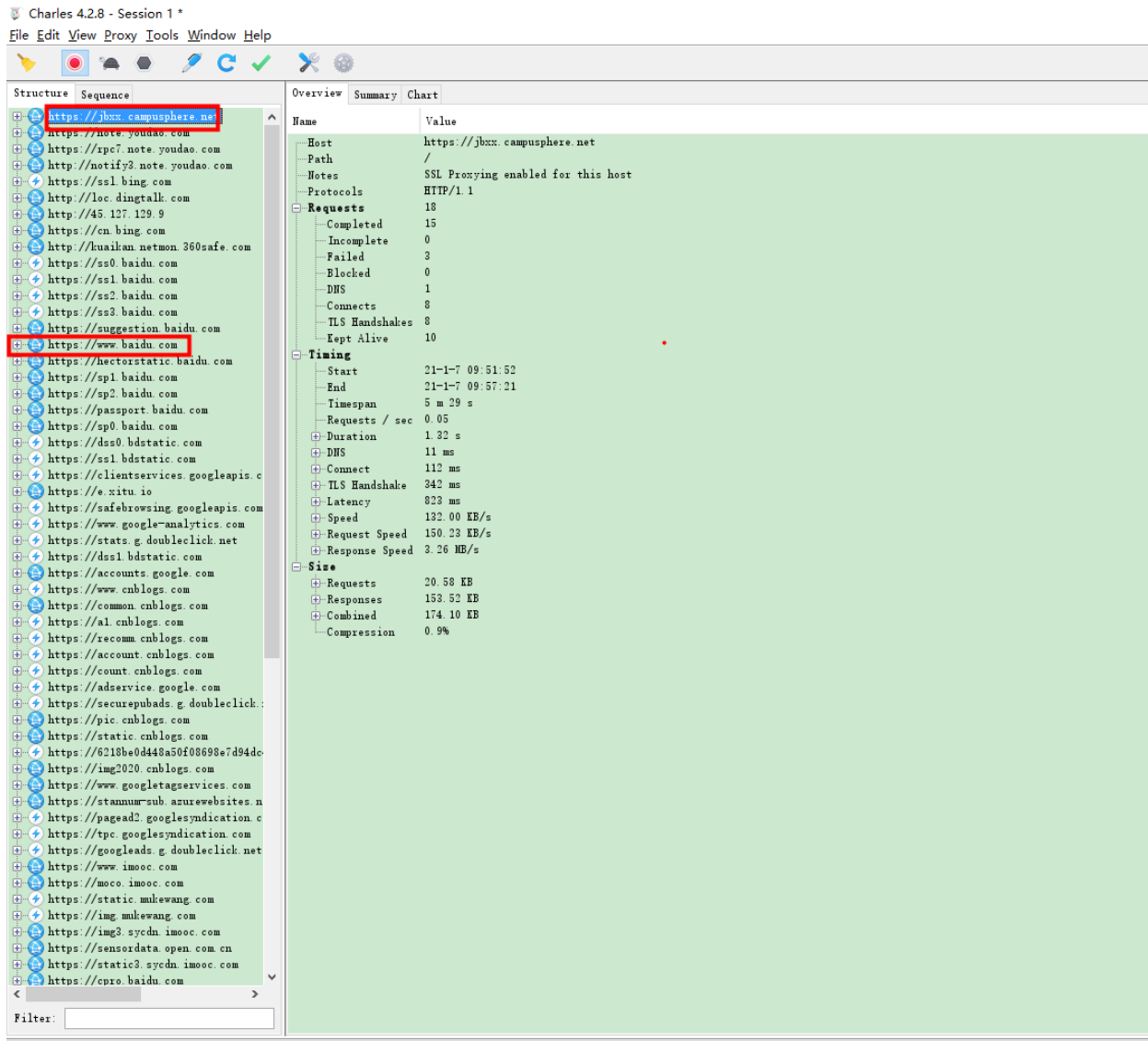


一、Structure/结构视图

将网络请求按访问的域名分类，

比如某个域名下有n个资源请求，那么所有此域名下的请求都会汇总到这个域名下；



二、Sequence/序列视图

将网络请求按访问的时间排序，按照发送请求先后顺序进行以此排列。

如下图 红框部分 就是请求发出去的具体时间，按先后顺序排列展示

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Structure Sequence

Code	Method	Host	Path	Start	Duration	Size	Status	Info
200	GET	googleads.g.doubleclick.net	/pagead/conversion/?a=CteGTTU_5_1vF2g5y7g6t1uMg55e3w4M6J0Page0A0shab87J0B0Gag70A0g0q0C...	10:22:33	62 ms	1.60 KB	Complete	
200	GET	note.youdao.com	/api/stich?c=24AClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=...	10:22:36	119 ms	18.84 KB	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenab?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:36	41 ms	663 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenage?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:36	42 ms	663 bytes	Complete	
200	POST	note.youdao.com	/api/filesdata/changed?method=pullMhaseVersion=610000100008GID=PCae007625a7b210c31dClient_vaz=61...	10:22:36	39 ms	1.44 KB	Complete	
200	POST	45.127.129.9	/Anuket?note=online¬e=temp-2021-01-07/65193B9F8A048A0000023B8F783288?complete=transdofesse=0bve...	10:22:36	190 ms	156.89 KB	Complete	
200	POST	note.youdao.com	/api/personal/sync/method=putResource&ClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=6...	10:22:36	179 ms	1.62 KB	Complete	
200	POST	note.youdao.com	/api/personal/sync/method=pushdedata?version=1587110330000MClientVa=610000100008GID=PCae007625a...	10:22:37	406 ms	18.72 KB	Complete	
200	GET	api.note.youdao.com	/device/sync/dClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=PCae007...	10:22:37	164 ms	18.31 KB	Complete	
200	GET	note.youdao.com	/api/stich?c=24AClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=...	10:22:37	45 ms	763 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenab?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:37	39 ms	663 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenage?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:37	37 ms	663 bytes	Complete	
200	GET	notifi3.note.youdao.com	/pushesvex3/client?ClientVa=610000100008GID=PCae007625a7b210c31dApp=deviceid=desktop&client_vaz=6...	10:22:38	1.43 s	1.78 KB	Complete	
