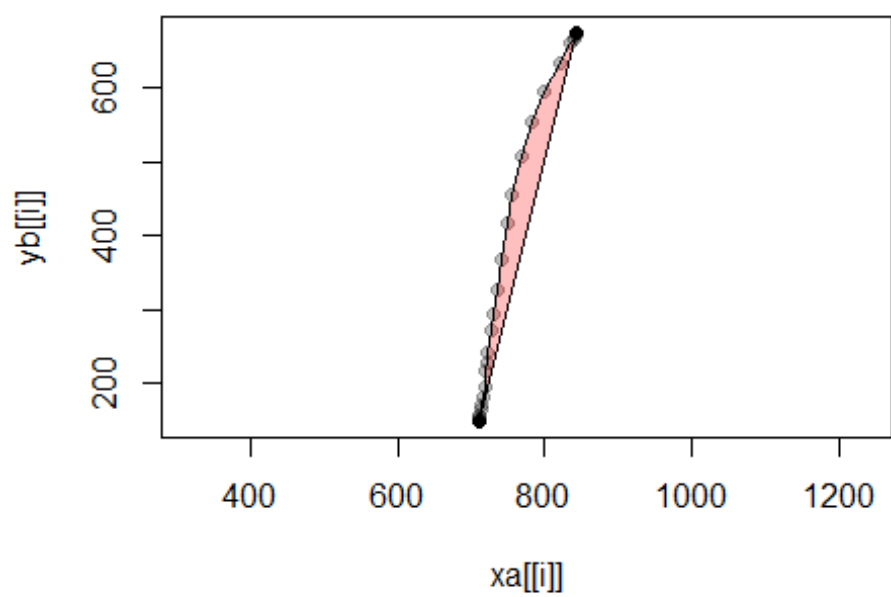


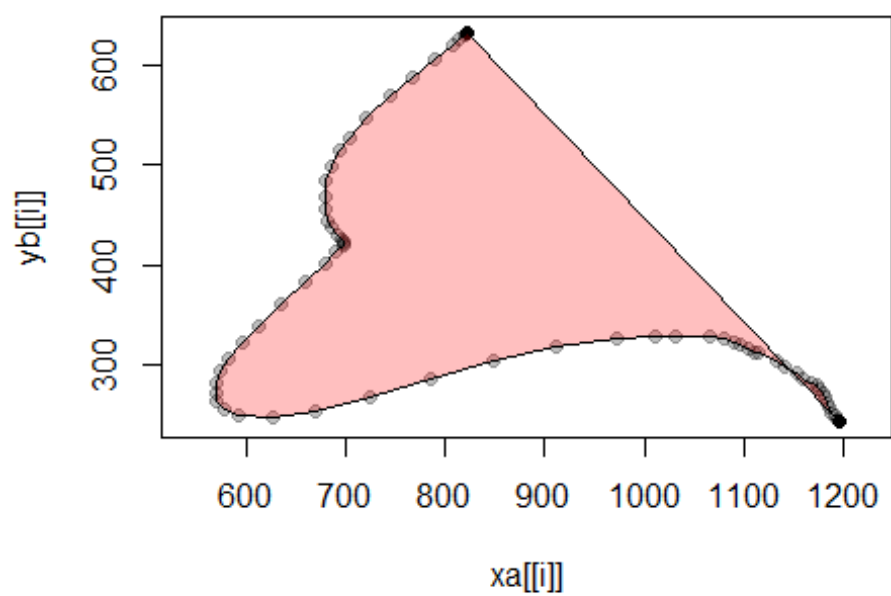
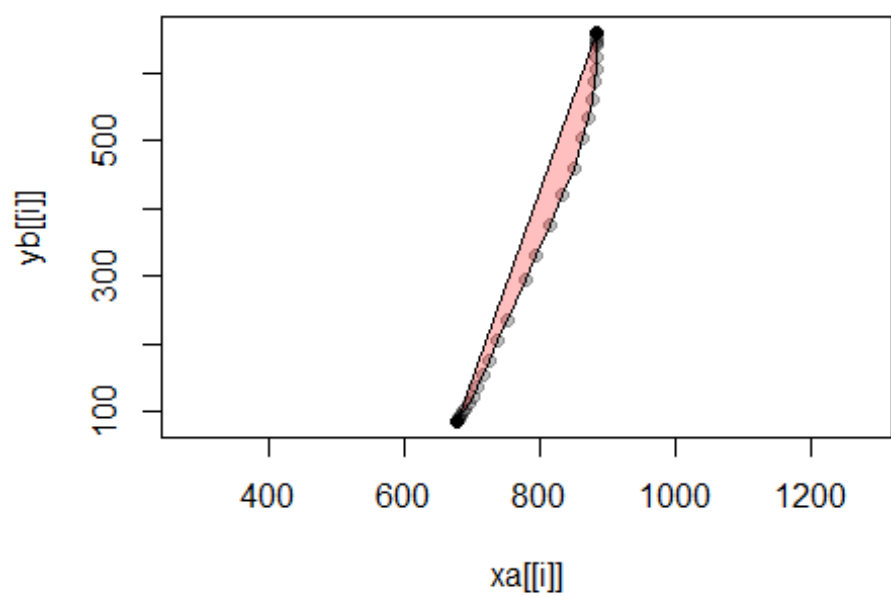


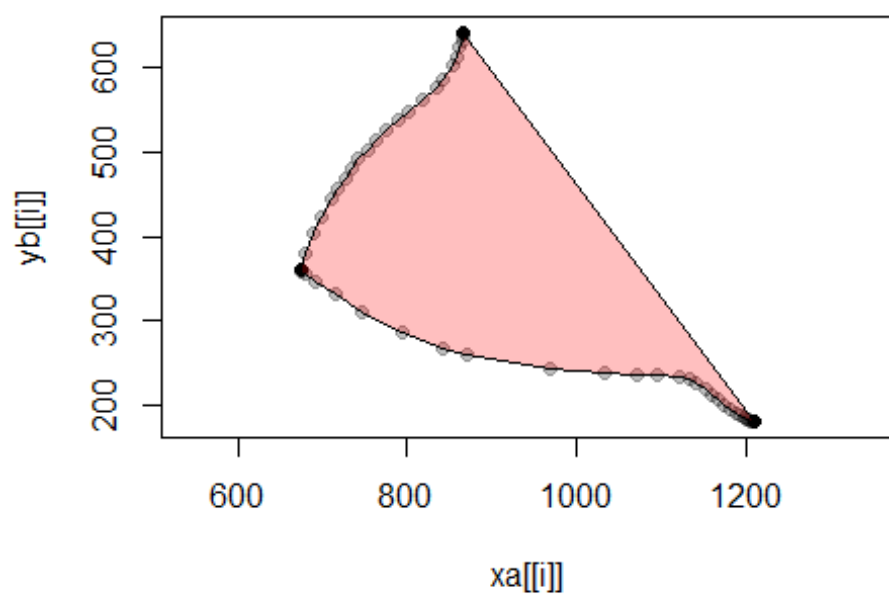
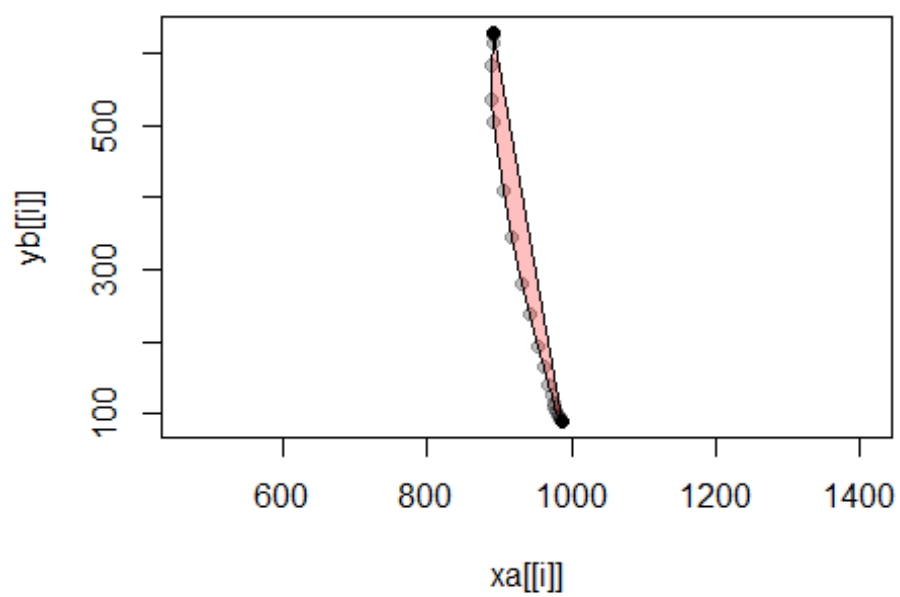


