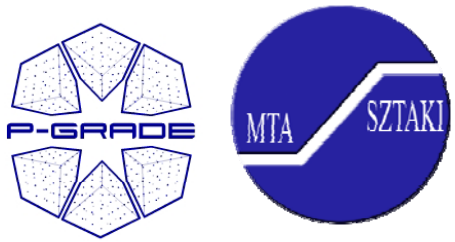



# *P-GRADE overview and introduction: workflows & parameter sweeps (Advanced features)*

Gergely Sipos

MTA SZTAKI

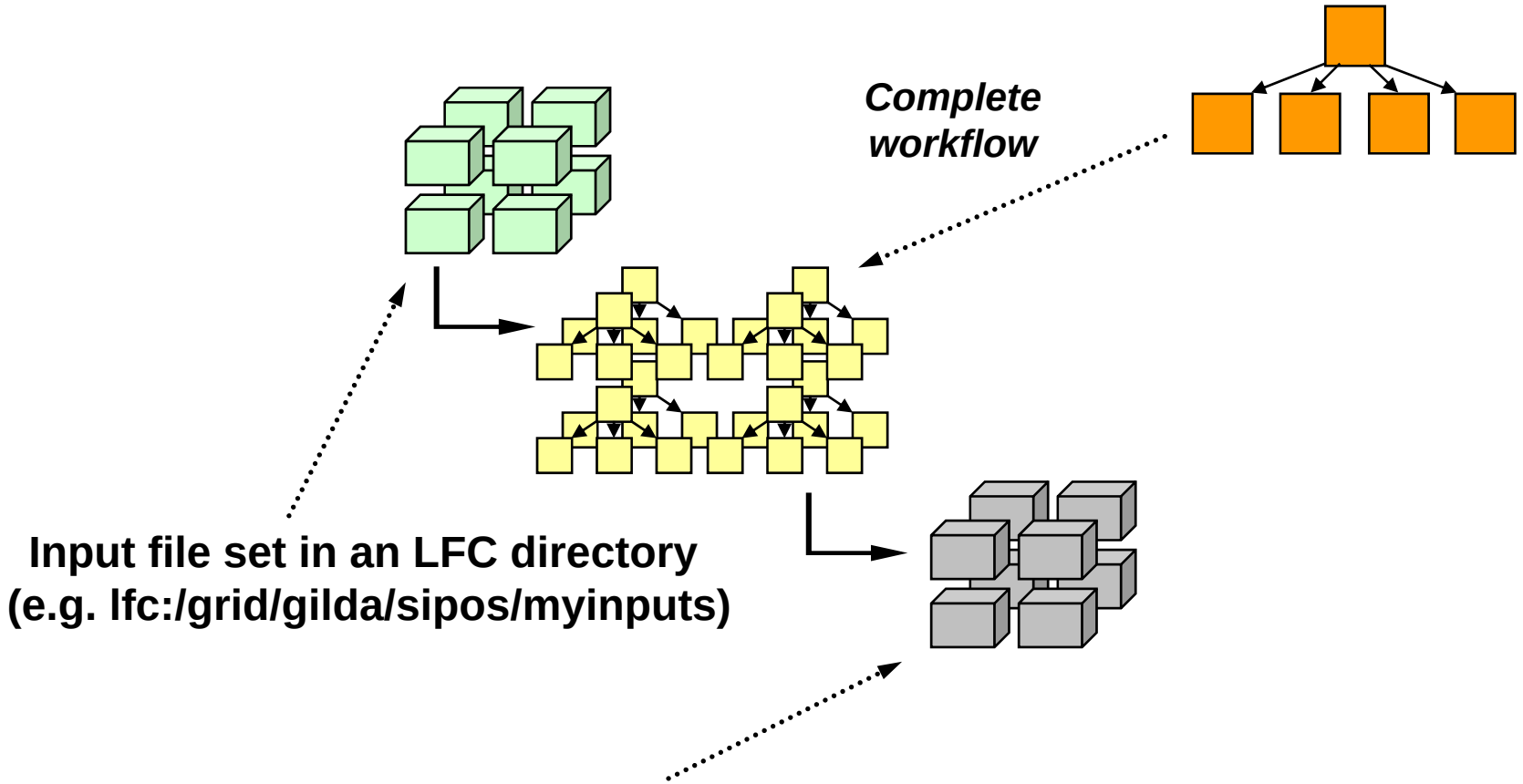
www.lpds.sztaki.hu/pgportal

pgportal@lpds.sztaki.hu

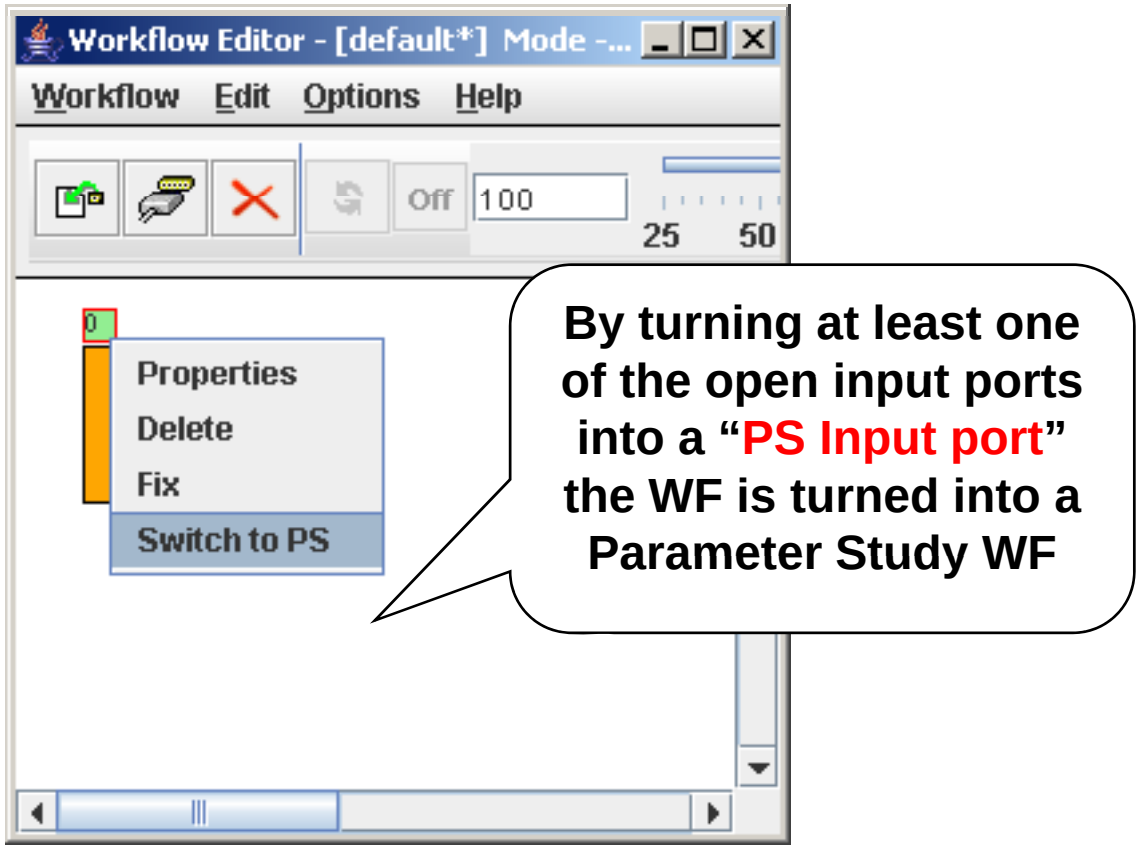
# Parameter Sweep applications

- Typical usage of the