

GroundSegment Technical DataSheet

API Documentation

December 13, 2016

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1 Package GroundSegment

1.1 Modules

- **Utils** (Section 2, p. 8)
 - **EMailThread**: Created on 27 de set.
(Section 3, p. 9)
 - **Utils**: Created on 2 de dic.
(Section 4, p. 11)
 - **UtilsFunctions**: Created on 30 de ago.
(Section 5, p. 12)
- **Verification** (Section 6, p. 13)
 - **Alarms** (Section 7, p. 14)
 - * **tests**: Created on Sep 26, 2016
(Section 8, p. 15)
 - **Notification** (Section 9, p. 16)
 - * **tests**: Created on Sep 28, 2016
(Section 10, p. 17)
 - **tests**: Created on Sep 29, 2016
(Section 11, p. 18)
- **admin**: Created on 16 de ago.
(Section 12, p. 19)
- **forms** (Section 13, p. 24)
- **migrations** (Section 14, p. 25)
- **models**: Created on 16 de ago.
(Section 16, p. 28)
- **models** (Section 16, p. 28)
 - **Alarm** (Section 17, p. 30)
 - * **Action**: Created on Sep 27, 2016
(Section 18, p. 31)
 - * **Alarm**: Created on 4 de set.
(Section 19, p. 32)
 - * **AlarmState**: @package docstring Documentation for this module.
(Section 20, p. 34)
 - * **AlarmType**: Created on 4 de set.
(Section 21, p. 35)
 - * **Criticity**: Created on 4 de set.
(Section 22, p. 36)
 - **Calibration**: Created on 26 de nov.
(Section 23, p. 37)
 - **CommandType**: Created on 25 de ago.
(Section 24, p. 38)
 - **CommandTypeParameter**: Created on 25 de ago.
(Section 25, p. 39)
 - **Consts**: Created on Sep 27, 2016
(Section 26, p. 40)
 - **Log**: Created on 2 de dic.
(Section 27, p. 41)
 - **Notification** (Section 28, p. 42)
 - * **AlarmTypeNotificationType**: Created on Sep 27, 2016
(Section 29, p. 43)

- * **Contact**: Created on Sep 27, 2016
(Section 30, p. 44)
- * **MessageTemplate**: Created on Sep 27, 2016
(Section 31, p. 45)
- * **Notification**: Created on Sep 27, 2016
(Section 32, p. 46)
- * **NotificationType**: Created on Sep 27, 2016
(Section 33, p. 48)
- **PacketType**: Created on 3 de dic.
(Section 34, p. 49)
- **Parameter** (Section 35, p. 50)
- **Pasada**: Created on Sep 2, 2016
(Section 36, p. 51)
- **Propagation**: Created on Aug 29, 2016
(Section 37, p. 52)
- **PropagationDetail**: Created on Aug 29, 2016
(Section 38, p. 53)
- **Satellite**: Created on 16 de ago.
(Section 39, p. 54)
- **SatelliteState**: Created on 25 de ago.
(Section 40, p. 56)
- **Site**: Created on Sep 16, 2016
(Section 41, p. 57)
- **Sitio**: Created on Sep 5, 2016
(Section 42, p. 58)
- **SubSystem**: Created on 26 de nov.
(Section 43, p. 59)
- **Tle**: Created on Aug 24, 2016
(Section 44, p. 60)
- **TlmyVarType**: Created on 3 de set.
(Section 45, p. 62)
- **TmlyVar**: Created on Oct 27, 2016
(Section 46, p. 64)
- **Transforms**: Created on Aug 29, 2016
(Section 47, p. 66)
- **UHFRawData** (Section ??, p. ??)
- **Watchdog**: Created on 2 de dic.
(Section 48, p. 67)
- **settings**: Django settings for GroundSegment project.
(Section 49, p. 68)
- **tests**: Created on 16 de ago.
(Section 50, p. 70)
- **tests_settings**: Created on Oct 28, 2016
(Section 51, p. 71)
- **urls**: GroundSegment URL Configuration
(Section 52, p. 73)
- **views** (Section 53, p. 74)
- **wsgi**: WSGI config for GroundSegment project.
(Section 54, p. 76)

1.2 Variables

Name	Description
__package__	Value: None

2 Package GroundSegment.Utls

2.1 Modules

- **EMailThread**: Created on 27 de set.
(Section 3, p. 9)
- **Utils**: Created on 2 de dic.
(Section 4, p. 11)
- **UtilsFunctions**: Created on 30 de ago.
(Section 5, p. 12)

2.2 Variables

Name	Description
__package__	Value: None

3 Module **GroundSegment.Utls.EmailThread**

Created on 27 de set. de 2016

Author: pabli

3.1 Variables

Name	Description
<code>__package__</code>	Value: <code>'GroundSegment.Utls'</code>

3.2 Class **EmailThread**



3.2.1 Methods

`__init__`(*self, subject, body, recipients*)

This constructor should always be called with keyword arguments. Arguments are:

group should be None; reserved for future extension when a ThreadGroup class is implemented.

target is the callable object to be invoked by the run() method. Defaults to None, meaning nothing is called.

name is the thread name. By default, a unique name is constructed of the form "Thread-N" where N is a small decimal number.

args is the argument tuple for the target invocation. Defaults to ().

kwargs is a dictionary of keyword arguments for the target invocation. Defaults to {}.

If a subclass overrides the constructor, it must make sure to invoke the base class constructor (Thread.__init__()) before doing anything else to the thread.

Overrides: object.__init__ exitit(inherited documentation)

```
run(self)
```

```
msg = EmailMessage(self.subject, self.html_content, EMAIL_HOST_USER,  
self.recipient_list) msg.content_subtype = "html" msg.send()
```

```
Overrides: threading.Thread.run
```

Inherited from `threading.Thread`

```
__repr__(), getName(), isAlive(), isDaemon(), is_alive(), join(), setDaemon(),  
setName(), start()
```

Inherited from `object`

```
__delattr__(), __format__(), __getattr__(), __hash__(), __new__(),  
__reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(),  
__subclasshook__()
```

3.2.2 Properties

Name	Description
<i>Inherited from <code>threading.Thread</code></i>	
daemon, ident, name	
<i>Inherited from <code>object</code></i>	
__class__	

4 Module *GroundSegment.Utls.Utls*

Created on 2 de dic. de 2016

Author: pabli

4.1 Functions

loadOrCreateParam (<i>paramKey</i> , <i>paramModule</i> , <i>paramValue</i> , <i>paramDescription</i>)
--

Devuelve el valor de un parametro del configuracion del sistema, en caso de} no existir lo crea con un default hardcodeado, esto ultimo tiene como objetivo simplificar la primera ejecucion del sistema y ofrecer informacion sobre la naturaleza del parametro en el momento de ser modificado
--