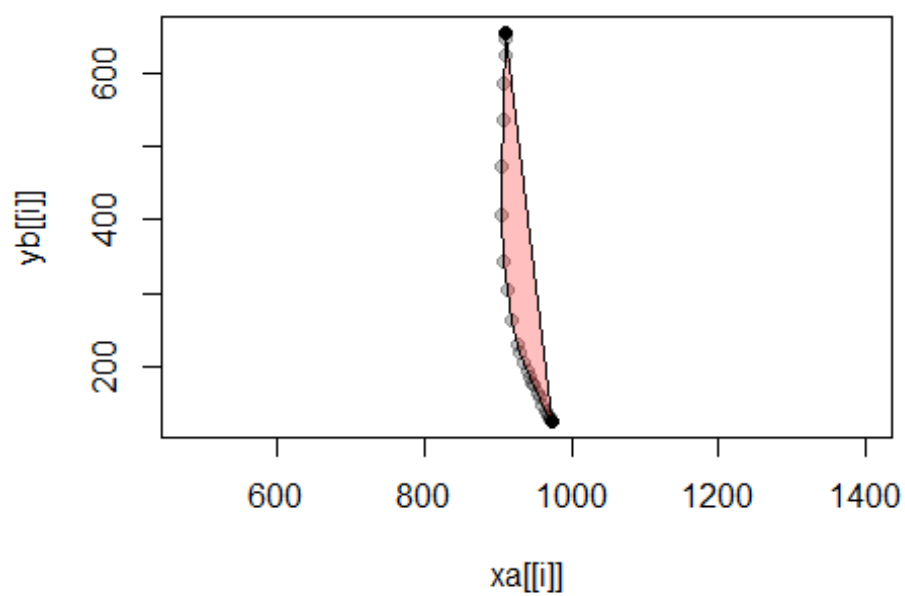
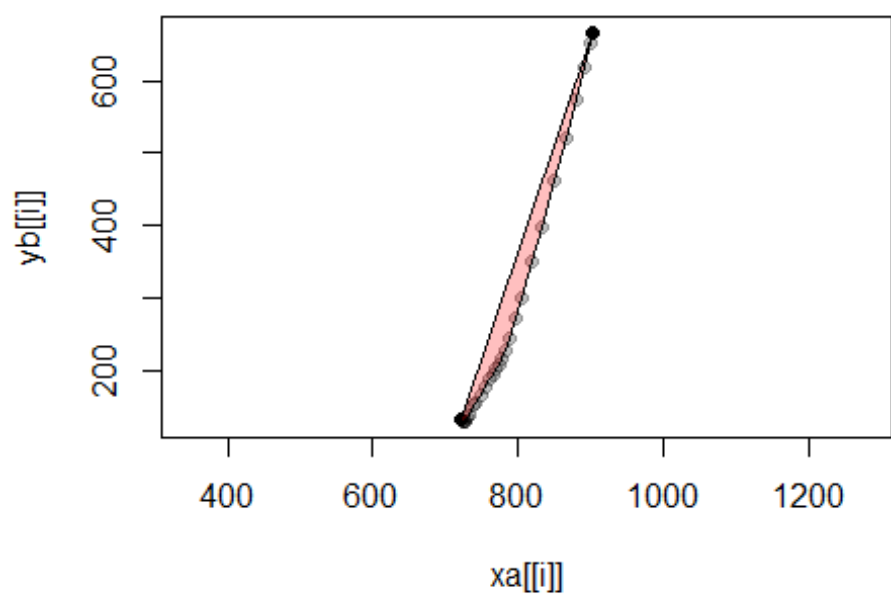


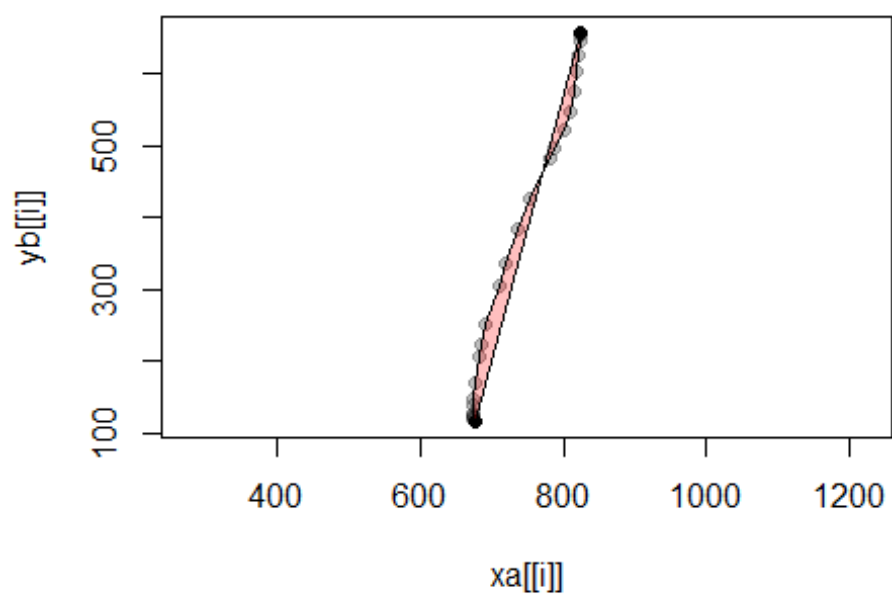
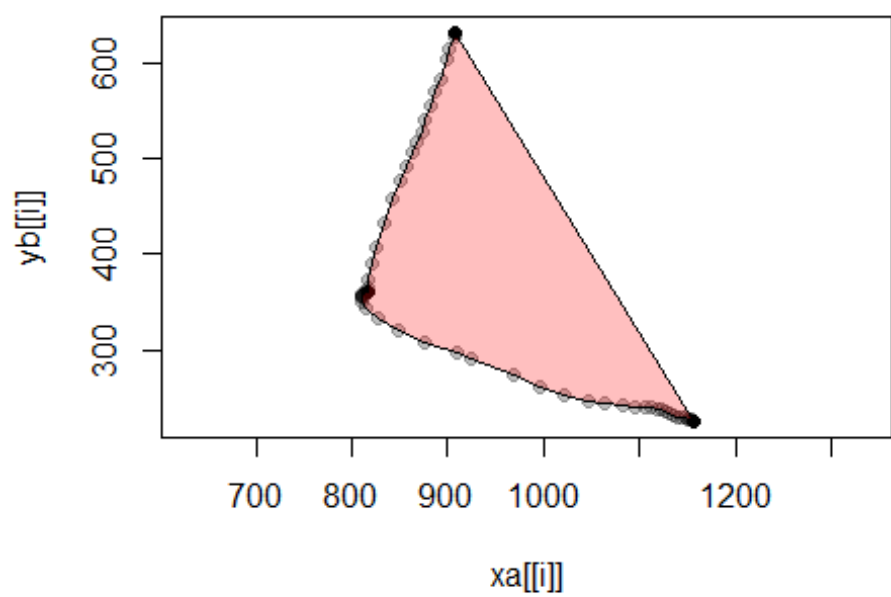


