

Intrepid Control Systems, Inc.

Text API Commands

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1. Introduction:

The Text API purpose is to provide a simple text based command set for Vehicle Spy 3 to allow third party applications to take advantage of the power of Vehicle Spy without rewriting much code.

The Text API command set is text based so it can be easily used over many interfaces such as RS232, USB, Ethernet, or Wireless. It is also independent of the operating system or development environment of the host. The command set is similar to what may be found in a programmable instrument consisting of commands and responses.

You can easily write an object or function wrapper around the Text API. This will allow a more convenient use in professional languages such as C#, Java, Visual Basic, LabVIEW, or C/C++. The Text API could also exist as a simple macro language itself.

2. Vehicle Spy Text API

2.1 Message Objects(Transmit: tx Receive: mg database: db)

Command Name	Syntax	Description
additem	tx.additem or tx.sg(index).additem	This Text API Command Add a Transmit message with or without signal in Message Editor Tab
remove	tx.remove	This Text API Command Removes the Transmit Messages manually means first Message that we observed in Message Editor Tab
arbid	tx(index).arbid 100	Sets the Arb ID of Transmit message of index()
autotxtype	tx(index).autotxtype?	Gives the information about the auto tx choice which is selected In

		TX Tab
	or	
	tx(index).autotxtype 0 or 1 or 2	Selects Tx Panel autotx type choice from dropdown list (0-Periodic,1 - at start ,2 - periodic on)
color	tx(index).Color 0	Sets display color of Transmit Message
		Black color = 0
DisplayColor	tx(index).DisplayColor 16711680	This command Sets display color of Transmit Message as Blue
Command Name	Syntax	Description
Description	tx(index).description Wheel information	Adds Description to message also we can add description to signal
clearstats	tx(index).clearstats	Clears the Status of Messages.
Networkkey	tx(index).networkkey15	Selects LIN Network to transmit message. (0:HS CAN, 1: MS CAN, 2:SW CAN)
hotkeytransmit	tx(index).hotkeytransmit 4	Adds Transmit message hotkey F6 in Message Editor Tab (4 and onward no are use to select transmit hotkey)
	or	
	tx(index).hotkeytransmit ?	Gives the information about the Transmit hotkey which is selected In Message Editor Tab

transmit	tx(index).transmit	Transmit the message whose index is defined in command
time	tx(0).time?	Calculates the last message time (absolute) in minute.
updateratems	tx(index).updateratems 1 or anything	Sets a Transmit Message Rate.
xtdFrame	tx(index).xtdframe 1	Sets CAN Type.(1->xtd 29 bit and 0 ->std 11 bit)
key	tx(index).key 0 or any number	Sets the key for Transmit Message in Message Editor Tab
databaseplatform	databaseplatform?	Shows the platform name which you have selected through networkdatabase tab
	OR	
	databaseplatform DBC Modification	Selects the existing the platform using this command like select DBC Modification platform
datadirectory	datadirectory C:\Vspy 3(70004)\mike test	Selects the Datadirectory as mike test from existing datadirectory
	datadirectory?	Shows the datadirectory name which we have selected through login tab
deletefile	deletefile C:\Vspy 3(70004)\Data Directory\shilpa\sk.vs3	Deletes the file which defined in command ie sk.vs3
Command Name	Syntax	Description
disablealltx	disablealltx 1 or 0	Enables/Disables the

		"disablealltx" option in Tx Panel
loadfile	loadfile signal group.vs3 (file name with extension)	Laods/open the vs3 file in Vspy.
appsave	appsave	Saves the Application signal values
apprestore	apprestore	Restores the Application signal after changes are made
timedate	timedate?	Using this command we can calculates the real time and date
start	start	Vspy goes online
stop	stop	Vspy goes offline

2.2 DataBase Message Root Objects: (db)

Command Name	Syntax	Description
copytotx	db(index).copytotx	Copies database message to message editor Transmit tab
copytorx	db(index).copytorx	Copies database message to message editor Receive tab
description	db(index).description?	Gives database message description
value	Db(index).sg(index).value?	Gives database message signal value
key	db(index).key?	Gives message key
Arbid(Bytestring0)	db(index).bytestring0?	Gives database message ArbID
Bytestring	db(index).bytstring1/2/3...8?	Gives database message bytes.