5 Module *GroundSegment.Utls.UtlsFunctions*

Created on 30 de ago. de 2016

Author: pabli

5.1 Functions

<code>seconds_between(<i>d1</i>, <i>d2</i>)</code>
--

<code>datetime_from_time(<i>tr</i>)</code>
--

<code>get_next_pass(<i>lon</i>, <i>lat</i>, <i>alt</i>, <i>tle</i>)</code>
--

5.2 Variables

Name	Description
<code>__package__</code>	Value: <code>'GroundSegment.Utls'</code>

6 Package GroundSegment.Verification

6.1 Modules

- **Alarms** (*Section 7, p. 14*)
 - **tests**: Created on Sep 26, 2016
(*Section 8, p. 15*)
- **Notification** (*Section 9, p. 16*)
 - **tests**: Created on Sep 28, 2016
(*Section 10, p. 17*)
- **tests**: Created on Sep 29, 2016
(*Section 11, p. 18*)

6.2 Variables

Name	Description
__package__	Value: None

7 Package GroundSegment.Verification.Alarms

7.1 Modules

- **tests:** Created on Sep 26, 2016
(Section 8, p. 15)

7.2 Variables

Name	Description
__package__	Value: None

8 Module `GroundSegment.Verification.Alarms.tests`

Created on Sep 26, 2016

Author: `ubuntumate`

8.1 Class `AlarmTestCase`



8.1.1 Methods

setUpClass(<i>cls</i>)
Crea los maestros de operacion para el resto de los test de esta unidad

testNewAlarm(<i>self</i>)
1. Testea la creacion de alarmas mediante el metodo de clase new, seleccionando un tipo de alarma aleatorio
2. Testea los cambios de estado del misma mediante el llamado a metodos
3. Verifica que las acciones a realizar en los cambios de estados se implementan correctamente

testDuplicateAlarmaType(<i>self</i>)
1. Testea que no se puedan crear dos alarmas del mismo tipo
2. Genera una excepcion que hace fallar el test

9 Package GroundSegment.Verification.Notification

9.1 Modules

- **tests:** Created on Sep 28, 2016
(Section 10, p. 17)

9.2 Variables

Name	Description
__package__	Value: None

10 Module `GroundSegment.Verification.Notification.tests`

Created on Sep 28, 2016

Author: `ubuntumate`

10.1 Class `Test`

`unittest.TestCase` — `GroundSegment.Verification.Notification.tests.Test`

10.1.1 Methods

<code>testSendAlarmaNotification(<i>self</i>)</code>
--

11 Module `GroundSegment.Verification.tests`

Created on Sep 29, 2016

Author: `ubuntumate`

11.1 Class `Test`

`unittest.TestCase` — `GroundSegment.Verification.tests.Test`

11.1.1 Methods

<code>testName(<i>self</i>)</code>

Prueba todos los <code>__str__</code> , aumenta considerablemente el code coverage
--

<code>testSetTlmyVar(<i>self</i>)</code>
--

12 Module *GroundSegment.admin*

Created on 16 de ago. de 2016

Author: pabli

12.1 Class *SatelliteAdmin*

django.contrib.admin.ModelAdmin — **GroundSegment.admin.SatelliteAdmin**

12.2 Class *ParameterAdmin*

django.contrib.admin.ModelAdmin — **GroundSegment.admin.ParameterAdmin**

12.2.1 Class Variables

Name	Description
search_fields	Value: ['module']
list_display	Value: 'module', 'key', 'value', 'description'

12.3 Class *CommandTypeAdmin*

django.contrib.admin.ModelAdmin — **GroundSegment.admin.CommandTypeAdmin**

12.3.1 Class Variables

Name	Description
empty_value_display	Value: "
fields	Value: 'code', 'description', 'active', 'transactional', 'satell...
list_display	Value: 'code', 'description', 'transactional', 'satellite', 'tim...

continued on next page

Name	Description
search_fields	Value: ['code']

12.4 Class **SatelliteStateAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.SatelliteStateAdmin**

12.5 Class **AlarmTypeAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.AlarmTypeAdmin**

12.6 Class **AlarmAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.AlarmAdmin**

12.7 Class **CriticalityAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.CriticalityAdmin**

12.8 Class **AlarmStateAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.AlarmStateAdmin**

12.9 Class **PasadaAdmin**

django.contrib.admin.ModelAdmin — **GroundSegment.admin.PasadaAdmin**

12.10 Class `SitioAdmin`

`django.contrib.admin.ModelAdmin` — `GroundSegment.admin.SitioAdmin`

12.11 Class `ContactAdmin`

`django.contrib.admin.ModelAdmin` — `GroundSegment.admin.ContactAdmin`

12.11.1 Class Variables

Name	Description
<code>fields</code>	Value: <code>'name', 'email',</code>
<code>list_display</code>	Value: <code>'name', 'email',</code>

12.12 Class `AlarmTypeNotificationTypeAdmin`

`django.contrib.admin.ModelAdmin` — `GroundSegment.admin.AlarmTypeNotificationTypeAdmin`

12.12.1 Class Variables

Name	Description
<code>fields</code>	Value: <code>'notificationType', 'alarmType', 'messageTemplate', 'cont...</code>
<code>list_display</code>	Value: <code>'notificationType', 'alarmType', 'messageTemplate',</code>

12.13 Class `MessageTemplateAdmin`

`django.contrib.admin.ModelAdmin` — `GroundSegment.admin.MessageTemplateAdmin`

12.14 Class NotificationTypeAdmin

django.contrib.admin.ModelAdmin —
GroundSegment.admin.NotificationTypeAdmin

12.15 Class NotificationAdmin

django.contrib.admin.ModelAdmin —
GroundSegment.admin.NotificationAdmin

12.16 Class TmlyVarTypeAdmin

django.contrib.admin.ModelAdmin —
GroundSegment.admin.TmlyVarTypeAdmin

12.16.1 Class Variables

Name	Description
search_fields	Value: ['code']
list_display	Value: 'code', 'description', 'satellite', 'lastCalFValue', 'las...