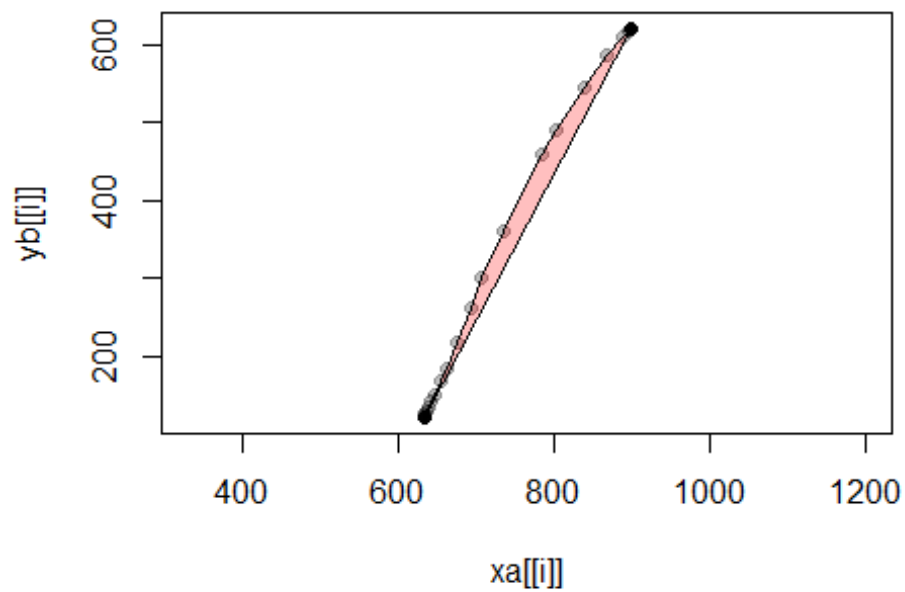
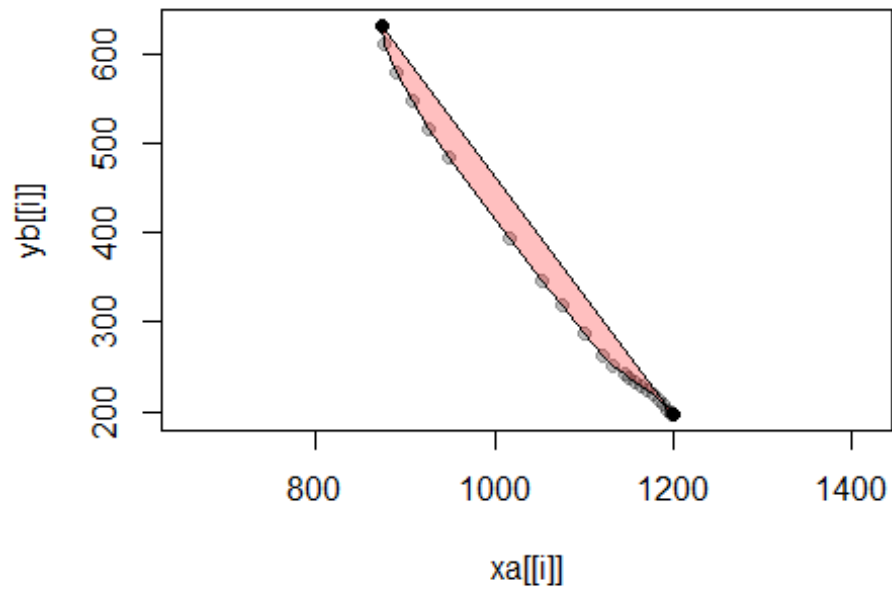












```
#####
```

```
## créé après avoir rempli le vecteur AUC
```

```
dataframe = data.frame(subject, frequency, congruency, MT, AUC, IT, groupe,
```

```

tousPart$essais.couleur, tousPart$essais.mot)
#####
#MC/MI
for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "0"){

    congruency[i] <- c("I")
  }
  else if (dataframe$congruency[i] == "1"){

    congruency[i] <- c("C")
  }
}

for (i in 1:nrow(dataframe)) {

  if(dataframe$groupe[i] == "1" && dataframe$tousPart.essais.couleur[i] ==
"blue" && dataframe$tousPart.essais.mot[i] == "BLEU" ){
    frequency[i] <- c("MC")
  }
  else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "yellow" &&
dataframe$tousPart.essais.mot[i] == "JAUNE" ){
    frequency[i] <- c("MC")
  }
  else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "yellow" &&
dataframe$tousPart.essais.mot[i] == "BLEU" ){
    frequency[i] <- c("MC")
  }
  else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "blue" &&
dataframe$tousPart.essais.mot[i] == "JAUNE" ){
    frequency[i] <- c("MC")
  }
  else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "green" &&
dataframe$tousPart.essais.mot[i] == "ROUGE" ){
    frequency[i] <- c("MI")
  }
  else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "green" &&
dataframe$tousPart.essais.mot[i] == "VERT" ){
    frequency[i] <- c("MI")
  }
  else if(dataframe$groupe[i] == "1" &&

```

```

dataframe$tousPart.essais.couleur[i] == "red" &&
dataframe$tousPart.essais.mot[i] == "ROUGE" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "1" &&
dataframe$tousPart.essais.couleur[i] == "red" &&
dataframe$tousPart.essais.mot[i] == "VERT" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "blue" &&
dataframe$tousPart.essais.mot[i] == "BLEU" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "yellow" &&
dataframe$tousPart.essais.mot[i] == "JAUNE" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "yellow" &&
dataframe$tousPart.essais.mot[i] == "BLEU" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "blue" &&
dataframe$tousPart.essais.mot[i] == "JAUNE" ){
    frequency[i] <- c("MI")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "green" &&
dataframe$tousPart.essais.mot[i] == "ROUGE" ){
    frequency[i] <- c("MC")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "green" &&
dataframe$tousPart.essais.mot[i] == "VERT" ){
    frequency[i] <- c("MC")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "red" &&
dataframe$tousPart.essais.mot[i] == "ROUGE" ){
    frequency[i] <- c("MC")
}
else if(dataframe$groupe[i] == "2" &&
dataframe$tousPart.essais.couleur[i] == "red" &&
dataframe$tousPart.essais.mot[i] == "VERT" ){
    frequency[i] <- c("MC")
}
}
}

```



```

dataframe = data.frame(subject, frequency, congruency, MT, AUC, IT, groupe)

#####

#####
#####moyenne des courbes MC vs MI

cxmcc <- cxmci <- cxmic <- cxmii <- list()

cymcc <- cymci <- cymic <- cymii <- list()

##### x coordinates gp1

for (i in 1:nrow(tousPart)) {
  if(tousPart$essais.mot[i] == "BLEU" && tousPart$essais.couleur[i] == "blue"
&& tousPart$groupe[i] == "1"){
    cxmcc[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "JAUNE" && tousPart$essais.couleur[i] ==
"blue" && tousPart$groupe[i] == "1"){
    cxmci[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "VERT" && tousPart$essais.couleur[i] ==
"green" && tousPart$groupe[i] == "1"){
    cxmic[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "ROUGE" && tousPart$essais.couleur[i] ==
"green" && tousPart$groupe[i] == "1"){
    cxmii[i] <- tousPart$essais.courbeX[i]
  }
}
cxmcc = cxmcc[-which(sapply(cxmcc, is.null))]
cxmci = cxmci[-which(sapply(cxmci, is.null))]
cxmic = cxmic[-which(sapply(cxmic, is.null))]
cxmii = cxmii[-which(sapply(cxmii, is.null))]

##### Y coordinates gp1

for (i in 1:nrow(tousPart)) {
  if(tousPart$essais.mot[i] == "BLEU" && tousPart$essais.couleur[i] == "blue"
&& tousPart$groupe[i] == "1"){
    cymcc[i] <- tousPart$essais.courbeY[i]
  }
  else if(tousPart$essais.mot[i] == "JAUNE" && tousPart$essais.couleur[i] ==
"blue" && tousPart$groupe[i] == "1"){
    cymci[i] <- tousPart$essais.courbeY[i]
  }
}

```

```

else if(tousPart$essais.mot[i] == "VERT" && tousPart$essais.couleur[i] ==
"green" && tousPart$groupe[i] == "1"){
  cymic[i] <- tousPart$essais.courbeY[i]
}
else if(tousPart$essais.mot[i] == "ROUGE" && tousPart$essais.couleur[i] ==
"green" && tousPart$groupe[i] == "1"){
  cymii[i] <- tousPart$essais.courbeY[i]
}
}
cymcc = cymcc[-which(sapply(cymcc, is.null))]
cymci = cymci[-which(sapply(cymci, is.null))]
cymic = cymic[-which(sapply(cymic, is.null))]
cymii = cymii[-which(sapply(cymii, is.null))]

#####

## X & Y coordinates gp2

cxmcc2 <- cxmci2 <- cxmic2 <- cxmii2 <- list()

cymcc2 <- cymci2 <- cymic2 <- cymii2 <- list()

##### x coordinates gp2

for (i in 1:nrow(tousPart)) {
  if(tousPart$essais.mot[i] == "ROUGE" && tousPart$essais.couleur[i] == "red"
&& tousPart$groupe[i] == "2"){
    cxmcc2[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "VERT" && tousPart$essais.couleur[i] ==
"red" && tousPart$groupe[i] == "2"){
    cxmci2[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "JAUNE" && tousPart$essais.couleur[i] ==
"yellow" && tousPart$groupe[i] == "2"){
    cxmic2[i] <- tousPart$essais.courbeX[i]
  }
  else if(tousPart$essais.mot[i] == "BLEU" && tousPart$essais.couleur[i] ==
"yellow" && tousPart$groupe[i] == "2"){
    cxmii2[i] <- tousPart$essais.courbeX[i]
  }
}
cxmcc2 = cxmcc2[-which(sapply(cxmcc2, is.null))]
cxmci2 = cxmci2[-which(sapply(cxmci2, is.null))]
cxmic2 = cxmic2[-which(sapply(cxmic2, is.null))]
cxmii2 = cxmii2[-which(sapply(cxmii2, is.null))]

