

PROGIRA®

Release notes PROGIRA® plan 6.2

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Table of Contents

1	General/Introduction	3
2	Base Module	3
2.1	General	3
2.2	Transmitter (Tx)	5
2.3	ITU Data	6
2.4	FCC Data.....	6
2.5	Custom Data	6
2.6	Antenna file viewer.....	6
2.7	User Settings.....	6
2.8	Population and area coverage.....	9
3	Network planning module	10
3.1	Fs Sum.....	10
3.2	SFN optimization.....	11
3.3	Sorcery FM Sum.....	11
4	Frequency planning module	12
4.1	General	12
4.2	Broadcasting-aeronautical compatibility	13
4.3	Interference	13

1 General/Introduction

This document present updates in PROGIRA® plan version 6.2. New features, changes and bug fixes are presented. If you should need further information regarding any of the modifications, please contact support@progira.com.

PROGIRA® plan version 6.2 is a major upgrade with many new features and improvements, for example:

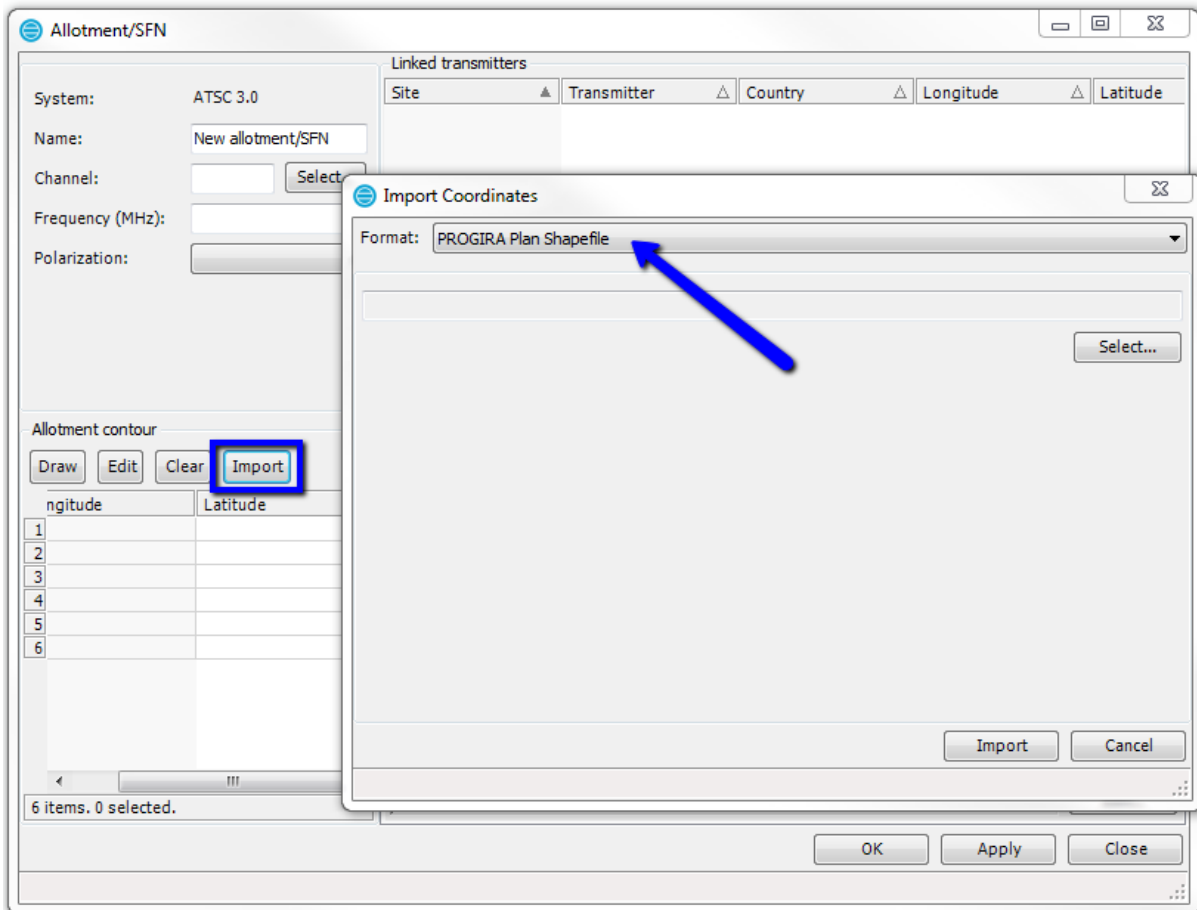
- Full Support for ESRI ArcGIS 10.6
- Major upgrades in the ATSC 3.0 Network planning module and in the frequency planning support according to the US FCC rules
- A completely automated tool for creating FS sum setups (Sorcery FS sum)
- Improved Transmitter handling including Gapfiller tab, Facility ID, Antenna calculation
- Enhanced and Extended Data Base handling including Access to the FCC LMS database and Support for the new Plano Basico format
- New functionalities for calculation of reference field strength

