SNAP PAC MEMORY USAGE TECHNICAL NOTE

Volatile

All volatile memory is cleared after power loss or reboot.

Firmware and Memory Map Operation

-2.5 MB User File Storage

Strategy Operation (includes strategy logic, subroutines, and all strategy database tags)

-16 MB

Physical = 32 MB

Non-volatile

(Not affected by power loss)

Battery-backed RAM

(Has no write limit)

Persistent variables and variables initialized on download

-7 MB

Physical = 8 MB

Flash

Flash memory has a finite write limit. Caution should be used when writing to Flash: Do not write to Flash in a repeating loop.

Firmware

-2.5 MB User File Storage

Strategy Storage

-7.5 MB

Physical = 16 MB

physical = 8 MB

-2 MB User File Storage

Strategy Operation

-4 MB

Includes strategy logic, subroutines, and all strategy database tags.

System data and flags such as Strategy Autorun

-1 MB

Physical = 2 MB

Firmware and Memory Map configuration are loaded from Flash when the controller is turned on.

System data and flags such as Strategy Autorun

Physical = 8 MB

Firmware Memory Map Configuration

-384 kB User File Storage

Strategy Storage

-3.2 MB

For additional comparisons, see the SNAP PAC Controller and Brain Comparison Chart (form #1677).
Volatile

All volatile memory is cleared after power loss or reboot.

SNAP-PAC-S1-W
SNAP-PAC-S2-W

Firmware and Memory Map Operation

~16 MB User File Storage

Strategy Operation (includes strategy logic, subroutines, and all strategy database tags)

~64 MB

Non-volatile

(Not affected by power loss)
Battery-backed RAM
(Has no write limit)

Flash
Flash memory has a finite write limit. Caution should be used when writing to Flash: Do not write to Flash in a repeating loop.

SNAP-PAC-R1-W
SNAP-PAC-R2-W

Firmware and Memory Map Operation

~4 MB User File Storage

Strategy Operation
~10 MB

Includes strategy logic, subroutines, and all strategy database tags.

Physical = 128 MB

Physical = 32 MB

Persistent variables and variables initialized on download

System data and flags such as Strategy Autorun

Physical = 2 MB

~1 MB

System data and flags such as Strategy Autorun

Firmware and Memory Map configuration are loaded from Flash when the controller is turned on.

Physical = 8 MB

~384 kB User File Storage

Strategy Storage
~7.5 MB

Physical = 16 MB

Physical = 8 MB

For additional comparisons, see the SNAP PAC Controller and Brain Comparison Chart (form #1677).
<table>
<thead>
<tr>
<th>PC-based controller</th>
<th>Stand-alone, industrially hardened controllers</th>
<th>Rack-mounted controller and I/O processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SoftPAC</td>
<td>SNAP-PAC-S1-W</td>
<td>SNAP-PAC-R1-W</td>
</tr>
<tr>
<td></td>
<td>SNAP-PAC-S2-W</td>
<td>SNAP-PAC-R2-W</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volatile Data Storage</th>
<th>User file storage</th>
<th>RAM for strategy’s persistent variables and variables configured for “Initialize on Strategy Download”</th>
<th>User file storage saved to Flash memory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-16 MB</td>
<td>-2.5 MB</td>
<td>-256 KB</td>
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<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>-2.5 MB</td>
<td>-384 KB</td>
</tr>
</tbody>
</table>

| Non-Volatile Data Storage | -64 MB | -64 MB | -16 MB | -10 MB | -4 MB |

For additional comparisons, see the SNAP PAC Controller and Brain Comparison Chart (form #1677).