12.17 Class TmlyVarAdmin

django.contrib.admin.ModelAdmin —
GroundSegment.admin.TmlyVarAdmin

12.18 Class CalibrationAdmin

django.contrib.admin.ModelAdmin —
GroundSegment.admin.CalibrationAdmin

12.19 Class SubSystemAdmin

django.contrib.admin.ModelAdmin — **GroundSegment.admin.SubSystemAdmin**

12.20 Class LogAdmin

django.contrib.admin.ModelAdmin — **GroundSegment.admin.LogAdmin**

12.20.1 Methods

<code>get_queryset(<i>self</i>, <i>request</i>)</code>
--

12.20.2 Class Variables

Name	Description
list_display	Value: 'code', 'description', 'module', 'logType'
search_fields	Value: ['module', 'logType']
list_filter	Value: ['module', 'logType']

13 Module *GroundSegment.forms*

13.1 Class *SimulatorForm*



13.1.1 Methods

<code>simulateAlarm(<i>self</i>)</code>

13.2 Class *PropagateTestForm*



13.2.1 Methods

<code>propagate(<i>self</i>)</code>

14 Package GroundSegment.migrations

14.1 Variables

Name	Description
__package__	Value: None

15 Package GroundSegment.models

15.1 Modules

- **Alarm** (*Section 17, p. 30*)
 - **Action**: Created on Sep 27, 2016
(*Section 18, p. 31*)
 - **Alarm**: Created on 4 de set.
(*Section 19, p. 32*)
 - **AlarmState**: @package docstring Documentation for this module.
(*Section 20, p. 34*)
 - **AlarmType**: Created on 4 de set.
(*Section 21, p. 35*)
 - **Criticality**: Created on 4 de set.
(*Section 22, p. 36*)
- **Calibration**: Created on 26 de nov.
(*Section 23, p. 37*)
- **CommandType**: Created on 25 de ago.
(*Section 24, p. 38*)
- **CommandTypeParameter**: Created on 25 de ago.
(*Section 25, p. 39*)
- **Consts**: Created on Sep 27, 2016
(*Section 26, p. 40*)
- **Log**: Created on 2 de dic.
(*Section 27, p. 41*)
- **Notification** (*Section 28, p. 42*)
 - **AlarmTypeNotificationType**: Created on Sep 27, 2016
(*Section 29, p. 43*)
 - **Contact**: Created on Sep 27, 2016
(*Section 30, p. 44*)
 - **MessageTemplate**: Created on Sep 27, 2016
(*Section 31, p. 45*)
 - **Notification**: Created on Sep 27, 2016
(*Section 32, p. 46*)
 - **NotificationType**: Created on Sep 27, 2016
(*Section 33, p. 48*)
- **PacketType**: Created on 3 de dic.
(*Section 34, p. 49*)
- **Parameter** (*Section 35, p. 50*)
- **Pasada**: Created on Sep 2, 2016
(*Section 36, p. 51*)
- **Propagation**: Created on Aug 29, 2016
(*Section 37, p. 52*)
- **PropagationDetail**: Created on Aug 29, 2016

- (Section 38, p. 53)*
- **Satellite**: Created on 16 de ago.
(Section 39, p. 54)
- **SatelliteState**: Created on 25 de ago.
(Section 40, p. 56)
- **Site**: Created on Sep 16, 2016
(Section 41, p. 57)
- **Sitio**: Created on Sep 5, 2016
(Section 42, p. 58)
- **SubSystem**: Created on 26 de nov.
(Section 43, p. 59)
- **Tle**: Created on Aug 24, 2016
(Section 44, p. 60)
- **TlmyVarType**: Created on 3 de set.
(Section 45, p. 62)
- **TmlyVar**: Created on Oct 27, 2016
(Section 46, p. 64)
- **Transforms**: Created on Aug 29, 2016
(Section 47, p. 66)
- **UHFRawData** *(Section ??, p. ??)*
- **Watchdog**: Created on 2 de dic.
(Section 48, p. 67)

16 Package GroundSegment.models

16.1 Modules

- **Alarm** (*Section 17, p. 30*)
 - **Action**: Created on Sep 27, 2016
(*Section 18, p. 31*)
 - **Alarm**: Created on 4 de set.
(*Section 19, p. 32*)
 - **AlarmState**: @package docstring Documentation for this module.
(*Section 20, p. 34*)
 - **AlarmType**: Created on 4 de set.
(*Section 21, p. 35*)
 - **Criticality**: Created on 4 de set.
(*Section 22, p. 36*)
- **Calibration**: Created on 26 de nov.
(*Section 23, p. 37*)
- **CommandType**: Created on 25 de ago.
(*Section 24, p. 38*)
- **CommandTypeParameter**: Created on 25 de ago.
(*Section 25, p. 39*)
- **Consts**: Created on Sep 27, 2016
(*Section 26, p. 40*)
- **Log**: Created on 2 de dic.
(*Section 27, p. 41*)
- **Notification** (*Section 28, p. 42*)
 - **AlarmTypeNotificationType**: Created on Sep 27, 2016
(*Section 29, p. 43*)
 - **Contact**: Created on Sep 27, 2016
(*Section 30, p. 44*)
 - **MessageTemplate**: Created on Sep 27, 2016
(*Section 31, p. 45*)
 - **Notification**: Created on Sep 27, 2016
(*Section 32, p. 46*)
 - **NotificationType**: Created on Sep 27, 2016
(*Section 33, p. 48*)
- **PacketType**: Created on 3 de dic.
(*Section 34, p. 49*)
- **Parameter** (*Section 35, p. 50*)
- **Pasada**: Created on Sep 2, 2016
(*Section 36, p. 51*)
- **Propagation**: Created on Aug 29, 2016
(*Section 37, p. 52*)
- **PropagationDetail**: Created on Aug 29, 2016

- (Section 38, p. 53)*
- **Satellite**: Created on 16 de ago.
(Section 39, p. 54)
- **SatelliteState**: Created on 25 de ago.
(Section 40, p. 56)
- **Site**: Created on Sep 16, 2016
(Section 41, p. 57)
- **Sitio**: Created on Sep 5, 2016
(Section 42, p. 58)
- **SubSystem**: Created on 26 de nov.
(Section 43, p. 59)
- **Tle**: Created on Aug 24, 2016
(Section 44, p. 60)
- **TlmyVarType**: Created on 3 de set.
(Section 45, p. 62)
- **TmlyVar**: Created on Oct 27, 2016
(Section 46, p. 64)
- **Transforms**: Created on Aug 29, 2016
(Section 47, p. 66)
- **UHFRawData** *(Section ??, p. ??)*
- **Watchdog**: Created on 2 de dic.
(Section 48, p. 67)

17 Package GroundSegment.models.Alarm

17.1 Modules

- **Action:** Created on Sep 27, 2016
(Section 18, p. 31)
- **Alarm:** Created on 4 de set.
(Section 19, p. 32)
- **AlarmState:** @package docstring Documentation for this module.
(Section 20, p. 34)
- **AlarmType:** Created on 4 de set.
(Section 21, p. 35)
- **Criticality:** Created on 4 de set.
(Section 22, p. 36)

18 Module **GroundSegment.models.Alarm.Action**

Created on Sep 27, 2016

Author: ubuntuimate

18.1 Class **Action**

django.db.models.Model — **GroundSegment.models.Alarm.Action.Action**

Accion realizada sobre una alarma ya sea por que fue especificado por un procedimiento o por indicacion del experto del area

19 Module GroundSegment.models.Alarm.Alarm

Created on 4 de set. de 2016

Author: Pablo Soligo

19.1 Variables

Name	Description
PENDING	Value: 0
OPEN	Value: 1
CLOSED	Value: 2
ALARM_STATUS	Value: PENDING, 'Pendiente', (OPEN, 'Abierta'), (CLOSED, 'Cerrad...

