



| z/TPF V1.1

# 2013 TPF Users Group TPF Toolkit Updates

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AIM Enterprise Platform Software  
IBM z/Transaction Processing Facility Enterprise Edition 1.1

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## Updates (since TPFUG 2012 – Denver)

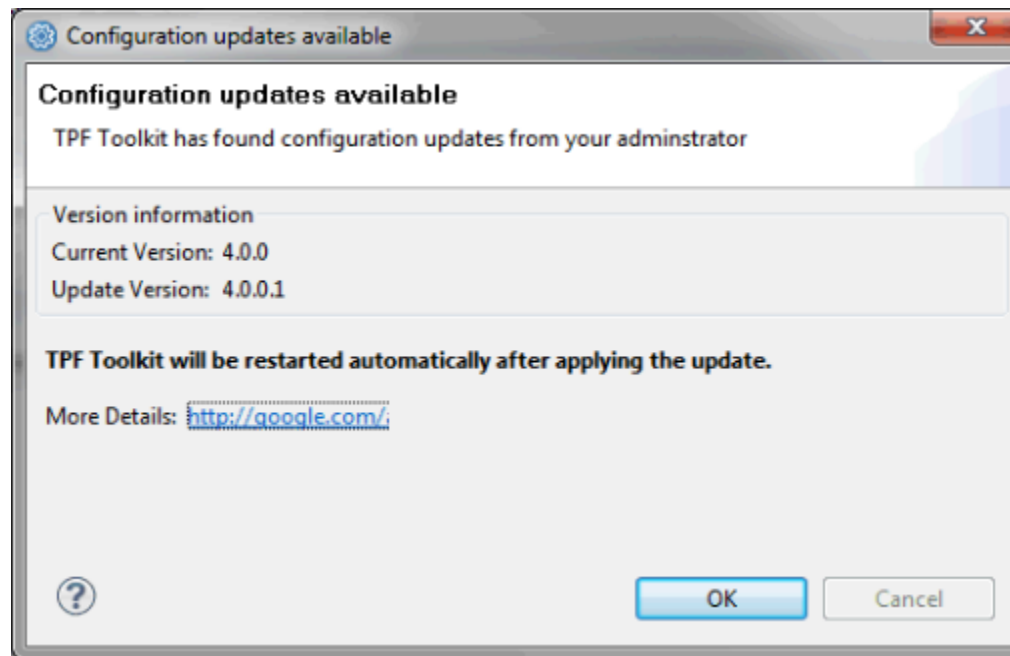
- **TPF Toolkit v4.0 (December 2012)**
- **TPF Toolkit v4.0.1 (April 1<sup>st</sup>, 2013 – no joke!)**

## TPF Toolkit v4.0

- **Released in December 2012**
- **Based on Eclipse 3.6.2**
- **Adoption of IBM Installation Manager**
  - Consistent user experience across other IBM products
  - Easier to share environments between products such as IBM TPF Toolkit and, for example, Rational Team Concert (RTC)
    - Commonly referred to as *shell-sharing*

## TPF Toolkit v4.0

- **New mechanism for customizing TPF Toolkit**
  - Simplify customization process significantly for admins
  - Create and upload customizations to remote system
  - Customizations are applied when user connects to the system



## Business Events and WODM Rule Engine wizards

- **Several wizards have been implemented to help create various XML descriptors**
  - Business Events
    - Business Event Specification
    - Business Event Dispatch Adapter
  - WebSphere Operational Decision Management (WODM)
    - TPF Object Model
    - WODM Rule Application
    - WODM Endpoint Definition

## Code Coverage Comparison Tool

- **New Code Coverage Compare editor allows you to compare size and source analysis results for multiple sessions**
  - Compare results at several levels:
    - Module level (e.g. QDB0)
    - Object level (e.g. qdb0.o)
    - Function level (e.g. printf(...))
  - You can filter the results to:
    - Show only specific modules by name
    - Show only modules/functions/objects where the size/line percentage lies within a certain range (e.g. only show those modules that are covered < 50% by tests)
  - You can sort the results by size/line percentage or by name



