INFORMATION ON SUPPORTED OPERATING SYSTEMS AND HARDWARE REQUIREMENTS
FOR IPM AND DOF PRODUCT SUITES

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Question:

**WHAT OPERATING SYSTEMS AND HARDWARE ARE IPM AND DOF SUITE APPLICATIONS SUPPORTED ON?**

Answer:

Below are the supported operating systems and minimum hardware specifications for the IPM and DOF Suite applications.

If a particular operating system is not supported, it does not necessarily mean that it does not work on that operating system. It may only be that testing has not been completed.

**IPM SUITE (INCLUDING MOVE)**

**Platform Support and Hardware Requirements**

**IPM Version 13.0** is supported on the following 64-bit operating systems:-

- Windows 10
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

If you are using the HARDLOCK network licensing system to run IPM Version 13.0 you must be using HARDLOCK 12.0 or a later version.

**IPM** Version 13.0 is 64-bit product version. The 64-bit version is only available on x64 processor types as this is by far the most common type currently in use.

**MOVE** is a 64-bit product only.

**IPM** Version 13.0 can run on Windows Server operating systems only when the server is using the Network License Manager (HARDLOCK) for licensing. A standalone bitlock cannot be used for server operating systems.

In order to use Python scripts within IPM applications, the following environment must be installed (as a minimum) on the appropriate computers; Anaconda 2019.03 (Python 3.7.3) with the same bit-ness as the IPM software. **Python 3.8 is also supported.**
IPM HARDWARE REQUIREMENTS

IPM Version 13.0 - General

Processor: 2.4 Ghz Quad Core i5 (or higher)
Total Physical Memory: 4 GB (use 64-bit OS and IPM 64-bit for large models that require more than 4 GB)
Local Disks: 10 GB full IPM suite
Monitor Resolution: SVGA (1280 x 1024)

If a standalone bitlock is to be used then one USB port is required for the bitlock.

IPM Version 13.0 – Additional MOVE requirements

Total Physical Memory: 16 GB (or higher)
Graphics Card (GPU) Memory: 4 GB (or higher) discrete GPU / graphics card
Monitor Resolution: FHD (1920 x 1080)

MOVE Performance Notes:

- We would recommend **32-128 GB** of Total Physical Memory, and **6-32 GB** GPU Memory for models that utilise larger 2D seismic, 3D seismic cubes, DEMs, LiDAR data, or high resolution image overlays.
- MOVE will work with an on-board integrated graphics (GPU), however this is not supported.
- The graphics card software driver should be fully up to date.

Example GPU hardware:

<table>
<thead>
<tr>
<th>Ideal workstation</th>
<th>NVIDIA Quadro with 8-48 GB RAM e.g. Quadro, RTX 4000/5000/6000/8000, P5000, P6000, GP100, GV100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal notebook</td>
<td>NVIDIA Quadro with 6-26 GB RAM e.g. Quadro RTX 3000/4000/5000/6000, P3200, P4200, P5200</td>
</tr>
<tr>
<td>Ideal notebook</td>
<td>NVIDIA GeForce with 6-8 GB RAM e.g. GeForce RTX 2060/2070/2070S/2080/2080S</td>
</tr>
<tr>
<td>Adequate workstation</td>
<td>NVIDIA Quadro with 4-8 GB RAM e.g. Quadro P1000, P2200, P4000</td>
</tr>
<tr>
<td>Adequate notebook</td>
<td>NVIDIA Quadro with 4-6 GB RAM e.g. Quadro T1000, T2000, P1000, P2000</td>
</tr>
<tr>
<td>Adequate notebook</td>
<td>NVIDIA GeForce with 4-6 GB RAM e.g. GeForce GTX 1650, 1650 Ti, 1660 Ti</td>
</tr>
</tbody>
</table>
HARDLOCK – NETWORK LICENCE MANAGER

HARDLOCK Version 12.0 (latest Version) is supported on the following 64-bit operating systems:-
- Windows 10
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

The HARDLOCK is only available as 32-bit software, although it is supported on the 64-bit operating systems as described above. The 32-bit version of the HARDLOCK is able to distribute licences to 32 and 64-bit versions of the client programs (i.e. IPM/IFM/IVM/MOVE) assuming such licences have been purchased.

Hardware Requirements

HARDLOCK Version 12.0

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>1 Ghz</td>
</tr>
<tr>
<td>Total Physical Memory</td>
<td>1 GB</td>
</tr>
<tr>
<td>Local Disks</td>
<td>2 GB</td>
</tr>
<tr>
<td>Monitor Resolution</td>
<td>SVGA (800 x 600)</td>
</tr>
</tbody>
</table>

A USB port is required for the HARDLOCK bitlock.
**DOF SUITE**

**IFM Version 7.0**

IFM Version 7.0 client software is supported on the following 64-bit operating systems:-

- Windows 10
- Windows Server 2016
- Windows Server 2019

If you are using the HARDLOCK network licensing system to run IFM Version 7.0 you must be using HARDLOCK V12.0 or a later version.

IFM Version 7.0 can run on Windows Server operating systems only when the server is using the Network Licence Manager (HARDLOCK) for licensing. A standalone bitlock cannot be used for server operating systems.