19.2 Class Alarm

django.db.models.Model  **GroundSegment.models.Alarm.Alarm.Alarm**

Clase/Entidad encargada de almacenar las alarmas producidas por situaciones fuera de las esperadas. Las alarmas pueden producirse por valores de telemetria por fuera de los rangos aceptados o situaciones no nominales

19.2.1 Methods

__init__ (<i>self</i> , * <i>args</i> , ** <i>kwargs</i>)
new (<i>cls</i> , <i>satellite</i> , <i>alarmtype</i> , <i>dtArrival</i>)
setOpen (<i>self</i>) Este metodo verifica si es posible el cambio de estado de la alarma a abierta y en caso de ser posible lo realiza. Genera una excepcion en caso de no poder cumplirse la operacion

setClose(*self*)

Este metodo verifica si es posible el cambio de estado de la alarma a cerrada y en caso de ser posible lo realiza. Genera una excepcion en caso de no poder cumplirse la operacion

isOvercome(*self*)

Indica si la alarma no fue atendida en el tiempo dispuesto para ello

19.2.2 Class Variables

Name	Description
alarmType	Value: models.ForeignKey(AlarmType, related_name= "alarms")
state	Value: models.IntegerField()
dtArrival	Value: models.DateTimeField(auto_now_add=True)
satellite	Value: models.ForeignKey(Satellite, related_name= 'alarms')

20 Module GroundSegment.models.Alarm.AlarmState

@package docstring Documentation for this module.

More details.

20.1 Class AlarmState

django.db.models.Model — **GroundSegment.models.Alarm.AlarmState.AlarmState**

Clase/Entidad que describe los estados por los que puede pasar una alarma tipicamente:

- Estados
 - Pendiente
 - En Tratamiento
 - Tratada

Entidad sujeta a logica y por tanto solo administrable por personal tecnico de desarrollo

20.1.1 Methods

<code>__str__(self)</code>

20.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del estado de la alarma', max_le...
description	Value: models.CharField('Decripcion del estado de la alarma', ma...

21 Module GroundSegment.models.Alarm.AlarmType

Created on 4 de set. de 2016

Author: pabli

21.1 Class AlarmType

django.db.models.Model —
GroundSegment.models.Alarm.AlarmType.AlarmType

21.1.1 Methods

<code>__str__(self)</code>

<code>getAlarms(self)</code>

21.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del tipo de alarma', max_length=...
description	Value: models.CharField('Decripcion del tipo de alarma', max_len...
criticity	Value: models.ForeignKey(Criticity, related_name= 'alarmstype')
procedure	Value: models.TextField(help_text='Procedimiento a ejecutar por...
timeout	Value: models.IntegerField(help_text='tiempo maximo para tratar...

22 Module GroundSegment.models.Alarm.Criticality

Created on 4 de set. de 2016

Author: Pablo Soligo

22.1 Class Criticality

django.db.models.Model —
GroundSegment.models.Alarm.Criticality.Criticality

Criticidad del evento o la alarma. Define el nivel de gravedad y atributos asociados, ti

- Gravedad
- Color
- Sonido
- etc

22.1.1 Methods

<code>__str__(self)</code>

22.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo de criticidad', max_length= 24, ...
description	Value: models.CharField('Decripcion de la criticidad', max_lengt...
color	Value: models.CharField(max_length= 7, default= "#FF0000")
sound	Value: models.FileField("/media")

23 Module GroundSegment.models.Calibration

Created on 26 de nov. de 2016

Author: pabli

23.1 Class Calibration

django.db.models.Model —
GroundSegment.models.Calibration.Calibration

23.1.1 Methods

<code>__str__(self)</code>

23.1.2 Class Variables

Name	Description
aClass	Value: models.CharField('Clase donde se encuentra la funcion de ...
aMethod	Value: models.CharField('Metodo de calibracion', max_length= 128...
subsystem	Value: models.ForeignKey(SubSystem, on_delete= PROTECT, related_...

24 Module *GroundSegment.models.CommandType*

Created on 25 de ago. de 2016

Author: pabli

24.1 Class *CommandType*

django.db.models.Model  *GroundSegment.models.CommandType.CommandType*

24.1.1 Methods

<code>__str__(self)</code>

24.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del tipo de comando', max_length...
description	Value: models.CharField('Decripcion del tipo de comando', max_le...
satellite	Value: models.ForeignKey(Satellite, related_name= 'commandsType')
satelliteStates	Value: models.ManyToManyField(SatelliteState, related_name= 'com...
active	Value: models.BooleanField(default= True)
transactional	Value: models.BooleanField(default= False)
timeout	Value: models.IntegerField('Tiempo en segundos?', default= 0, nu...
notes	Value: models.TextField('Consecuencias, restricciones del comand...

25 Module `GroundSegment.models.CommandTypeParameter`

Created on 25 de ago. de 2016

Author: pablosoligo

25.1 Class `CommandTypeParameter`

`django.db.models.Model`  `GroundSegment.models.CommandTypeParameter.CommandTypeP`

26 Module GroundSegment.models.Consts

Created on Sep 27, 2016

Author: ubuntumate

26.1 Class Consts

```

object └─ GroundSegment.models.Consts.Consts
classdocs

```

26.1.1 Methods

__init__ (<i>self, params</i>)
Constructor
Overrides: object.__init__

Inherited from object

```

__delattr__(), __format__(), __getattr__(), __hash__(), __new__(),
__reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(),
__str__(), __subclasshook__()

```

26.1.2 Properties

Name	Description
<i>Inherited from object</i> __class__	

26.1.3 Class Variables

Name	Description
smallString	Value: 64
mediumString	Value: 128
bigString	Value: 512

27 Module GroundSegment.models.Log

Created on 2 de dic. de 2016

Author: pabli

27.1 Class Log

django.db.models.Model —
GroundSegment.models.Log.Log

Entidad de log global de todo el sistema

27.1.1 Methods

create (<i>cls, code, description, module, logType</i>)
--

__str__ (<i>self</i>)

27.1.2 Class Variables

Name	Description
INFORMATION	Value: 0
WARNING	Value: 1
ERROR	Value: 2
LOGTYPE	Value: INFORMATION, 'Information', (WARNING, 'Warning'), (ERROR,...
code	Value: models.CharField('Codigo del tipo de log', max_length= 24...
description	Value: models.TextField('Decripcion log', max_length= 512, help_...
module	Value: models.CharField('Modulo', max_length= 64, help_text= 'Mo...
logType	Value: models.IntegerField("Tipo de log", default= 0, choices= L...
created	Value: models.DateTimeField(auto_now_add= True)

