**Setpoint constraints for control**

**(range and rate limits, cutoff)**

Project TFS path: $/FW SVI FF Releases/Release1/FIRMWARE

Project Change Set: 34879

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| Containing file | | FIRMWARE\framework\services\project\_ffVictoria\okctlmodes.c | Review Date | Reviewer |
| Function or data | | digsp\_SetConf( ), DigitalSpConf\_Default | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | Line 168,174,178,183 return directly in middle of function. | | |
| Impact | |  | | |
| Resolution | | Use a return variable to keep the return value, return at the end of the function. | | |
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| Function or data | | digsp\_SetDigitalSetpointEx( ), digsp\_GetDigitalPosSetpoint ( ), digsp\_GetExternalMode( ), digsp\_GetData( ), digsp\_req, digitalsp | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | | There is no explain for variable digitalsp | | |
| Function or data | | disp\_ClampSetpoint( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO SIGNIFICANT FINDINGS | | |
| Impact | |  | | |
| Resolution | | In line 234, 239.There is SP\_RATE\_FUDGE which is defined to 0, I think this parameter is no needed here. | | |

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| Containing file | | FIRMWARE\framework\sysio\poscharact.c | Review Date | Reviewer |
| Function or data | | poscharact\_Direct( ), poscharact\_Characterize( ), charact\_FindIndex( ), poscharact\_Interpolate( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | Function poscharact\_Interpolate( ), Line 111,112, left->x[Xhi-dir], right->x[Xhi-dir], there is no index number check, maybe caused problem | | |
| Impact | |  | | |
| Resolution | | Check the index number is >=0. | | |

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| Containing file | | FIRMWARE\interface\hart\glue\hart\_digsp.c | Review Date | Reviewer |
| Function or data | | hartcmd\_WriteDigitalSetpoint( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO SIGNIFICANT FINDINGS | | |
| Impact | |  | | |
| Resolution | | There is no function “head” in all the function, no brief, no parameter in and out, no return. | | |

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| Containing file | | FIRMWARE\framework\tasks\control\control.c | Review Date | Reviewer |
| Function or data | | control\_GetControlMode( ), control\_GetPosition | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
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| Containing file | | FIRMWARE\services\devicemode.c | Review Date | Reviewer |
| Function or data | | mode\_SetControlMode( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
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| Containing file | | FIRMWARE\tasks\control\ctlimits.c | Review Date | Reviewer |
| Function or data | | control\_TestCtlLimits ( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | Line 269, 274, 281, 288, 299, 307,313 returns directly in middle of function. | | |
| Impact | |  | | |
| Resolution | | Use a return variable to keep the return value, return at the end of the function. | | |
|  | | | | |
| Function or data | | ctllim\_ConditionControlMode ( ), ctllim\_WriteBoostedSetpoint( ), m\_CtlLimits , ctllim\_GetRangeBoundedSetpoint( ), CtlLimState | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO SIGNIFICANT FINDINGS | | |
| Impact | |  | | |
| Resolution | | ctllim\_WriteBoostedSetpoint( ) have no head. | | |
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| Containing file | | FIRMWARE\interface\hart\glue\hart\_ctllimits.c | Review Date | Reviewer |
| Function or data | | hartcmd\_WritePositionControlLimits ( ),  hartcmd\_ReadPositionControlLimits( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
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| Containing file | | FIRMWARE\tasks\control\fullthrottle.c | Review Date | Reviewer |
| Function or data | | full\_FullThrottle ( ) | 03/14/2014 | VICTORIA |
|  | | | | |
| TFS wit |  | NO FINDINGS | | |
| Impact | |  | | |
| Resolution | |  | | |
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