

# Atomic Transfer

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## Atomic Transfer

YADE has many features to simplify day to day file transfer requirements. One of YADE's feature is Atomic Transfer.

## Scenario

- In some cases on a target server incoming files are automatically detected while being transferred by YADE
  - either by applications that monitor directories for incoming files
  - or by FTP, SFTP server daemons.
- In case of large files the data transfer could take some seconds and the directory watchers would detect the file as soon as some initial bytes are written on the target server.

## Solution

To avoid any partially transferred file being picked up by the directory watchers YADE has a built-in feature called *atomic transfer*.

- YADE has two parameters *atomic\_prefix* and *atomic\_suffix* to configure atomic transfer.
- As the name suggest, during file transfer YADE will create a temporary file on target server with *atomic\_prefix* and *atomic\_suffix* in the filename, thus make it virtually hidden for the directory watchers.
- As soon as file transfer has completed without error, then YADE renames the file to its original name. In case of any error partially transferred files will be deleted from the target server.

To configure atomic transfer either the parameters

- *atomic\_prefix*
- *atomic\_suffix*
- or both can be used.

The user can apply any character or word as prefix/suffix as long as a directory watcher would not recognize the prefix/suffix being a valid part of the expected file name.

## YADE JITL Job Example

```
<job
  title = "API Job for JobScheduler Advanced Data Exchange"
  order = "yes"  stop_on_error = "no" >

  <description>
    <include file = "jobs/JADE-Job.xml" />
  </description>

  <params>
    <param name = "atomic_prefix" value = "~" />
    <param name = "atomic_suffix" value = "~" />
    <param name = "file_spec"      value = "^report\.csv$" />
    <param name = "host"          value = "ftp.example.com" />
    <param name = "local_dir"     value = "." />
    <param name = "operation"     value = "copy" />
    <param name = "passive_mode"  value = "false" />
    <param name = "password"     value = "top-secret" />
    <param name = "remote_dir"   value = "." />
  </params>

  <script language = "java"
    java_class = "sos.scheduler.jade.JadeJob" >
  </script>
</job>
```