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# encoding: utf-8
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import gvsig
from gvsig.libs.formpanel import FormPanel, getResource
from gvsig import openStore

from java.awt import BorderLayout

from org.gvsig.tools.evaluator import AbstractEvaluator

from org.gvsig.fmap.dal import DALLocator
from javax.swing.table import DefaultTableModel

def getBlockByPoint(blocksStore, point):
    attrGeomName = blocksStore.getDefaultFeatureType()
        .getDefaultGeometryAttributeName()
    features = blocksStore.features(IntersectEvaluator(attrGeomName, point))
    if features.isEmpty():
        return None
    firstFeature = iter(features).next()
    block = Block(
        firstFeature.getDefaultGeometry(),
        firstFeature.get("HOJA"),
        firstFeature.get("FECHAALTA")
    )
    return block
```

```
class IntersectEvaluator(AbstractEvaluator):
    def __init__(self, attrGeomName, point):
        self.__attrGeomName = attrGeomName
        self.__point = point
        self.__sqlwhere = " ST_intersects(GeomFromText('%s', '%s'),%s) " % (
            self.__point.convertToWKT(),
            "EPSG:29030",
            self.__attrGeomName
        )

    def getName(self):
        return "intersectByPoint"

    def evaluate(self, data):
        geom = data.getDataValue(self.__attrGeomName)
        if geom == None:
            return False
        return geom.intersects(self.__point)

    def getCQL(self):
        return self.__sqlwhere
```

```
class Block(object):
    def __init__(self, geom, hoja, fechaAlta):
        self.__geom = geom
        self.__hoja = hoja
        self.__fechaAlta = fechaAlta

    def __repr__(self):
        return "Block(%s, %r, %r)" % (
            self.__geom.convertToWKT(),
            self.__hoja,
            self.__fechaAlta
        )
    __str__ = __repr__

    def getHoja(self):
        return self.__hoja

    def getFechaAlta(self):
        return self.__fechaAlta
```

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def getGeom(self):
    return self.__geom

def getProperties(self):
    propertiesStore = openStore(
        "Shape",
        shpFile=getResource(__file__, "data", "properties.shp"),
        CRS="EPSG:23030"
    )
    attrGeomName = propertiesStore.getDefaultFeatureType()
        .getDefaultGeometryAttributeName()
    query = propertiesStore.createFeatureQuery()
    query.setFilter(IntersectEvaluator(attrGeomName, self.__geom))
    return propertiesStore.getFeatures(query, 100)

class PropertiesTableModel(DefaultTableModel):
    def __init__(self, properties):
        self.__properties = properties
        self.addColumn("Hoja")
        self.addColumn("Parcela")
        self.addColumn("Num.patio")

    def getRowCount(self):
        return self.__properties.size()

    def getValueAt(self, row, column):
        prop = self.__properties.get(row)
        if column == 0:
            return prop.get("HOJA")
        if column == 1:
            return prop.get("PARCELA")
        return "%s %s" % (
            prop.get("NUMERO"),
            prop.get("NUMERODUP")
        )

class BlockPanel(FormPanel):
    def __init__(self):
        FormPanel.__init__(self, getResource(__file__, "blockpanel.xml"))
        self.setPreferredSize(300, 300)

    def setBlock(self, block):
        self.txtHoja.setText(str(block.getHoja()))
        self.txtFechaDeAlta.setText(str(block.getFechaAlta()))
        self.txtArea.setText(str(block.getGeom().area()))
        self.txtPosicion.setText(block.getGeom().centroid().convertToWKT())
        self.tableProperties.setModel(
            PropertiesTableModel(block.getProperties())
        )

def main(*args):
    from gvsig.geom import createPoint2D

    blocksStore = openStore(
        "Shape",
        shpFile=getResource(__file__, "data", "blocks.shp"),
        CRS="EPSG:23030"
    )
    block = getBlockByPoint(blocksStore, createPoint2D(725822, 4374000))
    #print block
    if block != None:
        panel = BlockPanel()
        panel.setBlock(block)
        panel.showTool("Informacion de la manzana")

```