PlanPrep

Version 5.0.9

Revision History

May 2012 - Created by Volpe Center

The **PlanPrep** program is used to:

1. Sort plans by traveler or time of day
2. Combine Partitioned Plan files into a Sorted Master Plan file
3. Merge plan files for Incremental and/or Feedback processing
4. Select a random percentage of input plans for output
5. Select plans based on various criteria

Syntax is PlanPrep [-flag] [control\_file]

The control\_file is the file name of an ASCII file that contains the control strings expected by the program. The control\_file is optional. If a file name is not provided, the program will prompt the user to enter a file name. The flag parameters are also optional. Any combination of the following flag parameters can be included on the command line:

Optional Flags:

-Q[uiet] = execute without screen messages

-H[elp] = show program syntax and control keys

-C[ontrol] = create/update a default control file

-K[eyCheck] = list unrecognized control file keys

-P[ause] = pause before exiting

-N[oPause] = never pause before exiting

-D[etail] = execute with detailed status messages

-X[ML] = write an XML file with control keys

The program automatically creates a printout file based on the control file name. If the filename includes an extension (e.g., “.ctl”), the extension is replaced with “.prn”. The printout file will be created in the current working directory and will overwrite an existing file with the same name.

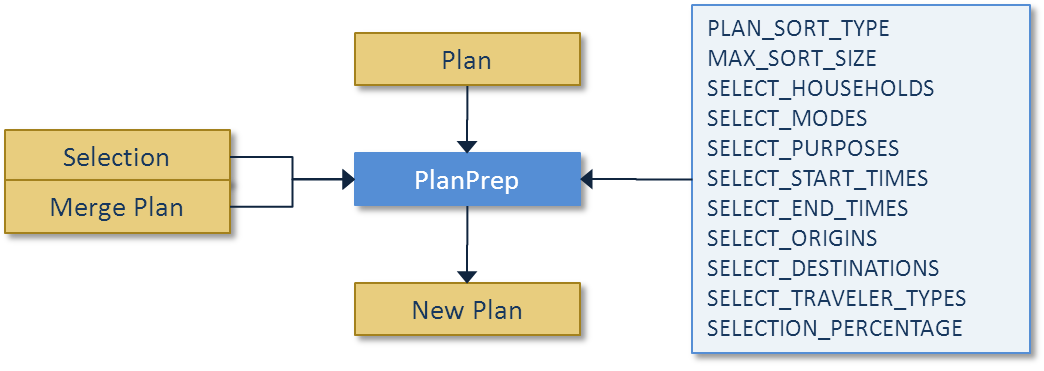
# Version 5 Features

New selection criteria were added, including subarea polygons.

Files can be sorted and combined in one step

The output plan file is labeled with known sort information from the input plan file, or with the value of PLAN\_SORT\_TYPE (PLAN\_SORT\_TYPE was changed to TRIP\_SORT\_TYPE).

New keys added to delete selected trips from the input plan or merge plan files: DELETION\_FILE, DELETION\_FORMAT, DELETE\_HOUSEHOLDS, DELETE\_MODES, and DELETE\_TRAVELER\_TYPES



# Control Key List

The list of control file keys appears in the tables below:

* Req / Opt indicates whether the key is **req**uired or **opt**ional
* The types include **Text**, Input **File**name, **New** file, **Bool**ean, **Path** (to a file), **Time**, **Int**eger, **Dec**imal, and **List** of items
* The Default is the default value, used if the key does not appear in the control file.
* I/O/P indicates Input, Output or Parameter.

For a more detailed description of the Parameter control keys, refer to the Parameter Reference. For a more detailed description of the Input or Output control keys, refer to the File Reference. These two documents also provide the possible values or range of values allowed for each control key listed below. For instance, files can usually be output to numerous formats beyond TAB\_DELIMITED for additional post-processing / file manipulation actions.

