

# Kansas City PM Characterization Study

## Final Report

### Appendix Z

### Data Map

Assessment and Standards Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

Sponsors:

National Renewable Energy Laboratory, U.S. Department of Energy  
Federal Highway Administration, U.S. Department of Transportation  
STAPPA-ALAPCO Emission Inventory Improvement Program  
Coordinating Research Council Inc. (Project No. E-69)

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EPA Contract No. GS 10F-0036K

October 27, 2006  
Revised April 2008 by EPA staff



United States  
Environmental Protection  
Agency

EPA420-R-08-009  
April 2008

The programs below generally read in raw data and output SAS datasets

<b>Input</b>	<b>SAS Program</b>	<b>Output</b>	<b>Notes</b>
/Analysis/Round2/Final/BK1_Corrected_Rnd2KC_Regdata_Winter_SWF.csv, /Analysis/Round2/Final/BK1_Corrected_Rnd2*.prn	/Analysis/Round2/Final/BK1_Corrected_Rnd2/rdBK1_Aligned.sas	/Analysis/Round2/Final/BK1_Corrected_Rnd2bki_bag_aligned.sas7bdat, /Analysis/Round2/Final/BK1_Corrected_Rnd2bki_sbs_aligned.sas7bdat /Analysis/Round2/Dynetestssemtech_sbs_dyno.sas7bdat, /SEMTECH/Round2/Dynetestssemtech_bag_dyno.sas7bdat, /SEMTECH/Round2/Dynetestssemtech_veh_short.sas7bdat	Reads in summary and SbS bag data and writes to SAS datasets
/Analysis/Round2/Final/BK1_Corrected_Rnd2bki_sbs_aligned.sas7bdat /SEMTECH/Round2/Dynetests*.csv	/Analysis/Round2/rdSEMTECH_r2.sas		Reads in PEMS data and writes out SBS, bag, and vehicle info datasets
/SEMTECH/Round2/PrecondRuns*.csv	/Analysis/Round2/rdSEM_Pre_r2.sas	/Analysis/Round2semtech_sbs_precond.sas7bdat, /SEMTECH/Round2/PrecondRunssemtech_bag_precond.sas7bdat, /SEMTECH/Round2/PrecondRunssemtech_veh_short_precond.sas7bdat	Reads in PEMS data and writes out SBS, bag, and vehicle info datasets
/SEMTECH/Round2/Driveaways/*.csv /Data/Emission/Round2/DR/Summary_Data_File_Round_2_SWF.csv, /Data/Emission/Round2/DR/composite_speciation1_Rnd2.csv, /Data/Emission/Round2/DR/composite_speciation2_Rnd2.csv, /Data/Emission/Round2/DR/filter_data.csv /Data/Emission/Round2/vehnew_rnd2.csv, /Analysis/Round2/Final/BK1_Corrected_Rnd2bki_bag_aligned.sas7bdat /Analysis/Round2dri_all_baglevel.sas7bdat /SEMTECH/Round2/Dynetestssemtech_veh_short.sas7bdat, /SEMTECH/Round2/PrecondRunssemtech_veh_short_precond.sas7bdat /SEMTECH/Round2/Driveawayssemtech_veh_short_driveaway.sas7bdat	/Analysis/Round2/rdSEM_Drive_r2.sas  /Analysis/Round2/rdDRI.sas	/Analysis/Round2semtech_sbs_driveaway.sas7bdat, /SEMTECH/Round2/Driveawayssemtech_bag_driveaway.sas7bdat, /SEMTECH/Round2/Driveawayssemtech_veh_short_driveaway.sas7bdat  /Analysis/Round2dri_all_baglevel.sas7bdat	Reads in PEMS data and writes out SBS, bag, and vehicle info datasets Reads in composite PM emissions from various instruments, speciated PM from DRI's summary, and elemental PM from the filter measurements, and writes out a SAS dataset
/Data/Emission/Round2/DR/SBSKC-Test-*	/Analysis/Round2/rdDRI_SbS.sas	/Analysis/Round2vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2vehround2_2.sas7bdat, /Analysis/Round2vehround2.sas7bdat /Data/Emission/Round2/DR/SBSTop_file.sas7bdat, /Data/Emission/Round2/DR/SBSsbs_fil.sas7bdat	Reads in Mike's QC'ed vehicle info and writes out SAS dataset Reads in Cantrell's QC'ed PM data and writes out summary and Sbs datasets Reads in summary spreadsheet SWF adapted from raw lab measurements, filters out non-Round2 data, and writes out SAS dataset
/Analysis/Round2NVFEL_update.csv	/Analysis/Round2/rdfuel.sas	/Analysis/Round2fuel.sas7bdat	

