



thinkstep
GaBi

Product Sustainability
Performance



Changelog

GaBi Service Pack
Upgrade 30 to 33

January 2017

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Introduction

GaBi Service Packs comprise a collection of updates, enhancements or fixes to the following GaBi objects: flows, quantities, units, contacts, interpretations and references/citations. This document provides detailed information on what will be changed/added/deleted with the installation of the Service Packs.

If you need further information or if special questions should arise which have not been adequately described in this document, please feel free to send an e-mail to support@gabi-software.com.

1. New environmental quantities

Folder	Quantity
EPS 2015dx	EPS 2015dx_1.1 Non renewable energy resources: Crude oil EPS 2015dx_1.2 Non renewable energy resources: Hard coal EPS 2015dx_1.3 Non renewable energy resources: Lignite EPS 2015dx_1.4 Non renewable energy resources: Natural gas EPS 2015dx_1.5 Non renewable energy resources: Peat EPS 2015dx_1.6 Non renewable energy resources: Uranium EPS 2015dx_2. Renewable energy resources EPS 2015dx_3. Land use EPS 2015dx_4.1 Material resources: Non renewable elements EPS 2015dx_4.2 Non renewable resources EPS 2015dx_4.3 Renewable resources EPS 2015dx_4.3.1 Renewable resources: Water EPS 2015dx_5.1 Heavy metals to air EPS 2015dx_5.2 Inorganic emissions to air EPS 2015dx_5.3 Organic emissions to air (group VOC) EPS 2015dx_5.3.1 Organic emissions to air (group VOC): Group NMVOC EPS 2015dx_5.3.2 Organic emissions to air (group VOC) - Group NMVOC: Group PAH to air

	<p>EPS 2015dx_5.3.3 Organic emissions to air (group VOC) - Group NMVOC: Halogenated organics to air</p> <p>EPS 2015dx_5.4 Other emissions to air</p> <p>EPS 2015dx_5.5 Particles to air</p> <p>EPS 2015dx_5.6 Pesticides to air</p> <p>EPS 2015dx_5.7 Radioactive emissions to air</p> <p>EPS 2015dx_5.8 Long-term emissions to air</p> <p>EPS 2015dx_6.1 Analytic measures to fresh water</p> <p>EPS 2015dx_6.2 Heavy metals to fresh water</p> <p>EPS 2015dx_6.3 Inorganic emissions to fresh water</p> <p>EPS 2015dx_6.4 Organic emissions to fresh water</p> <p>EPS 2015dx_6.4.1 Halogenated organic emissions to fresh water</p> <p>EPS 2015dx_6.4.2 Organic emissions to fresh water: Hydrocarbons</p> <p>EPS 2015dx_6.5 Other emissions to fresh water</p> <p>EPS 2015dx_6.5.1 Other emissions to fresh water: Pesticides to fresh water</p> <p>EPS 2015dx_6.6 Particles to fresh water</p> <p>EPS 2015dx_6.7 Radioactive emissions to fresh water</p> <p>EPS 2015dx_6.8 Long-term to fresh water</p> <p>EPS 2015dx_7.1 Analytic measures to sea water</p> <p>EPS 2015dx_7.2 Heavy metals to sea water</p> <p>EPS 2015dx_7.3 Inorganic emissions to sea water</p> <p>EPS 2015dx_7.4 Organic emissions to sea water</p> <p>EPS 2015dx_7.4.1 Halogenated organic emissions to sea water</p> <p>EPS 2015dx_7.4.2 Organic emission to sea water: Hydrocarbons</p> <p>EPS 2015dx_7.5 Other emissions to sea water</p> <p>EPS 2015dx_7.5.1 Other emissions to sea water: Pesticides</p> <p>EPS 2015dx_7.6 Particles to sea water</p> <p>EPS 2015dx_7.7 Radioactive emissions to sea water</p>
Impacts ILCD/PEF recommend ation v1.09	<p>Land use midpoint (v1.09)</p>

2. Renaming of flows

We found some inconsistent naming which were corrected.

