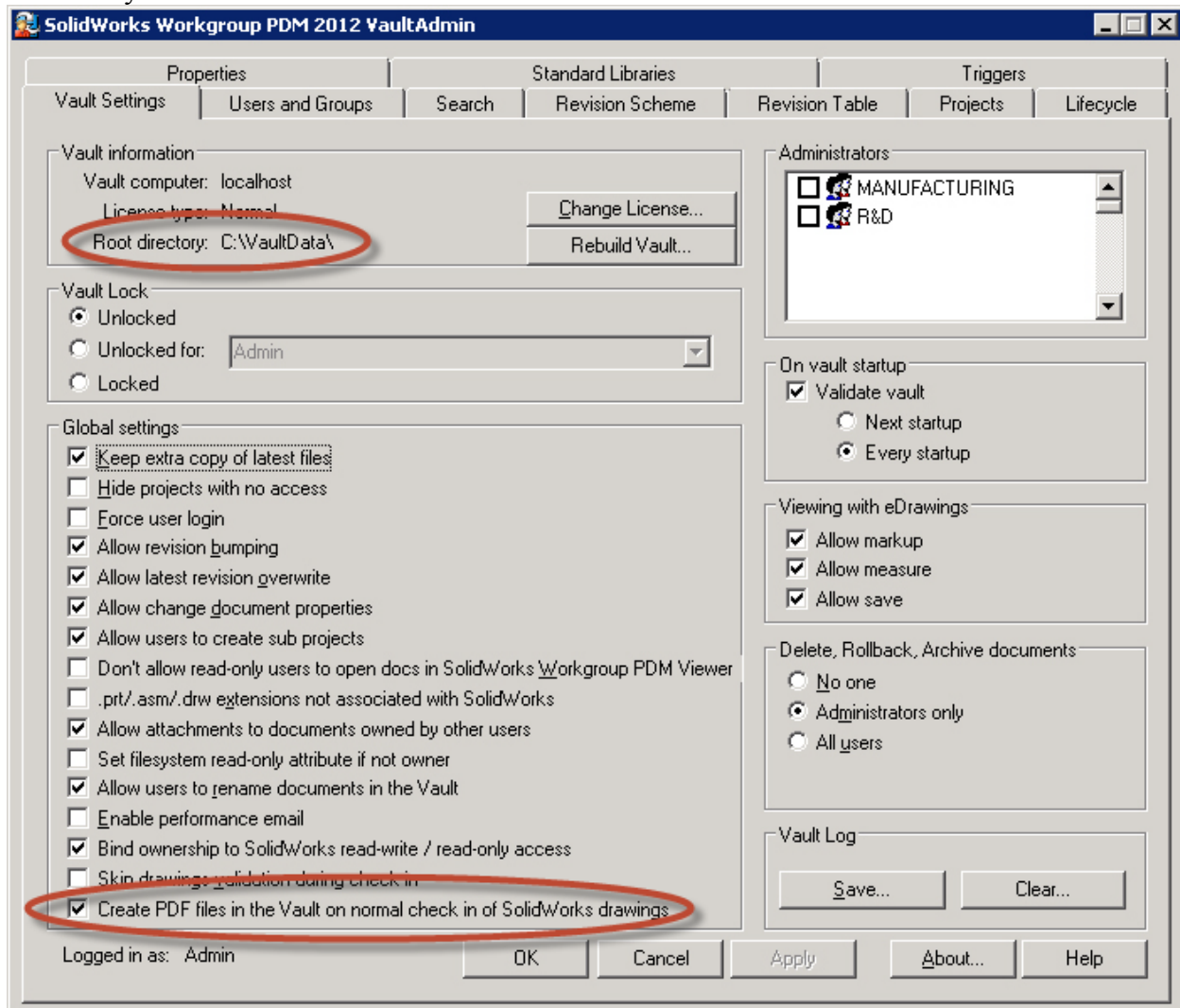


Configuring SolidWorks Workgroup PDM for Email Alerts with PDF Attachments

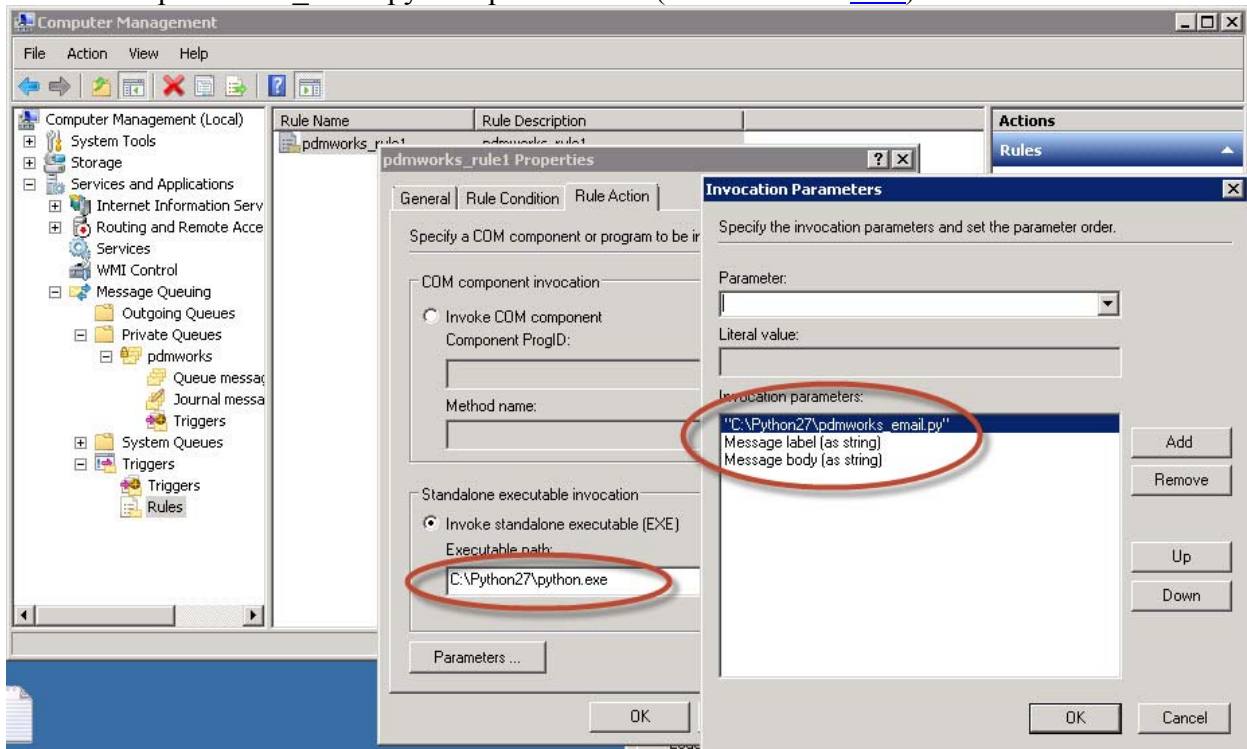
Configuring SolidWorks Workgroup PDM

In addition to making changes to the “Triggers” tab (see [here](#) for instructions on this), we need to tell SWPDM to generate PDF files on check-in. Also, while this is open, note the *Root directory* shown in your instance of SWPDM.



Configure Rules (Actions) for the MSMQ

Your MSMQ should be configured and ready – all we need to do at this point is instruct MSMQ to call our “pdmworks_email.py” script on launch (download file [here](#)):



There is a Rule created with a single Rule Action:

- Invoke standalone executable (EXE): “C:\Python27\python.exe”
- Invocation parameters:
 - “C:\Python27\pdmworks_email.py”
 - Message label (as string)
 - Message body (as string)



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Rewrite, reconfigure, and set up the Python script.

If you're unfamiliar with Python, now is a great time to get familiar! This was written for [Python 2.7 x86](#), and this is the recommended download (even though newer Python 3.x versions have since been released). A great tutorial on learning Python is up at [Codecademy.com](#) if you'd like to delve deeper into the source code.

