

File Name : WINSMAC.SMC  
Project Name :

Date : 1/26/2001  
File Number :

## WINSMAC Project Report

Vehicle 1

**VOLARE**

Vehicle 2

**SUBARU**

PROJECT DESCRIPTION :

1995 F.A.R.O. Seminar

Licensed to : Trantech Corporation

Serial Number : SM100-137-144-123237

## Project Notes

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### Project Description

1995 F.A.R.O. Seminar

### VOLARE Description

77 Plymouth Volare

### SUBARU Description

77 Subaru

## Time and Scene Data

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### Time Intervals

Number of Vehicles	2
Start time, to	0.0000 sec
Stop time, tf	10.0000 sec
Trajectory Delta Time, dtTraj0	0.0500 sec
Collision Delta Time, dtCol0	0.0010 sec
Post Coll Delta Time, dtClit0	0.0100 sec
Traj Display Interval, dtprntraj	0.1000 sec
Coll Display Interval, dtprncol	0.0100 sec

### Start Data

	VOLARE	SUBARU
X Position	-10.00 ft	0.00 ft
Y Position	-8.00 ft	0.00 ft
Vehicle Heading	7.00 deg	90.00 deg
Forward Speed, u	32.90 mph	9.00 mph
Lateral Speed, v	0.00 mph	0.00 mph
Rotation Speed, omega	0.00 deg/sec	0.00 deg/sec

### Calculation Limits

Damage Limit 1	70.0 deg
Damage Limit 2	110.0 deg
Damage Limit 3	250.0 deg
Damage Limit 4	290.0 deg
Damage Limit 5	10.0 deg
Damage Limit 6	170.0 deg
Damage Limit 7	190.0 deg
Damage Limit 8	350.0 deg
Minimum Calc Speed	2.000 mph
Minimum Angular Speed	5.000 deg/sec
Calculation Type	Runge Kutta Integration

### Friction Data

Boundary Set ?	No	
Friction, mu1	0.740 -	0.740 -
Speed Decrement, cmu1	0.00030 sec/in	0.000 -

# Vehicle Data

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## Dimensions/Mass

**VOLARE**

**SUBARU**

Default Type	4, Intermediate	1, micro
COG to Front Axle, a	50.40 in	39.40 in
COG to Rear Axle, b	61.60 in	59.10 in
Track, tr	57.00 in	51.10 in
Moment of Inertia, Iz	35904.00 lbsec <sup>2</sup> in	13180.00 lbsec <sup>2</sup> in
Weight, wt	4270.00 lb	2090.00 lb
COG to front, Xf	84.40 in	72.90 in
COG to rear, Xr	-109.00 in	-89.10 in
Overall width, Yw	72.00 in	57.00 in

## Damage Criteria

Spring spacing	2.00 deg
Delta Rho	0.2000 in
Max Equil Error	12.00 lb/in
Min Slip Speed	0.28 mph
Vehicle 1 Stiffness	51.00 lb/in <sup>2</sup>
Vehicle 2 Stiffness	59.00 lb/in <sup>2</sup>
Intra-vehicle friction	0.55 -
Restitution, e	0.02 -

## Tire Cornering Stiffness

Right Front	182.1 lb/deg	98.3 lb/deg
Left Front	182.1 lb/deg	98.3 lb/deg
Right Rear	168.3 lb/deg	87.9 lb/deg
Left Rear	168.3 lb/deg	87.9 lb/deg

# Force Tables

File Name : WINSMAC.SMC  
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## VOLARE

### Pre-Impact Table

Time	RF	LF	RR	LR
0.0000	-1.00	-1.00	-1.00	-1.00

## SUBARU

### Pre-Impact Table

Time	RF	LF	RR	LR
0.0000	-0.15	-0.01	-0.01	-0.01

### Post-Impact Table

Time	RF	LF	RR	LR
0.0000	-1.00	-1.00	-1.00	-1.00
1.5000	-1.00	-1.00	-1.00	-1.00
1.7000	-0.50	-0.50	-0.50	-0.50

### Post-Impact Table

Time	RF	LF	RR	LR
0.0000	-0.15	-0.01	-0.01	-0.01

# Steer Tables

File Name : WINSMAC.SMC  
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## VOLARE

