

Shortcut And Playback Wing API Specification 1.2

Purpose

This document specifies the interface requirements for application programs to use the ethernet based Shortcut or Playback wings as input devices for lighting control.

Application Messages

The application program must listen on port 3330 for UDP messages from the wing. The wing will send a message whenever a key is pressed or released, a fader is moved or an encoder is rotated.

The application program can also send UDP messages to the playback wing on port 3330, to control the seven segment display.

1. Playback Wing Output

The format of the message the Playback wing sends is shown below.

The key number assigned to each of the 40 main keys is 0 to 39 reading left to right from top to bottom of the keyboard.

The fader number assigned to each of the 10 faders is 0 to 9 reading from left to right of the keyboard.

Size In Bytes	Description
4	Message type, 'WODD' for wing output data.
1	Wing firmware version number, 0 to 255.
1	Wing flags. Bit 7: 0=PageUp key pressed, 1=PageUp key released. Bit 6: 0=PageDown key pressed, 1=PageDown key released. Bit 5: 0=Back key pressed, 1=Back key released. Bit 4: 0=Go key pressed, 1=Go key released. Bits 1,0: 1=Playback wing.
1	Unused.

Size In Bytes	Description
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 32. Bit 6: Key 33. Bit 5: Key 34. Bit 4: Key 35. Bit 3: Key 36. Bit 2: Key 37. Bit 1: Key 38. Bit 0: Key 39.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 29. Bit 6: Key 22. Bit 5: Key 23. Bit 4: Key 24. Bit 3: Key 25. Bit 2: Key 26. Bit 1: Key 30. Bit 0: Key 31.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 16. Bit 6: Key 17. Bit 5: Key 18. Bit 4: Key 19. Bit 3: Key 20. Bit 2: Key 21. Bit 1: Key 27. Bit 0: Key 28.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 8. Bit 6: Key 9. Bit 5: Key 10. Bit 4: Key 11. Bit 3: Key 12. Bit 2: Key 13. Bit 1: Key 14. Bit 0: Key 15.

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Size In Bytes	Description
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 0. Bit 6: Key 1. Bit 5: Key 2. Bit 4: Key 3. Bit 3: Key 4. Bit 2: Key 5. Bit 1: Key 6. Bit 0: Key 7.
3	Unused.
10	Fader state for faders 0 to 9. Valid range is 0 to 255.
3	Unused.

2. Playback Wing Input

The format of the message the Playback wing receives is shown below.

Size In Bytes	Description
4	Message type, 'WIDD' for wing input data.
1	Version number, set to 1.
31	Unused.
1	Seven segment decimal LED display data, in BCD. Valid range is BCD values from 00H to 99H.
4	Unused.

3. *Shortcut Wing*

The format of the message the Shortcut wing sends is shown below.

The key number assigned to each of the 60 main keys is 0 to 59 reading left to right from top to bottom of the keyboard.

Size In Bytes	Description
4	Message type, 'WODD' for wing output data.
1	Wing firmware version number, 0 to 255.
1	Wing flags. Bit 3: 0=PageUp key pressed, 1=PageUp key released. Bit 2: 0=PageDown key pressed, 1=PageDown key released. Bits 1,0: 2=Shortcut wing.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 56. Bit 6: Key 57. Bit 5: Key 58. Bit 4: Key 59.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 48. Bit 6: Key 49. Bit 5: Key 50. Bit 4: Key 51. Bit 3: Key 52. Bit 2: Key 53. Bit 1: Key 54. Bit 0: Key 55.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 40. Bit 6: Key 41. Bit 5: Key 42. Bit 4: Key 43. Bit 3: Key 44. Bit 2: Key 45. Bit 1: Key 46. Bit 0: Key 47.

Size In Bytes	Description
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 32. Bit 6: Key 33. Bit 5: Key 34. Bit 4: Key 35. Bit 3: Key 36. Bit 2: Key 37. Bit 1: Key 38. Bit 0: Key 39.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 24. Bit 6: Key 25. Bit 5: Key 26. Bit 4: Key 27. Bit 3: Key 28. Bit 2: Key 29. Bit 1: Key 30. Bit 0: Key 31.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 16. Bit 6: Key 17. Bit 5: Key 18. Bit 4: Key 19. Bit 3: Key 20. Bit 2: Key 21. Bit 1: Key 22. Bit 0: Key 23.
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 8. Bit 6: Key 9. Bit 5: Key 10. Bit 4: Key 11. Bit 3: Key 12. Bit 2: Key 13. Bit 1: Key 14. Bit 0: Key 15.

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Size In Bytes	Description
1	Key states where 0=key pressed, 1=key released. Bit 7: Key 0. Bit 6: Key 1. Bit 5: Key 2. Bit 4: Key 3. Bit 3: Key 4. Bit 2: Key 5. Bit 1: Key 6. Bit 0: Key 7.
16	Unused.