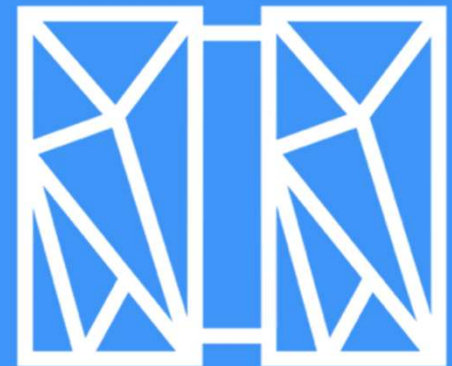


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# What's new in IBM TPF Toolkit

**Matt Gritter**  
IBM TPF Toolkit



# Background



- IBM TPF Toolkit is an Eclipse based integrated development environment focused on tools for developing, building and debugging z/TPF applications.
- IBM TPF Toolkit 4.6.0 was generally available March 2018
- A year later...

# Problem



- The z/TPF application under test is loaded to the system without the debug information causing debug sessions and code coverage session to provide undesirable user experiences.

# Pain Points



- It is not always obvious where the correct debug information is located.
- The process to load the debug information is manual or complicated.

# Value Statement



The automatic load support for remote debug information available via the TPF Toolkit web application enables the debugger server on z/TPF to retrieve debug information using the information built into the shared object.

- Supports scriptable code coverage for automated testing
- No end user interaction required

# Recap



Available in Fix Pack 4.6.1  
June 2018

- A configuration file on the z/TPF system defines the URL endpoint for a REST request, secondary locations to search if the debug information is not found, and path substitution definitions.
- When the debug server determines that the correct debug information is not present, a REST request is submitted to the web application.
- The web application responds with an archive file that the debug server extracts to the required location.

# Problem



- The procedure to create the file artifacts required for a REST service is cumbersome.

# Pain Points



- Required another Eclipse installation to create all artifacts required
- User has to move files between different workspaces, no easy import / export path
- Service archive files were generated that were never used for the z/TPF system



# Value Statement



TPF Toolkit provides an editor that is tailored for creating the required file artifacts for a REST service on a z/TPF system.

- Start from scratch or import an OpenAPI descriptor
- Eclipse marker support to highlight any incomplete or problem files
- Single product interaction and simplified engagement

# Recap



Available in Fix Pack 4.6.2  
November 2018

- Importing a OpenAPI descriptor will generate a single skeleton z/TPF service descriptor file with the operation ids pre-populated for all defined services.
- The editor updates both the OpenAPI descriptor and the z/TPF service descriptor files based on the user input.
  - Removing a GET operation from a URL path in the OpenAPI descriptor also removes it from the service descriptor.

# Problem



- The source lookup mechanism for the debugger is confusing and can lead to an unpleasant user experience.

# Pain Points



- It is difficult to tell when the source lookup configuration does not match the application under test in the debugger UI.
- Too many combinations of remote folders to include everything desired.
- Poor performance under certain configurations

# Value Statement



Automatic source lookup support provided via the TPF Toolkit web application enables the debugger server on z/TPF to retrieve the source files using the information available in the compiled object.

- No user interaction to locate source files for the application being debugged

# Recap



Available in Fix Pack 4.6.2  
November 2018

- Same configuration file as debug information to setup URL endpoint, alternate paths to search and any path substitution.
- Clean up mechanism controlled by ZDEBUG ACCESS. Clean up occurs once a day at the specified hour or when the corresponding debug information is cleaned up by the z/TPF system.
- Web application user requires read access to any files being retrieved.

# Problem



- I still need to maintain a TPF Toolkit 4.2 installation to use most of the debugger functionality.

# Recap



Available in Fix Pack 4.6.3  
March 2019

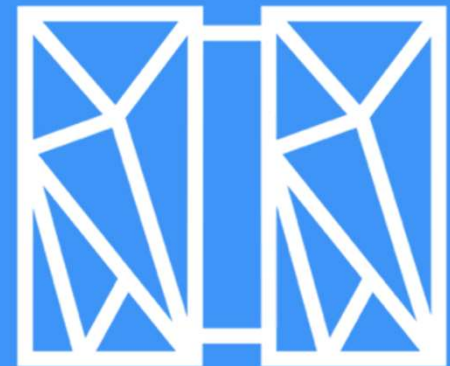
- The Dump File view is introduced. Create filters for z/TPF systems and view captured dump files in a sortable and configurable table.
- ALASC, Data Level, DECB, Record Hold, Stack, and TPF File views delivered.
- Remaining debugger views rolled out as development completes in future fix packs.