Grid is that the same application is executed with many different parameters
- P-GRADE portal from release 2.5 supports this functionality
- The next part of the lecture shows how parameter sweep (PS) applications are supported by P-GRADE portal

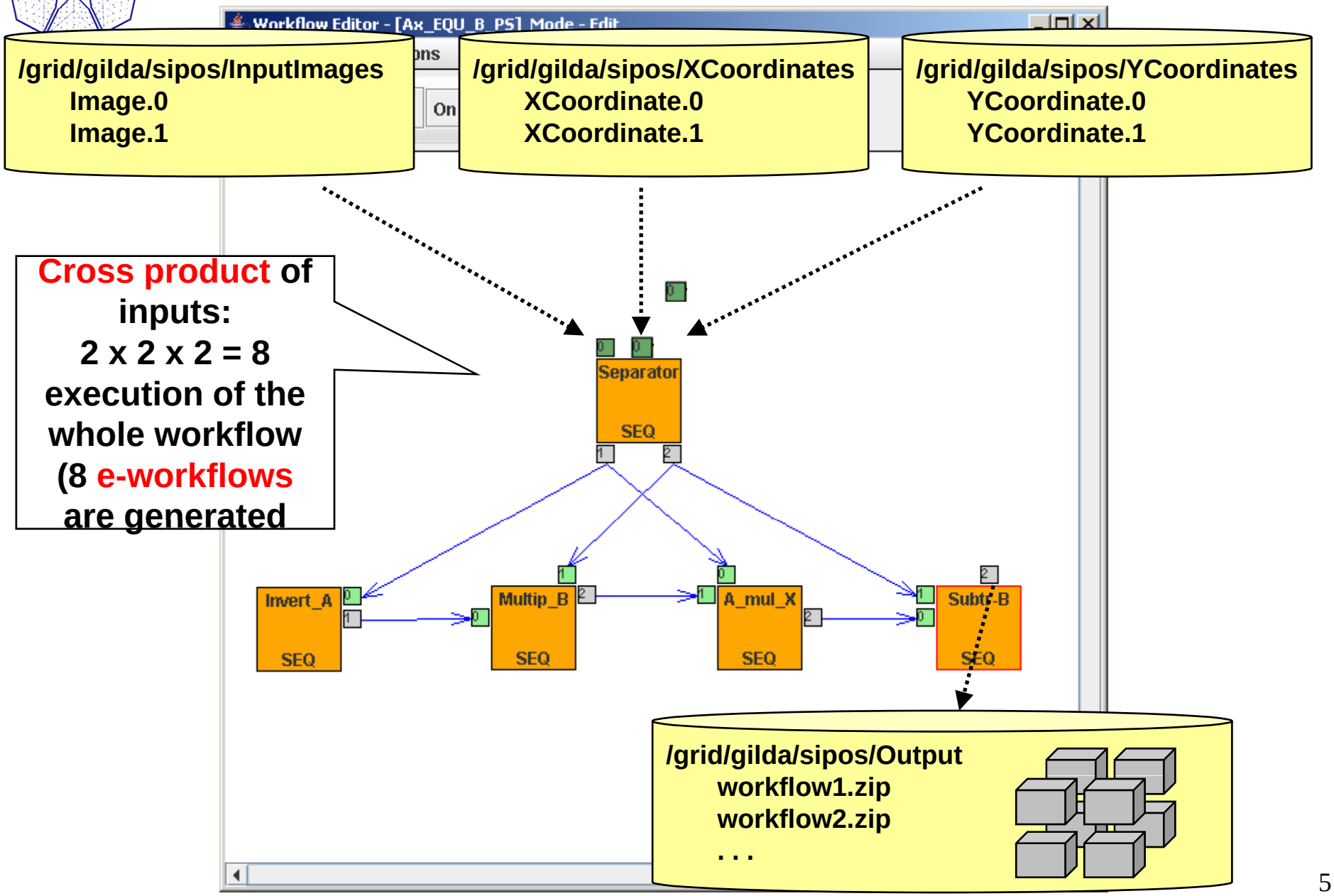
# Scaling up a workflow to a parameter study with P-GRADE