200	GET	note.youdao.com	/api/stich?c=24AClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=...	10:22:39	40 ms	763 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenab?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:39	39 ms	663 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenage?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:39	39 ms	663 bytes	Complete	
200	POST	note.youdao.com	/api/personal/sync/method=pushdedata?version=1587110330000MClientVa=610000100008GID=PCae007625a...	10:22:39	438 ms	18.40 KB	Complete	
200	GET	api.note.youdao.com	/device/sync/dClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=PCae007...	10:22:39	52 ms	1.51 KB	Complete	
200	GET	note.youdao.com	/api/stich?c=24AClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=...	10:22:39	42 ms	763 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenab?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:39	37 ms	663 bytes	Complete	
200	GET	note.youdao.com	/api/personal/sync/hlapenage?method=pullMhaseVersion=0MClientVa=610000100008GID=PCae007625a7b2...	10:22:39	37 ms	663 bytes	Complete	
200	GET	notifi3.note.youdao.com	/pushesvex3/client?ClientVa=610000100008GID=PCae007625a7b210c31dApp=deviceid=desktop&client_vaz=6...	10:22:40	15.17 s	733 bytes	Waiting for response	

Filter:

Overview Contents Summary Chart Notes

#	Resource	Host	Code	Mime Type	Bytes	Body
1	stream?ClientVa=610000100008GID=PCae007625a7b210c31dClient_vaz=610000100008device_id=PCae00...	note.youdao.com	200	text/html	719 B	38 B
Total					719 B	38 B
Grand Total					719 B	38 B
Duration						

三、请求筛选过滤

请求很多的时候，我们只想关注我们要抓取的域名，怎么办，可以进行筛选过滤。

结构/序列两种视图都可以进行filter输入框就行关键字筛选过滤，且互不影响
即两种视图的过滤是独立的，可以在结构视图中过滤关键字A，在序列视图过滤B

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Structure Sequence

Overview Contents Summary Chart Notes

Filter: jhxx

portal

- guest
 - portal
 - getSchoolPortalInfo
 - portalSettingInfo
 - skin
 - index
 - app
 - groupByDomain
 - list
 - search
 - searchApp
 - flowInstance
 - task
 - login
 - login
 - iap
 - login
 - security
 - tenant
 - login?service=https%3A%2F%2Fjhxx

unknown

unknown

unknown

Name Value

URL https://jhxx.campusphere.net/portal/guest/index/app/list

Status Complete

Response Code 200 OK

Protocol HTTP/1.1

TLS TLSv1.2 (TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256)