```

Y coordinates gp2

```
for (i in 1:nrow(tousPart)) {  
  if(tousPart$essais.mot[i] == "ROUGE" && tousPart$essais.couleur[i] == "red"  
&& tousPart$groupe[i] == "2"){  
    cymcc2[i] <- tousPart$essais.courbeY[i]  
  }  
  else if(tousPart$essais.mot[i] == "VERT" && tousPart$essais.couleur[i] ==  
"red" && tousPart$groupe[i] == "2"){  
    cymci2[i] <- tousPart$essais.courbeY[i]  
  }  
  else if(tousPart$essais.mot[i] == "JAUNE" && tousPart$essais.couleur[i] ==  
"yellow" && tousPart$groupe[i] == "2"){  
    cymic2[i] <- tousPart$essais.courbeY[i]  
  }  
  else if(tousPart$essais.mot[i] == "BLEU" && tousPart$essais.couleur[i] ==  
"yellow" && tousPart$groupe[i] == "2"){  
    cymii2[i] <- tousPart$essais.courbeY[i]  
  }  
}  
cymcc2 = cymcc2[-which(sapply(cymcc2, is.null))]  
cymci2 = cymci2[-which(sapply(cymci2, is.null))]  
cymic2 = cymic2[-which(sapply(cymic2, is.null))]  
cymii2 = cymii2[-which(sapply(cymii2, is.null))]
```

#####

####plot for MC $c \cdot I$ gp2

```
mcc2 <- data.frame( cbind(cxmcc2, cymcc2))  
mci2 <- data.frame( cbind(cxmci2, cymci2))
```

```
a <- b <- xcc2 <- ycc2 <- c()
```

```
for (j in 1:150) {  
  for (i in 1:nrow(mcc2)) {  
    a[i] <- mcc2$cxmcc2[[i]][j]  
    b[i] <- mcc2$cymcc2[[i]][j]  
  }  
  xcc2[j] <- mean(a)  
  ycc2[j] <- mean(b)  
}
```

```
xcc2 <- na.omit(xcc2)  
ycc2 <- na.omit(ycc2)
```

```
a <- b <- xci2 <- yci2 <- c()
```

```

for (j in 1:150) {
  for (i in 1:nrow(mci2)) {
    a[i] <- mci2$cxmci2[[i]][j]
    b[i] <- mci2$cymci2[[i]][j]
  }
  xci2[j] <- mean(a)
  yci2[j] <- mean(b)
}

xci2 <- na.omit(xci2)
yci2 <- na.omit(yci2)

#####3

#plot for Mi c*I gp2

mic2 <- data.frame( cbind(cxmic2, cymic2))

a <- b <- xic2 <- yic2 <- c()

for (j in 1:150) {
  for (i in 1:nrow(mic2)) {
    a[i] <- mic2$cxmic2[[i]][j]
    b[i] <- mic2$cymic2[[i]][j]
  }
  xic2[j] <- mean(a)
  yic2[j] <- mean(b)
}

xic2 <- na.omit(xic2)
yic2 <- na.omit(yic2)

mii2 <- data.frame( cbind(cxmii2, cymii2))

a <- b <- xii2 <- yii2 <- c()

for (j in 1:150) {
  for (i in 1:nrow(mii2)) {
    a[i] <- mii2$cxmii[[i]][j]
    b[i] <- mii2$cymii[[i]][j]
  }
  xii2[j] <- mean(a)
  yii2[j] <- mean(b)
}

```

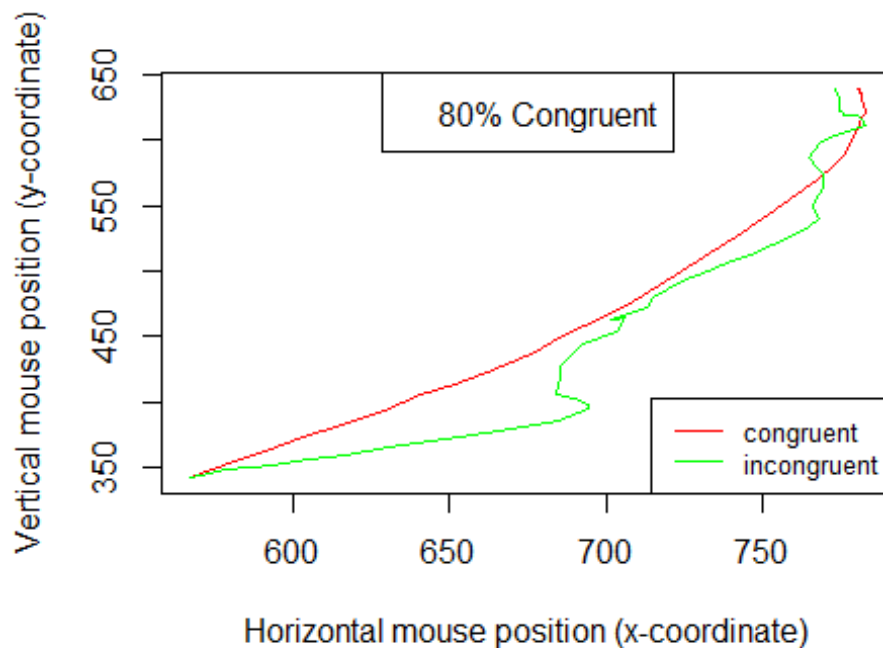
```

xii2 <- na.omit(xii2)
yii2 <- na.omit(yii2)

#####

plot( xcc2, ycc2, type="l", col="red", ylab = "Vertical mouse position (y-
coordinate)", xlab = "Horizontal mouse position (x-coordinate)")
legend("bottomright", 95, legend=c("congruent", "incongruent"),
      col=c("red", "green"), lty=1:1, cex=0.8)
legend("top", 95, legend=c("80% Congruent"))
par(new=TRUE)
plot( xci2, yci2, type="l", col="green", axes=FALSE,ann=FALSE, )

```

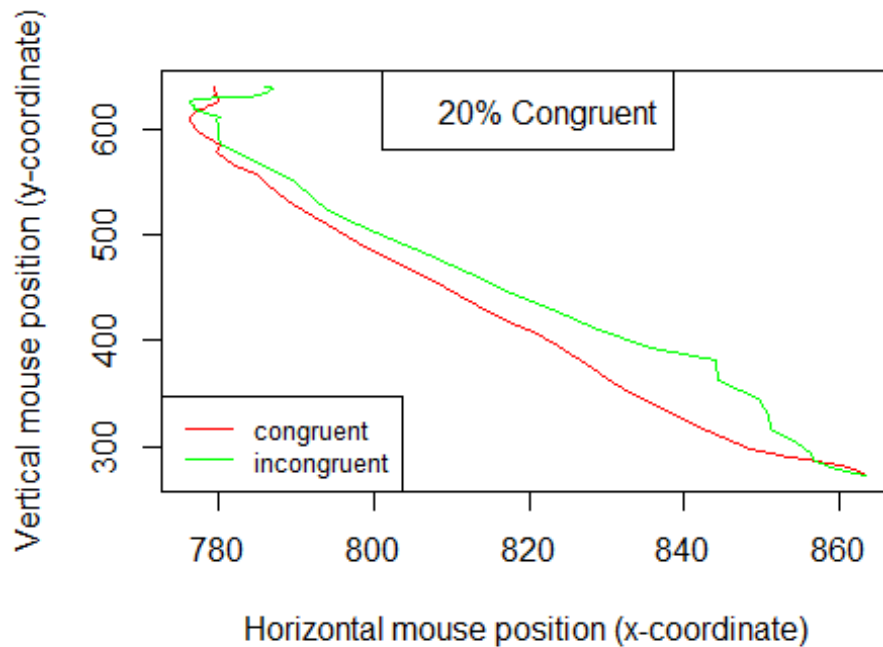


```

#####

plot( xic2, yic2, type="l", col="red", ylab = "Vertical mouse position (y-
coordinate)", xlab = "Horizontal mouse position (x-coordinate)")
legend("bottomleft", 95, legend=c("congruent", "incongruent"),
      col=c("red", "green"), lty=1:1, cex=0.8)
legend("top", 95, legend=c("20% Congruent"))
par(new=TRUE)
plot( xii2, yii2, type="l", col="green", axes=FALSE,ann=FALSE, )