2 Base Module

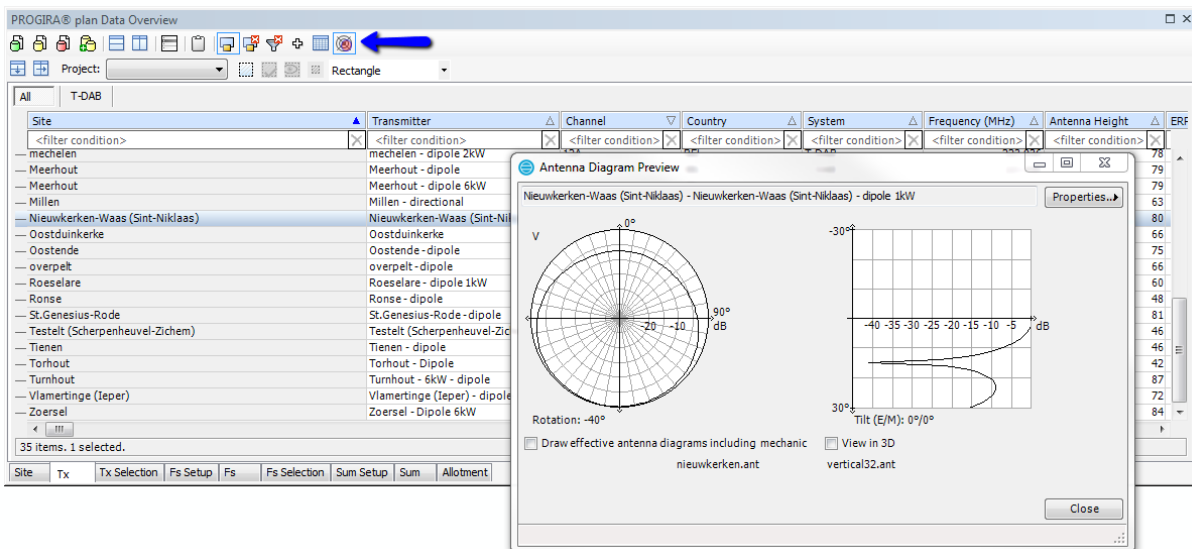
2.1 General

NEW: Support for ESRI ArcGIS 10.6.

NEW: In Allotment editor it is now possible to import polygon points from a shapefile.



NEW: Antenna diagram preview in Data overview.



FIXED: GiraMAP (PROGIRA version of IDWM – ITU Digitized World Map) sometimes returned wrong ground conductivity values.

FIXED: In rare cases GiraMAP returned wrong sea/land path.

FIXED: Memory management has been improved considerably.

2.2 Transmitter (Tx)

NEW: Gapfiller tab has been added to FM and ATSC transmitters. This allows you to identify if the transmitter can be used as an “off-channel repeater”.

NEW: Facility ID (US) has been added to the transmitter Administrative tab.

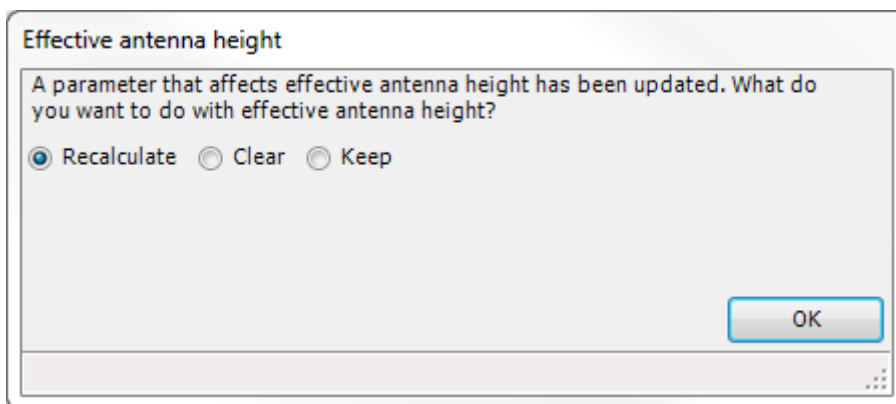
NEW: You can easily apply same effective antenna height value in all directions by right-clicking on an azimuth.

The screenshot shows the 'Transmitter' configuration window. On the left, there are input fields for System (ATSC 3.0), Name (New Tx), Antenna height (100 m), Channel (19), Frequency (503 MHz), Polarization (Horizontal), and ERP (W) (H 1000, V). In the center, there are 'Antenna diagrams' including a circular radiation pattern and a grid. Below the diagrams are checkboxes for 'Draw effective antenna diagrams including mechanical tilt' and 'View in 3D'. At the bottom, a table shows the 'Effective Height' for various 'Azimuth (deg)' values. A context menu is open over the table with the option 'Apply height in all directions'.

System	Administrative	ERP	Network	Gapfiller	Effective Height	Comment	Tag
					Azimuth (deg)		
					Effective Antenna Height (m)		
					0	73	
					10	72	
					20	77	
					30	80	
					40		
					50	95	
					60	93	
					70	80	

CHANGED: If any member of an AM composite transmitter has time of day not defined, it will be used for both day and night operations unless there exists transmitter for a specific part of day within that composite.

CHANGED: When changing the position, or changing the antenna height on a transmitter with defined effective antenna height values, you will be asked if they should be recalculated.



FIXED: ATSC 3.0 capacity calculation.

2.3 ITU Data

FIXED: Memory leak when query ITU/FCC/CEPT data.

