Release notes PROGIRA® plan 6.1

26th May 2017

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1 General/Introduction

This document presents updates in PROGIRA® plan version 6.1. Changes as well as new features and bug fixes are presented. If you should need further information regarding any of the modifications, please contact support@progira.com.

PROGIRA® plan version 6.1 is a major upgrade with many new features and improvements, for example:

- Broadcast aeronautical compatibility calculations according to ITU-R recommendation SM.1009-1
- Major upgrades in the ATSC 3.0 Network planning module and in the frequency planning support according to the US FCC rules.

A selection of other new features and updates:

- Major upgrade of the AM module
- Detailed coverage using the Anatel 1546 propagation model
- Gapfiller (On-channel repeater) transmitters can temporary be made synchronous in a System dependent summation
- Rescale Fs can be performed using Tx Power, Combiner loss, Feeder loss as well as Antenna gain

2 Base Module

2.1 General

NEW: AM ground conductivity map added for user information.
NEW: The job order in Job List is now saved within the project.

NEW: In "Rescale Fs" it is now possible to set new Tx power, Combiner loss, Feeder loss and Antenna gain.
NEW: In Allotment editor it is now possible to import polygon points from a text file.

NEW: Press "Ctrl + Shift + C" to copy data from selected table column to Windows Clipboard.

NEW: More options added in "Backup Project".
**NEW**: Export to HTML format added in table export.

**FIXED**: ArcMap was misbehaving when started via PROGIRA® plan icon until loading map document.

**FIXED**: When closing a window ArcMap lost focus and got behind other application window when another application was previously focused.

**FIXED**: Controls in some forms were disordered when using display scaling (DPI settings).

**FIXED**: AM transmitters were not available in linked projects.

**FIXED**: Search in multiple data sources at the same time was broken.

### 2.2 Transmitter (Tx)

**NEW**: New Aero transmitter type for aeronautical ground transmitters.

**NEW**: Noise zones system parameter added to AM transmitters (A, B, C according to GE75 Agreement). It will be imported from BRIFIC and determined automatically for new transmitters as well as used in calculations.
NEW: "Create Distance Contour" added to transmitter.

NEW: Effective antenna heights can be calculated at other than 10 degree steps as well.

NEW: Copy/paste antenna diagrams to Windows Clipboard.
NEW: In "PROGIRA® plan" format in "Import Custom Data", it is now possible to create a composite transmitter if the selected system is AM or DRM. One will be set to "Daytime" and the other one will be set to "Night-time".

NEW: Average effective antenna height now displayed.

NEW: Longitude and latitude columns are now presented in all tables.

NEW: The following parameters have been added to transmitter’s "Administrative data" and will be used during import from FCC data and when exporting to TV Study 2.0.

- Call sign
- State/Province
- City
- Status

FIXED: Transmitter tables did not show ERP values when polarization was undefined.
**FIXED**: In "Apply ERP" power, combiner loss, feeder loss and antenna gain were not stored to the database.

**FIXED**: Adjacent channel protection ratio system parameter added to AM transmitters and will actually be imported from BRIFIC and used in calculations.

**CHANGED**: "Correction for Real Channel Estimation" now editable in ATSC 3.0 transmitter and summation.

**CHANGED**: "Power" renamed to "Tx power" in ERP page.
2.3 FCC Data

**NEW:** ASRN (Antenna structure registration number) is now shown in FCC data query results.

<table>
<thead>
<tr>
<th>Application ID</th>
<th>Facility ID</th>
<th>ASRN</th>
<th>Antenna ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>659 591</td>
<td>73 970</td>
<td>1 043 271</td>
<td>59 296</td>
</tr>
<tr>
<td>652 000</td>
<td>93 423</td>
<td>1 238 001</td>
<td>59 299</td>
</tr>
<tr>
<td>661 595</td>
<td>92 421</td>
<td></td>
<td>59 300</td>
</tr>
<tr>
<td>659 425</td>
<td>158 780</td>
<td>1 048 502</td>
<td>59 305</td>
</tr>
<tr>
<td>652 289</td>
<td>91 176</td>
<td>1 238 219</td>
<td>59 308</td>
</tr>
</tbody>
</table>

**NEW:** When importing from FCC data, antenna id will be indicated within antenna comment.

**NEW:** FM data import from FCC database.
NEW: Download of FCC database to local disk for fast data access.

NEW: Export to FCC TV Study 2.0 format.
2.4 Field strength prediction

**NEW:** Anatel 1546 propagation model added to "Field Strength Prediction Setup".

![Field Strength Prediction Setup](image)

**FIXED:** Interpolation crash when computer has exactly 32 CPU threads.

2.5 Antenna file viewer

**NEW:** VSoft Communications antenna diagrams can be presented and applied to a transmitter.

**NEW:** Favorite folders added. These are stored as user settings.

![Antenna File Viewer](image)

**FIXED:** Header parsing in EDX (.pat) antenna file format.

**CHANGED:** ASCII encoding now used when reading EDX (.pat) antenna files

**CHANGED:** Horizontal diagram in BBC antenna file format removed from import.
2.6 User Settings

NEW: "Default azimuth step for effective antenna height" added to Planning settings. The default value is 10 degrees.

NEW: "Import as horizontal" option added to FCC data settings.
**FIXED**: "FCC (3-16km)" option in "Effective antenna height calculation range" could not be set.

2.7 **Population coverage**

**NEW**: Server population calculation method now adds explanations for values to a result when raster having unique renderer is used.

**NEW**: Server population calculation method now works with point and polygon population data.

**FIXED**: Group names were missing in the output of population coverage calculation using point data having group names in some encodings.
3  Network planning module

3.1  Fs Sum

**NEW**: Gapfiller transmitters can temporary be made synchronous for a system sum.

![Image of Fs Sum module]

**FIXED**: When recreating sum setup from a calculated sum all gapfiller delays were wrong.

**FIXED**: ATSC summation was ignoring interfering field strengths calculated at 50% time.

**FIXED**: In rare cases FM and analogue TV system sums produced wrong results in parts of calculation area.

**FIXED**: Wrong data in Receiver parameters tab were set for ATSC 3.0 after changing reception mode.
**CHANGED:** Default guard interval model is now set to "Tf" in ATSC 3.0 summations.

![ATSC 3.0 Sum Setup](image)

3.2 Analyze location

**FIXED:** Did not show static protection ratios, only actual values of dynamic ones were shown for ATSC sums.

**FIXED:** Text formatting was disordered in reports for ATSC sums.

4 Frequency planning module

4.1 General

**NEW:** Frequency planning functions can now use antenna diagrams according to item (b) of §73.625 of FCC regulations.

**CHANGED:** Frequency planning on AM and DRM transmitters now allow to set filter distance to more than 1000 km.

**CHANGED:** Default set of active FCC services has been changed.
4.2 Broadcasting-aeronautical compatibility

**NEW:** Broadcasting-aeronautical compatibility check according to ITU-R recommendation SM.1009-1.

![Image of Broadcasting interference into aeronautical (ITU-R SM.1009)](image)

4.3 Coverage contour

**NEW:** Support for multiple wanted transmitters in Coverage Contour.

4.4 Frequency scan

**NEW:** Yes/no flag indicating whether ERP restrictions are required added to frequency scan report.