Compare Results

Compare code coverage results

	Size 1	Size 2
iuddi.hpp	n/a	n/a
qdb0.cpp	14	0
qdb0bp.cpp	n/a	n/a
qdb0er.cpp	n/a	n/a
qdb0ff.cpp	n/a	n/a
qdb0go.cpp	41	n/a
qdb0lk.cpp	27	-14
linkCases	29	-15
qdb0ms.cpp	n/a	n/a
qdb0sk.cpp	n/a	n/a
qdb0sy.cpp	n/a	n/a

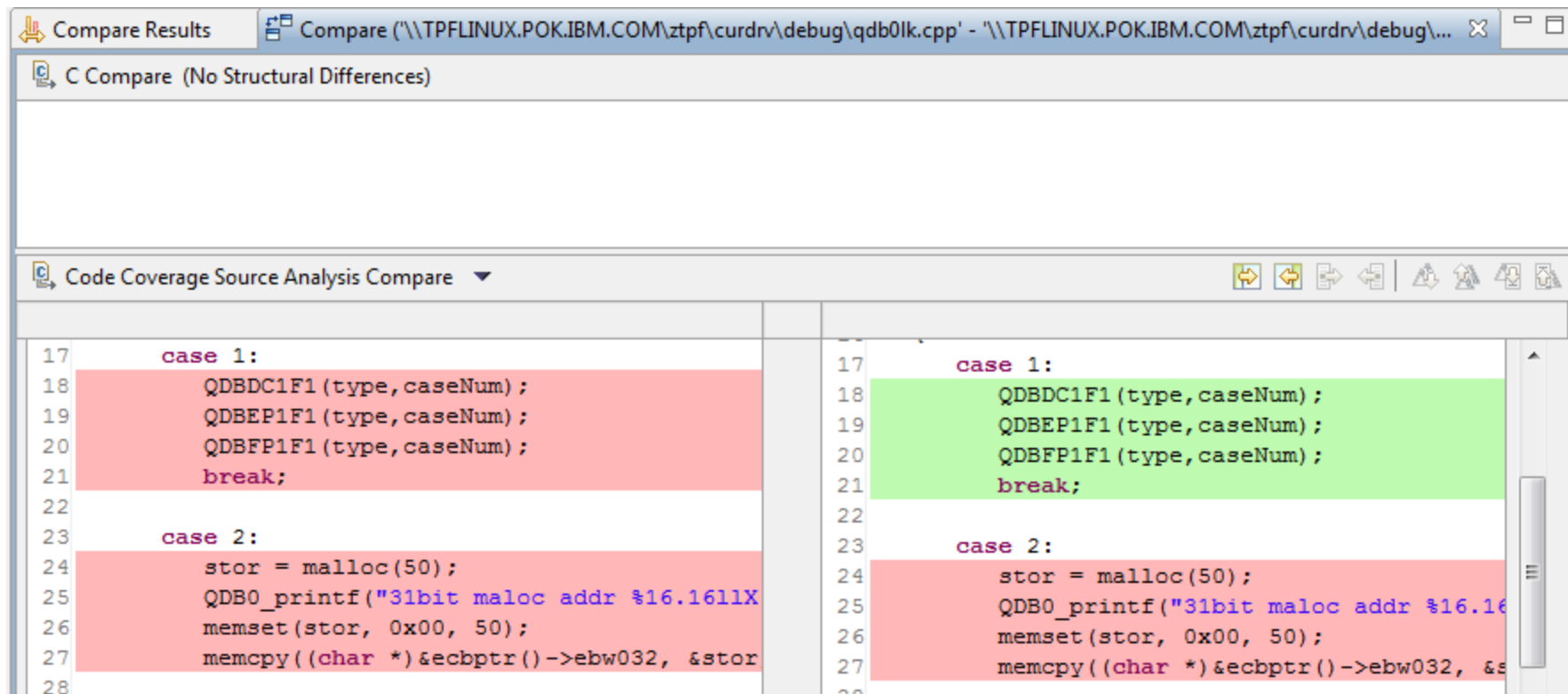
	Line 1	Line 2
iuddi.hpp	n/a	n/a
qdb0.cpp	18	0
qdb0bp.cpp	n/a	n/a
qdb0er.cpp	n/a	n/a
qdb0ff.cpp	n/a	n/a
qdb0go.cpp	51	n/a
qdb0lk.cpp	31	-18
linkCases	31	-18
qdb0ms.cpp	n/a	n/a
qdb0sk.cpp	n/a	n/a
qdb0sy.cpp	n/a	n/a