Pre-Impact Table  
Time      RF      LF      RR      LR

Post-Impact Table  
Time      RF      LF      RR      LR

## SUBARU

Pre-Impact Table  
Time      RF      LF      RR      LR

Post-Impact Table  
Time      RF      LF      RR      LR

# Summary Results

File Name : WINSMAC.SMC  
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	Time sec	X ft	Y ft	psi deg	speed mph	path deg	omega deg/sec
Start Position							
VOLARE	0.0000	-10.00	-8.00	7.00	32.90	7.00	0.00
SUBARU	0.0000	0.00	0.00	90.00	9.00	90.00	0.00
Collision Pt							
VOLARE	0.0200	-9.05	-7.88	7.00	32.63	7.00	0.00
SUBARU	0.0200	0.00	0.26	90.00	8.98	90.00	0.11
Separation Pt							
VOLARE	0.1310	-4.26	-7.31	7.88	26.52	5.81	14.15
SUBARU	0.1310	0.68	1.84	102.74	13.84	53.34	241.51
End Position							
VOLARE	1.9210	31.41	-3.45	21.03	0.11	90.95	0.00
SUBARU	9.5210	-0.01	81.69	277.11	1.97	98.02	-0.35

# Damage Results

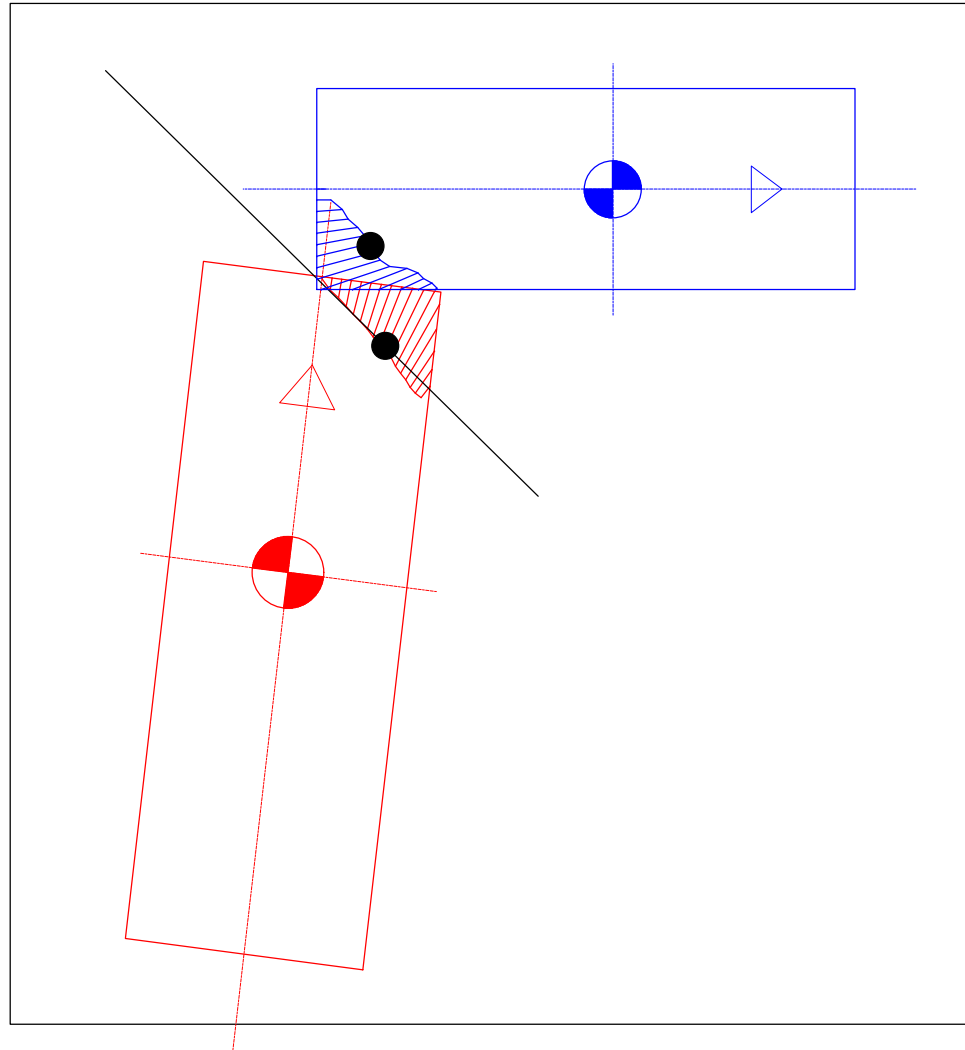
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	VOLARE	SUBARU	
<b>Range 1</b>			
DeltaV	5.7	8.1	mph
Pdof	6.0	105.4	deg
Force	10027	6986	lb
Force Ang	13.0	195.4	deg
Delta Time	0.111	0.111	sec
Offset	0.88	7.95	in
Del Omega	14.15	241.40	deg/sec
CDC	12FFEW3	04RDEW2	

