VESPA-JRA-T5-Paris-Apr-2017

Venue

The meeting will take place at Obs. Paris (near Denfert-Rochereau, in Paris), Salle du Levant.

Agenda

- 03 Apr 2017 09:00 – 17:00
  - Presentation of IMPEx – Part 1 (Vincent, Michel, Ronan ?)
    - IMPEx infrastructure
    - IMPEx Data Model
    - IMPEx XML Tree
  - Presentation of Lathys (Ronan ?)
  - Hand's on session: setting up your IMPEx tree (XML catalog of shared resources) and test it with IMPEx tools.

  - **19:30 Team Dinner (Montparnasse)**

- 04 Apr 2017 09:00 – 17:00
  - Presentation of IMPEx – Part 2
    - IMPEx Web-services (Michel, Vincent ?)
  - Tutorial: Installing a SAMP connector on a web page (Pierre ?)
  - Hand's on session: setting up an IMPEx web-service and test it with IMPEx tools.

Attendees

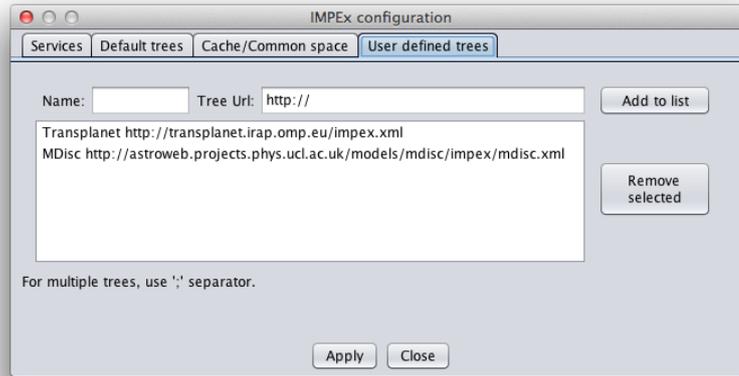| Attendee	Monday AM	Monday PM	Tuesday AM	Tuesday PM
Baptiste Cecconi	yes	yes	yes	yes
Pierre Le Sidaner	yes	yes	yes	yes
Renaud Savalle	yes	yes	yes	yes
Vincent Génot	yes	yes < ~16h	yes	yes
Patrick Guio	**yes**	**yes**	**yes**	**yes**
Nicholas Achilleos	yes	yes	yes	yes
Gangloff Michel	yes	yes	yes	yes
Ronan Modolo	yes	yes	no	no
Lea Griton	yes	no	yes	yes
Filippo Pantellini	yes	yes	yes	yes
Cyril Chauvin	yes	yes	yes	yes

Goals

- Linking between VESPA and IMPEx
- Setting up an IMPEx tree and advertise it
- Setting up IMPEx web-services and advertise it
- Setting up a SAMP connector on a web page
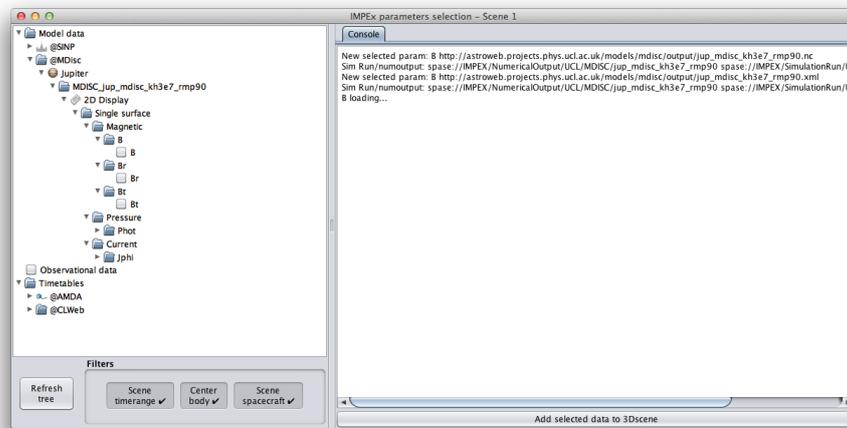
Discussion items