Host: 9.57.13.91, Session: test2, Timestamp: October 15, 2012 2:23:59 AM  
 Host: 9.57.13.91, Session: test2, Timestamp: October 15, 2012 2:19:35 AM

Compare

# Code Coverage Comparison Tool

- Ability to compare source analysis data at the source file level



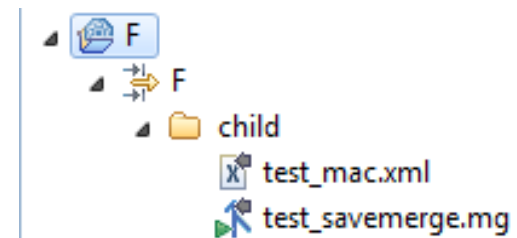
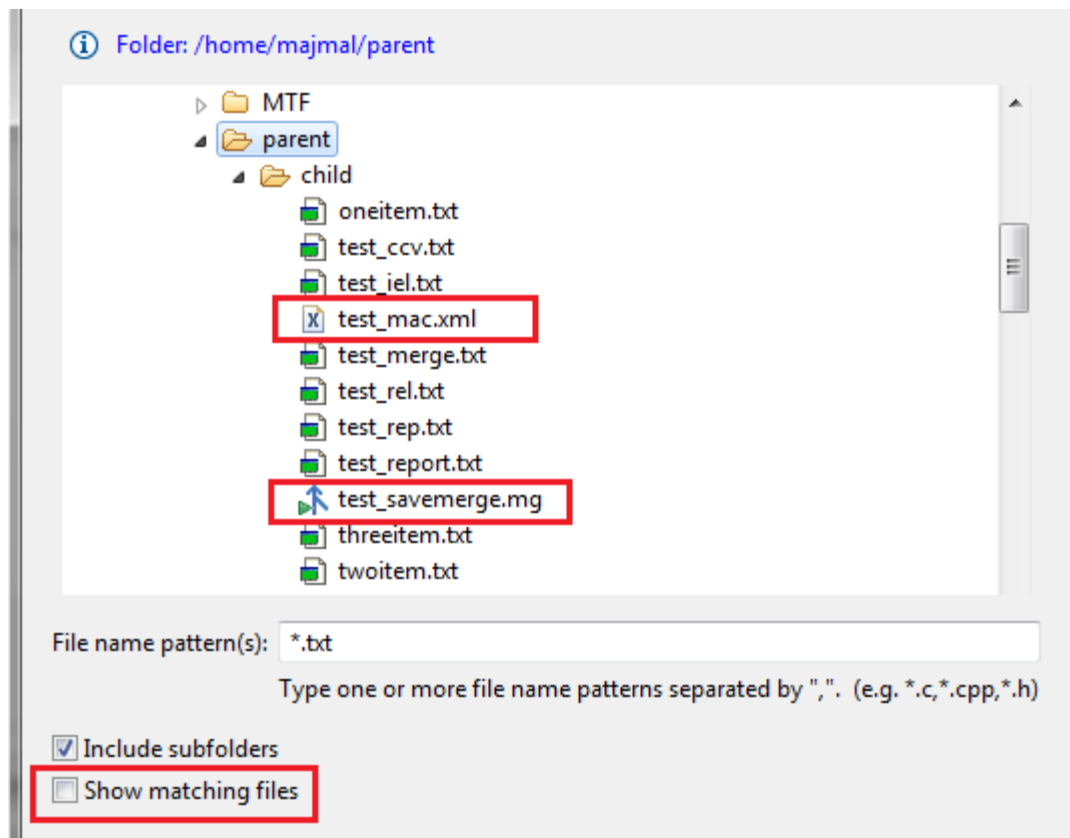
```
17     case 1:
18         QDBDC1F1 (type, caseNum);
19         QDBEP1F1 (type, caseNum);
20         QDBFP1F1 (type, caseNum);
21         break;
22
23     case 2:
24         stor = malloc(50);
25         QDB0_printf("31bit maloc addr %16.16lX
26         memset(stor, 0x00, 50);
27         memcpy((char *)&ecbptr()->ebw032, &stor
28
```

```
17     case 1:
18         QDBDC1F1 (type, caseNum);
19         QDBEP1F1 (type, caseNum);
20         QDBFP1F1 (type, caseNum);
21         break;
22
23     case 2:
24         stor = malloc(50);
25         QDB0_printf("31bit maloc addr %16.16
26         memset(stor, 0x00, 50);
27         memcpy((char *)&ecbptr()->ebw032, &s
28
```



