Meteorological data
HYPLIT-compatible meteorological data

Receptor information
placed at locations and
times of measurements

Analysis
compare modeled tracer mole
fraction with observations at
receptors

Model concentration
add atmospheric background to
to near-field transported fluxes

Background signal
baseline concentration
excluding near-field fluxes

Influence "Footprint"
sensitivity matrix defining
upstream influence area

STILT executable
time evolution of particle ensemble

calc_footprint.r
applies Gaussian kernels to particles

permute.so
calculate footprint grid at each time step

run_stilt.r
defines transport, footprint
gird, and parallelism settings

dispatches parallel simulations

Input / output data
Parallel simulations
R code
Fortran code

Surface fluxes
emissions/uptake
estimates