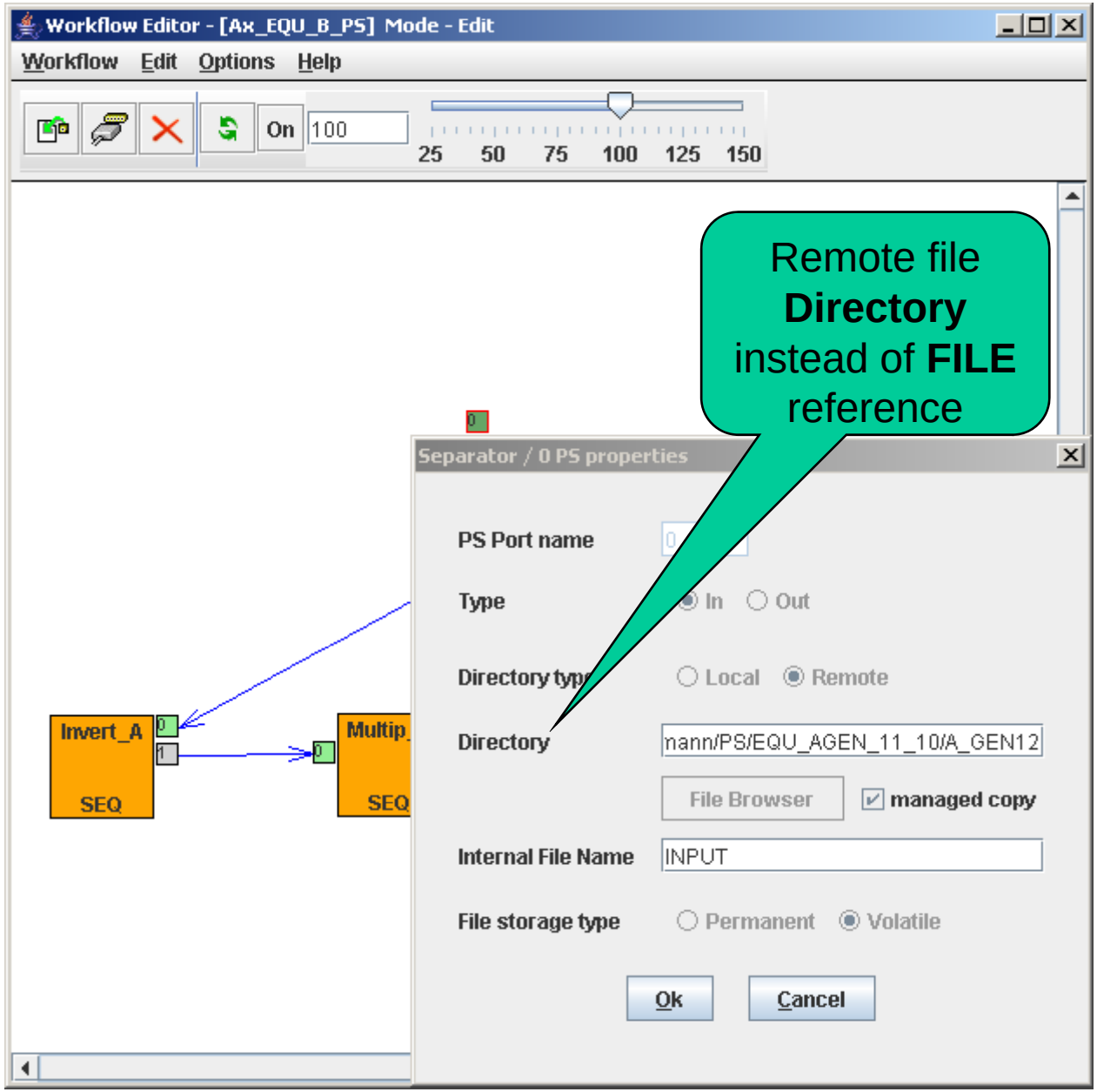
# *Turning a WF into a parameter study*



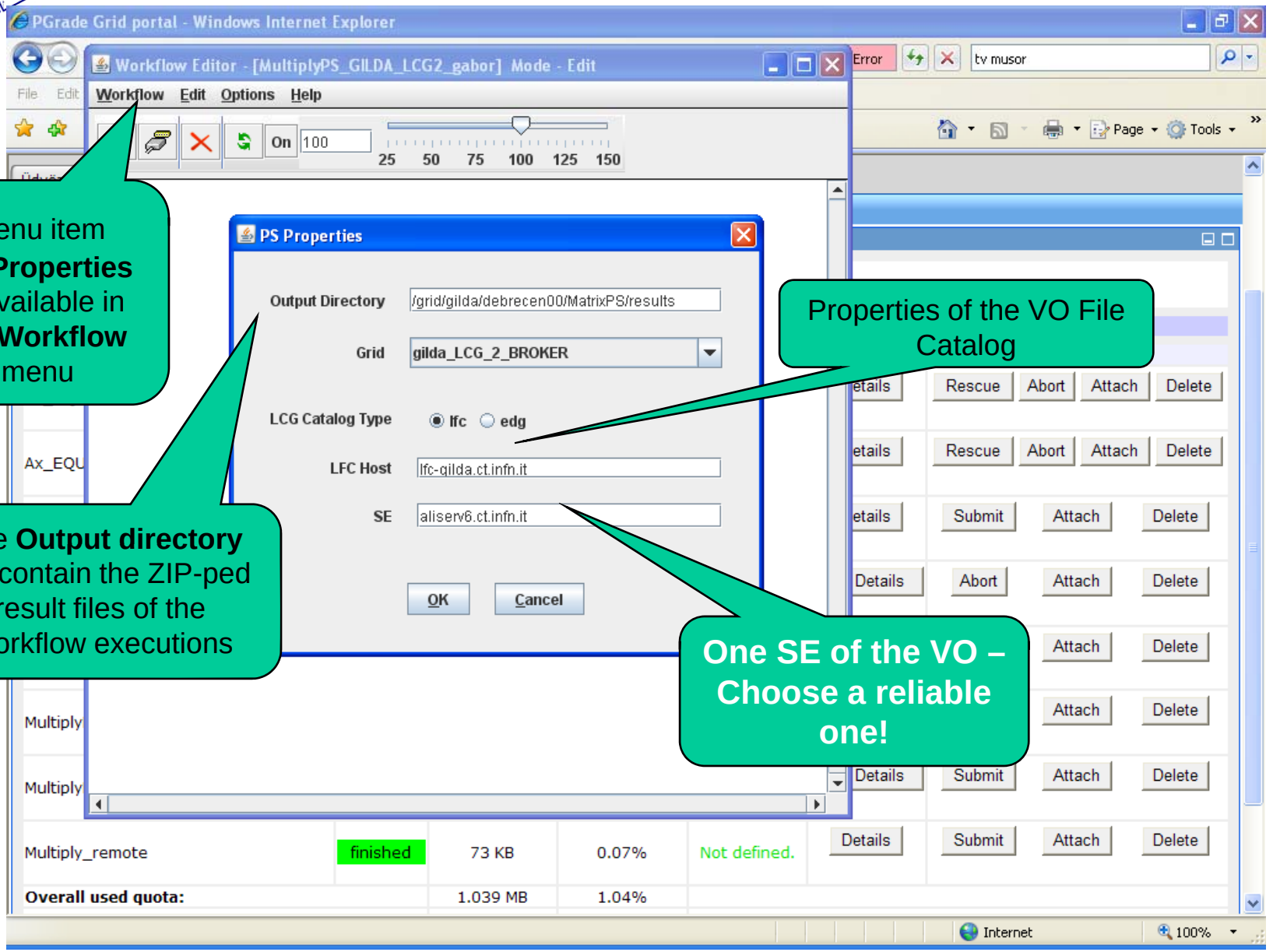
# Input-output files are stored in SEs



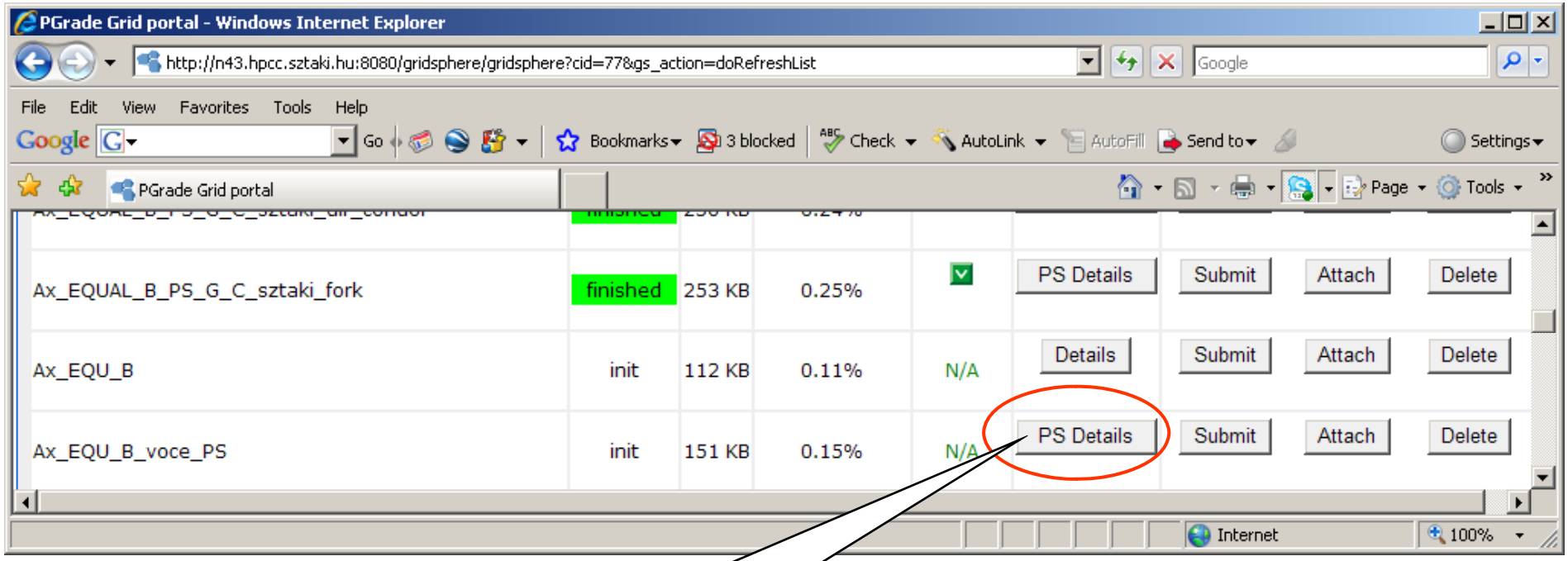