<b>Restitution</b>			
Impact pt x	67.29	-73.00	in
Impact pt y	21.13	16.07	in
Norm Angle	42.96	42.96	deg
Appr V	26.41	6.13	mph
Sep V	21.44	26.78	mph
Peak Acc	4.70	8.11	g's

<b>Common Results</b>			
Rel Appr V	20.29		mph
Rel Sep V	5.35		mph
Calc CR	0.26		-
Target CR	0.02		-
Peak Acc t	0.0790		sec





# Damage Tables

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Vehicle One : VOLARE  
 Number of Vectors 17

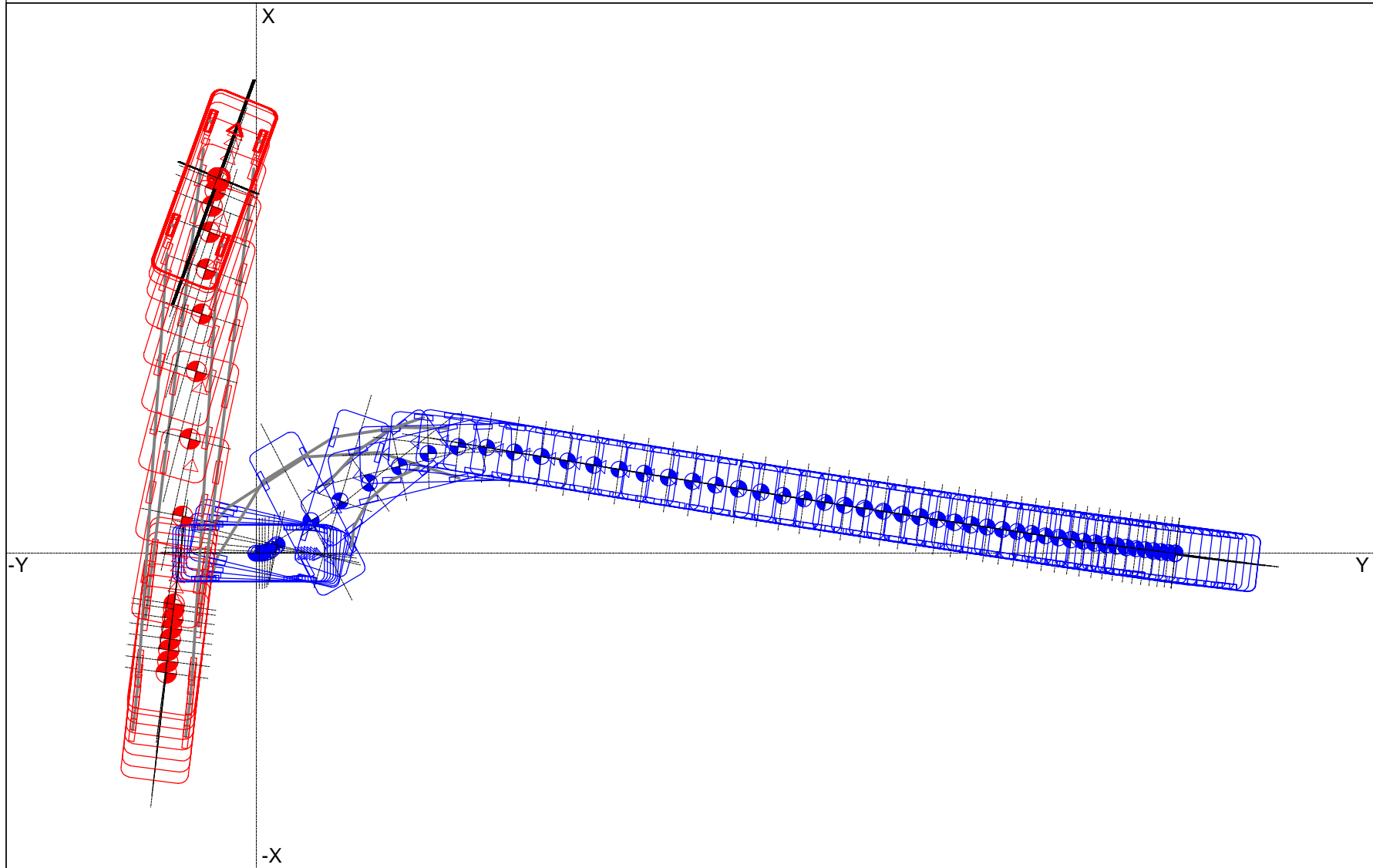
Vehicle Two: SUBARU  
 Number of Vectors 15