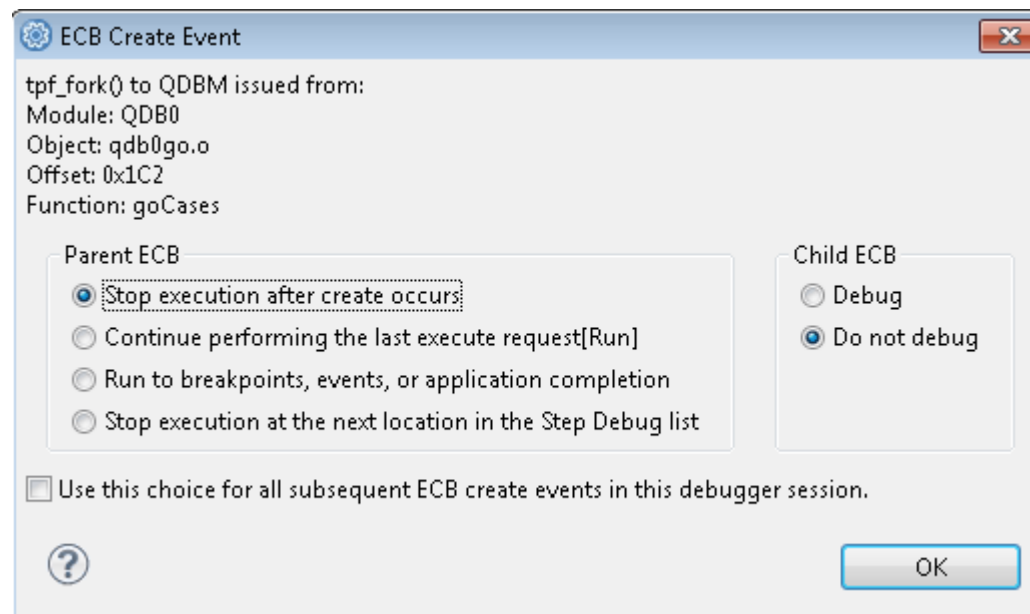
## Negative Filters in TPF Projects (zLinux only)

- **Allows a user to specify what NOT to show when creating a new TPF filter**



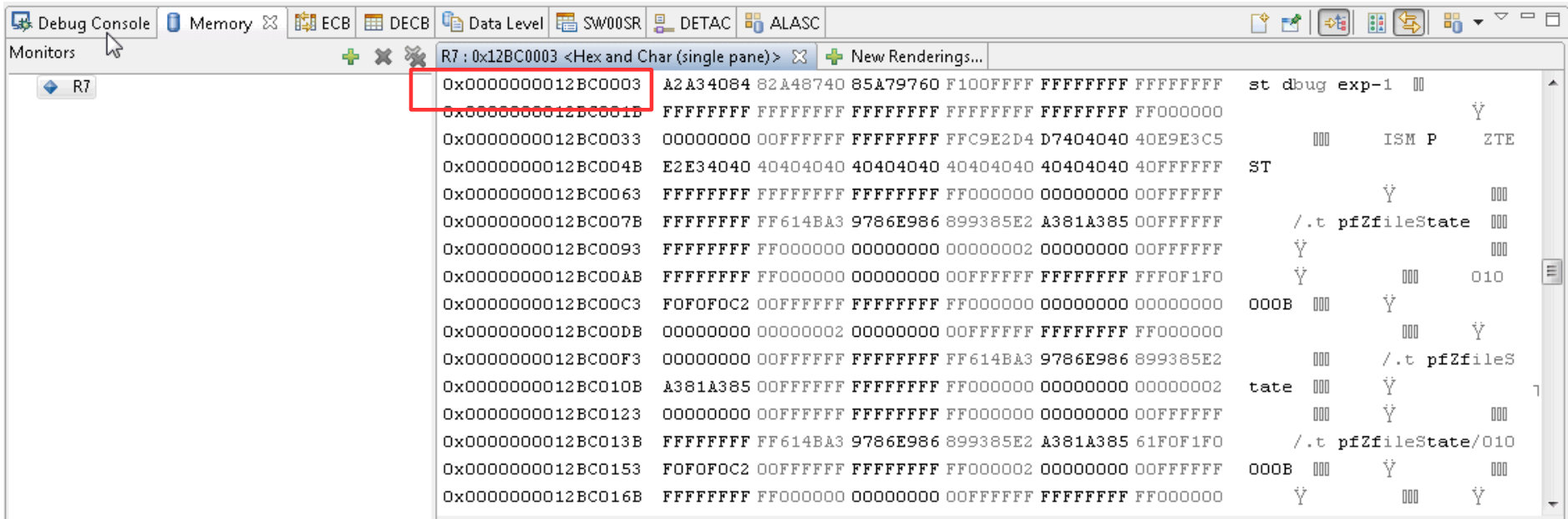
## Enhanced fork support in z/TPF debugger

