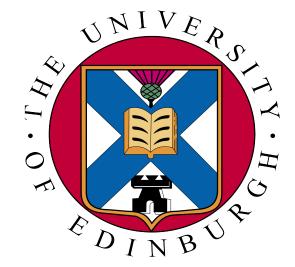
## A web based process simulator **Alistair Marshall Professor Jack Ponton Academic Year 2008 / 2009**



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Impress

# Login or Sign up

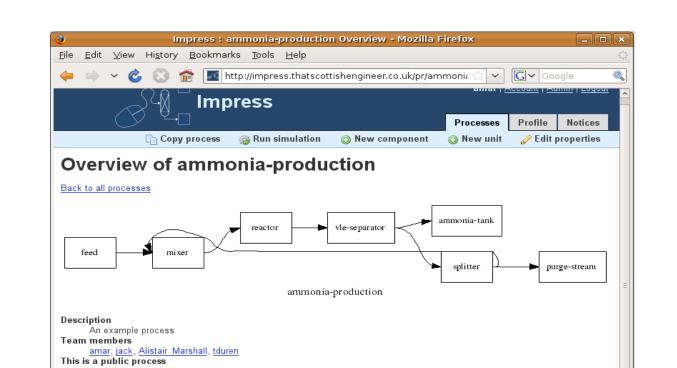
Processes

Tutorials Help

#### Welcome to Impress

Impress is the Interactive Multi-user **Process Engineering Simulation Suite:** 

• A process simulation tool for chemical engineers that produces mass and molar balances.

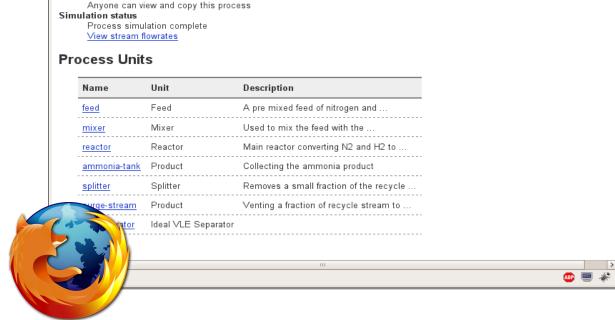


### Disadvantages

• Security Some companies may have issues with storing data on outsourced servers.

• Accessed from a web browser.

- All processing and storage on a central server.
- Multiple users can cooperate simultaneously.



 No off-line access Internet connection is required to create and edit processes.

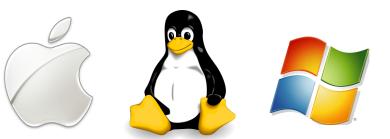
#### Implementation

- Written in Python using the Django web framework.
- Makes use of additional data from external resources like the NIST website.
- Produces and solves linear equations.
- Program generates a concept process flow diagram.
- Export final data as spreadsheet.

🖉 Impress : reactor (ammonia-production) - Windows Internet Explorer	
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### **Advantages**

- No installation All you need is a web browser.
- Platform Independent



Works on any browser including the iPhone!

Automatic saving

#### 12:58 02-UK 3G 0 Process overview Unit: Reactor Back to overview Change type of unit Reactor Add Feed Stream Add product stream Description: none Process Units $CH_4 + 2 O_2 \rightarrow CO_2 + 2 H_2O$ reactor key component: methane feed conversion: 0.5 productf1 product/2 simulation before the You will p **m**

#### **Future work**

σ	
	Unit: rea
	* Name
	Description
Ε	
	* Key component
	* Conversion
$\mathbf{U}$	

	Process overview	Change type of unit	🤤 Delete unit	🙁 Cancel	changes
Jnit: reactor					
ack to view					
Name		reactor			
Description		Main reactor co H2 to NH3	nverting N2	and	
					>
Key component		nitrogen			*
<sup>f</sup> Conversion		0.25			
	Component Stoichi	ometry			
			😜 Internet		🔍 100%

No lost work! Will save work to server at every stage.

 Instant updates Work is made available to all other team members simultaneously.

This system may be improved in the following areas:

- Import/Export of files to other applications.
- Examine alternative, faster methods for data entry.
- Add simple energy balance.

Try the application – visit <u>http://impress.thatscottishengineer.co.uk</u>