	psi 1	rho 1	rhox 1	rhoy 1		psi 2	rho 2	rhox 2	rhoy 2
	deg	in	in	in		deg	in	in	in
	0.0	83.8	83.8	0.0		152.0	59.9	-52.9	28.1
	2.0	80.9	80.9	2.8		154.0	60.7	-54.6	26.6
	4.0	79.2	79.0	5.5		156.0	62.3	-56.9	25.3
	6.0	77.4	77.0	8.1		158.0	63.3	-58.7	23.7
	8.0	75.6	74.8	10.5		160.0	65.9	-61.9	22.5
	10.0	74.3	73.2	12.9		162.0	70.7	-67.2	21.8
	12.0	72.8	71.2	15.1		164.0	72.9	-70.1	20.1
	14.0	71.5	69.3	17.3		166.0	74.1	-71.9	17.9
	16.0	70.3	67.6	19.4	**	168.0	74.4	-72.8	15.5
	18.0	69.4	66.0	21.4	**	170.0	75.9	-74.7	13.2
	20.0	68.4	64.2	23.4		172.0	77.6	-76.8	10.8
**	22.0	66.7	61.9	25.0		174.0	80.2	-79.7	8.4
**	24.0	65.7	60.0	26.7		176.0	81.7	-81.5	5.7
**	26.0	65.0	58.4	28.5	**	178.0	84.9	-84.8	3.0
**	28.0	64.0	56.5	30.1		180.0	86.6	-86.6	0.0
**	30.0	63.5	55.0	31.8					
	32.0	63.6	54.0	33.7					

# Vehicle Trajectories

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# Detailed Results : VOLARE

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Time sec	X ft	Y ft	psi deg	u mph	v mph	omega deg/sec	ax g's	ay g's	ac g's
0.0000	-10.00	-8.00	7.00	32.90	0.00	0.00	-0.611	0.000	0.611
0.0300	-8.57	-7.82	7.00	32.21	0.15	0.00	-2.437	-0.184	2.444
0.0400	-8.11	-7.76	7.00	32.03	0.14	0.06	-0.705	-0.012	0.705
0.0500	-7.64	-7.71	7.00	31.69	0.14	0.92	-1.730	0.081	1.732
0.0600	-7.18	-7.65	7.03	31.07	0.16	3.94	-3.388	0.266	3.399
0.0700	-6.74	-7.59	7.08	30.26	0.13	7.75	-4.433	-0.183	4.437
0.0800	-6.31	-7.53	7.18	29.29	-0.01	11.09	-4.645	-0.540	4.676
0.0900	-5.89	-7.48	7.30	28.37	-0.25	13.03	-4.357	-1.013	4.473
0.1000	-5.48	-7.44	7.44	27.62	-0.49	14.13	-3.146	-0.814	3.249
0.1100	-5.08	-7.39	7.58	27.02	-0.74	14.10	-2.122	-0.677	2.227
0.1200	-4.69	-7.35	7.72	26.68	-0.87	14.36	-0.917	-0.067	0.919
0.1300	-4.30	-7.31	7.86	26.51	-0.95	14.16	-0.636	0.023	0.636
0.1310	-4.26	-7.31	7.88	26.50	-0.96	14.15	-0.636	0.023	0.636
0.2310	-0.49	-6.93	9.26	25.07	-1.51	13.46	-0.640	0.039	0.642
0.3310	3.07	-6.56	10.57	23.62	-1.97	12.77	-0.645	0.054	0.647
0.4310	6.42	-6.22	11.81	22.16	-2.33	12.07	-0.649	0.068	0.653
0.5310	9.57	-5.90	12.98	20.68	-2.60	11.35	-0.653	0.082	0.658
0.6310	12.50	-5.60	14.08	19.19	-2.79	10.63	-0.657	0.096	0.664
0.7310	15.23	-5.33	15.11	17.69	-2.90	9.90	-0.661	0.108	0.670
0.8310	17.74	-5.07	16.06	16.19	-2.93	9.16	-0.665	0.120	0.675
0.9310	20.03	-4.84	16.94	14.68	-2.89	8.40	-0.668	0.131	0.681
1.0310	22.10	-4.63	17.74	13.17	-2.79	7.64	-0.672	0.142	0.687
1.1210	23.78	-4.46	18.40	11.81	-2.64	6.94	-0.676	0.151	0.692
1.2210	25.44	-4.29	19.05	10.30	-2.42	6.14	-0.680	0.160	0.698
1.3210	26.87	-4.14	19.63	8.78	-2.16	5.33	-0.684	0.168	0.704
1.4210	28.07	-4.02	20.12	7.26	-1.85	4.50	-0.688	0.176	0.710
1.5210	29.05	-3.92	20.53	5.73	-1.50	3.72	-0.679	0.229	0.717
1.6210	29.80	-3.82	20.90	4.43	-0.66	3.68	-0.504	0.501	0.711
1.7210	30.35	-3.64	21.09	3.51	-0.06	0.38	-0.363	0.158	0.396
1.8210	30.78	-3.48	21.09	2.71	-0.05	0.09	-0.365	0.157	0.397