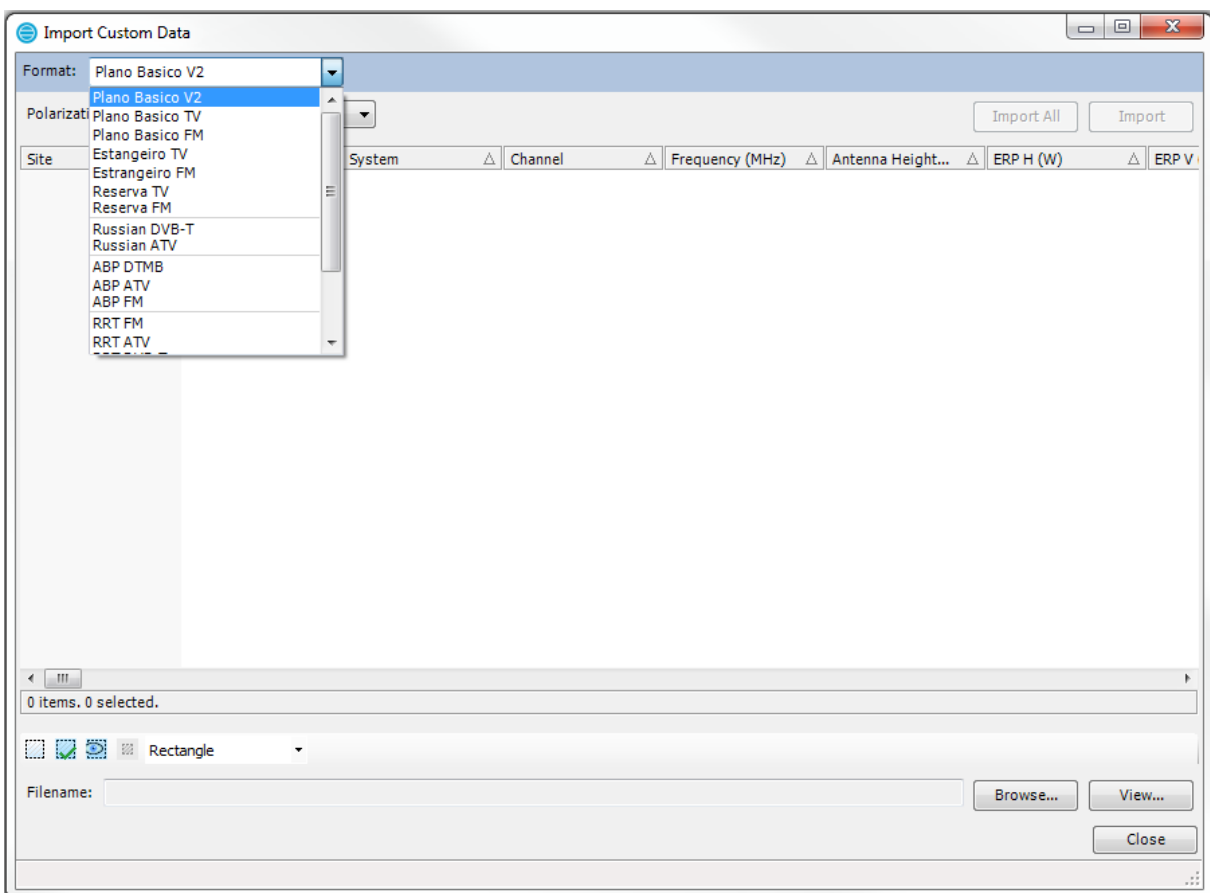
CHANGED: ITU notice type T01 and T02 has been updated according to “Guidelines for VHF/UHF submissions related to terrestrial broadcasting services (outside the frequency and geographical scope of the GE06 agreement) (Updated on August 2017)”

2.4 FCC Data

NEW: Access to the FCC LMS database (US).

2.5 Custom Data

NEW: Support for new Plano Basico format (Brazil).