Renamed flows

The **regionalized water flows** introduced with SP30 are now renamed to be consistent to the ILCD naming conventions. You can find some examples of renamed water flows in the following table.

Service pack 30	Service pack 33
Water (lake water from technosphere, waste water, regionalized, JP)	Processed water to lake, regionalized, JP
Water (river water, regionalized, HU)	River water, regionalized, HU
Water (lake water from technosphere, waste water, regionalized, CN)	Processed water to lake, regionalized, CN

Some **land use flows** were renamed with SP33. You can find some examples of renamed water flows in the following table.

Service pack 30	Service pack 33
Transformation, to annual crop, irrigated	To Annual Crop, Irrigated
Occupation, grassland, natural (non-use)	Grassland, Natural (Non-Use)
Occupation, river, natural (non-use)	River, Natural (Non-Use)

For more detailed information, please have a look at the latest GaBi modelling principles available on the GaBi website: [GaBi modelling principles](#)



Other renamed flows (full list)

Service pack 30	Service pack 33
Aluminium sulfate	Aluminium sulphate
Cacao (fermented)	Cocoa (fermented)
Cacao (press cake)	Cocoa (press cake)
Cacao powder	Cocoa powder
Di-isononyl phthalat	Diisononyl phthalate
Syrup	Syrup (30% H2O content)
Window frame	Wooden window frame

3. Merged flows

Merging of regionalized rainwater flows

The 63 regionalized flows for collected rain water to river (e.g. “**Water (river water from technosphere, rain water, regionalized, TH)** [Emissions to fresh water] [Other emissions to fresh water]”) introduced with SP30 were all merged to “**Collected rainwater to river** [Emissions to fresh water] [Other emissions to fresh water]”

The 63 regionalized flows for collected rain water to lake (e.g. “**Water (lake water from technosphere, rain water, regionalized, TH)** [Emissions to fresh water] [Other emissions to fresh water]”) introduced with SP30 were all merged to “**Collected rainwater to lake** [Emissions to fresh water] [Other emissions to fresh water]”

Merging of land use flows in SP33

The land use assessment in GaBi was beforehand divided into two „worlds”, where one is Hemeroby and the other LANCA. Thanks to a new implementation of LANCA in GaBi and using matching lists from both Hemeroby and LANCA to the ILCD flow list, thinkstep was able to unite both worlds into a common set of land use flows and to consistently use this set of flows throughout the database. Many flows beforehand existing in the folders “Hemeroby” and “Hemeroby Ecoinvent” were merged with ILCD flows that are now located in the two folders “Transformation” and “Occupation”.

For more detailed information, please have a look at the latest GaBi modelling principles available on the GaBi website: [GaBi modelling principles](#)

Additional merged flows:

Service pack 30 flow	Action	Service pack 33 flow
Water (surface run-off, from soil)	Combined to	Fresh water
Fresh water		
Water (surface water)	Combined to	Fresh water
Fresh water		
Water (trona rich)	Combined to	Fresh water
Fresh water		
Water (well water)	Combined to	Ground water
Ground water		



Water (with river silt)	Combined to	River water
River water		
Water Cooling fresh	Combined to	Fresh water
Fresh water		
Water Cooling sea	Combined to	Sea water
Sea water		

4. New elementary flows

With SP33 we introduced new regionalized land use and water resource flows to support the latest water and land use methodologies.