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# Thank You!

Questions or Comments?



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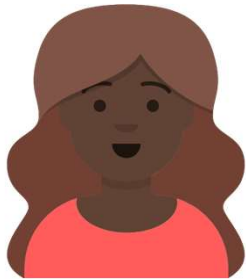
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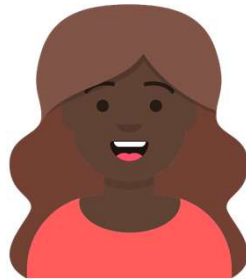
# Resources

## Persona Avatars

Carol  
coverage programmer



Default



Happy



Concerned



Sad

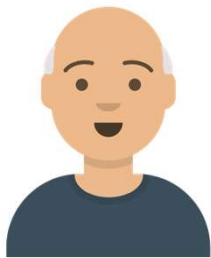


Angry

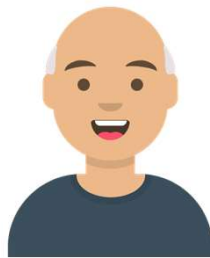
“I often rely on my gut feelings to solve problems”

## Persona Avatars

Calvin  
capacity planner



Default



Happy



Concerned



Sad



Angry

## Persona Avatars

Anna  
application architect



Default



Happy



Concerned



Sad



Angry

## Persona Avatars

Joe  
Java application developer



Default



Happy



Concerned



Sad



Angry

"There is too much risk to rewrite this old code. People would rather use older methods that they know work"

## Persona Avatars

Zach  
application developer



Default



Happy



Concerned



Sad



Angry

“We have so much to do, it’s hard to get our daily stuff done”



## Persona Avatars

Sophie  
system programmer



Default



Happy



Concerned



Sad



Angry

“We have so much to do, it’s hard to get our daily stuff done”

## Persona Avatars

Arthur  
enterprise architect



Default



Happy



Concerned



Sad

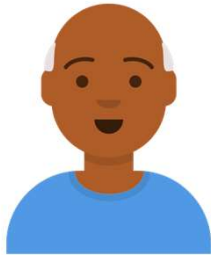


Angry

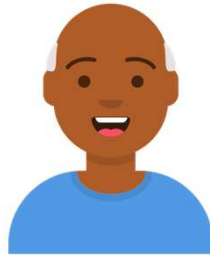
"I do mainly strategic type stuff, planning where we want to go with TPF and all of our systems"

## Persona Avatars

Derrick  
operator



Default



Happy



Concerned



Sad



Angry

“As an operator, you’re the eyes and ears of the system so you’re constantly overserving and learning when something is off”

# Persona Avatars

Lawrence  
test engineer



Default



Happy



Concerned



Sad



Angry

## Persona Avatars

Andres  
database admin



Default



Happy



Concerned



Sad



Angry

## Persona Avatars

Christine  
security admin



Default



Happy



Concerned



Sad



Angry

Persona Avatars

Jeremy  
QA manager



Default



Happy



Concerned



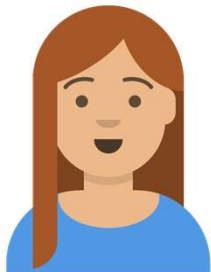
Sad



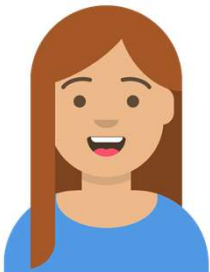
Angry

Persona Avatars

Hannah  
build manager



Default



Happy



Concerned



Sad



Angry



## Persona Avatars

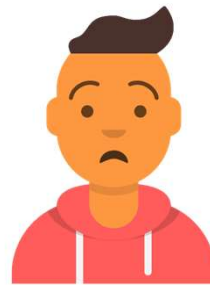
Andrew  
new hire application developer



Default



Happy



Concerned



Sad



Angry