```
%Dateien einlesen
peso=csvread('NSC_peso.txt', 0,0);
floeri=csvread('gps.txt', 0,0);
barus=csvread('NSC_barus.txt', 0,0);
charlie=csvread('NSC_charlie.txt', 0,0);
teli=csvread('NSC_teli.txt',0,0);
hawk=csvread('NSC_hawkeye_76.txt',0,0);
falkiboy=csvread('NSC_falkiboy.txt', 0,0);
dummy=0;
pos=0;

%Figure zeichnen und Movie-Objekt erstellen
fig=figure(1);
set(fig,'DoubleBuffer','on');
set(gca,'NextPlot','replace','Visible','off')
mov = avifile('nsc.avi','compression','none','FPS',5)

t=barus(1,1); %Startzeitpunkt Barus für relative Zeit

%Hauptschleife (min. Zeit : 20s : max. Zeit)
for a=min([min(barus(:,1)) min(peso(:,1)) min(charlie(:,1)) min(teli(:,1)) min(hawk(:,1↙
))]):1/24/60/3:max([max(barus(:,1)) max(peso(:,1)) max(charlie(:,1)) max(falkiboy(:,1))↙
 max(teli(:,1)) max(hawk(:,1)) max(floeri(:,1))]) %a=0.213599537:1/24/60/6:0.2688
    plot(barus(:,3),barus(:,2),'w') %Skalierung

    %==== Altlasten
    %text(13.05,50.7,'\circ Peso','Color','r','FontWeight','bold')
    %text(13.05,50.69,'\circ bejar','Color','g','FontWeight','bold')
    %text(13.05,50.68,'\circ Charlie','Color','k','FontWeight','bold')
    %text(13.05,50.67,'\circ Barus','Color','b','FontWeight','bold')
    %text(13.05,50.66,strcat('Zeit: ', datestr(a,13)),'Color','k','FontWeight','bold')

    %text(13.41,50.489,'\circ Peso','Color','r','FontWeight','bold')
    %text(13.41,50.488,'\circ bejar','Color','g','FontWeight','bold')
    %text(13.41,50.487,'\circ Charlie','Color','k','FontWeight','bold')
    %text(13.41,50.486,'\circ Barus','Color','b','FontWeight','bold')
    %text(13.41,50.485,strcat('Zeit: ', datestr(a,13)),'Color','k','FontWeight','bold')

%Legende
    text(12.32,51.13,'\circ Peso','Color','r','FontWeight','bold')
    text(12.32,51.12,'\circ Charlie','Color','k','FontWeight','bold')
    text(12.32,51.11,'\circ Barus','Color','m','FontWeight','bold')
    text(12.32,51.10,'\circ Floeri','Color',[.9 .9 0],'FontWeight','bold')
    text(12.32,51.09,'\circ Teli','Color','g','FontWeight','bold')
    text(12.32,51.08,'\circ Hawkeye 76','Color','b','FontWeight','bold')
    text(12.32,51.07,'\circ falkiboy','Color',[0 .5 1],'FontWeight','bold')

    text(12.32,51.06,strcat('Zeit: ', datestr(a+2/24,13)),'Color','k','FontWeight','bo ↙
ld')


    %if a>0.193194444444444
    %    text(13.2942,50.4867,' \leftarrow Tankstelle','FontWeight','bold')
    %end
%Textlables

    if a>t+11/60/24+2/60/60/24          %Startzeitpunkt Barus + 11:02 min
       text(12.38281727,51.26215363,' \leftarrow Sturz Checker','FontWeight','bold')
    end
    if a>t+26/60/24+42/60/60/24
       text(12.43763733,51.256,' \leftarrow Sturz Chelm','FontWeight','bold')
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    end
    if a>t+30/60/24+2/60/60/24
       text(12.46499825,51.26,' \leftarrow Sturz Peso','FontWeight','bold')
    end
    if a>0.340509259
       text(12.5422830581665,51.2247886657715,' \leftarrow Defekt Torte','FontWeight', ↙
'bold')
    end
    if a>t+1/24+27/60/24+32/60/60/24
       text(12.7293148,51.25111771,' \leftarrow Hohnstetter Berg','FontWeight','bold')
    end
    if a>t+1/24+36/60/24+42/60/60/24
       text(12.78755093,51.24631882,' \leftarrow Bergstraße Golzern','FontWeight','bol ↙
d')
    end



    %====
    hold on