Method POST

Kept Alive Yes

Content-Type application/json; charset=UTF-8

Client Address 127.0.0.1:11217

Remote Address jhxx.campusphere.net/223.4.222.250:443

Connection

WebSockets -

Timing

Size

- Request 785 bytes
- Response 109 bytes
- Total 894 bytes

Charles 4.2.8 - Session 1 *

File Edit View Proxy Tools Window Help

Structure Sequence

Overview Contents Summary Chart Notes

Filter: jhxx

Code Method Host Path Start Duration Size Status Info

200	POST	jhxx.campusphere.net	/portal/guest/portal/getSchoolPortalInfo	09:51:52	169 ms	19.55 KB	Complete	
200	POST	jhxx.campusphere.net	/portal/guest/portal/portalSettingInfo	09:51:52	146 ms	19.02 KB	Complete	
200	POST	jhxx.campusphere.net	/portal/guest/skin/default/view	09:51:52	39 ms	1.20 KB	Complete	
200	POST	jhxx.campusphere.net	/portal/guest/index/app/groupByDomain	09:51:53	56 ms	897 bytes	Complete	
200	POST	jhxx.campusphere.net	/portal/guest/index/app/list	09:51:53	3 m 0 s	22.25 KB	Failed	
200	POST	jhxx.campusphere.net	/portal/guest/search/searchApp	09:51:53	70 ms	922 bytes	Complete	
200	POST	jhxx.campusphere.net	/portal/task/queryTaskLock	09:54:53	202 ms	19.14 KB	Complete	
200	POST	jhxx.campusphere.net	/portal/flowInstance/queryFlowInstance	09:54:53	223 ms	19.14 KB	Complete	
202	GET	jhxx.campusphere.net	/portal/login	09:54:53	35 ms	744 bytes	Complete	
202	GET	jhxx.campusphere.net	/iap/login	09:54:53	30 ms	882 bytes	Complete	
202	GET	jhxx.campusphere.net	/iap/login?service=https%3A%2F%2Fjhxx.campusphere.net%2Fportal%2Flogin	09:54:53	39 ms	785 bytes	Complete	
200	GET	jhxx.campusphere.net	/iap/login?service=https%3A%2F%2Fjhxx.campusphere.net%2Fportal%2Flogin	09:54:53	32 ms	1.40 KB	Complete	

Name Value

URL https://jhxx.campusphere.net/portal/guest/index/app/list

Status Complete

Response Code 200 OK

Protocol HTTP/1.1

TLS TLSv1.2 (TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256)

