

Implementierung eines Mechanismus zur Übertragung von Informationen der Eclipse-Konsole in Saros

**Antrittsvortrag für die Bachelorarbeit
von Bernd Bieber**

Grundlagen

Alice

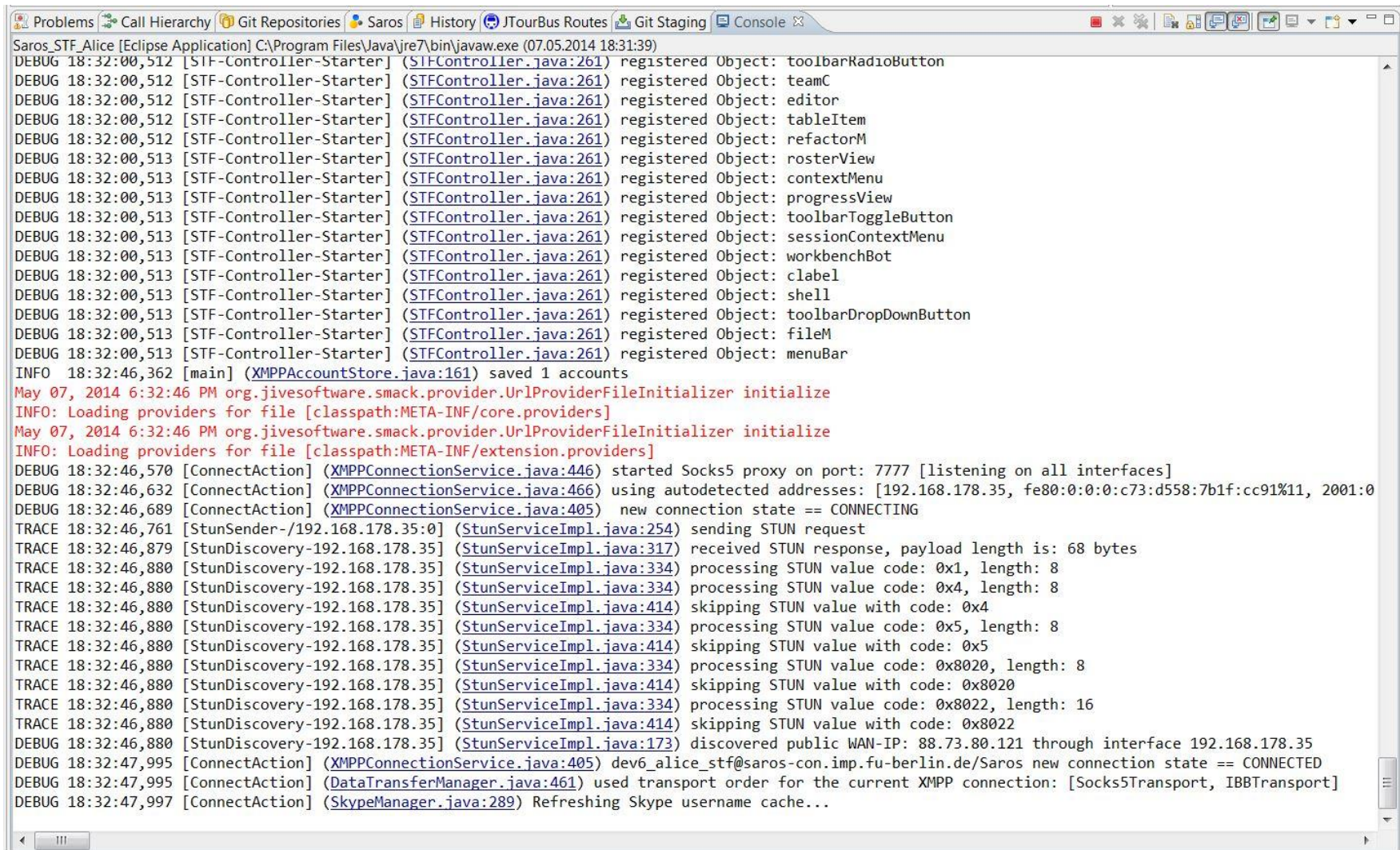
Bob

- Verteilte Paarprogrammierung
- Saros (Open-Source-Plugin für die verteilte kollaborative Programmierung)
- Eclipse – Integrierte Entwicklungsumgebung

Problemstellung

- Saros ermöglicht das gleichzeitige bearbeiten von Dateien.
- Viele andere Informationen des Partners sind aber nicht sichtbar.
- Mehrfach gewünscht : Das Teilen der Konsole