28 Package GroundSegment.models.Notification

28.1 Modules

- **AlarmTypeNotificationType**: Created on Sep 27, 2016
(Section 29, p. 43)
- **Contact**: Created on Sep 27, 2016
(Section 30, p. 44)
- **MessageTemplate**: Created on Sep 27, 2016
(Section 31, p. 45)
- **Notification**: Created on Sep 27, 2016
(Section 32, p. 46)
- **NotificationType**: Created on Sep 27, 2016
(Section 33, p. 48)

29 Module GroundSegment.models.Notification.AlarmTypeNotificationType

Created on Sep 27, 2016

Author: ubuntumate

29.1 Class AlarmTypeNotificationType

django.db.models.Model —
GroundSegment.models.Notification.AlarmTypeNotificationType.A

Clase/Entidad de configuracion donde se determina si una alarma de determinado tipo es candidata a la notificacion, que tipo de notificacion de usarse, con que plantilla y cuales son los destinatarios de esa notificacion.

29.1.1 Methods

<code>__str__(self)</code>

29.1.2 Class Variables

Name	Description
notificationType	Value: models.ForeignKey(NotificationType, on_delete= models.PRO...
alarmType	Value: models.ForeignKey(AlarmType, on_delete= models.PROTECT, r...
messageTemplate	Value: models.ForeignKey(MessageTemplate, on_delete= models.PROT...
contacts	Value: models.ManyToManyField(Contact, related_name= "alarmTypeN...

30 Module GroundSegment.models.Notification.Contact

Created on Sep 27, 2016

Author: ubuntumate

30.1 Class Contact

django.db.models.Model —
GroundSegment.models.Notification.Contact.Contact

Contacto/destinatario del las notificaciones. No necesariamente tiene que ser usuario del software del ground segment y por tanto se plantea como una entidad separada.

See Also: Los atributos de esta entidad estan relacionados con los tipos de notificaciones disponibles

Change Log: Los atributos de esta entidad estan relacionados con los tipos de notificaciones disponibles, al agregar mas tipos de notificaciones puede ser necesario enriquecer esta entidad

30.1.1 Methods

<code>__str__(self)</code>

30.1.2 Class Variables

Name	Description
name	Value: models.CharField('Nombre del contacto', max_length= Const...
email	Value: models.EmailField('EMail del contacto', max_length= Const...

31 Module GroundSegment.models.Notification.MessageTemplate

Created on Sep 27, 2016

Author: ubuntumate

31.1 Class MessageTemplate

django.db.models.Model

GroundSegment.models.Notification.MessageTemplate.MessageTem

Plantilla para la notificacion, al momento de enviar una el mensaje se toma el texto de se realizan los remplazos por la information asociada (delimitada entre []) y se genera

 $E_j:$

Se ha generado la alarma numero [pk] a hora abordo [dtOnBoard] y es del tipo [alarma

31.1.1 Methods

```
__str__(self)
```

31.1.2 Class Variables

Name	Description
name	Value: models.CharField('Nombre de la plantilla', max_length= Co...
subject	Value: models.CharField('Asunto del mensaje', max_length= Consts...
text	Value: models.TextField(null= False, default= "Sin mensaje")

32 Module `GroundSegment.models.Notification.Notification`

Created on Sep 27, 2016

Author: ubuntumate

32.1 Class `Notification`

`django.db.models.Model` — `GroundSegment.models.Notification.Notification.Notification`

Notifacion efectiva enviada o por enviar. Generada a partir de la configuracion del sist

Objetivo

=====

Repositorio para las notificaciones generadas y enviadas.

Implementacion

=====

Se utiliza una unica entidad, las notificaciones se marcan como envidas cuando puede
indican la cantidad de intentos y se marcan como fallidas

32.1.1 Methods

```
new(cls, **kwargs)
```

```
__str__(self)
```

32.1.2 Class Variables

Name	Description
subject	Value: <code>models.CharField('Asunto de la notificacion', max_length=...</code>
text	Texto de la notificacion Value: <code>models.TextField(null= False, default= "Sin mensaje")</code>
contacts	Value: <code>models.ManyToManyField(Contact, related_name= "notificati...</code>

continued on next page

Name	Description
alarmTypeNotificationType	Value: <code>models.ForeignKey(AlarmTypeNotificationType, related_name=...)</code>
sended	Value: <code>models.BooleanField(default=False)</code>
ntry	Value: <code>models.IntegerField(default= 0)</code>

33 Module GroundSegment.models.Notification.NotificationType

Created on Sep 27, 2016

Author: ubuntumate

33.1 Class NotificationType

django.db.models.Model

GroundSegment.models.Notification.NotificationType.NotificationT

Tipo de notificacion, esta entidad tiene logica asociada e indica el canal de notificacion, normalmente email, sms, filereport. Para el FS2017 en su fase academica solo implementa email

See Also: En fase academica FS2017 solo se plantea como tipo de notificacion el correo electronico

Change Log: En fase academica FS2017 solo se plantea como tipo de notificacion el correo electronico

33.1.1 Methods

<code>__str__(self)</code>

33.1.2 Class Variables

Name	Description
description	Value: models.CharField('Decripcion del tipo de Notificacion', m...

33.1.3 Instance Variables

Name	Description
code	This is an instance variable. Value: models.CharField('Codigo del tipo de notificacion', max_l...

34 Module `GroundSegment.models.PacketType`

Created on 3 de dic. de 2016

Author: pabli

34.1 Class `PacketType`

`django.db.models.Model` — `GroundSegment.models.PacketType.PacketType`

34.1.1 Class Variables

Name	Description
<code>code</code>	Value: <code>models.CharField('Codigo del tipo de paquete', max_length...</code>
<code>description</code>	Value: <code>models.CharField('Decripcion del tipo de paquete', max_le...</code>

35 Module GroundSegment.models.Parameter

35.1 Class Parameter

django.db.models.Model —
GroundSegment.models.Parameter.Parameter

35.1.1 Methods

create(*cls, module, key, value, description*)

__str__(*self*)

getKey(*self*)

getValue(*self*)

35.1.2 Class Variables

Name	Description
module	Value: models.CharField('Modulo', max_length= 64, help_text= 'Mo...
key	Value: models.CharField('Clave', max_length= 24, help_text= 'Cla...
value	Value: models.CharField('Valor', max_length= 128, help_text= 'Va...
description	Value: models.TextField('Descripcion', help_text= 'Descripcion d...