Besides there more than 15.000 flows for land use and regionalized water, we've created the following elementary flows:

Flow	Folder
5-methyl Chrysene	Group NMVOC to air
Aluminium	Inorganic emissions to sea water
Aluminium	Inorganic emissions to air
Benzene, pentamethyl-	Hydrocarbons to fresh water
Benzenes, alkylated, unspecified	Hydrocarbons to fresh water
BTEX (Benzene, Toluene, Ethylbenzene, and Xylene), unspecified ratio	Group NMVOC to air
CFCs and HCFCs, unspecified	Halogenated organic emissions to air
Cooling water to lake, extreme scarcity	Other emissions to fresh water
Cooling water to lake, high scarcity	Other emissions to fresh water
Cooling water to lake, low scarcity	Other emissions to fresh water
Cooling water to lake, medium scarcity	Other emissions to fresh water
Cooling water to lake, moderate scarcity	Other emissions to fresh water
Cooling water to lake, OECD average scarcity	Other emissions to fresh water
Cooling water to lake, very high scarcity	Other emissions to fresh water
Cooling water to river, extreme scarcity	Other emissions to fresh water
Cooling water to river, high scarcity	Other emissions to fresh water
Cooling water to river, low scarcity	Other emissions to fresh water
Cooling water to river, medium scarcity	Other emissions to fresh water
Cooling water to river, moderate scarcity	Other emissions to fresh water
Cooling water to river, OECD average scarcity	Other emissions to fresh water
Cooling water to river, very high scarcity	Other emissions to fresh water

Creosote	Pesticides to air
Creosote	Pesticides to industrial soil
Di-isononyl phthalate (DINP)	Group NMVOC to air
Dried timber (Egger)	Materials from renewable raw materials
Fluorene, 1-methyl-	Halogenated organic emissions to fresh water
Fluorenes, alkylated, unspecified	Halogenated organic emissions to fresh water
Fresh water to turbine	Water
Fresh water to turbine, extreme scarcity	Water
Fresh water to turbine, high scarcity	Water
Fresh water to turbine, low scarcity	Water
Fresh water to turbine, medium scarcity	Water
Fresh water to turbine, moderate scarcity	Water
Fresh water to turbine, OECD average scarcity	Water
Fresh water to turbine, very high scarcity	Water
Hydrochloric acid	Inorganic emissions to air
Lake water to turbine, extreme scarcity	Water
Lake water to turbine, high scarcity	Water
Lake water to turbine, low scarcity	Water
Lake water to turbine, medium scarcity	Water
Lake water to turbine, moderate scarcity	Water
Lake water to turbine, OECD average scarcity	Water
Lake water to turbine, very high scarcity	Water
Lake water, to turbine	Water
Perfluorocarbons, unspecified	Halogenated organic emissions to air
Processed water to groundwater, extreme scarcity	Other emissions to fresh water
Processed water to groundwater, high scarcity	Other emissions to fresh water

Processed water to groundwater, low scarcity	Other emissions to fresh water
Processed water to groundwater, medium scarcity	Other emissions to fresh water
Processed water to groundwater, moderate scarcity	Other emissions to fresh water
Processed water to groundwater, OECD average scarcity	Other emissions to fresh water
Processed water to groundwater, very high scarcity	Other emissions to fresh water
Processed water to lake, extreme scarcity	Other emissions to fresh water
Processed water to lake, high scarcity	Other emissions to fresh water
Processed water to lake, low scarcity	Other emissions to fresh water
Processed water to lake, medium scarcity	Other emissions to fresh water
Processed water to lake, moderate scarcity	Other emissions to fresh water
Processed water to lake, OECD average scarcity	Other emissions to fresh water
Processed water to lake, very high scarcity	Other emissions to fresh water
Processed water to river, extreme scarcity	Other emissions to fresh water
Processed water to river, high scarcity	Other emissions to fresh water
Processed water to river, low scarcity	Other emissions to fresh water
Processed water to river, medium scarcity	Other emissions to fresh water
Processed water to river, moderate scarcity	Other emissions to fresh water
Processed water to river, OECD average scarcity	Other emissions to fresh water
Processed water to river, very high scarcity	Other emissions to fresh water
River water to turbine	Water
River water to turbine, extreme scarcity	Water
River water to turbine, high scarcity	Water
River water to turbine, low scarcity	Water
River water to turbine, medium scarcity	Water
River water to turbine, moderate scarcity	Water
River water to turbine, OECD average scarcity	Water
River water to turbine, very high scarcity	Water

