Convince You to Write Packages

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WHAT is a package?

ANSWER: Best way to add new features to *Macaulay2*.

The functions `installPackage` and `needsPackage` are the basic ways to use a *Macaulay2* package.

ANSWER: An `*.m2` file with 5 key parts.

1. Preamble
2. Export list(s)
3. Code
4. Documentation
5. Tests

See `FirstPackage`.

WHO?

ANSWER: Everyone
with enough code (including you).

WHERE to put your packages?

ANSWER: Your packages need only be on your path.

Start *Macaulay2* in the correct directory or append to your path. Which version of the package is being installed?

ANSWER: The list of packages distributed with *Macaulay2* accessible via `viewHelp`.

WHEN to create a package?

ANSWER: As soon as you anticipate having some code not currently in a package.

I encourage you to make "packages" your default environment for coding in *Macaulay2*. Write packages in service of your larger research program.

WHY is it useful for you?

ANSWER: Most convenient way to bundle your code.

Packages provide the optimal framework for developing and maintaining your code:

- improved debugging
- accompanying documentation (you will want be reuse your code in 6 months)
- error checking (particularly useful while in development)

ANSWER: Productive mechanism for collaboration.

WHY is it useful for the community?

ANSWER: Release your code into the world.

Some benefits sharing your code:

- allow others to stand on your shoulders
- find new collaborators and contributors
- make your work discoverable by adding your package to the *Macaulay2* distribution
- forward compatibility (future proof)

WHY not?

ANSWER: Publish your software.

The *Journal of Software for Algebra and Geometry* is a natural venue. The process will

- improve your package
- increase the visibility of your work
- allow you to receive appropriate credit

See the `Package-Writing-Style-Guide`