

接口测试技术

Fiddler初步

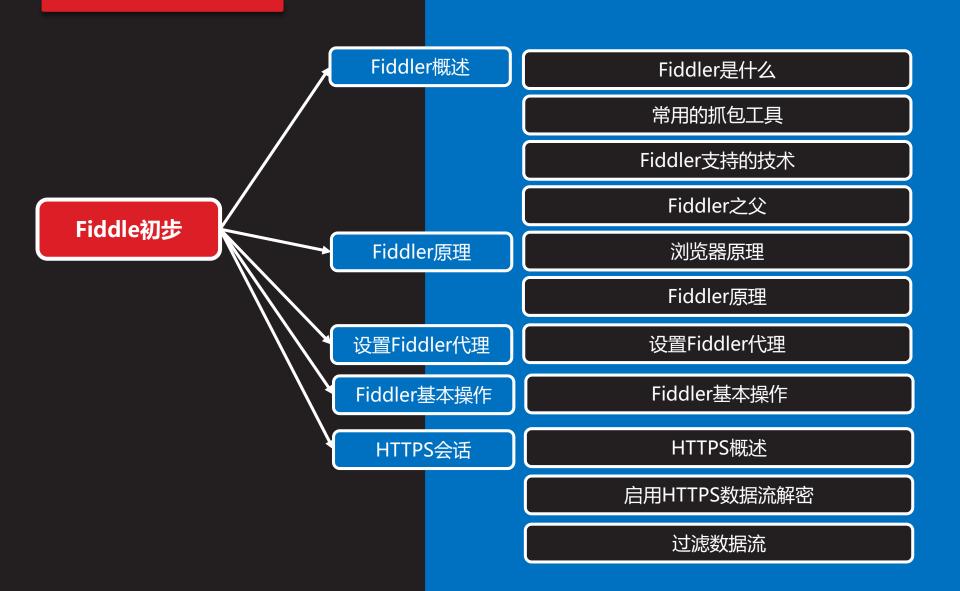
DAY05

内容

	09:00 ~ 09:30	作业讲解和回顾
上午	09:30 ~ 10:20	Fiddler初步
	10:30 ~ 11:20	Wob SossionFli=
	11:30 ~ 12:20	Web Session列表
	14:00 ~ 14:50	
-	15:00 ~ 15:50	监控面板
下午	16:00 ~ 16:50	
	17:00 ~ 17:30	总结和答疑



Fiddler初步





Fiddler概述

Fiddler是什么



- Fiddler是什么?
 - Fiddler是最强大最好用的Web调试工具之一——用于网站抓包分析。
 - 它能够记录所有客户端和服务器的HTTP、HTTPS、FTP请求,可以对网络中传输的数据包进行截获、重发、编辑等操作,也可以用来检测流量。

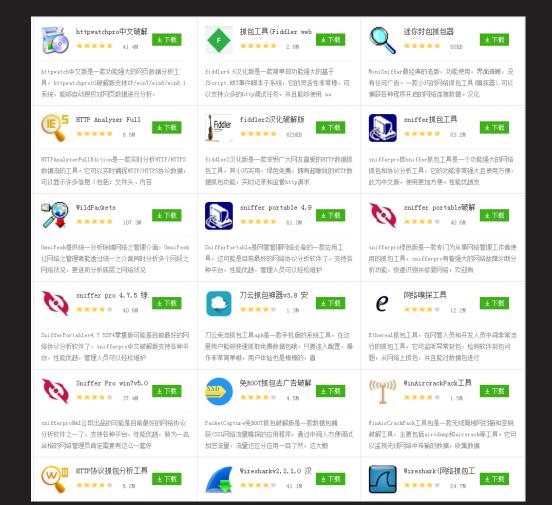




常用的抓包工具



- httpwatch、sniffer、wireshark、charles......
- 推荐网站——http://www.itmop.com/key/zbgj/





Fiddler支持的技术



• Fiddler支持的技术

Any Browser













Telerik Fiddler web debugging proxy helps you record, inspect and debug traffic from any browser.

Any System



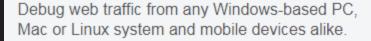












Any Platform











Use Telerik Fiddler with any platform and language. Now supporting .NET Standard 2.0.



Fiddler之父



- Fiddler之父——Eric · Lawrence(艾瑞克·劳伦斯):
 - Eric·Lawrence是Fiddler Web调试平台的创始人
 - 2001年毕业于美国马里兰大学帕克分校(University of Maryland College Park)软件工程专业
 - 1999年6月~2012年12月就职于微软公司,担任IE浏览器 组的Program Manager
 - 2012 年 12月 ~ 2015 年 12 月任职Telerik公司
 - 2016年1月~至今任职于Google







Fiddler原理

浏览器原理

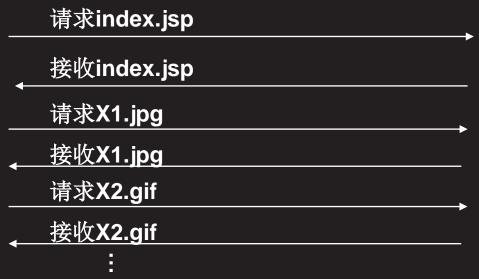


- 浏览器原理
 - 当用户访问某个HTML文件时,浏览器首先获得该HTML文件,然后进行语法分析。如果这个HTML文件包含图片、视频等信息,浏览器会再次访问Web服务器,依次获取这些图像、视频文件,然后把HTML和图像、视频文件组织起来,显示在屏幕上。



浏览器

Browser





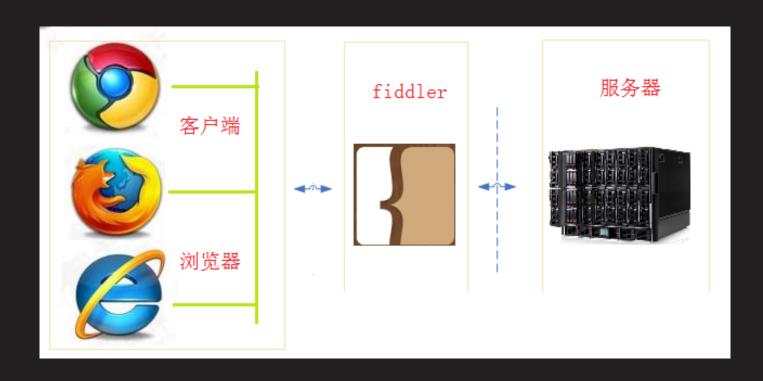
Web服务器

Server

Fiddler原理



- Fiddler的原理
 - Fiddler是以web代理服务器的形式进行工作的





Fiddler原理(续1)





浏览器

Browser





Web服务器

Server



浏览器

Browser

接收index.jsp

请求index.jsp

请求X1.jpg

接收X1.jpg

请求X2.gif

接收X2.gif

E R

D

请求index.jsp

接收index.jsp

请求X1.jpg

接收X1.jpg

请求X2.gif

_接收X2.gif



Web服务器

Server



Fiddler原理(续2)



• 生活中的代理——代购





商店 (服务器)



客户



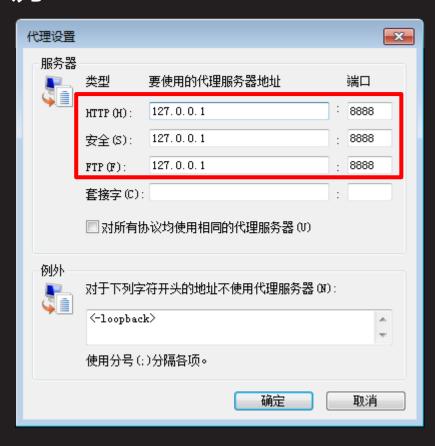


设置Fiddler代理

设置Fiddler代理



- 当Fiddler启动后,默认将IE的代理设为了127.0.0.1:8888
 - 代理地址是:127.0.0.1(本机)
 - 端口默认为8888





设置Fiddler代理(续1)



• 查看Fiddler代理的设置

Internet 选项	? ×
常规 安全 隐私 内容 连接 程序	高級
要设置 Internet 连接,单击"设置"	设置 (V)
拨号和虚拟专用网络设置	
	添加(0)
	添加 VPN(P)
	删除 (R)
如果要为连接配置代理服务器,请选择"设	设置(S)
局域网(LAN)设置 LAN 设置不应用到拨号连接。对于拨号设 置,单击上面的"设置"按钮。	局域网设置(L)
确定	取消 应用(A)

局域网(LAN)设置
自动配置会要盖手动设置。要确保使用手动设置,请禁用自动配置。
□ 自动检测设置(A)
■ 使用自动配置脚本(S)
地址(R)
代理服务器
▼ 为 LAN 使用代理服务器(这些设置不用于拨号或 VPN 连接)(X)
地址(E): 端口(T): 高级(C)
□ 对于本地地址不使用代理服务器(B)
确定 取消



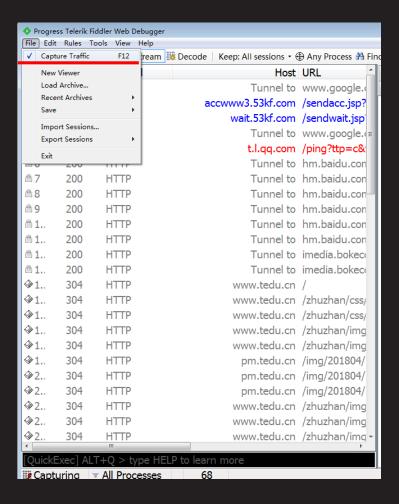


Fiddler基本操作

Fiddler基本操作



• 1、可以先停止捕获会话流 File->Capture Traffic(捕获会话流)



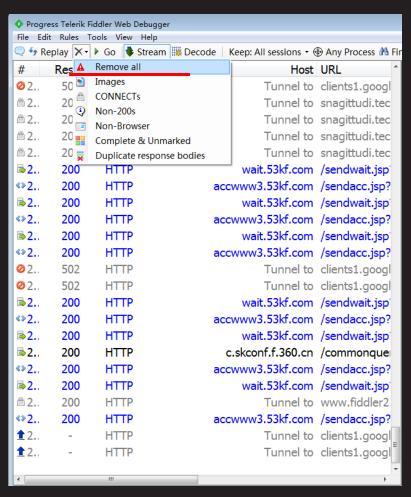


Fiddler基本操作(续1)

Tarena 达内科技

• 2、删除现有的会话信息

工具栏Remove all (删除所有)

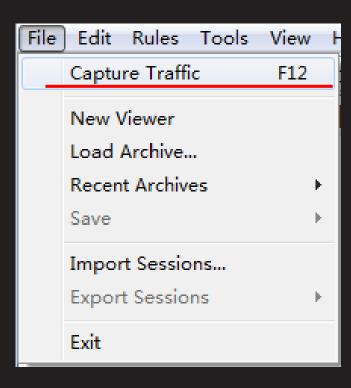




Fiddler基本操作(续2)



• 3、启动可以捕获会话流 File->Capture traffic 或者使用功能键F12





Fiddler基本操作(续3)



• 4、打开要测试的页面

如:www.tedu.cn

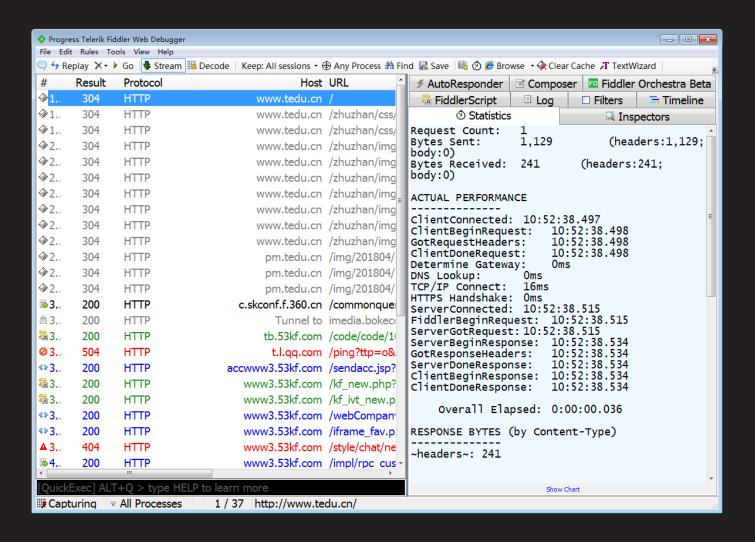




Fiddler基本操作(续4)