In order to use Python scripts within IFM applications, the following environment must be installed (as a minimum) on the appropriate computers; Anaconda 2019.03 (Python 3.7.3) with the same bit-ness as the IFM software. **Python 3.8 is also supported.**

**IFM Hardware Requirements**

**IFM Database Server**

<table>
<thead>
<tr>
<th>Processor</th>
<th>2.4 Ghz Quad Core i7 (or higher)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Physical Memory</td>
<td>64 GB</td>
</tr>
<tr>
<td>Local Disks (space available for database files)</td>
<td>1000 GB</td>
</tr>
<tr>
<td>Operating System</td>
<td>MS Windows Server 2016 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Or MS Windows Server 2019 (64-bit)</td>
</tr>
<tr>
<td>Database Platform</td>
<td>Microsoft SQL Server 2016 SP3 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Or Microsoft SQL Server 2017 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Or Microsoft SQL Server 2019 (64-bit)</td>
</tr>
</tbody>
</table>

**IFM Data Server**

<table>
<thead>
<tr>
<th>Processor</th>
<th>2.4 Ghz Quad Core i7 (or higher)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Physical Memory</td>
<td>64 GB</td>
</tr>
<tr>
<td>Local Disks</td>
<td>200 GB</td>
</tr>
<tr>
<td>Operating System</td>
<td>MS Windows Server 2016 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Or MS Windows Server 2019 (64-bit)</td>
</tr>
</tbody>
</table>
IFM RTC Server (Automated Jobs Server)

- **Processor**: 2.4 Ghz Quad Core i7 (or higher)
- **Total Physical Memory**: 64 GB (see note below)
- **Local Disks**: 200 GB (see note below)
- **Operating System**: MS Windows Server 2016 (64-bit) or MS Windows Server 2019 (64-bit)

IFM Cluster Machine Server (Automated Jobs Server)

- **Processor**: 2.4 Ghz Quad Core i7 (or higher)
- **Total Physical Memory**: 64 GB (see note below)
- **Local Disks**: 200 GB (see note below)
- **Operating System**: MS Windows Server 2016 (64-bit) or MS Windows Server 2019 (64-bit)

IFM Client

- **Processor**: 2.4 Ghz Quad Core i5 (or higher)
- **Total Physical Memory**: 16 GB
- **Local Disks**: 120 GB
- **Operating System**: MS Windows 10 (64-bit) or MS Windows Server 2016 (64-bit) or MS Windows Server 2019 (64-bit)

**Notes**

- IFM 64-bit works only with the IPM 64-bit version and the IVM 64-bit version.
- Database Server: The use of dedicated database server running a single database instance is strongly recommended as well as hosting the database server on a physical machine.
- Database Server: The use of dedicated SSD disks for database data, log and backup file is strongly recommended to provide isolation and performance.
- Database Server: The use of flash based storage devices is recommended.
- The use of high end specified servers for the RTC Server (Automated Jobs server) is recommended if multiple (and/or large) fields have to be served.
- The RAM and Hard Disk requirements for both the RTC Server and Cluster Machines are dependent on the field size (please refer to the DOF Pre-requisites document for sizing information).
- Additional Information is provided in the DOF Pre-requisites document.
IVM Version 10.0

IVM Version 10.0 is supported on the following 64-bit operating systems:
- Windows 10
- Windows Server 2016
- Windows Server 2019

IVM Version 10.0 can run on Windows Server operating systems only when the server is using the Network Licence Manager (HARDLOCK).

In order to use Python scripts within IVM applications, the following environment must be installed (as a minimum) on the appropriate computers; Anaconda 2019.03 (Python 3.7.3) with the same bit-ness as the IVM software. **Python 3.8 is also supported.**

### IVM Hardware Requirements

**IVM Database Server**

- **Processor**: 2.4 Ghz Quad Core i7 (or higher)
- **Total Physical Memory**: 64 GB
- **Local Disks (space available for database files)**: 1000 GB
- **Operating System**: MS Windows Server 2016 (64-bit)
  - Or MS Windows Server 2019 (64-bit)
- **Database Platform**: Microsoft SQL Server 2016 SP3 (64-bit)
  - Or Microsoft SQL Server 2017 (64-bit)
  - Or Microsoft SQL Server 2019 (64-bit)

**IVM Data Manager Server**

- **Processor**: 2.4 Ghz Quad Core i7 (or higher)
- **Total Physical Memory**: 64 GB
- **Local Disks (space available for application files)**: 200 GB
- **Operating System**: MS Windows Server 2016 (64-bit)
  - Or MS Windows Server 2019 (64-bit)
Notes

- **IVM** 64-bit works only with the **IPM** 64-bit version and the **IFM** 64-bit version
- The use of dedicated database server running a single database instance is strongly recommended as well as hosting the database server on a physical machine.
- The use of dedicated data disk for database files is recommended to provide isolation and protection upon a failure in a single area.
- Additional Information is provided in the **DOF Pre-requisites document**
INFORMATION ON IPM AND DOF SOFTWARE ARCHITECTURE

For the Petex Digital Oil Field (DOF), the client can purchase only the 64-bit version of IPM v.13.0, IFM v.7.0 and IVM v.10.0.

For IPM which is not part of the Petex Digital Oil Field (DOF), IPM has 64-bit products versions which the client can choose to license, and which have separate licences.

PURCHASING NEW OR ADDITIONAL LICENCES

Clients can purchase new licences or additional licences. Please contact edinburgh@petex.com for details.