

Intrepid Control Systems, Inc.

Use of Extensible Security Access DLL

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1. Introduction:

The Security tab determines how Vehicle Spy will attempt to unlock a secured ISO 14229 ECU. Generally, the seed-key method is used to unlock ECUs. An ECU can require different levels of security for diagnostic actions like reading crash data, writing an odometer, or controlling headlamps. The different levels of security are linked to pairs of Request Seed/Send Key messages. The Extensible Security DLL file contains the algorithm that calculates the key from the requested seed. Extra bytes may also be required to unlock the ECU. The Security information will typically be imported from a database, but can be entered manually.

This application note explains how to configure the Security access for the ECU manually.

2. Use of Extensible Security Access DLL

2.1 VehicleSpy3 Configuration:

1. Launch Vehicle Spy 3
2. Select Spy Networks → ECUs → ”Import” to add or import an ISO 14229 ECU
3. Select the Security tab.
4. Press the “+” button to Add/ Select Security Level (Figure 1.(1))
5. Give the Description/ Level information (Figure 1.(2))
6. Add “security_access_dll.dll” in ‘Extensible Security’ folder in VSpy installation(browse) (Figure 1.(5))
7. Select number of Seed/ Key bytes from the dropdown list. (Figure 1.(4))

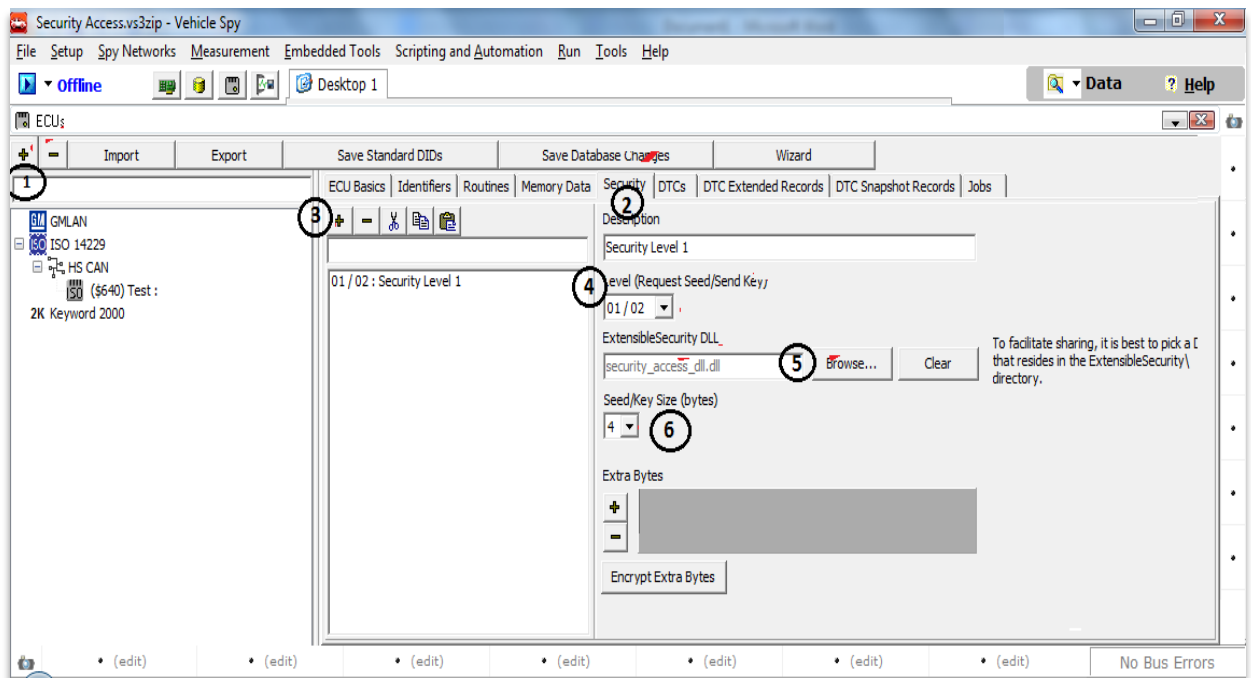


Figure 1: Setting in Vehicle Spy 3 for adding the security_access_dll.dll

8. Select Spy Networks → Diagnostics Setup.
9. Add/ Select Service \$27 (Security Access) (Figure 2.(8))
10. Select Access Type as \$01 (Request Seed) (Figure 2.(9))
11. Select size of SEED/ KEY Bytes (Figure 2.(10))
12. ENABLE Do Extensible Security Auto-unlock (Figure 2.(11))

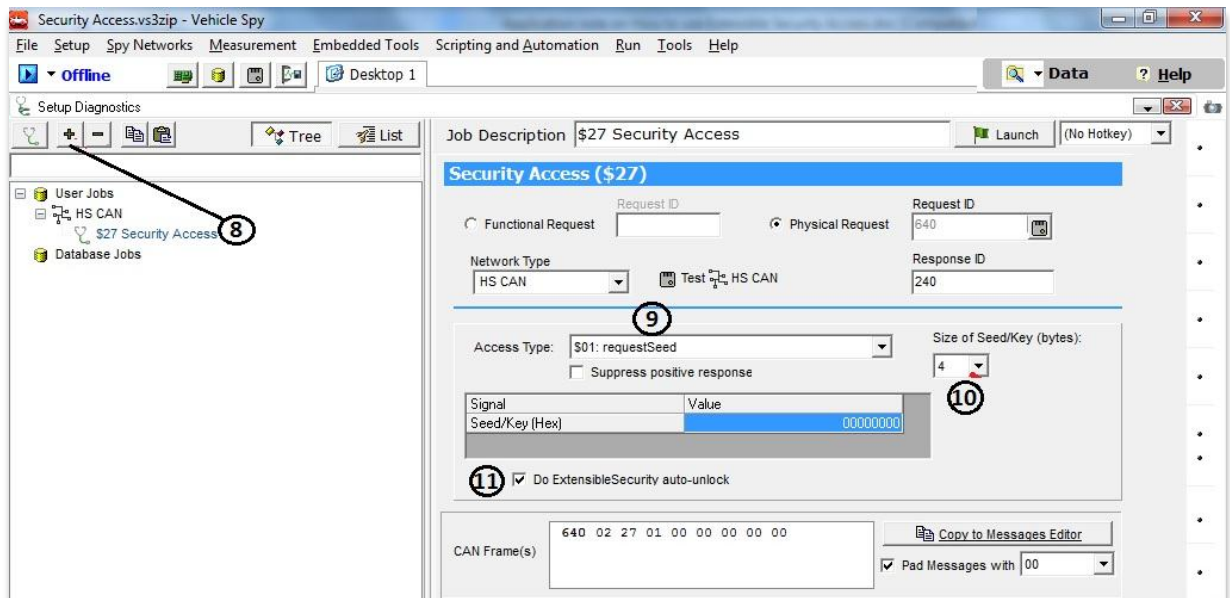


Figure 2: Steps to add service for Security access.

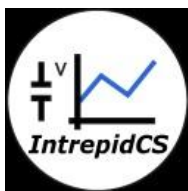
2.2 Create an Extensible Security DLL

An Extensible Security dll in VehicleSpy3, calls the security access dll available to unlock the particular ECU.

The Extensible Security dll accepts the seed and passes it to the security access dll. It returns the key calculated by the security access dll to VehicleSpy3 to unlock the ECU. The Extensible Security dll can be created in Visual studio.

Please refer to the code from the [Security Access Dll](#) project.

3. Contact Us:



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