• 5、Fiddler会话列表中即可看到会话信息







捕获HTTPS会话

HTTPS概述



- 遇到的问题
 - 当在Fiddler上访问HTTPS网站时,默认情况下看到的内容 较少,得不到期望的请求和响应列表,可以看到一个或多 个CONNECT通道(Tunnel)

#	Result	Proto	Host	URL	Body	Ca	Cont
■1	200	HTTPS	www.fiddler2.com	/UpdateCheck.aspx?isB	528	pri	text/
2	502	HTTP	Tunnel to	clients4.google.com:443	582	no	text/
₿ 3	200	HTTP	106.11.42.152	/amdc/mobileDispatch?	656	no	appli
<u></u> 4	502	HTTP	Tunnel to	www.google.com:443	582	no	text/
⊕ 5	502	HTTP	Tunnel to	www.google.com:443	582	no	text/
<u></u> 6	502	HTTP	Tunnel to	www.google.com:443	582	no	text/
A 7	200	HTTP	Tunnel to	snagittudi.techsmith.co	0		
A 8	200	HTTP	Tunnel to	snagittudi.techsmith.co	0		
₿ 9	200	HTTP	106.11.42.152	/amdc/mobileDispatch?	656	no	appli



HTTPS概述



• HTTPS概述

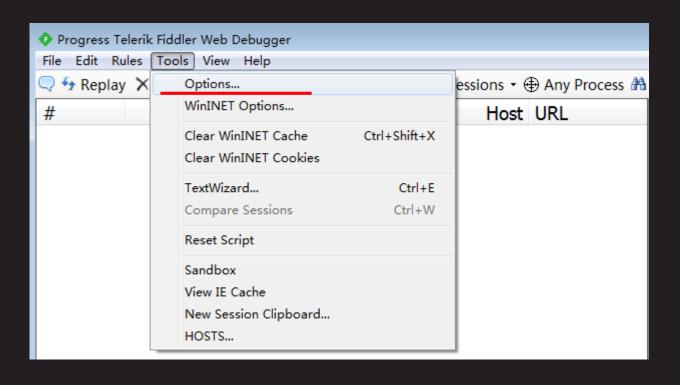
- HTTPS(Hyper Text Transfer Protocol over Secure Socket Layer),全称为安全的套接字层超文本传输协议。
 HTTPS是以安全为目标的HTTP通道,简单讲是HTTP的安全版。
- HTTPS协议是在HTTPS请求和底层的TCP/IP网络连接之间添加了一层加密的(SSL或TLS)连接,请求在该加密的连接上发送。由于使用了加密的协议,可以防止网络中间件或观察者查看或修改HTTP数据流



启用HTTPS数据流解密



- 使用Fiddler对HTTPS会话进行抓包,进行如下设置:
 - Tools (工具)->Options...(选项)





启用HTTPS数据流解密(续1)



在 "Options" 窗口中的 "HTTPS" 选项卡中,勾选"Decrypt HTTPS traffic" (解密HTTPS数据流)

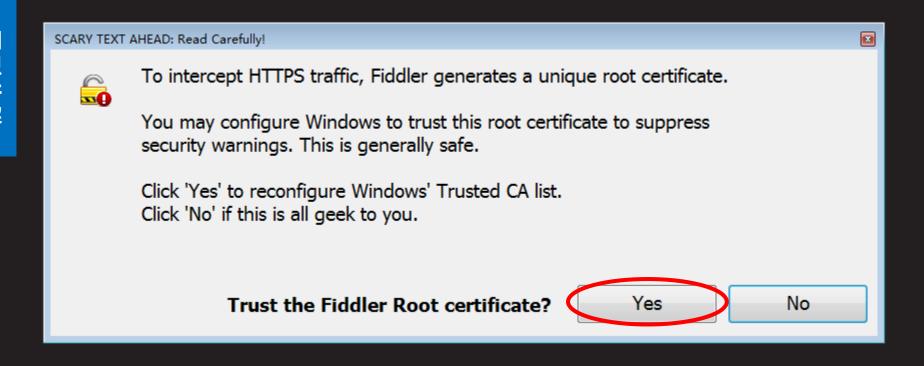
Options									X		
General	HTTPS	Connections	Gateway	Appearance	Scripting	Extensions	Performance	Tools	Щ		
Fiddler o	Fiddler can decrypt HTTPS sessions by re-signing traffic using self-generated certificates.										
▼ Cap	ture HTT	PS CONNECTs						Actions			
	ecrypt H	ITTPS traffic	•				_				
				Cer	tificates ge	enerated by (CertEnroll engi	ne			
Help	Note:	Changes may i	not take eff	fect until Fiddl	eris restar	ted. (OK	Cancel			



启用HTTPS数据流解密(续2)



- 弹出提示框,提示:为了拦截HTTPS数据流,Fiddler 要生成一个唯一的根证书,是否生成?

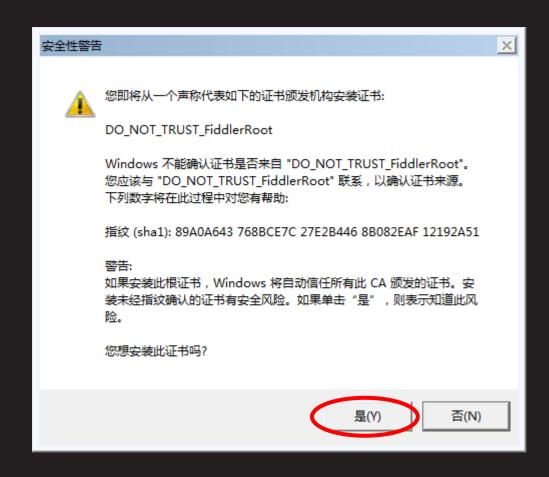




启用HTTPS数据流解密(续3)



- 弹出安全警告提示,点击"是"





启用HTTPS数据流解密(续4)



– 勾选 "Decrypt HTTPS traffic" 成功

Options							(×
General HTTPS	Connections	Gateway	Appearance	Scripting	Extensions	Performance	Tools	
Fiddler can decry	pt HTTPS sessi	ons by re-si	igning traffic us	sing self-ge	nerated certif	ficates.		
▼ Capture HTTF	S CONNECTS						Actions	
Decrypt H	TTPS traffic							
from all pro	cesses		▼ Cer	tificates ge	enerated by (CertEnroll engi	ne	
Ignore ser	rver certificate	errors (un	safe)					
Check for	certificate rev	ocation						
Protocols: <c< td=""><th>lient>; ssl3;tl</th><th>s 1.0</th><td></td><td></td><td></td><td></td><th></th><td></td></c<>	lient>; ssl3;tl	s 1.0						
Skip decrypti	on for the follo	owing host	s:					
Help Note: (Changes may i	not take eff	ect until Fiddl	eris restar	ted. (OK	Cancel	



启用HTTPS数据流解密(续5)



– 再勾选"lgnore server certificate error (unsafe) " <u>(忽略服务器认证错误(不安全</u>))

Options								×
General	HTTPS	Connections	Gateway	Appearance	Scripting	Extensions	Performance	Tools
Fiddler	can decry	pt HTTPS sessi	ons by re-s	igning traffic us	sing self-ge	nerated certif	ficates.	
▼ Cap	ture HTT	PS CONNECTs						Actions
V [ecrypt H	ITTPS traffic						
fi	rom all pro	ocesses		▼ Cer	tificates ge	enerated by	CertEnroll engi	ne
▼ 1	gnore se	rver certificate	errors (un	safe)				
	heck for	certificate rev	ocation					
Prot	ocols: <c< td=""><td>dient>; ssl3;tl</td><td>s 1.0</td><td></td><td></td><td></td><td></td><td></td></c<>	dient>; ssl3;tl	s 1.0					
Skip	decrypt	ion for the follo	owing host	s:				
Help	Note:	Changes may i	not take eff	fect until Fiddl	eris restar	ted. (ок	Cancel



启用HTTPS数据流解密(续6)



- 访问HTTPS页面时,可以看到HTTPS协议会话

#	Result	Protocol	Host	URL
1	502	HTTP	Tunnel to	snagittudi.techsmith.co
<u>2</u>	200	HTTP	Tunnel to	sp0.baidu.com:443
3	200	HTTPS	sp0.baidu.com	/5bU_dTmfKgQFm2e88
<u></u> 4	200	HTTP	Tunnel to	www.baidu.com:443
«»5	200	HTTPS	www.baidu.com	/baidu.php?url=0s0000
<u></u> 6	200	HTTP	Tunnel to	click.aliyun.com:443
№ 7	302	HTTPS	click.aliyun.com	/se/1512885/
₾8	200	HTTP	Tunnel to	click.alibabacloud.com:
№ 9	302	HTTPS	click.alibabacloud	/se/1512885?step=finish
<u>a</u> 10	200	HTTP	Tunnel to	gw.alicdn.com:443
<u>a</u> 11	200	HTTP	Tunnel to	www.googleadservices
<u>a</u> 12	200	HTTP	Tunnel to	stats.ipinyou.com:443
13	200	HTTP	Tunnel to	data.aliyun.com:443
14	200	HTTP	Tunnel to	data.aliyun.com:443
<>15	200	HTTPS	data.aliyun.com	/?spm=5176.7968328.7
<u>a</u> 16	200	HTTP	Tunnel to	yqfile.alicdn.com:443
■ 17	200	HTTPS	yqfile.alicdn.com	/67132f3eeccd3e00149
1 18	-	HTTP	Tunnel to	clients1.google.com:443
<u>a</u> 19	200	HTTP	Tunnel to	imgoacdn.aliyuncs.com
₾ 20	200	HTTP	Tunnel to	imgoacdn.aliyuncs.com
2 21	200	HTTPS	imgoacdn.aliyunc	/Y2pnNXcxeW90MDAx
2 2	200	HTTPS	imgoacdn.aliyunc	/Y2ozdjR4N3Q4MDAxd
1 23	-	HTTP	Tunnel to	clients1.google.com:443
1 24	-	HTTP	Tunnel to	clients1.aooale.com:443



过滤数据流



• 为了避免Fiddler解析不感兴趣的数据流,可以进行设置

Options									X
General	HTTPS	Connections	Gateway	Appearance	Scripting	Extensions	Performance	Tools	
Fiddler can decrypt HTTPS sessions by re-signing traffic using self-generated certificates. Capture HTTPS CONNECTs Decrypt HTTPS traffic Certificates generated by CertEnroll engine from all processes from browsers only from non-browsers only from remote clients only									
Protocols: <client>; ssl3;tls1.0 Skip decryption for the following hosts:</client>									
Help	Note:	Changes may ı	not take eff	ect until Fiddl	eris restar	ted. (ок	Cancel	



过滤数据流(续1)



各选项含义:

- from all processes:解析来自所有进程的HTTPS数据流
- from browsers only:只解析来自浏览器的HTTPS数据流
- from browsers only:只解析来自浏览器的HTTPS数据流
- from non-browsers only:只解析来自非浏览器的HTTPS 数据流
- from remote clients only:只解析来自远程客户端的 HTTPS数据流



Web Session列表 Fiddler用户界面 Fiddler用户界面 Web Session列表 Web Sessions列表 #列 Result **Protocol HOST** Web Session列 表 URL Body Caching Content-Type **Process** Comments Custom 自定义列 列表颜色