- **Currently, users are able to choose to debug a parent ECB, child ECB or both ECBs when a fork event occurs**
  - This interface has been enhanced to supply additional information to the user to help make a more informed decision



## Hex and char (single pane) rendering

- **New Hex and char rendering added to Memory view**
  - Displays hex and text in the same pane
  - Displays contents starting from arbitrary address



The screenshot shows the IBM z/OS Debugger's Memory View window. The title bar indicates the register R7 is selected, and the pane is titled "R7 : 0x12BC0003 <Hex and Char (single pane)>". The main display area shows a list of memory addresses from 0x0000000012BC0003 to 0x0000000012BC016B. Each address is followed by its hexadecimal value and a corresponding character string. The character string is rendered in a monospaced font, with some characters appearing as 'Y' or '000'. The address 0x0000000012BC0003 is highlighted with a red box.

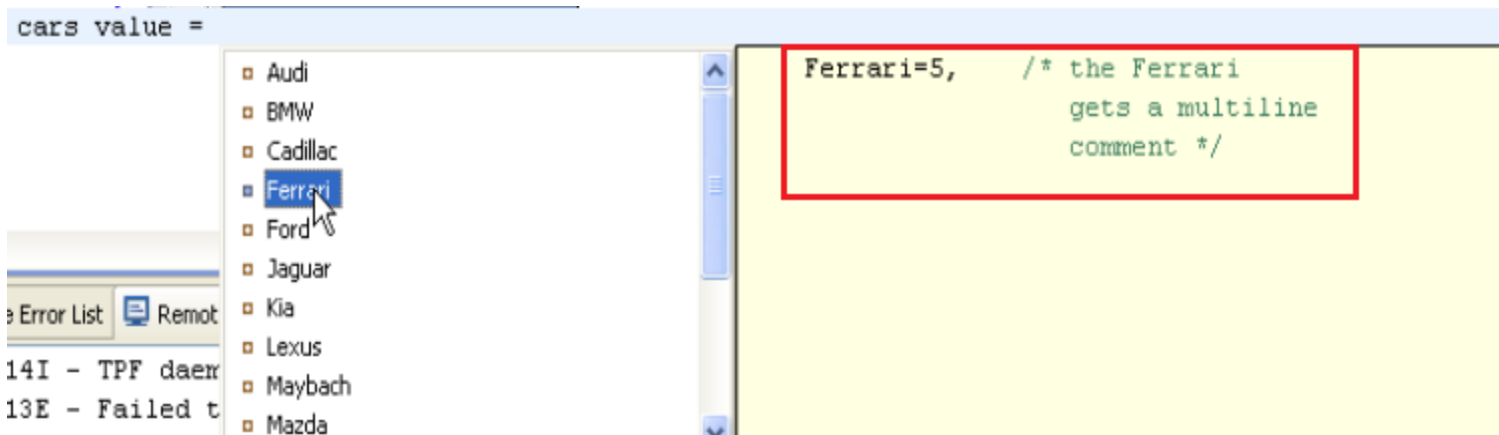
Address	Hex	Char
0x0000000012BC0003	A2A34084 82A48740 85A79760 F100FFFF FFFFFFFF FFFFFFFF	st debug exp-1 00
0x0000000012BC000B	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	000 000 000 000 000 000 000 000
0x0000000012BC0015	00000000 00FFFFFF FFFFFFFF FFC9E2D4 D7404040 40E9E3C5	000 ISM P ZTE
0x0000000012BC001B	E2E34040 40404040 40404040 40404040 40404040 40FFFFFF	ST
0x0000000012BC0021	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	000 000 000 000 000 000 000 000
0x0000000012BC0029	FFFFFFFF FF614BA3 9786E986 899385E2 A381A385 00FFFFFF	/.t pfZfileState 000
0x0000000012BC0031	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	Y 000 000 000 000 000 000 000
0x0000000012BC0039	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	Y 000 000 000 000 000 000 000
0x0000000012BC0041	F0F0F0C2 00FFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	000B 000 Y 000 010
0x0000000012BC0049	00000000 00000002 00000000 00000000 00000000 00000000	000 000 000 000 000 000 000 000
0x0000000012BC0051	00000000 00FFFFFF FFFFFFFF FF614BA3 9786E986 899385E2	000 /.t pfZfileS
0x0000000012BC0059	A381A385 00FFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	tate 000 Y 000 000 000 000 000
0x0000000012BC0061	00000000 00FFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	000 Y 000 000 000 000 000 000
0x0000000012BC0069	FFFFFFFF FF614BA3 9786E986 899385E2 A381A385 61F0F1F0	/.t pfZfileState/010
0x0000000012BC0071	F0F0F0C2 00FFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	000B 000 Y 000 000 000 000 000
0x0000000012BC0079	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF	Y 000 000 000 000 000 000 000