2.3 Message Signal Root Objects: (signal: sg)

Command Name	Syntax	Description
rawvalueint	tx(index).sg(index).rawvalueint 20	Sets the raw value of Transmit signal = 20 (tx panel = raw value)
rawvalue	tx(index).sg(index).rawvalue 10	Sets the value of Transmit signal = 10 (tx panel = value)
stepsize	tx(index).sg(index).stepsize 4	Sets the Transmit signal step size =4 (tx panel = size)
valuetype	tx(index).sg(index).valuetype 1 to 7	Selects the Type of signal.(1->analog ,2 ->digital ,3->State encoded,4->text ,5->DTC,6->GMLAN,7 ->ODI)
shortname	tx(index).sg(index).shortname multiplexer A	Sets Name as MultiplexerA in message editor ->transmit ->fx edit ->Advance ->short tab
unitstring	tx(0).sg(index).unitstringms	Sets the Transmit signal unit as ms same for application signal
value	tx(index).sg(index).value 10	Sets the message and signal value = 10

2.4 Application Signals Objects (as)

Command Name	Syntax	Description
additem	as.additem	Adds the application signals
arraysizedefault	as(index).arraysizedefault 10	Sets the Application signal as an array size of 10
calcmin	as(index).calcmin 20 (20 -> min value)	Sets the Application signal ->this value calculate on interval ->setup ->calculated signal min value
calcmax	as(index).calcmax 100 (100 -> max value)	Sets the Application signal ->this value calculate on interval ->setup ->Calculated signal max value
calcsignaltyp	as(index).calcsignaltyp 4 (4 ->square wave)	Sets the Application signal ->this value calculate on interval ->setup ->calculated signal type
calctype	as(index).calcsignaltyp 1 (0->uptimer. 1->downtimer)	Sets Application signal as an timer.
calcequation	as(index).calcequation?	Reads the Application signal ->this value calculate on interval ->setup ->Calculated signal ->equation ->
	or	
	as(0).calcequation {Signal 0 (Value) :out4-sig0-0}={App Signal 1 :sig0-index(0)}	Setsthe Application signal ->this value calculate on interval ->setup ->Calculated signal ->equation ->

calclist	as(index).calclist a=1 (custom list data ->a =1)	Sets the Application signal->this value calculate on interval ->setup ->Calculated signal ->custom list
	or	
	as(index).calclist ?	Reads the Application signal ->this value calculate on interval ->setup ->Calculated signal ->custom list
Command Name	Syntax	Description
calcduty	as(index).calcduty 50	Sets the Application signal->this value calculate on interval ->setup ->Calculated signal ->square ->duty cycle =50
	or	
	as(index).calcduty?	Reads the Application signal ->this value calculate on interval ->setup ->Calculated signal ->square wave duty cycle
calcsignalinterval	as(index).calcsignalinterval 3 (interval = 3 sec)	Sets the Application signal ->this value calculate on interval ->intrval = 3 sec
	or	
	as(index).calcsignalinterval?	Reads the interval calculated signal
calcfreq	as(index).calcfreq 0.1 (Frequency =0.1 HZ)	Sets the Application signal ->This value calculate on interval ->setup ->Calculated signal ->frequency = 0.1 hz
	or	
	as(index).calcfreq?	Reads the frequency calculated signal