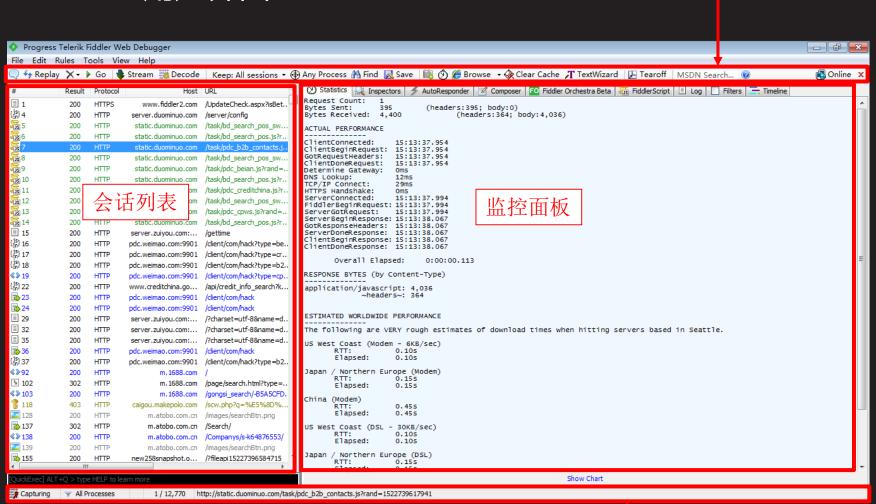
Fiddler用户界面

Fiddler用户界面



工具栏

• Fiddler用户界面









Web Session列表

Web Session列表



- Web Session(Web会话)列表
 - 显示Fiddler所捕获到的每个Session(会话)的简短摘要信息

#	Result	Protocol	Host	URL	Body	Caching	Content-Type	Process	Comments	Custom	
■ 1	200	HTTPS	www.fiddler2.com	/UpdateCheck.aspx?isBet	528	private	text/plain;				
{ ^{js} ₀ 4	200	HTTP	server.duominuo.com	/server/config	4,624		application/	netpub			
<u> </u>	200	HTTP	static.duominuo.com	/task/bd_search_pos_sw	4,086	max-ag	application/	netpub			
<u> </u>	200	HTTP	static.duominuo.com	/task/bd_search_pos.js?r	3,395	max-ag	application/	netpub			
5 5 5 6 7	200	HTTP	static.duominuo.com	/task/pdc_b2b_contacts.j	4,036	max-ag	application/	netpub			
₹ <u>35</u> 8	200	HTTP	static.duominuo.com	/task/bd_search_pos_sw	4,086	max-ag	application/	netpub			
<u> </u>	200	HTTP	static.duominuo.com	/task/pdc_beian.js?rand=	1,828	max-ag	application/	netpub			
<u>∓</u> 10	200	HTTP	static.duominuo.com	/task/bd_search_pos.js?r	3,395	max-ag	application/	netpub			
<u>5</u> 5 11	200	HTTP	static.duominuo.com	/task/pdc_creditchina.js?r	2,301	max-ag	application/	netpub			
₽ 12	200	HTTP	static.duominuo.com	/task/bd_search_pos_sw	4,086	max-ag	application/	netpub			
<u>5</u> 5 13	200	HTTP	static.duominuo.com	/task/pdc_cpws.js?rand=	4,700	max-ag	application/	netpub			
<u>∓</u> 14	200	HTTP	static.duominuo.com	/task/bd_search_pos.js?r	3,395	max-ag	application/	netpub			
	200	HTTP	server.zuiyou.com:	/gettime	31		text/json;c	netpub			
{ ^{js} _{on} } 16	200	HTTP	pdc.weimao.com:9901	/client/com/hack?type=be	325		application/	netpub			
{ ^{js} _{on} } 17	200	HTTP	pdc.weimao.com:9901	/client/com/hack?type=cr	366		application/	netpub			
{ ^{js} _{on} } 18	200	HTTP	pdc.weimao.com:9901	/client/com/hack?type=b2	244		application/	netpub			
♦ 19	200	HTTP	pdc.weimao.com:9901	/client/com/hack?type=cp	0		text/html; c	netpub			
(js) 22	200	HTTP	www.creditchina.go	/api/credit_info_search?k	135		application/	netpub			



Web Session列表(续1)



- Web Session列表主要包括:
 - #:会话编号
 - Result:结果
 - Protocol:协议
 - Host:主机
 - URL:统一资源定位
 - Body:主体
 - Caching:缓存
 - Content-Type:内容类型
 - Process: 进程
 - Comments:注释
 - Custom:自定义



#列



- 1、#列
 - 图标+ID号

#	Result	Protocol	Host	URL
■ 1	200	HTTPS	www.fiddler2.com	/UpdateCheck.aspx?isBet
<u></u> 2	200	HTTP	Tunnel to	pb.sogou.com:443
<u></u> 3	200	HTTP	Tunnel to	www.sogou.com:443
<u></u> 4	200	HTTP	Tunnel to	img04.sogoucdn.com:443
<u></u> 5	200	HTTP	Tunnel to	pb.sogou.com:443
<u></u> 6	200	HTTP	Tunnel to	pb.sogou.com:443
<u></u> 7	200	HTTP	Tunnel to	pb.sogou.com:443
<u></u> 8	200	НТТР	Tunnel to	pb.sogou.com:443

- 图标表示该会话的含义,ID号是Fiddler自动生成的会话ID



#列(续1)



- Web Session图标及其含义

(1)请求/响应类

图标	含义
1	客户端正在向服务器发送请求
	客户端正在从服务器下载响应
	客户端使用CONNECT方法进行请求,使用该方法构建传送加密的HTTPS数据流通道
3	客户端使用POST方法向服务器发送数据
	客户端使用的是HEAD或OPTIONS方法,或者返回HTTP/204状态码。 通过HEAD方法和OPTIONS方法,客户端无需下载内容就可以获取目标URL或服务器的信息。HTTP/204状态码表示没有指定URL的响应体



#列(续2)



- Web Session图标及其含义(续)

(2)会话类型

图标	含义
=	响应的是图像文件
< ₩ >	响应的是XML文件
(^{js})	响应的是JSON文件
<u> </u>	响应的是JS脚本文件
C55{	响应的是CSS文件
7	响应的是Flash小应用程序
	响应的是视频文件
	响应的是没有专用图标的其他内容类型



#列(续3)



- Web Session图标及其含义(续)

(3)其他

图标	含义
1	响应的是HTTP/401或HTTP/407,要求客户端进行认证;或响应HTTP/403,表示访问被拒绝
Α	响应包含HTTP/4xx或HTTP/5xx错误状态码
S.	响应的是HTTP/3xx类重定向
	该响应属于HTTP/206响应类型,该响应通常在客户端对目标URL执行Range请求获取部分内容时发生
◇	响应状态是HTTP/304,表示客户端缓存的副本已经是最新的了
0	Session被客户端应用、Fiddler或服务器中止。客户端的浏览器在下载一个页面的过程中,用户导航到另一个页面时,通常会发生这种情况。客户端浏览器取消所有正在处理的请求,因此最后Session的响应状态是Aborted



Result



- 2、Result (结果)
 - HTTP响应状态码,用于判断结果是成功、失败或者其他情况

#	Result	Protocol	Host	URL
<u>10323</u>	200	НТТР	Tunnel to	ss0.baidu.com:443
<u>10324</u>	200	HTTP	Tunnel to	ss0.baidu.com:443
<u>10325</u>	200	НТТР	Tunnel to	ss0.baidu.com:443
A 10326	521	НТТР	www.gsxt.gov.cn	/corp-query-search-1.html
<u>10327</u>	200	НТТР	Tunnel to	sp1.baidu.com:443
<u>10328</u>	200	НТТР	Tunnel to	sp1.baidu.com:443
<u>10329</u>	200	НТТР	Tunnel to	ss1.baidu.com:443
<u>10330</u>	200	НТТР	Tunnel to	ss1.baidu.com:443
<u>10331</u>	200	НТТР	Tunnel to	sp3.baidu.com:443
10332	200	НТТР	pdc.weimao.com:9901	/client/com/hack
A 10333	400	HTTP	www.gsxt.gov.cn	/corp-query-search-1.html



Protocol



- Protocol (协议)
 - 该Session(会话)使用的协议(HTTP/HTTPS/FTP)
 - HTTP:

HyperText Transfer Protocol,超文本传输协议

- HTTPS:

HyperText Transfer Protocol over Secure Socket Layer,安全版的 HTTP

– FTP :

File Transfer Protocol,文件传输协议

#	Result	Protocol	Host	URL
■ 1	200	HTTPS	www.fiddler2.com	/UpdateCheck.aspx?isBet
2 2	502	HTTP	Tunnel to	dients4.google.com:443
∞ 3	200	НТТР	miserupdate.aliyun.com	/data/2.4.1.6/brfversion
■ 4	200	HTTP	miserupdate.aliyun.com	/data/brf2.dat_20180404



Host



- Host(主机)
 - 接收请求的服务器的主机名(或域名)和端口号

#	Result	Protocol	Host	URL	Body
\$ ≥22	200	НТТР	www.tedu.cn	1	42,751
css{23	200	НТТР	www.tedu.cn	/zhuzhan/css/main.css	7,689
css{24	200	НТТР	www.tedu.cn	/zhuzhan/css/idangerous	1,048
25	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-course	319
css{26	200	HTTP	www.tedu.cn	/zhuzhan/css/media-queri	4,377



URL



URL

- Uniform Resource Locator,统一资源定位符
- 是对可以从互联网上得到的资源的位置和访问方法的一种简洁、统一的表示,是互联网上标准资源的地址。互联网上的每个文件都有一个唯一的URL,它包含的信息指出文件的位置或者浏览器应该怎么处理它

#	Result	Protocol	Host	URL	Body
\$ ≥22	200	HTTP	www.tedu.cn	1	42,751
css{23	200	HTTP	www.tedu.cn	/zhuzhan/css/main.css	7,689
css{24	200	HTTP	www.tedu.cn	/zhuzhan/css/idangerous.swiper.css	1,048
2 5	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-course.png	319
css{26	200	HTTP	www.tedu.cn	/zhuzhan/css/media-queries.css	4,377
27	200	HTTP	www.tedu.cn	/zhuzhan/img/logo.png	7,294
28	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-center.png	1,481
2 9	200	HTTP	www.tedu.cn	/img/201803/1519968147114.jpg	594,588
<u>₹</u> 30	200	HTTP	www.tedu.cn	/zhuzhan/js/sou.js	2,382
3 1	200	HTTP	www.tedu.cn	/img/201803/1522227865317.jpg	193,424
3 2	200	HTTP	www.tedu.cn	/img/201801/1516583179496.jpg	218,404
3 3	200	HTTP	www.tedu.cn	/img/201803/1520403394794.jpg	197,395
3 4	200	HTTP	www.tedu.cn	/zhuzhan/img/title-jt.png	1,179



Body



- Body (主体)
 - 响应体中包含的字节数

#	Result	Protocol	Host	URL	Body
\$ ≥22	200	НТТР	www.tedu.cn	1	42,751
css{23	200	HTTP	www.tedu.cn	/zhuzhan/css/main.css	7,689
css{24	200	HTTP	www.tedu.cn	/zhuzhan/css/idangerous.swiper.css	1,048
2 5	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-course.png	319
css{26	200	HTTP	www.tedu.cn	/zhuzhan/css/media-queries.css	4,377
2 7	200	HTTP	www.tedu.cn	/zhuzhan/img/logo.png	7,294
28	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-center.png	1,481
2 9	200	HTTP	www.tedu.cn	/img/201803/1519968147114.jpg	594,588
<u>₹</u> 30	200	HTTP	www.tedu.cn	/zhuzhan/js/sou.js	2,382
3 1	200	HTTP	www.tedu.cn	/img/201803/1522227865317.jpg	193,424
3 2	200	HTTP	www.tedu.cn	/img/201801/1516583179496.jpg	218,404
3 3	200	HTTP	www.tedu.cn	/img/201803/1520403394794.jpg	197,395
3 4	200	HTTP	www.tedu.cn	/zhuzhan/img/title-jt.png	1,179