The programs below generally read in the SAS datasets created above and write out .txt files for input to Visual Foxpro .dbf files (and subsequently MSOD)

<b>Input</b>	<b>SAS Program</b>	<b>Output</b>	<b>Notes</b>
/Analysis/Round2/vehround2_2.sas7bdat /Analysis/Round2/fuel.sas7bdat	/Analysis/Round2/MSOD/ksequip.sas /Analysis/Round2/MSOD/ksfuel.sas	/Analysis/Round2/MSOD/MSOD_inequip_in.txt /Analysis/Round2/MSOD/fbat_in.txt /Analysis/Round2/MSOD/MSOD_indynob_in.txt, /Analysis/Round2/MSOD/MSOD_intmeas_in.txt, /Analysis/Round2/MSOD/MSOD_inbag_in.txt, /Analysis/Round2/MSOD/MSOD_inbmeas_in.txt, /Analysis/Round2/MSOD/MSOD_intime_in.txt	Equip_in dump Fuel batch info dump
/Analysis/Round2/vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2/Final/BK1_Corrected_Rnd2/bki_bag_aligned.sas7bdat, /Analysis/Round2/Final/BK1_Corrected_Rnd2/bki_sbs_aligned.sas7bdat, /Analysis/Round2/dri_all_baglevel.sas7bdat /Analysis/Round2/vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2/Final/BK1_Corrected_Rnd2/bki_bag_aligned.sas7bdat, /Analysis/Round2/Final/BK1_Corrected_Rnd2/bki_sbs_aligned.sas7bdat, /Analysis/Round2/dri_all_baglevel.sas7bdat, /Analysis/Round2/semtech_sbs_dyno.sas7bdat, /SEMTECH/Round2/Dynetestssemtech_veh_short.sas7bdat	/Analysis/Round2/MSOD/ksdyno.sas		Dump of all bag-related data
/Analysis/Round2/vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2/semtech_sbs_precond.sas7bdat, /SEMTECH/Round2/PrecondRunssemtech_veh_short_precond.sas7bdat	/Analysis/Round2/MSOD/ksactty_dyno.sas	/Analysis/Round2/MSOD/MSOD_inactty_in_dynob.txt, /Analysis/Round2/MSOD/MSOD_intrip_in_dynob.txt, /Analysis/Round2/MSOD/MSOD_inttime_in_dynob.txt, /Analysis/Round2/MSOD/MSOD_inomeas_in_dyno.txt, /Analysis/Round2/MSOD/MSOD_inactty_in_precond.txt, /Analysis/Round2/MSOD/MSOD_intrip_in_precond.txt, /Analysis/Round2/MSOD/MSOD_intime_in_precond.txt,	Dump of dyne PEMS data
/Analysis/Round2/vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2/semtech_sbs_precond.sas7bdat, /SEMTECH/Round2/PrecondRunssemtech_veh_short_precond.sas7bdat	/Analysis/Round2/MSOD/ksactty_predcond.sas	/Analysis/Round2/MSOD/MSOD_inomeas_in_cond.txt, /Analysis/Round2/MSOD/MSOD_inactty_in_driveaway.txt, /Analysis/Round2/MSOD/MSOD_intrip_in_driveaway.txt, /Analysis/Round2/MSOD/MSOD_intime_in_driveaway.txt,	Dump of Precond PEMS data
/Analysis/Round2/vehID_dyn_pre_drw.sas7bdat, /Analysis/Round2/semtech_sbs_driveaway.sas7bdat, /SEMTECH/Round2/Driveawayssemtech_veh_short_driveaway.sas7bdat /Data/Emission/Round2/DR/SBS/sbs_fil.sas7bdat	/Analysis/Round2/MSOD/ksactty_driveaway.sas /Analysis/Round2/MSOD/ks_rmeas.sas	/Analysis/Round2/MSOD/MSOD_inomeas_in_driveaway.txt, /Analysis/Round2/MSOD/MSOD_inrmeas_in.txt	Dump of Driveaway PEMS data Dump of SBS PM data

#### Notes:

All paths preceded with /proj1/KansasCity  
Some filenames have an "\_update" or "\_update2" suffix (e.g.  
"rdDRI\_update.sas"); these were the files actually run  
FindSEMTECH\_format\_r2.sas isn't mentioned above, but it's a meta-program that  
generates input for use in rdSEMTECH.sas to help determine which routines  
should be used to parse the data

The nine files created under the ksactty\_\*.sas program series are later combined  
into three accty\_, trip\_in, and time\_in .dbf files using a Foxpro script