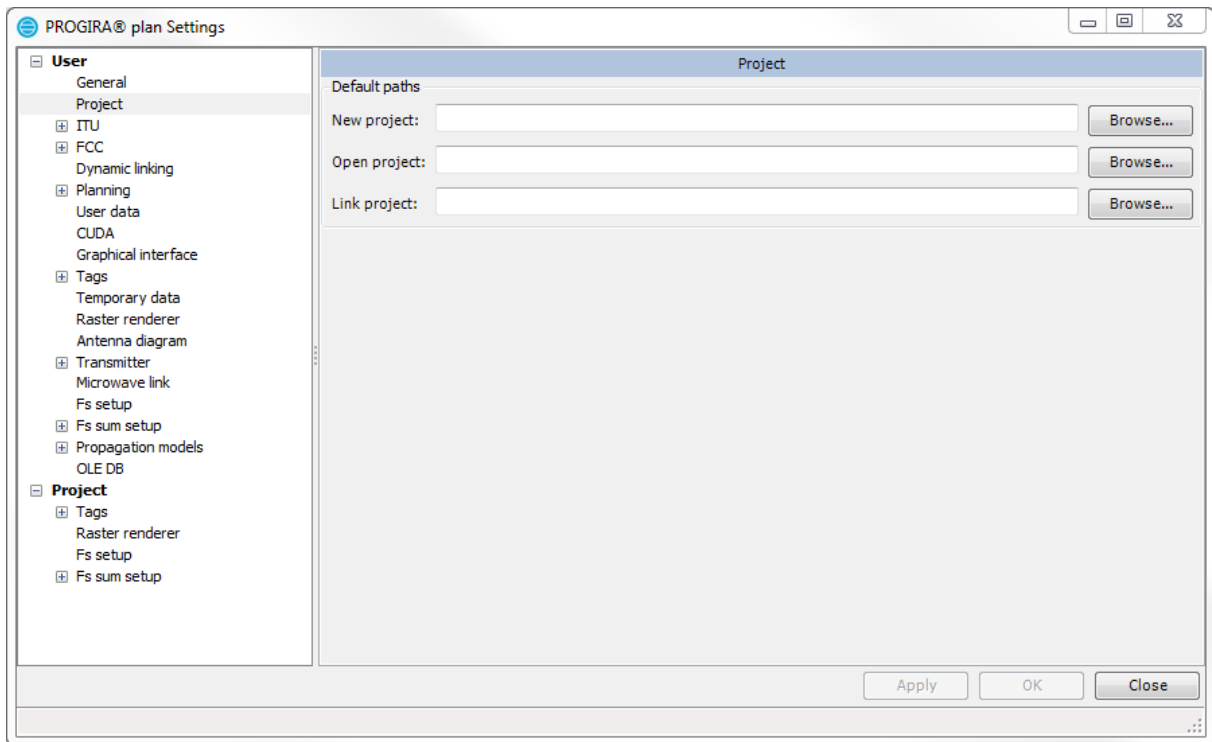


2.6 Antenna file viewer

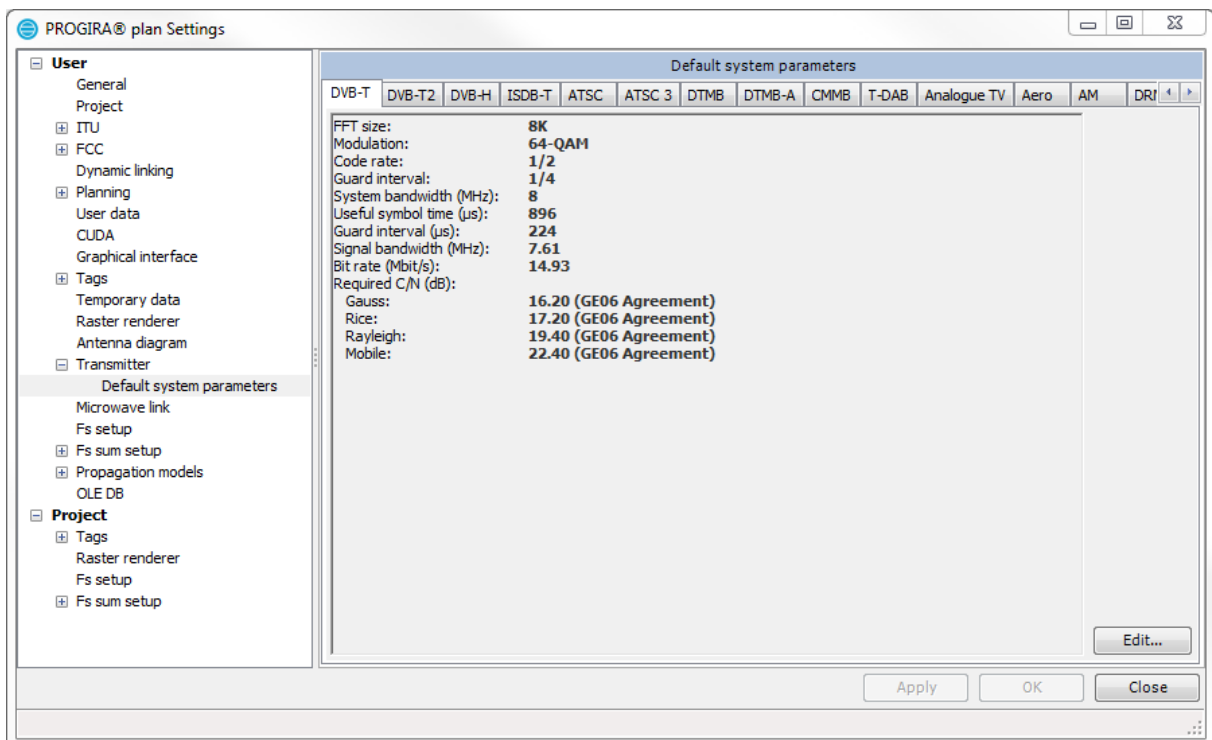
NEW: OpenPF antenna diagrams can be presented and applied to a transmitter. OpenPF format is used by for example antenna design software EZNEC.

2.7 User Settings

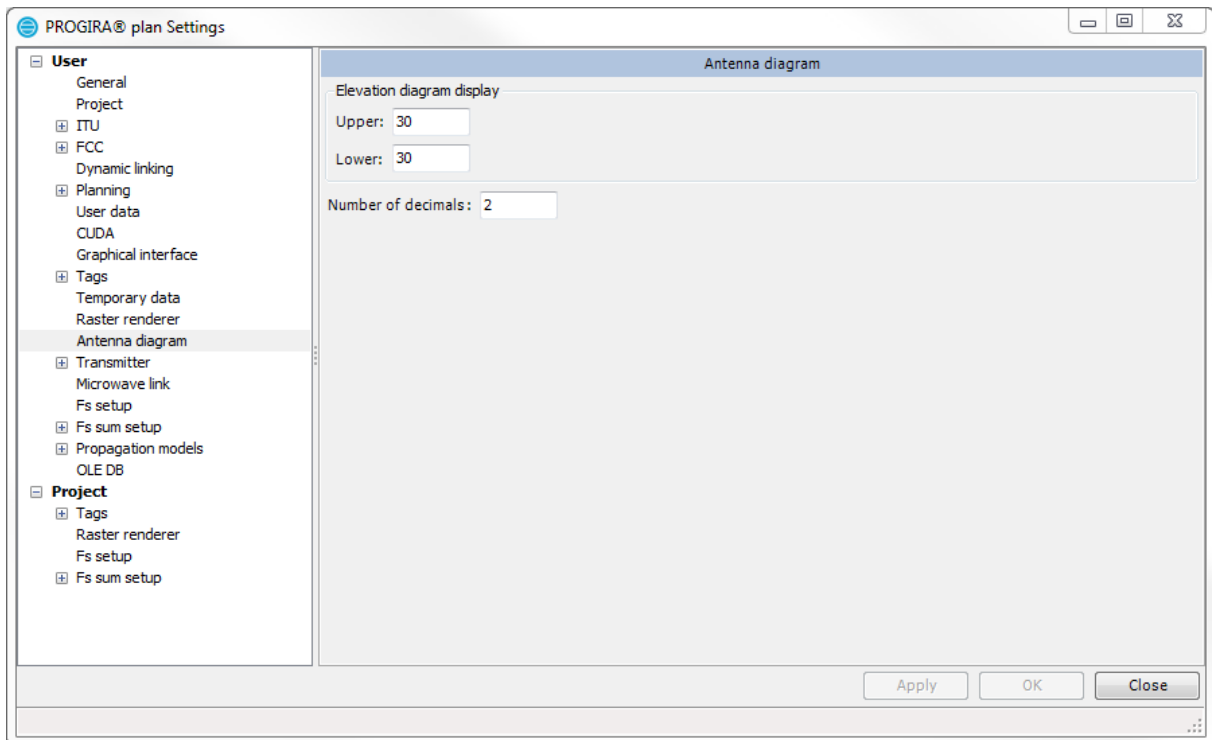
NEW: Default project paths can be defined.