1Byte=8bit

1KB=1024B, 1MB=1024KB, 1GB=1024MB

1TB=1024GB, 1PB=1024TB, 1EB=1024PB



Caching



- Caching(缓存)
 - HTTP消息头中Expires(过期时间)和Cache-Control (缓冲控制)字段的值

#	Result	Protocol	Host	URL	Body	Caching
A 1	502	HTTPS	www.fiddler2.com	/UpdateCheck.aspx?isBeta=	582	no-cache, must-revalidate
<u>2</u>	200	HTTP	Tunnel to	mobile.pipe.aria.microsoft.c	0	
<u></u> 3	200	HTTP	Tunnel to	mobile.pipe.aria.microsoft.c	0	
② 4	502	HTTP	Tunnel to	clients1.google.com:443	582	no-cache, must-revalidate
<u></u> 5	200	HTTP	Tunnel to	wup.browser.qq.com:443	0	
<u></u> 6	200	HTTP	Tunnel to	wup.browser.qq.com:443	0	
■ 7	200	HTTP	se.360.cn	/cloud/picinfo.ini	2,176	max-age=300; Expires: Wed, 04 Apr 2018 03:11:18 GMT
<u>as</u> 18	200	HTTP	suggestion.baidu.com	/su?wd=www.t&action=ope	109	private; Expires: Wed, 04 Apr 2018 04:07:14 GMT
<u>as</u> 19	200	HTTP	suggestion.baidu.com	/su?wd=www.te&action=op	89	private; Expires: Wed, 04 Apr 2018 04:07:14 GMT
18 19 19 20	200	HTTP	suggestion.baidu.com	/su?wd=www.ted&action=o	14	private; Expires: Wed, 04 Apr 2018 04:07:14 GMT
₹ <u>5</u> 521	200	HTTP	suggestion.baidu.com	/su?wd=www.tedu&action=	15	private; Expires: Wed, 04 Apr 2018 04:07:14 GMT



Caching (续1)



Expires: 过期时间。响应头中包含日期/时间,即在此时候之后,响应过期

格式: Expires: Wed, 04 Apr 2018 03:11:18 GMT 如果在前面加上max-age指令,则Expires被忽略

– Cache-Control:缓冲控制

消息头中通过指定指令来实现缓存机制

private:响应只能被单个用户缓存,不能作为共享缓存(即代理服务器不能缓存)

max-age:缓存最大存储时间(单位:秒),超过该时间,缓存过期

must-revalidate:缓存必须在使用之前验证旧资源的状态,并且不可

使用过期资源

no-store:不使用缓存

no-cache:在释放缓存副本之前,强制高速缓存将请求提交给原始服

务器进行验证。



Content-Type



- Content-Type(内容类型)
 - HTTP响应中的内容类型,一般是指网页中存在的Content-Type属性,用于定义网络文件的类型和网页的编码,决定 文件接收方将以什么形式、什么编码读取这个文件

#	Result	Protocol	Host	URL	Body	Caching	Content-Type
■ 7	200	НТТР	se.360.cn	/cloud/picinfo.ini	2,176	max-age=300; Expires: We	application/octet-stream
₽ 18	200	HTTP	suggestion.baidu.com	/su?wd=www.t&action=ope	109	private; Expires: Wed, 04 A	text/javascript; charset=UTF-8
₹ 19	200	HTTP	suggestion.baidu.com	/su?wd=www.te&action=op	89	private; Expires: Wed, 04 A	text/javascript; charset=UTF-8
18 19 19 20 45 21	200	HTTP	suggestion.baidu.com	/su?wd=www.ted&action=o	14	private; Expires: Wed, 04 A	text/javascript; charset=UTF-8
<u>-</u> 55 21	200	HTTP	suggestion.baidu.com	/su?wd=www.tedu&action=	15	private; Expires: Wed, 04 A	text/javascript; charset=UTF-8
\$ ≥22	200	HTTP	www.tedu.cn	1	42,751		text/html
css{23	200	HTTP	www.tedu.cn	/zhuzhan/css/main.css	7,689		text/css
css{24	200	HTTP	www.tedu.cn	/zhuzhan/css/idangerous.sw	1,048		text/css
25	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-course.png	319		image/png
css{26	200	HTTP	www.tedu.cn	/zhuzhan/css/media-queries	4,377		text/css
27	200	HTTP	www.tedu.cn	/zhuzhan/img/logo.png	7,294		image/png
28	200	HTTP	www.tedu.cn	/zhuzhan/img/btn-center.png	1,481		image/png
29	200	HTTP	www.tedu.cn	/img/201803/151996814711	594,588		image/jpeg
<u></u> 30	200	HTTP	www.tedu.cn	/zhuzhan/js/sou.js	2,382		application/x-javascript
3 1	200	HTTP	www.tedu.cn	/img/201803/152222786531	193,424		image/jpeg
32	200	HTTP	www.tedu.cn	/img/201801/151658317949	218,404		image/jpeg



Content-Type (续1)



- 主要Content-Type(内容类型)

```
text/plain
text/html
image/jpeg
image/png
audio/mpeg
audio/ogg
audio/*
video/mp4
application/*
application/json
application/javascript
application/ecmascript
application/octet-stream
```



Content-Type (续2)



- 文件类型和Content-Type对应

Туре	Description	Example of typical subtypes
text	Represents any document that contains text and is theoretically human readable	<pre>text/plain, text/html, text/css, text/javascript</pre>
image	Represents any kind of images. Videos are not included, though animated images (like animated gif) are described with an image type.	<pre>image/gif, image/png, image/jpeg, image/bmp, image/webp</pre>
audio	Represents any kind of audio files	<pre>audio/midi, audio/mpeg, audio/webm, audio/ogg, audio/wav</pre>
video	Represents any kind of video files	video/webm, video/ogg
application	Represents any kind of binary data.	<pre>application/octet-stream, application/pkcs12, application/vnd.mspowerpoint, application/xhtml+xml, application/xml, application/pdf</pre>



Process



- Process (进程)
 - 数据流对应的本地Windows中的进程和进程编号

#	Result	Protocol	Host	URL	Body	Caching	Content-Type	Process
\$ ≥22	200	HTTP	www.tedu.cn	1	42,751		text/html	iexplore: 13184
css{23	200	HTTP	www.tedu.cn	/zhuzhan/c	7,689		text/css	iexplore: 13184
css{24	200	HTTP	www.tedu.cn	/zhuzhan/c	1,048		text/css	iexplore: 13184
2 5	200	HTTP	www.tedu.cn	/zhuzhan/i	319		image/png	iexplore: 13184
css{26	200	HTTP	www.tedu.cn	/zhuzhan/c	4,377		text/css	iexplore: 13184
27	200	HTTP	www.tedu.cn	/zhuzhan/i	7,294		image/png	iexplore: 13184
28	200	HTTP	www.tedu.cn	/zhuzhan/i	1,481		image/png	iexplore: 13184
2 9	200	HTTP	www.tedu.cn	/img/20180	594,588		image/jpeg	iexplore: 13184
<u>∓</u> 30	200	HTTP	www.tedu.cn	/zhuzhan/js	2,382		application/x-javascript	iexplore: 13184
3 1	200	HTTP	www.tedu.cn	/img/20180	193,424		image/jpeg	iexplore: 13184
3 2	200	HTTP	www.tedu.cn	/img/20180	218,404		image/jpeg	iexplore: 13184



Comments



- Comments (注释)
 - 用户自行添加的注释信息

#	Result	Protocol	Host	URL	Body	Caching	Content-Type	Process	Comments
\$ ≥22	200	HTTP	www.tedu.cn	1	42,751		text/html	iexplore: 13184	访问达内官网首页

- 方法

#	Result	Protocol	Host	URL	Body	Caching	Content-Type	Process	Comments	3	Custom		
∜ 22	200	НТТР	www.tedu.cn	1	42,751		text/html	iexplore: 13184					
css{23	200	HTTP	www.tedu.cn	/zhuzh	7,689		text/css	iexplore: 13184		Decod	de Selected	Sessions	
css{24	200	HTTP	www.tedu.cn	/zhuzh	1,048		text/css	iexplore: 13184			II.o. '		
2 5	200	HTTP	www.tedu.cn	/zhuzh	319		image/png	iexplore: 13184	✓	AutoS	croll Session	n List	
css{26	200	HTTP	www.tedu.cn	/zhuzh	4,377		text/css	iexplore: 13184		Сору			•
27	200	HTTP	www.tedu.cn	/zhuzh	7,294		image/png	iexplore: 13184					·
28	200	HTTP	www.tedu.cn	/zhuzh	1,481		image/png	iexplore: 13184		Save			•
2 9	200	HTTP	www.tedu.cn	/img/20	594,588		image/jpeg	iexplore: 13184		Remo	ve		+
<u>∓</u> 30	200	HTTP	www.tedu.cn	/zhuzh	2,382		application/x-ja	iexplore: 13184		Filter I	Now		•
3 1	200	HTTP	www.tedu.cn	/img/20	193,424		image/jpeg	iexplore: 13184					
3 2	200	HTTP	www.tedu.cn	/img/20	218,404		image/jpeg	iexplore: 13184		Comm	nent		M
3 3	200	HTTP	www.tedu.cn	/img/20	197,395		image/jpeg	iexplore: 13184		Mark			.
34	200	HTTP	www.tedu.cn	/zhuzh	1,179		image/png	iexplore: 13184					
3 5	200	HTTP	bj.tedu.cn	/img/20	238,285		image/jpeg	iexplore: 13184		Repla	у		•
3 6	200	HTTP	sh.tedu.cn	/img/20	232,403		image/jpeg	iexplore: 13184		Select			+
<u></u> 37	200	HTTP	Tunnel to	urs.mic	0			iexplore: 13184		Comp	are		Ctrl+W
38	200	HTTP	gz.tedu.cn	/img/20	211,873		image/jpeg	iexplore: 13184			TPeek		
3 9	200	HTTP	www.tedu.cn	/zhuzh	1,312		image/png	iexplore: 13184					
4 0	200	HTTP	www.tedu.cn	/zhuzh	1,320		image/png	iexplore: 13184		Abort	Session		
4 1	200	HTTP	www.tedu.cn	/zhuzh	1,191		image/png	iexplore: 13184		Clone	Response		
4 2	200	HTTP	www.tedu.cn	/zhuzh	1,200		image/png	iexplore: 13184		Unloc	k For Editing		F2
4 3	200	HTTP	www.tedu.cn	/zhuzh	786		image/png	iexplore: 13184		Office	K TOT LUILIN	9	12
44	200	НТТР	www.tedu.cn	/zhuzh	1,186		image/png	iexplore: 13184		Inspec	t in New W	indow	Shift+Enter
4 5	200	HTTP	www.tedu.cn	/zhuzh	1,461		image/png	iexplore: 13184					Alt+Enter
4 6	200	HTTP	www.tedu.cn	/zhuzh	1,556		image/png	iexplore: 13184		Prope	rues		AIL+Enter



Custom



- Custom (自定义)
 - 通过FiddlerScript(Fiddler脚本)设置自定义列,可以自己定义值



自定义列



- 自定义列
 - Customize columns...(自定义列)

Host Column
Search this column
Flag duplicates
Hide this column
Ensure all columns are visible
Customize columns

Customize Columns		2
Collection: Session Timers ▼	Timer Name: ClientBeginRequest	▼
Width: 60 €	Column Title: ClientBeginRequest	
Learn more about cust	omizing columns	Add



知识讲解

自定义列(续1)



• 隐藏列

Host Column

Search this column...

Flag duplicates

Hide this column

Ensure all columns are visible

Customize columns...