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1.9210	31.09	-3.35	21.08	1.91	-0.03	-0.11	-0.366	0.140	0.392
2.0210	31.30	-3.26	21.08	1.10	0.00	0.10	-0.368	0.021	0.368
2.1210	31.39	-3.23	21.03	0.31	0.10	0.01	-0.369	-0.640	0.739
2.2210	31.40	-3.23	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.3210	31.40	-3.23	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.4210	31.40	-3.23	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.5210	31.40	-3.23	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.6210	31.40	-3.24	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.7210	31.40	-3.24	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.8210	31.40	-3.24	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
2.9210	31.40	-3.25	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.0210	31.40	-3.25	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.1210	31.40	-3.25	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.2210	31.40	-3.25	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.3210	31.41	-3.26	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.4210	31.41	-3.26	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.5210	31.41	-3.26	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.6210	31.41	-3.26	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.7210	31.41	-3.27	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.8210	31.41	-3.27	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
3.9210	31.41	-3.27	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.0210	31.41	-3.28	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.1210	31.41	-3.28	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.2210	31.41	-3.28	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.3210	31.41	-3.28	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.4210	31.41	-3.29	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.5210	31.41	-3.29	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.6210	31.41	-3.29	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.7210	31.41	-3.30	21.03	0.04	0.11	0.00	-0.256	-0.694	0.740
4.8210	31.41	-3.30	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739

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4.9210	31.41	-3.30	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.0210	31.41	-3.31	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.1210	31.41	-3.31	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.2210	31.41	-3.31	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.3210	31.41	-3.32	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.4210	31.41	-3.32	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.5210	31.41	-3.32	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.6210	31.41	-3.33	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.7210	31.41	-3.33	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.8210	31.41	-3.33	21.03	0.04	0.11	0.00	-0.256	-0.693	0.739
5.9210	31.41	-3.33	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.0210	31.41	-3.34	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.1210	31.41	-3.34	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.2210	31.41	-3.34	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.3210	31.41	-3.35	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.4210	31.41	-3.35	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.5210	31.41	-3.35	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.6210	31.41	-3.36	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.7210	31.41	-3.36	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.8210	31.41	-3.36	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
6.9210	31.41	-3.37	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.0210	31.41	-3.37	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.1210	31.41	-3.37	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.2210	31.41	-3.38	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.3210	31.41	-3.38	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.4210	31.41	-3.38	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.5210	31.41	-3.38	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.6210	31.41	-3.39	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.7210	31.41	-3.39	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739
7.8210	31.41	-3.39	21.03	0.04	0.11	0.00	-0.255	-0.694	0.739