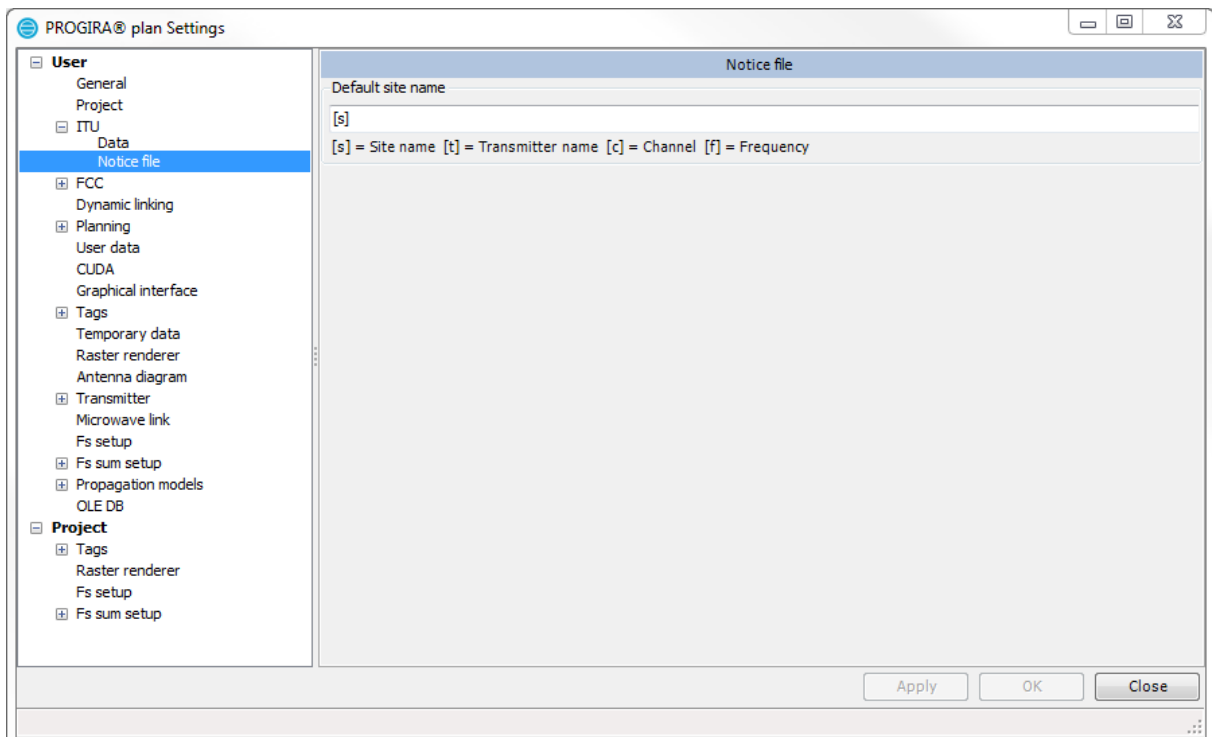
NEW: Default system parameters can be defined for all systems.



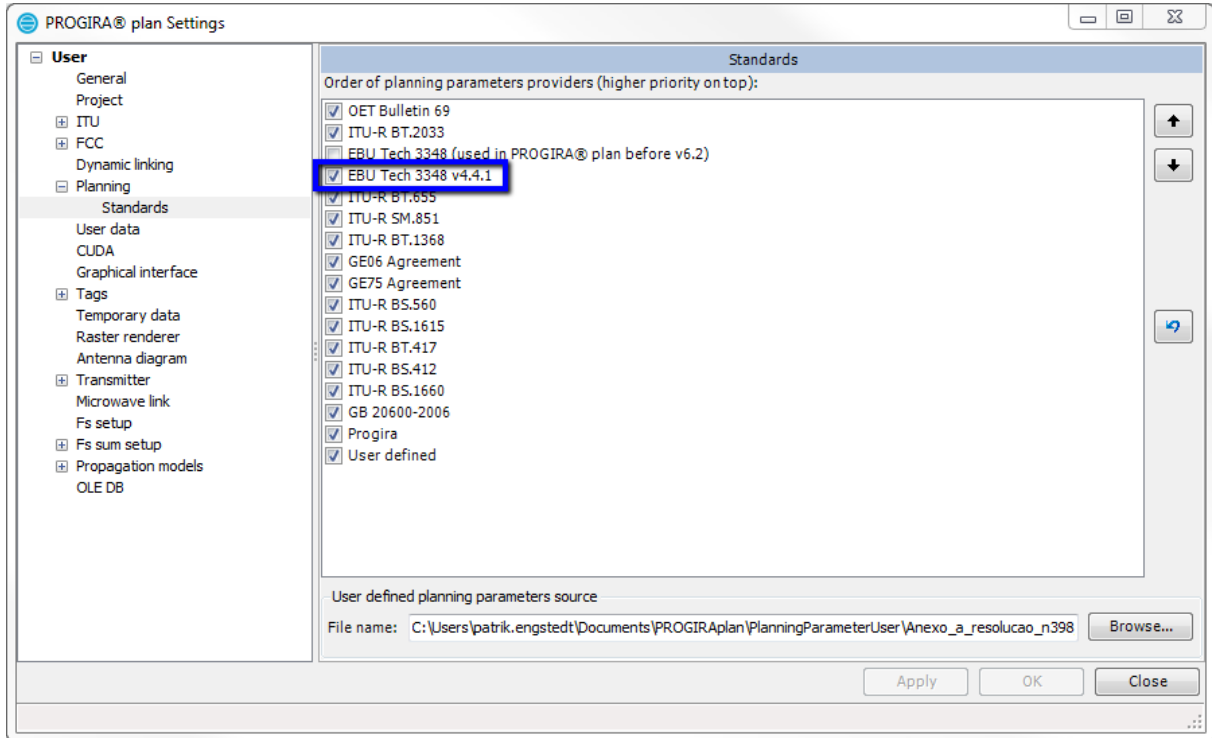
NEW: Change the y-axis scale of the vertical antenna diagram.