## Configuration Keys

| **Control File Keys:** | **Req/Opt** | **Type** | **Default** | **I/O/P** |
| --- | --- | --- | --- | --- |
| TITLE | Opt | Text |  | P |
| REPORT\_DIRECTORY | Opt | Path |  | O |
| REPORT\_FILE | Opt | File |  | P |
| REPORT\_FLAG | Opt | Bool | FALSE | P |
| PROJECT\_DIRECTORY | Opt | Path |  | P |
| DEFAULT\_FILE\_FORMAT | Opt | Text | TAB\_DELIMITED | P |
| TIME\_OF\_DAY\_FORMAT | Opt | Text | HOUR\_CLOCK | P |
| MODEL\_START\_TIME | Opt | Time | 0:00 | P |
| MODEL\_END\_TIME | Opt | Time | 27:00:00 | P |
| MODEL\_TIME\_INCREMENT | Opt | Time | 15 minutes | P |
| UNITS\_OF\_MEASURE | Opt | Text | METRIC | P |
| RANDOM\_NUMBER\_SEED | Opt | Int | 0 | P |
| MAX\_WARNING\_MESSAGES | Opt | Int | 100000 | P |
| MAX\_WARNING\_EXIT\_FLAG | Opt | Bool | TRUE | P |
| MAX\_PROBLEM\_COUNT | Opt | Int | 0 | P |
| NUMBER\_OF\_THREADS | Opt | Int | 1 | P |

## System File Keys

| **Control File Keys:** | **Req/Opt** | **Type** | **Default** | **I/O/P** |
| --- | --- | --- | --- | --- |
| PLAN\_FILE | Req | File |  | I |
| PLAN\_FORMAT | Opt | Text | TAB\_DELIMITED | P |
| SELECTION\_FILE | Opt | File |  | O |
| SELECTION\_FORMAT | Opt | Text | TAB\_DELIMITED | P |
| NEW\_PLAN\_FILE | Opt | New |  | I |
| NEW\_PLAN\_FORMAT | Opt | Text | TAB\_DELIMITED | P |

## Data Service Keys

| **Control File Keys:** | **Req/Opt** | **Type** | **Default** | **I/O/P** |
| --- | --- | --- | --- | --- |
| TRIP\_SORT\_TYPE | Opt | Text | DO\_NOT\_SORT | P |
| PLAN\_SORT\_TYPE | Opt | Text | DO\_NOT\_SORT | P |

## Control Keys

| **Control File Keys:** | **Req/Opt** | **Type** | **Default** | **I/O/P** |
| --- | --- | --- | --- | --- |
| SELECT\_HOUSEHOLDS | Opt | List | ALL | P |
| SELECT\_MODES | Opt | List | ALL | P |
| SELECT\_PURPOSES | Opt | List | ALL | P |
| SELECT\_START\_TIMES | Opt | List | ALL | P |
| SELECT\_END\_TIMES | Opt | List | ALL | P |
| SELECT\_ORIGINS | Opt | List | ALL | P |
| SELECT\_DESTINATIONS | Opt | List | ALL | P |
| SELECT\_TRAVELER\_TYPES | Opt | List | ALL | P |
| SELECT\_LINKS\_\* | Opt | List | ALL | P |
| SELECT\_NODES\_\* | Opt | List | ALL | P |
| SELECT\_SUBAREA\_POLYGON | Opt | File |  | P |
| SELECTION\_PERCENTAGE | Opt | Dec | 100 | P |
| DELETION\_FILE | Opt | File |  | I |
| DELETION\_FORMAT | Opt | Text | TAB\_DELIMITED | I |
| DELETE\_HOUSEHOLDS | Opt | List | NONE | P |
| DELETE\_MODES | Opt | List | NONE | P |
| DELETE\_TRAVELER\_TYPES | Opt | List | NONE | P |
| MERGE\_PLAN\_FILE | Opt | File |  | I |
| MERGE\_PLAN\_FORMAT | Opt | Text | TAB\_DELIMITED | P |
| MAXIMUM\_SORT\_SIZE | Opt | Int | 0 | I |

#### Notes

Each '\_FILE' key has a corresponding '\_FORMAT' key. The following file formats can be used for input and ouput files:

TEXT, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, CSV\_DELIMITED, DBASE, SQLITE3, VERSION3

# Control Key Changes in PlanPrep Version 5

A number of network keys have changed from V4 to V5. Refer to the File Reference and Parameter Reference documents for additional details. Some specific examples include the following control key and file name changes (V4 🡪 V5):

* INPUT\_PLAN\_FILE -> PLAN\_FILE
* OUTPUT\_PLAN\_FILE -> NEW\_PLAN\_FILE
* PLAN\_SORT\_OPTION -> PLAN\_SORT\_TYPE (values include DO\_NOT\_SORT, TRAVELER\_SORT, TIME\_SORT)

The following keys, used in version 4, are not used in version 5:

* INPUT\_PLAN\_SORT
* PLAN\_COMBINE\_OPTION (file or memory)
* PLAN\_INDEX\_OPTION
* MAX\_OUTPUT\_PLAN\_SIZE
* PLANPREP\_REPORT\_#

New keys in version 5 include

* DEFAULT\_FILE\_FORMAT
* TIME\_OF\_DAY\_FORMAT
* MODEL\_START\_TIME
* MODEL\_END\_TIME
* MODEL\_TIME\_INCREMENT
* UNITS\_OF\_MEASURE
* RANDOM\_NUMBER\_SEED
* NUMBER\_OF\_THREADS
* SELECTION\_FILE
* SELECTION\_FORMAT
* SELECT\_HOUSEHOLDS
* SELECT\_MODES
* SELECT\_PURPOSES
* SELECT\_START\_TIMES
* SELECT\_END\_TIMES
* SELECT\_ORIGINS
* SELECT\_DESTINATIONS
* SELECT\_TRAVELER\_TYPES
* SELECT\_LINKS\_\*
* SELECT\_NODES\_\*
* SELECT\_SUBAREA\_POLYGON
* DELETION\_FILE
* DELETION\_FORMAT
* DELETE\_HOUSEHOLDS
* DELETE\_MODES
* DELETE\_TRAVELER\_TYPES
* TRIP\_SORT\_TYPE (values include DO\_NOT\_SORT, TRAVELER\_SORT, TIME\_SORT)
* MAXIMUM\_SORT\_SIZE

# Examples

## Sort Plan Files by Time of Day, combining Partitions into a Single File

TITLE Sort the Plan Files for Simulation 3.Tiny

DEFAULT\_FILE\_FORMAT TAB\_DELIMITED

PROJECT\_DIRECTORY ../

PLAN\_FILE demand/3.Trip.Plans.\*

NEW\_PLAN\_FILE demand/3.Trip.TimePlans

TRIP\_SORT\_TYPE TIME\_SORT //---- DO\_NOT\_SORT, TRAVELER\_SORT, TIME\_SORT

### Output from the above control file

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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| PlanPrep - Version 5.0.9 |

| Copyright 2012 by TRANSIMS Open-Source |

| Wed May 16 15:54:42 2012 |

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Control File = 3.PlanSort.ctl

Report File = 3.PlanSort.prn (Create)

Sort the Plan Files for Simulation 3.Tiny

Warning: Control Key "NOTES\_AND\_NAME\_FIELDS" was Not Used

Project Directory = ../

Default File Format = TAB\_DELIMITED

Time of Day Format = HOUR\_CLOCK

Model Start Time = 0:00

Model End Time = 27:00

Units of Measure = METRIC

Random Number Seed = 1337198082

Number of Threads = 1

Input System Demand Files:

Plan File = ../demand/3.Trip.Plans.\* (2 partitions)

Output System Demand Files:

New Plan File = ../demand/3.Trip.TimePlans

Data Service Controls:

Trip Sort Type = TIME\_SORT

Select Service Controls:

PlanPrep Control Keys:

Number of Plan File Partitions = 2

Number of Plan File Records = 1017844

Number of Plan File Households = 96819

Number of Plan File Persons = 96819

Number of Plan File Tours = 96819

Number of Plan File Trips = 96819

Number of New Plan File Records = 1017844

Number of New Plan File Households = 96819

Number of New Plan File Persons = 96819

Number of New Plan File Tours = 96819

Number of New Plan File Trips = 96819

Wed May 16 15:55:20 2012 -- Process Complete with 1 Warning (0:00:38)