Turbined water to lake, extreme scarcity	Other emissions to fresh water
Turbined water to lake, high scarcity	Other emissions to fresh water
Turbined water to lake, low scarcity	Other emissions to fresh water
Turbined water to lake, medium scarcity	Other emissions to fresh water
Turbined water to lake, moderate scarcity	Other emissions to fresh water
Turbined water to lake, OECD average scarcity	Other emissions to fresh water
Turbined water to lake, very high scarcity	Other emissions to fresh water
Turbined water to river, extreme scarcity	Other emissions to fresh water
Turbined water to river, high scarcity	Other emissions to fresh water
Turbined water to river, low scarcity	Other emissions to fresh water
Turbined water to river, medium scarcity	Other emissions to fresh water
Turbined water to river, moderate scarcity	Other emissions to fresh water
Turbined water to river, OECD average scarcity	Other emissions to fresh water
Turbined water to river, very high scarcity	Other emissions to fresh water
Wood and wood waste, 20.9 MJ per kg, oven-dry basis	Renewable resources

5. New valuable substance flows

Flow	Folder
Aluminum Scrap Shadow	Auxiliary flow
Aluminum Specialty Product	Product model
Bi-metal screw	Metals
Biogas from sewage sludge for bioenergy	Biomass for energy use
Biolys (Lys content 54.6%)	Materials from renewable raw materials
Cashew nut dried (3% H ₂ O content)	Renewable primary products
Cobalt, refined (metal); hydro- and pyrometallurgical processes; production mix, at plant; >99% Co	Metals
Concrete stone	Minerals

Crude oil, at consumer Trinidad and Tobago	Crude oil, at consumer
Cut timber (Egger)	Materials from renewable raw materials
Direct pressure laminate (DPL)	Building industry
Farm fertilizer - mix (agricultural)	Waste for recovery
Farm fertilizer 2 (agricultural)	Waste for recovery
Farm fertilizer 3 (agricultural)	Waste for recovery
Glass reinforcement mesh (final product, packed)	Minerals
Hardwood timber, green, dressed, untreated	Renewable primary products
Hardwood timber, green, rough-sawn, untreated	Renewable primary products
Hardwood timber, kiln-dried, dressed, untreated	Renewable primary products
Hardwood timber, kiln-dried, rough-sawn, untreated	Renewable primary products
Hexabromocyclododecane	Organic intermediate products
High pressure laminate (HPL)	Parts from renewable materials
IC BGA 144 (181mg) 10X10mm	Components
IC BGA 144 (360mg) 13X13mm	Components
IC BGA 256 (4g) 27x27	Components
IC BGA 48 (72mg) 8x6 mm	Components
IC DIP 24 (1.77g) 35.5x8.2 mm	Components
IC DIP 8 (538mg) 10.9x6.6 mm	Components
IC PLCC 20 (751mg) 9x9 mm	Components
IC PLCC 44 (2.60g) 16.6x16.6 mm	Components
IC PLCC 68 (5g) 24.2x24.2 mm	Components
IC QFP 32 (184mg) 7x7 mm	Components
IC SO 20 (530mg) 12.8x7.5 mm	Components
IC SO 8 (76mg) 4.9x3.9 mm	Components
IC SSOP 24 (123mg) 8.2x5.3 mm	Components
IC TQFP 100 (513mg) 14x14 mm	Components

