
“Developer’s Wish List”

Future Perspectives for OpenSees

Boris Jeremić
Pedro Arduino
Peter Mackenzie-Helnwein

Key Questions / Wish List

- **Future Perspective “past PEER”**
 - Commercialization vs. Public Domain
 - Research versus Production tool
 - Links to alternative pre- and post-processors
 - **Technological Features**
 - Element & Material libraries
 - Solution algorithms
 - Probabilistic analysis
 - **Developer Tools / Classes**
 - Matrix vs. Vector vs. Tensor classes
 - Compatibility between these classes
 - **Documentation**
 - Completeness?
 - Technical / mathematical details
 - **Next Steps**
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Future Perspective "past PEER"

- Commercialization vs. Public Domain
 - primarily R+D tool for NEES
 - goal is useful technology for industry (long term)
- Research versus Production tool ?
 - starts migrating into practice with Ph.D. students
- Links to alternative pre- and post-processors

■ Others

Coding experience : ~5+

○ Functions to access complex data (more than scalars)

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Technological Features

- Element & Material libraries
 - shear-wall element is needed (RC) + verification
 - ↳ under development / implementation in progress.
 - axisymmetric elements are missing (?)
- Solution algorithms
 - shell (M2Q4)
 - C.Felippa's triangle needs linking
 - Concrete model w/ dynamic strain-rate effects on strength (counter terror response)
 - damage models (1D, 2D, 3D under development)
- Others

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Developer Tools / Classes

- Matrix vs. Vector vs. Tensor classes

tensor → matrix → tensor conversion

- Compatibility between these classes

- Others

RemoveElements for excavation (available)

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Documentation

- Completeness?

→ lags behind code development

- Technical / mathematical details

equation, reference

- Credit for contributions

- Others

o HTML (or others) in CVS

o users/contributors add own example web site w/ details

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Next Steps

- Coordination between developers (?)

Forums work great

- Public wish list (?)

- Others

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a BIG Thank You

***to the organizers
of this exciting seminar***