CLAIMS

WHAT IS CLAIMED IS:

1. A method for adjusting position of a downhole flow control device, the method comprising:

deploying a service tool downhole, wherein the service tool includes:

a tool body with a first latching profile; and

a shifting key with a second latching profile and with a travel profile;

locking the service tool to a latch interface associated with the flow control device, wherein said locking comprises extending the second latching profile beyond the tool body;

moving at least part of the service tool to adjust position of the flow control device while the service tool is locked to the latch interface; and moving the service tool to a target position along a casing string to align the shifting key with the latch interface, wherein said moving the service tool along the casing string to the target position is performed at least in part while the travel profile extends beyond the tool body and blocks at least part of the first latching profile.

2. The method of claim 1, wherein said locking further comprises retracting the travel profile into the tool body.

3. The method of claim 1, further comprising moving the service tool to a target position along a casing string to align the shifting key with the latch interface, wherein said moving the service tool along the casing string to the target position is performed at least in part while the second latching profile is retracted within the tool body.

4. The method of claim 1, further comprising unlocking the service tool from the latch interface, wherein said unlocking comprises retracting the second latching profile within the tool body and optionally extending the travel profile beyond the tool body to block at least part of the first latching profile.

5. The method according to any one of claims 1 to 4, wherein the shifting key is a one-piece component with opposing sides corresponding to the second latching profile and the travel profile.

6. The method according to any one of claims 1 to 4, wherein said locking comprises applying hydraulic power to extend the second latching profile and to retract the travel profile.

7. The method according to any one of claims 1 to 4, wherein said locking comprises applying electrical power to extend the second latching profile and to retract the travel profile.

8. The method according to any one of claims 1 to 4, wherein said locking involves converting axial movement of a linear actuator to radial movement of the shifting key.

9. A system, comprising:

a downhole flow control device;

a latch interface associated with the flow control device; and

a service tool, wherein the service tool includes:

a tool body with a first latching profile;

a shifting key with a second latching profile and with a travel profile; and

an actuator to extend and retract the second latching profile and the travel profile relative to the tool body,

wherein the actuator operates to extend the second latching profile beyond the tool body to lock the service tool to the latch interface, and wherein position of the flow control device is adjusted by moving at least part of the service tool while the service tool is locked to the latch interface; and wherein the actuator operates to retract the travel profile into the tool body to unblock the first latching profile and to lock the service tool to the latch interface using the first latching profile.

10. The system of claim 9, wherein the shifting key is set with the travel profile extended beyond the tool body to block at least part of the first latching profile while the service tool moves along a casing string to a target position that aligns the shifting key with the latch interface.

11. The system of claim 9, wherein the shifting key is set with the second latching profile retracted within the tool body while the service tool moves along a casing string to a target position that aligns the shifting key with the latch interface.

12. The system of claim 9 to 11, wherein the actuator operates to retract the second latching profile into the tool body to unlock the service tool from the latch interface and optionally to extend the travel profile beyond the tool body to unlock the service tool from the latch interface and to block at least part of the first latching profile.

13. The system according to any one of claims 9 to 12, wherein the shifting key comprises a one-piece component with opposing sides corresponding to the second latching profile and the travel profile.

14. The system according to any one of claims 9 to 12, wherein the actuator comprises an electro-mechanical actuator.

15. The system according to any one of claims 9 to 12, wherein the actuator comprises an electro-hydraulic actuator.

16. The system according to any one of claims 9 to 12, further comprising an interface between the actuator and the shifting key to convert linear movement of the actuator into radial movement of the shifting key.