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04D - IFS (EN) (HTTPS://BLOG.FAQ400.COM/EN/CATEGORY/SYSTEM-ADMINISTRATION-EN/04D-IFS-EN/)

IFS – Find files and directories in your IFS

22 August 2021
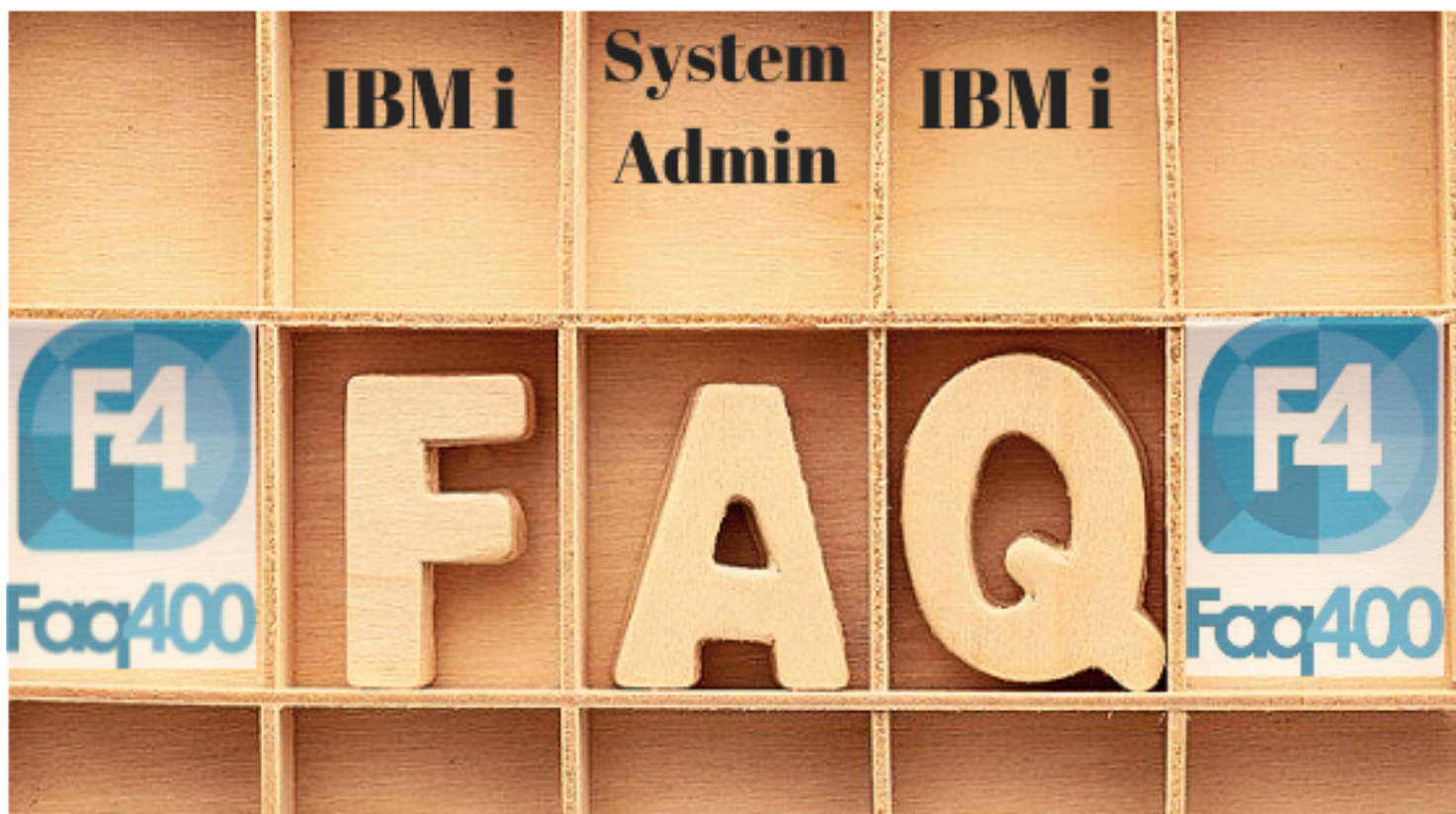
Last Updated on 3 October 2021 by Roberto De Pedrini ()

I take advantage of a question asked on the Midrange.com discussion groups (Is there an easy way to find a file in IFS? (https://archive.midrange.com/midrange-l/202108/msg00180.html)) to summarize, in this post, some different ways to search for a file within one or more IFS directories. The specific question was … "is there something to look for in IFS objects like WRKOBJ command we use in IBM i environment in QSYS library?"

If we "navigate" in our IFS starting from QSH, remember that we are in a world very similar to Linux and therefore several Linux commands work very well here too!

Suppose we have one **IFS directory "/ f4docs"** where there are thousands of files and subfolders. Let's see different types of research and the differer

osegui   we have from the IBM i environment or from QSH:

1 – FIND command from QSH or SSH: we see in this a search of all the files in the directory "/ f4docs" of type ".TXT" with the name containing "02342" ... including any subdirectories

```
find /f4docs —name "*02432*.TXT"
```

2 – FIND + GREP command from QSH or SSH: the problem with FIND is that it is always case-sensitive in QSH environment … if we need to filter only certain files not taking into account the "case" character:

```
find /f4docs —type f —name "*02432*" | grep ".txt" —i
```

3 – Command FIND + GREP (to also search inside the contents of the fil es), from QH and SSH: by slightly modifying the syntax of the GREP part, it is also possible to search for files with a certain content (in this case the string "MOTO")

```
find /f4docs —name "*.TXT" —exec grep —l 'MOTO' {};
```

