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AFGROW .NET

AFGROW European Workshop 2026

AFGROW Future Development

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Agenda

1. Proposed and prioritized future features list
2. Recently requested features
3. What new features would you like to be added to AFGROW?

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Post 5.5 development

Scale: 10 most important

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- Countersunk hole solution (10)
- Oblique/Part Through Corner Cracks at Hole (10)
- Set stress state separately for each crack direction (10)
- Find a way for AFGROW not to open data in the same instance, when user clicks on the input file. Possible ask user to save work, or have an option to ignore the click if prediction is running (10)
- Make changes to allow the use of spectra with three load channels (9.7)
- Save spectrum location by relative not full path (9)
- ~~Short cracks and plastic~~ zone investigation (9)
- ~~New bearing part-through crack width~~ correction (8.5)
- New hole offset correction that should be used with the Harter Width correction (8.5)
- ~~Add a new a classic single oblique crack at hole solution based on using the most recent wide plate tabular database (8)~~
- Update advanced double corner crack solution with the latest FE data (7)
- Add an option to have customizable initial property values for the new advanced model objects, such as crack length, hole diameter (7)
- Add option to have multiple analyses open in a single AFGROW instance (7)

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Post 5.5 development

Scale: 10 most important

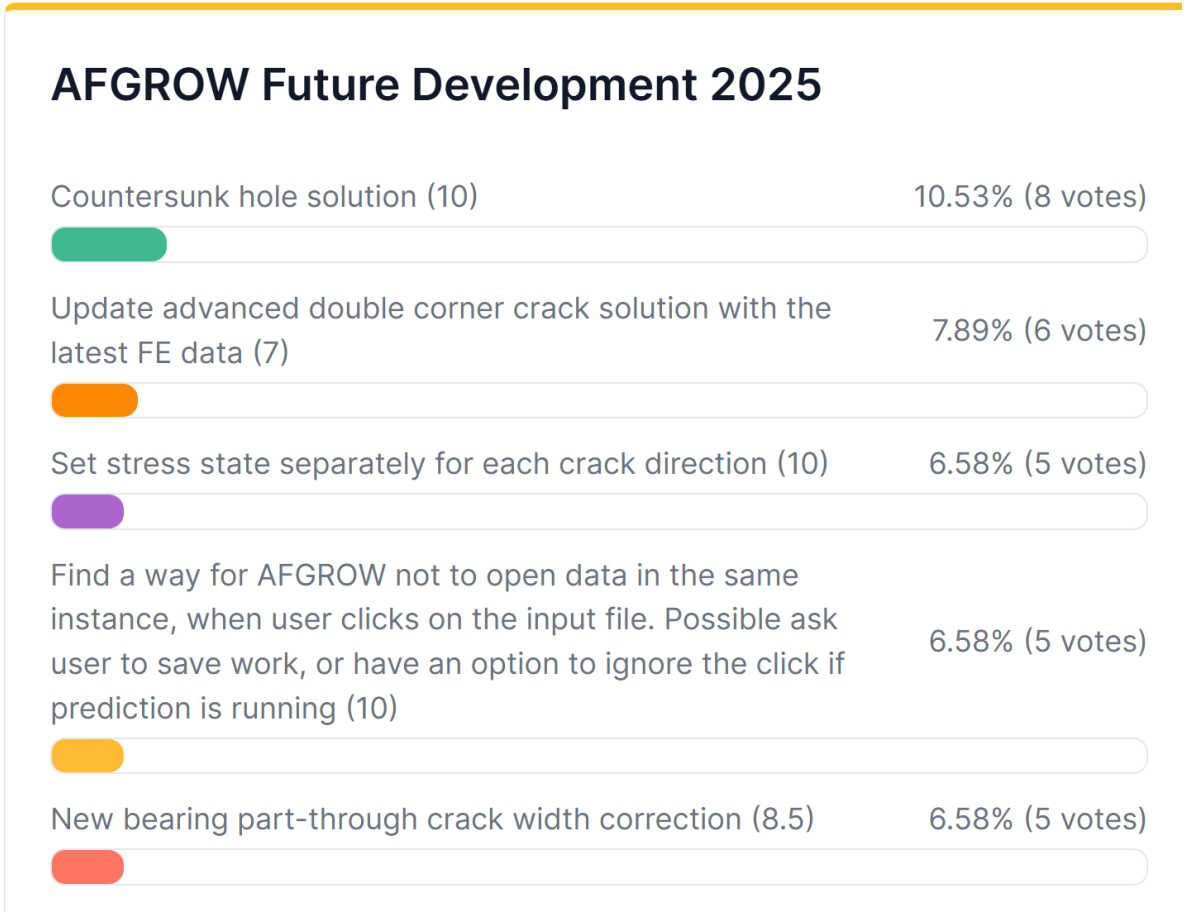
- Made it possible to instantiate two AFGROW instances using COM (6)
- Visualize marker-bands in AFGROW output/plotting, possible develop an option to trigger output using special tag(6)
- Add table as another output option next to the Crack Length vs Life tab and the Status tab (6)
- Add a crack to a hole using popup menu (6)
- Create sequence by providing total time of the spectra, time per sub-spectra and % of usage per sub-spectra (6)
- Change *Predict Preferences* to *Predict Preferences* (effect prediction results) and *Options* (do not affect prediction results, just AFGROW customization) (6)
- Make it possible to read the user defined beta file *.bet using COM (6)
- Access retardation metadata via COM Interface (5)