```



```
#####
```

```
####plot for MC c*I gp1
```

```
mcc <- data.frame( cbind(cxmcc, cymcc))
```

```
mci <- data.frame( cbind(cxmci, cymci))
```

```
a <- b <- xcc <- ycc <- c()
```

```
for (j in 1:150) {
  for (i in 1:nrow(mcc)) {
    a[i] <- mcc$cxmcc[[i]][j]
    b[i] <- mcc$cymcc[[i]][j]
  }
  xcc[j] <- mean(a)
  ycc[j] <- mean(b)
}
```

```
xcc <- na.omit(xcc)
```

```
ycc <- na.omit(ycc)
```

```
a <- b <- xci <- yci <- c()
```

```
for (j in 1:150) {
  for (i in 1:nrow(mci)) {
```

```

    a[i] <- mci$cxmci[[i]][j]
    b[i] <- mci$cymci[[i]][j]
  }
  xci[j] <- mean(a)
  yci[j] <- mean(b)
}

xci <- na.omit(xci)
yci <- na.omit(yci)

#####3

#plot for  $M_i c^*I$  gp1

mic <- data.frame( cbind(cxmic, cymic))

a <- b <- xic <- yic <- c()

for (j in 1:150) {
  for (i in 1:nrow(mic)) {
    a[i] <- mic$cxmic[[i]][j]
    b[i] <- mic$cymic[[i]][j]
  }
  xic[j] <- mean(a)
  yic[j] <- mean(b)
}

xic <- na.omit(xic)
yic <- na.omit(yic)

mii <- data.frame( cbind(cxmii, cymii))

a <- b <- xii <- yii <- c()

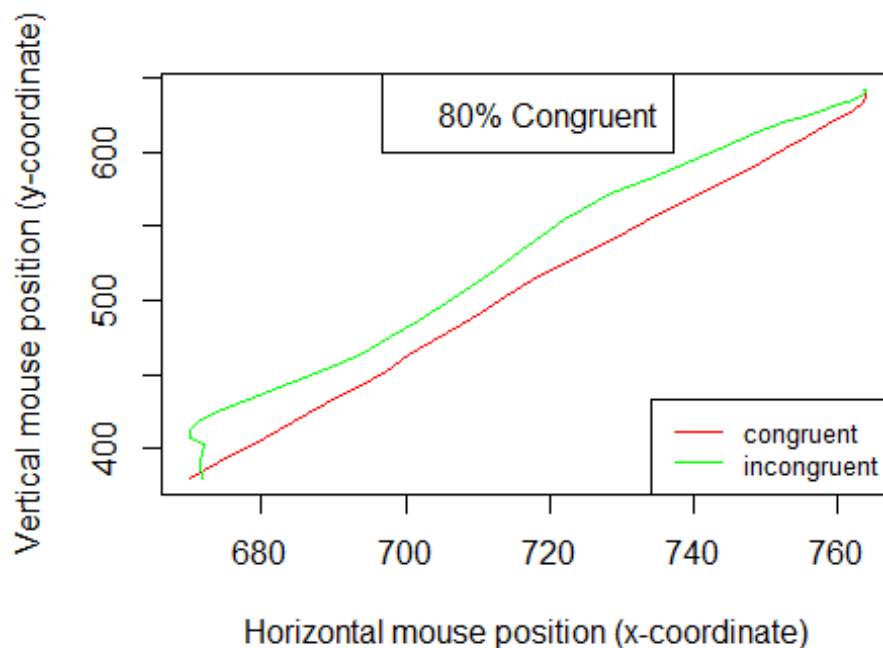
for (j in 1:150) {
  for (i in 1:nrow(mii)) {
    a[i] <- mii$cxmii[[i]][j]
    b[i] <- mii$cymii[[i]][j]
  }
  xii[j] <- mean(a)
  yii[j] <- mean(b)
}

xii <- na.omit(xii)
yii <- na.omit(yii)

```

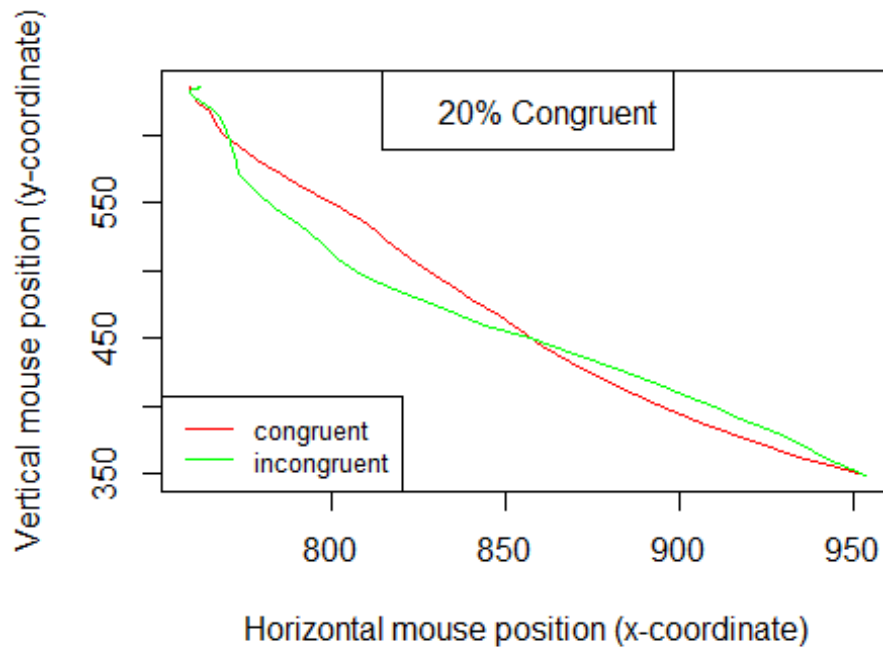
```
#####
```

```
plot( xcc, ycc, type="l", col="red", ylab = "Vertical mouse position (y-  
coordinate)", xlab = "Horizontal mouse position (x-coordinate)")  
legend("bottomright", 95, legend=c("congruent", "incongruent"),  
      col=c("red", "green"), lty=1:1, cex=0.8)  
legend("top", 95, legend=c("80% Congruent"))  
par(new=TRUE)  
plot( xci, yci, type="l", col="green", axes=FALSE, ann=FALSE, )
```



```
#####
```

```
plot( xic, yic, type="l", col="red", ylab = "Vertical mouse position (y-  
coordinate)", xlab = "Horizontal mouse position (x-coordinate)")  
legend("bottomleft", 95, legend=c("congruent", "incongruent"),  
      col=c("red", "green"), lty=1:1, cex=0.8)  
legend("top", 95, legend=c("20% Congruent"))  
par(new=TRUE)  
plot( xii, yii, type="l", col="green", axes=FALSE, ann=FALSE, )
```

```
#####

#####
## Analyse des donnees

## AUC et MT pour groupe 1

freq <- gp <- auc <- cong <- mt <- it <- c()

for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "C" && dataframe$frequency[i] == "MC" &&
dataframe$groupe[i] == "1"){

    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]

  }
}
```

```

dat.MCC <- data.frame (gp, cong, freq, auc, mt, it)
dat.MCC <- na.omit(dat.MCC)

freq <- gp <- auc <- cong <- mt <- it <- c()
for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "I" && dataframe$frequency[i] == "MC" &&
dataframe$groupe[i] == "1"){

    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]

  }
}

dat.MCI <- data.frame (gp, cong, freq, auc, mt, it)
dat.MCI <- na.omit(dat.MCI)

freq <- gp <- auc <- cong <- mt <- it <- c()
for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "C" && dataframe$frequency[i] == "MI" &&
dataframe$groupe[i] == "1"){

    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]

  }
}

dat.MIC <- data.frame (gp, cong, freq, auc, mt, it)
dat.MIC <- na.omit(dat.MIC)

freq <- gp <- auc <- cong <- mt <- it <- c()
for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "I" && dataframe$frequency[i] == "MI" &&
dataframe$groupe[i] == "1"){

    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]