- 调整列的顺序
 - 直接拖拽列名



列表颜色



- Web Sessions列表不同颜色的含义
 - Web Sessions列表中的每行记录的默认文本色彩体现了HTTP状态、数据流类型、响应类型

#		Result	Protocol	Host	URL	Body	Caching	Content-Type	Process
= 5	76	200	HTTP	sports.sohu.com	/upload/nbalogo/bulls.jpg	8,046	max-ag	image/jpeg	iexplor
= 5		200	HTTP	i2.itc.cn	/20151026/361c_f8b89b9	8,353	max-ag	image/jpeg	iexplor
= 5	78	200	HTTP	sports.sohu.com	/upload/nbalogo/rockets.jpg	3,617	max-ag	image/jpeg	iexplor
A 5	79	502	HTTP	i0.itc.cn	/20151026/361c_f8b89b9	582	no-cac	text/html; c	iexplor
= 5	80	200	HTTP	sports.sohu.com	/upload/nbalogo/heat.jpg	6,249	max-ag	image/jpeg	iexplor
= 5	81	200	HTTP	i3.itc.cn	/20151026/361c_f8b89b9	12,365	max-ag	image/jpeg	iexplor
= 5	82	200	HTTP	sports.sohu.com	/upload/nbalogo/knicks.jpg	8,408	max-ag	image/jpeg	iexplor
= 5	83	200	HTTP	sports.sohu.com	/upload/nbalogo/magic.jpg	8,573	max-ag	image/jpeg	iexplor
= 5	84	200	HTTP	i3.itc.cn	/20151026/361c_f8b89b9	10,747	max-ag	image/jpeg	iexplor
= 5	85	200	HTTP	i1.itc.cn	/20131017/2f7b_3b5281f	4,318	max-ag	image/jpeg	iexplor
= 5	86	200	HTTP	sports.sohu.com	/upload/nbalogo/cavaliers	6,603	max-ag	image/jpeg	iexplor
= 5	87	200	HTTP	i3.itc.cn	/20151026/361c_f8b89b9	8,856	max-ag	image/jpeg	iexplor
= 5	88	200	HTTP	i0.itc.cn	/20170303/366b_04cb47	923	max-ag	image/png	iexplor
= 5	89	200	HTTP	i0.itc.cn	/20170327/366b_4668e3	1,214	max-ag	image/png	iexplor
♦ ≥5		200	HTTP	i.go.sohu.com	/count/av?source=0&new	44		text/html; c	iexplor
= 5	91	200	HTTP	imp.ad-plus.cn	/201111/ee4f7cebb2ef82	43	no-cache	image/gif	iexplor
= 5	92	200	HTTP	imp.ad-plus.cn	/201803/30c4c79d8431f8	43	no-cache	image/gif	iexplor
= 5		200	HTTP	imp.ad-plus.cn	/201803/d3f619f7ecd52a	43	no-cache	image/gif	iexplor
= 5	94	200	HTTP	imp.ad-plus.cn	/201803/5430537126556	43	no-cache	image/gif	iexplor
= 5	95	200	HTTP	imp.ad-plus.cn	/201803/2dfe89fac22f32	43	no-cache	image/gif	iexplor
Js 5	96	200	HTTP	v2.sohu.com	/public-api/articles/pv?&ca	177	max-ag	application/	iexplor
♦ ≥5		200	HTTP	hqm.stock.sohu.com	/getajson?code=zs_0000	377		text/html	iexplor
<u> </u>	98	200	HTTP	adv-sv-show.focus.cn	/be_fox_say3?callback=j	1,342		application/	iexplor
. 5	99	200	HTTP	m1.auto.itc.cn	/sohupchome/right_hotmo	1,452	max-ag	application/	iexplor
_	00	200	HTTP	s.go.sohu.com	/adgtr/?callback=jQuery1	82		text/json; c	iexplor
	01	200	HTTP	adv-sv-stat.focus.cn	/adv/producer/sendLog?t	0			iexplor
	02	200	HTTP	s.go.sohu.com	/adgtr/?callback=jQuery1	1,832		text/json; c	iexplor
<u> </u>	03	200	HTTP	images.sohu.com	/bill/s2018/passion/passio	11,422	max-ag	application/	iexplor
5 6	04	200	HTTP	pv.sohu.com	/pv.gif?t?=152280912071	0		application/	iexplor
■ 6	05	200	HTTP	s.go.sohu.com	/adgtr/?callback=jQuery1	1,841		text/json; c	iexplor



列表颜色(续1)



- HTTP状态
 - 红色表示错误

▲ 579 502 HTTP i0.itc.cn /20151026/361c_f8b89b9... 582 no-cac... text/html; c... iexplor...

- 黄色表示认证
- 数据流类型
 - 灰色表示CONNECT(连接)

480	200	HTTP	t3.focus-img.cn	/sh320x213sh/bet/res/22	75,457	max-ag	image/jpeg	iexplor
481	200	HTTP	t1.focus-img.cn	/sh155x103sh/bet/res/80	27,283	max-ag	image/jpeg	iexplor
482	200	HTTP	t3.focus-img.cn	/sh155x103sh/bet/res/2ff	28,845	max-ag	image/jpeg	iexplor
483	200	HTTP	d1.biz.itc.cn	/q/zs/001/000001/index	4,115	max-ag	image/png	iexplor
484	200	HTTP	d1.biz.itc.cn	/q/zs/001/399001/index	4,572	max-ag	image/png	iexplor
485	200	HTTP	d1.biz.itc.cn	/q/zs/006/399006/index	5,005	max-ag	image/png	iexplor
486	200	HTTP	643108e7617ef.cd	/fe7745f224e34ade9a660	18,044	max-ag	image/jpeg	iexplor
487	200	HTTP	643108e7617ef.cd	/a15ebbdf14f5441790816	20,194	max-ag	image/jpeg	iexplor
488	200	HTTP	643108e7617ef.cd	/49d5223114724dc58e07	27,828	max-ag	image/jpeg	iexplor
489	200	HTTP	643108e7617ef.cd	/274a4479b2d946aa9413	30,581	max-ag	image/gif	iexplor



列表颜色(续2)



- 响应类型
 - 蓝色表示HTML

♦ ≥ 500	200	НТТР	i.go.sohu.com	/count/v?source=0&newsi	44	text/html; c	iexplor
<≥501	200	HTTP	i.go.sohu.com	/count/v?source=0&newsi	44	text/html; c	iexplor

- 灰色表示图像

22 487	200	HTTP	643108e7617ef.cd	/a15ebbdf14f5441790816	20,194	max-ag	image/jpeg	iexplor
488	200	HTTP	643108e7617ef.cd	/49d5223114724dc58e07	27,828	max-ag	image/jpeg	iexplor

- 绿色表示script

₹ 467 Js 467	200	HTTP	v2.sohu.com	/public-api/feed?scene=C	39,868	max-ag	application/	iexplor
₹ <u>5</u> 5 468	200	НТТР	v2.sohu.com	/public-api/starsRank?call	4,037	max-ag	application/	iexplor

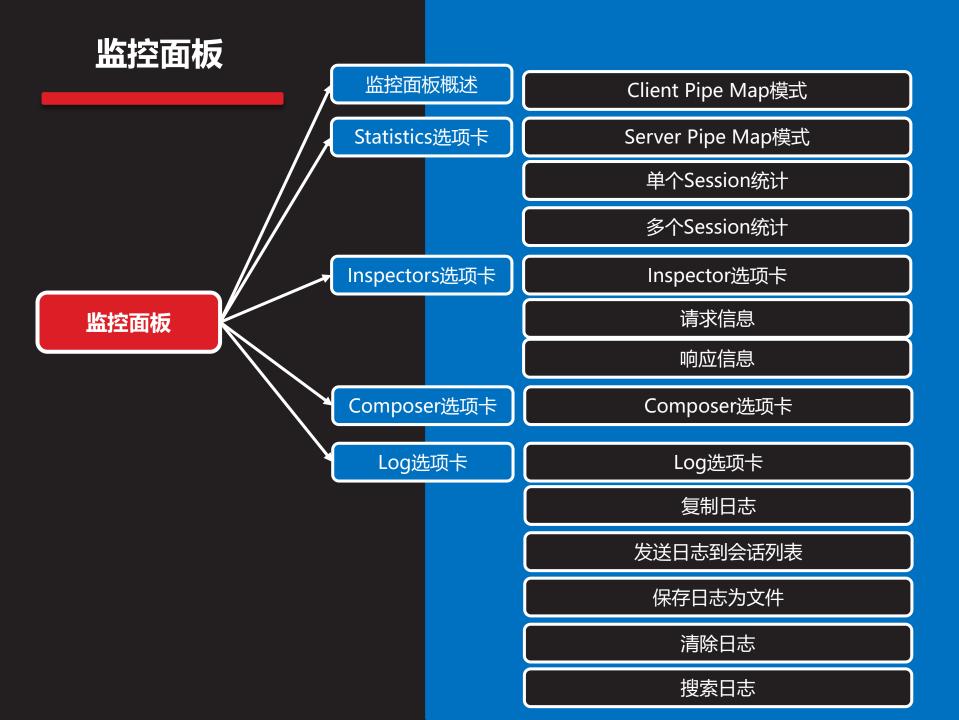
- 紫色表示CSS

c55{361	200	HTTP	www3.53kf.com	/css/code.css	805	max-ag	text/css	iexplore: 13184
css{362	200	HTTP	www3.53kf.com	/js/new2017/kindeditor/th	3,625	max-ag	text/css	iexplore: 13184

- 黑色表示JSON或其他类型

₩326 200 HTTPS www.baidu.com /home/pcw 19,69	{å₅} 326	200	HTTPS	www.baidu.com /home/pcw	19,696
--	-----------------	-----	-------	-------------------------	--------





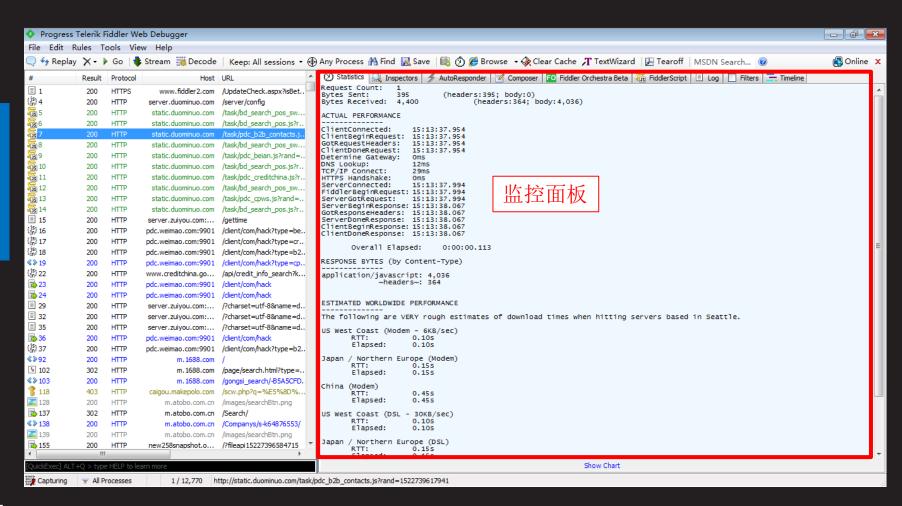


监控面板概述

监控面板概述



监控面板界面:





监控面板概述(续1)



- 监控面板界面主要包括:
 - Statistics (统计)选项卡
 - Inspectors (审查) 选项卡
 - AutoResponder(自动响应)选项卡
 - Composer(设计)选项卡
 - Fiddler Orchestra Beta(管弦乐)选项卡
 - FiddlerScript (Fiddler脚本)选项卡
 - Log (日志) 选项卡
 - Filter (过滤器)选项卡
 - Timeline (时间轴)选项卡





