

```

In[2]:= (*by Nasser M. Abbasi, updated 9/22/14*)
Manipulate[
  ImageAdjust@InverseRadon[Radon[img, {n, n}, Method → method],
    "Filter" → inverseMethod, "CutoffFrequency" → cutOffFrequency]
,
  Grid[{
    {Control[{{cutOffFrequency, 1, Text@Row[{Subscript[
      Style["f", Italic, 11], Style["c", Italic, 11]]}], .01, 1, 0.01,
      ImageSize → Small, Appearance → "Labeled"}]},
    {Control[{{method, "Radon", "Radon method"},
      {"Radon", "Hough"}, ControlType → PopupMenu, ImageSize → All]}]},
    {
      Control[{
        {inverseMethod, # Cos[# Pi] &, "Inverse Radon method"},
        {(1 + Cos[# Pi]) / 2 & → "Hann",
          1 & → "Rectangular",
          # & → "Ramp-Lak",
          # Sin[# 2 Pi] & → "Sin Ramp",
          # Cos[# Pi] & → "Cosine Ramp",
          ((1 - 0.16) / 2 - (1 / 2) Cos[# Pi] + 0.08 Cos[# 2 Pi]) & → "Blackman",
          (0.355768 - 0.487396 Cos[# Pi] + 0.144232 Cos[# 2 Pi]) - 0.012604 Cos[# 3 Pi] & →
            "Nuttal window",
          Sinc[#] & → "Shepp-Logan",
          (.54 + .46 Cos[# Pi]) & → "Hamming",
          Sqrt[1 / (1 + #^ (2))] & → "Butterworth order 1",
          Sqrt[1 / (1 + #^ (4))] & → "Butterworth order 2",
          Sqrt[1 / (1 + #^ (6))] & → "Butterworth order 3",
          None → "No filter"},
        ControlType → PopupMenu, ImageSize → All}]
      }]],
    ContinuousAction → False,
    Initialization ⇒
    (
      n = 200; (*image size ti display*)
      img = ExampleData[{"TestImage", "Lena"}];
    )
  ]

```

f_c 0.32

Radon method **Radon** ▼

Inverse Radon method **Cosine Ramp** ▼

Out[2]=