```

```

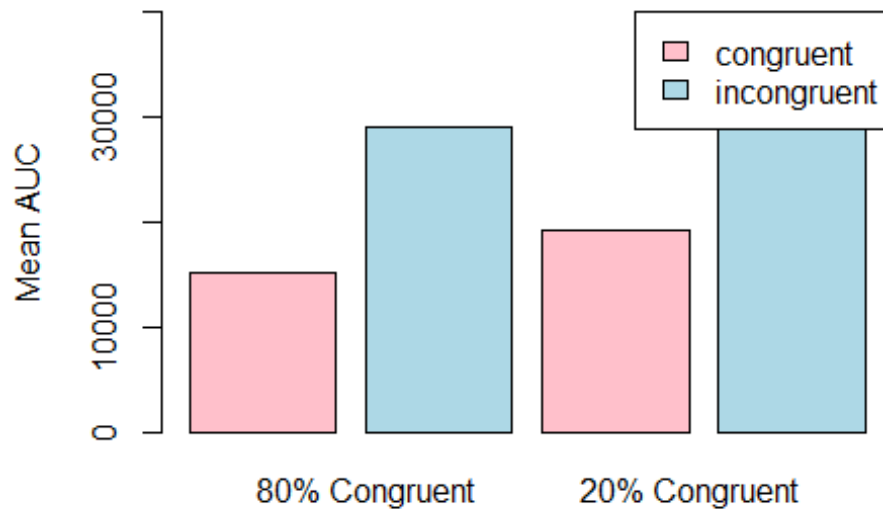
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]
  }
}

dat.MII <- data.frame (gp, cong, freq, auc, mt, it)
dat.MII <- na.omit(dat.MII)

lauc <- as.vector( rbind(
mean(dat.MCC$auc),mean(dat.MCI$auc),mean(dat.MIC$auc), mean(dat.MII$auc)
)[,1] )

barplot(lauc, ylim = c(0,40000), col=c("pink","lightblue"), xaxt="n",ylab =
"Mean AUC",legend.text = c("congruent","incongruent"),
      args.legend = list(x = "topright"))
axis(1, at = c(1.4, 0, 3.6, 0), labels = c("80% Congruent","", "20%
Congruent", "")) ,tick=FALSE, cex=0.5)

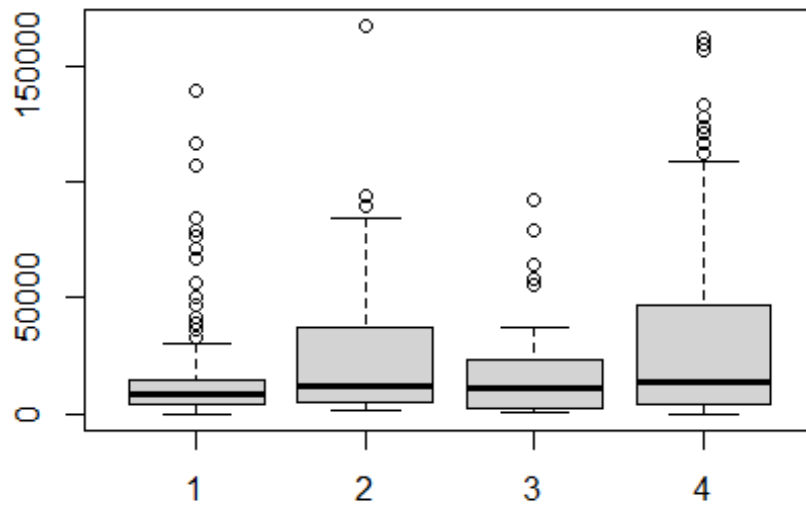
```



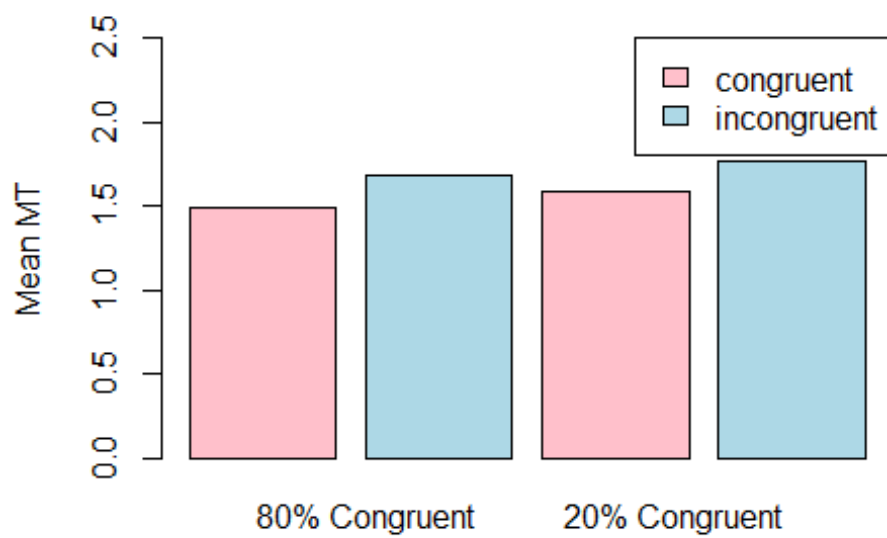
```

boxplot(dat.MCC$auc, dat.MCI$auc, dat.MIC$auc, dat.MII$auc)

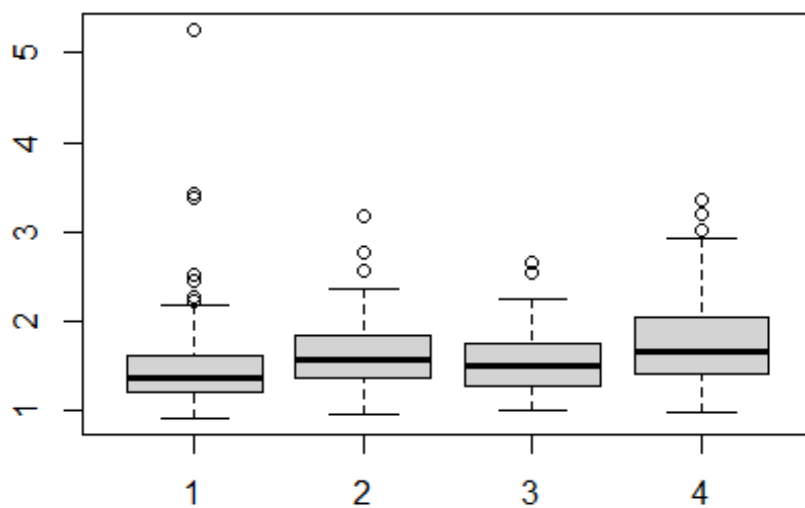
```



```
lmt <- as.vector( rbind(mean(dat.MCC$mt),mean(dat.MCI$mt),mean(dat.MIC$mt),
mean(dat.MII$mt) )[,1] )
barplot(lmt, ylim = c(0,2.5), col=c("pink","lightblue"), xaxt="n",ylab =
"Mean MT",legend.text = c("congruent","incongruent"),
      args.legend = list(x = "topright"))
axis(1, at = c(1.4, 0, 3.5, 0), labels = c("80% Congruent","", "20%
Congruent", ""), tick=FALSE, cex=0.5)
```



```
boxplot(dat.MCC$mt, dat.MCI$mt, dat.MIC$mt, dat.MII$mt)
```



```
#####3
```

```
## AUC et MT pour groupe 2
```

```
freq <- gp <- auc <- cong <- mt <- it <- c()
```

```
for (i in 1:nrow(dataframe)) {
```

```
  if(dataframe$congruency[i] == "C" && dataframe$frequency[i] == "MC" &&
dataframe$groupe[i] == "2"){
```

```
    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]
```

```
  }
}
```

```
dat.MCC2 <- data.frame (gp, cong, freq, auc, mt, it)
dat.MCC2 <- na.omit(dat.MCC2)
```

```
freq <- gp <- auc <- cong <- mt <- it <- c()
```

```
for (i in 1:nrow(dataframe)) {
```

```
  if(dataframe$congruency[i] == "I" && dataframe$frequency[i] == "MC" &&
dataframe$groupe[i] == "2"){
```

```
    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]
```

```
  }
}
```

```
dat.MCI2 <- data.frame (gp, cong, freq, auc, mt, it)
dat.MCI2 <- na.omit(dat.MCI2)
```

```
freq <- gp <- auc <- cong <- mt <- it <- c()
```

```
for (i in 1:nrow(dataframe)) {
```

```
  if(dataframe$congruency[i] == "C" && dataframe$frequency[i] == "MI" &&
dataframe$groupe[i] == "2"){
```

```
    cong[i] <- dataframe$congruency[i]
```

```

    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]
  }
}

dat.MIC2 <- data.frame (gp, cong, freq, auc, mt, it)
dat.MIC2 <- na.omit(dat.MIC2)

freq <- gp <- auc <- cong <- mt <- it <- c()
for (i in 1:nrow(dataframe)) {

  if(dataframe$congruency[i] == "I" && dataframe$frequency[i] == "MI" &&
dataframe$groupe[i] == "2"){

    cong[i] <- dataframe$congruency[i]
    gp[i] <- dataframe$groupe[i]
    auc[i] <- dataframe$AUC[i]
    freq[i] <- dataframe$frequency[i]
    mt[i] <- dataframe$MT[i]
    it[i] <- dataframe$IT[i]

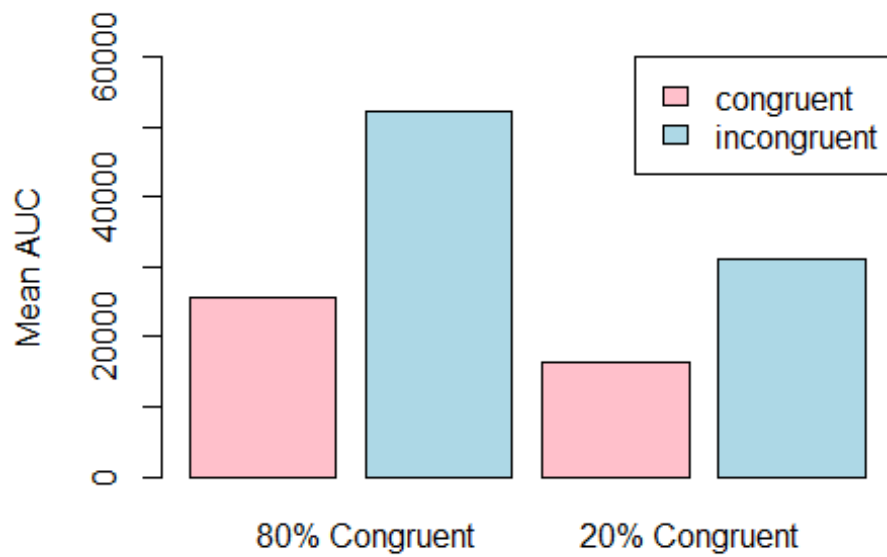
  }
}

dat.MII2 <- data.frame (gp, cong, freq, auc, mt, it)
dat.MII2 <- na.omit(dat.MII2)

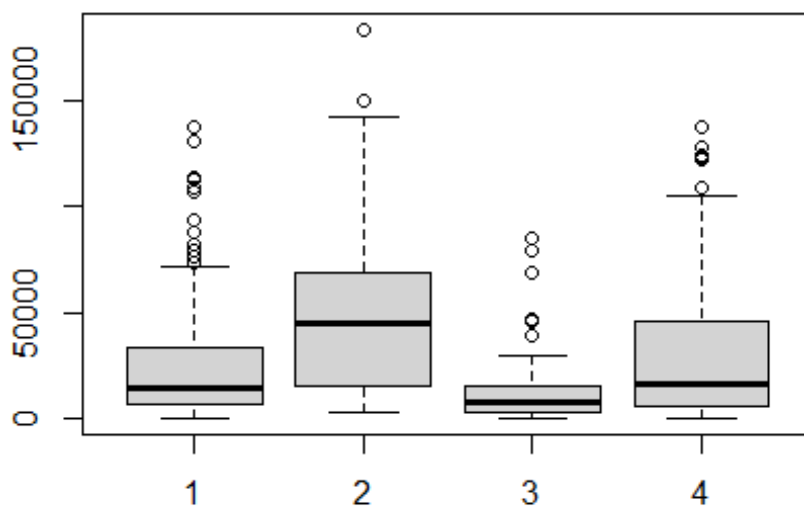
lauc2 <- as.vector( rbind(
mean(dat.MCC2$auc),mean(dat.MCI2$auc),mean(dat.MIC2$auc), mean(dat.MII2$auc)
)[,1] )

barplot(lauc2, ylim = c(0,60000), col=c("pink","lightblue"), xaxt="n",ylab =
"Mean AUC",legend.text = c("congruent","incongruent"),
  args.legend = list(x = "topright"))
axis(1, at = c(1.4, 0, 3.6, 0), labels = c("80% Congruent","", "20%
Congruent", "")) ,tick=FALSE, cex=0.5)