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7.9210	31.41	-3.40	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.0210	31.41	-3.40	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.1210	31.41	-3.40	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.2210	31.41	-3.41	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.3210	31.41	-3.41	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.4210	31.41	-3.41	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.5210	31.41	-3.42	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.6210	31.41	-3.42	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.7210	31.41	-3.42	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.8210	31.41	-3.43	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
8.9210	31.41	-3.43	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.0210	31.41	-3.43	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.1210	31.41	-3.44	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.2210	31.41	-3.44	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.3210	31.41	-3.44	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.4210	31.41	-3.44	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
9.5210	31.41	-3.45	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739
1.9210	31.41	-3.45	21.03	0.04	0.11	0.00	-0.254	-0.694	0.739

# Detailed Results : SUBARU

File Name : WINSMAC.SMC  
Project Name :

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File Number :

Time sec	X ft	Y ft	psi deg	u mph	v mph	omega deg/sec	ax g's	ay g's	ac g's
0.0000	0.00	0.00	90.00	9.00	0.00	0.00	-0.037	0.000	0.037
0.0300	0.00	0.39	90.00	8.75	-0.57	0.07	0.784	-3.176	3.271
0.0400	0.01	0.52	90.01	8.76	-0.56	2.48	0.004	0.283	0.283
0.0500	0.02	0.65	90.08	8.80	-0.90	15.29	0.067	-1.839	1.840
0.0600	0.04	0.78	90.36	8.84	-1.84	45.07	0.073	-5.354	5.355
0.0700	0.07	0.91	91.01	8.96	-3.26	85.00	1.153	-7.468	7.556
0.0800	0.13	1.05	92.09	9.22	-5.05	131.60	1.791	-7.869	8.070
0.0900	0.21	1.19	93.62	9.53	-6.81	173.65	2.527	-7.181	7.613
0.1000	0.31	1.34	95.53	9.70	-8.30	205.89	1.818	-4.656	4.998
0.1100	0.43	1.49	97.72	9.74	-9.49	229.71	1.375	-2.517	2.868
0.1200	0.55	1.66	100.08	9.46	-10.18	240.60	0.119	-0.006	0.119
0.1300	0.67	1.82	102.50	9.05	-10.48	241.51	-0.037	0.605	0.606
0.1310	0.68	1.84	102.74	9.00	-10.51	241.51	-0.037	0.607	0.608
0.2310	1.80	3.42	126.94	4.18	-11.85	242.58	0.031	0.679	0.680
0.3310	2.74	4.88	151.24	-0.69	-11.09	243.32	0.030	0.682	0.682
0.4310	3.57	6.18	175.43	-4.84	-8.90	235.56	0.029	-0.028	0.040
0.5310	4.37	7.43	197.65	-7.81	-6.62	208.22	0.036	-0.135	0.140
0.6310	5.16	8.72	216.99	-9.54	-3.99	178.50	0.036	-0.150	0.154
0.7310	5.90	10.05	233.34	-10.24	-1.47	148.39	0.036	-0.142	0.147
0.8310	6.60	11.39	246.67	-10.26	0.62	118.11	0.036	-0.137	0.142
0.9310	7.26	12.74	256.96	-9.93	2.14	87.65	0.036	-0.135	0.140
1.0310	7.87	14.08	264.21	-9.52	3.03	58.13	0.036	-0.262	0.265
1.1210	8.34	15.29	268.77	-9.21	2.90	45.34	0.036	-0.528	0.529
1.2210	8.71	16.63	272.84	-8.94	2.37	36.09	0.036	-0.535	0.536
1.3210	8.91	17.94	275.95	-8.75	1.70	25.94	0.037	-0.509	0.510
1.4210	8.94	19.23	277.97	-8.62	0.93	14.08	0.037	-0.466	0.468
1.5210	8.84	20.49	278.80	-8.53	0.25	3.61	0.037	-0.225	0.228
1.6210	8.66	21.72	278.95	-8.45	0.03	0.29	0.037	-0.037	0.053
1.7210	8.47	22.94	278.94	-8.37	0.00	-0.20	0.037	-0.003	0.037
1.8210	8.28	24.15	278.92	-8.29	0.00	-0.26	0.037	0.001	0.037

# Acceleration Results: Continued : SUBARU

File Name : WINSMAC.SMC  
 Project Name :