Method POST

Kept Alive Yes

Content-Type application/json; charset=UTF-8

Client Address 127.0.0.1:11217

Remote Address jhxx.campusphere.net/223.4.222.250:443

Connection

WebSockets -

Timing

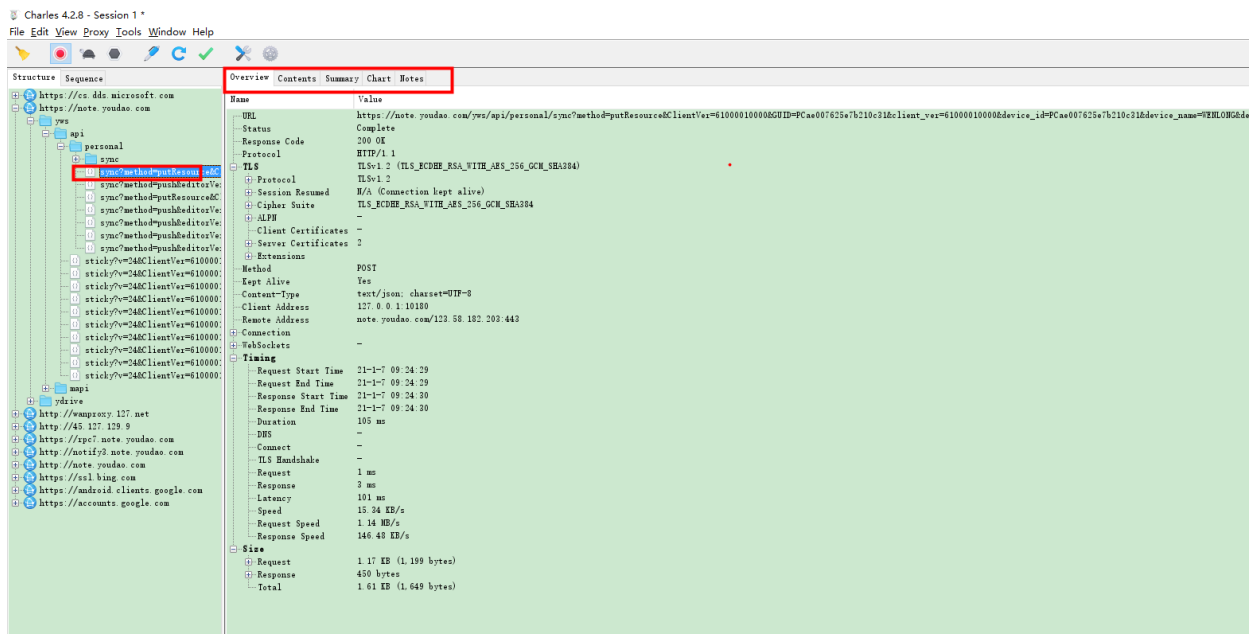
Size

- Request 785 bytes
- Response 109 bytes
- Total 894 bytes

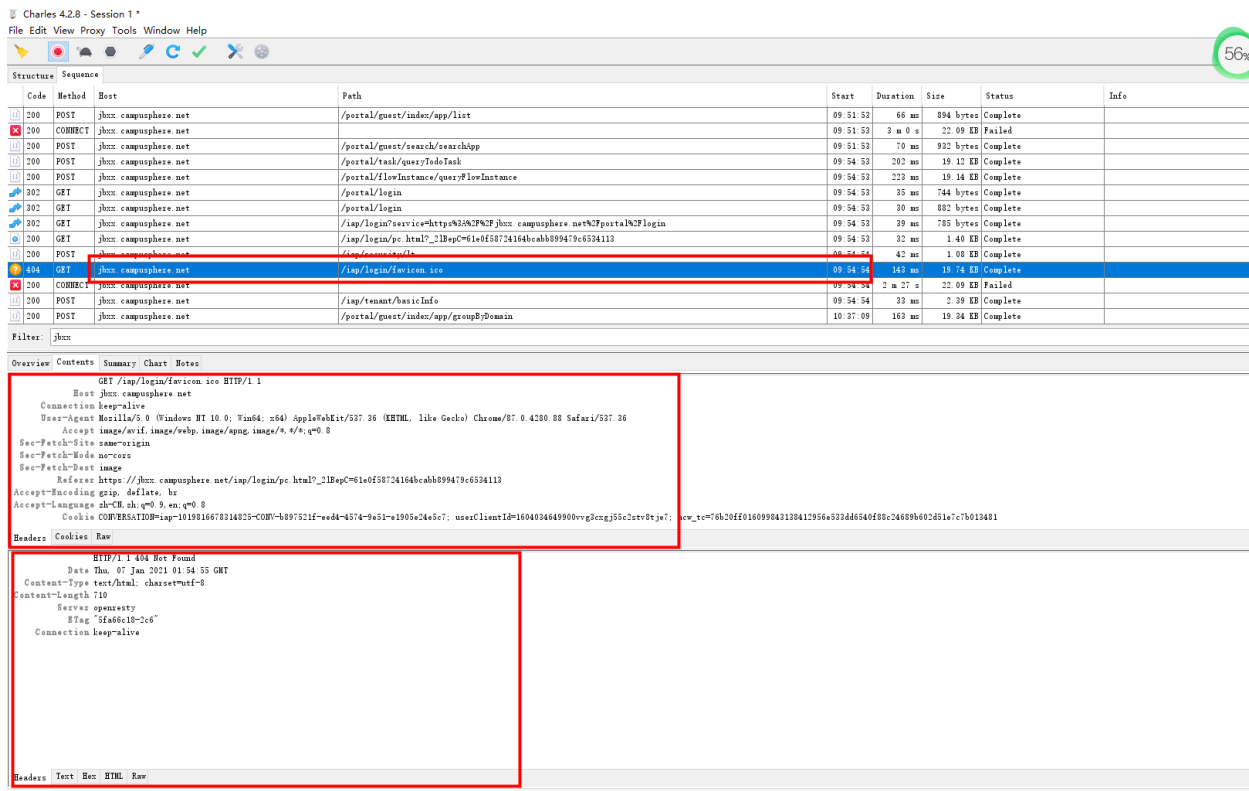
四、报文解析

4.1、选择要解析的请求

以结构视图为例，选中左边的某个请求后，右边出现该请求和响应的报文信息



以序列视图为例，选中上面的请求后，下面会出现请求和响应的报文信息



4.2、通过不同窗口解析报文

解析报文常用的就是OverView窗口和Contents窗口

4.2.1、OverView窗口

该窗口显示的是请求报文的概要总览，分name和value两列展示，如下图所示

Name	Value
URL	https://note.youdao.com/yns/api/personal/sync?method=push&editorVersion=1587118832000&ClientVer=61000010000&GUID=PCae007625e7b210c31&client_ver=61000010000&device_id=PCae0076
Status	Complete
Response Code	200 OK
Protocol	HTTP/1.1
TLS	TLSv1.2 (TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384)
Method	POST
Kept Alive	Yes
Content-Type	text/json; charset=UTF-8
Client Address	127.0.0.1:10633
Remote Address	note.youdao.com/123.58.182.252:443
Connection	-
WebSockets	-
Timing	-
Size	-
Request	6.54 KB (6,700 bytes)
Response	2.14 KB (2,188 bytes)
Total	8.68 KB (8,888 bytes)

URL	请求地址
Status	响应状态
Response Code	状态code
Protocol	协议
TLS	https协议
Method	请求方法
Kept Alive	长链接
Content-Type	内容类型
Client Address	客户端地址
Remote Address	远端地址
Connection	链接
Timing	耗时
Size	请求响应大小

