



TPF Toolkit V3.4

# TPF Users Group - Spring 2009 Source Scan Administration

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# Agenda

- **Source Scan Administration Concepts**
- **Sharing & Deploying Source Scan Definitions**
- **Demo – Sharing & Deploying Source Scan Definitions**
- **Validation in TPF Toolkit**
- **Demo – Source Scan Validation in the Editor**

## Goals of Source Scan Administration Tools

- **Allow administrators to use and modify source scan definitions created by other users**
  - Share definitions without modifying files containing the definitions
- **Allow administrators to prevent users from removing or modifying source scan definitions (rules, scans, etc.)**

# Source Scan Administration Concepts

- **Storage files**
  - Contain custom source scan definitions created by users
- **Used to organize source scan definitions**
- **Default storage file**
  - %TPFPROJ%\sourcescandata.xml reserved as default user storage file
  - Users can create definitions without worrying about where they are stored
  - Do not store definitions that need to be deployed in the default storage file

# Source Scan Administration Concepts

- **Creator Names**
  - Associated with each source scan storage file
  - Only the creator of a storage file or an Administrator can modify the contents of a storage file
- **Administrator vs. User**
  - TPF Toolkit can determine whether or not the current user is an Administrator
  - Administrators have additional permissions when working with storage files

# Source Scan Administration Concepts

- **File Permissions**

- Administrators can set permissions on storage files that are deployed to end users
- Example: Prevent users from disabling rules in any scans defined in the storage file

- **Links**

- Used to *add*, *hide*, and *disable* items.
- Allow sharing of definitions without modification of files created by other users

# Demo Setup

## File: IBM

Definitions for all IBM provided single source rules, scans and categories.

