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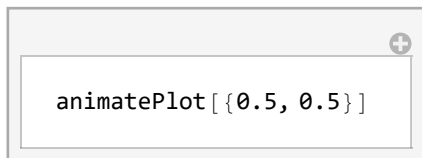
points = {{0, 0}, {1, 0}, {0.5, 1}};
T = (points[[1, 1]] - points[[3, 1]] points[[2, 1]] - points[[3, 1]] );
    points[[1, 2]] - points[[3, 2]] points[[2, 2]] - points[[3, 2]] );
{a1, a2} = Inverse[T].({x, y} - points[[3]]);
a3 = 1 - Total[{a1, a2}];
g1 = Solve[a1 == 1 && a1 + a2 + a3 == 1, y][[1, 1, 2]] // Simplify;
g2 = Solve[a2 == 1 && a1 + a2 + a3 == 1, y][[1, 1, 2]] // Simplify;
g3 = Solve[a3 == 1 && a1 + a2 + a3 == 1, y][[1, 1, 2]] // Simplify;
xMin = -0.2;
xMax = 1.6;
yMin = -0.5;
yMax = 1.3;
step = 0.1;

animatePlot[p_] := Module[{α},
  {α1, α2} = Inverse[T].(p - points[[3]]);
  α3 = 1 - Total[{α1, α2}];

  Show[
    (* http://mathematica.stackexchange.com/questions/27718/mapping-
       a-pure-function-with-multiple-slots *)
    ListPlot[
      MapThread[Labeled[#1, #2] &, {points, {"α1", "α2", "α3"}}],
      PlotRange → {{xMin, xMax}, {yMin, yMax}},
      AxesLabel → {"x", "y"},
      Epilog → {Text[
        {
          "α1=" <> ToString[Round[α1, 0.01]]
          "α2=" <> ToString[Round[α2, 0.01]]
          "α3=" <> ToString[Round[α3, 0.01]]
        }, {1.3, -0.3}]}],
      ImageSize → Large,
      BaseStyle → {FontSize → 14},
      AspectRatio → 1
    ],
    Plot[{g1, g2, g3}, {x, xMin, xMax},
      PlotLegends → {"α1=1", "α2=1", "α3=1"}, PlotStyle → Opacity[0.5]],
    ListPlot[Table[{x, y}, {x, xMin, xMax, step}, {y, yMin, yMax, step}],
      PlotStyle → Directive[Gray, Opacity[0.2]]],
    Graphics[{EdgeForm[Thin], Opacity[0], Triangle[points]}],
    Graphics[Locator[p]]
  ]
];

Manipulate[
  animatePlot[p]
  , {{p, {0.5, 0.5}}, Locator, Appearance → None]

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```
(*Do[
  Export[
    FileNameJoin[{
      NotebookDirectory[],
      "frames/x=" <> IntegerString[Round[ $\frac{x-x_{Min}}{step}$ , 1], 10, 2] <> "y=00.png"
    }],
    Flatten[Table[animatePlot[{x,y}], {y,yMin,yMax,step}], 1],
    "VideoFrames",
    Antialiasing->True
  ];

  , {x,xMin,xMax,step}
];*)
```