



art news

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art stakeholders meeting
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art 2.06 / ROOT 6.08

- 6.08/02 is due for release by the end of the week. It has fixes for several issues that various other people have seen, but ...
 - There is still at least one outstanding manifestation of a problem with LLVM/Cling dictionary/auto-parsing with respect to interactive operation (catching exceptions). It is being actively worked on. We are providing information and feedback as appropriate, and otherwise standing by for a fix.
 - There are still symbol visibility consistency issues as seen by warnings in ROOT builds on OS X but actually having relevance to Linux also. Whether there are any noticeable consequences of this is still unclear, but it is being investigated by the ROOT team.

More ROOT-related news: dangling PTR macro definition

- When opening an interactive ROOT session, any use of the name PTR will be replaced by a macro definition introduced by ROOT.

```
root [0] using PTR = int*;
ROOT_prompt_0:1:7: error: expected unqualified-id
using PTR = int*;
    ^
[trimmed...]/include/mmalloc.h:29:29: note: expanded from macro 'PTR'
#define PTR                void *
    ^
```

- This surfaced when g-2 was trying to use `gallery` with an un-compiled macro.
- ROOT has fixed this bug (and others related to it), but the fix will not be released until v6.10.
- Until then, the best solution, should you run into this problem, is to pre-compile your macros:

```
root [0] .L myMacro.C+
root [1] myMacro()
```

Proposal to merge canvas libraries

- There are four extant canvas libraries:
 - `libcanvas_Persistence_Common.so`
 - `libcanvas_Persistence_Provenance.so`
 - `libcanvas_Uilities.so`
 - `libcanvas_Version.so`
- Issue [#12995](#) proposes merging them into one library:
 - `libcanvas.so`
- We are supportive of this change, and assuming no objections we would like to implement it.

Proposal to replace `art::errors::InsertFailure` code

- An `art::Exception` is initialized with an `InsertFailure` code in two contexts:
 - Lookup errors related to product registration.
 - Failures to insert a product onto the `Run`, `SubRun`, or `Event`.
- Reusing the same code for different contexts has led to confusion, and we propose migrating from `InsertFailure` to two separate error codes:
 - `art::errors::ProductRegistrationFailure`
 - `art::errors::ProductPutFailure`
- We are willing to retain the `InsertFailure` code for product-putting failures if the stakeholders deem that migrating to `ProductPutFailure` would cause unnecessarily burdensome backwards incompatibilities.