Statistics选项卡

Statistics选项卡



- Statistics (统计)选项卡
 - 显示当前Session的基本信息

```
🕉 Statistics 💢 Inspectors 🖋 AutoResponder 🕝 Composer 🔟 Fiddler Orchestra Beta 👼 FiddlerScript 🗎 Log 🗀 Filters 🚍 Timeline
Request Count:
Bytes Sent:
                    692
                               (headers:692; body:0)
                                   (headers: 332: body: 47.865)
Bytes Received: 48,197
ACTUAL PERFORMANCE
ClientConnected: 14:46:59.169
ClientBeginRequest: 14:46:59.176
GotRequestHeaders:
ClientDoneRequest:
                         14:46:59.177
Determine Gateway:
DNS Lookup:
TCP/IP Connect:
HTTPS Handshake: Oms
ServerConnected: 14:46:59.183
FiddlerBeginReguest: 14:46:59.183
ServerGotRequest: 14:46:59.183

        ServerBeginResponse:
        14:46:59.240

        GotResponseHeaders:
        14:46:59.240

        ServerDoneResponse:
        14:46:59.263

ClientBeginResponse: 14:46:59.263
ClientDoneResponse: 14:46:59.264
     Overall Elapsed: 0:00:00.087
RESPONSE BYTES (by Content-Type)
text/html: 47,865
~headers~: 332
ESTIMATED WORLDWIDE PERFORMANCE
The following are VERY rough estimates of download times when hitting servers based in Seattle.
US West Coast (Modem - 6KB/sec)
     RTT: 0.10s
     Elapsed: 8.10s
Japan / Northern Europe (Modem)
     RTT: 0.15s
     Elapsed: 8.15s
China (Modem)
               0.45s
     Elapsed: 8.45s
```



单个Session统计



- 选中一个Session,显示该Session的统计信息
- 第一部分:概要

Request Count: 1

Bytes Sent: 1,800 (headers:194; body:1,606)

Bytes Received: 787 (headers:201; body:586)

Request Count:请求数量

Bytes Sent:发送的字节数(header:头部文档字节数; body:主体文档字节数)

Bytes Received:接收的字节数(header:头部文档字节数;body:主体文档字节数)



单个Session统计(续1)



• 第二部分ACTUAL PERFORMANCE:实际性能

```
ACTUAL PERFORMANCE
ClientConnected: 16:31:26.757
ClientBeginRequest: 16:35:26.762
GotRequestHeaders: 16:35:26.762
ClientDoneRequest: 16:35:26.762
Determine Gateway:
                       0ms
DNS Lookup:
TCP/IP Connect:
                  0ms
HTTPS Handshake: Oms
ServerConnected: 16:31:26.861
FiddlerBeginRequest: 16:35:26.763
ServerGotRequest: 16:35:26.763
                       16:35:26.804
ServerBeginResponse:
                       16:35:26.805
GotResponseHeaders:
ServerDoneResponse:
                       16:35:26.805
ClientBeginResponse:
                       16:35:26.805
                       16:35:26.805
ClientDoneResponse:
    Overall Elapsed: 0:00:00.043
```



单个Session统计(续2)



ACTUAL PERFORMANCE

ClientConnected: 16:31:26.757

ClientBeginRequest: 16:35:26.762 GotRequestHeaders: 16:35:26.762 ClientDoneRequest: 16:35:26.762

- ClientConnected:客户端连接的时间

- ClientBeginRequest:客户端开始请求的时间

– GotRequestHeaders:客户端得到请求头部的时间

- ClientDoneRequest:客户端完成请求的时间



单个Session统计(续3)



Determine Gateway: Oms

DNS Lookup: 0ms TCP/IP Connect: 0ms HTTPS Handshake: 0ms

- Determine Gateway: 决定网关的时长

- DNS Lookup: DNS 搜索的时长

- TCP/IP Connect: TCP/IP连接的时长

- HTTPS Handshake: HTTPS握手的时长



单个Session统计(续4)



ServerConnected: 16:31:26.861

FiddlerBeginRequest: 16:35:26.763

ServerGotRequest: 16:35:26.763

ServerBeginResponse: 16:35:26.804

- ServerConnected:连接到服务器的时间

- FiddlerBeginRequest: Fiddler开始请求时间

- ServerGotRequest:服务器得到请求时间

- ServerBeginResponse:服务器开始响应时间



单个Session统计(续5)



GotResponseHeaders: 16:35:26.805 ServerDoneResponse: 16:35:26.805 ClientBeginResponse: 16:35:26.805 ClientDoneResponse: 16:35:26.805

Overall Elapsed: 0:00:00.043

- GotResponseHeaders:服务器得到响应头部时间

- ServerDoneResponse:服务器完成响应时间

- ClientBeginResponse:客户端开始响应时间

- ClientDoneResponse:客户端完成响应时间

- Overall Elapsed: 总耗时



单个Session统计(续6)



第三部分RESPONSE BYTES(by Content-Type):响
 应的字节数(按照Content-Type)

RESPONSE BYTES (by Content-Type)

~headers~: 190 text/html: 26



单个Session统计(续7)



第四部分ESTIMATED WORLDWIDE PERFORMANCE:
 该会话在不同语种地区和连接方式下所需时间的初步估计

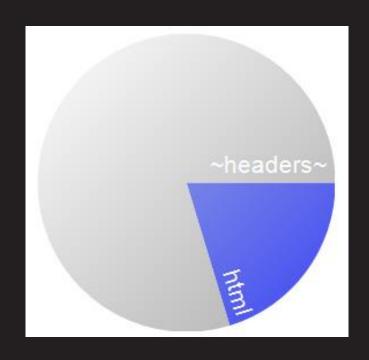
```
ESTIMATED WORLDWIDE PERFORMANCE
The following are VERY rough estimates of download times when hitting servers based in Seattle.
US West Coast (Modem - 6KB/sec)
    RTT:
          0.10s
    Elapsed: 0.10s
Japan / Northern Europe (Modem)
    RTT:
          0.15s
    Elapsed: 0.15s
China (Modem)
           0.45s
    RTT:
    Elapsed: 0.45s
US West Coast (DSL - 30KB/sec)
    RTT:
          0.10s
    Elapsed: 0.10s
Japan / Northern Europe (DSL)
    RTT:
             0.15s
    Elapsed: 0.15s
China (DSL)
             0.45s
    RTT:
    Elapsed: 0.45s
```

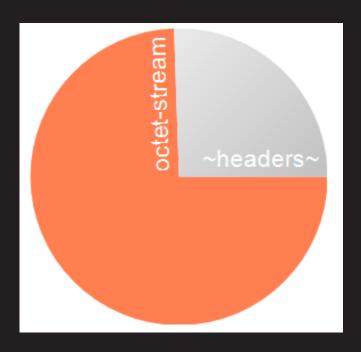


单个Session统计(续8)



• 显示饼形图







多个Session统计



- · 选中多个Session,显示多个Session的统计信息
- 第一部分:概要

Request Count: 8 Unique Hosts: 7

Bytes Sent: 5,352 (headers:3,746; body:1,606)
Bytes Received: 68,153 (headers:2,770; body:65,383)

- Request Count:请求数量(选中的Session数)

- Unique Hosts:独立的主机数

Bytes Sent:发送的字节总数(header:头部文档字节总数;body:主体文档字节总数)

Bytes Received:接收的字节总数(header:头部文档字 节总数;body:主体文档字节总数)



多个Session统计(续1)



• 第二部分ACTUAL PERFORMANCE:实际性能

- Requests started at: Fiddler接收到的第一个请求的第一个字节的时间点
- Responses completed at: Fiddler发送到客户端的最后一个响应的最后一个字节的时间点
- Sequence (clock) duration:第一个请求开始到最后一个响应结束之间的"时钟时间"
- Aggregate Session duration:所有选中的Session从请求到响应之间的时间总和



多个Session统计(续2)



DNS Lookup time: 16ms
TCP/IP Connect duration: 9ms
HTTPS Handshake duration: 37ms

- DNS Lookup time:所有选中Session解析DNS所花费的 时间总和
- TCP/IP Connect duration:所有选中Session建立TCP/IP 连接所花费的时间总和
- HTTPS Handshake duration:所有选中Session在 HTTPS握手上所花费的时间总和



多个Session统计(续3)



- 第三部分RESPONSE CODES:响应状态码
 - 选中Session中各个HTTP响应码统计

RESPONSE CODES HTTP/200: 6 HTTP/304: 2

- 第四部分RESPONSE BYTES:响应字节数
 - 选中Session中各个类型字节数

```
response Bytes (by Content-Type)

text/html: 48,436
application/json: 9,298
application/x-javascript: 7,063
~headers~: 2,770
application/octet-stream: 586
```



多个Session统计(续4)



• 第五部分REQUESTS PER HOST:每台主机的请求数

```
REQUESTS PER HOST

www.sohu.com: 2
qurl.f.360.cn: 1
statics.itc.cn: 1
otf.msn.cn: 1
hotword.sogoucdn.com: 1
adv-sv-show.focus.cn: 1
pl.hd.sohu.com: 1
```



多个Session统计(续5)



第六部分ESTIMATED WORLDWIDE PERFORMANCE:
 所选Session在不同语种地区和连接方式下所需时间的初步估计

```
ESTIMATED WORLDWIDE PERFORMANCE
The following are VERY rough estimates of download times when hitting servers based in Seattle.
US West Coast (Modem - 6KB/sec)
    RTT: 0.80s
    Elapsed: 12.80s
Japan / Northern Europe (Modem)
    RTT: 1.20s
    Elapsed: 13.20s
China (Modem)
    RTT: 3.60s
    Elapsed: 15.60s
US West Coast (DSL - 30KB/sec)
    RTT: 0.80s
    Elapsed: 2.80s
Japan / Northern Europe (DSL)
    RTT: 1.20s
    Elapsed: 3.20s
China (DSL)
             3.60s
    RTT:
    Elapsed: 5.60s
```

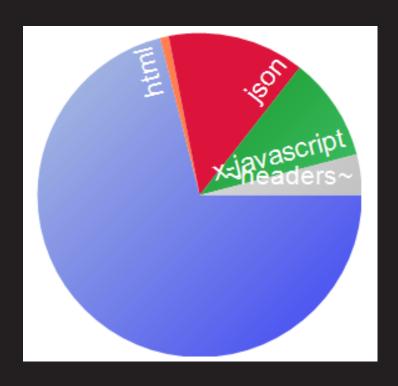


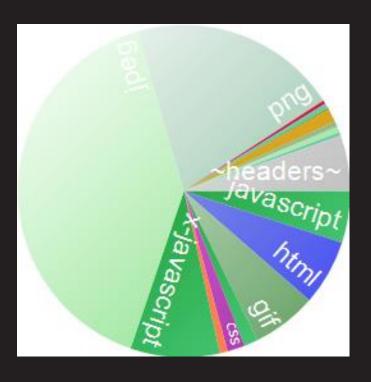
知识讲解

多个Session统计(续6)