calcphase	as(index).calcphase 10 (phase = 10 sec)	Sets the Application signal ->This value calculate on interval ->setup ->Calculated signal ->phase = 10 sec
	as(index).calcphase?	Reads the phase of calculated signal
description	as(index).description wheel info	Adds the Application signal description as wheel info
	or	
	as(index).description?	Reads the Application signal description
decode	as(index).decode	Decodes the Application signal
format	as(index).format xxhex	Adds the Application signal format as defined in command
Command Name	Syntax	Description
isarray	as(index).isarray?	Gives the result as 0 -> no array 1 ->array is selected
key	as(index).key?	Shows the Application signal key
	or	
	as(index).key 4	Sets Application signal key as (sig4)
lowerrange	as(index).lowerrange 10	Sets the min value of Application signal as 10
upperrange	as(index).upperrange 100	Sets Application signal max value as 100

neveroptimize	as(index).neveroptimize 1	Enables Application signal ->Never optimize the signal out even if unused
persistentsignalsave	as(index).persistentsignalsave 1	Enables The Persistent Signals option is used when working with CoreMini option of Application signal
initvalue	as(index).initvalue 20	Sets the Application signal value = 20
timerresolutiontype	as(0).timerresolutiontype 0/1	Selects timer type. (1->microseconds & 0->milliseconds)

2.5 Function Block Root Objects: (fb)

Command Name	Syntax	Description
additem	fb.additem	Adds the function blocks in Function block tab of VSpy
description	fb(index).description schedule table 1	Adds Description to function block as schedule table 1
testtype	fb(index).testtype 8/0/3	Selects Type of function block . 8 =script ,3 = playback ,0 =capture
Capture Function Block:		
autorestart	fb(index).autorestart 1	Enables the option "Automatically restart when complete" option of Start tab Capture function Block
afterstopdatatype	fb(index).afterstopdatatype 0/1	Selects the Post Trigger type 0 - Number of Messages , 1 - For length of time
afterstopmessages	fb(index). Afterstopmessages 1000	Sets Number of Messages = 1000 of Post Trigger option in Capture FB
afterstoptime	fb(index).afterstoptime 2	Sets for length of time = 2 ms =0.002 sec of Post Trigger option in Capture FB
collecttype	fb(index).collecttype 0/1/2/3	Selects the collect type - 0 = circular buffer ,1 - one shot ,2 =

		collect before and after trigger,3 = manual trigger
circularbufferlength	fb(index).circularbufferlength 5000	Sets the buffer size = 5000
lograte	fb(index).lograte 0/1/2.....	Sets log rate as 0=0.25, 1= 0.5 from drop down list for Capture Function Block when capture type =1
Command Name	Syntax	Description
key	fb(index).key tst 0/1/or any	Sets the key to function block
hotkeytrigger	fb(index).hotkeytrigger 4 /5 or onword numbers	Sets the hotkey F6 ,F7 OR any if you add 0 ->none hotkey is selected in Capture ->stop & Trigger option as a trigger hotkey
onlyextractiftriggersarepresent	fb(index).onlyextractiftriggersarepresent 1	Enables the option "only extract coremini partition if trigger is present ".
hotkeystop	fb(index).hotkeystop 4 /5 or onword numbers	Sets the hotkey F6 ,F7 OR any in Capture Function block ->Start option as a stop hotkey.if you add 0 ->none hotkey is selected in Capture ->Start option as a stop hotkey

hotkeystart	fb(index).hotkeystart 4/5 or onword numbers	Sets the hotkey F6 ,F7 OR any in Capture Function block ->Start option as a start hotkey.if you add 0 ->none hotkey is selected in Capture ->Start option as a start hotkey
filepath	fb(index).filepath capture log	Sets the storage file name as capture file name
appenddatetimetofilen ame	fb(index).appenddatetimetofilen ame 1	Enables/disables append date time to filename option of Capture Function block
filesaveaszip	fb(index).filesaveaszip 1	Enables the "zip" option in storage tab of Capture function block
filesaveasbinary	fb(0).filesaveasbinary 1	Enables "save as binary" option in storage tab of Capture function block
filesavesignals	fb(index).filesavesignals 1	Enables "save signal" option in storage tab of Capture function block
clearfilter	fb(index).clearfilter	clears the filter "included item"
Command Name	Syntax	Description
addtoincludefilter	fb(index).addtoincludefiltertx(0)	Adds the item in filter include item