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Time sec	X ft	Y ft	psi deg	u mph	v mph	omega deg/sec	ax g's	ay g's	ac g's
1.9210	8.10	25.34	278.90	-8.21	0.00	-0.26	0.037	0.002	0.037
2.0210	7.91	26.53	278.87	-8.13	0.00	-0.26	0.037	0.002	0.037
2.1210	7.73	27.70	278.84	-8.05	0.00	-0.26	0.037	0.002	0.037
2.2210	7.55	28.86	278.82	-7.97	0.00	-0.25	0.037	0.002	0.037
2.3210	7.37	30.01	278.79	-7.89	0.00	-0.25	0.037	0.002	0.037
2.4210	7.19	31.15	278.77	-7.81	0.00	-0.25	0.037	0.002	0.037
2.5210	7.02	32.27	278.74	-7.73	0.00	-0.25	0.037	0.002	0.037
2.6210	6.85	33.39	278.72	-7.65	0.00	-0.24	0.037	0.002	0.037
2.7210	6.68	34.49	278.69	-7.56	0.00	-0.24	0.037	0.001	0.037
2.8210	6.51	35.58	278.67	-7.48	0.00	-0.24	0.037	0.001	0.037
2.9210	6.35	36.66	278.65	-7.40	0.00	-0.24	0.037	0.001	0.037
3.0210	6.18	37.73	278.62	-7.32	0.00	-0.23	0.037	0.001	0.037
3.1210	6.02	38.78	278.60	-7.24	0.00	-0.23	0.037	0.001	0.037
3.2210	5.86	39.82	278.58	-7.16	0.00	-0.23	0.037	0.001	0.037
3.3210	5.71	40.86	278.55	-7.08	0.00	-0.23	0.037	0.001	0.037
3.4210	5.56	41.88	278.53	-7.00	0.00	-0.22	0.037	0.001	0.037
3.5210	5.40	42.89	278.51	-6.91	0.00	-0.22	0.037	0.001	0.037
3.6210	5.25	43.88	278.49	-6.83	0.00	-0.22	0.037	0.001	0.037
3.7210	5.11	44.87	278.47	-6.75	0.00	-0.22	0.037	0.001	0.037
3.8210	4.96	45.84	278.44	-6.67	0.00	-0.21	0.037	0.001	0.037
3.9210	4.82	46.80	278.42	-6.59	0.00	-0.21	0.037	0.001	0.037
4.0210	4.68	47.75	278.40	-6.51	0.00	-0.21	0.037	0.001	0.037
4.1210	4.54	48.69	278.38	-6.43	0.00	-0.21	0.037	0.001	0.037
4.2210	4.40	49.62	278.36	-6.34	0.00	-0.20	0.037	0.001	0.037
4.3210	4.27	50.53	278.34	-6.26	0.00	-0.20	0.037	0.001	0.037
4.4210	4.14	51.44	278.32	-6.18	0.00	-0.20	0.037	0.001	0.037
4.5210	4.01	52.33	278.30	-6.10	0.00	-0.20	0.037	0.001	0.037
4.6210	3.88	53.21	278.28	-6.02	0.00	-0.19	0.037	0.001	0.037
4.7210	3.75	54.07	278.26	-5.94	0.00	-0.19	0.037	0.001	0.037
4.8210	3.63	54.93	278.24	-5.85	0.00	-0.19	0.037	0.001	0.037