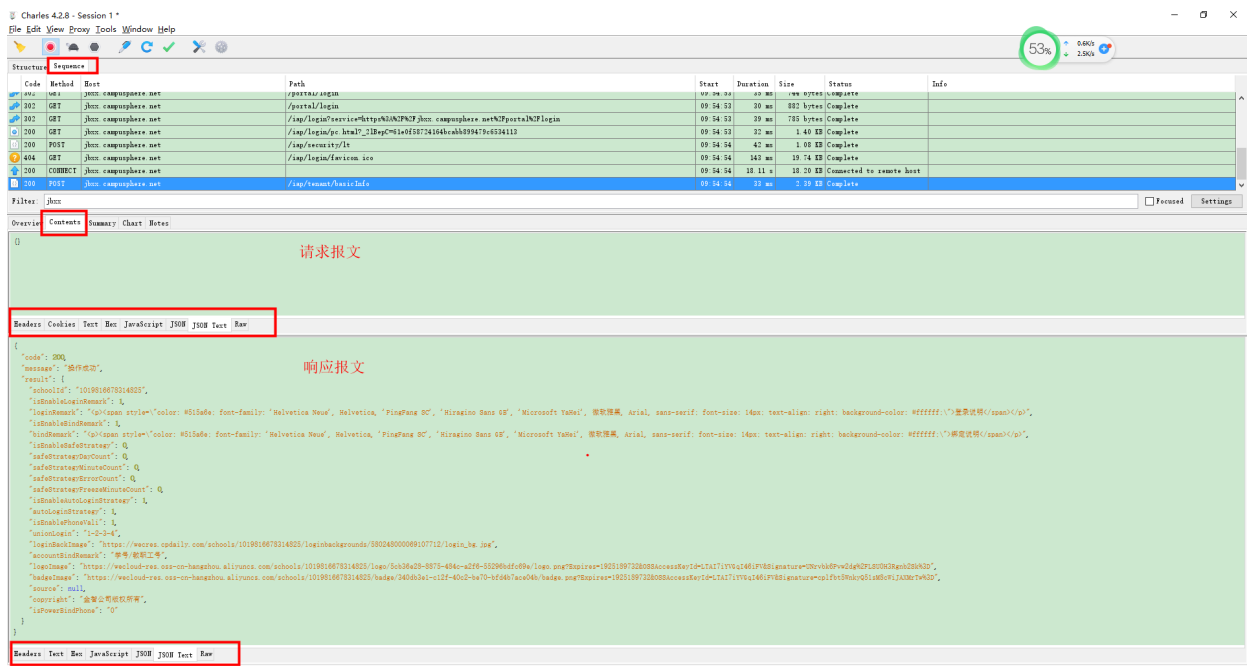
4.2.2、Contents窗口

不管是序列视图还是结构视图，Contents窗口都分为上下两部分子窗口
(windows为例 MAC另说)

上面窗口是请求报文子窗口，展示的是浏览器等客户端发给服务器的请求报文

下面窗口是响应报文子窗口，展示的是服务器回复给客户端的响应报文

下图以 序列视图为例，查看Contents窗口



根据不同请求

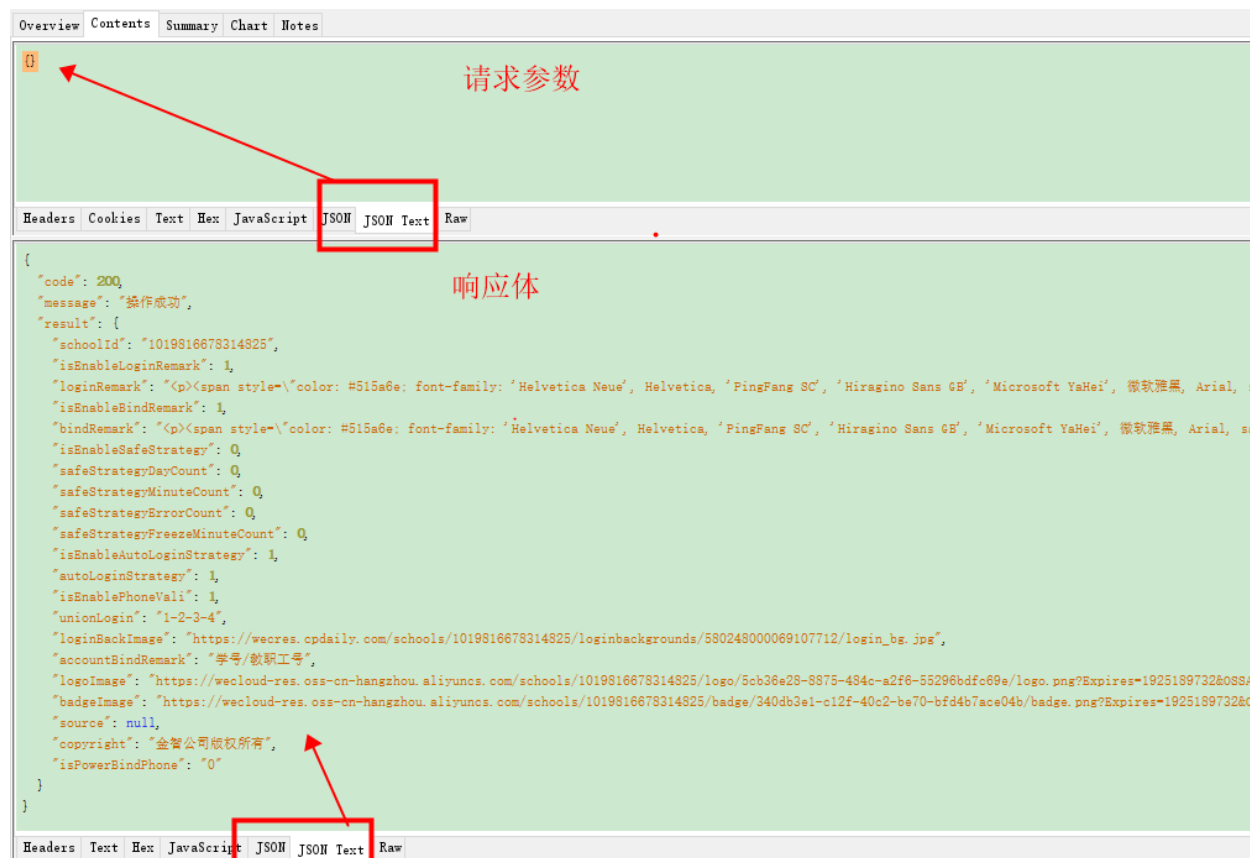
请求报文字窗口，又有Header、Cookies、Text、JSON、Form、Raw等选项卡