# PS Input Port of Simple PS



# Simple PS Activity 2: placement of result



# Executing PS workflows



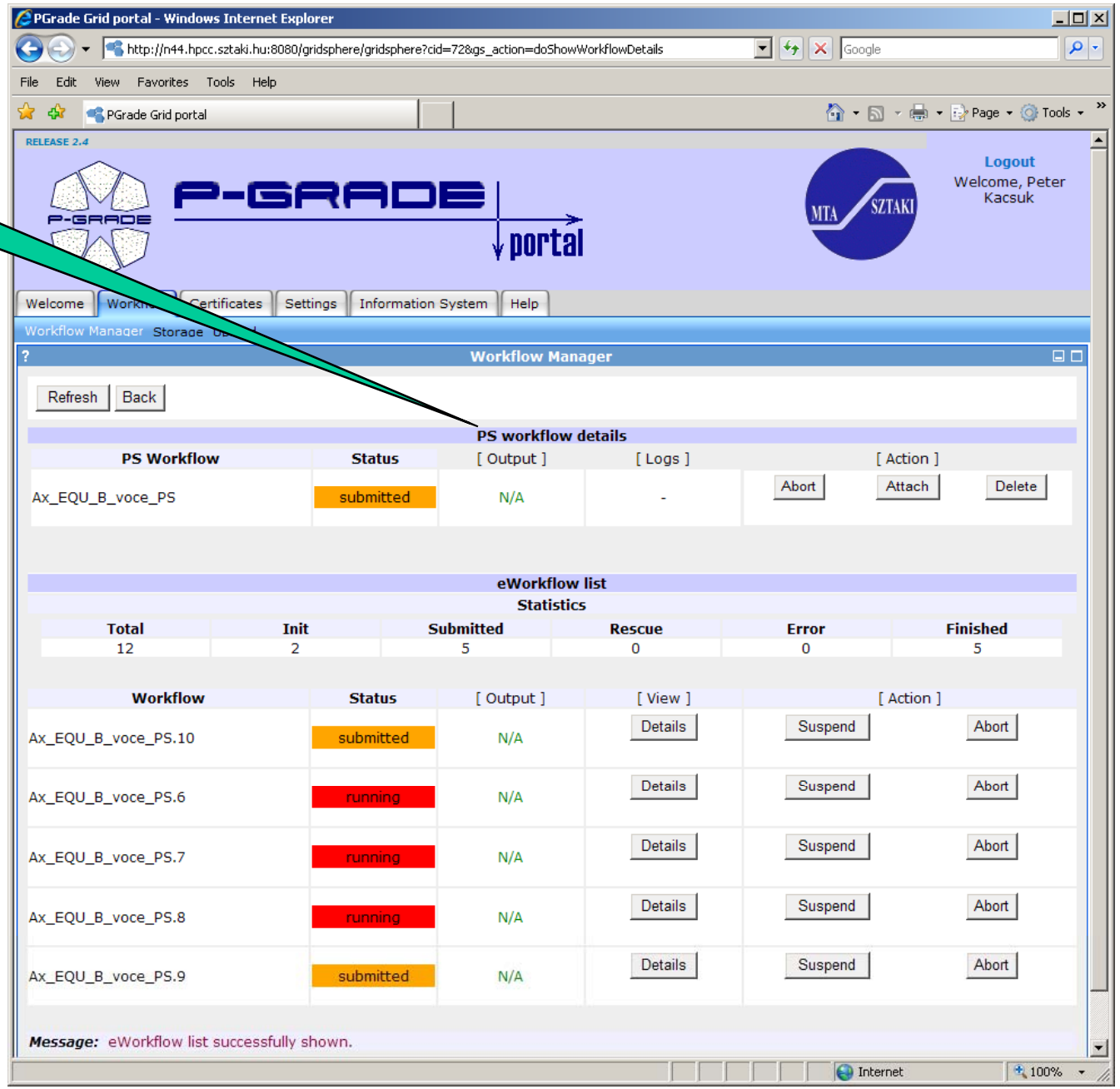

PS Details for parameter sweep workflow applications