```



```
boxplot(dat.MCC2$auc,dat.MCI2$auc,dat.MIC2$auc, dat.MII2$auc)
```



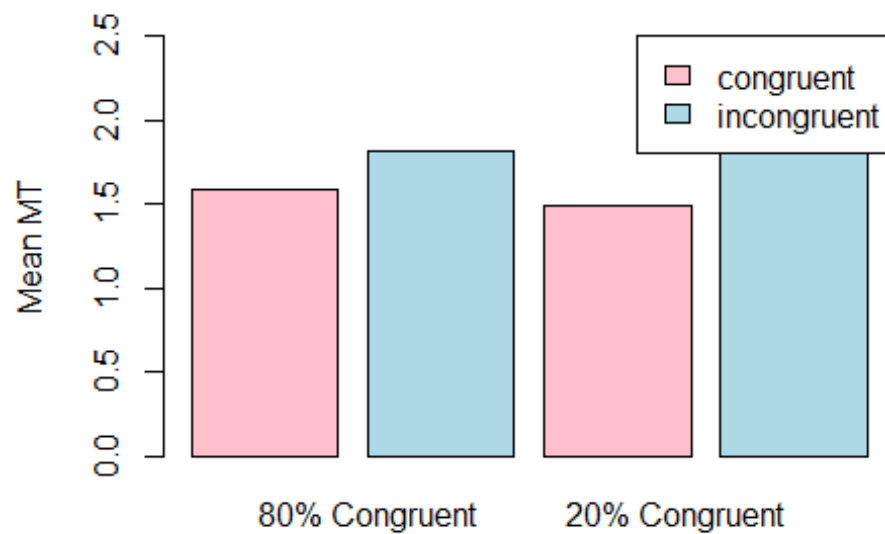
```
lmt2 <- as.vector(
rbind(mean(dat.MCC2$mt),mean(dat.MCI2$mt),mean(dat.MIC2$mt),
```



```

mean(dat.MII2$mt) )[,1] )
barplot(lmt2, ylim = c(0,2.5), col=c("pink","lightblue"), xaxt="n",ylab =
"Mean MT",legend.text = c("congruent","incongruent"),
      args.legend = list(x = "topright"))
axis(1, at = c(1.4, 0, 3.5, 0), labels = c("80% Congruent","", "20%
Congruent", ""), tick=FALSE, cex=0.5)

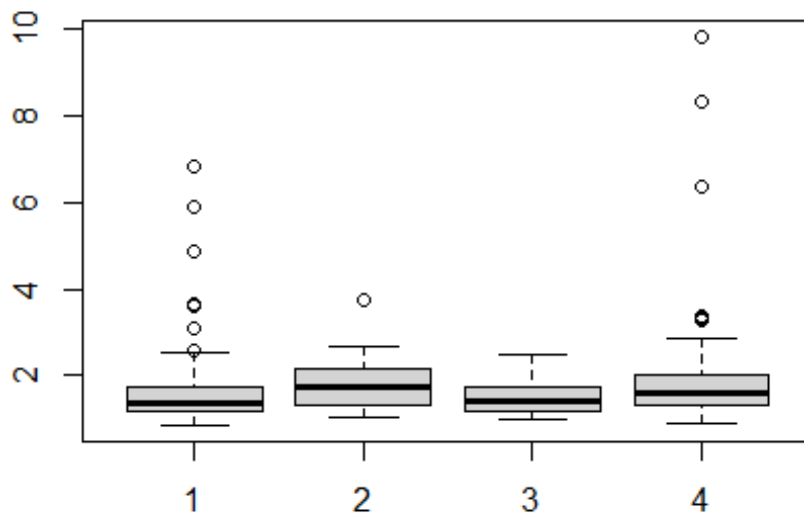
```



```

boxplot(dat.MCC2$mt, dat.MCI2$mt, dat.MIC2$mt, dat.MII2$mt)

```



```
#####
```

```
###anova
```

```
# Compute the analysis of variance
```

```
mtc.aov <- aov(MT ~ congruency, data = dataframe)
```

```
mtf.aov <- aov(MT ~ frequency, data = dataframe)
```

```
aucc.aov <- aov(AUC ~ congruency, data = dataframe)
```

```
aucf.aov <- aov(AUC ~ frequency, data = dataframe)
```

```
itc.aov <- aov(IT ~ congruency, data = dataframe)
```

```
itf.aov <- aov(IT ~ frequency, data = dataframe)
```

```
# Summary of the analysis
```

```
summary(mtc.aov)
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## congruency    1   11.5   11.476    22.72 2.27e-06 ***
## Residuals   718   362.7    0.505
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(mtf.aov)
```

```
##              Df Sum Sq Mean Sq F value    Pr(>F)
## frequency     1     5.2    5.160    10.04 0.0016 **
```

```
## Residuals    718    369.0    0.514
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

summary(aucc.aov)

##              Df      Sum Sq   Mean Sq F value    Pr(>F)
## congruency     1 3.366e+10 3.366e+10   31.25 3.23e-08 ***
## Residuals    718 7.736e+11 1.077e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

summary(aucf.aov)

##              Df      Sum Sq   Mean Sq F value    Pr(>F)
## frequency      1 3.745e+09 3.745e+09   3.347 0.0678 .
## Residuals    718 8.035e+11 1.119e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

summary(itc.aov)

##              Df Sum Sq Mean Sq F value    Pr(>F)
## congruency     1    0.51  0.5097    1.71  0.191
## Residuals    718 214.05  0.2981

summary(itf.aov)

##              Df Sum Sq Mean Sq F value    Pr(>F)
## frequency      1    0.67  0.6677    2.241  0.135
## Residuals    718 213.90  0.2979

#####3

## test

str (part1)

## 'data.frame':    120 obs. of  10 variables:
## $ id              : int  139 139 139 139 139 139 139 139 139 139 ...
## $ groupe          : int   1 1 1 1 1 1 1 1 1 1 ...
## $ essais.congruent : int   0 0 1 0 0 1 0 0 0 0 ...
## $ essais.mot       : chr  "VERT" "JAUNE" "VERT" "VERT" ...
## $ essais.couleur   : chr  "red" "blue" "green" "red" ...
## $ essais.reactionTime: num  1.535 1.315 1.375 0.991 1.497 ...
## $ essais.tempsInit  : num  1.043 0.226 -0.27 0.61 0.361 ...
## $ essais.courbeX    :List of 120
## ..$ : int  786 786 786 786 786 786 786 786 786 786 ...
## ..$ : int  770 770 770 770 770 770 770 770 770 770 ...
## ..$ : int  756 756 756 756 756 756 756 756 756 756 ...
## ..$ : int  754 754 754 754 754 754 754 754 754 754 ...
## ..$ : int  778 778 778 778 778 778 778 778 778 778 ...
```

