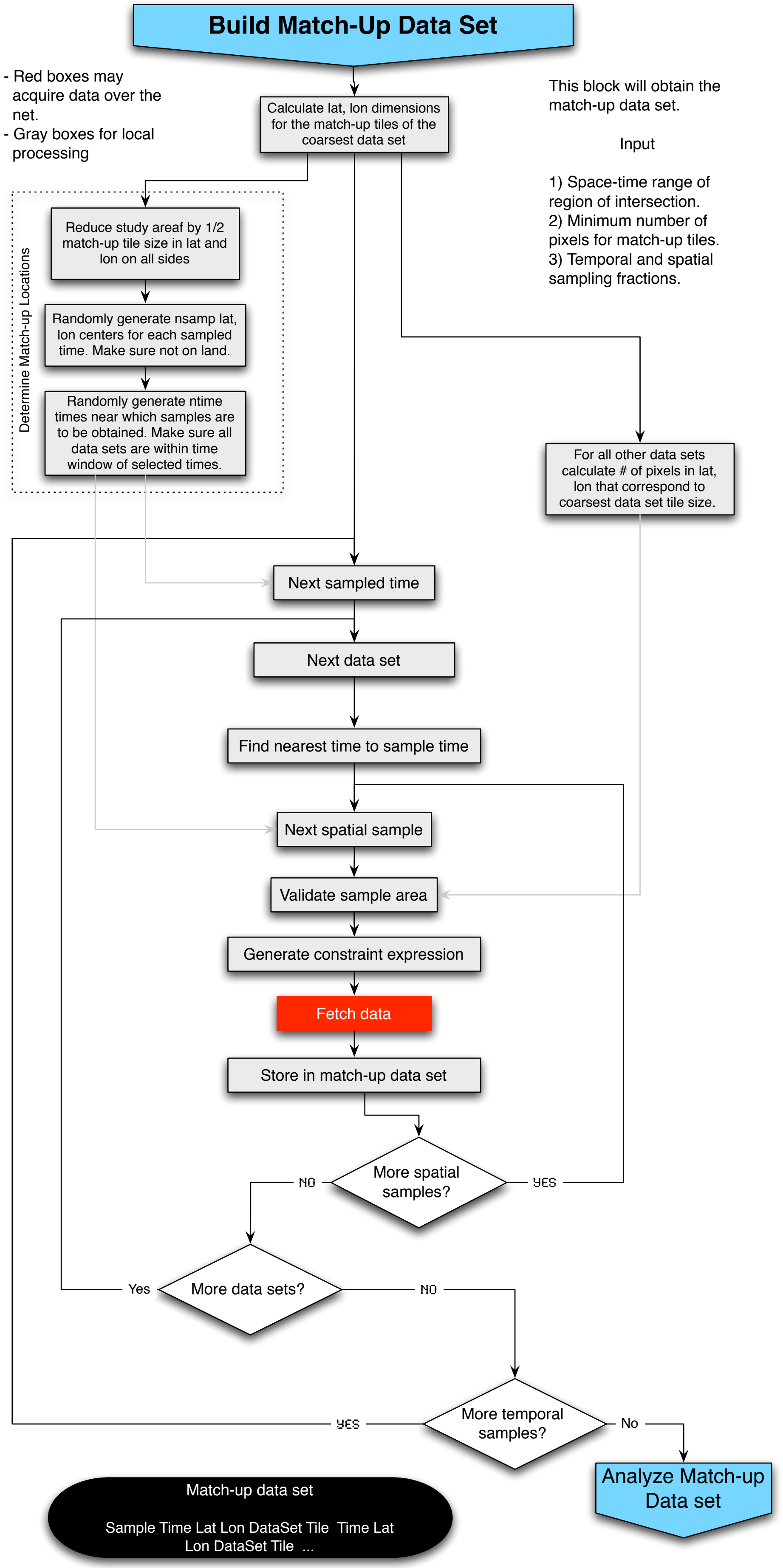
Build Match-Up Data Set
- Red boxes may acquire data over the net.
- Gray boxes for local processing
Calculate lat, lon dimensions for the match-up tiles of the coarsest data set
This block will obtain the match-up data set.
Input
1) Space-time range of region of intersection.
2) Minimum number of pixels for match-up tiles.
3) Temporal and spatial sampling fractions.
Determine Match-up Locations
Reduce study areaf by 1/2 match-up tile size in lat and lon on all sides
Randomly generate nsamp lat, lon centers for each sampled time. Make sure not on land.
Randomly generate ntime times near which samples are to be obtained. Make sure all data sets are within time window of selected times.
For all other data sets calculate # of pixels in lat, lon that correspond to coarsest data set tile size.
Next sampled time
Next data set
Find nearest time to sample time
Next spatial sample
Validate sample area
Generate constraint expression
Fetch data
Store in match-up data set
More spatial samples?
NO
YES
More data sets?
Yes
NO
More temporal samples?
YES
No
Analyze Match-up Data set
Match-up data set
Sample Time Lat Lon DataSet Tile Time Lat Lon DataSet Tile ...