NEW: When exporting to ITU Notice file you can decide how the site name (t_site_name) in the ITU notice file should be generated from PROGIRA plan site and transmitter objects. It can be any combination of “site name”, “transmitter name”, “transmitter channel” and “transmitter frequency”.



NEW: EBU Tech 3348 v4.4.1 (DVB-T2 and LTE) has been added to the list of planning parameter providers.

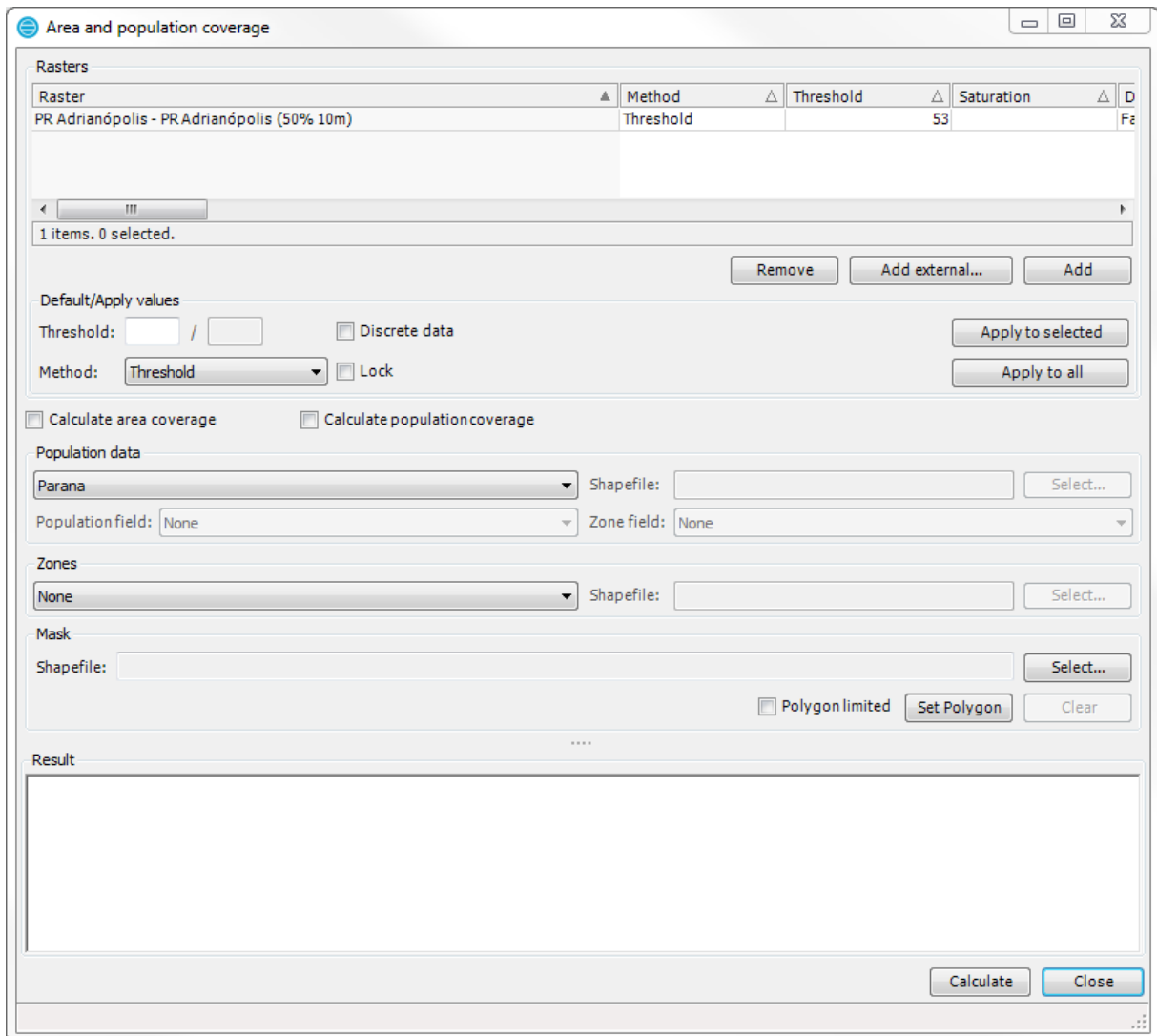


FIXED: ITU-R BT.1368 provider was not checking analogue TV system and color system for ISDB-T interfered by ATV resulting in incorrect protection ratios.

2.8 Population and area coverage

CHANGED: The population and area coverage has been merged and has been extended with the following functionality:

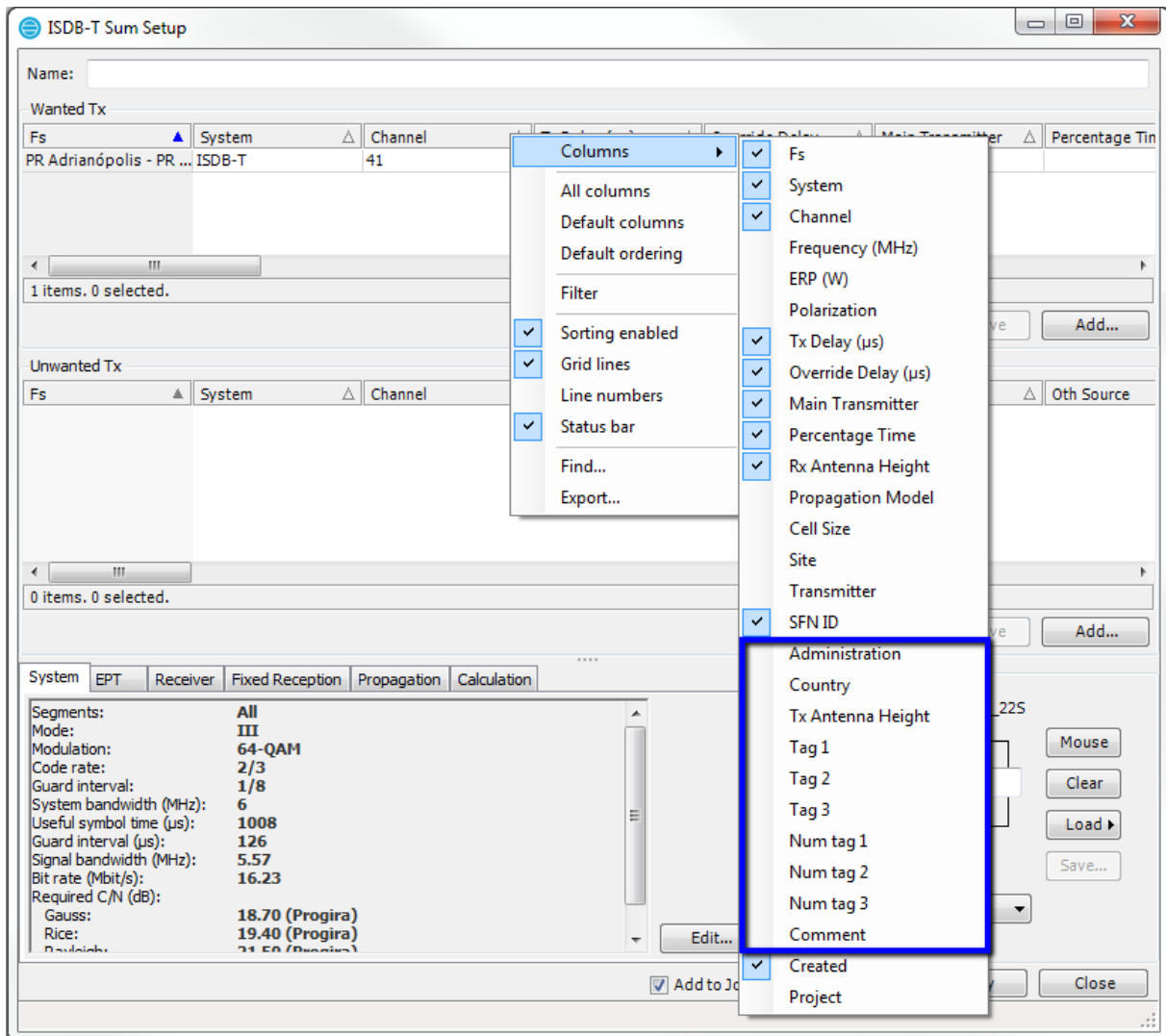
- supports multiple inputs
- saturated proportional can be used for area coverage
- zone support for area coverage
- polygon layer from ArcMap's table of contents can be used as a Mask (drag and drop)



3 Network planning module

3.1 Fs Sum

CHANGED: More columns added to FS Sum Wanted- and Unwanted Tx tables.



NEW: FS SUM for ATSC 1.0 will now support SFN calculations. The field strength from the transmitters will be added based on the behavior of the equalizer in ATSC 1.0 Receiver, i.e. protection ratios will be set according the delay relative to the strongest transmitter in each pixel.

3.2 SFN optimization

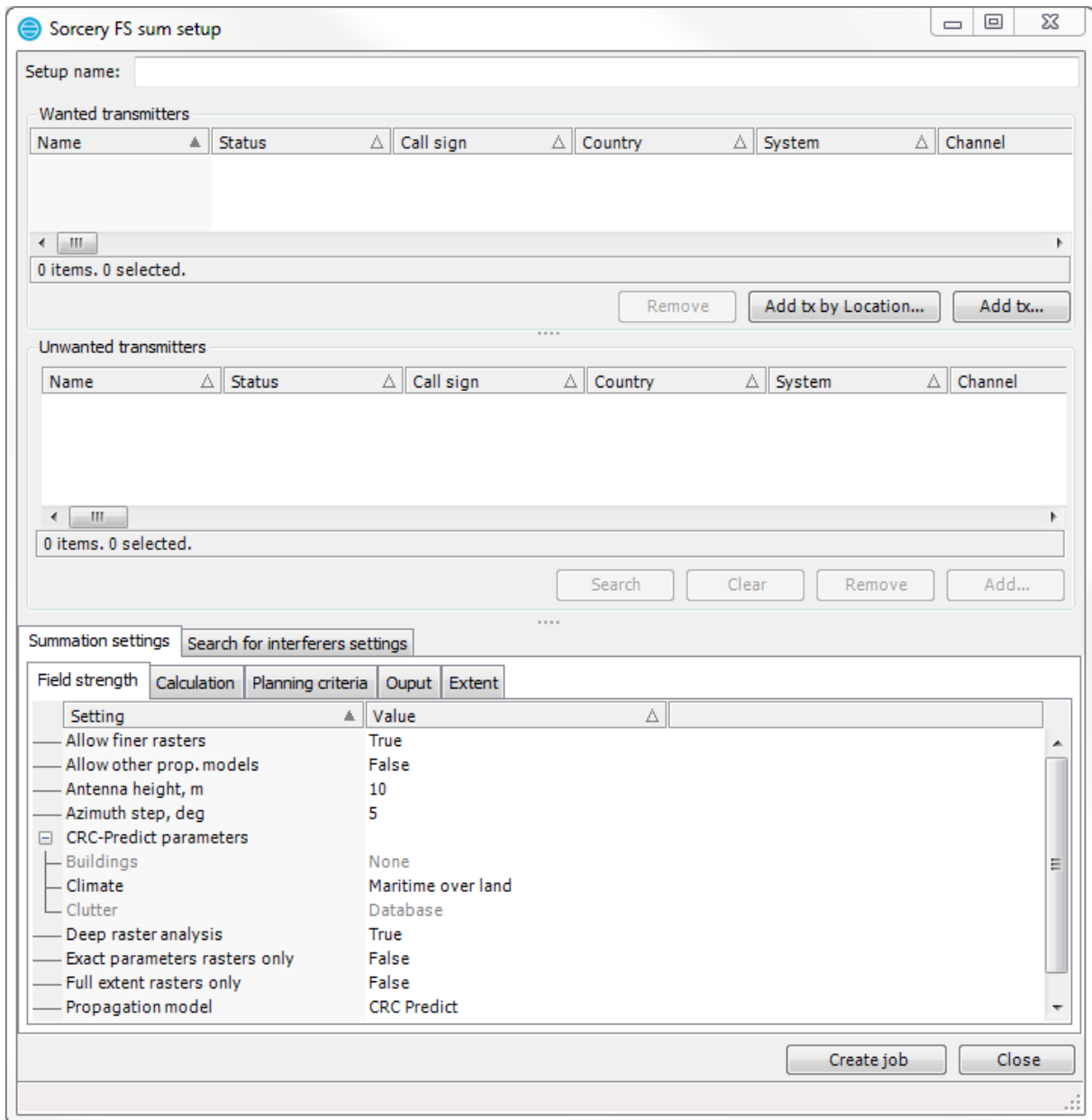
FIXED: SFN optimization is supporting ATSC 3.0.

