TECHNICAL SPECIFICATION ISO/IEC TS 17961:2013
TECHNICAL CORRIGENDUM 1

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Information technology — Programming languages, their environments and system software interfaces — C secure coding rules

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Langages de programmation, leur environnement et interfaces des logiciels de systèmes — Règles de programmation sécurisée en C

RECTIFICATIF TECHNIQUE 1

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In rule 5.21, Rule section, replace

> A call to a standard memory allocation function taking a size integer argument `n` and presumed to be intended for type `T *` shall be diagnosed when `n < sizeof(T)`.

with

> A call to a standard memory allocation function taking a size integer argument `n` and presumed to be intended for type `T *` shall be regarded as an array of `N` elements, where `N = n / sizeof(T)`.
>
> Any allocation where `N == 0` shall be diagnosed (i.e. where `n < sizeof(T)`). Also, any attempt to use this array in a manner that causes its array bound to be violated shall be diagnosed.

In rule 5.21, replace

> EXAMPLE In this noncompliant example, a diagnostic is required because the value of `n` that is used in the `malloc()` call has been possibly miscalculated.

```
wchar_t *f1(void) {

  const wchar_t *p = L"Hello, World!";
  const size_t n = sizeof(p) * (wcslen(p) + 1);
  wchar_t *q = (wchar_t *)malloc(n);  // diagnostic required

  /* ... */
  return q;

}
```

with

> EXAMPLE 1
>
> ```
> struct S1 {
>
>     unsigned int x;
>     float       y;
>     struct S1   *z;
> };
>
> struct S1 *f1(void) {
>
>     struct S1 *p = (struct S1*)malloc(sizeof(p));  // diagnostic required
>     return p;
>
> }
> ```