### User Storage File 1 [[enterprise\\_C\\_CPP\\_rules.xml](#)]:

**Category Definition:** Enterprise Custom Rules

**Rule Definition:** CUSTOM\_INT\_TYPE [Parent: Ent. Custom Rules]

**Rule Definition:** DEBUG\_CODE [Parent: Enterprise Custom Rules]

**Rule Definition:** FUNCTIONS [Parent: Enterprise Custom Rules]

**Rule Definition:** INCLUDE\_ENTERPRISE [Parent: Ent. Custom Rules]

**Rule Definition:** INT\_DOUBLE\_RULE [Parent: Ent. Custom Rules]

**Rule Definition:** PI\_CONSTANT [Parent: Enterprise Custom Rules]

### User Storage File 2 [[enterprise\\_HLAsm\\_rules.xml](#)]:

**Rule Definition:** L\_with\_R1 [Parent: Enterprise Custom Rules]

### User Storage File 3 [[enterprise\\_scan.xml](#)]:

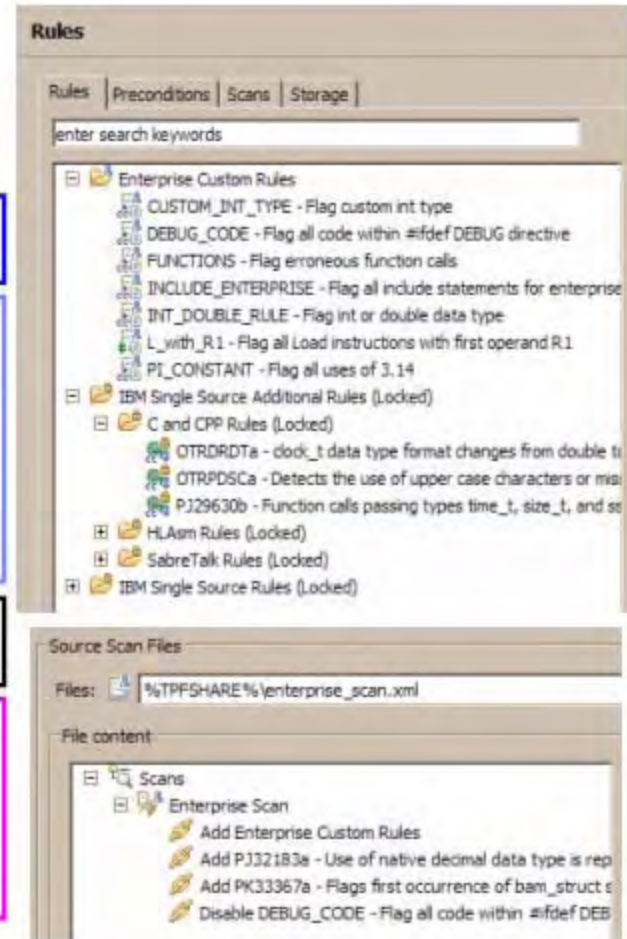
**Scan Definition:** Enterprise Scan

**Link:** Add Category: Enterprise Custom Rules

**Link:** Add PJ32183a to Enterprise Scan

**Link:** Add PK33367a to Enterprise Scan

**Link:** Disable DEBUG\_CODE in Enterprise Scan



**Rules**

Rules | Preconditions | Scans | Storage

enter search keywords

- Enterprise Custom Rules
  - CUSTOM\_INT\_TYPE - Flag custom int type
  - DEBUG\_CODE - Flag all code within #ifdef DEBUG directive
  - FUNCTIONS - Flag erroneous function calls
  - INCLUDE\_ENTERPRISE - Flag all include statements for enterprise
  - INT\_DOUBLE\_RULE - Flag int or double data type
  - L\_with\_R1 - Flag all Load instructions with first operand R1
  - PI\_CONSTANT - Flag all uses of 3,14
- IBM Single Source Additional Rules (Locked)
  - C and CPP Rules (Locked)
    - OTRDRDTa - doc\_t data type format changes from double to
    - OTRDPDSa - Detects the use of upper case characters or mis
    - PJ29630b - Function calls passing types time\_t, size\_t, and se
  - HLAsm Rules (Locked)
  - SabreTalk Rules (Locked)
  - IBM Single Source Rules (Locked)

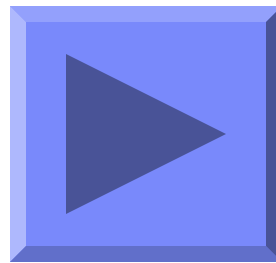
**Source Scan Files**

Files: %TPFSHARE%\enterprise\_scan.xml

**File content**

- Scans
  - Enterprise Scan
    - Add Enterprise Custom Rules
    - Add PJ32183a - Use of native decimal data type is rep
    - Add PK33367a - Flags first occurrence of bam\_struct s
    - Disable DEBUG\_CODE - Flag all code within #ifdef DEB

# Demo – Sharing & Deploying Source Scan Definitions



Note: Download `tug_spring2009_administratiodemo.exe` and start on your workstation



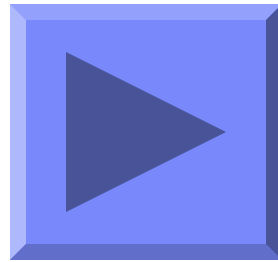
## Summary – Deployment Procedure

- **Administrators create rules into their own storage files in %TPFSHARE%**
- **Administrators create scans containing IBM-provided rules and custom rules**
- **Promote storage files as Enterprise storage files**
  - One-time step at initial deployment of storage files
- **Deploy %TPSHARE% folder to users**
- **To update source scan definitions, replace the deployed XML storage files with the updated files**

## Ensuring single source compliance

- **Validation – Used when files are edited by users**
  - Enable validation through the Source Scan Options option set in Target Environment
  - Specify set of scans to be used for validation
- **tpftool SourceScan service**
  - Schedule nightly scans of source code
  - Generated results file can be analyzed later

# Demo – Source Scan Validation in the Editor



Note: Download `tug_spring2009_validationdemo.exe` and start on your workstation



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