IC TQFP 32 (146mg) 5x5 mm	Components
IC TQFP 44 (272mg) 10x10 mm	Components
IC TSOP 28 (232mg) 8x13.4 mm (flash)	Components
IC TSOP 28 (232mg) 8x13.4 mm DRAM	Components
IC TSOP 32 (373mg) 8x20 mm (flash)	Components
IC TSOP 32 (373mg) 8x20 mm DRAM	Components
IC TSSOP 16 (59mg) 4.4x5.0 mm (flash)	Components
IC TSSOP 16 (59mg) 4.4x5.0 mm DRAM	Components
IC TSSOP 48 (187mg) 6.1x12.5 mm (flash)	Components
IC TSSOP 48 (187mg) 6.1x12.5 mm DRAM	Components
IC TSSOP 8 (23mg) 3x3 mm (flash)	Components
IC TSSOP 8 (23mg) 3x3 mm DRAM	Components
Insulating glass	Minerals
Laminate Flammex	Parts from renewable materials
Laminate Weisser	Parts from renewable materials
Laminated glass	Minerals
MDF, moisture resistant (MR), E1, melamine coated, 18 mm	Renewable primary products
MDF, moisture resistant (MR), E1, melamine coated, 25 mm	Renewable primary products
MDF, standard, E1, melamine coated, 18 mm	Renewable primary products
MDF, standard, E1, melamine coated, 25 mm	Renewable primary products
MetAMINO (Met content 99%)	Materials from renewable raw materials
Methyl acetate	Plastics
Organic fibreboard Fundermax	Materials from renewable raw materials
Packaging Shadow	Auxiliary flow
Particleboard, flooring (tongue & groove), 19 mm	Renewable primary products
Particleboard, flooring (tongue & groove), 22 mm	Renewable primary products

Particleboard, flooring (tongue & groove), 25 mm	Renewable primary products
Particleboard, moisture resistant (MR), E1, melamine coated, 16 mm	Renewable primary products
Particleboard, moisture resistant (MR), E1, melamine coated, 18 mm	Renewable primary products
Particleboard, standard, E1, melamine coated, 16 mm	Renewable primary products
Particleboard, standard, E1, melamine coated, 18 mm	Renewable primary products
Planed lumber (Egger)	Materials from renewable raw materials
Plywood, exterior, A-bond, 7 mm (bracing)	Renewable primary products
Plywood, exterior, A-bond, 9 mm (structural)	Renewable primary products
Plywood, flooring (tongue & groove), A-bond, 15 mm (residential)	Renewable primary products
Plywood, flooring (tongue & groove), A-bond, 25 mm (commercial)	Renewable primary products
Plywood, formply, A-bond, 17 mm (formwork)	Renewable primary products
Plywood, interior, C-bond, 9 mm (joinery)	Renewable primary products
Polyurethane insulation board	Building industry
Process effluent	Production residues in life cycle
Product (intermediate product)	Auxiliary flow
raw material mixture	Minerals
Roofing tile Austria	Minerals
Seed potatoes	Renewable primary products
Shea kernel (moisture content 1%, H2O content 1%)	Materials from renewable raw materials
Smoke Control Damper	Other parts
Softwood timber, kiln-dried, dressed, untreated	Renewable primary products
Soil treatment - mowing	Areas
Stainless steel screw	Metals
Steel Scrap Shadow	Auxiliary flow
Steel screw	Metals

Steel Specialty Product	Product model
Styropor (recycelt)	Plastics
Surfactants, unspecified	Hydrocarbons to fresh water
Tempered borosilicate safety glass	Minerals
Tempering sludge	Non hazardous non organic waste for disposal
ThreAMINO (Thr content 98.5%)	Materials from renewable raw materials
Trona	Non renewable resources
TrypAMINO (Trp content 98%)	Materials from renewable raw materials
Use of primary energy from non-renewable resources used as raw materials (PENRM)	EPD (EN 15804 indicators)
ValAMINO (Val content 98%)	Materials from renewable raw materials
waste (packaging material)	Consumer waste
Waste wood for net flow calculation (electricity)	Others
Waste wood for net flow calculation (thermal energy)	Others
Wheat Bran (14-17% CP)	Materials from renewable raw materials

GaBi ts version 7.3.3 will be available to you via the automatic update functionality in the GaBi software. No new installation procedure will be necessary.

On Februry 14th 2017, the new software version is available to you on the GaBi update server - the software will prompt you to download the updated version.

If you do not have a valid maintenance contract, you will not have access to this upgrade. Please contact your local GaBi sales representative for a quote gabi@thinkstep.com.

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