# *Workflow Manager List PS Details view showing eWF-s*

Status of complete application

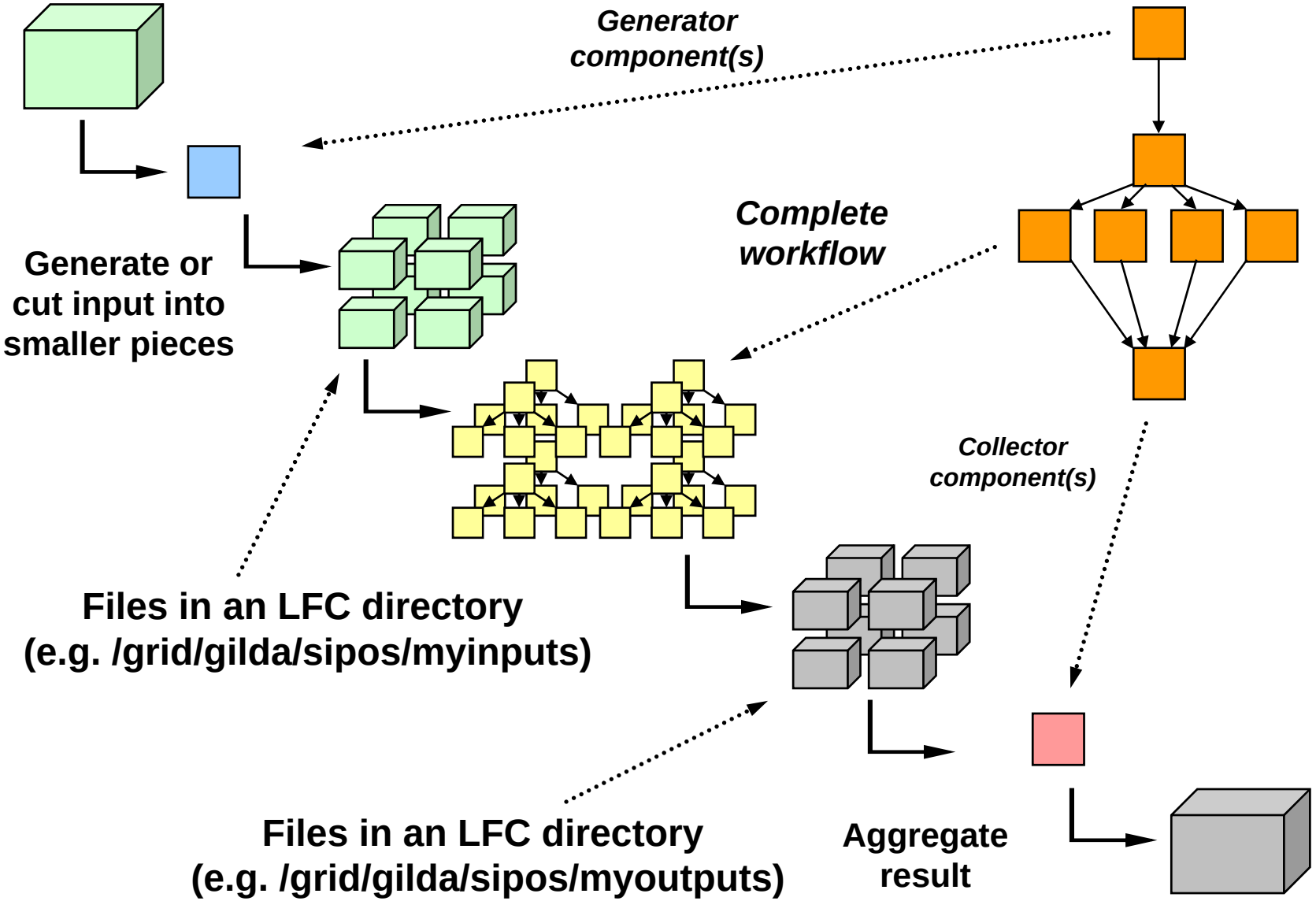
Statistics of workflows generated from the application