## HLAsm Enhancements

- **New script file to generate HLAsm macro definitions automatically on remote host**
  - Macro definitions can then be used by the HLAsm parser to provide content assist and syntax checking
  - Script file scans user specified directories on remote system to generate a user macro file that can be used in the editor.

## Content Assist For C/C++ Enumerations

- **Content assist for C/C++ now presents additional information when providing proposals for enumerations**
  - The enumeration declaration is shown when an enumeration proposal is selected

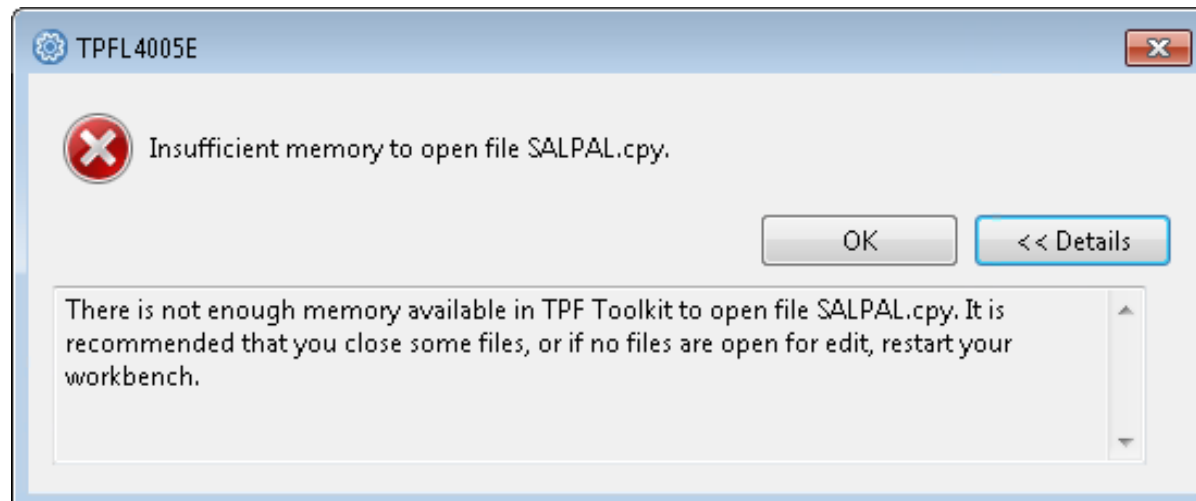


## TPF Toolkit v4.0.1

- **National Language support has been refreshed**
  - French, Japanese, Korean and Simplified Chinese
  - Applied automatically with the Interim Fix
- **Source Scan updates**
  - OTRDBCHe, OTRREGSb

