void lambda::adaptreflexionfactor(int& dest_numcoeffs,float*& dest_coeffsA,float*& dest_coeffsB,
float r,float alpha,simAngularType direction)

```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
                         │
            ┌────────────────────────┐
            │    dest_numcoeffs=1     │    new filter has got only one a- and one b-coefficient
            └────────────────────────┘
                         │
                                           if a destination filter already exists, delete it
            ◇ dest_coeffsA!=NULL ?  ──yes──→  ┌──────────────────────┐
                         │                    │  delete[] dest_coeffsA │
                        no                    └──────────────────────┘
                         │
                                           if a destination filter already exists, delete it
            ◇ dest_coeffsB!=NULL ?  ──yes──→  ┌──────────────────────┐
                         │                    │  delete[] dest_coeffsB │
                        no                    └──────────────────────┘
                         │
                                              no preemphasis shall be done
            ◇ alpha out of range?    ──yes──→  ┌──────────────────────┐
              [-360..+360] deg.                │   direction=kNone     │
                         │                     └──────────────────────┘
                        no
                         │
            ┌────────────────────────┐
            │          a=1           │    set the temporary filter coeffs (a0=1, b0=reflexion factor)
            │          b=r           │
            └────────────────────────┘
                         │
                                              do preemphasis for horizontal incidence filters
            ◇ direction==            ──yes──→  ┌────────────────────────────────────────────────┐
              kHorizontal ?                    │ anew=(a+b)+sqrt(2)*abs(cos(alpha*pi/180))*(a-b) │
                         │                     │ bnew=(a+b)-sqrt(2)*abs(cos(alpha*pi/180))*(a-b) │
                        no                     └────────────────────────────────────────────────┘
                         │
                                              do preemphasis for vertical incidence filters
            ◇ direction==            ──yes──→  ┌────────────────────────────────────────────────┐
              kVertical ?                      │ anew=(a+b)+sqrt(2)*abs(cos(alpha*pi/180))*(a-b) │
                         │                     │ bnew=(a+b)-sqrt(2)*abs(cos(alpha*pi/180))*(a-b) │
                        no                     └────────────────────────────────────────────────┘
                         │
                                              do no preemphasis at all
            ◇ direction==            ──yes──→  ┌──────────────────────┐
              kNone ?                          │       anew=a         │
                         │                     │       bnew=b         │
                        no                     └──────────────────────┘
                         │
            ┌────────────────────────┐
            │  dest_coeffsA[0]=1.f    │    normalize the filter coeffs and write
            │ dest_coeffsB[0]=bnew/anew│   them into the output filter array
            └────────────────────────┘
                         │
                    ┌─────────┐
                    │ return  │
                    └─────────┘
```