Recently Requested Features

- Fix/Add different AFGROW scription language for Spectrum and Beta filtering features (Alex)
- AFGROW API – now GUI, multiple OS, supports multithreading (Alex)
- Is it possible to read the user defined beta file *.bet using COM?(Reinier)
- Add Residual Strength plot
- Add API 579 models for spheres
- Add FAD diagram plot
- Add more units per spectrum pass in addition to hours (flights, months, years) (Markus, Lyndon)
- Create an option to set preference for running 1 cycle and stop prediction (Nico)

How to suggest AFGROW enhancement

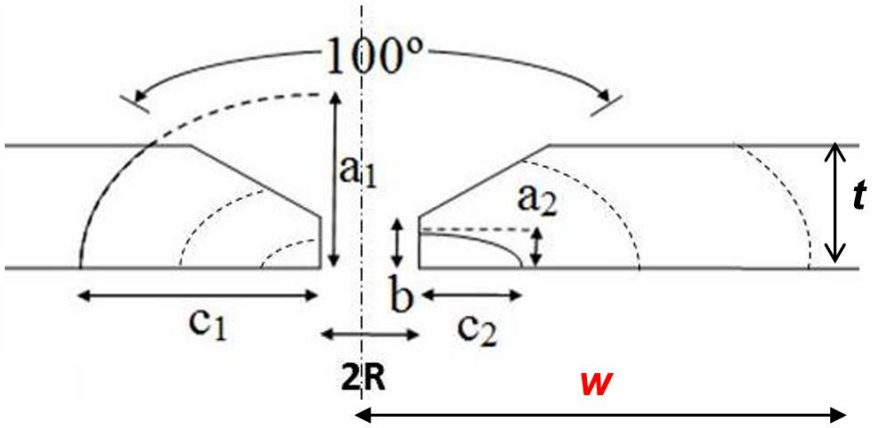
https://www.afgrow.net/about/todo.aspx



Corner Crack(s) at Countersunk Hole Solution Status

Data range that was delivered so far:

For Single Crack
b/t = .05, 0.25, 0.5
0.2 < r/t < 5
0.1 < a/c < 10
0.1 < a/t < 0.95



For Double Crack
b/t = 0.25, 0.5
0.2 < r/t < 3
0.1 < a/c < 10
0.1 < a/t < 0.95

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What new features would you like to be added to AFGROW?