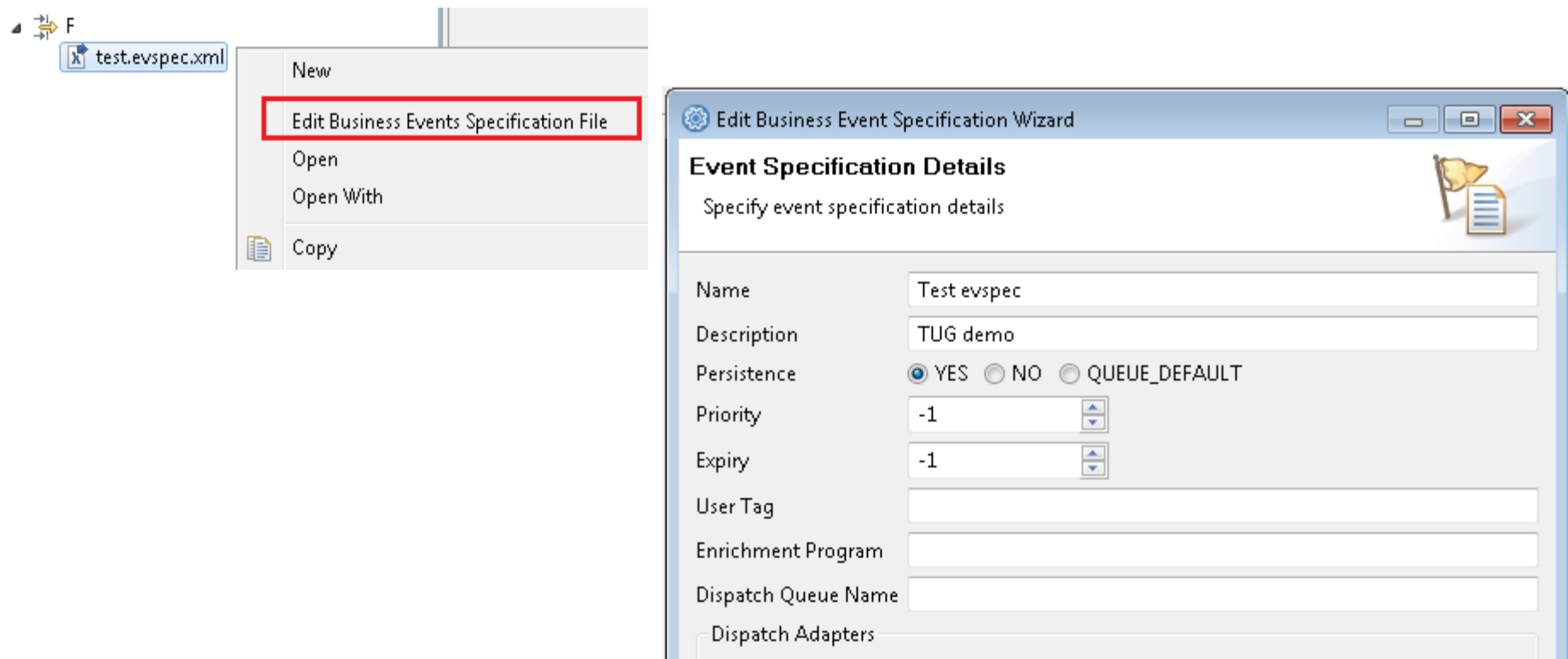
## TPF Toolkit v4.0.1

- **Editor updates**
  - LPEX and Remote C/C++ editors have been enhanced to provide better detection of possible out-of-memory situations when opening large files



