

# Vulnerability Report Document

## Document Information

Date: 2025-04-14T08:39:10Z

### Tools:

- Dependency-Track (4.12.0)

**Component name :** Custom Project (1.0)

**BOM Format:** CycloneDX

**Specification Version:** 1.5

**Version:** 1

**Serial Number:** urn:uuid:b2896d3a-f7a1-47dc-a611-0f4f67643536

## Vulnerabilities

### 1. ID: **CVE-2014-2893**

**Description:** The GetHTMLRunDir function in the scan-build utility in Clang 3.5 and earlier allows local users to obtain sensitive information or overwrite arbitrary files via a symlink attack on temporary directories with predictable names.

- **Severity:** low (CVSSv2 — Source: NVD)

### 2. ID: **CVE-2019-14871**

**Description:** The REENT\_CHECK macro (see newlib/libc/include/sys/reent.h) as used by REENT\_CHECK\_TM, REENT\_CHECK\_MISC, REENT\_CHECK\_MP and other newlib macros in versions prior to 3.3.0, does not check for memory allocation problems when the DEBUG flag is unset (as is the case in production firmware builds).

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

### 3. ID: **CVE-2019-14872**

**Description:** The \_dtoa\_r function of the newlib libc library, prior to version 3.3.0, performs multiple memory allocations without checking their return value. This could result in NULL pointer dereference.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

### 4. ID: **CVE-2019-14873**

**Description:** In the \_\_multadd function of the newlib libc library, prior to versions 3.3.0 (see newlib/libc/stdlib/mprec.c), Balloc is used to allocate a big integer, however no check is performed to verify if the allocation succeeded or not. This will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

### 5. ID: **CVE-2019-14874**

**Description:** In the \_\_i2b function of the newlib libc library, all versions prior to 3.3.0 (see newlib/libc/stdlib/mprec.c), Balloc is used to allocate a big integer, however no check is performed to verify if the allocation succeeded or not. The access of \_x[0] will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

### 6. ID: **CVE-2019-14875**

**Description:** In the `__multiply` function of the newlib libc library, all versions prior to 3.3.0 (see `newlib/libc/stdlib/mprec.c`), Balloc is used to allocate a big integer, however no check is performed to verify if the allocation succeeded or not. The access of `_x[0]` will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

## 7. ID: **CVE-2019-14876**

**Description:** In the `__lshift` function of the newlib libc library, all versions prior to 3.3.0 (see `newlib/libc/stdlib/mprec.c`), Balloc is used to allocate a big integer, however no check is performed to verify if the allocation succeeded or not. The access to `b1` will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

## 8. ID: **CVE-2019-14877**

**Description:** In the `__mdiff` function of the newlib libc library, all versions prior to 3.3.0 (see `newlib/libc/stdlib/mprec.c`), Balloc is used to allocate big integers, however no check is performed to verify if the allocation succeeded or not. The access to `_wds` and `_sign` will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

## 9. ID: **CVE-2019-14878**

**Description:** In the `__d2b` function of the newlib libc library, all versions prior to 3.3.0 (see `newlib/libc/stdlib/mprec.c`), Balloc is used to allocate a big integer, however no check is performed to verify if the allocation succeeded or not. Accessing `_x` will trigger a null pointer dereference bug in case of a memory allocation failure.

- **Severity:** medium (CVSSv2 — Source: NVD)
- **Severity:** medium (CVSSv3 — Source: NVD)

## 10. ID: **CVE-2021-3420**

**Description:** A flaw was found in newlib in versions prior to 4.0.0. Improper overflow validation in the memory allocation functions `mEMALIGN`, `pvALLOC`, `nano_memalign`, `nano_valloc`, `nano_pvalloc` could cause an integer overflow, leading to an allocation of a small buffer and then to a heap-based buffer overflow.

- **Severity:** high (CVSSv2 — Source: NVD)
- **Severity:** critical (CVSSv3 — Source: NVD)