• 显示饼形图







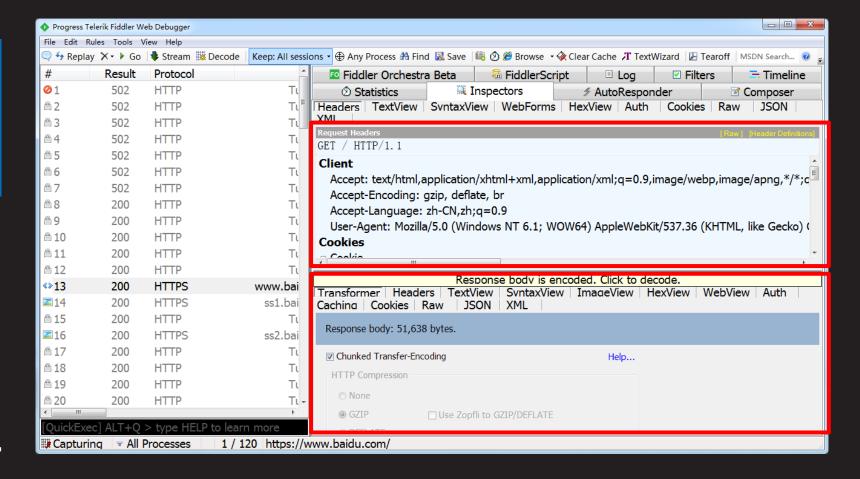


Inspectors选项卡

Inspectors选项卡



- · Inspectors(审查员)选项卡
 - 显示Web Session列表中选定Session的请求和响应

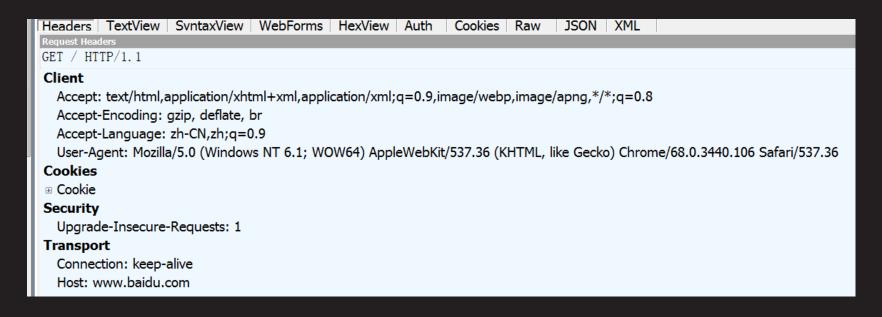




请求信息



- Headers
 - Request Headers (请求报文头部信息)





请求信息(续1)



- Raw
 - 完整的请求信息,包括文本格式的header和body

```
Headers TextView SvntaxView WebForms HexView Auth Cookies Raw JSON XML

GET https://ss0.bdstatic.com/5av1bjqh_Q23odCf/static/mantpl/js/nav/index_1b1371

Host: ss0.bdstatic.com
Connection: keep-alive
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Accept: */*
Referer: https://www.baidu.com/
Accept-Encoding: gzip, deflate, br
Accept-Language: zh-CN,zh;q=0.9
```



请求信息(续2)



- Cookies
 - 请求信息中发送cookie数据的信息

```
Headers | TextView | SyntaxView | WebForms | HexView | Auth
                                                  Cookies
                                                           Raw
                                                                 JSON
                                                                        XML
Request sent 514 bytes of Cookie data:
    quest id=10340099545004
    customer service language=cn
    kf sign 72120883=Dk0ODMTUzNc4MTEwMzQwMDk5NTQ1MDA0
    land page 72120883=http%3A%2F%2Fwww.tedu.cn%2F
    219143129148=%F5%8C%97%F4%BA%AC%2C%2C%F4%BA%9A%F6%B4%B2
    53ct 10340099545004=1534948781 0
    talktitle 72120883=IT%E5%9F%B9%E8%AE%AD%E7%8F%AD%E9%80%89%E8%BE%BE%
E5%86%85%2C%E4%BA%BF%E5%85%83%E7%BA%A7%E5%A4%96%E4%BC%81IT%E5%9F%
B9%E8%AE%AD%E6%9C%BA%E6%9E%84+-+%E8%BE%BE%E5%86%85%E6%95%99%E8%
82%B2%E5%AE%98%E7%BD%91
    is group 72120883=0
    hz6d open talk 72120883=1
```



响应信息



- Headers
 - Response Headers (响应报文头部信息)

Transformer Headers	TextView	SvntaxView	ImageView	HexView	WebView	Auth	Cach
Response Headers							
HTTP/1.1 200 OK							
Cache							
Cache-Control: private							
Date: Wed, 22 Aug 2018 14:05:53 GMT							
Expires: Wed, 22 Aug 2018 14:05:52 GMT							
Cookies / Login							
Set-Cookie: BD_HOME=1; path=/							
Set-Cookie: BDSVRTM=382; path=/							
Set-Cookie: H_PS_PSSID=1444_26909_21091_26350_26922_20928; path=/; domain=.baidu.com							
Entity							
Content-Encoding: gzi	p						
Content-Type: text/htr	nl;charset=	utf-8					
Miscellaneous							
Bdpagetype: 2							
Bdqid: 0xb6cf37c00000	Dead7						
Server: BWS/1.1							
X-Ua-Compatible: IE=I	Edge,chron	ne=1					
Security							
Strict-Transport-Secur	ty: max-ag	e=172800					
Transport	_						
Connection: Keep-Alive	•						
Transfer-Encoding: ch	unked						



响应信息(续1)



- Raw
 - 完整的响应信息,包括文本格式的header和body

```
Transformer Headers TextView SvntaxView ImageView HexView WebView Auth Caching Cookies Raw JSON | XML |

HTTP/1.1 206 Partial Content.

Server: nginx
Date: Wed, 22 Aug 2018 14:57:29 GMT

Content-Type: text/html; charset=gb2312

Content-Length: 0

Connection: keep-alive
Set-Cookie: ppmdig=1534949849000000dc333a05673c0112cc10aef036554453; path=/; HttpOnly
X-Powered-By: PHP/7.1.10
```



响应信息(续2)



- Cookies
 - 请求信息中发送cookie数据的信息

Transformer | Headers | TextView | SvntaxView | ImageView | HexView | WebView | Auth | Caching | Cookies | Raw JSON | XML |

Response sent 73 bytes of Cookie data:

Set-Cookie: ppmdig=153494984900000dc333a05673c0112cc10aef036554453; path=/; HttpOnly

This response did not contain a P3P Header.

Validate P3P Policies at: http://www.w3.org/P3P/validator.html

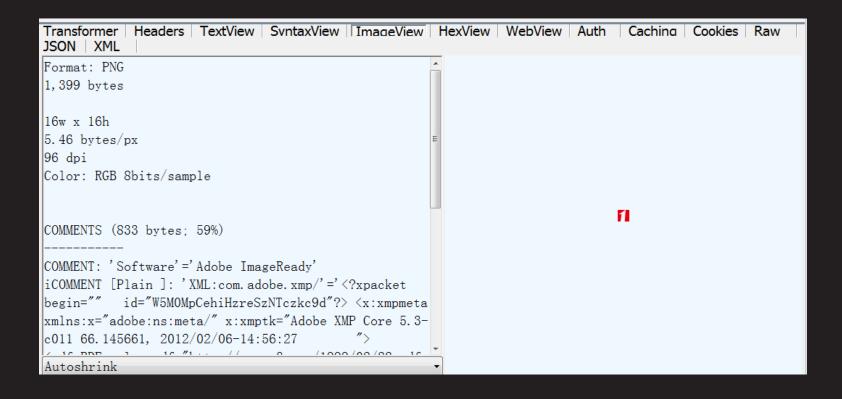
Learn more at: http://fiddler2.com/r/?p3pinfo



响应信息(续3)



- ImageView
 - 响应中的图片信息





响应信息(续4)



- JSON
 - 响应中的JSON信息

```
Transformer | Headers | TextView | SyntaxView | ImageView | HexView | WebView | Auth
                                                                        Cachina
                                                                                Cookies
Raw JSON XML
■ JSON
  □-{}
     channel id=19
    word=如懿传PK延禧
     channel id=19
     word=模特撞脸魏璎珞
  -{}
     channel id=19
    word=贾乃亮求私人空间
  ₽-{}
     channel id=19
    word=陈坤儿子近照
     channel id=19
    word=周笔畅素颜现身机场
     channel id=19
    word=郭采洁大秀雪肤
```



响应信息(续5)



- SyntaxView
 - 响应中的HTML、CSS、JavaScript信息

```
Transformer Headers TextView SyntaxView ImageView HexView WebView Auth
                                                                            Caching Cookies
Raw
      JSON XML
   try{SohuAd.pv.imp("http://imp.ad-plus.cn/201111/ee4f7cebb2ef825bf6b3c8730c929929.php?
E₽.
   a=24"); var Beans = {id: 'a=24', ad: [], type: 'test', contain: 'ad N'}; Beans.ad = [{"md5":"
   50fffb30575233e9c458123555ef78a0", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/shishangwenzhang2jufu.swf", "icpm":"1"}, { "md5":"
   8884ef557d89b8dde97e7b05d217d166", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/kejiwenzhang10.swf", "icpm": "1"}, { "md5": "
   8884ef557d89b8dde97e7b05d217d166", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/kejiwenzhang10.swf","icpm":"1"}, {"md5":"
   50fffb30575233e9c458123555ef78a0", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/shishangwenzhang2jufu.swf", "icpm":"1"}, { "md5":"
   8884ef557d89b8dde97e7b05d217d166", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/kejiwenzhang10.swf","icpm":"1"}, {"md5":"
   8884ef557d89b8dde97e7b05d217d166", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/kejiwenzhang10.swf","icpm":"1"}, {"md5":"
   4f2bdb125a505fc9a65bf1d65e27b579", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/lvyouwenzhang5.swf","icpm":"1"},{"md5":"
   58a5fbdd1f59d9ea7120bef8666fa450", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/qichewenzhang4jufu.swf", "icpm":"1"}, { "md5":"
   4f2bdb125a505fc9a65bf1d65e27b579", "swf": "http:\/\/images.sohu.com\/bill\/s2018\/
   jingyanli\/07\/lvyouwenzhang5.swf", "icpm":"1"}]; var timetag = new Date(); if((
    timetag.getHours()!='9' || timetag.getMinutes() >10) && !navigator.userAgent.
Ę₽
   toLowerCase().match(/firefox\/([\d.]+)/) && !navigator.userAgent.toLowerCase().match(
   / chrome / ([\d.]+) /)  { SohuAd (Beans); } catch(e) { }
```



响应信息(续6)



- TextView
 - 以文本形式查看响应体

```
Transformer Headers TextView SyntaxView ImageView HexView WebView
                                                                    Auth
                                                                           Caching
                                                                                  Cookies
                                                                                                  JSON
                                                                                                        XML
    var hz6d guest id = $53.getCookie('53gid2'):
    var hz6d cus web msg gids = "":
    function hz6d cus web msg open() {
         var openurl = "http://www3.53kf.com/webCompany.php?arg=10120883&stvle=1&kflist=off&kf=dnit005%40126.com%
2Cdnit0011%40126.com%2Cdnjt018%40126.com%2Cdnjt0029%40126.com%2Cdnjt0032%40126.com%2Cdnjt0031%40126.com%2Cdnjt
40126. com%2Cdn jt0039%40126. com%2Cdn jt0040%40126. com%2Cdn jt0043%40126. com%2Cdn jt0046%40126. com%2Cdn jt0047%40126. com%
2Cdnjt0048%40126.com%2Cdnjt0051%40126.com%2Cdnjt0052%40126.com%2Cdnjt0053%40126.com%2Cdnjt0054%40126.com%2Cdnjt
40126.com%2Cdnit0012%40126.com%2Cdnjt0027%40126.com%2Cdnjt0033%40126.com%2Cdnjt0038%40126.com%2Cdnjt0041%40126.com%
2Cdnjt0042%40126.com%2Cjtdsphz%40126.com%2Cdnjt004%40126.com%2Cdnjt003%40126.com%2Cdnit0010%40126.com%2Cdnjt0021%
2Czhaomh%40tedu.cn&zdkf type=1&lnk overflow=0&language=zh-
cn&charset=gbk&username=&userinfo=&introurl=&lyurl=&lytype=0&copartner=&referer=http%3A%2F%2Fwww.tedu.cn%
2F&keyword=&brief=&logo=&question=&uid=282bb925af4c19a78caf35dd7b0b357f";
         trv{
             window, open (openurl, "blank", "height=473, width=703, top=200, left=
200, status=ves, toolbar=no, menubar=no, resizable=ves, scrollbars=no, location=no, titlebar=no");
         } catch (e) {}
    hz6d get guest id timer = setTimeout("hz6d get guest id()", 500);
```



响应信息(续7)