响应报文字窗口，又有Header、Text、JavaScript、JSON、Raw等选项卡

Raw是未经处理的请求信息，左侧的所有项目都是对raw信息的拆分和美化

其中常用的选项卡截图：

Post请求JSON/JSON Text选项卡：



Post请求Form选项卡：

Structure Sequence

Code	Method	Host	Path	Start	Duration
200	POST	jbxx.campusphere.net	/portal/guest/portal/getSchoolPortalInfo	09:51:52	163 ms
200	POST	jbxx.campusphere.net	/portal/guest/portal/portalSettingInfo	09:51:52	146 ms
200	POST	jbxx.campusphere.net	/portal/guest/skin/default/view	09:51:52	39 ms
200	POST	jbxx.campusphere.net	/portal/guest/index/app/groupByDomain	09:51:53	56 ms
200	CONNECT	jbxx.campusphere.net		09:51:53	3 m 0 s
200	POST	jbxx.campusphere.net	/portal/guest/index/app/list	09:51:53	66 ms
200	CONNECT	jbxx.campusphere.net		09:51:53	3 m 0 s
200	POST	jbxx.campusphere.net	/portal/guest/search/searchApp	09:51:53	70 ms
200	POST	jbxx.campusphere.net	/portal/task/queryTodoTask	09:54:53	202 ms
200	POST	jbxx.campusphere.net	/portal/flowInstance/queryFlowInstance	09:54:53	223 ms
302	GET	jbxx.campusphere.net	/portal/login	09:54:53	35 ms
302	GET	jbxx.campusphere.net	/portal/login	09:54:53	30 ms
302	GET	jbxx.campusphere.net	/iap/login?service=https%3A%2F%2Fjbxx.campusphere.net%2Fportal%2Flogin	09:54:53	39 ms
200	GET	jbxx.campusphere.net	/iap/login/pc.html?_2lBepC=61e0f58724164bcabb899479c6534113	09:54:53	32 ms

Filter: jbxx

Overview Contents Summary Chart Notes

Name Value

labelId	103
---------	-----

Headers Cookies Text **Form** Raw

HTTP/1.1 200 OK
Date Thu, 07 Jan 2021 01:51:54 GMT
Content-Type application/json; charset=UTF-8
Transfer-Encoding chunked
Server openresty
Connection keep-alive

Get请求 QueryString选项卡： ? 后面的查询参数

Structure Sequence

Code	Method	Host	Path	Start
200	POST	jbxx.campusphere.net	/portal/guest/portal/getSchoolPortalInfo	09:51
200	POST	jbxx.campusphere.net	/portal/guest/portal/portalSettingInfo	09:51
200	POST	jbxx.campusphere.net	/portal/guest/skin/default/view	09:51
200	POST	jbxx.campusphere.net	/portal/guest/index/app/groupByDomain	09:51
200	CONNECT	jbxx.campusphere.net		09:51
200	POST	jbxx.campusphere.net	/portal/guest/index/app/list	09:51
200	CONNECT	jbxx.campusphere.net		09:51
200	POST	jbxx.campusphere.net	/portal/guest/search/searchApp	09:51
200	POST	jbxx.campusphere.net	/portal/task/queryTodoTask	09:54
200	POST	jbxx.campusphere.net	/portal/flowInstance/queryFlowInstance	09:54
302	GET	jbxx.campusphere.net	/portal/login	09:54
302	GET	jbxx.campusphere.net	/portal/login	09:54
302	GET	jbxx.campusphere.net	/iap/login?service=https%3A%2F%2Fjbxx.campusphere.net%2Fportal%2Flogin	09:54
200	GET	jbxx.campusphere.net	/iap/login/pc.html?_2lBepC=61e0f58724164bcabb899479c6534113	09:54

Filter: jbxx

Overview Contents Summary Chart Notes

Name Value

_2lBepC	61e0f58724164bcabb899479c6534113
---------	----------------------------------

Headers **Query String** Cookies Raw

HTTP/1.1 200 OK
Date Thu, 07 Jan 2021 01:54:54 GMT
Content-Type text/html; charset=UTF-8
Transfer-Encoding chunked
Server openresty
ETag W/"1434-1604304342000"
Last-Modified Mon, 02 Nov 2020 08:05:42 GMT
Content-Encoding gzip
Connection keep-alive