Take the “*pdmworks_email.config*” file (download file [here](#)), modify it, and put it into your C:\Python27 folder.

```
[EMAIL_CONFIG]
always_cc_to =
from_address = swpdm@localhost
smtp_port = 25
smtp_server = smtp.server.or.ip.address

[PDMWORKS_VAULT]
folder = C:\VaultData
version = 2012
```

Take the “*pdmworks_email.py*” file (download file [here](#)) and put it into your C:\Python27 folder.

```
# Processes XML output from SolidWorks PDMWorks; attaches generated
# PDF file and emails the author upon check-in of a Released document.
#
# Copyright (C) 2014 SPK & Associates (spkaa.com)
#
# This program is free software: you can redistribute it and/or modify
# it under the terms of the GNU General Public License as published by
# the Free Software Foundation, either version 3 of the License, or
# (at your option) any later version.
#
# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with this program. If not, see <http://www.gnu.org/licenses/>.
#
# Information on contacting the author of this program by email or
# paper mail is available at <http://www.spkaa.com/contact>.

#Load common libraries for functions used in program
import os,sys,re,codecs,shutil,subprocess
import email,smtplib,mimetypes,email.mime.application
import ConfigParser
import time

#Pause for 10 seconds. Sometimes MSMQ executed before PDF file was done copying.
```