## Select Plan Files for a Certain Time Range, then Sort by Time of Day

TITLE Sort the Plan Files for Simulation 2.Tiny

DEFAULT\_FILE\_FORMAT TAB\_DELIMITED

PROJECT\_DIRECTORY ../

PLAN\_FILE demand/2.Trip.Plans.\*

NEW\_PLAN\_FILE demand/2.Trip.SelectPlans

SELECT\_START\_TIMES 7:10..7:30

TRIP\_SORT\_TYPE TIME\_SORT

### Output from the above control file

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| Mon Jun 11 17:15:51 2012 |

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Control File = PlanPrep1.ctl

Report File = PlanPrep1.prn (Create)

Sort the Plan Files for Simulation 2.Tiny

Project Directory = ../

Default File Format = TAB\_DELIMITED

Time of Day Format = HOUR\_CLOCK

Model Start Time = 0:00

Model End Time = 27:00

Units of Measure = METRIC

Random Number Seed = 1339449351

Number of Threads = 1

Input System Demand Files:

Plan File = ../demand/2.Trip.Plans.\* (2 partitions)

Output System Demand Files:

New Plan File = ../demand/2.Trip.SelectPlans

Data Service Controls:

Trip Sort Type = TIME\_SORT

Select Service Controls:

Select Start Times = 7:10..7:30

PlanPrep Control Keys:

Number of Plan File Partitions = 2

Number of Plan File Records = 1015317

Number of Plan File Households = 96830

Number of Plan File Persons = 96830

Number of Plan File Tours = 96831

Number of Plan File Trips = 96837

Number of New Plan File Records = 23738

Number of New Plan File Households = 2266

Number of New Plan File Persons = 2266

Number of New Plan File Tours = 2266

Number of New Plan File Trips = 2266

Mon Jun 11 17:15:58 2012 -- Process Complete (0:00:07)

## Merge Plan Files

Note that the program does not handle a partitioned merge plan file.

TITLE Merge the Plan Files for Simulation 2.Tiny

DEFAULT\_FILE\_FORMAT TAB\_DELIMITED

PROJECT\_DIRECTORY ../

PLAN\_FILE demand/2.Trip.InputPlans

MERGE\_PLAN\_FILE demand/2.Trip.Plans.0

NEW\_PLAN\_FILE demand/2.Trip.NewPlans

### Output from the above control file

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| Tue Jun 12 11:27:33 2012 |

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Control File = PlanPrep2.ctl

Report File = PlanPrep2.prn (Create)

Merge the Plan Files for Simulation 2.Tiny

Project Directory = ../

Default File Format = TAB\_DELIMITED

Time of Day Format = HOUR\_CLOCK

Model Start Time = 0:00

Model End Time = 27:00

Units of Measure = METRIC

Random Number Seed = 1339514853

Number of Threads = 1

Input System Demand Files:

Plan File = ../demand/2.Trip.InputPlans

Output System Demand Files:

New Plan File = ../demand/2.Trip.NewPlans

Data Service Controls:

Select Service Controls:

PlanPrep Control Keys:

Merge Plan File = demand/2.Trip.Plans.0

Merge Plan File = ../demand/2.Trip.Plans.0

Number of Plan File Records = 14

Number of Plan File Households = 2

Number of Plan File Persons = 2

Number of Plan File Tours = 2

Number of Plan File Trips = 2

Number of Merge Plan File Records = 508164

Number of Merge Plan File Households = 48477

Number of Merge Plan File Persons = 48477

Number of Merge Plan File Tours = 48478

Number of Merge Plan File Trips = 48484

Number of New Plan File Records = 508178

Number of New Plan File Households = 48479

Number of New Plan File Persons = 48479

Number of New Plan File Tours = 48480

Number of New Plan File Trips = 48486

Tue Jun 12 11:27:42 2012 -- Process Complete (0:00:09)