Workflow list shows the state of the generated Workflows.

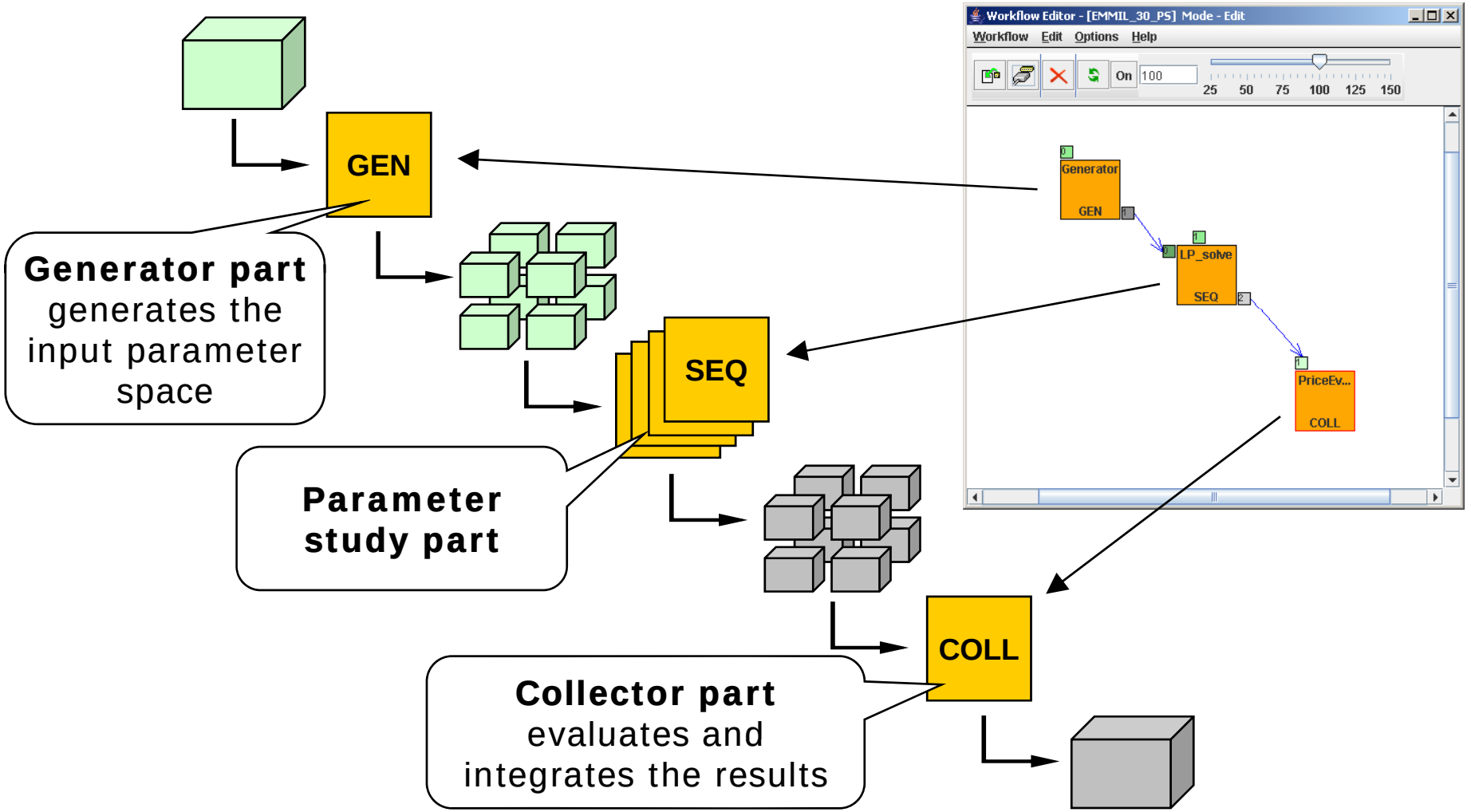


# *Advanced PS WFs in P-GRADE Portal*

# Advanced parameter studies

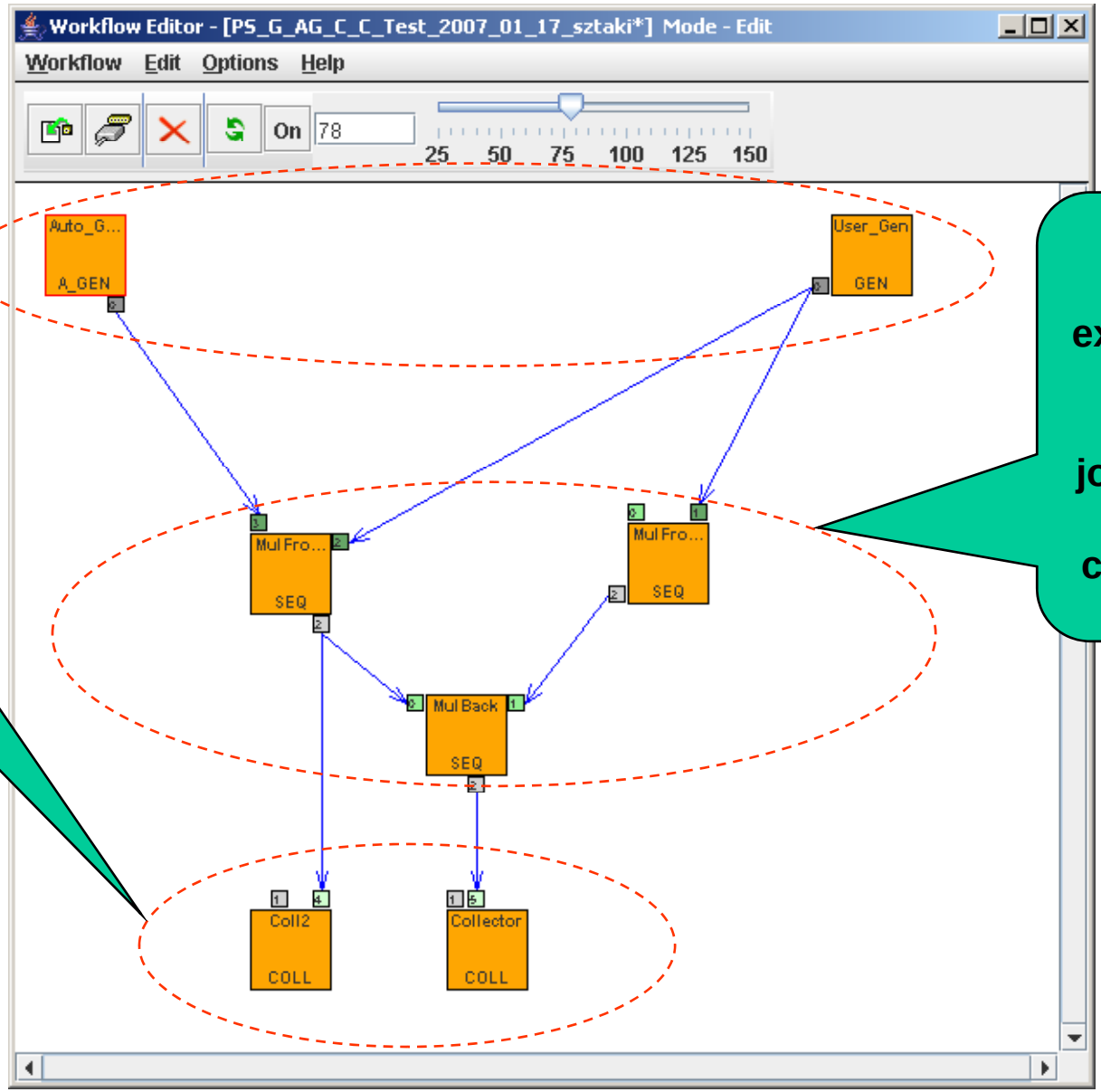


