

**NAME**

RSA\_new, RSA\_free - allocate and free RSA objects

**SYNOPSIS**

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

The following functions have been deprecated since OpenSSL 3.0, and can be hidden entirely by defining **OPENSSL\_API\_COMPAT** with a suitable version value, see **openssl\_user\_macros(7)**:

```
RSA *RSA_new(void);
```

```
void RSA_free(RSA *rsa);
```

**DESCRIPTION**

**RSA\_new()** allocates and initializes an **RSA** structure. It is equivalent to calling **RSA\_new\_method(NULL)**.

**RSA\_free()** frees the **RSA** structure and its components. The key is erased before the memory is returned to the system. If **rsa** is **NULL** nothing is done.

**RETURN VALUES**

If the allocation fails, **RSA\_new()** returns **NULL** and sets an error code that can be obtained by **ERR\_get\_error(3)**. Otherwise it returns a pointer to the newly allocated structure.

**RSA\_free()** returns no value.

**SEE ALSO**

**ERR\_get\_error(3)**, **RSA\_generate\_key(3)**, **RSA\_new\_method(3)**

**HISTORY**

All functions described here were deprecated in OpenSSL 3.0. For replacement see **EVP\_PKEY-RSA(7)**.

**COPYRIGHT**

Copyright 2000-2021 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>>.