

**NAME**

DSA\_SIG\_get0, DSA\_SIG\_set0, DSA\_SIG\_new, DSA\_SIG\_free - allocate and free DSA signature objects

**SYNOPSIS**

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

```
DSA_SIG *DSA_SIG_new(void);  
void DSA_SIG_free(DSA_SIG *a);  
void DSA_SIG_get0(const DSA_SIG *sig, const BIGNUM **pr, const BIGNUM **ps);  
int DSA_SIG_set0(DSA_SIG *sig, BIGNUM *r, BIGNUM *s);
```

**DESCRIPTION**

**DSA\_SIG\_new()** allocates an empty **DSA\_SIG** structure.

**DSA\_SIG\_free()** frees the **DSA\_SIG** structure and its components. The values are erased before the memory is returned to the system.

**DSA\_SIG\_get0()** returns internal pointers to the **r** and **s** values contained in **sig**.

The **r** and **s** values can be set by calling **DSA\_SIG\_set0()** and passing the new values for **r** and **s** as parameters to the function. Calling this function transfers the memory management of the values to the **DSA\_SIG** object, and therefore the values that have been passed in should not be freed directly after this function has been called.

**RETURN VALUES**

If the allocation fails, **DSA\_SIG\_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.

**DSA\_SIG\_free()** returns no value.

**DSA\_SIG\_set0()** returns 1 on success or 0 on failure.

**SEE ALSO**

**EVP\_PKEY\_new(3)**, **EVP\_PKEY\_free(3)**, **EVP\_PKEY\_get\_bn\_param(3)**, **ERR\_get\_error(3)**

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