# Concept of advanced parameter study workflows



# The generic PS workflow application

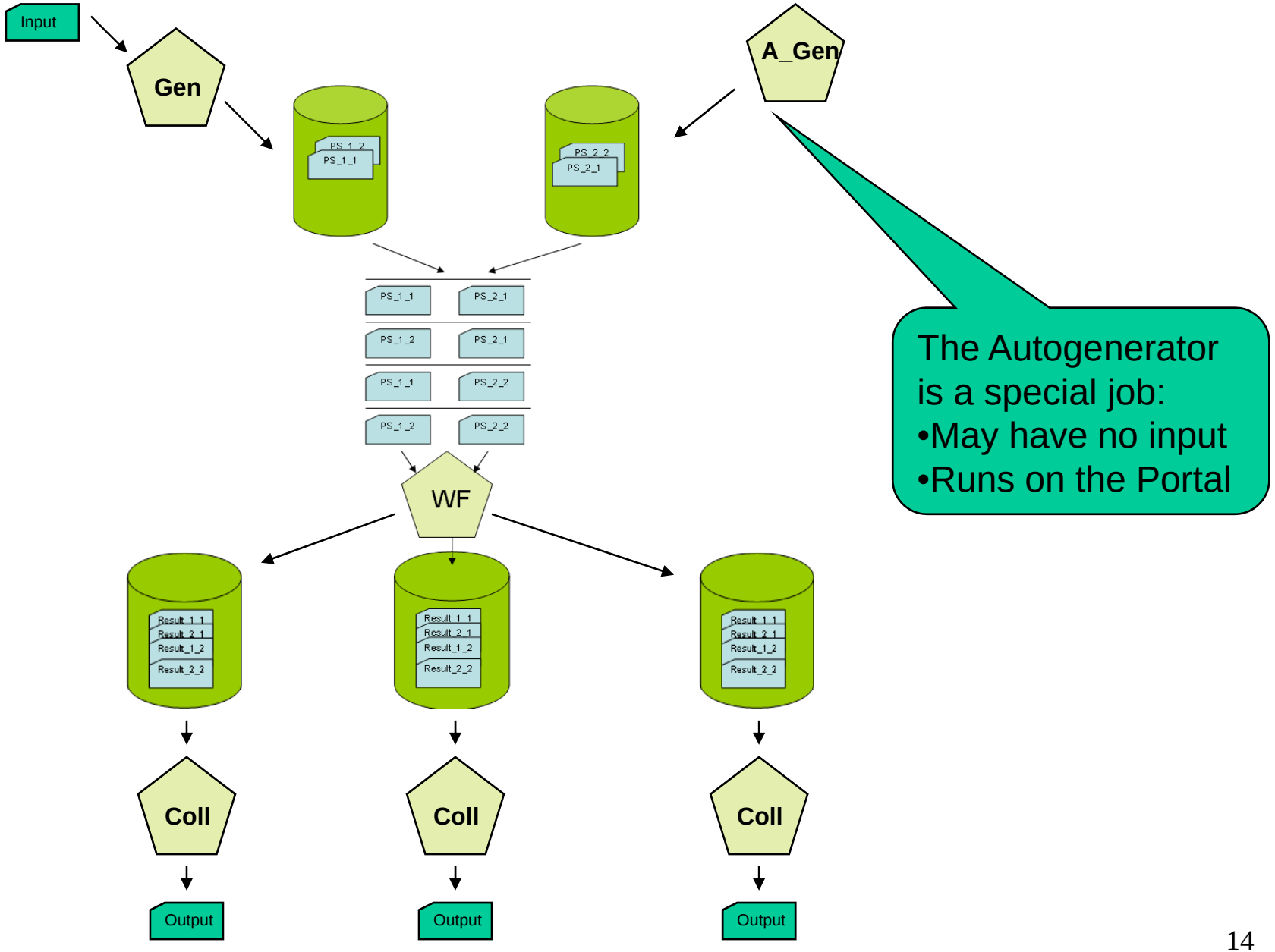
First phase: executing the generators




Second phase: executing the "real" processor jobs for each input file combination

