

# Loaders Enhancements

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Operations and Coverage

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Josh Wisniewski

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# E-type loader recycle interface - refresher

- The E-type loader recycle interface is used to determine whether any program in a set of programs has changed versions.
- As such, a long-running process can determine if it needs to be recycled.
- If it does not need to be recycled, its activation number is bumped up, allowing other E-type loader activity (accepts) to complete.

# E-type loader recycle interface - refresher

For example:

- INETD managed server depends on programs ABCD and WXYZ.
- ZOLDR ACTIVATE of loadset with program ABCD occurs.
- Server calls the E-type loader recycle interface to determine if it should be recycled.
- YES, it should be recycled. The server exits.
- INETD restarts the server using the new version of ABCD.

# APAR PJ46750 (Nov 2022)

## E-type loader recycle interface enhancements

- The E-type loader recycle interface is enhanced to provide the ability to specify files in the input parameter list.

# APAR PJ46750 (Nov 2022)

## E-type loader recycle interface enhancements

For example:

- INETD managed server depends on programs ABCD and WXYZ **and files myfile1 and myfile2.**
- ZOLDR ACTIVATE of loadset with file **myfile2** occurs.
- Server calls the E-type loader recycle interface to determine if it should be recycled.
- YES, it should be recycled. The server exits.
- INETD restarts the server using the new version of **myfile2.**

# APAR PJ46750 (Nov 2022)

## E-type loader recycle interface enhancements

- If a long-running ECB must be recycled because of the activation of a loadset, the long-running ECB is no longer required to recycle a second time when the loadset is accepted. This applies to the IBM MQ server and any other long-running server that leverages the E-type loader recycle interface.

# ZDFLV - Display file versions (Target 3Q2023)

Use this command to see information about versions of a file loaded to the zTPF system.

- Location of each version on z/TPF.
- Location on Linux on Z.
- Activation number and status.
- Load time.
- File size.



# As-is user story

- A developer is making changes to an application that relies on an input file to determine the desired behavior.
- The developer loads a new version of the file.
- However, the behavior is not as expected.
- It is very difficult to determine if the wrong file was loaded!

# To-be user story

- A developer is making changes to an application that relies on an input file to determine the desired behavior.
- The developer loads a new version of the file.
- However, the behavior is not as expected.
- **The developer uses the ZDFLV command to determine where the file was loaded from.**

# To-be user story

```
zdf1v addGuest84.srvc.json info-all
```

```
DFLV0002I 16.41.54 EXTENDED FILE VERSION INFORMATION
```

```
FILE - /sys/tpf_pbfiles/tpf-fdes/addGuest84.srvc.json
```

```
LOADSET-      BASE  STAT-  ACT  ACT_NUM-      0  HI_ACT-      N/A
```

```
sourcepath=/ztpf/linuxbin/blddrv/adbi/jam/addGuest84.srvc.json
```

```
loadtime=02-06-23 14.53.23
```

```
LOCATION-/sys/tpf_pbfiles/tpf-fdes/addGuest84.srvc.json
```

```
SIZE-91 bytes
```

```
END OF DISPLAY+
```

# To-be user story

```
zdf1v addGuest84.srvc.json LOADSET-ALL INFO-all
```

```
DFLV0002I 09.09.29 EXTENDED FILE VERSION INFORMATION  
FILE - /sys/tpf_pbfiles/tpf-fdes/addGuest84.srvc.json
```

```
LOADSET-          STAT- ACT  ACT_NUM-    0  HI_ACT-    N/A  
  sourcepath=/ztpf/linuxbin/blddrv/adbi/jam/addGuest84.srvc.json _  
  loadtime=02-06-23 14.53.23  
  LOCATION-/sys/tpf_pbfiles/tpf-fdes/.addGuest84.srvc.json/.0  
  SIZE-91 bytes
```

```
LOADSET- NEWFILE  STAT- ACT  ACT_NUM-   26  HI_ACT-    N/A  
  sourcepath=/ztpf/curdrv/adbi/jam/addGuest84.srvc.json  
  loadtime=02-27-23 13.49.52  
  LOCATION-/sys/tpf_pbfiles/tpf-fdes/.addGuest84.srvc.json/.2  
  SIZE-91 bytes
```

```
END OF DISPLAY+
```

# To-be user story

- The developer can quickly see which version of the file is active on the system. In this case, it came from the system build directory instead of their build directory.
- The developer correctly loads the file.

# ZDFLV - Display file versions (3Q2023)

You can also do a search by file name with a wild card:

```
ZDFLV tpf-fdes/add*.srvc.json
DFLV0003I 08:14:31 THE LIST OF FILES THAT MATCH
  /sys/tpf_pbfiles/tpf-fdes/addCards.srvc.json
  /sys/tpf_pbfiles/tpf-fdes/addCard84.srvc.json
  /sys/tpf_pbfiles/tpf-fdes/addCard84wrapper.srvc.json _
  /sys/tpf_pbfiles/tpf-fdes/addPNR84.srvc.json
END OF DISPLAY
```

# We want sponsor users!

Our development cycle is driven by your feedback.

We are looking for sponsor users to assist in design and implementation, targeting the following personas:

- Operations

We expect to begin engaging with the sponsor users in 1Q2023.

If you are interested in participating as a sponsor user, please contact:

**Josh Wisniewski** ([jwisniew@us.ibm.com](mailto:jwisniew@us.ibm.com))

# Thank you

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