

[1] To create a digital signature:

- You will need a data file you wish to sign, a private key and certificate which conform to S-100 Part 15. If you do not have a key/certificate this tool can help you get them, use [3] below.
- 2. Load your private key using the (a) button
- 3. Load your certificate using the **(b)** button (you can also load the base 64 encoded certificate from the S100se:certificate XML element using the "b64" button
- 4. Load the data file you wish to sign into the tool using the **(c)** button.
- 5. Select the type of signature you wish to create using (d). These are documented in S-100 Part 15.
- 6. Press "Create" (e) the digital signature XML will be created and put into the text box.

[2] To verify a digital signature sent to you...

- 1. Load the data file you wish to verify into the tool using the (c) button.
- 2. Load the certificate of the sender (or the creator of the signature) using the **(b)** button
- 3. Copy and paste the digital signature value into the "Signature (Base64)" text box
- 4. Press "Verify" (f)
- 5. A green tick next to the Verify button means the signature verifies the dataset content against the public key contained in the certificate. A red cross means the signature could not be verified against the data file and the certificate public key

[3] To create a key pair

- 1. Press (g) to create a new private key. Pressing the "New Key" button will allow you to create and save a new private/public key pair.
- 2. Load in the created private and public keys (.pri and .pub files), then fill in the necessary fields for the certificate you wish to create (see S-100 Part 15 for details on these fields).
- Create the certificate signing request (Create CSR) then save it (Save CSR)
- 4. Send the created CSR to the scheme administrator (IHO) and they will send you a certificate file you can use in Part [1] and [2] of these instructions.

