# OSLAR_EL1, OS Lock Access Register

The OSLAR_EL1 characteristics are:

## Purpose

Used to lock or unlock the OS Lock.

## Configuration

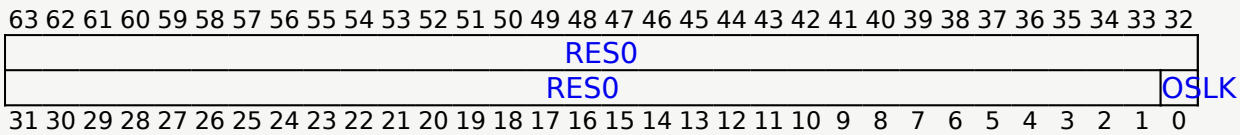
AArch64 System register OSLAR_EL1 bits [31:0] are architecturally mapped to External register OSLAR_EL1[31:0].

The OS Lock can also be locked or unlocked using DBGOSLAR.

## Attributes

OSLAR_EL1 is a 64-bit register.

## Field descriptions




### Bits [63:1]

Reserved, res0.

### OSLK, bit [0]

On writes to OSLAR_EL1, bit[0] is copied to the OS Lock.

Use OSLSR_EL1.OSLK to check the current status of the lock.

## Accessing OSLAR_EL1

Accesses to this register use the following encodings in the System register encoding space:

# MSR OSLAR_EL1, <Xt>

| op0 | op1 | CRn | CRm | op2 |
|---|---|---|---|---|
| 0b10 | 0b000 | 0b0001 | 0b0000 | 0b100 |

```
if PSTATE.EL == EL0 then
    UNDEFINED;
elsif PSTATE.EL == EL1 then
    if Halted() && HaveEL(EL3) && EDSCR.SDD == '1'
&& boolean IMPLEMENTATION_DEFINED "EL3 trap priority
when SDD == '1'" && MDCR_EL3.TDOSA == '1' then
        UNDEFINED;
    elsif EL2Enabled() &&
IsFeatureImplemented(FEAT_FGT) && (!HaveEL(EL3) ||
SCR_EL3.FGTEn == '1') && HDFGWTR_EL2.OSLAR_EL1 ==
'1' then
        AArch64.SystemAccessTrap(EL2, 0x18);
    elsif EL2Enabled() && MDCR_EL2.<TDE,TDOSA> !=
'00' then
        AArch64.SystemAccessTrap(EL2, 0x18);
    elsif HaveEL(EL3) && MDCR_EL3.TDOSA == '1' then
        if Halted() && EDSCR.SDD == '1' then
            UNDEFINED;
        else
            AArch64.SystemAccessTrap(EL3, 0x18);
    else
        OSLAR_EL1 = X[t, 64];
elsif PSTATE.EL == EL2 then
    if Halted() && HaveEL(EL3) && EDSCR.SDD == '1'
&& boolean IMPLEMENTATION_DEFINED "EL3 trap priority
when SDD == '1'" && MDCR_EL3.TDOSA == '1' then
        UNDEFINED;
    elsif HaveEL(EL3) && MDCR_EL3.TDOSA == '1' then
        if Halted() && EDSCR.SDD == '1' then
            UNDEFINED;
        else
            AArch64.SystemAccessTrap(EL3, 0x18);
    else
        OSLAR_EL1 = X[t, 64];
elsif PSTATE.EL == EL3 then
    OSLAR_EL1 = X[t, 64];
```



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