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## Configs



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## 1 Introduction

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**Configs**<sup>[1]</sup> is a RAM-based filesystem that provides the converse of sysfs functionality.

While sysfs provides a filesystem-based view of kernel objects, configs is a filesystem-based manager of kernel objects or config\_items (every object in configs is a config\_item). This means that kernel objects can be created, managed and destroyed from the user space.



## 2 Installing configs on your target board

**Configs** can be enabled and ready to be used in all STM32MPU Embedded Software distribution, via the Linux<sup>®</sup> kernel configuration **CONFIG\_CONFIGFS\_FS** (set to yes by default):

```
Symbol: CONFIGFS_FS
Location:
  File systems --->
    Pseudo filesystems -->
      -*- Userspace-driven configuration filesystem
```

Please refer to [Menuconfig](#) or [how to configure kernel](#) article for instructions for modifying the configuration and recompiling the Linux kernel image in the Distribution Package context.



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## 3 Getting started

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### 3.1 How to mount configs

Use the following command to mount **Configs** at `/sys/kernel/config`:

```
Board $> mount -t configs none /sys/kernel/config
```

### 3.2 How to set and manage configs from Linux kernel drivers and user space

Refer to the Linux documentation<sup>[1]</sup> for detailed information.

Configs is used by the USB framework. Refer to [USB API description](#) for an example.



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## 4 References

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- 1.01.1 [Documentation/filesystems/configfs/configfs.txt](#)

Random Access Memory (Early computer memories generally had serial access. Memories where any given address can be accessed when desired were then called "random access" to distinguish them from the memories where contents can only be accessed in a fixed order. The term is used today for volatile random-access semiconductor memories.)

System File System (See <https://en.wikipedia.org/wiki/Sysfs> for more details)

Configuration File System (See <https://en.wikipedia.org/wiki/Configfs> for more details)

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