disablemessagefilters	fb(index).disablemessagefilters 1	Enables "disable filter message option"
addtoexcludefilter	fb(index).addtoexcludefilterx(0)	Adds the item in filer excluded item
appendvaluetofilenam e	fb(index).appendvaluetofilenam e 1	Enables append APP signal to the filename option of storage in Capture FB
useentirepartitionincor emini	fb(index).useentirepartitionincor emini 1	Enables store entire cormini partition in one file
usepersistentstorageco remini	fb(index).usepersistentstorageco remini	Enables use persistence storage for cormini.
timingprecision	fb(index).timingprecision 0/1/2	Selects the Buffer -> timing precision option from drop down list
usercompilecoremini	fb(index).usercompilecoremini 1	Enables the hardware acceleration option of Capture Function Block
usesaveexpression	fb(index).usesaveexpression 1	Selects the Capture Function Block save option as save when expression is true
soundstartedpath	fb(index).soundstartedpath C:\Users\ICS\Desktop\AHHH3. WAV	Selects the sound event in capture FB (start) as AHHH3.WAV (sound file)

soundtriggeredpath	fb(index).soundstartedpath C:\Users\ICS\Desktop\adios.wa v	Selects the sound event in Capture FB -> (stop and trigger)as adios.wav (sound file)
Command Name	Syntax	Description
continuousgeneration	fb(index).continuousgeneration 1	Enables Continue option of Playback Function block
numberofgenerations	fb(index).numberofgenerations 1 or any number	Sets the number of generation of message of Playback Function block
replayfilepath	fb(index).replayfilepath C:\Vspy 3(70004)\Data Directory\shilpa\templog.csv	Selects the file which you want to play back again in Playback Function block
start	fb(index).start	Starts Function Block
stop	fb(index).stop	Stops Function Block
save	fb(index).save	Saves the FB
startmode	fb(index).startmode 0/1/2/3	Selects the Start Mode of Function Block

2.6 Graphical Panel Root Objects (gp)

Command Name	Syntax	Description
additem	gp.additem	Adds Graphical Panel in Vspy
updaterate	gp(index).updaterate 10	Sets Graphical panel ->properties -> Update rate = 10
caption	gp(index).caption Graphical panel 1	Sets The Caption of Graphical Panel.

2.6.1 Graphical Panel Tool Root Objects:

Command Name	Syntax	Description
knob(kn)	gp(dia0).kn.additem	Adds the knob tool in graphical panel
width	gp(dia0).kn(0).width 120	Sets Knob tool property width = 120
height	gp(dia0).kn(0).height 90	Sets Knob tool property height = 90
top	gp(dia0).kn(0).top 100	Sets Knob tool property top = 100
left	gp(dia0).kn(0).left 200	Sets Knob tool property left = 200
backcolor	gp(dia0).kn(0).backcolor 255	Sets Knob tool property backcolor as red
transparent	gp(dia0).kn(0).transparent 1	Sets Knob tool property transparent = 1

Command Name	Syntax	Description
borderstyle	gp(dia0).kn(0).borderstyle 0	Sets Knob tool property borderstyle = 0
fontname	gp(dia0).kn(0).fontnamearial	Sets Knob tool property fontname = arial
caption	gp(dia0).kn(0).caption KNOB 1	Sets Knob tool property caption = KNOB 1
showcaption	gp(dia0).kn(0).showcaption 1	Sets Knob tool property showcaption = 1
refresh	gp(dia0).kn(0).refresh	Refreshes the Graphical Panel

Graphical Panel Tool	keywords
ActionButtons	ab
DropDownLists	dd
FBlockButtons	fb
Graphs	graph
Grids	grid
Knobs	kn
LEDs	le
Meters	mr
NumEdits	ne

OnOffButtons	oo
TextEntrys	te
TextDisplays	td
TxButtons	txb
Bargraphs	bgr
BitmapButtons	bmb
PanelSwfs	swf
DiagJobButtons	dgb
GraphicalDisplays	gdp
Message History	uim