Die Eclipse Konsole



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Problems Call Hierarchy Git Repositories Saros History JTourBus Routes Git Staging Console X
Saros_STF_Alice [Eclipse Application] C:\Program Files\Java\jre7\bin\javaw.exe (07.05.2014 18:31:39)
DEBUG 18:32:00,512 [STF-Controller-Starter] (STFController.java:261) registered Object: toolbarRadioButton
DEBUG 18:32:00,512 [STF-Controller-Starter] (STFController.java:261) registered Object: teamC
DEBUG 18:32:00,512 [STF-Controller-Starter] (STFController.java:261) registered Object: editor
DEBUG 18:32:00,512 [STF-Controller-Starter] (STFController.java:261) registered Object: tableItem
DEBUG 18:32:00,512 [STF-Controller-Starter] (STFController.java:261) registered Object: refactorM
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: rosterView
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: contextMenu
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: progressView
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: toolbarToggleButton
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: sessionContextMenu
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: workbenchBot
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: clabel
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: shell
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: toolbarDropDownButton
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: fileM
DEBUG 18:32:00,513 [STF-Controller-Starter] (STFController.java:261) registered Object: menuBar
INFO 18:32:46,362 [main] (XMPPAccountStore.java:161) saved 1 accounts
May 07, 2014 6:32:46 PM org.jivesoftware.smack.provider.UrlProviderFileInitializer initialize
INFO: Loading providers for file [classpath:META-INF/core.providers]
May 07, 2014 6:32:46 PM org.jivesoftware.smack.provider.UrlProviderFileInitializer initialize
INFO: Loading providers for file [classpath:META-INF/extension.providers]
DEBUG 18:32:46,570 [ConnectAction] (XMPPConnectionService.java:446) started Socks5 proxy on port: 7777 [listening on all interfaces]
DEBUG 18:32:46,632 [ConnectAction] (XMPPConnectionService.java:466) using autodetected addresses: [192.168.178.35, fe80:0:0:c73:d558:7b1f:cc91%11, 2001:0]
DEBUG 18:32:46,689 [ConnectAction] (XMPPConnectionService.java:405) new connection state == CONNECTING
TRACE 18:32:46,761 [StunSender-/192.168.178.35:0] (StunServiceImpl.java:254) sending STUN request
TRACE 18:32:46,879 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:317) received STUN response, payload length is: 68 bytes
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:334) processing STUN value code: 0x1, length: 8
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:334) processing STUN value code: 0x4, length: 8
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:414) skipping STUN value with code: 0x4
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:334) processing STUN value code: 0x5, length: 8
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:414) skipping STUN value with code: 0x5
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:334) processing STUN value code: 0x8020, length: 8
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:414) skipping STUN value with code: 0x8020
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:334) processing STUN value code: 0x8022, length: 16
TRACE 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:414) skipping STUN value with code: 0x8022
DEBUG 18:32:46,880 [StunDiscovery-192.168.178.35] (StunServiceImpl.java:173) discovered public WAN-IP: 88.73.80.121 through interface 192.168.178.35
DEBUG 18:32:47,995 [ConnectAction] (XMPPConnectionService.java:405) dev6_alice_stf@saros-con.imp.fu-berlin.de/Saros new connection state == CONNECTED
DEBUG 18:32:47,995 [ConnectAction] (DataTransferManager.java:461) used transport order for the current XMPP connection: [Socks5Transport, IBBTransport]
DEBUG 18:32:47,997 [ConnectAction] (SkypeManager.java:289) Refreshing Skype username cache...
```

Ziel der Arbeit

Alice kann ihre Konsole mit Bob über
Saros teilen

- keine Anforderung
- Sehr ungenau

Vorgehensweise

- Prototyp
 - Machbarkeit
 - Saros unabhängig
 - Lesen/Schreiben der Eclipse-Konsole
 - Nach Erfolg entsorgt

Vorgehensweise

- Anforderung
 - Aufzeichnungen von Saros-Sitzungen ansehen (2 Entwickler, 1 Woche Arbeit)
 - Umfragen auswerten
 - Anwendungsfälle erstellen
 - Echte Nutzer befragen

Implementierung

- Softwareentwicklung
 - Schnell zu einer ausführbaren Version kommen
 - Schnell reagieren können
 - So weit es geht unabhängig von Eclipse
 - Clean Code (Robert C. Martin)
 - SRP – Single Responsibility Principle
 - Wenig Zeilen
 - Ständiges Refactoring

Präsentation

**Vielen Dank für die
Aufmerksamkeit**