[illegible]

```

## ..$ : int 779 779 779 779 779 779 779 779 779 779 ...
## ..$ : int 763 763 763 763 763 763 763 763 763 763 ...
## ..$ : int 754 754 754 754 754 754 754 754 754 754 ...
## ..$ : int 793 793 793 793 793 793 793 793 793 793 ...
## ..$ : int 758 758 758 758 758 758 758 758 758 758 ...
## ..$ : int 782 782 782 782 782 782 782 782 782 782 ...
## ..$ : int 768 768 768 768 768 768 768 768 768 768 ...
## ..$ : int 787 787 787 787 787 787 787 787 787 787 ...
## ..$ : int 777 777 777 777 777 777 777 777 777 777 ...
## ..$ : int 798 798 798 798 798 798 798 798 798 798 ...
## ..$ : int 774 774 774 774 774 774 774 774 774 774 ...
## ..$ : int 754 754 754 754 754 754 754 754 754 754 ...
## ..$ : int 786 786 786 786 786 786 786 786 786 786 ...
## ..$ : int 797 797 797 797 797 797 797 797 797 797 ...
## ..$ : int 784 784 784 784 784 784 784 784 784 784 ...
## ..$ : int 750 750 750 750 750 750 750 750 750 750 ...
## ..$ : int 793 793 793 793 793 793 793 793 793 793 ...
## ..$ : int 779 779 779 779 779 779 779 779 779 779 ...
## ..$ : int 786 786 786 786 786 786 786 786 786 786 ...
## ..$ : int 767 767 767 767 767 767 767 767 767 767 ...
## ..$ : int 766 766 766 766 766 766 766 766 766 766 ...
## ..$ : int 763 763 763 763 763 763 763 763 763 763 ...
## ..$ : int 794 794 794 794 794 794 794 794 794 794 ...
## ..$ : int 790 790 790 790 790 790 790 790 790 790 ...
## ..$ : int 754 754 754 754 754 754 754 754 754 754 ...
## ..$ : int 770 770 770 770 770 770 770 770 770 770 ...
## ..$ : int 770 770 770 770 770 770 770 770 770 770 ...
## ..$ : int 786 786 786 786 786 786 786 786 786 786 ...
## ..$ : int 774 774 774 774 774 774 774 774 774 774 ...
## ..$ : int 736 736 736 736 736 736 736 736 736 736 ...
## ..$ : int 775 775 775 775 775 775 775 775 775 775 ...
## ..$ : int 759 759 759 759 759 759 759 759 759 759 ...
## ..$ : int 780 780 780 780 780 780 780 780 780 780 ...
## ..$ : int 818 818 818 818 818 818 818 818 818 818 ...
## ..$ : int 780 780 780 780 780 780 780 780 780 780 ...
## ..$ : int 766 766 766 766 766 766 766 766 766 766 ...
## ..$ : int 780 780 780 780 780 780 780 780 780 780 ...
## ..$ : int 770 770 770 770 770 770 770 770 770 770 ...
## ..$ : int 771 771 771 771 771 771 771 771 771 771 ...
## ..$ : int 795 795 795 795 795 795 795 795 795 795 ...
## ..$ : int 772 772 772 772 772 772 772 772 772 772 ...
## ..$ : int 774 774 774 774 774 774 774 774 774 774 ...
## ..$ : int 808 808 808 808 808 808 808 808 808 808 ...
## ..$ : int 776 776 776 776 776 776 776 776 776 776 ...
## .. [list output truncated]
## $ essais.courbeY      :List of 120
## ..$ : int 665 665 665 665 665 665 665 665 665 665 ...
## ..$ : int 637 637 637 637 637 637 637 637 637 637 ...
## ..$ : int 618 619 619 620 620 620 620 620 620 620 ...
## ..$ : int 654 654 654 654 654 654 654 654 654 654 ...

```

[illegible]

```

## ..$ : int 643 643 643 643 643 643 643 643 643 643 ...
## ..$ : int 654 654 654 654 654 654 654 654 654 654 ...
## ..$ : int 643 643 643 643 643 643 643 643 643 643 ...
## ..$ : int 622 622 622 622 622 622 622 622 622 622 ...
## ..$ : int 665 665 665 665 665 665 665 665 665 665 ...
## ..$ : int 629 629 629 629 629 629 629 629 629 629 ...
## ..$ : int 657 657 657 657 657 657 657 657 657 657 ...
## ..$ : int 642 642 642 642 642 642 642 642 642 642 ...
## ..$ : int 645 645 645 645 645 645 645 645 645 645 ...
## ..$ : int 631 631 631 631 631 631 631 631 631 631 ...
## ..$ : int 650 650 650 650 650 650 650 650 650 650 ...
## ..$ : int 634 634 634 634 634 634 634 634 634 634 ...
## ..$ : int 650 650 650 650 650 650 650 650 650 650 ...
## ..$ : int 654 654 654 654 654 654 654 654 654 654 ...
## ..$ : int 641 641 641 641 641 641 641 641 641 641 ...
## ..$ : int 618 618 618 618 618 618 618 618 618 618 ...
## ..$ : int 633 633 633 633 633 633 633 633 633 633 ...
## ..$ : int 641 641 641 641 641 641 641 641 641 641 ...
## ..$ : int 627 627 627 627 627 627 627 627 627 627 ...
## ..$ : int 634 634 634 634 634 634 634 634 634 634 ...
## ..$ : int 626 626 626 626 626 626 626 626 626 626 ...
## ..$ : int 630 630 630 630 630 630 630 630 630 630 ...
## ..$ : int 618 618 618 618 618 618 618 618 618 618 ...
## ..$ : int 634 634 634 634 634 634 634 634 634 634 ...
## ..$ : int 687 687 687 687 687 687 687 687 687 687 ...
## ..$ : int 677 677 677 677 677 677 677 677 677 677 ...
## ..$ : int 641 641 641 641 641 641 641 641 641 641 ...
## ..$ : int 616 616 616 616 616 616 616 616 616 616 ...
## ..$ : int 661 661 661 661 661 661 661 661 661 661 ...
## ..$ : int 628 628 628 628 628 628 628 628 628 628 ...
## ..$ : int 654 654 654 654 654 654 654 654 654 654 ...
## ..$ : int 622 622 622 622 622 622 622 622 622 622 ...
## ..$ : int 634 634 634 634 634 634 634 634 634 634 ...
## ..$ : int 642 642 642 642 642 642 642 642 642 642 ...
## ..$ : int 660 660 660 660 660 660 660 660 660 660 ...
## ..$ : int 675 675 675 675 675 675 675 675 674 674 ...
## ..$ : int 643 643 643 643 643 643 643 643 643 643 ...
## ..$ : int 636 636 636 636 636 636 636 636 636 636 ...
## ..$ : int 628 628 628 628 628 628 628 628 628 628 ...
## ..$ : int 619 619 619 619 619 619 619 619 619 619 ...
## ..$ : int 632 632 632 632 632 632 632 632 632 632 ...
## ..$ : int 634 634 634 634 634 634 634 634 634 634 ...
## ..$ : int 674 674 674 674 674 674 674 674 674 674 ...
## ..$ : int 654 654 654 654 654 654 654 654 654 654 ...
## ..$ : int 625 625 625 625 625 625 625 625 625 625 ...
## .. [list output truncated]
## $ essais.erreur : int 0 0 0 0 0 0 0 0 0 0 ...

```

names(part1)

```
## [1] "id" "groupe" "essais.congruent"
## [4] "essais.mot" "essais.couleur" "essais.reactionTime"
## [7] "essais.tempsInit" "essais.courbeX" "essais.courbeY"
## [10] "essais.erreur"
```

#un tableau qui montre chaque mot et la couleur dans laquelle il existe

```
table(part1$essais.couleur, part1$essais.mot)
```

```
##
##      BLEU JAUNE ROUGE VERT
## blue      24      6      0      0
## green      0      0     24      6
## red        0      0      5     24
## yellow     6     25      0      0
```

#un tableau qui montre chaque mot et la couleur dans laquelle il existe

```
table(part2$essais.couleur, part2$essais.mot)
```

```
##
##      BLEU JAUNE ROUGE VERT
## blue      6     24      0      0
## green      0      0      6     24
## red        0      0     24      6
## yellow    24      6      0      0
```

#####3