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```
time.sleep(10)

#####
# 1. Read Config File
#####

progDir = os.path.dirname(os.path.abspath(__file__))
os.chdir(progDir)
progName = sys.argv[0]
configName = os.path.splitext(progName)[0] + ".config"

config = ConfigParser.RawConfigParser()

if os.path.isfile(configName):
    config.read(configName)
    print "config file found at " + configName
else:
    print "config file not found. Creating empty config file at " + configName
    config.add_section("EMAIL_CONFIG")
    config.set("EMAIL_CONFIG", "smtp_server", "smtp.server.or.ip.address")
    config.set("EMAIL_CONFIG", "smtp_port", "25")
    config.set("EMAIL_CONFIG", "from_address", "swpdm@localhost")
    config.set("EMAIL_CONFIG", "always_cc_to", "")
    config.add_section("PDMWORKS_VAULT")
    config.set("PDMWORKS_VAULT", "folder", "C:\\VaultData")
    config.set("PDMWORKS_VAULT", "version", "2012")
    with open(configName, "w") as f:
        config.write(f)

#####
# 2. Read arguments passed from MSMQ (from SWPDM). Assign to variables
#####
xmlString=""
for item in sys.argv[2:]:
    xmlString = xmlString + item + " "

timestamp = re.findall(r"timestamp=(.+)\ server=",xmlString)[0].replace("'",'')
document = re.findall(r"document=(.+)\ revision=",xmlString)[0].replace("'",'')
type = os.path.splitext(document)[1].replace('.', '').replace("'",'')
project = re.findall(r"project=(.+)\ user=",xmlString)[0].replace("'",'')
user = re.findall(r"user=(.+)\ status=",xmlString)[0].replace("'",'')
revision = re.findall(r"revision=(.+)\ project=",xmlString)[0].replace("'",'')
status = re.findall(r"status=(.+)\ is_new=",xmlString)[0].replace("'",'')
print "xml decoded to \n\t" + timestamp + "\n\t" + document + "\n\t"+type+"\n\t" + \
    project + "\n\t"+ user + "\n\t"+ status + "\n\t" + revision

if type == "SLDDRW":
    #####
    # 3. Lookup user email address from SWPDM Users file
    #####
    userListName = config.get("PDMWORKS_VAULT", "folder") + "\\pdmrc\users.pdmw"
    try:
        print "reading user list from " + userListName
        with codecs.open(userListName, "r", encoding="utf-16") as f:
            userList=[]
            for line in f:
                userList.append(line)
    except:
        print "could not read " + userListName

    for item in userList:
```



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```
if user in item:
    toAddressList=re.findall(r"[\w\.\.]+\@[\w\.\.]+\.[\w\.\.]+",item.strip())
    print "found email address for " + user + str(toAddressList)

#####
# 4. Fetch PDF. Copy to working directory (probably C:\python27)
#####
shutil.copyfile(config.get("PDMWORKS_VAULT","folder") + "\\projects\\" + project + \
    "\\\" + document.replace(".", "_") + "\\\" + revision + "\\_PDF",
    "output.pdf")

#####
# 5. Send email with attachment and info.
#####
msg = email.mime.Multipart.MIMEMultipart()
msg['Subject'] = sys.argv[1] + " of " + document.replace(".", "_") + \
    " Version " + revision
msg['From'] = config.get("EMAIL_CONFIG","from_address")
msg['To'] = toAddressList[0]
msg['cc'] = config.get("EMAIL_CONFIG","always_cc_to")
body = "This is an automated message from the SolidWorks Workgroup PDM " + \
    config.get("PDMWORKS_VAULT","version") + " Server.\n\n"
body = body + "Attached is a copy of the checked-in document.\n\n"
body = body + xmlString + "\n\n"
body = body + "Copyright (C) 2014 SPK & Associates (spkaa.com). " + \
    "This program comes with ABSOLUTELY NO WARRANTY; " + \
    "this is free software, and you are welcome to redistribute " + \
    "it under certain conditions as defined by the GNU General " + \
    "Public License published by the Free Software Foundation.
body = email.mime.Text.MIMEText(body)
msg.attach(body)

#attach PDF file to email
fp = open("output.pdf", "rb")
att = email.mime.application.MIMEApplication(fp.read(),_subtype="pdf")
fp.close()
filename=document.replace(".", "_") + "." + revision + ".pdf"
att.add_header('Content-Disposition','attachment',filename=filename)
msg.attach(att)

#connect to SMTP server, send the email
smtpObj = smtplib.SMTP(config.get("EMAIL_CONFIG","smtp_server"))
try:
    smtpObj.sendmail(config.get("EMAIL_CONFIG","from_address"),
        [toAddressList[0],config.get("EMAIL_CONFIG","always_cc_to")],
        msg.as_string())
    print "sent email to " + str(toAddressList)
except:
    print "could not send email with "+config.get("EMAIL_CONFIG","smtp_server")

print "Exit Program Normal"
```