4 – With SQL and QSYS2.IFS_OBJECT_STATISTICS : an interesting alternative to search for IFS files and objects is SQL with IBM i Services … in particular QSYS2.IFS_OBJECT_STATISTICS

```
Select * from Table (QSYS2.IFS_Object_Statistics (Start_Path_Name => '/ f4docs', Subtree_
Directories => 'YES')) x Where Lower (Path_Name) like '% 02432%';
```

5 – With RTVDIRINF and SQL on the created catalog tables:

```
// first, delete RTVDIRINF result tables

DLTF QSURSYS/QAEZD0001I
MONMSG MSGID(CPF0000)
DLTF QSURSYS/QAEZD0001D
MONMSG MSGID(CPF0000)
DLTF QSURSYS/QAEZD0001O
MONMSG MSGID(CPF0000)

// then collect data from your directoy

RTVDIRINF DIR('/f4docs')

// and search your files

SELECT o.Qezalcsize
       ,SUBSTR(o.Qezobjnam, 1, 40)
       ,d.Qezdirnam1
    FROM qusrsys.Qaezd0001o o
        INNER JOIN qusrsys.Qaezd0001d d
             ON o.Qezdiridx = d.Qezdiridx
    WHERE 1=1
    and qezobjtype='*STMF'
    and UPPER(o.Qezobjnam) LIKE '%02432%'
    ORDER BY o.Qezalcsize DESC;
```

6 – With Powershell and Findstr if the IFS directory is shared – share: if we want to search inside the contents of the files from Windows, we can use the PowerShell and the Findstr command, pointing to a shared IFS directory … with a really interesting speed. If we want, for example, to search for files that contain the word "MOTO" …. as in example 3 above, but using FINDSR the syntax is as follows:

```
findstr /s /i /c:"MOTO" \\myIBMi\f4docs\*.TXT
/s search in al subdirectories
/i case insensitive
/c: search string
```

7 – Updatedb and Locate, open source utility from the Linux world … they allow a quick search using all the potential of regular expressions.

```
updatedb –l0 –U /f4docs –o /tmp/myindex
locate –d /tmp/myindex 02342
```

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Other useful examples

Prosegui   iles starting with a number

How to list all files that not starting with a number ("myfile.txt" ok, "210021.txt" not ok)

```
ls | grep –v '^[0–9]'
```

02 Find all empty IFS directories

The "find" command coming with Qshell is not so good. If you want a better "find" command, better install the GNU findutils version!

```
-- Once only
yum install findutils

-- then, if you are looking for empty directories
find /home/faq400/ –type d –empty
```
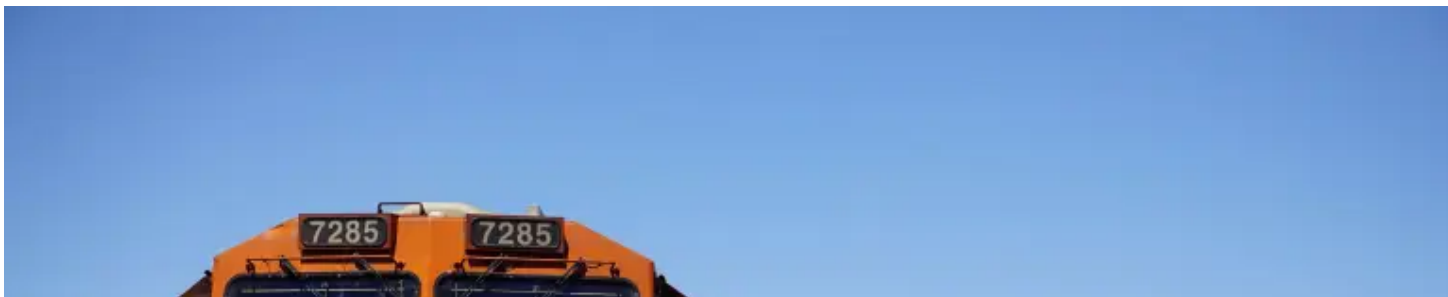
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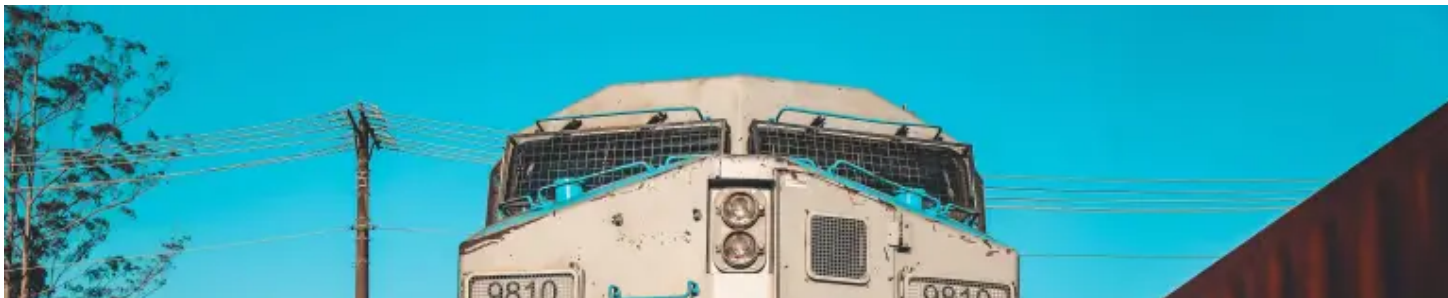
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