36 Module GroundSegment.models.Pasada

Created on Sep 2, 2016

Author: ubuntumate

36.1 Class Pasada

django.db.models.Model —
GroundSegment.models.Pasada.Pasada

36.1.1 Methods

<code>__str__(self)</code>

36.1.2 Class Variables

Name	Description
name	Value: models.CharField(max_length= 128, unique= True)
satellite	Value: models.ForeignKey(Satellite, related_name= 'pasadas')
sitio	Value: models.ForeignKey(Sitio, related_name= 'pasadas')
startTime	Value: models.DateTimeField(auto_now_add= True)
stopTime	Value: models.DateTimeField(auto_now_add= True)

37 Module GroundSegment.models.Propagation

Created on Aug 29, 2016

Author: ubuntumate

37.1 Class Propagation

django.db.models.Model  GroundSegment.models.Propagation.Propagation

37.1.1 Class Variables

Name	Description
created	Value: models.DateTimeField(auto_now_add=True)
tle	Value: models.ForeignKey(Tle, related_name= 'propagations')
satellite	Value: models.ForeignKey(Satellite, related_name= 'propagations')
final	Value: models.BooleanField(default=False)

38 Module `GroundSegment.models.PropagationDetail`

Created on Aug 29, 2016

Author: ubuntumate

38.1 Class `PropagationDetail`

django.db.models.Model — `GroundSegment.models.PropagationDetail.PropagationDetail`

38.1.1 Methods

<code>save(self, *args, **kwargs)</code>
--

38.1.2 Class Variables

Name	Description
created	Value: <code>models.DateTimeField(auto_now_add=True)</code>
dt	Value: <code>models.DateTimeField()</code>
propagation	Value: <code>models.ForeignKey(Propagation, related_name= 'propagation...)</code>
positionX	Value: <code>models.FloatField()</code>
positionY	Value: <code>models.FloatField()</code>
positionZ	Value: <code>models.FloatField()</code>
velocityX	Value: <code>models.FloatField()</code>
velocityY	Value: <code>models.FloatField()</code>
velocityZ	Value: <code>models.FloatField()</code>
earthDistance	Value: <code>models.FloatField(default= 0.0)</code>

39 Module `GroundSegment.models.Satellite`

Created on 16 de ago. de 2016

Author: pablo soligo

39.1 Class `Satellite`



Clase/Entidad `Satellite`.

39.1.1 Methods

new(*cls, code, description, noradId*)

Constructor de clase

Return Value

Nueva instancia del satellite

(*type=Satellite*)

getCode(*self*)

getLastTLE(*self*)

Verificar la fecha de ultima descarga del TLE, si puede existir un TLE nuevo intentar descargarlo

getCelestialPosition(*self, dtm=datetime.now(utc)*)

newAlarm(*self, alarmType*)

__str__(*self*)

39.1.2 Class Variables

Name	Description
code	Value: <code>models.CharField('Codigo del satellite', max_length= 24, h...</code>

continued on next page

Name	Description
description	Value: <code>models.CharField('Decripcion del satelite', max_length= 1...</code>
noradId	Value: <code>models.IntegerField('Codigo norad del satelite', help_tex...</code>
active	Value: <code>models.BooleanField('Activacion/desactivacion del satelit...</code>
state	Value: <code>models.ForeignKey(SatelliteState, related_name= 'satellit...</code>
notes	Value: <code>models.TextField('Observaciones sobre el satelite', max_l...</code>

40 Module `GroundSegment.models.SatelliteState`

Created on 25 de ago. de 2016

Author: pabli

40.1 Class `SatelliteState`

`django.db.models.Model` — `GroundSegment.models.SatelliteState.SatelliteState`

40.1.1 Methods

<code>__str__(self)</code>

40.1.2 Class Variables

Name	Description
code	Value: <code>models.CharField('Codigo de estado', max_length= 24, help...</code>
description	Value: <code>models.CharField('Codigo de estado', max_length= 100, hel...</code>

41 Module GroundSegment.models.Site

Created on Sep 16, 2016

Author: ubuntumate

41.1 Class Site



41.1.1 Methods

<code>setLatitude(self, value)</code>

<code>setLongitude(self, value)</code>
--

<code>setAltitude(self, value)</code>

<code>getPass(self, fro, to, satellite)</code>
--

41.1.2 Class Variables

Name	Description
name	Value: models.CharField("Nombre del Sitio", max_length= 100, uni...
latitude	Value: models.FloatField('latitude', help_text= '[Grados Decimal...
longitude	Value: models.FloatField('Longitud', help_text= '[Grados Decimal...
altitude	Value: models.FloatField('altura', help_text= '[metros]')

42 Module GroundSegment.models.Sitio

Created on Sep 5, 2016

Author: ubuntumate

42.1 Class Sitio

django.db.models.Model —
GroundSegment.models.Sitio.Sitio

42.1.1 Methods

<code>__str__(self)</code>

42.1.2 Class Variables

Name	Description
name	Value: models.CharField("Nombre del Sitio", max_length= 24, uniq...
lat	Value: models.FloatField('Latitud', help_text= '[Dato en Grados ...
lon	Value: models.FloatField('Longitud', help_text= '[Grados Decimal...
h	Value: models.FloatField('altura', help_text= '[metros]', unique...

43 Module GroundSegment.models.SubSystem

Created on 26 de nov. de 2016

Author: pabli

43.1 Class SubSystem

django.db.models.Model —
GroundSegment.models.SubSystem.SubSystem

43.1.1 Methods

<code>__str__(self)</code>

43.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del subsistema', max_length= 24,...
description	Value: models.CharField('Decripcion del subsistema', max_length=...