# Acceleration Results: Continued : SUBARU

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4.9210	3.50	55.77	278.22	-5.77	0.00	-0.19	0.037	0.001	0.037
5.0210	3.38	56.61	278.21	-5.69	0.00	-0.18	0.037	0.001	0.037
5.1210	3.27	57.43	278.19	-5.61	0.00	-0.18	0.037	0.001	0.037
5.2210	3.15	58.23	278.17	-5.53	0.00	-0.18	0.037	0.001	0.037
5.3210	3.03	59.03	278.15	-5.44	0.00	-0.17	0.037	0.001	0.037
5.4210	2.92	59.81	278.14	-5.36	0.00	-0.17	0.037	0.001	0.037
5.5210	2.81	60.59	278.12	-5.28	0.00	-0.17	0.037	0.001	0.037
5.6210	2.70	61.35	278.10	-5.20	0.00	-0.17	0.037	0.001	0.037
5.7210	2.60	62.10	278.08	-5.12	0.00	-0.16	0.037	0.001	0.037
5.8210	2.49	62.83	278.07	-5.03	0.00	-0.16	0.037	0.001	0.037
5.9210	2.39	63.56	278.05	-4.95	0.00	-0.16	0.037	0.001	0.037
6.0210	2.29	64.27	278.04	-4.87	0.00	-0.16	0.037	0.001	0.037
6.1210	2.19	64.97	278.02	-4.79	0.00	-0.15	0.038	0.001	0.038
6.2210	2.09	65.66	278.01	-4.71	0.00	-0.15	0.038	0.001	0.038
6.3210	2.00	66.34	277.99	-4.62	0.00	-0.15	0.038	0.001	0.038
6.4210	1.90	67.01	277.98	-4.54	0.00	-0.15	0.038	0.001	0.038
6.5210	1.81	67.66	277.96	-4.46	0.00	-0.14	0.038	0.001	0.038
6.6210	1.72	68.30	277.95	-4.38	0.00	-0.14	0.038	0.001	0.038
6.7210	1.63	68.93	277.93	-4.29	0.00	-0.14	0.038	0.001	0.038
6.8210	1.55	69.55	277.92	-4.21	0.00	-0.13	0.038	0.001	0.038
6.9210	1.46	70.15	277.91	-4.13	0.00	-0.13	0.038	0.001	0.038
7.0210	1.38	70.75	277.89	-4.05	0.00	-0.12	0.038	0.002	0.038
7.1210	1.30	71.33	277.88	-3.96	0.00	-0.09	0.038	0.006	0.038
7.2210	1.22	71.90	277.87	-3.88	-0.01	0.00	0.038	0.020	0.043
7.3210	1.14	72.46	277.85	-3.80	-0.02	0.20	0.038	0.054	0.066
7.4210	1.07	73.00	277.83	-3.72	-0.03	0.29	0.038	0.081	0.090
7.5210	1.00	73.54	277.80	-3.63	-0.03	0.26	0.038	0.094	0.101
7.6210	0.93	74.06	277.77	-3.55	-0.04	0.23	0.038	0.103	0.110
7.7210	0.86	74.57	277.75	-3.47	-0.04	0.19	0.038	0.112	0.118
7.8210	0.79	75.07	277.72	-3.38	-0.04	0.14	0.038	0.120	0.126

# Acceleration Results: Continued : SUBARU

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Time sec	X ft	Y ft	psi deg	u mph	v mph	omega deg/sec	ax g's	ay g's	ac g's
7.9210	0.73	75.55	277.68	-3.30	-0.04	0.08	0.038	0.129	0.134
8.0210	0.66	76.03	277.65	-3.22	-0.05	0.02	0.038	0.138	0.143
8.1210	0.60	76.49	277.61	-3.13	-0.05	-0.05	0.038	0.147	0.151
8.2210	0.54	76.94	277.58	-3.05	-0.05	-0.12	0.038	0.155	0.159
8.3210	0.49	77.38	277.54	-2.97	-0.05	-0.19	0.038	0.162	0.166
8.4210	0.44	77.80	277.50	-2.88	-0.05	-0.26	0.038	0.168	0.172
8.5210	0.38	78.22	277.46	-2.80	-0.05	-0.31	0.038	0.172	0.176
8.6210	0.33	78.62	277.42	-2.72	-0.05	-0.36	0.038	0.175	0.179
8.7210	0.29	79.01	277.38	-2.63	-0.05	-0.40	0.038	0.176	0.180
8.8210	0.24	79.39	277.34	-2.55	-0.05	-0.42	0.038	0.176	0.180
8.9210	0.20	79.75	277.30	-2.47	-0.05	-0.44	0.038	0.174	0.178
9.0210	0.16	80.10	277.27	-2.38	-0.05	-0.44	0.038	0.171	0.175
9.1210	0.12	80.45	277.23	-2.30	-0.04	-0.44	0.038	0.166	0.170
9.2210	0.09	80.78	277.20	-2.22	-0.04	-0.43	0.038	0.160	0.164
9.3210	0.05	81.09	277.17	-2.14	-0.04	-0.41	0.038	0.152	0.157
9.4210	0.02	81.40	277.14	-2.05	-0.03	-0.39	0.038	0.144	0.149
9.5210	-0.01	81.69	277.11	-1.97	-0.03	-0.35	0.038	0.137	0.142
9.5210	-0.01	81.69	277.11	-1.97	-0.03	-0.35	0.038	0.137	0.142

# Graph Data

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