Topic	Who	Notes

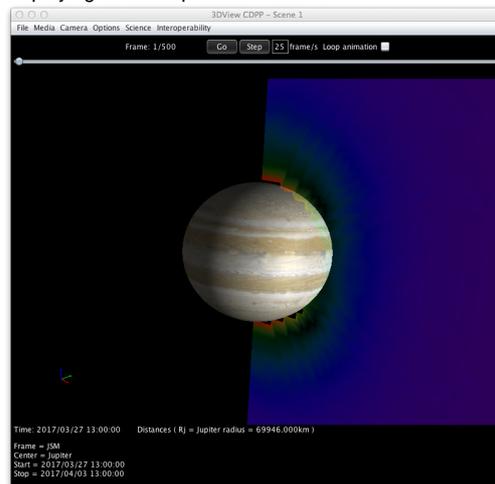|		
VESPA + IMPEx	Baptiste Cecconi	- IMPEx (Integrated Medium for Planetary Exploration) http://impex-fp7.oeaw.ac.at/ - Plasma and magnetic environment for planets - Selection, download, visualization and analysis - Compare simulation with observation (in reverse way) - Tools - AMDA, 3Dview, CLWeb, IMPEx Portal - Features: - extendable - standards - as generic as possible - web based - Data Model for IMPEx - data model for plasma simulations - based on SPASE (data model for observational plasma data) - IMPEx-DM is based on SPASE 2.2.2. And IMPEx-DM is now included as an extension of SPASE on SPASE web site. Current versions: SPASE-2.2.9 and IMPEx-1.3. - Main component: - SimulationModel: code description [Instrument] - SimulationRun: parameters of a SimulationModel run [observation mode] - NumericalOutput: 1 per type of SimulationRun output product - Granule: 1 per output element (file, URL…) within a NumericalOutput - IMPEx Configuration - IMPEx configuration: XML with provider descriptors. - tree.xml (for data product); methods.xml (for webservices) - IMPEx Protocol 28 methods. Core = 3 methods (implemented in 3Dview): - getDataPointValue - getDataPointValueSpacecraft - getDataPointSpectra - Uses SAMP - IMPEx technical information: http://impex-fp7.oeaw.ac.at/documentation.html - IMPEx Portal web ste: http://impex-portal.oeaw.ac.at/#/portal - IMPEx API view: http://impex-portal.oeaw.ac.at/api-view - Latest released SPASE/IMPEx schema: http://www.spase-group.org/data/schema/spase-sim-1_0_0.xsd
LatHyS @LATMOS	Ronan Modolo	- The tree.xml explorer developed at LATMOS by Sébastien Hess is available for download: http://impex.latmos.ipsl.fr/LatHyS_webservice_and_tree.zip - It will be reused by ObsParis team, and could be proposed as a test framework for tree.xml files.
CCMC @CDPP	Vincent Génot	- The CCMC is now considering using IMPEx (after years of discussions). A few simulation runs from CCMC are available in AMDA and 3Dview (local IMPEx tree, see below). - IMPEx tree : http://apus.irap.omp.eu/AMDA-IMPEX/public/trees/Tree_CCMC_chablon5.xml
TRANSPLANET@IRAP	Vincent Génot	- IMPEx schema (draft) : http://transplanet.irap.omp.eu/schema/spase-sim-1_0_1.xsd - IMPEx tree : http://transplanet.irap.omp.eu/impex.xml **Updated schema to be used for this workshop: spase-sim-1_0_2.xsd**
MPI-AMRVAC@LESIA	Léa Griton	- Developed in Belgium a long time ago for MHD - adapted for Mercury case - Preparation for BepiColombo/MMO - theoretical studies for propagation of waves around mercury - adapted for fast rotators - no codes really available for this, for instance in the case of Uranus 3D spherical grid, adaptive meshing (could be automatic where steep gradient) - First draft example tree for MPI-AMRVAC: tree_LESIA_Filippo.xml
MDISC @UCL	Vincent Génot, Patrick Guio	- Magnetodisc model, with solar wind input. - Polar coordinates - prototyping in 3Dview: - Initial file are in netCDF display into 3Dview (small routine inside 3Dview written by Laurent Beigbeder) - In 3Dview IMPEx/2Dcuts are expected to be provided in VOTable - IMPEx tree : http://astroweb.projects.phys.ucl.ac.uk/models/mdisc/impex/mdisc.xml

- First test to display MDISC data into 3Dview from IMPEx tree was successful.
  - local IMPEx configuration in 3Dview:

  - Selection of IMPEx product in 3Dview:

  - Displaying selected product in scene:

		• Update on DaCHS server at UCL:
		  • There was still problems with the access and web redirections.
		  • Server was upgraded to latest beta version (change in /etc/apt/sources.list)
		  • GAVO configuration file (/etc/gavo.rc) was also updated with the following section
		
		```\n[web]\nbindAddress:\nserverPort: 8000\nserverURL: http://astroweb.projects.phys.ucl.ac.uk:8000\n```
		
		Note the the port number is present twice. This appears to be necessary for the system to work properly.
		  • The mdisc/q.rd resource descriptor was also updated to use the latest epntap2.rd mixin definition file, as fixed during the VESPA implementation workshop of Graz.
		  • The use of a csvGrammar was discussed but not yet implemented.

VOISE @UCL	Patrick Guio, Cyril Chauvin, Renaud Savalle	• SAMP input:
		  • Some time was dedicated to try to setup a SAMP input connection for VOISE.
		  • Installation of SAMP library is done. Retrieval of input URL through SAMP is working. Help from Renaud Savalle and Cyril Chauvin was greatly appreciated.
		  • Issues with the Django / Apache server on UCL side prevented finalizing this task. This should not be too difficult, but that will be a follow up activity.
		• Results:
		  • Currently the VOISE results are sent by email. Usually very big files (>10MB, and even several 100MB...), so the emails are not sent to the requester.
		  • We could try to plan to modify this result distribution scheme to provide a link to data to be downloaded within a predefined period of time. This requires updating the Django code. We have to decide if it's worth investing into this (mostly time from PADC to help Patrick Guio).

LESIA-Mag@PADC	Baptiste Cecconi, Renaud Savalle	• This service provides magnetic field line passing from a location given in input and for selected magnetic field models at Jupiter. • It was built by Sébastien Hess a few years ago. It is not completely working. • Tree for the LESIA-Mag service: http://maser.obspm.fr/IMPExWS/tree_Mag.xml • Test interface: http://maser.obspm.fr/IMPExWS/TestWS.php • More info: http://maser.lesia.obspm.fr/outils-services/autres/article/lesia-mag.html?lang=en • Current question: why do we have a tree.xml for a computing service ? • Possible answer: the webservice is using the tree.xml content to check for allowed input values.

Other	Vincent Génot, Pierre Le Sidaner, Baptiste Cecconi	• How to transform text ASCII tabular data into VOTable.
		  • There is a webservice at CDPP, but is making a lot of assumptions on the table content:
		    • http://apus.irap.omp.eu/AMDA-WS/php/rest/getVotableFromASCII.php?url=https://ccmc.gsfc.nasa.gov/RoR_WWW/VMR/3539/Cluster-1/GSE_extract.txt
		    • not configurable at all
		  • There is a script by Pierre Le Sidaner used and adapted in several services:
		    • to_vot_titan.py
		    • it requires a son configuration file (Pierre Le Sidaner?)
		  • There is an old REST service developed by Baptiste Cecconi (not working anymore, but could be revived) as a collaboration with the HDMC (Heliophysics Data Model Consortium), linked with SPASE.
		    • http://typhon.obspm.fr/hdmc/event-list/index.php

Next steps	Baptiste Cecconi, Vincent Génot, Léa Griton, Pierre Le Sidaner	• Organize a next workshop (2 days) in late May or early June, in Paris: include UCL, CDPP, PADC and LESIA.
		  • During that workshop, propose a seminar to PADC and/or LESIA-modelling-and-simulation-group
		  • Invite Sébastien Hess to the next workshop
		• Pierre Le Sidaner to finalize ASCIIVOTable script.
		  • Need GROUP and FIELDref for definition of Reference Frame in use in VOTable
		• Pierre Le Sidaner, Cyril Chauvin: see if LatHyS tree.xml explorer can be reused and proposed on a standalone server for testing and visualizing IMPEx XML trees.

Documents

VESPA.pdf

IMPEx_DataModel...d_Protocol.pptx

IMPEx_LatHyS_VESPA_2017.pdf

IMPExMethodsIm...nTimeline.docx

IMPEx Methods Definitions.xlsx

Team Dinner

"Swann & Vincent", 22 Place Denfert-Rochereau, Paris 14e. 19:30.

Action items

- [x] Ronan Modolo10 Apr 2017 Share LatHyS web page framework with PADC