

**NAME**

UI\_STRING, UI\_string\_types, UI\_get\_string\_type, UI\_get\_input\_flags, UI\_get0\_output\_string, UI\_get0\_action\_string, UI\_get0\_result\_string, UI\_get\_result\_string\_length, UI\_get0\_test\_string, UI\_get\_result\_minsize, UI\_get\_result\_maxsize, UI\_set\_result, UI\_set\_result\_ex - User interface string parsing

**SYNOPSIS**

```
#include <openssl/ui.h>
```

```
typedef struct ui_string_st UI_STRING;
```

```
enum UI_string_types {
    UIT_NONE = 0,
    UIT_PROMPT,           /* Prompt for a string */
    UIT_VERIFY,          /* Prompt for a string and verify */
    UIT_BOOLEAN,         /* Prompt for a yes/no response */
    UIT_INFO,            /* Send info to the user */
    UIT_ERROR            /* Send an error message to the user */
};
```

```
enum UI_string_types UI_get_string_type(UI_STRING *uis);
int UI_get_input_flags(UI_STRING *uis);
const char *UI_get0_output_string(UI_STRING *uis);
const char *UI_get0_action_string(UI_STRING *uis);
const char *UI_get0_result_string(UI_STRING *uis);
int UI_get_result_string_length(UI_STRING *uis);
const char *UI_get0_test_string(UI_STRING *uis);
int UI_get_result_minsize(UI_STRING *uis);
int UI_get_result_maxsize(UI_STRING *uis);
int UI_set_result(UI *ui, UI_STRING *uis, const char *result);
int UI_set_result_ex(UI *ui, UI_STRING *uis, const char *result, int len);
```

**DESCRIPTION**

The **UI\_STRING** gets created internally and added to a **UI** whenever one of the functions **UI\_add\_input\_string()**, **UI\_dup\_input\_string()**, **UI\_add\_verify\_string()**, **UI\_dup\_verify\_string()**, **UI\_add\_input\_boolean()**, **UI\_dup\_input\_boolean()**, **UI\_add\_info\_string()**, **UI\_dup\_info\_string()**, **UI\_add\_error\_string()** or **UI\_dup\_error\_string()** is called. For a **UI\_METHOD** user, there's no need to know more. For a **UI\_METHOD** creator, it is of interest to fetch text from these **UI\_STRING** objects as well as adding results to some of them.

**UI\_get\_string\_type()** is used to retrieve the type of the given **UI\_STRING**.

**UI\_get\_input\_flags()** is used to retrieve the flags associated with the given **UI\_STRING**.

**UI\_get0\_output\_string()** is used to retrieve the actual string to output (prompt, info, error, ...).

**UI\_get0\_action\_string()** is used to retrieve the action description associated with a **UIT\_BOOLEAN** type **UI\_STRING**. For all other **UI\_STRING** types, NULL is returned. See **UI\_add\_input\_boolean(3)**.

**UI\_get0\_result\_string()** and **UI\_get\_result\_string\_length()** are used to retrieve the result of a prompt and its length. This is only useful for **UIT\_PROMPT** and **UIT\_VERIFY** type strings. For all other **UI\_STRING** types, **UI\_get0\_result\_string()** returns NULL and **UI\_get\_result\_string\_length()** returns -1.

**UI\_get0\_test\_string()** is used to retrieve the string to compare the prompt result with. This is only useful for **UIT\_VERIFY** type strings. For all other **UI\_STRING** types, NULL is returned.

**UI\_get\_result\_minsize()** and **UI\_get\_result\_maxsize()** are used to retrieve the minimum and maximum required size of the result. This is only useful for **UIT\_PROMPT** and **UIT\_VERIFY** type strings. For all other **UI\_STRING** types, -1 is returned.

**UI\_set\_result\_ex()** is used to set the result value of a prompt and its length. For **UIT\_PROMPT** and **UIT\_VERIFY** type UI strings, this sets the result retrievable with **UI\_get0\_result\_string()** by copying the contents of **result** if its length fits the minimum and maximum size requirements. For **UIT\_BOOLEAN** type UI strings, this sets the first character of the result retrievable with **UI\_get0\_result\_string()** to the first **ok\_char** given with **UI\_add\_input\_boolean()** or **UI\_dup\_input\_boolean()** if the **result** matched any of them, or the first of the **cancel\_chars** if the **result** matched any of them, otherwise it's set to the NUL char "\0". See **UI\_add\_input\_boolean(3)** for more information on **ok\_chars** and **cancel\_chars**.

**UI\_set\_result()** does the same thing as **UI\_set\_result\_ex()**, but calculates its length internally. It expects the string to be terminated with a NUL byte, and is therefore only useful with normal C strings.

## RETURN VALUES

**UI\_get\_string\_type()** returns the UI string type.

**UI\_get\_input\_flags()** returns the UI string flags.

**UI\_get0\_output\_string()** returns the UI string output string.

**UI\_get0\_action\_string()** returns the UI string action description string for **UIT\_BOOLEAN** type UI strings, **NULL** for any other type.

**UI\_get0\_result\_string()** returns the UI string result buffer for **UIT\_PROMPT** and **UIT\_VERIFY** type UI strings, **NULL** for any other type.

**UI\_get\_result\_string\_length()** returns the UI string result buffer's content length for **UIT\_PROMPT** and **UIT\_VERIFY** type UI strings, -1 for any other type.

**UI\_get0\_test\_string()** returns the UI string action description string for **UIT\_VERIFY** type UI strings, **NULL** for any other type.

**UI\_get\_result\_minsize()** returns the minimum allowed result size for the UI string for **UIT\_PROMPT** and **UIT\_VERIFY** type strings, -1 for any other type.

**UI\_get\_result\_maxsize()** returns the minimum allowed result size for the UI string for **UIT\_PROMPT** and **UIT\_VERIFY** type strings, -1 for any other type.

**UI\_set\_result()** returns 0 on success or when the UI string is of any type other than **UIT\_PROMPT**, **UIT\_VERIFY** or **UIT\_BOOLEAN**, -1 on error.

## SEE ALSO

**UI(3)**

## COPYRIGHT

Copyright 2001-2018 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file **LICENSE** in the source distribution or at <https://www.openssl.org/source/license.html>.