头信息Header选项卡：

OverviewContentsSummaryChartNotes

POST /iap/tenant/basicInfo HTTP/1.1

Host jbxm-campusphere.net

Connection keep-alive

Content-Length 2

Accept application/json, text/plain, */*

X-Requested-With XMLHttpRequest

User-Agent Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.88 Safari/537.36

Content-Type application/json

Origin https://jbxm-campusphere.net

Sec-Fetch-Site same-origin

Sec-Fetch-Mode cors

Sec-Fetch-Dest empty

Referer https://jbxm-campusphere.net/iap/login/pc.html?_2lBepC=61e0f58724164bcabb899479c6534113

Accept-Encoding gzip, deflate, br

Accept-Language zh-CN,zh;q=0.9,en;q=0.8

Cookie CONVERSATION=iap-1019816678314825-COMV-b897521f-ee4d-4574-9e51-e1905e24e5c7; userClientId=1604034649900vvg3cxgj55c2stv8tje7; acw_tc=76b20ff016099843

请求头信息

HeadersCookiesTextHexJavaScriptJSONJSON TextRaw

HTTP/1.1 200 OK

Date Thu, 07 Jan 2021 01:54:55 GMT

Content-Type application/json; charset=UTF-8

Transfer-Encoding chunked

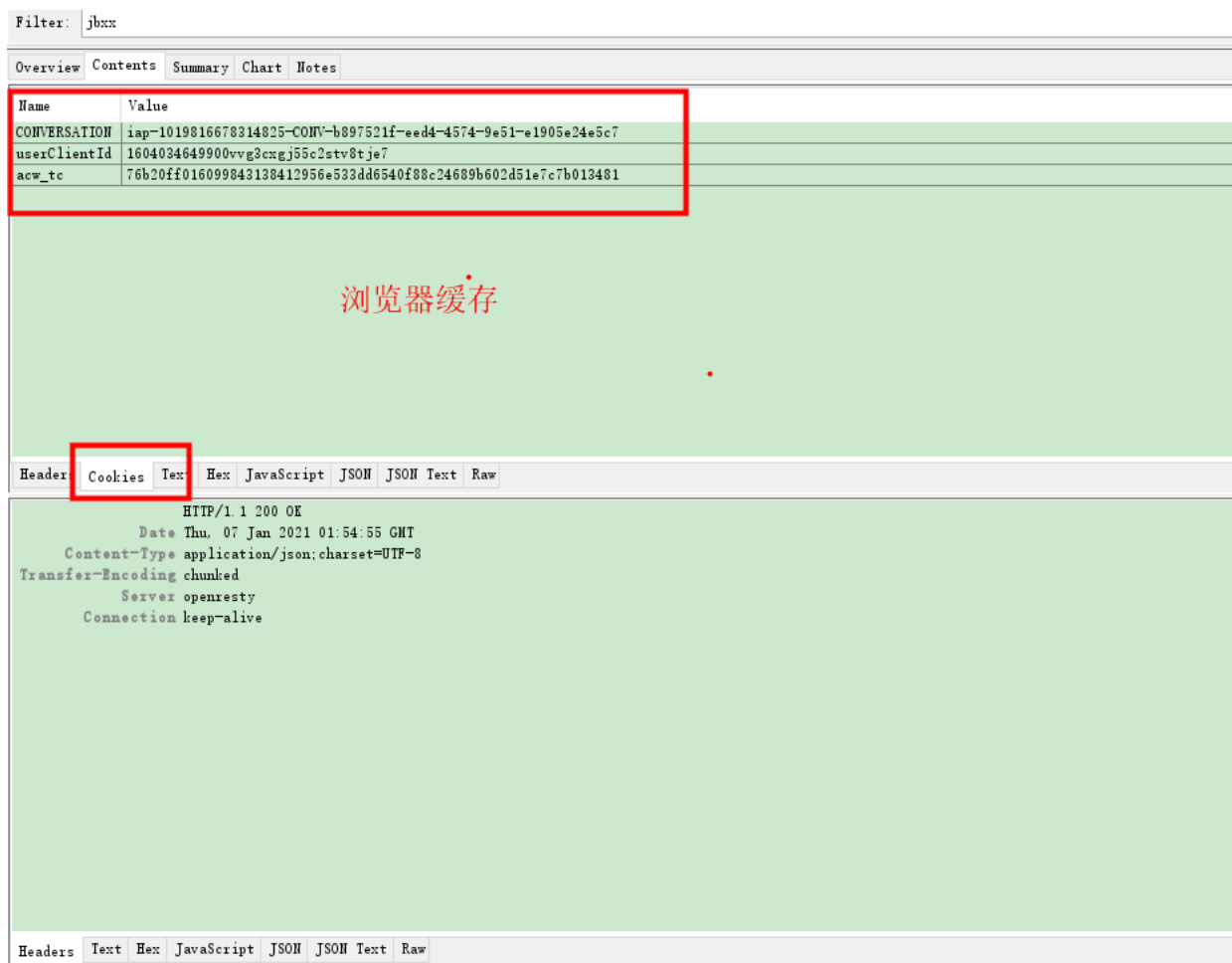
Server openresty

Connection keep-alive

响应头信息

HeadersTextHexJavaScriptJSONJSON TextRaw

缓存Cookie选项卡：



cookie一般会保存用户身份信息，所以可以通过抓包获取到登陆后的用户cookie，就可以在postman/httpclient等工具/代码中直接访问登陆后才能访问的服务/资源

