CLAIMS

What is claimed is:

1. A computer implemented method for processing software aircraft parts, the computer implemented method comprising:

receiving an incoming crate containing a software aircraft part from a source outside of a software aircraft part management apparatus;

validating a set of signatures for the incoming crate and the software aircraft part;

responsive to the set of signatures being valid, unpacking the incoming crate;

displaying contents of the incoming crate; unpacking the crate to obtain the software aircraft part;

responsive to a request to upload the software aircraft part to a library in the software aircraft part management apparatus, determining whether the software aircraft part meets a policy;

responsive to the software aircraft part meeting the policy, signing the software aircraft part to form a signed software aircraft part;

placing the signed software aircraft part in a crate, signing the crate containing the signed software aircraft part to form a signed crate wherein signatures for the signed software aircraft part and the signed crate are different from the set of signatures in the incoming crate; and

sending the signed crate to the library in the software aircraft part management apparatus.

2. The computer implemented method of claim 1 further comprising:

identifying metadata for the software aircraft part and other configuration items.

3. The computer implemented method of claim 1, wherein the software aircraft part is a first signed software aircraft part and the signed software aircraft part is signed using a different signature from the first signed software aircraft part.

4. The computer implemented method of claim 1, wherein the signatures for the signed software aircraft part or the crate are from a manufacturer, an airline, or a supplier.

5. The computer implemented method of claim 1, wherein the storing step comprises:

storing the software aircraft part in a directory in a file system.

6. The computer implemented method of claim 1 further comprising:

displaying a user interface capable of receiving user input to perform operations on a plurality of stored software aircraft parts.

7. A computer implemented method for processing configuration items, the computer implemented method comprising:

determining whether a configuration item is valid by comparing the configuration item to a policy;

responsive to a user input to upload a valid configuration item, signing the valid configuration item;

placing the valid configuration item in a crate; signing the crate;

receiving the crate containing the valid configuration item to form a received crate;

determining whether a set of signatures for the crate and the configuration item are valid; and

responsive to a determination that the set of signatures are valid, saving the configuration item.

8. The computer implemented method of claim 7, wherein the configuration item is a software aircraft part and the policy is a software aircraft part standard.

9. The computer implemented method of claim 7 further comprising:

sending the crate to a library in a software aircraft part management apparatus.

10. The computer implemented method of claim 7 further comprising:

organizing a plurality of configuration items including the configuration item in a file system in response to a user input.

11. The computer implemented method of claim 7 further comprising:

displaying a user interface capable of receiving user input to manipulate a set of configuration items.

12. The computer implemented method of claim 7 further comprising:

displaying a user interface capable of supporting and indicating the dynamic release/distribution status of a set of configuration items.

13. The computer implemented method of claim 7, wherein the set of signatures comprises a first signature for the configuration item and a second signature for the crate.

14. The computer implemented method of claim 7, wherein the crate contains a primary configuration item and a set of additional configuration items.

15. A data processing system comprising:

a bus;

a storage device connected to the bus, wherein the storage device includes program code; and

a processor unit connected to the bus, wherein the processor unit executes the program code to receive an incoming crate containing a software aircraft part from a source outside of a software aircraft part management apparatus; validate a set of signatures for the incoming crate and the software aircraft part; unpack the incoming crate in response to the set of signatures being valid; display contents of the incoming crate; store the software aircraft part; determine whether the software aircraft part meets a policy in response to a request to upload the software aircraft part to a library in the

software aircraft part management apparatus; sign the software aircraft part to form a signed software aircraft part in response to the software aircraft part meeting the policy; place the signed software aircraft part in a crate; signing the crate containing the signed software aircraft part to form a signed crate wherein signatures for the signed software aircraft part and the signed crate are different from the set of signatures in the incoming crate; and send the signed crate to the library in the software aircraft part management apparatus.

16. The data processing system of claim 15, wherein the processor unit further executes the program code to identify metadata for the software aircraft part.

17. The data processing system of claim 15, wherein the policy is an industry standard for software aircraft parts.

18. The data processing system of claim 15, wherein the signatures for the signed software aircraft part and the signed crate are from an airline, a supplier, or a manufacturer.

19. The data processing system of claim 15, wherein in executing the program code to store the software aircraft part, the processor unit executes the program code to store the software aircraft part in a directory in a file system.