## TPF Toolkit v4.0.1

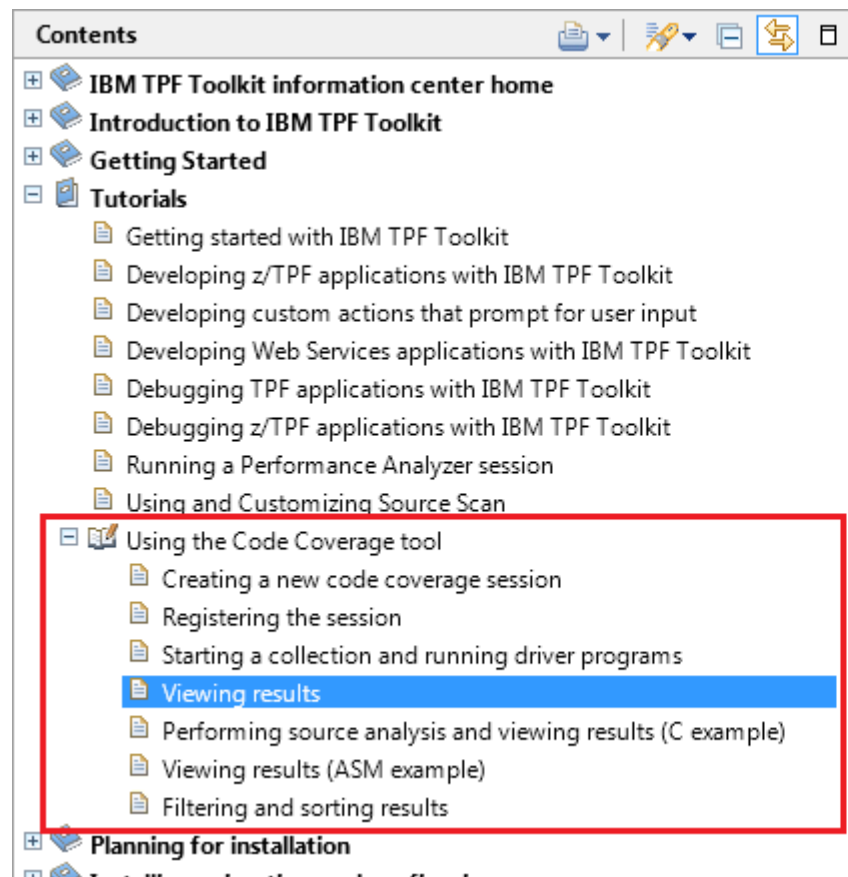
- **Business Events and Rules wizards enhanced to support editing existing files**





# TPF Toolkit v4.0.1

- **New Code Coverage tutorial available in help**

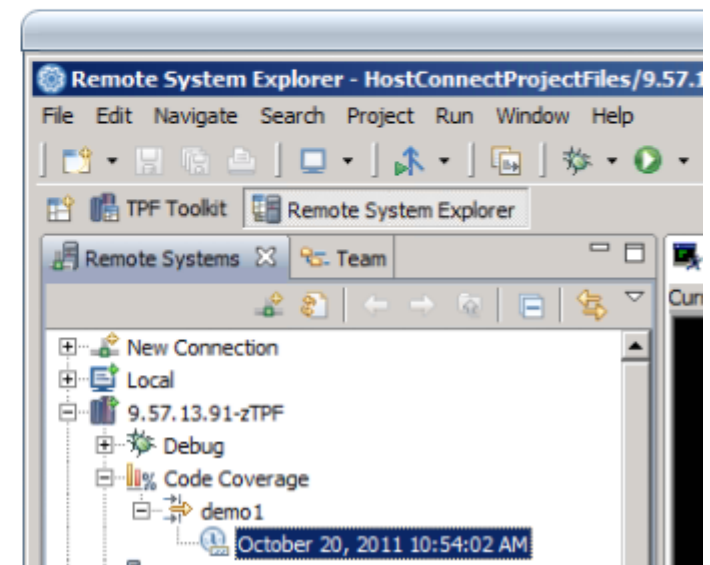


[Tutorials](#) > [Using the Code Coverage tool](#)

IBM TPF Toolkit, Version 4.0

## Viewing results

### Viewlet



## TPF Toolkit v4.0.1

- **Miscellaneous fixes**
  - Install and uninstall exits are passed full installation path
  - tpftool updates:
    - **Shutdown** service to gracefully shut down a running instance of TPF Toolkit
    - **CreateRSE** and **ModifyRSE** services enhanced to allow spaces in *-script* parameter
- **Allow addition of custom actions in New... menu in TPF Project Navigator view [TPFUG]**
- **Remember previous location in Start Tracelog dialog [TPFUG]**



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