%Index für entsprechende Zeit suchen
    barus_t=find(barus(:,1)<=a);
    floeri_t=find(floeri(:,1)<=a);
    peso_t=find(peso(:,1)<=a);
    falkiboy_t=find(falkiboy(:,1)<=a);
    charlie_t=find(charlie(:,1)<=a);
    teli_t=find(teli(:,1)<=a);
    hawk_t=find(hawk(:,1)<=a);

%wenn leere Matrix > Zeiger auf erstes Element
    if isempty(barus_t)
        barus_t=1;
    end
    if isempty(floeri_t)
        floeri_t=1;
    end
    if isempty(peso_t)
        peso_t=1;
    end
    if isempty(charlie_t)
        charlie_t=1;
    end
    if isempty(teli_t)
        teli_t=1;
    end
    if isempty(hawk_t)
        hawk_t=1;
    end
    if isempty(falkiboy_t)
        falkiboy_t=1;
    end

%aktuelle Distanz
dummy(1)=peso(max(peso_t),5);
dummy(2)=floeri(max(floeri_t),5);
dummy(3)=barus(max(barus_t),5);
dummy(4)=charlie(max(charlie_t),5);
dummy(5)=teli(max(teli_t),5);
dummy(6)=hawk(max(hawk_t),5);
dummy(7)=falkiboy(max(falkiboy_t),5);
```

```
dummy_=sort(dummy); %entfernungen sortiert

%aktuelle Position
pos(1)=max(find(dummy_==peso(max(peso_t),5)));
pos(2)=max(find(dummy_==floeri(max(floeri_t),5)));
pos(3)=max(find(dummy_==barus(max(barus_t),5)));
pos(4)=max(find(dummy_==charlie(max(charlie_t),5)));
pos(5)=max(find(dummy_==teli(max(teli_t),5)));
pos(6)=max(find(dummy_==hawk(max(hawk_t),5)));
pos(7)=max(find(dummy_==falkiboy(max(falkiboy_t),5)));


%Pfade nach Position zeichnen
for b=7:-1:1
    if isempty(max(find(pos==b)))
    else
    switch max(find(pos==b))
        case 1
            plot(peso(peso_t,3),peso(peso_t,2),'r');
        case 2
            plot(floeri(floeri_t,3),floeri(floeri_t,2),'Color',[.9 .9 0])
        case 3
            plot(barus(barus_t,3),barus(barus_t,2),'m')
        case 4
            plot(charlie(charlie_t,3),charlie(charlie_t,2),'k');
        case 5
            plot(teli(teli_t,3),teli(teli_t,2),'g');
        case 6
            plot(hawk(hawk_t,3),hawk(hawk_t,2),'b');
        case 7
            plot(falkiboy(falkiboy_t,3),falkiboy(falkiboy_t,2),'Color',[0 .5 1]);
        otherwise
    end
    end
end

%Punkte nach Position zeichnen
for b=1:7
    if isempty(max(find(pos==b)))
    else
    switch max(find(pos==b))
        case 1
            plot(peso(length(peso_t),3),peso(length(peso_t),2),'or','MarkerFaceColor','↙
r');
        case 2
            plot(floeri(length(floeri_t),3),floeri(length(floeri_t),2),'ok','MarkerFace↙
Color',[.9 .9 0]);
        case 3
            plot(barus(length(barus_t),3),barus(length(barus_t),2),'om','MarkerFaceColo↙
r','m');
        case 4
            plot(charlie(length(charlie_t),3),charlie(length(charlie_t),2),'ok','Marker↙
FaceColor','k');
        case 5
            plot(teli(length(teli_t),3),teli(length(teli_t),2),'og','MarkerFaceColor','↙
g');
        case 6
            plot(hawk(length(hawk_t),3),hawk(length(hawk_t),2),'ob','MarkerFaceColor','↙
b');
        case 7
```

```
            plot(falkiboy(length(falkiboy_t),3),falkiboy(length(falkiboy_t),2),'o','Mar↙
kerEdgeColor',[0 .5 1],'MarkerFaceColor',[0 .5 1]);
        otherwise
    end
    end
end

    %axis([13.37 13.43 50.45 50.5]);
    hold off

%movieframe grabben und hinzufügen
    pause(.01);

    F = getframe(gca);
    mov = addframe(mov,F);
end

%Movieobjekt schließen
mov = close(mov);
```