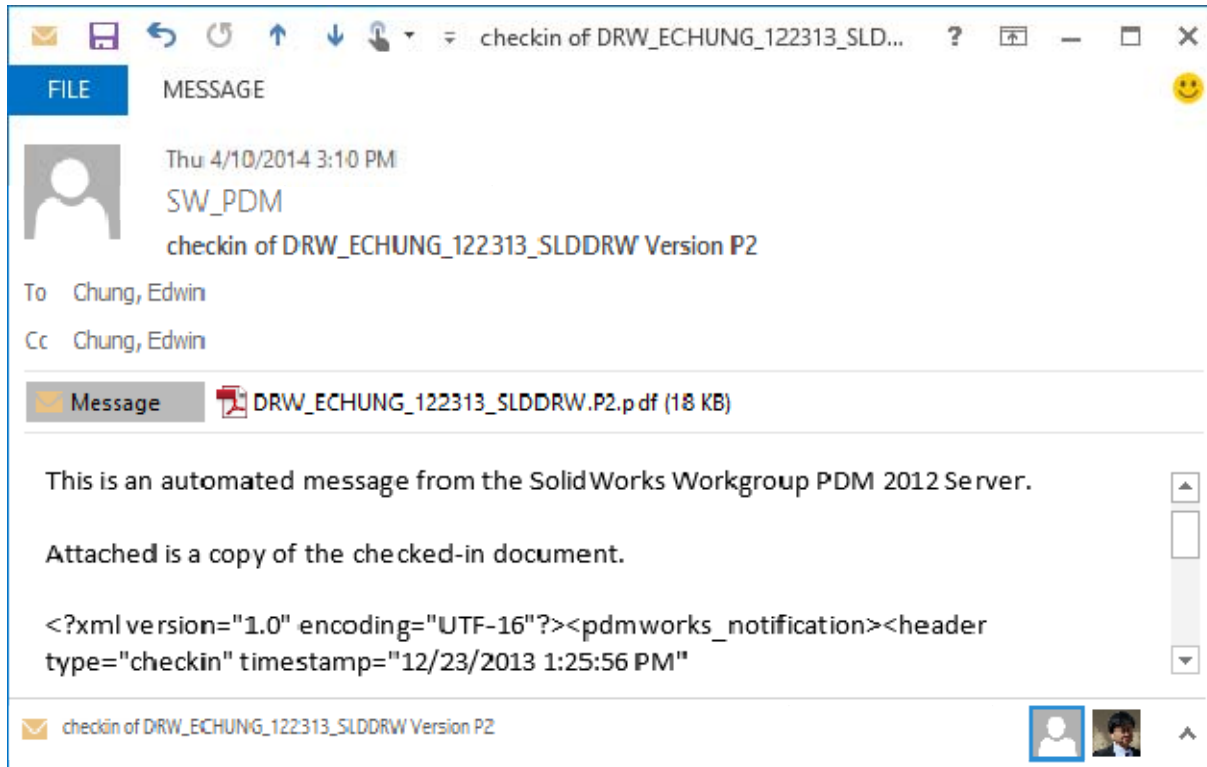


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Enjoy the Benefits

It's probably a good idea to test it yourself – if everything is set up correctly, you'll get an email that looks like this one:



If things aren't working correctly, or you'd like it to work a little differently, leave a comment or [contact us](#) and we'll help. If you have a very complicated workflow, however, you may need to upgrade to a more robust Enterprise-level PLM solution – such as [Dassault Enovia](#) – but until you do, there's a simple solution just a few clicks away!

Edwin Chung
District Professional Services Manager, SPK & Associates