44 Module `GroundSegment.models.Tle`

Created on Aug 24, 2016

Author: Pablo Soligo

44.1 Class `Tle`



Clase/Entidad TLE. Almacena la informacion de los TLE incluyendo su fecha de descarga y la epoca de TLE

44.1.1 Methods

<code>getLine1(self)</code>
Retorna la primera linea del TLE en formato texto plano
Return Value
primera linea del TLE en texto plano. (<i>type=string</i>)

<code>getLine2(self)</code>
Retorna la segunda linea del TLE en formato texto plano
Return Value
segunda linea del TLE en texto plano. (<i>type=string</i>)

44.1.2 Class Variables

Name	Description
<code>tleDateTime</code>	Fecha generacion del TLE, si no fuera seteada se utilizara la fecha hora actual Value: <code>models.DateTimeField(auto_now_add=True)</code>

continued on next page

Name	Description
downloaded	Fecha de descarga del TLE Value: <code>models.DateTimeField(auto_now_add=True)</code>
lines	Lineas del TLE Value: <code>models.TextField(max_length=124,)</code>
satellite	Satelite asociado al TLE Value: <code>models.ForeignKey(Satellite, related_name= 'tles')</code>

45 Module `GroundSegment.models.TlmyVarType`

Created on 3 de set. de 2016

Author: Pablo Soligo

45.1 Class `TlmyVarType`

`django.db.models.Model` — `GroundSegment.models.TlmyVarType.TlmyVarType`

45.1.1 Methods

```
__str__(self)
```

```
getValue(self)
```

```
setValue(self, raw, saveifchange=False)
```

45.1.2 Class Variables

Name	Description
INTEGER	Value: 0
FLOAT	Value: 1
STRING	Value: 2
DIRECT	Value: 0
DERIVED	Value: 1
VARTYPE	Value: INTEGER, 'Integer', (FLOAT, 'Float'), (STRING, 'String'),
VARSUBTYPE	Value: DIRECT, 'Direct', (DERIVED, 'Derived'),
code	Value: models.CharField('Codigo del tipo de variable', max_lengt...
description	Value: models.CharField('Decripcion del tipo de variable', max_l...
satellite	Value: models.ForeignKey(Satellite, related_name= "tmlyVarType",...
limitMaxValue	Value: models.FloatField("Maximo", default= sys.float_info.max)

continued on next page

Name	Description
limitMinValue	Value: models.FloatField("Minimo", default= sys.float_info.min)
maxValue	Value: models.FloatField("Maximo valor tolerable", default= 0)
minValue	Value: models.FloatField("Minimo valor tolerable", default= 0)
lastRawValue	Value: models.IntegerField(default= 0)
lastCalIValue	Value: models.IntegerField(default= 0)
lastCalFValue	Value: models.FloatField(default= 0.0)
lastCalSValue	Value: models.CharField('Valor como string de la variable de tel...
lastUpdate	Value: models.DateTimeField(auto_now_add=True)
varType	Value: models.IntegerField("Tipo de dato, 0=Integer, 1=Float, 2=...
varSubType	Value: models.IntegerField("Indica si es directa o derivada 0=Di...
alarmType	Value: models.ForeignKey(Alarm, related_name= "tmlyVarType", bla...
calibrationMethod	Value: models.ForeignKey(Calibration, related_name= "tlmyVarType...
calibrationLogic	Value: None
position	Value: models.IntegerField(default= 0)
subPosition	Value: models.IntegerField(default= 0)
bitsLen	Value: models.IntegerField(default= 0)

46 Module *GroundSegment.models.TmlyVar*

Created on Oct 27, 2016

Author: ubuntumate

46.1 Class *TmlyVar*

django.db.models.Model —
GroundSegment.models.TmlyVar.TmlyVar

46.1.1 Methods

<code>getValue(<i>self</i>)</code>

<code>setValue(<i>self</i>, <i>raw</i>)</code>
--

46.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del tipo de variable', max_lengt...
rawValue	Value: models.IntegerField(default= 0)
calIValue	Value: models.IntegerField(default= 0)
calFValue	Value: models.FloatField(default= 0.0)
created	Value: models.DateTimeField(auto_now_add=True)

46.1.3 Instance Variables

Name	Description
calSValue	<pre>value = self.getValue() if (value>self.tmlyVarType.maxValue or value<self.tmlyVarType.minValue): #Verificar si requiere alarma y crearla if self.tmlyVarType.alarmType != None: sat = self.tmlyVarType.satellite alarm = Alarm.new(sat, self.tmlyVarType, datetime.datetime.now()) alarm.save()</pre>

47 Module *GroundSegment.models.Transforms*

Created on Aug 29, 2016

Author: ubuntuamate

47.1 Class *SQLiteDatetimeDate*

django.db.models.Transform — *GroundSegment.models.Transforms.SQLiteDatetimeDate*

classdocs

47.1.1 Methods

<code>as_sql(<i>self</i>, <i>compiler</i>, <i>connection</i>)</code>
--

<code>output_field(<i>self</i>)</code>
--

47.1.2 Class Variables

Name	Description
lookup_name	Value: 'date'

48 Module GroundSegment.models.Watchdog

Created on 2 de dic. de 2016

Author: pabli

48.1 Class Watchdog

django.db.models.Model —
GroundSegment.models.Watchdog.Watchdog

48.1.1 Methods

```
create(cls, code, description, module, tolerance)
```

```
reset(self)
```

```
isValid(self)
```

48.1.2 Class Variables

Name	Description
code	Value: models.CharField('Codigo del watchdog', max_length= 24, h...
description	Value: models.TextField('Decripcion watchdog', max_length= 512, ...
module	Value: models.CharField('Modulo', max_length= 64, help_text= 'Mo...
lastUpdate	Value: models.DateTimeField(auto_now_add=True)
tolerance	Value: models.FloatField('Tiempo de tolerancia')

49 Module GroundSegment.settings

Django settings for GroundSegment project.

Generated by 'django-admin startproject' using Django 1.9.6.

For more information on this file, see <https://docs.djangoproject.com/en/1.9/topics/settings/>

For the full list of settings and their values, see <https://docs.djangoproject.com/en/1.9/ref/settings/>

49.1 Variables

Name	Description
BASE_DIR	Value: '/home/ubuntu/ubuntumate/git/GroundSegment/GroundSegment'
SECRET_KEY	Value: 'ty%av@!oii2d0fg5rhp4\$36+r*vc7wke2sg4q39~+)shzi\$q0c'
DEBUG	Value: True
ALLOWED_HOSTS	Value: []
EMAIL_USE_TLS	Value: True
EMAIL_BACKEND	Value: 'django.core.mail.backends.smtp.EmailBackend'
EMAIL_HOST	Value: 'smtp.gmail.com'
EMAIL_HOST_PASSWORD	Value: 'preguntar'
EMAIL_HOST_USER	Value: 'mdiaegroundsegment@gmail.com'
EMAIL_PORT	Value: 587
DEFAULT_FROM_EMAIL	Value: 'mdiaegroundsegment@gmail.com'
INSTALLED_APPS	Value: ['django.contrib.admin', 'django.contrib.auth', 'django.c...
MIDDLEWARE_CLASSES	Value: ['django.middleware.security.SecurityMiddleware', 'django...
ROOT_URLCONF	Value: 'GroundSegment.urls'
TEMPLATES	Value: [{'APP_DIRS': True, 'BACKEND': 'django.template.backends....
WSGI_APPLICATION	Value: 'GroundSegment.wsgi.application'