3.3 Sorcery FM Sum

NEW: The Sorcery FS sum is a completely automated tool for creating FS sum setups. It differs from other FS sum functionality in two ways:

- It input data are transmitters and not FS rasters
- It can handle multiple wanted at the same time

Current version supports summation for FM only. Support for other systems will be added in the future releases.



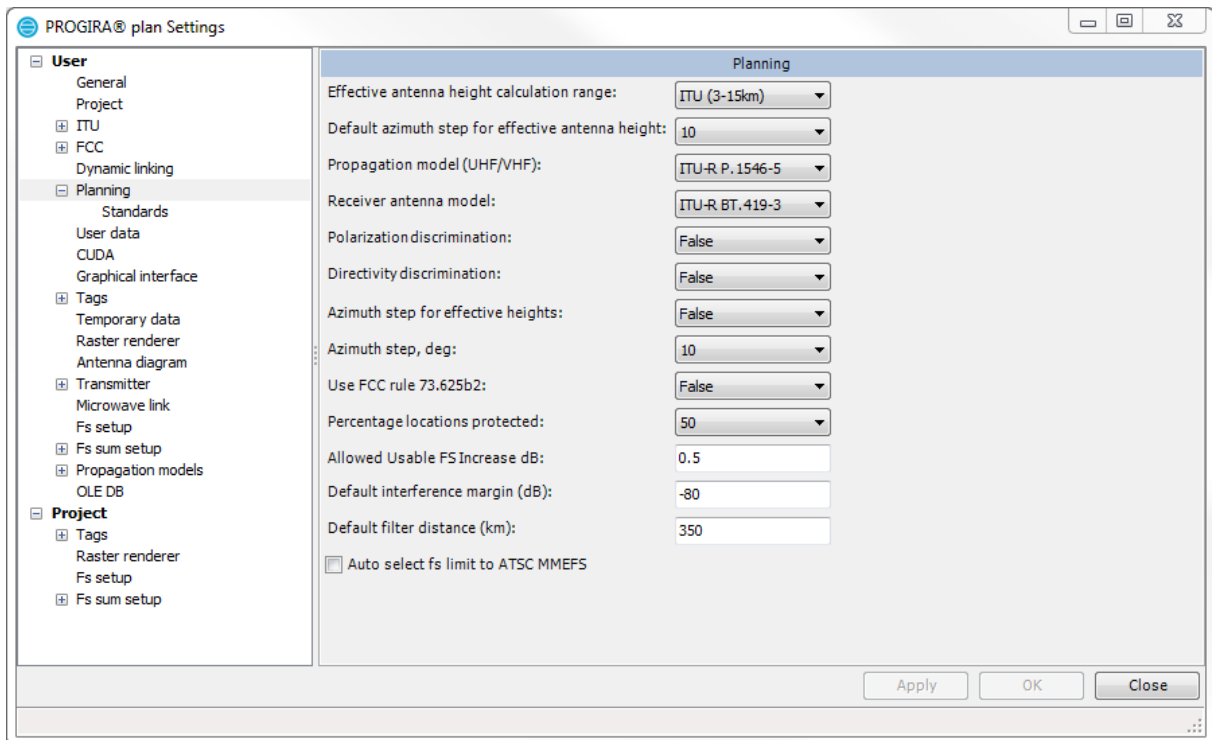
4 Frequency planning module

4.1 General

FIXED: AM/DRM Emed value in settings manager did not react to Ground-Sky wave switch causing night time AM/DRM Emed values to be higher than for day time.

FIXED: ITU-R P.368 propagation model returning incorrect values for paths longer than 10 000 km.

CHANGED: Increased number of planning parameters that can be given default values.



4.2 Broadcasting-aeronautical compatibility

FIXED: FM transmitter caused too high interference towards ILS test points in case of short distance.

4.3 Interference

NEW: Calculation of reference field strength is activated by clicking on a triangle above vertical word "reference" or by dragging a slider (reference will be calculated when triangle is pointing right). Functionality of entering reference data is the same as for the wanted data except reference entries are removed by clicking "Remove reference" button.

