
Subject: Re: all combinations from two lists

Posted by [Jeremy Bailin](#) on Mon, 14 Mar 2011 20:20:48 GMT

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Never mind, figured it out. Using HIST_ND makes it a lot easier to think about. It doesn't actually require much modification from the basic histogram-of-histogram approach:

```
maxid = max([list1, list2])
h1 = histogram(list1, min=0, max=maxid, reverse=ri1)
h2 = histogram(list2, min=0, max=maxid, reverse=ri2)
hnd = hist_nd(transpose([[h1],[h2]]), min=[0,0], 1, reverse_indices=rind)
hndsize = size(hnd, /dimen)
```

```
for k1=1L, hndsize[0]-1 do begin
  for k2=1L, hndsize[1]-1 do if hnd[k1,k2] gt 0 then begin
    knd = k1 + k2 * hndsize[0]
    targ = [hnd[knd], k1, k2]
    these_bins = rind[rind[knd]: rind[knd+1]-1]
    these_1 = ri1[ri1[rebin(these_bins,targ,/samp)] + $
      rebin(lindgen(1,k1,1),targ,/samp)]
    these_2 = ri2[ri2[rebin(these_bins,targ,/samp)] + $
      rebin(lindgen(1,1,k2),targ,/samp)]
```

```
    ...do stuff with these_1 and these_2...
  endif
endfor
```

-Jeremy.