PanelButtons	pnb
HexEdits	hed
Radio Buttons	rdb

2.7 Signal Group Logging Root Objects:

Command Name	Syntax	Description
logcount	sg(index).logcount?	Calculates how many lines collected in logging
loggingenabled	sg(index).loggingenabled 1 / 0	Enables/Disables the "log this signal group" option of logging
logalldata	sg(index).logalldata 1/0	Enables log all the updates option of logging tab if 1 .Otherwise it select log at constant rate
ignoreformatting	sg(index).ignoreformatting 1 /0	Enables/Disables the ignore formating option of signal log
logratems	sg(index).logratems 10	Sets the log rate = 10 ms in signal logging tab.
logpath	sg(index).logpath log data file	Sets the log file name as log data file in ogging tab
logcreationtype	sg(index).logcreationtype 0/1/2/3	Selects logging collection type option.(0 ->create unique file when Vspy start ,1->create unique file) when logging start
startmode	sg(index).startmode 0/1	Selects the option of start logging. (0-start automatically ,1 -start on equation)
stopmode	sg(index).stopmode 0/1/2	Selects the option of stop logging.(0-stop automatically ,1 -stop on equation ,2 -stop after specific time period)

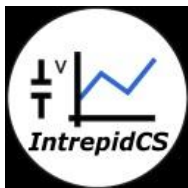
saveonchange	sg(index).saveonchange 1	Enables the option "save on change" of Logging tab
writemdf	sg(index).writemdf 1	Enables the option "mdf file" of Logging tab
writescv	sg(index).writescv 1	Enables the option "csv file" of Logging tab
zipfilewhenstopped	sg(index).zipfilewhenstopped 1	Enables the option "zip file when stopped" of Logging tab (stop logging)
Command Name	Syntax	Description
enablepretriggerdata	sg(index).enablepretriggerdat a 1 /0	Enables/Disables pre start collection option of Start logging Tab (1-> enable 0->disable)
prestartdatatimesec	sg(0).poststopdatatimesec 5	Sets the pre start collection = 5 sec (Capture Functin Block_ Start logging)
poststopdatatimesec	sg(0).poststopdatatimesec 10	Sets the post stop collection = 10 sec (Capture Functin Block_ Stop logging)
invalidsignalmode	sg(index).invalidsignalmode 0/1/2	Sets invalid signal handling option.(0 -use last value,1- log blank space ,2 ->Replace with invalid value)
invalidvalue	sg(index).invalidvalue 2	Sets invalid signal ->Replace value = 2
startlog	sg(index).startlog	When we are online with VSPY -> Using this command we will start the logging

stoplog	sg(index).stoplog	When we are online with VSPY -> Using this command we will stop the logging
islogging	sg(index).islogging?	1 ->Vspy logs the data ,0->not logging data
afterstoptimems	sg(index).afterstoptimems?	Calculates the time after stop in ms
appendtimedatetofile ame	sg(index).appendtimedatetofil ename 1/0	Gives the file name,date and time to log data file
appendtoexisting	sg(index).appendtoexisting 1 /0	Not understood what it did exactly

2.8 Diagnostics Root Objects (dg)

Command Name	Syntax	Description
additem	dg.additem	Adds a job in Diagnostics Tab
servicetypecode	dg(index).servicetypecode 1A	Sets the Service Type Code as 1A
description	dg(index).description read data by identifier	Adds a Description to Diagnostic Service
hotkeystart	dg(index).hotkeystart 4 and onword	Adds F6 hotkey To launch Diagnostic Service.
hotkeystop	dg(index).hotkeystart 8 and onword 4	Adds hotkey to Stop Diagnostic Service
hotkeysave	dg(index).hotkeysave	Saves the hotkey selected to Diagnostic Service
start	dg(index).start	Launches the Diagnostics Request
stop	dg(index).stop	Stops the launched Diagnostics Request
isrunning	dg(0).isrunning?	Gives Informaton about Request is Launched or Not?

3. Contact Us:



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