Third phase: executing the collectors

# Data Model of advanced PS



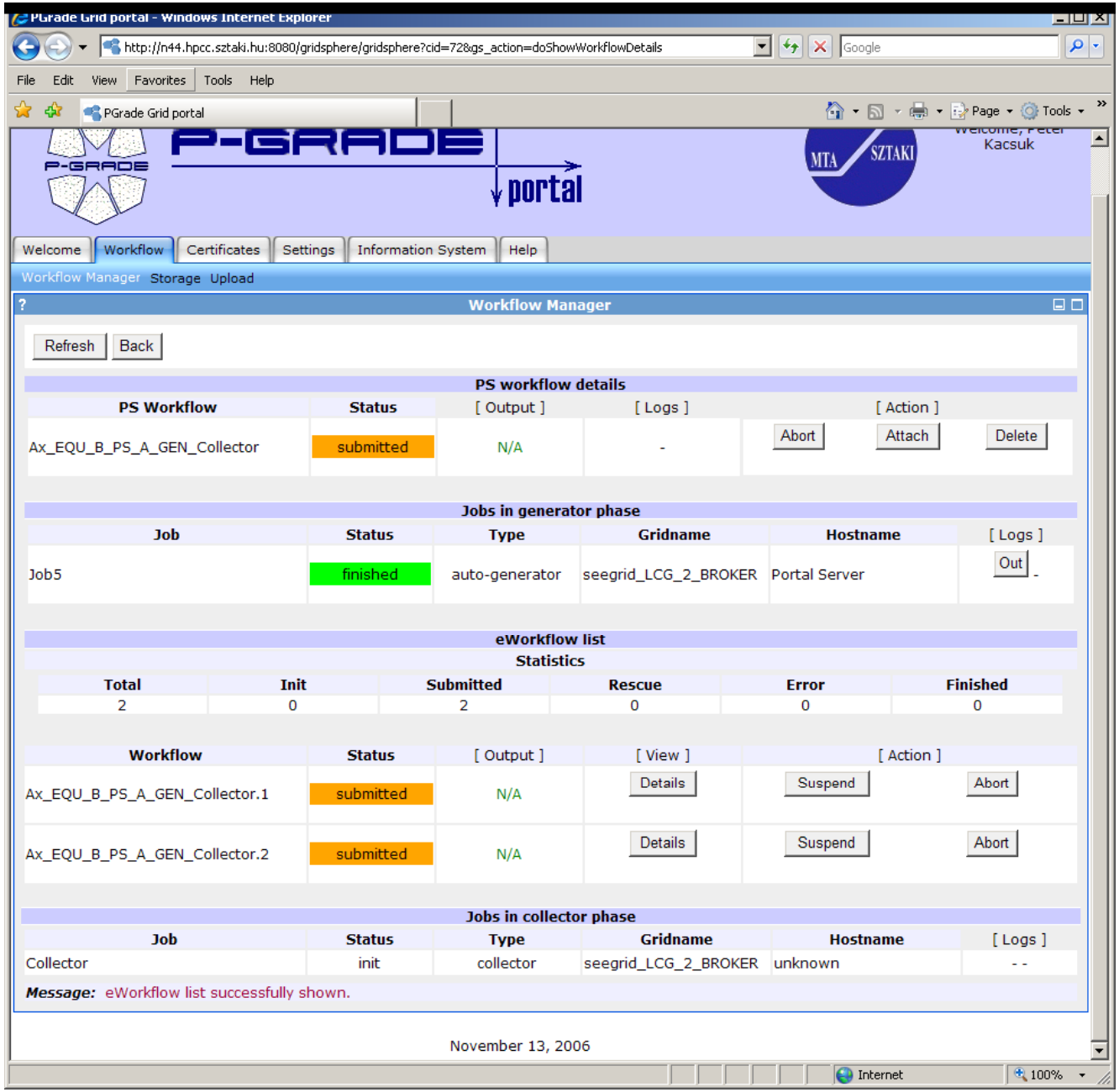
# Detailed view of a PS workflow

Generator job(s)

Overall statistics of workflow instances

Workflow instances

Collector job(s)



# *PS practical*