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Name	Description
DATABASES	<pre> AUTH_PASSWORD_VALIDATORS = [{ 'NAME': 'django.contrib.auth.password_validation.U }, { 'NAME': 'django.contrib.auth.password_validation.M }, { 'NAME': 'django.contrib.auth.password_validation.C }, { 'NAME': 'django.contrib.auth.password_validation.N },] Value: {'default': {'ATOMIC_REQUESTS': False, 'AUTOCOMMIT': True... </pre>
LANGUAGE_CODE	Value: 'en-us'
TIME_ZONE	Value: 'UTC'
USE_I18N	Value: True
USE_L10N	Value: True
USE_TZ	Value: True
STATIC_URL	Value: '/static/'
MEDIA_URL	Value: '/media/'
STATIC_ROOT	Value: '/static'
STATICFILES_FINDER- S	Value: (<code>'django.contrib.staticfiles.finders.FileSystemFinder'</code> , '...')
LOGGING	Value: {'disable_existing_loggers': False, 'handlers': {'console...'
__package__	Value: 'GroundSegment'

50 Module `GroundSegment.tests`

Created on 16 de ago. de 2016

Author: pabli

Deprecated!! meter los test dentro de Verification

50.1 Class Test

```
unittest.TestCase └─ GroundSegment.tests.Test
```

50.1.1 Methods

setUp (<i>self</i>)

tearDown (<i>self</i>)

setUpClass (<i>cls</i>)

Crea los maestros de operacion para el resto de los test de esta unidad

testNextPass (<i>self</i>)

Testeo no finalizado

sat = Satellite.objects.get(noradId="25544")
--

site = Site() site.setLatitude(-31.524075) site.setLongitude(-64.463522) site.setAltitude(730.0) site.save()

fro = datetime.utcnow() to = datetime.utcnow() + timedelta(minutes=30)
--

site.getPass(fro, to, sat)

51 Module GroundSegment.tests_settings

Created on Oct 28, 2016

Author: Pablo Soligo

51.1 Variables

Name	Description
ALLOWED_HOSTS	Value: []
BASE_DIR	Value: '/home/ubuntu/ubuntumate/git/GroundSegment/GroundSegment'
DATABASES	Value: {'default': {'ENGINE': 'django.db.backends.sqlite3', 'NAME': ...}}
DEBUG	Value: True
DEFAULT_FROM_EMAIL	Value: 'mdiaegroundsegment@gmail.com'
EMAIL_BACKEND	Value: 'django.core.mail.backends.locmem.EmailBackend'
EMAIL_HOST	Value: 'smtp.gmail.com'
EMAIL_HOST_PASSWORD	Value: 'preguntar'
EMAIL_HOST_USER	Value: 'mdiaegroundsegment@gmail.com'
EMAIL_PORT	Value: 587
EMAIL_USE_TLS	Value: True
INSTALLED_APPS	Value: ['django.contrib.admin', 'django.contrib.auth', 'django.c...]
LANGUAGE_CODE	Value: 'en-us'
LOGGING	Value: {'disable_existing_loggers': False, 'handlers': {'console...}}
MEDIA_URL	Value: '/media/'
MIDDLEWARE_CLASSES	Value: ['django.middleware.security.SecurityMiddleware', 'django...]
ROOT_URLCONF	Value: 'GroundSegment.urls'
SECRET_KEY	Value: 'ty%av@!oii2d0fg5rhp4\$36+r*vc7wke2sg4q39~+)shzi\$q0c'
STATICFILES_FINDERS	Value: ('django.contrib.staticfiles.finders.FileSystemFinder', ...)
STATIC_ROOT	Value: '/static'
STATIC_URL	Value: '/static/'

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Name	Description
TEMPLATES	Value: [{ <code>'APP_DIRS': True</code> , <code>'BACKEND': 'django.template.backends....</code>
TIME_ZONE	Value: <code>'UTC'</code>
USE_I18N	Value: <code>True</code>
USE_L10N	Value: <code>True</code>
USE_TZ	Value: <code>True</code>
WSGI_APPLICATION	Value: <code>'GroundSegment.wsgi.application'</code>
__package__	Value: <code>'GroundSegment'</code>

52 Module `GroundSegment.urls`

GroundSegment URL Configuration

The `'urlpatterns'` list routes URLs to views. For more information please see:
<https://docs.djangoproject.com/en/1.9/topics/http/urls/>

Examples:

Function views

1. Add an import: `from my_app import views`
2. Add a URL to `urlpatterns`: `url(r'^$', views.home, name='home')`

Class-based views

1. Add an import: `from other_app.views import Home`
2. Add a URL to `urlpatterns`: `url(r'^$', Home.as_view(), name='home')`

Including another `URLconf`

1. Import the `include()` function: `from django.conf.urls import url, include`
2. Add a URL to `urlpatterns`: `url(r'^blog/', include('blog.urls'))`

52.1 Variables

Name	Description
<code>urlpatterns</code>	Value: <code>[url(r'^admin/', admin.site.urls), url(r'^about/\$', About...</code>

53 Module *GroundSegment.views*

53.1 Class *AboutView*

`django.views.generic.TemplateView` — `GroundSegment.views.AboutView`

53.1.1 Class Variables

Name	Description
<code>template_name</code>	Value: <code>"about.html"</code>

53.2 Class *SimulatorView*

`django.views.generic.FormView` — `GroundSegment.views.SimulatorView`

53.2.1 Methods

<code>form_valid(<i>self</i>, <i>form</i>)</code>

53.2.2 Class Variables

Name	Description
<code>template_name</code>	Value: <code>'simulators.html'</code>
<code>form_class</code>	Value: <code>SimulatorForm</code>
<code>success_url</code>	Value: <code>'/thanks/'</code>

53.3 Class *SatelliteListView*

`django.views.generic.ListView` — `GroundSegment.views.SatelliteListView`

53.3.1 Class Variables

Name	Description
model	Value: <code>Satellite</code>
template_name	Value: <code>"satelliteListView.html"</code>
paginate_by	Value: <code>'5'</code>
queryset	Value: <code>Satellite.objects.all()</code>
context_object_name	Value: <code>"satellites"</code>

53.4 Class *PropagationTestView*

`django.views.generic.FormView` — `GroundSegment.views.PropagationTestView`

53.4.1 Methods

<code>form__valid(<i>self</i>, <i>form</i>)</code>
--

53.4.2 Class Variables

Name	Description
template_name	Value: <code>'propagationTest.html'</code>
form_class	Value: <code>PropagateTestForm</code>
success_url	Value: <code>'/thanks/'</code>

54 Module `GroundSegment.wsgi`

WSGI config for `GroundSegment` project.

It exposes the WSGI callable as a module-level variable named “application”.

For more information on this file, see <https://docs.djangoproject.com/en/1.9/howto/deployment/wsgi/>

54.1 Variables

Name	Description
application	Value: <code>get_wsgi_application()</code>

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