- XML
 - 响应中的XML

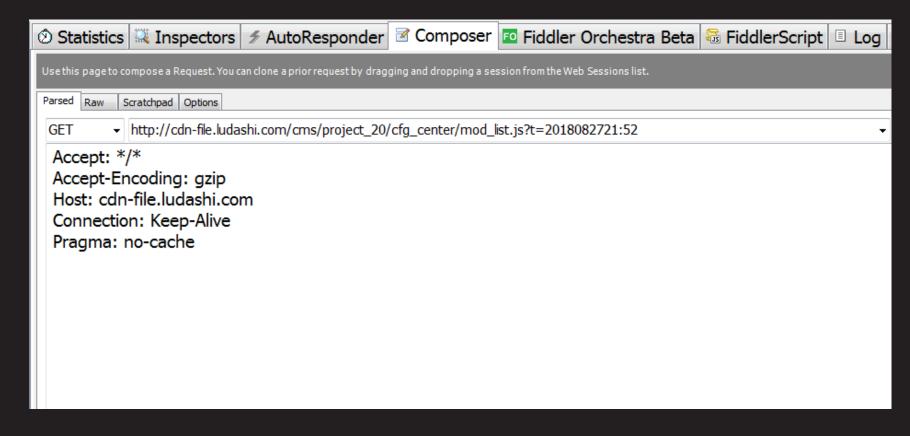
```
Transformer Headers TextView SyntaxView ImageView HexView WebView Auth
                                                                                Caching
Cookies Raw
              JSON XML
■ UPDATA
  □ THISTIME
    2018/08/01 15:25:01
  - FILE
    ☐ ITEM [ NAME=newhaf.dat ]
      - URL
        http://miserupdate.aliyun.com/data/2.4.1.6/newhaf.dat
      2b96a3912c86ccbfe7201e98eec6a044
    ITEM [ NAME=prf.dat ]
      - URL
        http://miserupdate.aliyun.com/data/2.4.1.6/prf.dat
      c065cdd5ab1282910a85e158af4a9456
    □ ITEM [ NAME=AliMiserUpdate.exe ]
      - URL
        http://miserupdate.aliyun.com/data/2.4.1.6/AliMiserUpdate.exe
      COO-06471161100-0102-10-17-172/1/
```







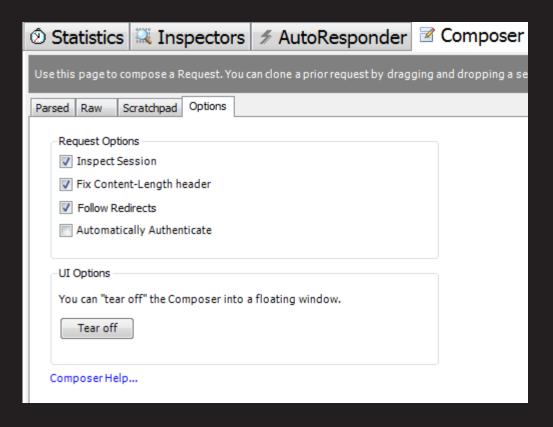
- Composer(设计者)选项卡
 - 手动构建和发送HTTP、HTTPS、FTP请求







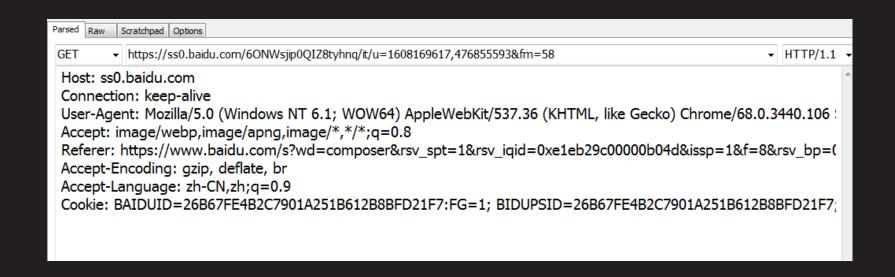
- Options选项卡
 - Insepect Session:请求执行后,Inspectors选项卡会被 激活,可以查看请求结果







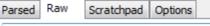
• Parsed选项卡







• Raw选项卡



GET http://miserupdate.aliyun.com/data/2.4.1.6/brfversion.xml HTTP/1.1

Pragma: no-cache

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

User-Agent: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 5.1; Miser Report)

Host: miserupdate.aliyun.com





Scratchpad选项卡

Scratchpad Options Parsed Raw Use this tab to store a collection of Requests. To issue a request, select its text and press Execute. GET https://ss0.baidu.com/73F1bieh1BF3odCf/it/u=737716524,368579673&fm=85&s=B2A0ECA1C6A284EB0204702E0300F050 HTTP/1. Host: ss0.baidu.com Connection: keep-alive User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/68.0.3440.106 Safari/537.36 Accept: image/webp,image/apng,image/*,*/*;q=0.8 Referer: https://www.baidu.com/ Accept-Encoding: gzip, deflate, br Accept-Language: zh-CN,zh;q=0.9 Cookie: BAIDUID=26B67FE4B2C7901A251B612B8BFD21F7;FG=1; BIDUPSID=26B67FE4B2C7901A251B612B8BFD21F7; PSTM=15284500 GET https://ss2.baidu.com/60NYsiip00IZ8tyhng/it/u=2120801510,2101767554&fm=58 HTTP/1.1 Host: ss2.baidu.com Connection: keep-alive User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/68.0.3440.106 Safari/537.36 Accept: image/webp,image/apng,image/*,*/*;q=0.8 Referer: https://www.baidu.com/s?wd=composer&rsv_spt=1&rsv_igid=0xe1eb29c00000b04d&issp=1&f=8&rsv_bp=0&rsv_idx=2&ie=1 Accept-Encoding: gzip, deflate, br Accept-Language: zh-CN,zh;q=0.9 Cookie: BAIDUID=26B67FE4B2C7901A251B612B8BFD21F7;FG=1; BIDUPSID=26B67FE4B2C7901A251B612B8BFD21F7; PSTM=1528450(



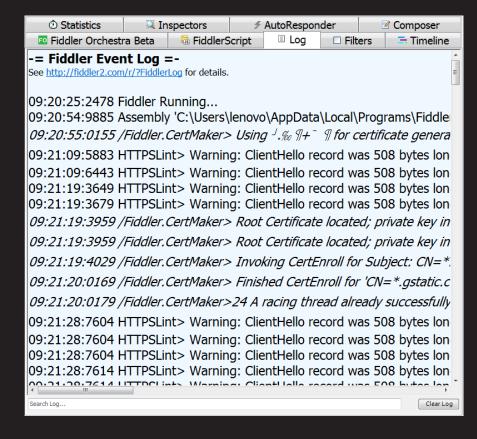


Log选项卡

Log选项卡



- Log(日志)选项卡
 - Log(日志)选项卡,收集日志消息信息,记录应用事件以及系统事件(如系统的网络连接丢失或恢复)的响应通知

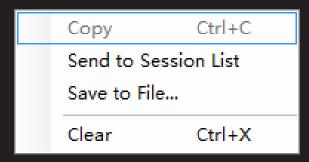




Log选项卡(续1)



- 对日志进行的操作
 - Copy: 复制日志
 - Send to Session List:发送日志到会话列表
 - Save to File:保存日志为文件
 - Clear:清除日志

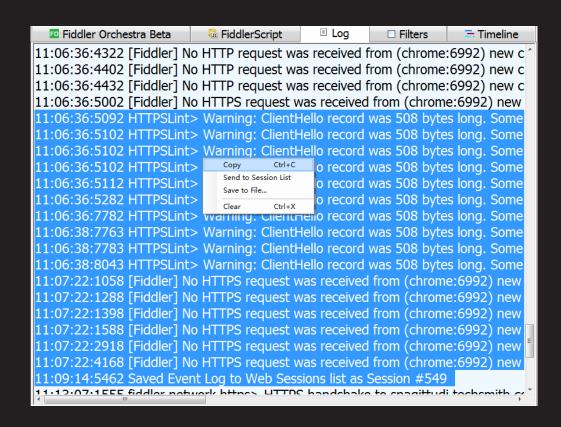




复制日志



- 选中要复制的日志
- 点击Copy
- 保存到指定文件中即可





发送日志到会话列表



- 点击Send to Session List
- 可以看到Web Session List中和日志中有相应的记录

≘ 574	200	HTTP	
№ 575	200	HTTPS	
№ 576	200	HTTPS	
577	502	HTTP	
■ 578	200	HTTP	
■ 579	200	HTTP	
■ 580	200	HTTP	
■ 581	200	HTTP	=

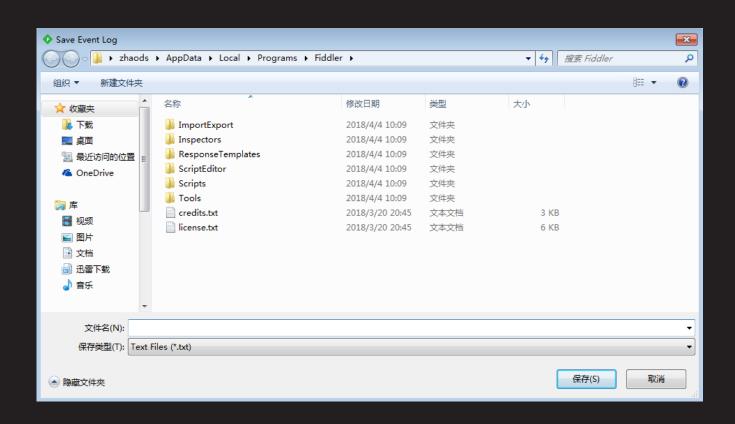
11:13:46:5538 Saved Event Log to Web Sessions list as Session #562 11:13:53:6342 Saved Event Log to Web Sessions list as Session #563 11:13:56:0673 Saved Event Log to Web Sessions list as Session #564 11:19:14:1705 Saved Event Log to Web Sessions list as Session #578 11:19:51:7417 Saved Event Log to Web Sessions list as Session #579 11:19:53:7958 Saved Event Log to Web Sessions list as Session #580 11:19:55:3159 Saved Event Log to Web Sessions list as Session #581



保存日志为文件



- 点击Save to File
- 正常保存文件即可(txt或rtf格式)

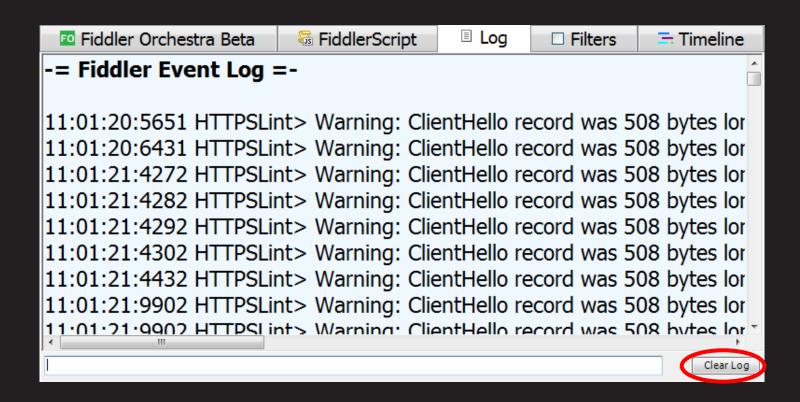




清除日志



- 点击clear
- 快捷键:Ctrl+X
- 点击 "Clear Log" 按钮





搜索日志



• 在 "Search Log…" 文本框中输入回车即可

```
Fiddler Orchestra Beta FiddlerScript Log Filters Timeline

-= Fiddler Event Log =-

11:01:20:5651 HTTPSLint> Warning: ClientHello record was 50
11:01:20:6431 HTTPSLint> Warning: ClientHello record was 50
11:01:21:4272 HTTPSLint> Warning: ClientHello record was 50
11:01:21:4282 HTTPSLint> Warning: ClientHello record was 50
11:01:21:4292 HTTPSLint> Warning: ClientHello record was 50
11:01:21:4302 HTTPSLint> Warning: ClientHello record was 50
11:01:21:4432 HTTPSLint> Warning: ClientHello record was 50
```





总结和答疑