

Discussion of Proposed Changes to Input/Output Structure and Content for MOBILE6

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Outline of Discussion

- Review survey questions (August 1996)
- Review main proposals from March 1997 workshop
- Overview of survey responses
- Other comments / discussion of issues
 MOBILE6 Workshop October 2, 1997

Survey Questions from 08/96

- Should error/warning msgs be retained in descriptive output?
- Will dropping any current output format cause undue hardship?
- Are two decimal places adequate? Should all EFs include three?

Survey Questions from 08/96

Is it necessary for users to limit number of fields in electronic output formats?

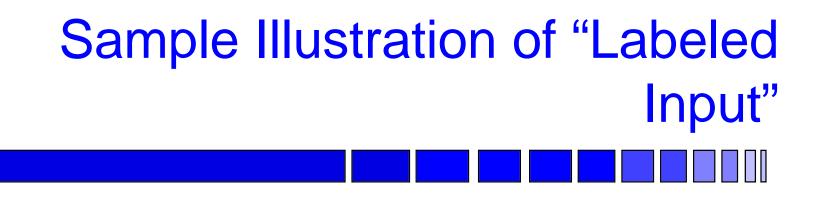
Should by-model year option be maintained in descriptive output? Included in electronic output?

Survey Questions from 08/96

Any other specific changes or additions wanted in the new MOBILE6 output formats?

Use of "labeled" input

- Eliminates need for many current flags if optional labeled data present it is used, else "default" MOBILE6 data used
- Provides more flexibility in ordering of input optional data in any order so long as properly labeled
- Provides means of "commenting" input files to assist in documentation and interpretation



Flag-1	2					
Flag-2	1					
Flag-3	2					
• • •						
ALT-REGDIST		C:\reg_data.d				
IM-PROGRAM		C:\myimfile.d				
•••						
STAGEII-V	VRS	1998	5	95.0	90.0	
•••						
LAP RECO	RD	XXXXXXX				
SCENARIO	-1	XXXXXXX				
SCENARIO	-2	XXXXXXX				

Use external files for complicated optional input data

 Tampering rates; Registration distributions and annual mileage accumulation rates by age for each vehicle type; Inspection/maintenance (I/M) and anti-tampering program parameters

Formatted "template" files using internal Block Data supplied

MOBILE data used unless specific line in input file (e.g., ALT-REGDIST) tells M6 to read specified data from external file

Changes to I/M or ATP could be handled with revisions to external data file only

Delete inputs no longer needed

- Two fuel RVP values, "start year" for change
- ASTM Fuel Volatility Class
- Operating mode fractions

Add options for new user data implied by other model revisions

- VMT fractions by facility type
- Soak time distributions

Reduce output options to descriptive and improved spreadsheet

- Optional by-model year output requested by labeled input line
- Flags reduced to pollutants; idle; composition (NMHC, VOC, etc); breakout (total, exh/evap, units)

New "output control" flags

- **EXHFLG**: For LDGVs/LDGTs, exhaust EFs as composite (g/mi) start and running emissions, or, as composite (g/mi) *plus* separated start (g/start) and stabilized running (g/mi) emissions
- HDFLAG: For HDGVs/HDDVs, EFs for all HDGVs & all HDDVs, or, that *plus* EFs for HDGVs/HDDVs by GVW class (IIb-VIIIb) and separate school/urban/commercial bus EFs

- ASTM Volatility Class changed to value indicating RVP control and/or RFG region
- Reduce RVP to one input, move to Scenario data (change by year)
- Change to 4-digit year, extend projections to 2050

Optional input of VMT by facility type (weightings for area EFs)

 Could be combined with speeds for freeways/arterials

 Optional input of soak time distr (if start emissions modeled as function of engine off time)

Error/Warning Message Handling

- Most want maintained in current form, or option to route to other file
- Few stated either "don't change it" or "make it always separate"
- Option left to user would satisfy all comments

"Undue hardship" if any current output format option dropped?

- Most comments state it's not a large problem - will require revision of other programs but that's always been true
- Pure ASCII output suggested

Two vs three decimal places in emission factors?

- Most favored three decimal places and discretion in how used
- Some component EFs < 0.10 g/mi; 2 decimal places leaves only one digit

Need to limit number of fields in electronic output format?

- Most favored expanding all output formats to include more information
- Some older software limited to 254 or 240 characters per record
- Few claimed need to do so but thought user option would be best

Maintain "by model year" output?

- Strongly favored by all commenters
- Must at minimum keep in descriptive format, most would like in both descriptive and electronic formats

Anything else you'd like to see?

- Many things mentioned; most commonly
 - Split up HDGV/HDDV into subclasses, buses
 - Add more "echoing" of input in output: flags, data used, everything
 - Add more unit options (g/mi, tons/Mmi, metric)
 - Some provision for alternative-fueled vehicles, at least common fleets
- Many planned for M6, some infeasible

Comments on Input Changes Proposed

Most favor use of "labeled input" structure

 Requiring entries supported by some: assists in documentation and comparisons

Most favor use of external files for complex input data

Comments on Input Changes Proposed

- No objections to deletion of unneeded inputs
- No objections to addition of user options
 - Some stressed need for more and better guidance on data requirements and application

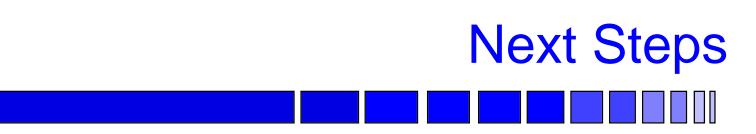
Comments of Output Changes Proposed 03/97

Major interest: Echo <u>all</u> information in output

- Flag values and meanings
- Whether "default" or "user" data used (when applicable)
- Ability to add more identifying info (e.g., geographic tagging)

Comments on Output Changes Proposed 03/97

Most say one good descriptive and one good electronic (ASCII) format, with additional info included, will be sufficient



Summary of all I/O-related comments, to date and after workshop, completed and posted

Detailed proposal for I/O changes (sample input/ output files) developed

US EPA ARCHIVE DOCUMENT

Next Steps
Detailed proposal likely to follow
earlier proposals closely

Final choices for MOBILE6 made after comment period for detailed proposal