4.2.3、其他窗口简介

Summary窗口：展示的是资源概要信息，类似Chrome Dev的Network

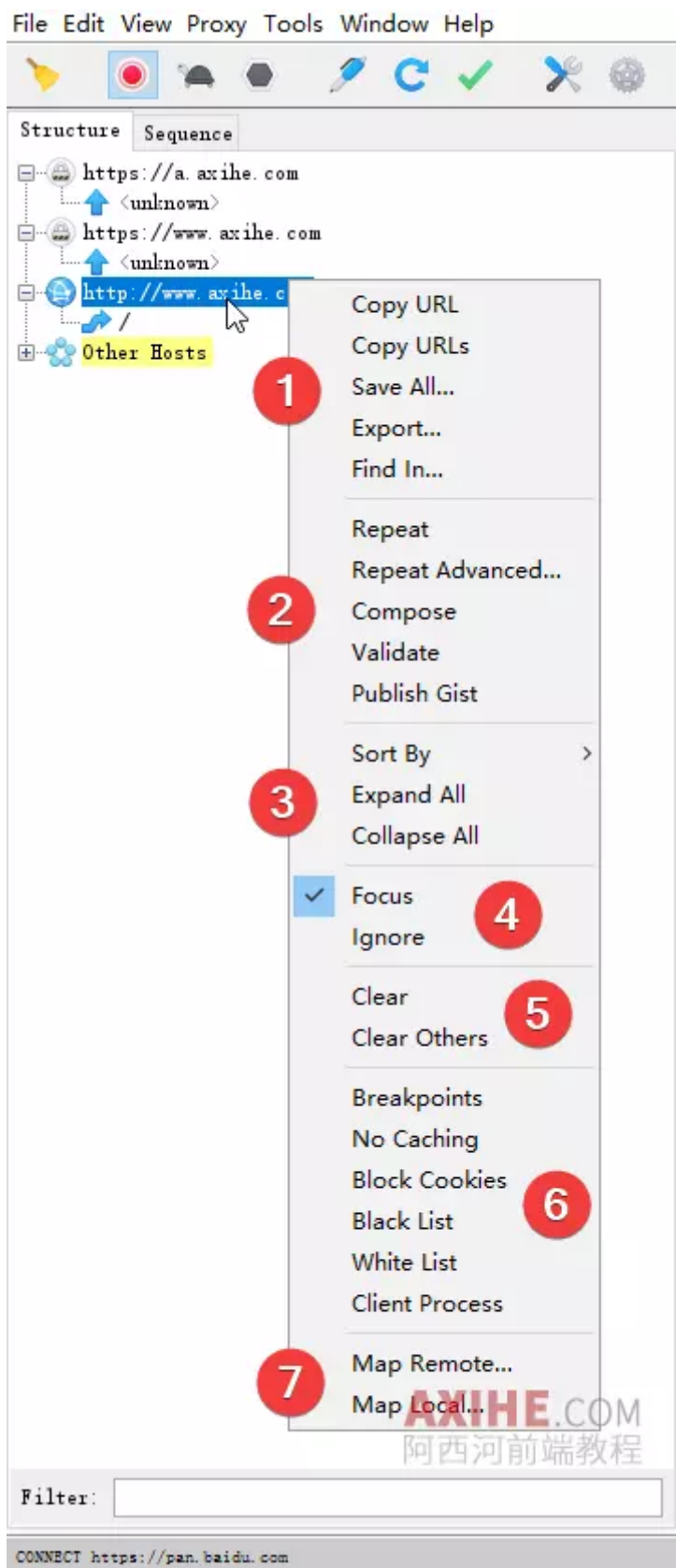
Chart窗口：展示的是timeline的文件加载图形化信息

Notes窗口：展示的是来源之类的说明信息

这几个窗口一般不会用到，只做简单介绍。

五、右键操作

不论在结构视图还是序列视图，当选中某个请求/选中某个域名时，都可以右键点击选择后续操作，具体如下图：



- 区域 1 **基本操作**：基本的URL复制，文件保存，以及选中文件内搜索
- 区域 2 **重写操作**：重写发送请求（调用接口合适），或者发到gitlist里
- 区域 3 **查看区**：排序之类的

- 区域 4 **设置关注**：可以设置哪些你关心的或者需要忽略的
- 区域 5 **清除区**：垃圾清理使用
- 区域 6 **工具区**：对应常见工具的入口
- 区域 7 **映射区**：把文件映射到本地或者原创URL

当然也可以在OverView窗口和Contents窗口，右键选取操作，其操作选项是上面的子集，就不再赘述了。

后面文章会对几种重要的右键操作进行讲解，敬请期待。